National Institute for Health and Care Excellence

Social, emotional, and mental wellbeing in primary and secondary education

[B] Evidence review for universal curriculum approaches

NICE guideline (tbc)

Evidence reviews underpinning recommendations 1.2.1 to 1.2.7 in the NICE guideline

January 2022

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ISBN:

Contents

1 Universal curriculum approaches in primary and secondary education

1.1 Review question

What universal classroom-based interventions to promote social, emotional and mental wellbeing in children in primary education are effective and cost effective?

What universal classroom-based interventions to promote social, emotional and mental wellbeing in children in secondary education are effective and cost effective?

1.1.1 Introduction

Social and emotional skills are key during children and young people's development and may help to achieve positive outcomes in health, wellbeing and future success. Universal curriculum approaches aim to nurture these skills and can be taught during school in a cumulative approach whereby the skills acquired increase in complexity as appropriate to age and act as a foundation for further development.

Universal curriculum approaches are delivered within school, during usual school hours and as part of the school's curriculum or approach to social and emotional learning in the context of the new legislation around Relationships Education. Curriculum content can include interventions to improve social, emotional and mental wellbeing that are standalone subjects. Social, emotional and mental wellbeing interventions can also be embedded in other subjects for example maths 'which can prove beneficial in curriculum delivery'.

1.1.2 Summary of the protocol

Table 1: PICO Table

Population	Children and young people (including those with SEND) in UK key stages 1 to 4 or equivalent in secondary education Young people in post-16 education (further education) • up to the age of 18 or 19 for young people without SEND • up to the age of 25 for young people with SEND
Intervention	Universal curriculum content interventions to improve social, emotional, and mental wellbeing that are delivered to an unselected population (for example whole classroom). These universal curriculum content interventions aim to do at least one of the following: • promote good social and emotional wellbeing or • prevent poor social and emotional wellbeing or • promote good mental wellbeing or • prevent poor mental wellbeing
Comparator	Usual practice (can include no intervention or waiting list)
Outcomes	**Social and emotional wellbeing outcomes** Any validated measure of mental, social, emotional or psychological wellbeing categorised as: • Social and emotional skills and attitudes (such as knowledge)

- Emotional distress (such as depression, anxiety and stress)
- Behavioural outcomes that are observed (such as positive social behaviour, conduct problems)

Academic outcomes
Academic progression and attainment

Other outcomes
- Quality of life

1.1.3 Methods and process

This evidence review was developed using the methods and process described in [Developing NICE guidelines: the manual and in the methods chapter](#).. Methods specific to this review question are described in the review protocol in [Appendix A.](#)

Declarations of interest were recorded according to [NICE's conflicts of interest policy](#).

Outcome measures

Where social and emotional outcome measures were reported in a study from multiple sources, the data used followed the following hierarchy of preference:

1. Child/ young person reported
2. Teacher reported
3. Parent reported

However, for behavioural outcomes, measures reported by teachers were the preferred option as they are generally outcomes that are observed.

Cluster randomised controlled trials

Where cluster randomised controlled trials have been pooled with individually randomised controlled trials, the number of people included in the analysis from these trials have been adjusted using a reported or imputed intra-class correlation coefficient (ICC) for that outcome.

1.1.4 Effectiveness evidence

1.1.4.1 Included studies

In total 47,322 references were identified through systematic searches after duplicates were removed. Of these, 558 references were considered relevant, based on title and abstract, to the protocols for universal approach interventions and were ordered. Of these 148 were included, 410 references were excluded.

The 148 included references related to 1 systematic review and 85 individual studies. See [Appendix D](#) for full evidence tables.

1   **1.1.4.2 Excluded studies**

2   See [Appendix J](#) for full list of excluded studies.

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1 **1.1.5 Summary of studies included in the effectiveness evidence**

2 **Table 1: Studies conducted in primary education**

Study [Country]	Study design	Setting	Equivalent UK Key stage	Population (N)	Intervention	Comparator	Outcome(s)
Primary							
Ahlen 2018 [Sweden]	cRCT	Primary school	Key stage 2	Public and independent schools with children in third and fourth grade (9 to 10 years old (N=695)	Friends for Life	Delayed start (wait list)	• Emotional distress • Behavioural outcomes
Ashdown 2012 [Australia]	cRCT	Primary school	Key stage 1	Pupils (Preparatory and Grade 1; aged 5-6 years) in primary school classified as being of low socioeconomic status (N= 99)	You can do it	Usual curriculum	• Social and emotional skills • Behavioural • Academic attainment
Berry 2016 [UK]	cRCT	Primary school	Key stage 1	Pupils in year 1 and 2 (mean age 5.07 years) (N=4004)	PATHS	Usual curriculum	• Social and emotional skills • Behavioural • Academic attainment
Bothe 2014 [US]	cRCT	Primary school	Key stage 2	Pupils in third Grade (N=28)	Stress management	Control (not further described)	• Emotional distress
Caruso 2018 [Italy]	cRCT	Primary school	Key stage 2	Pupils in Grades 6 (mean age 9 years) (N=211)	Rational Emotive Education Rational Emotive Education + Teacher training	Control (not further described)	• Social and emotional skills
Christiansen 2018 [Denmark]	cRCT	Primary/ Secondary school	Key stage 2 and 3	Pupils in primary and secondary school (aged 10-	Move for Well-being in school	Usual curriculum	• Social and emotional skills

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Study [Country]	Study design	Setting	Equivalent UK Key stage	Population (N)	Intervention	Comparator	Outcome(s)
				12 years; mean age not reported) (N= 2797)			
Clarke 2014 [Ireland]	cRCT	Primary school	Key stage 1 and 2	Pupils in Grade not specified (mean age 7.03 years) (N=766)	Zippy's Friends	Usual curriculum	• Social and emotional skills • Behavioural
Collins 2014 [UK]	cRCT	Primary school	Key stage 2	Pupils aged 9-10 years old (N=317)	CBT - Psychologist CBT – Teacher	Control (not further described)	• Social and emotional skills • Emotional distress
Connolly 2018 [Northern Ireland]	cRCT	Primary school	Key stage 2	Pupils in year 5 (mean age not reported) (N=1278)	Roots of Empathy	Usual curriculum	• Social and emotional skills • Behavioural
Dale 2016 [Australia]	cRCT	Primary school	Key stage 1	Pupils in Grade 1(N=245)	Child protection education programme	Delayed start (Wait list)	• Social and emotional skills • Behavioural outcomes • Unintended consequences
Daunic 2012 [USA]	cRCT	Primary school	Key stage 2	Pupils in 4th and 5th Grade (N= 1247)	Tools for Getting Along	Usual curriculum	• Social and emotional skills
DiPerna 2016 [USA]	cRCT	Primary school	Key stage 1 and 2	Pupils in elementary school (mean age 7.42-7.29 years) (N=402)	Social Skills Improvement System Classwide Intervention Program (SSIS-CIP	Usual curriculum	• Social and emotional skills • Behavioural • Academic attainment
DiPerna 2018 [USA]	cRCT	Primary schools	Key stage 1	Pupils in elementary school (mean age 6.29-6.30 years) (N= 766)	Social Skills Improvement System Classwide Intervention	Usual curriculum	• Social and emotional skills • Behavioural • Academic attainment

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Study [Country]	Study design	Setting	Equivalent UK Key stage	Population (N)	Intervention	Comparator	Outcome(s)
					Program (SSIS-CIP		
Garaigordobil 2019 [Spain]	cRCT	Primary education	Key stage 2	Pupils aged between 7 and 10 years old (N= 420)	Pozik Bizi (Live Happily)	Play	• Social and emotional skills • Emotional distress • Behavioural outcomes
Ghiroldi 2020 [Italy]	cRCT	Primary school	Key stage 2	Pupils in the 2nd to 5th grade (N= 400)	School-based mindfulness intervention (The Gaia Program)	Waitlist control	• Social and emotional skills • Emotional distress • Behavioural outcomes
Gorard 2017 [UK]	cRCT	Primary school	Key stage 2	Pupils in years 4 and 5 (mean age not reported) (N= 3159)	Philosophy for Children - P4C	Waiting list control	• Social and emotional skills • Academic attainment
Harlacher 2010 [USA]	cRCT	Primary school	Key stage 2	Pupils in grades 3 and 4 elementary school (mean age 8.4-9.4years) (N= 106)	Strong kids	Usual curriculum	• Social and emotional skills • Behavioural
Holen 2012 [Norway]	cRCT	Primary school	Key stage 1 and 2	Pupils in grade 2 elementary school (mean age 7.3 years) (N= 1483)	Zippy's friends	Usual curriculum	• Social and emotional skills • Behavioural
Humphrey 2018 [UK]	cRCT	Private school	Key stage 1	Pupils in years 3 to 5 (aged 7 to 9 years; mean age not reported) (N= 4400)	PATHS	Usual Curriculum	• Social and emotional skills • Behavioural • Academic attainment
Janz 2019 [Australia]	cRCT	Primary school	Key stage 1	Pupils in preparatory year, year 1 and year 2 (N= 91)	Mindfulness-based program (CalmSpace)	Waitlist control	• Behavioural outcomes

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Study [Country]	Study design	Setting	Equivalent UK Key stage	Population (N)	Intervention	Comparator	Outcome(s)
Kennedy 2015 [Australia]	cRCT	Primary school	Key stage 2	Pupils aged between 9 and 11 (N= 888)	Aussie Optimism Positive Thinking Skills Program	Control (not further described)	• Emotional distress
Kourmousi 2018 [Greece]	cRCT	Primary school	Key stage 1 and 2	Pupils in school grades 1 and 2 (aged 6 to 7 years; mean age not reported) (N= 2439)	Steps for Life Curriculum	Waiting list control	• Social and emotional skills • Behavioural • Emotional distress • Academic attainment
Ialongo 2019 [USA]	cRCT	Primary school	Key stage 1	Pupils in school grades up to 5 (mean grade 2.36; age not reported) (N= 3617)	PATHS to PAX	Usual curriculum	• Social and emotional skills • Behavioural • Academic attainment
Malti 2011 [Switzerland]	cRCT	Primary school	Key stage 1 and 2	Pupils in elementary school (mean age 7.45 years) (N= 716)	PATHS	Waiting list controls	• Social and emotional skills • Behavioural • Emotional distress
Miller 2010 [Canada]	cRCT	Elementary schools	Key stages 2 and 3	Pupils aged between 7–12 years (N=116)	Taming Worry Dragons	Delayed start (Wait list)	• Emotional distress
Miller 2011 [Canada]	cRCT	Elementary schools	Key stage 2	Pupils in Grades 4–6 (N= 533)	Friends for Life	Delayed start (Wait list)	• Emotional distress
Morgan 2018 [USA]	cRCT	Elementary school	Key stage 1 and 2	Pupils (mean age 6.79 years) (N= 197)	Classroom SCERTS Intervention (CSI)	Autism Training Modules (ATM)	• Social and emotional skills • Behavioural
Muratori 2017 [Italy]	cRCT	Elementary schools	Key stage 2	Pupils in 3rd and 4th grade (N= 901)	Coping Power Universal	Usual curriculum	• Emotional distress • Behavioural outcomes

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Study [Country]	Study design	Setting	Equivalent UK Key stage	Population (N)	Intervention	Comparator	Outcome(s)
Muratori 2019 [Italy]	cRCT	Elementary schools	Key stage 2	Pupils in 3rd and 4th grade (N= 1030)	Coping Power Universal	Usual curriculum	• Social and emotional skills • Behavioural outcomes
O'Connor 2014 [USA]	cRCT	Kindergarten and Primary school	Key stage 1	Pupils in kindergarten and grade 1 (mean age 5.38) (N= 435)	INSIGHTS	Control – after school supplemental reading	• Social and emotional skills • Behavioural outcomes • Academic attainment
Pophillat 2016 [Australia]	cRCT	Primary school	Key stage 2	Pupils in year 1 and 3 (mean age 6.4 years) (N= 206)	Aussie Optimism Program: Feelings and Friends(AOP-FF)	Control (not further described)	• Social and emotional skills • Emotional distress
Rooney 2013 [Australia]	cRCT	Primary school	Key stage 2	Pupils in year 4 (N= 910)	Aussie Optimism: Positive Thinking Skills	Control (not further described)	• Social and emotional skills • Emotional distress
Ross 2012 [UK]	cRCT	Primary school	Key stage 1 and 2	Pupils in primary year 1 (aged 4-5; mean age not reported) (N= 1448)	PATHS – Together 4 all	Control (not further described)	• Social and emotional skills • Emotional distress
Schonert-Reichl 2015 [Canada]	cRCT	Primary school	Key stage 2	Pupils in elementary school (mean age 10.24) (N= 99)	MindUP: Mindfulness-based education	Usual curriculum	• Social and emotional skills • Behavioural • Emotional distress • Academic attainment
Stallard 2014 [UK]	cRCT	Junior school	Key stage 2	Pupils aged between 9–10 years (years 4 and 5) (N= 1006)	FRIENDS – school-led	Usual curriculum	• Social and emotional skills • Emotional distress

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Study [Country]	Study design	Setting	Equivalent UK Key stage	Population (N)	Intervention	Comparator	Outcome(s)
					FRIENDS - Health service led		• Quality of life • Academic outcomes
Thomas 2016 [UK]	cRCT	Comprehensive primary school	Key stage 2	Pupils in year 4 (8 and 9 years old) (N= 30)	Paws .b mindfulness programme	Delayed start (Wait list)	• Social and emotional skills
Waters 2015 [Australia]	cRCT	Primary school	Key stage 2	Pupils in grade 5 (N= 151)	Taking Action Program	Usual curriculum	• Social and emotional skills • Emotional distress
Waters 2019 [Australia]	cRCT	Primary school	Key stage 2	Pupils in Years 3, 4 and 5 (N= 303)	Take Action program Positive search training	Usual curriculum	• Emotional distress
Wigelsworth 2018 [UK]	cRCT	Primary school	Key stage 2	Pupils in year 5 (N= 3207)	FRIENDS for Life	Usual provision	• Emotional distress

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2 **Table 2: Studies conducted in secondary education**

Study [Country]	Study design	Setting	Equivalent UK Key stage	Population	Intervention	Comparator	Outcome(s)
Secondary							
Araya 2013 [Chile]	cRCT	Secondary school	Key stage 4	Pupils attending 1° Medio grade (N=2512)	I Think, Feel, Act	Usual curriculum	• Emotional distress
Barnes 2012 [US]	cRCT	High school	Key stage 4	Pupils in the 9th grade (N=258)	Williams LifeSkills	Control	• Emotional distress • Behavioural outcomes
Britton 2014 [US]	cRCT	Secondary school	Key stage 3	Pupils in Grade 6 (mean age 11.79) (N=100)	Mindfulness	Active control (Taught curriculum)	• Social and emotional skills • Behavioural • Emotional distress

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Study [Country]	Study design	Setting	Equivalent UK Key stage	Population	Intervention	Comparator	Outcome(s)
							• Academic attainment
Burckhardt 2016 [Australia]	cRCT	Private high school	Key stage 4 and post-16	Pupils in an independent Episcopalian high school (mean age 16.34-16.37) (N=267)	Strong Minds	Active control (pastoral care)	• Social and emotional skills • Emotional distress
Burkhardt 2018 [Australia]	cRCT	Private high school	Key stage 4	Year 10 pupils in an all-girls Anglican private school (N= 96)	Dialectical Behaviour Therapy (DBT)	Usual classes including learning material about future careers	• Emotional distress
Calear 2016 a [Australia]	cRCT	Private and public high school	Key stage 4 and Post-16	Pupils in Year 9 and Year 10 (N=225)	E-couch Anxiety and Worry program	Delayed start (wait list)	• Emotional distress
Calear 2016 b [Australia]	cRCT	Public high school and a private secondary school	Key stage 3 and 4 and Post-16	Pupils in Years 8–12 (N= 1767)	E-GAD school led, E-GAD health service,	Delayed start (wait list)	• Emotional distress
Campos 2018 [Portugal]	cRCT	Secondary school	Key stage 3	Pupils in the 3rd cycle of their basic education (N=543)	Finding Space	Control	• Social and emotional skills • Behavioural outcomes
Castro-Olivo 2014 [USA]	cRCT	Secondary school	Key stage 3	Pupils in middle or high school (mean age 13.63-14.17) (N=102)	Culturally adapted Jóvenes Fuertes SEL program	Delayed start (wait list)	• Social and emotional skills
Dowling 2019 [Ireland]	cRCT	Secondary school	Key stage 4 and post-16	Pupils in schools that hold a designated disadvantage status providing post-primary	Revised MindOut program	Usual curriculum	• Social and emotional skills • Behavioural

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Study [Country]	Study design	Setting	Equivalent UK Key stage	Population	Intervention	Comparator	Outcome(s)
				level education (aged 15 to 18 years; mean age not reported) (N= 675)			• Emotional distress
Fitzpatrick 2013 [Ireland]	cRCT	Secondary school	Key stage 3 and 4	Pupils in secondary school (aged 12-16 years; mean age 13.6 years) (N= 1072)	Standard SPHE plus the use of Working Things Out through SPHE	Active control (standard SPHE)	• Social and emotional skills • Behavioural
Froh 2008 [USA]	cRCT	Secondary school	Key stage 3	Pupils in grade 6 and 7 (mean age 12.17 years) (N= 221)	Gratitude Hassle	Control (not further described)	• Behavioural
Garcia-Escalera 2019 [Spain]	cRCT	Secondary education	Key stage 4	Pupils in Grade 9 and Grade 10 (N= 152)	UP-A	Slats	• Emotional distress
Gigantesco 2015 [Italy]	cRCT	High school	Key stage 4	Pupils in grades 9, 10 and 11 (N= 391)	Establishing goals and problems solving programme	Control	• Social and emotional skills • Quality of life
Hagins 2016 [USA]	cRCT	Secondary school	Key stage 4	Pupils in grade 9, 10 and 11 (mean age 15.20-15.44 years) (N= 112)	Yoga	Active control (physical education)	• Social and emotional skills • Behavioural • Emotional distress
Horn 2011 [Germany]	cRCT	Middle school	Key stage 3	Pupils in grade 8 (N= 359)	Expressive writing and psychoeducation	Waitlist control	• Emotional distress • Academic attainment • Behavioural outcomes
Johnson 2017 [Australia]	cRCT	Co-educational secondary school	Key stage 3	Pupils mean age 13.44 years (N= 560)	Mindfulness	Control	• Emotional distress

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Study [Country]	Study design	Setting	Equivalent UK Key stage	Population	Intervention	Comparator	Outcome(s)
Kindt 2014 [The Netherlands]	cRCT	Secondary school	Key stage 3	Pupils in in the 7th and 8th grades (age 11–16 years) (N= 1440)	Op Volle Kracht	Control	• Emotional distress
Kuosmanen 2017 [Ireland]	cRCT	Alternative education	Key stage 4 and Post 16	Pupils aged 15–20 years who have left school early and are attending Youthreach, an alternative education program (N= 146)	SPARX-R	Control	• Emotional distress • Behavioural outcomes
Lang 2017 [USA]	cRCT	Secondary school	Key stage 4 and post-16	Pupils in vocational school (mean age 16.22 years) (N= 122)	EPHECT coping training	Physical education without intervention	• Social and emotional skills • Emotional distress
Lassander 2021 [Finland]	cRCT	Secondary school	Key stage 3 and 4	Pupils in the 6th, 7th and 8th grades (aged 12 to 15 years old). (N= 2031)	School-based mindfulness intervention (Stop and Breathe)	Inactive control	• Social and emotional skills • Behavioural outcomes • Emotional distress
Luengo-Kanacri 2020 [Columbia/Chile]	cRCT	Secondary school	Key stage 3	Pupils in grade 7 (mean age 12.29 years) (N= 916)	ProCiviCo	Control (not further described)	• Behavioural
Nash 2007 [US]	cRCT	Public and private middle schools	Key stages 2 and 3	Pupils aged between 11 and 14 (N= 40)	Empower Youth Program	Usual curriculum	• Emotional distress
Perkins 2021 [UK]	RCT	Public and private institutions	Post 16	Students aged 16–18 years within the UK education system (N= 80)	Computerised enhanced psychological mindset intervention	Usual curriculum waitlist	• Social and emotional skills • Emotional distress
Perry 2014 [Australia]	cRCT	Catholic and Independent schools	Key stage 3	Pupils in in Year 9 or 10 (N= 380)	HeadStrong	Usual curriculum	• Social and emotional skills • Emotional distress

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Study [Country]	Study design	Setting	Equivalent UK Key stage	Population	Intervention	Comparator	Outcome(s)
Perry 2017 [Australia]	cRCT	Selective and partially selective secondary schools	Key stage 4	Pupils in final year (N= 540)	SPARX-R	LifeSTYLE	• Emotional distress
Possel 2008 [Germany]	cRCT	Secondary school	Key stage 3	Pupils in 8th grade (N= 301)	LARS&LISA	Control	• Emotional distress
Possel 2011 [Germany]	cRCT	Secondary school	Key stage 3	Pupils in 8th grade (N= 301)	LARS&LISA	Control (not further described)	• Emotional distress
Possel 2013 [US]	cRCT	High school	Key stage 4	Pupils in 8th grade (N= 518)	CBT, Non-specific intervention	Control	• Emotional distress
Putwain 2019 [UK]	RCT	6th form	Post-16	Pupils in year 12 (N= 534)	BePART	Waitlist control	• Social and emotional skills • Behavioural • Emotional distress
Raes 2014 [Belgium]	cRCT	Secondary school	Key stage 3 and 4, and post-16	Pupils roughly aged 14-17 years (N= 408)	Mindfulness	Control	• Emotional distress
Reiter 2016 [Germany]	cRCT	Secondary school	Key stage 3 and 4	Pupils aged 13-15 years (mean age 12.17) (N= 77)	Positive writing intervention	Control	• Social and emotional skills • Behavioural • Emotional distress
Roberts 2010 [Australia]	cRCT	Secondary school	Key stage 3	Pupils in grade 7 aged 11-13 years (N= 496)	Aussie Optimism Program (AOP)	Control	• Behavioural • Emotional distress
Rodgers 2015 [Ireland]	cRCT	Secondary schools	Key stage 3	Pupils in first year aged 12–13 years from secondary schools in a socially disadvantaged catchment area (N= 62)	FRIENDS for Life	Waitlist control	• Emotional distress

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Study [Country]	Study design	Setting	Equivalent UK Key stage	Population	Intervention	Comparator	Outcome(s)
Rose 2014 [Australia]	cRCT	Secondary schools	Key stage 2 and 3	Pupils in grades 6 and 7 aged 9-14 years (mean age 12.22 years) (N= 369)	Resourceful Adolescent Programme-Peer Interpersonal Relatedness (RAP-PIR) Resourceful Adolescent Programme-placebo	Control	• Emotional distress • Quality of life
Ruini 2009 [Germany]	cRCT	Secondary school	Key stage 4	Pupils in grade 10 (mean age 14.32-14.47) (N= 227)	Well-Being intervention - WBI	Active control (attention-placebo)	• Emotional distress
Salmoirago-Blotcher 2019 [USA]	cRCT	Secondary school	Key stage 3 and 4	Pupils in grade 9 (mean age 14.5-14.6 years) (N= 53)	School-based health education plus mindfulness training (HE-MT)	Active control (School-based health education plus Attention control [HE-AC])	• Behavioural
Stallard 2013 [UK]	cRCT	Secondary schools	Key stage 3 and 4	Pupils in years 8-11 aged 12-16 years (N= 3841)	Resourceful adolescent programme	Usual curriculum	• Social and emotional skills • Behavioural • Emotional distress • Quality of life
Tak 2016 [The Netherlands]	cRCT	Secondary school	Key stage 3	Pupils in the 8th grade (N= 1390)	Op Volle Kracht (OVK)	Usual curriculum	• Social and emotional skills

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Study [Country]	Study design	Setting	Equivalent UK Key stage	Population	Intervention	Comparator	Outcome(s)
							• Emotional distress • Academic outcomes
Theodore-Oklota 2014 [US]	cRCT	Middle school	Key stage 3	Pupils in 7th grade (N= 210)	Acceptance-based behavioural program	Waitlist control	• Social and emotional skills • Behavioural
Tokolahi 2018 [New Zealand]	cRCT	Secondary education	Key stage 3	Pupils aged 11-13 years (N= 142)	Uplifting our Health and Wellbeing	Waitlist control	• Social and emotional skills • Emotional distress • Quality of life
Van der Gucht 2017 [Belgium]	cRCT	Secondary schools	Key stage 3 and 4, and post-16	Pupils aged 14-21 years (N= 586)	Acceptance and commitment therapy	Control	• Social and emotional skills • Emotional distress • Quality of life
Wong 2014 [Australia]	cRCT	Secondary school	Key stage 4	Pupils in years 9 and 10 aged between 14-16 years (N= 976)	Thiswayup schools-Depression Thiswayup schools-Anxiety	Usual curriculum	• Emotional distress

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Studies conducted in a mixture of primary and secondary education

Study [Country]	Study design	Setting	Equivalent UK Key stage	Population	Intervention	Comparator	Outcome(s)
Primary							

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Study [Country]	Study design	Setting	Equivalent UK Key stage	Population	Intervention	Comparator	Outcome(s)
Fragaus 2020 [Multiple countries]	Systematic review	Primary and secondary schools	Key stages 1, 2, 3 and 4, and post-16	Pupils aged between 3-19 years (N= NR)	Anti-bullying interventions	Control	• Overall bullying • Bullying perpetration • Bullying exposure • Cyberbullying • Mental health problems • School climate
Johnstone 2020 [Australia]	cRCT	Primary schools (follow-up extended to secondary school)	Key stages 2 and 3	Pupils aged between 8 and 13 years old (N= 481)	Emotion regulation Behavioural activation	Usual Curriculum	• Social and emotional skills • Emotional distress
Roberts 2017 [Australia]	cRCT	Primary and secondary schools	Key stages 2 and 3	Pupils in grade 6 (N= 2287)	Aussie Optimism Programme Aussie Optimism Programme + Coaching	Usual curriculum	• Behavioural outcomes
Sibinga 2016 [USA]	cRCT	Public middle schools	Key stages 2 and 3	Students in grades 5-8 (including special education) (N= 300)	Mindfulness-based stress reduction	Usual curriculum (Healthy topics)	• Social and emotional skills • Emotional distress • Behavioural outcomes

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1 **1.1.6 Summary of the effectiveness evidence**

2 **Bullying**
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Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk **Control**	Corresponding risk **Universal bullying intervention**				
Overall bullying – endpoint (Fraguas, 2020)		The mean overall bullying - endpoint in the intervention groups was **0.15 standard deviations lower** (0.192 to 0.107 lower)		89674 (39 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.15 (0.192 to -0.1.07)
Overall bullying - follow-up Follow-up: mean 46.1 weeks **(Fraguas, 2020)**		The mean overall bullying - follow-up in the intervention groups was **0.26 standard deviations lower** (0.253 to 0.094 lower)		21157 (17 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.26 (-0.253 to -0.094)
Bullying perpetration – endpoint (Fraguas, 2020)		The mean bullying perpetration - endpoint in the intervention groups was **0.111 standard deviations lower** (0.147 to 0.075 lower)		85448 (33 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.111 (-0.147 to -0.075)
Bullying perpetration - follow-up Follow-up: mean 41.1 weeks **(Fraguas, 2020)**		The mean bullying perpetration - follow-up in the intervention groups was **0.173 standard deviations lower** (0.284 to 0.062 lower)		15389 (14 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.173 (-0.284 to -0.062)
Bullying exposure – endpoint (Fraguas, 2020)		The mean bullying exposure - endpoint in the intervention groups was **0.158 standard deviations lower** (0.229 to 0.088 lower)		73528 (27 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.158 (-0.229 to -0.088)
Bullying exposure - follow-up Follow-up: mean 39.8 weeks **(Fraguas, 2020)**		The mean bullying exposure - follow-up in the intervention groups was **0.118 standard deviations lower** (0.176 to 0.061 lower)		13801 (10 studies)	⊕⊕⊕⊖ **moderate**[1,3,4,5]	MD -0.118 (-0.176 to -0.061)
Cyberbullying – endpoint (Fraguas, 2020)		The mean cyberbullying - endpoint in the intervention groups was **0.138 standard deviations lower** (0.213 to 0.064 lower)		5727 (4 studies)	⊕⊕⊕⊖ **moderate**[1,3,4,5]	MD -0.138 (-0.213 to -0.064)

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	Illustrative comparative risks	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
Mental health problems – endpoint (Fraguas, 2020)	The mean mental health problems - endpoint in the intervention groups was **0.211 standard deviations lower** (0.292 to 0.131 lower)	28529 (15 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.211 (-0.292 to -0.131)
Mental health problems - follow-up Follow-up: mean 22.4 weeks **(Fraguas, 2020)**	The mean mental health problems - follow-up in the intervention groups was **0.205 standard deviations lower** (0.381 to 0.03 lower)	2845 (5 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.205 (-0.381 to -0.03)
School climate – endpoint (Fraguas, 2020)	The mean school climate - endpoint in the intervention groups was **0.067 standard deviations higher** (0.04 to 0.094 higher)	22794 (9 studies)	⊕⊕⊕⊖ **moderate**[3,4,5]	MD 0.067 (0.04 to 0.094)
School climate - follow-up Follow-up: mean 65 weeks **(Fraguas, 2020)**	The mean school climate - follow-up in the intervention groups was **0.120 standard deviations higher** (0.003 to 0.236 higher)	5244 (4 studies)	⊕⊕⊖⊖ **low**[2,3,4]	MD 0.120 (0.003 to 0.236)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

[1] No concerns over risk of bias of review
[2] Serious concerns as I2 > 50%
[3] Serious concerns over uncertainty of interventions but population and outcomes match the review protocol
[4] No concerns as 95%CI do not cross the line of no effect
[5] No concerns as I2 < 50%

1 You can do it!

You can do it! compared to Usual practice for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Usual practice	You can do it!				
Social and emotional skills: (Ashdown 2012)		The mean social and emotional skills: in the intervention groups was **9.48 lower** (24.15 lower to 5.18 higher)		4 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -9.48 (-24.15 to 5.18)

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	Illustrative comparative risks	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
Emotional distress (Ashdown 2012)	The mean emotional distress in the intervention groups was **10.28 lower** (27.06 lower to 6.5 higher)	4 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -10.28 (-27.06 to 6.5)
Behavioural outcomes (Ashdown 2012)	The mean behavioural outcomes in the intervention groups was **1.05 lower** (2.59 lower to 0.49 higher)	4 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -1.05 (-2.59 to 0.49)
Academic outcomes (Ashdown 2012)	The mean academic outcomes in the intervention groups was **0.74 lower** (11.8 lower to 10.31 higher)	4 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.74 (-11.8 to 10.31)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Downgraded 1 level: No blinding or allocation concealment; Method of randomisation lacks detail; Those assessing outcomes were aware of allocations and assessments carried out by self-report
[2] N/A: Single study with data split by year group
[3] Study met inclusion criteria in PICO
[4] 95% confidence interval crosses the line of effect

1   Rational Emotive Education

Rational Emotive Education compared to Control (not specified) for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control (not specified)	**Rational Emotive Education**				

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	Illustrative comparative risks* (95% CI)	Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
Social and emotional skills (Caruso 2018)	The mean social and emotional skills in the intervention groups was **1.24 lower** (1.81 to 0.66 lower)		276 (1 study)	⊕⊕⊕⊖ moderate[1,2,3,4]	MD -1.24 (-1.81 to 0.66)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Study appraised as being at low risk of bias
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the standardised mean difference cross the line of effect

1   Jovenes Fuertes SEL

Jovenes Fuertes SEL compared to Waiting list control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Waiting list control	**Jovenes Fuertes SEL**				
Social and emotional skills (Castro-Olivio 2014)		The mean social and emotional skills in the intervention groups was **4.99 lower** (9.33 to 0.65 lower)		102 (1 study)	⊕⊕⊕⊖ moderate[1,2,3,4]	MD -4.99 (-9.33 to -0.65)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

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GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Downgraded 1 level: Data presented by clusters with individual participants not considered in the study
[2] N/A – single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the standardised mean difference cross the line of effect

1   Move for well-being in school

Move for well-being in school compared to Usual practice for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Usual practice	Move for well-being in school				
Social and emotional skills (Christiansen 2018)		The mean social and emotional skills in the intervention groups was **0.04 lower** (0.11 lower to 0.03 higher)		2044 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,4]	MD -0.04 (-0.11 to 0.03)
Behavioural outcomes (Christiansen 2018)		The mean behavioural outcomes in the intervention groups was **0.01 lower** (0.06 lower to 0.04 higher)		2797 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,4]	MD -0.01 (-0.06 to 0.04)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

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[1] Study appraised as low risk of bias
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the standardised mean difference cross the line of effect

1 Zippy's Friends

Zippy's Friends compared to Usual practice for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Usual practice	**Zippy's Friends**				
Social and emotional skills (Clarke 2014, Holen 2012)		The mean social and emotional skills in the intervention groups was **0.03 standard deviations lower** (0.13 lower to 0.07 higher)		1606 (2 studies)	⊕⊖⊖⊖ **very low**[1,2,3,4]	SMD -0.03 (-0.13 to 0.07)
Behavioural distress (Clarke 2014, Holen 2012)		The mean behavioural distress in the intervention groups was **0.07 standard deviations lower** (0.17 lower to 0.03 higher)		1613 (2 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	SMD -0.07 (-0.17 to 0.03)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Studies appraised as 'some conerns' of risk of bias: Statistical differences in baseline measures of outcomes post randomisations (Clarke et al 2014); Blinding and allocation concealment not specified, assessor knowledge of allocation and self-report measures (Holen et al 2012)
[2] I2>40% and p>0.05
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

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1 Roots of Empathy

Roots of Empathy compared to Usual practice for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Usual practice	Roots of Empathy (RoI)				
Social and emotional skills (Connolly 2018)		The mean social and emotional skills in the intervention groups was **0.12 lower** (0.37 lower to 0.13 higher)		247 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,4]	MD -0.15 (-0.37 to 0.13)
Behavioural outcomes (Connolly 2018)		The mean behavioural outcomes in the intervention groups was **0.14 lower** (0.39 lower to 0.1 higher)		247 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,4]	MD -0.14 (-0.39 to 0.1)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Study appraised as low risk of bias
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

2 Social Skills Improvement System Classwide Intervention Program (SSIS-CIP)

Social Skills Improvement System Classwide Intervention Program (SSIS-CIP) for

Outcomes	Illustrative comparative risks* (95% CI)		Comments

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	Assumed risk Corresponding risk		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	
	Control	Social Skills Improvement System Classwide Intervention Program (SSIS-CIP)				
Social and emotional skills (Diperna 2018)		The mean social and emotional skills in the intervention groups was **0.11 higher** (0.01 lower to 0.23 higher)		255 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	SMD 0.22 (-0.03 to 0.47)
Behavioural outcomes (Diperna 2018)		The mean behavioural outcomes in the intervention groups was **0.01 standard deviations lower** (0.22 lower to 0.2 higher)		384 (2 studies)	⊕⊖⊖⊖ **very low**[1,3,4,5]	SMD -0.01 (-0.22 to 0.2)
Academic outcomes (Diperna 2018)		The mean academic outcomes in the intervention groups was **10.35 lower** (33.46 lower to 12.76 higher)		369 (2 studies)	⊕⊕⊖⊖ **low**[1,3,4]	MD -10.35 (-33.46 to 12.76)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Studies appraised as 'some concerns' of risk of bias: Statistical differences in baseline characteristics between arms post randomisation (Diperna et al 2016; Blinding and allocation concealment not specified, self-report measures utilised and randomisation method unclear (Diperna et al 2018)
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect
[5] I2>75% and study 95% confidence intervals do not overlap

1   **SPHE + Working things out through SPHE**

SPHE + Working things out through SPHE compared to SPHE for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Comments

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	Assumed risk	Corresponding risk	Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	
	SPHE	**SPHE + Working things out through SPHE**				
Social and emotional skills (Fitzpatrick 2013)		The mean social and emotional skills in the intervention groups was **0.37 higher** (0.41 lower to 1.15 higher)		782 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 0.37 (-0.41 to 1.15)
Behavioural outcomes (Fitzpatrick 2013)		The mean behavioural outcomes in the intervention groups was **0.03 higher** (0.04 lower to 0.1 higher)		773 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 0.03 (-0.04 to 0.1)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Study appraised as 'some concerns' of risk of bias: Statistical differences in baseline characteristics between arms post randomisation; Blinding and allocation concealment not specified, randomisation method unclear.
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

1   **Gratitude intervention**

Gratitude intervention compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE) Comments
	Assumed risk	Corresponding risk			
	Control	**Gratitude intervention**			

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| Behavioural outcomes (Froh 2008) | | The mean behavioural outcomes in the intervention groups was **0.04 higher** (0.3 lower to 0.38 higher) | | 141 (1 study) | ⊕⊖⊖⊖ **very low**[1,2,3,4] | MD 0.04 (-0.3 to 0.38) |

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Study appraised as at high risk of bias due to: Part of control arm exposed to additional event that would impact on primary outcome; Clustering not accounted for in participant analysis; Lack of blinding and allocation concealment; self-report measures
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

1 Hassle intervention

Hassle intervention compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE) Comments
	Assumed risk	Corresponding risk			
	Control	**Hassle intervention**			
Behavioural outcomes (Froh 2008)		The mean behavioural outcomes in the intervention groups was **0.41 higher** (0.05 to 0.77 higher)		145 (1 study)	⊕⊖⊖⊖ **very low**[1,2,3,4]	MD 0.41 (0.05 to 0.77)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

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GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Study appraised as at high risk of bias due to: Part of control arm exposed to additional event that would impact on primary outcome; Clustering not accounted for in participant analysis; Lack of blinding and allocation concealment; self-report measures
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

1   Philosophy for Children (P4C)

Philosophy for Children (P4C) compared to waiting list control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Waiting list control	**Philosophy for Children (P4C)**				
Social and emotional skills (Gorard 2017)		The mean social and emotional skills in the intervention groups was **0.31 higher** (2.85 lower to 3.47 higher)		225 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 0.31 (2.85 to 3.47)
Academic outcomes (Gorard 2017)		The mean academic outcomes in the intervention groups was **0.08 higher** (0.19 lower to 0.35 higher)		214 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 0.08 (-0.19 to 0.35)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

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Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Study appraised as 'some concerns' of risk of bias: Blinding and allocation concealment not specified, randomisation method unclear; self-report measures; Control arms potentially received some of the intervention arm.
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

1 Strong kids

Strong kids compared to Waiting list control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Waiting list control	**Strong kids**				
Social and emotional skills (Harlacher 2010)		The mean social and emotional skills in the intervention groups was **2.21 lower** (3.44 to 0.98 lower)		106 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -2.21 (-3.44 to -0.98)
Behavioural outcomes (Harlacher 2010)		The mean behavioural outcomes in the intervention groups was **13.58 lower** (18.16 to 9 lower)		106 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -13.58 (-18.16 to -9.0)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Studies appraised as some concerns and high risk of bias due to: Blinding, allocation concealment unclear; Baseline characteristics post randomisation indicated significant differences in characteristics and primary outcome; clustering does not appear to be accounted for in the analysis.

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[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

1 PATHS

PATHS compared to usual practice for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Usual practice	**PATHS**				
Social and emotional skills (Berry 2016, Humphrey 2018, Lalongo 2019, Malti 2011)		The mean social and emotional skills in the intervention groups was **0.05 standard deviations lower** (0.11 lower to 0 higher)		4682 (4 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	SMD -0.05 (-0.11 to 0)
Emotional distress (Berry 2016, Humphrey 2018, Malti 2011)		The mean emotional distress in the intervention groups was **0.01 higher** (0.02 lower to 0.04 higher)		1754 (3 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 0.01 (-0.02 to 0.04)
Behavioural outcomes (Berry 2016, Lalongo 2019, Malti 2011)		The mean behavioural outcomes in the intervention groups was **0.03 higher** (0.11 lower to 0.17 higher)		4077 (3 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 0.03 (-0.11 to 0.17)
Academic outcomes (Berry 2016, Humphrey 2018, Lalongo 2019)		The mean academic outcomes in the intervention groups was **0.07 lower** (0.19 lower to 0.05 higher)		5993 (3 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.07 (-0.19 to 0.05)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

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Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] 2 of the 3 studies appraised as 'some concerns' of risk of bias: Blinding and allocation concealment not specified, Randomisation method unclear; outcome assessments undertaken by self/observer-report
[2] I2<40% and 95% confidence intervals of studies overlap
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

1   Steps for life

Steps for life compared to Waiting list control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Waiting list control	**Steps for life**				
Social and emotional skills (Kourmousi 2018)		The mean social and emotional skills in the intervention groups was **0.34 lower** (0.45 to 0.23 lower)		2439 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,4]	MD -0.34 (-0.45 to -0.23)
Emotional distress (Kourmousi 2018)		The mean emotional distress in the intervention groups was **0.31 lower** (0.41 to 0.21 lower)		2439 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,4]	MD -0.31 (-0.41 to -0.21)
Behavioural outcomes (Kourmousi 2018)		The mean behavioural outcomes in the intervention groups was **0.44 lower** (0.53 to 0.35 lower)		2439 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,4]	MD -0.44 (-0.43 to -0.35)
Academic outcomes (Kourmousi 2018)		The mean academic outcomes in the intervention groups was **0.33 lower** (0.43 to 0.23 lower)		2439 (1 study)	See comment	MD -0.33 (-0.43 to -0.23)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

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CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Study appraised as at 'some concern' of bias: Blinding or allocation concealment not specified; Method of randomisation lacks detail; Those assessing outcomes were aware of allocations and assessments carried out by self-report
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the standardised mean difference does not cross the line of effect

1   **EPHECT**

EPHECT coping training compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	**EPHECT coping training**				
Social and emotional skills (Lang 2017)		The mean social and emotional skills in the intervention groups was **0.9 higher** (0.12 to 1.68 higher)		122 (1 study)	⊕⊕⊕⊝ **moderate**[1,2,3,4]	MD 0.9 (0.12 to 1.68)
Emotional distress (Lang 2017)		The mean emotional distress in the intervention groups was **0.15 lower** (0.74 lower to 0.44 higher)		122 (1 study)	⊕⊕⊝⊝ **low**[1,2,3,5]	MD -0.15 (-0.74 to 0.44)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] No concerns as 95%CI do not cross the line of no effect
[5] Serious concerns as 95%CI cross line of no effect

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1   ProCiviCo

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control (not specified)	ProCiviCo				
Behavioural outcomes (Luengo-Kanacri 2020)		The mean behavioural outcomes in the intervention groups was **0.03 lower** (0.11 lower to 0.05 higher)		596 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.03 (-0.11 to 0.05)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

2   Classroom SCERTS

Classroom SCERTS Intervention (CSI) compared to Autism Training Modules (ATM) for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Autism Training Modules (ATM)	Classroom SCERTS Intervention (CSI)				
Social and emotional skills (Morgan 2018)		The mean social and emotional skills in the intervention groups was **1.1 standard deviations lower** (2.27 lower to 0.07 higher)		197 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -1.1 (-2.27 to 0.07)
Behavioural outcomes (Morgan 2018)		The mean behavioural outcomes in the intervention groups was **5.62 lower** (9.91 to 1.33 lower)		197 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,5]	MD -5.62 (-9.91 to -1.33)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

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CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as 95%CI do not cross the line of no effect

1   INSIGHTS

INSIGHTS compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk **Control**	Corresponding risk **INSIGHTS**				
Social and emotional skills (O'Connor 2014)		The mean social and emotional skills in the intervention groups was **0.9 lower** (2.64 lower to 0.84 higher)		435 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.9 (-2.64 to 0.84)
Behavioural outcomes (O'Connor 2014)		The mean behavioural outcomes in the intervention groups was **0.18 lower** (0.44 lower to 0.08 higher)		435 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 0.18 (-0.44 to 0.08)
Academic outcomes (O'Connor 2014)		The mean academic outcomes in the intervention groups was **0.03 higher** (1.58 lower to 1.64 higher)		435 (1 study)	⊕⊕⊕⊖ **moderate**[2,3,4,5]	MD 0.03 (-1.58 to 1.64)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol

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[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as outcome is not subjective

1   Well-Being intervention (WBI)

Well-Being intervention (WBI) compared to Attention-placebo for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Attention-placebo	Well-Being intervention (WBI)				
Social and emotional skills (Ruini 2009)		The mean social and emotional skills in the intervention groups was **0.12 lower** (3.73 lower to 3.49 higher)		196 (1 study)	⊕⊕⊖⊖ low[1,2,3]	MD -0.12 (-3.73 to 3.49)
Emotional distress (Ruini 2009)		The mean emotional distress in the intervention groups was **0.76 higher** (0.75 lower to 2.27 higher)		227 (1 study)	⊕⊕⊖⊖ low[1,2,3,4]	MD 0.76 (-0.75 to 2.27)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Not applicable - single study analysis
[2] No concerns as population, intervention and outcome match review protocol
[3] Serious concerns as 95%CI cross line of no effect
[4] Serious concerns over risk of bias due to self-reported outcome measures

2   Mindfulness interventions

Mindfulness interventions compared to Active control/usual curriculum for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				

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	Active control/usual curriculum	Mindfulness interventions			
Social and emotional skills - Primary education (Ghiroldi 2020, Schonert-Reichl 2015)		The mean social and emotional skills - primary education in the intervention groups was **0.34 standard deviations lower** (0.79 lower to 0.11 higher)	499 (2 studies)	⊕⊖⊖⊖ **very low**[1,2,3,4]	SMD -0.34 (-0.79 to 0.11)
Social and emotional skills - Secondary education (Britton 2014, Burckhardt 2016 (year 10), Burckhardt 2016 (year 11), Dowling 2019, Hagins 2016, Lassander 2021)		The mean social and emotional skills - secondary education in the intervention groups was **0.1 standard deviations lower** (0.23 lower to 0.03 higher)	1535 (6 studies)	⊕⊕⊖⊖ **low**[1,3,4,5]	SMD -0.1 (-0.23 to 0.03)
Social and emotional skills – Mix (Sibinga 2016)		The mean social and emotional skills - mix in the intervention groups was **7.05 higher** (31.88 lower to 45.98 higher)	34 (1 study)	⊕⊕⊖⊖ **low**[1,3,4,6]	MD 7.05 (-31.88to 45.98)
Emotional distress - Depression - Primary education (Schonert-Reichl 2015)		The mean emotional distress - depression - primary education in the intervention groups was **0.17 lower** (0.37 lower to 0.03 higher)	99 (1)	⊕⊕⊖⊖ **low**[1,3,4,6]	MD -0.17 (-0.37 to 0.03)
Emotional distress - Depression - Secondary education (Burckhardt 2016 (year 10), Burckhardt 2016 (year 11), Dowling 2019, Hagins 2016, Lassander 2021, Raes 2014)		The mean emotional distress - depression - secondary education in the intervention groups was **0.17 standard deviations lower** (0.38 lower to 0.04 higher)	1587 (6 studies)	⊕⊖⊖⊖ **very low**[1,2,3,4]	SMD -0.17 (-0.38 to 0.04)
Emotional distress - Anxiety - Secondary education (Britton 2014)		The mean emotional distress - anxiety - secondary education in the intervention groups was **47.6 lower** (151.63 lower to 56.43 higher)	100 (1)	⊕⊕⊖⊖ **low**[1,3,5,6]	MD -47.6 (-151.63 to 56.43)
Emotional distress - Anxiety – Mix (Sibinga 2016)		The mean emotional distress - anxiety - mix in the intervention groups was **0.56 lower** (4.93 lower to 3.81 higher)	49 (1)	⊕⊕⊖⊖ **low**[1,3,5,6]	MD -0.56 (-4.93 to 3.81)

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Emotional distress - Anxiety/Depression - Primary education (Ghiroldi 2020)		The mean emotional distress - anxiety/depression - primary education in the intervention groups was **0.61 lower** (1.1 to 0.12 lower)	400 (1 study)	⊕⊕⊕⊖ **moderate**[1,3,6,7]	MD -0.61 (-1.1 to -0.12)
Behavioural outcomes - Primary education (Ghiroldi 2020, Janz 2019, Schonert-Reichl 2015)		The mean behavioural outcomes - primary education in the intervention groups was **0 standard deviations higher** (0.18 lower to 0.18 higher)	534 (3 studies)	⊕⊕⊖⊖ **low**[1,3,4,5]	SMD 0 (-0.18 to 0.18)
Behavioural outcomes - Secondary education (Britton 2014, Dowling 2019, Hagins 2016, Lassander 2021)		The mean behavioural outcomes - secondary education in the intervention groups was **0.03 standard deviations lower** (0.15 lower to 0.08 higher)	1473 (4 studies)	⊕⊕⊖⊖ **low**[1,3,4,5]	SMD -0.03 (-0.15 to 0.08)
Behavioural outcomes – Mix (Sibinga 2016)		The mean behavioural outcomes - mix in the intervention groups was **2.39 lower** (10.17 lower to 5.39 higher)	73 (1)	⊕⊕⊖⊖ **low**[1,2,3,6]	MD -2.39 (-10.17 to 5.39)
Academic outcomes - Primary education (Schonert-Reichl 2015)		The mean academic outcomes - primary education in the intervention groups was **0.87 lower** (1.78 lower to 0.04 higher)	99 (1)	⊕⊕⊕⊖ **moderate**[3,4,6,8]	MD -0.87 (-1.78 to 0.04)
Academic outcomes - Secondary education (Hagins 2016)		The mean academic outcomes - secondary education in the intervention groups was **2.26 lower** (5.49 lower to 0.97 higher)	112 (1)	⊕⊕⊕⊖ **moderate**[3,4,6,8]	MD -2.26 (-5.49 to 0.97)
Emotional distress - Anxiety Subgroup by gender – Males (Britton 2014 (year 1), Britton 2014 (year 2))		The mean emotional distress - anxiety subgroup by gender - males in the intervention groups was **0.22 standard deviations higher** (0.48 lower to 0.91 higher)	33 (2)	⊕⊕⊖⊖ **low**[1,2,3,6]	SMD 0.22 (-0.48 to 0.91)
Emotional distress - Anxiety Subgroup by gender – Females (Britton 2014 (year 1), Britton 2014 (year 2))		The mean emotional distress - anxiety subgroup by gender - females in the intervention groups was **0.05 standard deviations higher** (0.7 lower to 0.81 higher)	27 (2)	⊕⊕⊖⊖ **low**[1,2,3,6]	SMD 0.05 (-0.7 to 0.81)
Social and emotional skills Subgroup by gender – Males (Britton 2014 (year 1), Britton 2014 (year 2))		The mean social and emotional skills subgroup by gender - males in the	24 (2)	⊕⊕⊖⊖ **low**[1,2,3,6]	SMD -0.7 (-1.93 to 0.54)

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	Illustrative comparative risks* (95% CI)	Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	intervention groups was **0.7 standard deviations lower** (1.93 lower to 0.54 higher)				
Social and emotional skills Subgroup by gender – Females (Britton 2014 (year 1), Britton 2014 (year 2))	The mean social and emotional skills subgroup by gender - females in the intervention groups was **0.55 standard deviations lower** (1.39 lower to 0.3 higher)		23 (2)	⊕⊕⊖⊖ **low**[1,2,3,6]	SMD -0.55 (-1.39 to 0.3)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Serious concerns as I2 >50%
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as I2 <50%
[6] Not applicable - single study analysis
[7] No concerns as 95%CI do not cross the line of no effect
[8] No concerns as outcome not subjective

1   Aussie Optimism Program

Aussie Optimism Program compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Aussie Optimism Program				
Social and emotional skills - Primary education (Pophillat 2016)		The mean social and emotional skills - primary education in the intervention groups was **1.89 lower** (2.86 to 0.92 lower)		185 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,4]	MD -1.89 (-2.86 to -0.92)

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Emotional distress - Depression - Primary education (Kennedy 2015, Rooney 2013)	The mean emotional distress - depression - primary education in the intervention groups was **0.01 standard deviations lower** (0.43 lower to 0.4 higher)	259 (2 studies)	⊕⊖⊖⊖ **very low**[1,3,6,7]	SMD -0.01 (-0.43 to 0.4)
Emotional distress - Depression - Secondary education (Roberts 2010)	The mean emotional distress - depression - secondary education in the intervention groups was **0.37 higher** (2.67 lower to 3.41 higher)	76 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,6]	MD 0.37 (-2.67 to 3.41)
Emotional distress - Anxiety - Primary education (Kennedy 2015, Rooney 2013, Pophillat 2016)	The mean emotional distress - anxiety - primary education in the intervention groups was **0.11 standard deviations lower** (0.30 lower to 0.16 higher)	319 (3 studies)	⊕⊕⊖⊖ **low**[1,3,5,6]	SMD -0.11 (-0.31 to 0.09)
Emotional distress - Anxiety - Secondary education (Roberts 2010)	The mean emotional distress - anxiety - secondary education in the intervention groups was **0.89 higher** (1.56 lower to 3.34 higher)	72 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,6]	MD 0.89 (-1.56 to 3.34)
Behavioural outcomes - Primary education (Pophillat 2016)	The mean behavioural outcomes - primary education in the intervention groups was **0.28 higher** (1.99 lower to 2.55 higher)	113 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,6]	SMD 0.28 (-1.99 to 2.55)
Behavioural outcomes - Secondary education (Roberts 2010)	The mean behavioural outcomes - secondary education in the intervention groups was **0.88 lower** (4.06 lower to 2.3 higher)	85 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,6]	MD -0.88 (-4.06 to 2.3)
Behavioural outcomes – Mix (Roberts 2017 (training only group), Roberts 2017 (training/coaching group))	The mean behavioural outcomes - mix in the intervention groups was **0.06 standard deviations lower** (0.46 lower to 0.34 higher)	697 (2 studies)	⊕⊕⊖⊖ **low**[1,3,5,6]	SMD -0.06 (-0.46 to 0.34)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

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[1] Serious concerns due to use of self-report outcome measure
[2] Not applicable - Single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] No concerns as 95%CI do not cross the line of no effect
[5] No concerns as I2 < 50%
[6] Serious concerns as 95%CI cross the line of no effect
[7] Serious concerns as I2 > 50%

1   FRIENDS for Life

FRIENDS for Life compared to Usual practice for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Usual practice	**FRIENDS for Life**				
Social and emotional skills: - Primary education (Stallard 2014 (health-led), Stallard 2014 (school-led))		The mean social and emotional skills: - primary education in the intervention groups was **0.07 standard deviations lower** (0.39 lower to 0.25 higher)		183 (2 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	SMD -0.07 (-0.39 to 0.25)
Emotional distress - Depression - Primary Education (Ahlen 2018, Stallard 2014 (health-led), Stallard 2014 (school-led))		The mean emotional distress - depression - primary education in the intervention groups was **0.08 standard deviations lower** (0.31 lower to 0.14 higher)		363 (3 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	SMD -0.08 (-0.31 to 0.14)
Emotional distress - Anxiety - Primary education (Ahlen 2018, Miller 2011, Stallard 2014 (health-led), Stallard 2014 (school-led))		The mean emotional distress - anxiety - primary education in the intervention groups was **0.16 standard deviations lower** (0.31 lower to 0.00 higher)		661 (4 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	SMD -0.16 (-0.31 to -0.00)
Behavioural outcomes - Primary education (Ahlen 2018)		The mean behavioural outcomes - primary education in the intervention groups was **0.5 lower** (1.13 lower to 0.13 higher)		134 (1 study)	⊕⊕⊖⊖ **low**[2,3,4,5]	MD -0.5 (-1.13 to 0.13)

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Academic outcomes - Primary education (Stallard 2014 (health-led, key stage 1), Stallard 2014 (health-led, key stage 2), Stallard 2014 (school-led, key stage 1), Stallard 2014 (school-led, key stage 2), Wigelsworth 2018)	The mean academic outcomes primary education in the intervention groups was **0.03 standard deviations lower** (0.11 lower to 0.04 higher)	3001 (5 studies)	⊕⊕⊕⊖ **moderate**[1,2,3,6]	SMD -0.03 (-0.11 to 0.04)
Quality of life - Primary education (Stallard 2014 (health-led), Stallard 2014 (school-led))	The mean quality of life - primary education in the intervention groups was **0.09 standard deviations higher** (0.24 lower to 0.42 higher)	175 (2 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	SMD 0.09 (-0.24 to 0.42)
Emotional distress – Anxiety and Depression - Primary education (Wigelsworth 2018)	The mean emotional distress – anxiety and depression – primary education in the intervention groups was **0.03 lower** (0.84 lower to 0.90 higher)	3010 (1 study)	⊕⊕⊖⊖ **low**[2,3,4,5]	MD 0.03 (-0.84 to 0.90)
Emotional distress – Stress - Primary education (Wigelsworth 2018)	The mean emotional distress – stress and depression – primary education in the intervention groups was **0.26 lower** (0.37 lower to 0.89 higher)	3010 (1 study)	⊕⊕⊖⊖ **low**[2,3,4,5]	MD 0.26 (-0.37 to 0.89)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] No concerns as I2 50%
[2] No concerns as population, intervention and outcome match review protocol
[3] Serious concerns as 95%CI cross line of no effect
[4] Serious concerns over risk of bias due to self-reported outcome measures
[5] Not applicable - single study analysis
[6] No concerns over risk of bias

1 I Think, Feel and Act

I Think, Feel and Act compared to Usual practice for SEW

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Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Usual practice I Think, Feel and Act					
Emotional distress – Depression (Araya 2013)		The mean emotional distress - depression in the intervention groups was **0.6 lower** (2.5 lower to 1.3 higher)		432 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.6 (-2.5 to 1.3)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

1 Williams LifeSkills

Williams LifeSkills compared to Usual practice for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Usual practice	Williams LifeSkills				
Emotional distress – Anxiety (Barnes 2012)		The mean emotional distress - anxiety in the intervention groups was **0.6 higher** (0.45 lower to 1.65 higher)		117 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 0.6 (-0.45 to 1.65)

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Behavioural outcomes (Barnes 2012)	The mean behavioural outcomes in the intervention groups was **1.4 lower** (3.02 lower to 0.22 higher)	117 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -1.4 (-3.02 to 0.22)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

1   Daily short stress management technique (SMT)

Daily short stress management technique (SMT) compared to Usual practice for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Usual practice	Daily short stress management technique (SMT)				
Emotional distress – Anxiety (Bothe 2014)		The mean emotional distress - anxiety in the intervention groups was **14.15 lower** (23.7 to 4.6 lower)		22 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,4]	MD -.14.15 (-23.7 to -4.6)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

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GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] No concerns as 95%CI do not cross the line of no effect

1   Dialectical behaviour therapy

Dialectical behaviour therapy compared to Usual practice for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Usual practice	**Dialectical behaviour therapy**				
Emotional distress – Depression (Burckhardt 2018)		The mean emotional distress - depression in the intervention groups was **1.17 higher** (0.43 lower to 2.77 higher)		89 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 1.17 (-0.43 to 2.77)
Emotional distress – Anxiety (Burckhardt 2018)		The mean emotional distress - anxiety in the intervention groups was **0.88 higher** (1.83 lower to 3.59 higher)		89 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 0.88 (-1.83 to 3.59)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

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¹ Serious concerns over risk of bias due to self-reported outcome measures
² Not applicable - single study analysis
³ No concerns as population, intervention and outcome match review protocol
⁴ Serious concerns as 95%CI cross line of no effect

1 Pozik-Bizi

Pozik-Bizi compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Pozik-Bizi				
Social and emotional skills: - Primary education (Garaigordobil 2019)		The mean social and emotional skills: in the intervention groups was **1.13 lower** (4.1 lower to 1.84 higher)		420 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -1.13 (-4.1 to 1.84)
Emotional distress - Depression - Primary education (Garaigordobil 2019)		The mean emotional distress - depression - primary education in the intervention groups was **4.04 lower** (10.36 lower to 2.28 higher)		420 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -4.04 (-10.36 to 2.28)
Behavioural outcomes - Primary education (Garaigordobil 2019)		The mean behavioural outcomes - primary education in the intervention groups was **2.46 lower** (4.66 to 0.26 lower)		420 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,5]	MD -2.46 (-4.66 to -0.26)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

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1   UP-A

UP-A compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	UP-A				
Emotional distress - Depression - Secondary education (Garcia-Escalera 2019)		The mean emotional distress - depression - secondary education in the intervention groups was **0.2 lower** (3.9 lower to 3.5 higher)		35 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.2 (-3.9 to 3.5)
Emotional distress - Anxiety - Secondary education (Garcia-Escalera 2019)		The mean emotional distress - anxiety - secondary education in the intervention groups was **1.46 lower** (6.25 lower to 3.33 higher)		28 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -1.46 (-6.25 to 3.33)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

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1   Cognitive-behavioural program

Cognitive-behavioural program compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk Corresponding risk					
	Control	Cognitive-behavioural program				
Social and emotional skills: (Horowitz 2007a)		The mean social and emotional skills: in the intervention groups was **1.23 lower** (3.66 lower to 1.2 higher)		230 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -1.23 (-2.66 to 1.2)
Emotional distress – Depression (Horowitz 2007a)		The mean emotional distress – depression in the intervention groups was **3.59 lower** (5.73 to 1.45 lower)–		230 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,5]	MD -3.59 (-5.73 to -1.45)
Behavioural outcomes (Horowitz 2007a)		The mean behavioural outcomes in the intervention groups was **0.34 lower** (1.76 lower to 1.08 higher)		230 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.34 (-1.76 to 1.08)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as 95%CI do not cross the line of no effect

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1 IPT-AST

IPT-AST compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	IPT-AST				
Social and emotional skills: (Horowitz 2007b)		The mean social and emotional skills: in the intervention groups was **1.06 lower** (3.4 lower to 1.28 higher)		226 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -1.06 (-3.4 to 1.28)
Emotional distress – Depression (Horowitz 2007b)		The mean emotional distress - depression in the intervention groups was **2.31 lower** (4.54 to 0.08 lower)		226 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -2.31 (-4.54 to -0.08)
Behavioural outcomes (Horowitz 2007b)		The mean behavioural outcomes in the intervention groups was **0.03 higher** (1.46 lower to 1.52 higher)		226 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 0.03 (-1.46 to 1.52)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

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1 Op Volle Kracht (OVK)

Op Volle Kracht (OVK) compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Op Volle Kracht (OVK)				
Social and emotional skills: - Primary education (Tak 2016)		The mean social and emotional skills: - primary education in the intervention groups was **0.61 lower** (2.03 lower to 0.81 higher)		207 (1 study)	⊕⊕⊝⊝ **low**[1,2,3,4]	SMD -0.61 (-2.03 to 0.81)
Emotional distress - Depression - Secondary education (Kindt 2014, Tak 2016)		The mean emotional distress - depression - secondary education in the intervention groups was **0.08 standard deviations higher** (0.09 lower to 0.24 higher)		567 (2 studies)	⊕⊕⊝⊝ **low**[1,3,4,5]	SMD 0.08 (-0.09 to 0.24)
Academic outcomes - Secondary education (Tak 2016)		The mean academic outcomes - secondary education in the intervention groups was **0.17 higher** (0.1 lower to 0.44 higher)		207 (1 study)	⊕⊕⊕⊝ **moderate**[2,3,4,6]	MD 0.17 (-0.1 to 0.44)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as I2 <50%
[6] No concerns over risk of bias due to standardised outcome measures

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1   SPARX-R gaming intervention

SPARX-R gaming intervention compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	SPARX-R gaming intervention				
Emotional distress - Depression - Secondary education (Kuosmanen 2017, Perry 2017)		The mean emotional distress - depression - secondary education in the intervention groups was **0.3 standard deviations lower** (0.72 lower to 0.11 higher)		94 (2 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	SMD -0.3 (-0.72 to 0.11)
Emotional distress - Anxiety - Secondary education (Kuosmanen 2017, Perry 2017)		The mean emotional distress - anxiety - secondary education in the intervention groups was **0.27 standard deviations lower** (0.69 lower to 0.15 higher)		91 (2 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	SMD -0.27 (-0.69 to 0.15)
Behavioural outcomes - Secondary education (Kuosmanen 2017)		The mean behavioural outcomes - secondary education in the intervention groups was **0.7 lower** (3.68 lower to 2.28 higher)		21 (1 study)	⊕⊕⊖⊖ **low**[1,3,4,5]	MD -0.7 (-3.68 to 2.28)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] No concerns as I2 <50%
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] Not applicable - single study analysis

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1 LARS&LISA

LARS&LISA compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	**LARS&LISA**				
Emotional distress - Depression – Male (Possel 2008, Possel 2011)		The mean emotional distress - depression - male in the intervention groups was **0.03 standard deviations higher** (0.31 lower to 0.38 higher)		130 (2 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	SMD 0.03 (-0.31 to 0.38)
Emotional distress - Depression – Female (Possel 2008, Possel 2011)		The mean emotional distress - depression - female in the intervention groups was **0.18 standard deviations lower** (0.53 lower to 0.17 higher)		127 (2 studies)	⊕⊕⊖⊖ **low**[1,2,3,4]	SMD -0.18 (-0.53 to 0.17)
Emotional distress - Depression - Male and female (Possel 2013)		The mean emotional distress - depression - male and female in the intervention groups was **0.02 higher** (2.7 lower to 2.74 higher)		158 (1 study)	⊕⊕⊖⊖ **low**[1,3,4,5]	MD 0.02 (-2.7 to 2.74)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] No concerns as I2 <50%
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] Not applicable - single study analysis

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1 **Resourceful adolescent programme (RAP)**

Resourceful adolescent programme (RAP) compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Resourceful adolescent programme (RAP)				
Social and emotional skills: - Secondary education (Stallard 2013)		The mean social and emotional skills: - secondary education in the intervention groups was **0.26 higher** (0.64 lower to 1.16 higher)		590 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 0.26 (-0.64 to 1.16)
Emotional distress - Depression - Secondary education (Stallard 2013)		The mean emotional distress - depression - secondary education in the intervention groups was **0.14 standard deviations higher** (0.02 lower to 0.29 higher)		691 (2 studies)	⊕⊕⊖⊖ **low**[1,3,4,5]	SMD 0.14 (-0.02 to 0.29)
Quality of life - Secondary education (Stallard 2013)		The mean quality of life - secondary education in the intervention groups was **0.08 standard deviations higher** (0.07 lower to 0.24 higher)		661 (2 studies)	⊕⊕⊖⊖ **low**[1,3,4,5]	SMD 0.08 (-0.07 to 0.24)
Emotional distress - Anxiety - Secondary education (Stallard 2013)		The mean emotional distress - anxiety - secondary education in the intervention groups was **0.43 higher** (0.02 lower to 0.88 higher)		590 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 0.43 (-0.02 to 0.88)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis

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[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as I2 <50%

1   **Resourceful adolescent programme-Peer interpersonal relatedness (RAP-PIR)**

Resourceful adolescent programme-Peer interpersonal relatedness (RAP-PIR) compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	**Resourceful adolescent programme-Peer interpersonal relatedness (RAP-PIR)**				
Emotional distress - Depression - Secondary education (Rose 2014)		The mean emotional distress - depression - secondary education in the intervention groups was **0.03 lower** (3.32 lower to 3.26 higher)		105 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.03 (-3.32 to 3.26)
Quality of life - Secondary education (Rose 2014)		The mean quality of life - secondary education in the intervention groups was **0.06 lower** (0.48 lower to 0.36 higher)		105 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.06 (-0.48 to 0.36)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

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1 Acceptance-based behavioural program

Acceptance-based behavioural program compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Acceptance-based behavioural program				
Social and emotional skills: - Secondary education (Theodore-Oklota 2014)		The mean social and emotional skills: - secondary education in the intervention groups was **0.73 lower** (2.96 lower to 1.5 higher)		18 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.73 (-2.96 to 1.5)
Behavioural outcomes - Secondary education (Theodore-Oklota 2014)		The mean behavioural outcomes - secondary education in the intervention groups was **0.91 lower** (14.73 lower to 12.91 higher)		40 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.91 (-14.73 to 12.91)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

2 Uplifting our Health and Wellbeing

Uplifting our Health and Wellbeing compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)	Comments

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	Assumed risk	Corresponding risk	Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	
	Control	Uplifting our Health and Wellbeing				
Social and emotional skills: - Secondary education (Tokolahi 2018)		The mean social and emotional skills: - secondary education in the intervention groups was **0.3 lower** (7.1 lower to 6.5 higher)		71 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.3 (-7.1 to 6.5)
Emotional distress - Depression - Secondary education (Tokolahi 2018)		The mean emotional distress - depression - secondary education in the intervention groups was **1.40 higher** (2.80 lower to 5.60 higher)		94 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 1.40 (-2.80 to 5.60)
Emotional distress - Anxiety - Secondary education (Tokolahi 2018)		The mean emotional distress - anxiety - secondary education in the intervention groups was **7.2 higher** (1.48 to 12.92 higher)		132 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,5]	MD 7.2 (1.48 to 12.92)
Quality of life - Secondary education (Tokolahi 2018)		The mean quality of life - secondary education in the intervention groups was **0.05 higher** (4.42 lower to 4.52 higher)		44 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 0.05 (-4.42 to 4.52)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as 95%CI do not cross the line of no effect

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1 Acceptance and commitment therapy (ACT)

Acceptance and commitment therapy (ACT) compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Acceptance and commitment therapy (ACT)				
Social and emotional skills: - Secondary education (Van der Gucht 2017)		The mean social and emotional skills: - secondary education in the intervention groups was **0.53 lower** (1.11 lower to 0.05 higher)		118 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.53 (-0.65 to 0.25)
Emotional distress – Anxiety (Van der Gucht 2017)		The mean emotional distress - anxiety in the intervention groups was **0.2 lower** (0.65 lower to 0.25 higher)		200 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.2 (-0.65 to 0.25)
Quality of life (Van der Gucht 2017)		The mean quality of life in the intervention groups was **0.47 lower** (1.39 lower to 0.45 higher)		112 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.47 (-1.39 to 0.45)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

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1 Take Action Program

Take Action Program compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Take Action Program				
Social and emotional skills: - Primary education (Waters 2015)		The mean social and emotional skills: - primary education in the intervention groups was **2 lower** (4.28 lower to 0.28 higher)		151 (1 study)	⊕⊕⊝⊝ **low**[1,2,3,4]	MD -2.0 (-04.28 to 0.28)
Emotional distress - Depression - Primary education (Waters 2019)		The mean emotional distress - depression - primary education in the intervention groups was **0.06 lower** (0.64 lower to 0.52 higher)		48 (1 study)	⊕⊕⊝⊝ **low**[1,2,3,4]	MD -0.06 (-0.64 to 0.52)
Emotional distress - Anxiety - Primary education (Waters 2015, Waters 2019)		The mean emotional distress - anxiety in the intervention groups was **0.29 standard deviations lower** (0.54 to 0.04 lower)	Not estimable	0 (2 studies)	⊕⊕⊕⊝ **moderate**[1,3,5,6]	SMD -0.29 (-0.54 to -0.04)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as I2 <50%
[6] No concerns as 95%CI do not cross the line of no effect

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1 Positive Search Training

Positive Search Training compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	**Positive Search Training**				
Emotional distress - Depression - Primary education (Waters 2019)		The mean emotional distress - depression - primary education in the intervention groups was **0.27 higher** (0.31 lower to 0.85 higher)		48 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 0.27 (-0.31 to 0.85)
Emotional distress - Anxiety - Primary education (Waters 2019)		The mean emotional distress - anxiety - primary education in the intervention groups was **0.38 lower** (1.67 lower to 0.91 higher)		46 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.38 (-1.67 to 0.91)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

2 Thiswayup Schools - Depression course

Thiswayup Schools - Depression course compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)	Comments

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	Assumed risk	Corresponding risk	Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	
	Control	**Thiswayup Schools - Depression course**				
Emotional distress - Depression - Secondary education (Wong 2014)		The mean emotional distress - depression - secondary education in the intervention groups was **0.35 lower** (1.77 lower to 1.07 higher)		47 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.35 (-1.77 to 1.07)
Emotional distress - Anxiety - Secondary education (Wong 2014)		The mean emotional distress - anxiety - secondary education in the intervention groups was **0.94 lower** (2.84 lower to 0.96 higher)	Not estimable	45 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.94 (-2.84 to 0.96)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

1   Thiswayup Schools - Anxiety course

Thiswayup Schools - Anxiety course compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	**Thiswayup Schools - Anxiety course**				

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Emotional distress - Depression - Secondary education (Wong 2014)	The mean emotional distress - depression - secondary education in the intervention groups was **0.12 lower** (1.63 lower to 1.39 higher)	41 (1 study)	⊕⊕⊖⊖ low[1,2,3,4]	MD -0.12 (-1.63 to 1.39)
Emotional distress - Anxiety - Secondary education (Wong 2014)	The mean emotional distress - anxiety - secondary education in the intervention groups was **0.58 lower** (2.6 lower to 1.44 higher)	39 (1 study)	⊕⊕⊖⊖ low[1,2,3,4]	MD -0.58 (-2.6 to 1.44)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

1 E-couch Anxiety and Worry program

E-couch Anxiety and Worry program compared to Control for SEW

Patient or population: patients with SEW
Settings:
Intervention: E-couch Anxiety and Worry program
Comparison: Control

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	E-couch Anxiety and Worry program				

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	Illustrative comparative risks		No of Participants (studies)	Quality of the evidence (GRADE)	Relative effect (95% CI)
Emotional distress – Anxiety (Calear 2016a (health service), Calear 2016a (school), Calear 2016b)	The mean emotional distress - anxiety in the intervention groups was **0.04 standard deviations higher** (0.13 lower to 0.22 higher)		617 (3 studies)	⊕⊕⊝⊝ **low**[1,2,3,4]	SMD 0.04 (-0.13 to 0.22)
Emotional distress – Depression (Calear 2016a (health service), Calear 2016a (school), Calear 2016b)	The mean emotional distress - depression in the intervention groups was **0.02 standard deviations higher** (0.16 lower to 0.19 higher)		617 (3 studies)	⊕⊕⊝⊝ **low**[1,2,3,4]	SMD 0.02 (-0.16 to 0.19)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] No concerns as I2 <50%
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

1   Taming Worry Dragons (TWD)

Taming Worry Dragons (TWD) compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Taming Worry Dragons (TWD)				
Emotional distress - Anxiety - Primary education (Miller 2010)		The mean emotional distress - anxiety - primary education in the intervention groups was **3.83 higher** (5.4 lower to 13.06 higher)		33 (1 study)	⊕⊕⊝⊝ **low**[1,2,3,4]	MD 3.83 (-5.4 to 13.06)

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*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

1   Finding Space

Finding Space compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	**Finding Space**				
Social and emotional skills: (Campos 2018)		The mean social and emotional skills: in the intervention groups was **2.99 lower** (7.9 lower to 1.92 higher)		84 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -2.99 (-7.9 to 1.92)
Behavioural outcomes (Campos 2018)		The mean behavioural outcomes in the intervention groups was **0.12 lower** (0.98 lower to 0.74 higher)		161 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.12 (-0.98 to 0.74)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

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GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

1 CBT

CBT compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	CBT				
Social and emotional skills: (Collins 2014 (psychologist-led), Collins 2014 (teacher-led))		The mean social and emotional skills: in the intervention groups was **1.90 standard deviations lower** (2.57 to 1.23 lower)		72 (2 studies)	⊕⊕⊕⊖ **moderate**[1,2,3,4]	SMD -1.90 (-2.57 to -1.23)
Emotional distress – Anxiety (Collins 2014 (psychologist-led), Collins 2014 (teacher-led))		The mean emotional distress - anxiety in the intervention groups was **0.96 standard deviations lower** (1.53 to 0.40 lower)		84 (2 studies)	⊕⊕⊕⊖ **moderate**[1,2,3,4]	SMD -0.96 (-1.53 to -0.4)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

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[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] No concerns as I2 <50%
[3] No concerns as population, intervention and outcome match review protocol
[4] No concerns as 95%CI do not cross the line of no effect

1   Establishing goals and problem solving

Establishing goals and problem solving programme compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	**Establishing goals and problem solving programme**				
Social and emotional skills: - Secondary education (Gigantesco 2015)		The mean social and emotional skills: - secondary education in the intervention groups was **0.5 lower** (3.03 lower to 2.03 higher)		69 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.5 (-3.03 to 2.03)
Quality of life - Secondary education (Gigantesco 2015)		The mean quality of life - secondary education in the intervention groups was **0.6 lower** (3.25 lower to 2.05 higher)		65 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.6 (-3.25 to 2.05)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

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1 HeadStrong

HeadStrong compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	HeadStrong				
Social and emotional skills: - Secondary education (Perry 2014)		The mean social and emotional skills: - secondary education in the intervention groups was **1.18 lower** (3.66 lower to 1.3 higher)		39 (1 study)	⊕⊕⊝⊝ **low**[1,2,3,4]	MD -1.18 (-3.66 to 1.3)
Emotional distress - Depression and Anxiety - Secondary education (Perry 2014)		The mean emotional distress - depression and anxiety - secondary education in the intervention groups was **1.61 lower** (12.66 lower to 9.44 higher)		59 (1 study)	⊕⊕⊝⊝ **low**[1,2,3,4]	MD -1.61 (-12.66 to 9.44)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

2 Child-centred group play therapy (CCGPT)

Child-centred group play therapy (CCGPT)vs Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)	Comments

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	Assumed risk	Corresponding risk	Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	
	Control	Child-centred group play therapy (CCGPT)vs Control				
Social and emotional skills: (Cheng 2016)		The mean social and emotional skills: in the intervention groups was **0.95 lower** (6.88 lower to 4.98 higher)		38 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.95 (-6.88 to 4.98)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

1 Empower Youth Program

Empower Youth Program compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Empower Youth Program				
Emotional distress - Depression - Secondary education (Nash 2007)		The mean emotional distress - depression - secondary education in the intervention groups was **0.05 higher** (0.15 lower to 0.25 higher)		40 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 0.05 (-0.15 to 0.25)

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	Illustrative comparative risks		Relative effect	No of Participants	Quality of the evidence	Comments
Emotional distress - Anxiety - Secondary education (Nash 2007)	The mean enotional distress - anxiety - secondary education in the intervention groups was **0.13 lower** (0.48 lower to 0.22 higher))			40 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.13 (-0.48 to 0.22)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

1   BePART

BePART compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	**BePART**				
Social and emotional skills: - Secondary education (Putwain 2019)		The mean social and emotional skills: - secondary education in the intervention groups was **0.15 lower** (0.25 to 0.05 lower)		534 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,4]	MD -0.15 (-0.25 to -0.05)
Emotional distress - Stress - Secondary education (Putwain 2019)		The mean emotional distress - stress - secondary education in the intervention groups was **0.13 lower** (0.26 lower to 0 higher)		534 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,5]	MD -0.13 (-0.26 to 0)

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	Illustrative comparative risks* (95% CI)	Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
Behavioural outcomes - Secondary education (Putwain 2019)	The mean behavioural outcomes - secondary education in the intervention groups was **0.04 lower** (0.11 lower to 0.03 higher)		534 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,5]	MD -0.04 (-0.11 to 0.03)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] No concerns as 95%CI do not cross the line of no effect
[5] Serious concerns as 95%CI cross line of no effect

1 Child protection education programme

Child protection education programme compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	**Child protection education programme**				
Social and emotional skills: (Dale 2016)		The mean social and emotional skills: in the intervention groups was **1.8 lower** (2.33 to 1.27 lower)		245 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,4]	MD -1.8 (-2.33 to -1.27)
Behavioural outcomes (Dale 2016)		The mean behavioural outcomes in the intervention groups was **3.49 lower** (5.48 to 1.5 lower)		117 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,4]	MD -3.49 (-5.48 to -1.5)

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*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] No concerns as 95%CI do not cross the line of no effect

1 Tools For Getting Along

Tools For Getting Along compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Tools For Getting Along				
Social and emotional skills: (Daunic 2012)		The mean social and emotional skills: in the intervention groups was **3.11 lower** (5.22 to 1 lower)		60 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,4]	MD -3.11 (-5.22 to -1.0)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

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[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] No concerns as 95%CI do not cross the line of no effect

1   Expressive writing and psychoeducation

Expressive writing and psychoeducation compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Expressive writing and psychoeducation				
Emotional distress - Stress - Secondary education (Horn 2011)		The mean emotional distress - stress - secondary education in the intervention groups was **1.29 lower** (2.81 lower to 0.23 higher)		328 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -1.29 (-2.81 to 0.23)
Behavioural outcomes - Secondary education (Horn 2011)		The mean behavioural outcomes - secondary education in the intervention groups was **1.21 lower** (2.44 lower to 0.02 higher)		1017 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -1.21 (-2.44 to 0.02)
Academic outcomes - Secondary education (Horn 2011)		The mean academic outcomes - secondary education in the intervention groups was **0 higher** (0.21 lower to 0.21 higher)		169 (1 study)	⊕⊕⊕⊖ **moderate**[2,3,4,5]	MD 0 (-0.21 to 0.21)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

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[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns over risk of bias due to standardised outcome measures

1 Coping Power Universal

Coping Power Universal compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	**Coping Power Universal**				
Emotional distress - Primary education (Muratori 2017, Muratori 2019)		The mean emotional distress - primary education in the intervention groups was **0.3 standard deviations lower** (0.58 to 0.02 lower)		1317 (2 studies)	⊕⊕⊝⊝ **low**[1,2,3,4]	SMD -0.3 (-0.58 to -0.02)
Behavioural outcomes - Primary education (Muratori 2017, Muratori 2019)		The mean behavioural outcomes - primary education in the intervention groups was **0.17 standard deviations lower** (0.31 to 0.03 lower)		788 (2 studies)	⊕⊕⊕⊝ **moderate**[1,3,4,5]	SMD -0.17 (-0.31 to -0.03)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Serious concerns as I2 >50%
[3] No concerns as population, intervention and outcome match review protocol

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1 Emotion Regulation

Emotion regulation compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	**Emotion regulation**				
Social and emotional skills: - Mixed (Johnstone 2020)		The mean social and emotional skills: - mixed in the intervention groups was **0.25 lower** (6.33 lower to 5.83 higher)		13 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.25 (-6.33 to 5.83)
Emotional distress - anxiety/depression – Mixed (Johnstone 2020)		The mean emotional distress - anxiety/depression - mixed in the intervention groups was **9.78 lower** (22.07 lower to 2.51 higher)		88 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -9.78 (-22.07 to 2.51)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

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1 Behavioural Activation

Behavioural activation compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Behavioural activation				
Social and emotional skills: - Mixed (Johnstone 2020)		The mean social and emotional skills: - mixed in the intervention groups was **0.64 lower** (7.07 lower to 5.79 higher)		10 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -0.64 (-7.07 to 5.79)
Emotional distress - Anxiety/Depression – Mixed (Johnstone 2020)		The mean emotional distress - anxiety/depression - mixed in the intervention groups was **3.91 higher** (12.41 lower to 20.23 higher)		27 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD 3.91 (-12.41 to 20.23)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over riskof bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

2 Computerised Enhanced Psychological Mindset Intervention

Computerised enhanced psychological mindset intervention compared to Control for SEW

Outcomes	Illustrative comparative risks* (95% CI)	Comments

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	Assumed risk	Corresponding risk	Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	
	Control	**Computerised enhanced psychological mindset intervention**				
Social and emotional skills: - Secondary education (Perkins 20201)		The mean social and emotional skills: - secondary education in the intervention groups was **1.92 lower** (4.07 lower to 0.23 higher)		80 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -1.92 (-4.07 to 0.23)
Emotional distress - anxiety - Secondary education (Perkins 20201)		The mean emotional distress - anxiety - secondary education in the intervention groups was **3.59 lower** (6.07 to 1.11 lower)		80 (1 study)	⊕⊕⊕⊖ **moderate**[1,2,3,5]	MD -3.59 (-6.07 to -1.11)
Emotional distress - depression - Secondary education (Perkins 20201)		The mean emotional distress - depression - secondary education in the intervention groups was **1.3 lower** (3.79 lower to 1.19 higher)		80 (1)	⊕⊕⊖⊖ **low**[1,2,3,4]	MD -1.3 (-3.79 to 1.19)

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as 95%CI do not cross the line of no effect

1

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1 **Positive writing intervention**

Positive writing intervention for SEW

Patient or population: patients with SEW
Settings:
Intervention: Positive writing intervention

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE) Comments
	Assumed risk **Control**	Corresponding risk **Positive writing intervention**			
Social and emotional skills (Reiter 2016)		The mean social and emotional skills in the intervention groups was **0.88 higher** (0.65 to 1.18 higher)		77 (1 study)	⊕⊕⊖⊖ **low**[1,2,3]
Emotional distress (Reiter 2016)		The mean emotional distress in the intervention groups was **1.01 higher** (0.75 to 1.36 higher)		77 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]
Behavioural outcomes (Reiter 2016)		The mean behavioural outcomes in the intervention groups was **1.06 higher** (0.79 to 1.42 higher)		77 (1 study)	⊕⊕⊖⊖ **low**[1,2,3,4]

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval;

GRADE Working Group grades of evidence
High quality: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low quality: We are very uncertain about the estimate.

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] N/A - single study
[3] Serious concerns as 95% CI cross line of no effect
[4] Study met inclusion criteria in PICO

2

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1.1.7 Economic evidence

A guideline wide search of published cost-effectiveness evidence was carried out for review questions 1.1, 3.1, 4.1, 5.1 and 6.1. There were no eligible studies for RQ 4.1 or 6.1.

1.1.7.1 Included studies

3504 records were assessed against eligibility criteria.

3433 records were excluded based on information in the title and abstract. Two reviewers assessed all the records. The level of agreement between the two reviewers was 100%.

The full-text papers of 71 documents were retrieved and assessed. 15 papers were assessed as meeting the eligibility criteria. However, this accounted for 13 distinct studies since some papers used the same underlying data. For RQ 3.1, 9 studies (11 papers) were included. Two reviewers assessed all full-text papers. The level of agreement between the two reviewers was 100%.

The study selection process can be found in Appendix G and economic evidence tables found in Appendix H.

1.1.7.2 Excluded studies

56 full text documents were excluded for this guideline. The documents and the reasons for their exclusion are listed in Appendix J – Excluded studies.

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1.1.8 Summary of included economic evidence

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Table 3: Summary of the studies included in the economic evidence review for universal classroom-based interventions (RQ 3.1)

Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	**Effects**	**Cost-effectiveness**	
Anderson (2014) A classroom-based cognitive behavioural therapy (CBT), Resourceful Adolescent Programme (RAP) vs. usual personal, social, health and economic (PSHE) education	Minor limitations [a]	Directly applicable	The study conducted a cost-effectiveness analysis (CEA) based on a randomised control trial in the UK. The primary outcomes were the Short Mood and Feelings Questionnaire (SMFQ) [b] and the EQ-5D which was used to calculate QALYs. *Full details of the RCT, including CEA, are published in Health Technology Assessment (Stallard, 2013) [c].*	**Total incremental cost per person; adjusted mean, £ (95% CI):** Classroom-based CBT vs. usual PSHE 142 (-132 to 415) (£163 GBP 2020[d])	**Total incremental effects per person; adjusted mean (95% CI):** **SMFQ score** Classroom-based CBT vs. usual PSHE 0.19 (-0.57 to 0.95) **QALYs** Classroom-based vs. usual PSHE -0.05 (-0.09 to -0.005)	**ICER; adjusted, £:** Classroom-based CBT is more costly and less effective than usual school provision, with respect to both SMFQ and QALYs	The incremental costs and effects were very small and uncertain (with the 95% CI spanning zero for both costs and SMFQ score).

Abbreviations: CBT: cognitive-behavioural therapy; CEA: cost-effectiveness analysis; CI: confidence interval; ICER: incremental cost-effectiveness ratio; PSHE: Personal, Social, Health and Economic education; QALY: quality-adjusted life year; RAP: Resourceful Adolescent Programme; RCT: randomised controlled trial; SMFQ: Short Mood and Feelings Questionnaire

    a.   The short trial time horizon may not have captured the full effects of the intervention and there was a lack of sensitivity analysis.

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Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	

b.	Total SMFQ score calculated at 12 months. Elevated symptoms of depression were defined as a score of ≥ 5 hence a lower score on the SMFQ indicates better outcomes.			
c.	The findings reported in Anderson (2014) were based on analyses of multiple imputed data and the findings reported in Stallard (2013) were based on complete case analysis. Hence, despite using the same trial data, the cost-effective result of Anderson (2014) and Stallard (2013) differ but the overall conclusions remain the same.			
d.	Converted by the reviewer using historical exchange rates and PSSRU inflation indices			

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Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
Ford (2019) Incredible Years Teacher Classroom Management (TCM) delivered to teacher over 6 whole-day sessions to improve children's mental health vs. teaching as usual (TAU)	Minor limitations [a]	Directly applicable	The study conducted cost-effectiveness analysis alongside a randomised control trial (RCT) with a 30-month time horizon from a public sector perspective in the UK. The primary outcome was the Strengths and Difficulties Questionnaire (SDQ) – Total Difficulties score [b].	**Total incremental costs per person; mean £:** TCM vs. TAU Unadjusted [c] -3.98 Adjusted [d] 30.24 (£34 GBP 2020[f])	**Incremental SDQ - Total Difficulties score; mean:** TCM vs. TAU Unadjusted [c] -0.22 Adjusted [d] -0.54 *A decrease indicates an improvement in mental health.*	**ICER; £:** TCM vs. TAU -29.70 per unit improvement in SDQ (£32 GBP 2020[f]) TCM dominates TAU (lower cost and better outcomes) [e]	Cost-effectiveness acceptability curves suggest the probability of the intervention being cost-effective compared with TAU ranges from 40% at a zero willingness to pay (WTP) for a unit improvement in SDQ-Total Difficulties score, to nearly 80% at a £5,000 WTP (£5,420 GBP 2020f) threshold. Additional scenario analysis did not significantly change the results at the £5,000 WTP threshold.

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Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
Abbreviations: ICER: incremental cost-effectiveness ratio; SDQ: Strengths and Difficulties Questionnaire: TAU: teaching as usual; TCM: Teacher Classroom Management; WTP: willingness to pay							
a. The trial may not have captured the full effects of the intervention since children were exposed to the TCM strategies for a relatively short time period. The trial followed children, rather than teachers.							
b. A widely used measure of mental health in childhood (Goodman, 2001). Scores range from 0 to 40 with higher scores indicating poorer mental health.							
c. Unadjusted mean difference based on complete cases (n = 1007).							
d. Partially adjusted for pre-specified potential confounders (cohort, child gender, and the three school/class level factors used to balance randomisation) and for baseline costs and outcomes, as appropriate.							
e. It is unclear which values were used to generate the ICER. The reviewer was unable to replicate the calculation and disagree with the statement that TCM dominates TAU based on the reported values since adjusted costs are higher in the TCM group.							
f. Converted by the reviewer using historical exchange rates and PSSRU inflation indices (2014)							

1

Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
Garmy (2019) Depression in Swedish Adolescents (DISA), a school-based cognitive-behavioural depression prevention program vs. a control group without mental health programs in their school curriculum	Minor limitations [a]	Partly applicable [b]	The study conducted cost-effectiveness analysis alongside a quasi-experimental trial with a 12-month time horizon in Sweden. The perspective is unclear. The outcomes include the Center for Epidemiological Studies Depression Scale (CES-D) [c] and the Euro Qol (EQ) visual analogue scale (VAS) [d] to calculated QALYs.	**Incremental intervention costs per person [e]; $:** Intervention vs. control 250 (£165 GBP 2020[f])	**Incremental QALYs per person:** Intervention vs. control 0.04	**ICER; $:** Intervention vs. control 6,250 per QALY gained (£4,105 GBP 2020[f])	Assuming 50% higher costs, the cost per QALY gained was $9,375. (£6,178 GBP 2020[f]) Assuming 50% lower effect, the cost per QALY gained was $12,500. (£8,212 GBP 2020[f])

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Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
Abbreviations: CES-D: Center for Epidemiological Studies Depression Scale; DISA: Depression in Swedish Adolescents; EQ: Euro Qol; ICER: incremental cost-effectiveness ratio; QALY: quality-adjusted life-year; VAS: visual analog scale							
a. The trial time-horizon may not have captured the full effects of the intervention. Only costs relating to the intervention were included.							
b. The intervention considered is relevant to the UK context, but caution is required when transferring the results of the study given the difference in prices and healthcare systems between the UK and the Sweden. The perspective of the study is not clear and costs and outcomes from other sectors were not measured.							
c. The CES-D is a self-reported measure of depressive symptoms occurring during the previous week with score ranging from 0 to 60. Higher scores indicated more depressive symptoms, with a threshold value to be at risk for depression of 20 points.							
d. The EQ-VAS measure self-rated health on a particular day using a vertical VAS ranging from 0 to 100. Higher scores indicate better self-rated health.							
e. The control group were assumed to have no intervention costs. Other costs were not considered.							
f. Converted by the reviewer using historical exchange rates and PSSRU inflation indices							

1

Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
Humphrey (2018) Promoting Alternative Thinking Strategies (PATHS)[a] to develop children's social and emotional skills vs. usual practice	Minor limitations [b]	Directly applicable	The study conducted cost-effectiveness analysis alongside a cluster-randomised controlled trial (RCT) with a 2-year time horizon [c] from a policy-maker perspective in the UK. The outcome was the Child Health Utility Nine-Dimension (CHU-9D) utility value which was used to calculate QALYs. The incremental net benefit (INB) was reported using a cost-effectiveness threshold of £20,000 per QALYs and intervention costs [d].	**Incremental intervention costs per person** [c]**; mean, £:** PATHS vs. usual practice 29.93 (£32 GBP 2020[g])	**Incremental QALYs per person (95% CI); adjusted** [f] **mean:** PATHS vs. usual practice 0.0019 (0.0009 to 0.0029)	**Incremental net benefit (95% CI); £:** 7.64 per child (12.60 to 27.89) (£8 GBP)	The probability of the intervention being cost-effective (i.e. a positive INB) compared with usual practice was 88% and 99% at a threshold of £20,000 per QALY and £30,000 per QALY, respectively.

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Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
			CEA based on the same RCT was also conducted by Turner (2019) [e].				

Abbreviations: CHU-9D: Child Health Utility Nine-Dimension; CI: confidence interval; ICER: incremental cost-effectiveness ratio; INB: incremental net benefit; PATHS: Promoting Alternative Thinking Strategies; QALY: quality-adjusted life year; RCT: randomised controlled trial;

a. The aim of PATHS is to promote self-control, emotional understanding, positive self-esteem, relationships and interpersonal problem-solving skills among children in pre-school and primary education settings through the provision of a taught curriculum.

b. Minor limitations include: the lack of resource use data including costs of resources such as educational psychologists and external health services; the benefits in other sectors than health were not captured; there was a short time horizon which led to the constraint of the evaluation, and there were some risks to the study's external validity.

c. A 5-year intervention life was assumed. All non-recurrent cost were annuitized for the 2-year trial period.

d. Incremental cost-effectiveness ratios (ICERs) suffer a serious drawback if either element of the ratio is close to zero. Since PATHS led to, at best, small improvements in outcomes, small incremental QALY estimates were possible. As a result, INBs was calculated.

e. Despite using the same trial data, the costs reported in Humphrey (2018) and Turner (2019) differ due to the use of different cost years but the overall conclusions remain the same.

f. Adjusted for baseline CHU-9D health-related quality of life, and child- and school-level covariates in a random intercept model.

g. Converted by the reviewer using historical exchange rates and PSSRU inflation indices

1

Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
Hunter (2018) The Social Skills Improvement System - Classwide Intervention Program (SSIS-CIP) is a 10-unit structured general	Potentially serious limitations [b]	Partly applicable [c]	The study provides an overview of cost-effectiveness methods for school-based programs, and a cost-effectiveness analysis (CEA) of a universal social–emotional learning program in the US. The CEA focused on student social skills measured by the	**Incremental intervention costs per person** [e]**; mean \$:** Intervention vs. control 18.99 (14 GBP 2020[g])	**Hedges' g effect size** [f] **(95% CI):** Intervention vs. control First grade 0.18 (0.03 to 0.33) Second grade 0.36	**ICER; \$ (95% CI):** **Per student to achieve a hypothetical 1-unit change in teacher-rated social skills:** First grade 105.50 (£74 GBP 2020[g])	Not reported

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Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
education curriculum intended to positively impact social skills and reduce problem behaviour in the classroom [a] vs. a business-as-usual control group			SSIS Teacher Rating Scale composite score [d]. This is used to derive hedges' g effect size [f] and improvement index (%). Specifically, the study compared the CE of SSIS-CIP implementation across first- and second-grade classrooms.		(0.17 to 0.55) **Improvement index; %:** Intervention vs. control First grade 7.14 Second grade 14.06	(57.55 to 633.00) Second grade 52.75 (£37 GBP 2020[g]) (34.53 to 111.17) **Per 1 percentile point increase in average student's social skills:** First grade 2.66 Second grade 1.35	

Abbreviations: CEA: cost-effectiveness analysis; CI: confidence interval; ICER: incremental cost-effectiveness ratio; SSIS – CIP: social skills improvement system - classwide intervention program

a. Although the SSIS-CIP was developed so it could be implemented without formal training, intervention teachers participated in a 4-hr training led by research team members to support implementation
b. Details of the multiyear efficacy study of the SSIS-CIP (DiPerna et al., 2015, 2016, 2018) were not provided. Only costs relating to the intervention were included. Sensitivity analysis was not explored.
c. The intervention considered is relevant to the UK context, but caution is required when transferring the results of the study given the difference in prices and healthcare systems between the UK and the US. The perspective of the study is not clear and costs and outcomes from other sectors were not measured.
d. The Social Skills scale includes 46 items that are rated using a 4-point format ranging from 'Never' to 'Almost Always'.
e. Only costs relating to the intervention were included. Intervention costs for the control group were assumed to be zero.
f. Hedges' g is a standardized mean difference used to measure effect size. A score of 1 indicates the two groups differ by 1 standard deviation. Effect sizes of about 0.2, 0.5, and 0.8 are considered small, medium, and large, respectively (Cohen, 1988).
g. Converted by the reviewer using historical exchange rates and PSSRU inflation indices (2013)

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| Study | Limitations | Applicability | Other comments | Incremental | | | Uncertainty |
				Costs	Effects	Cost-effectiveness	
Lee (2017) A hypothetical universal and a hypothetical indicated (targeted) intervention delivered face-to-face to prevent the onset of depression vs. no intervention [a]	Potentially serious limitations [b]	Partly applicable [c]	The study conducted a cost-effectiveness analysis with a 10-year time horizon from a health and education perspective in Australia. The study reviewed literature on the prevention of depression for universal interventions involving group-based psychological delivered to all participating school students; and indicated interventions involving group-based psychological interventions delivered to students with subthreshold depression. Effect sizes were calculated using meta-analyses. A Markov model was used to calculate the total disability-adjusted life-years (DALYs) under the intervention and comparator scenarios.	**Incremental net costs [d] (95% UI); AUD$ thousands:** Universal vs. no intervention 21,802 (£14,729 GBP 2020[f]) (-75 to 55,743) Indicated vs. no intervention 58,843 (£39,760 GBP 2020[f]) (23,460 to 102,573)	**Incremental DALYs averted (95% UI):** Universal vs. no intervention 3,367 (£2,275 GBP 2020) (1,618 to 5,184) Indicated vs. no intervention 4,083 (£2,757w GBP 2020[f]) (1,295 to 9,361)	**ICER (95% UI); mean, AUD$:** Universal vs. no intervention 7,350(£4,965 GBP 2020[f]) per DALY averted (dominates to 23,070) Indicated vs. no intervention 19,550 (£13,208 GBP 2020[f]) per DALY averted (3,081 to 56,713)	Across the majority of univariate sensitivity analyses, cost-effectiveness results were either consistent or more favourable relative to baseline model. Sensitivity analysis found that unmoderated internet-delivered [e] prevention interventions were highly cost-effective when assuming intervention effect sizes of 100 and 50% relative to effect sizes observed for face-to-face delivered interventions. While clinician moderated internet-delivered [e] prevention interventions were not deemed cost-effective, it is likely that the unmoderated intervention pathway would be implemented in practice.

Abbreviations: DALY: disability-adjusted life-year; ICER: incremental cost-effectiveness ratio; UI: uncertainty interval

a. The eligible population receives neither the proposed intervention nor any established prevention services currently being delivered by the education/health sector. This equates to a 'partial null' comparator scenario.
b. Health benefit linked to other internalising behaviours are not captured nor are potential improvement in educational outcomes.

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Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
c. The intervention considered is relevant to the UK context, but caution is required when transferring the results of the study given the difference in prices and healthcare systems between the UK and the Australia.							
d. Net costs were calculated as the intervention cost minus the cost offsets – i.e. the costs of treating major depression that are averted due to the prevention of incident cases.							
e. The study was unable to identify any relevant RCT studies involving internet-delivered prevention interventions, which met the inclusion criteria for the model. Therefore, it was assumed that the effect sizes of internet-delivered prevention interventions were equal to some proportion of the pooled intervention effect sizes calculated for face-to-face prevention interventions. Given the heroic nature of this assumption, this investigation was relegated to a separate sensitivity analysis and not included in the main analysis. Unmoderated modalities (i.e., self-help) or clinician-moderated modalities (i.e., self-directed treatment with periodic monitoring by a health professional or clinician) were both considered in sensitivity analysis.							
f. Converted by the reviewer using historical exchange rates and PSSRU inflation indices							

1

Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
McCabe (2007) A universal intervention broadly based on the Promoting Alternative Thinking Strategies (PATHS) [a] programme to promote mental health vs. a focused intervention [b] vs. usual school provision	Potentially serious limitations [c]	Partly applicable [d]	The study conducted a cost-effectiveness analysis using UK costs. The Health Utilities Index Mark 2 (HUI2) [d] data from the MRC UK Paediatric Intensive Care Outcome Study (UK PICOS) was used to simulate age-specific primary school children's health-related quality of life (HRQoL) [f]. The difference in the results is driven by the large reduction in the number of children who benefit from the focused intervention compared to the universal programme without a proportionate reduction in the cost of providing the intervention.	**Intervention cost per person; £:** Universal intervention 125 (£158 GBP 2020k) Focused intervention Not reported [g] Usual school provision Not reported	Not reported	**ICER; £:** Universal intervention vs. usual school provision Emotional functioning alone [h] 10,594 per QALY (£13,406 GBP 2020k) Emotional and cognitive functioning [i] 5,278 per QALY	Sensitivity analysis was conducted for the universal intervention only. For emotional functioning alone, the probability that the ICER is less than £30,000 per QALY is 65%. For emotional and cognitive functioning, the probability that the ICER is below £30,000 per QALY is 66%. The focused intervention was not deemed cost-effective at any

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| Study | Limitations | Applicability | Other comments | Incremental | | | Uncertainty |
				Costs	Effects	Cost-effectiveness	
						(£6,679 GBP 2020[k]) Focused intervention vs. usual school provision Emotional functioning alone [h] 988,404 per QALY (£1,250,811 GBP 2020[k]) Emotional and cognitive functioning [j] 177,560 per QALY (£244,699 GBP 2020[k])	reasonable threshold.

Abbreviations: HRQoL: health-related quality of life; HUI2: Health Utilities Index Mark 2; ICER: incremental cost-effectiveness ratio; PATHS: Promoting Alternative Thinking Strategies; PICOS: Paediatric Intensive Care Outcome Study; QALY: quality-adjusted life year

a. The intervention involved 3 20-minute sessions per week for a total of 3 years. Each teacher attends a 3-day training course with a half refresher course at the start of years 2 and 3. Parent training is assumed to consist of a 10-week course of weekly sessions, with each session lasting 2 hours.
b. Similar in content to the universal intervention. However, unlike the universal intervention, children with identified problems receive the intervention outside of the classroom in small groups or individually. The focused intervention was provided to children at level 3 (out of 5) or below on the emotion dimension of the HUI2.
c. It is unclear which costs have been included and the source of this information. The effects were not clearly reported nor was the study perspective or time horizon.
d. The intervention considered is relevant to the UK context. However, the perspective and time horizon of the study are not clear.

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Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
e.	The HUI2 consists of seven dimensions (sensation, mobility, emotion, cognition, self-care, pain and fertility), each of which has between three and five levels, describing a range from 'normal functioning for age' to 'extreme disability.'						
f.	This was used to identify the HRQoL for each primary school class group in the absence of the intervention and was compared to the HRQoL improvement with the interventions.						
g.	According to the report, the cost of the focused intervention is similar to that of the universal intervention, except for a reduction in school co-ordinator time and parent training resource costs. This cost was not reported.						
h.	This represents the ICER assuming the intervention produces a one-level improvement upon the emotion dimension of HRQoL only.						
i.	This represents the ICER assuming the intervention produces a one-level improvement upon both the emotion and cognition dimensions of HRQoL.						
j.	This represents the ICER assuming the intervention produces a two-level improvement on both the emotion and cognition dimensions of HRQoL.						
k.	Converted by the reviewer using historical exchange rates and PSSRU inflation indices. Assuming currency year 2007.						

Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
Stallard (2013) A classroom-based cognitive behavioural therapy (CBT), Resourceful Adolescent Programme (RAP), delivered in 9 sessions to reduce depression vs. attention control [a] Personal, Social, Health and Economic Education (PSHE) vs. usual PSHE	Potentially serious limitations [b]	Directly applicable	The study conducted cost-effectiveness analysis (CEA) alongside a cluster-randomised controlled trial (RCT) with a 12-month time horizon from a UK societal perspective. The primary outcomes were the Short Mood and Feelings Questionnaire (SMFQ) [c] and the EQ-5D which was used to calculate QALYs. The CEA was based on an interview subsample who had complete EQ-5D responses and costs at all study time points. The analysis estimated the incremental cost per unit decrease in the SMFQ score and the incremental	**Total incremental cost per person; adjusted, £:** **Cost associated with SMFQ score** Classroom-based CBT vs. usual PSHE 106 (£122 GBP 2020[f]) Attention control PSHE vs. usual PSHE 160	**Total incremental effects; mean, adjusted:** **SMFQ score** Classroom-based CBT vs. usual PSHE 0.29 improvement Attention control PSHE vs. usual PSHE 0.37 improvement **QALY**	**ICER; adjusted, £ (95% CI):** **Cost per SMFQ score unit improvement** Classroom-based CBT vs. usual PSHE Dominated [e] Attention control PSHE vs. usual PSHE Dominated [e] **Cost per QALY gained**	Scatterplots of incremental costs and QALYs and the related cost-effectiveness acceptability curve were produced. The probability that classroom-based CBT or attention control PSHE were both less effective and more costly than usual PHSE ranged from 43% to 98% in the adjusted analyses. The curve showed that there was a 5% probability that classroom-based CBT is less

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| Study | Limitations | Applicability | Other comments | Incremental | | | Uncertainty |
				Costs	Effects	Cost-effectiveness	
			cost per unit QALY increase. The primary effectiveness analysis assessed individuals at high risk of depression. However, the CEA considered the whole sample with valid costs and outcome data. *CEA based on the same RCT was also conducted by Anderson (2014) [d].*	(£184 GBP 2020[f]) **Cost associated with QALY** Classroom-based CBT vs. usual PSHE 100 (£115 GBP 2020[f]) Attention control PSHE vs. usual PSHE 177 (£203 GBP 2020[f]) *It is unclear why the costs differ between outcomes.*	Classroom-based vs. usual PSHE 0.00054 Attention control PSHE vs. usual PSHE -0.017	Classroom-based CBT vs. usual PSHE 185,337 (undefined) (£212,814 GBP 2020[f]) Attention control PSHE vs. usual PSHE Dominated [e]	costly than usual PSHE and a 46% probability that it is less effective than usual PSHE. There is a 25% probability that the ICER is less than £20,000 when comparing classroom-based CBT with usual PSHE.

Abbreviations: CBT: cognitive-behavioural therapy; CEA: cost-effectiveness analysis; ICER: incremental cost-effectiveness ratio; PSHE: Personal, Social, Health and Economic education; QALY: quality-adjusted life year; RAP: Resourceful Adolescent Programme; RCT: randomised controlled trial; SMFQ: Short Mood and Feelings Questionnaire

a. The attention control PSHE curriculum involved the delivery of the usual school PSHE curriculum but included additional support to the class teacher by two external facilitators who assisted with delivering the lessons and engaging with young people.
b. The short trial time horizon may not have captured the full effects of the intervention.
c. Total SMFQ score calculated at 12 months. Elevated symptoms of depression were defined as a score of ≥ 5 hence a lower score on the SMFQ indicates better outcomes.
d. The findings reported in Anderson (2014) were based on analyses of multiple imputed data and the findings reported in Stallard (2013) were based on complete case analysis. Hence, despite using the same trial data, the cost-effective result of Anderson (2014) and Stallard (2013) differ but the overall conclusions remain the same.
e. The intervention is more expensive and less effective.

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Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
f. Converted by the reviewer using historical exchange rates and PSSRU inflation indices							

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Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	Effects	Cost-effectiveness	
Stallard (2015) Health-led FRIENDS to reduce anxiety and improve mood vs. school-led FRIENDS vs. usual school provision	Potentially serious limitations [a]	Directly applicable	The study conducted cost-effectiveness analysis (CEA) alongside a cluster-randomised controlled trial (RCT) with a 24-month time horizon from a joint UK health sector and education sector perspective. The primary outcomes were the Revised Child Anxiety and Depression Scale (RCADS) total score [b] and the Child Health Utility 9 Dimension (CHU-9D) utility score which was used to calculate QALYs (i.e. cost-utility analysis). The CEA was based on an interview subsample at 6-months, made up of complete cases (participants who had valid cost and outcome data).	**Total incremental cost per person; mean, adjusted, £ (95% CI):** Health-led FRIENDS vs. usual school provision 52.50 (£57 GBP 2020 [d]) (36.70 to 68.30) Health-led FRIENDS vs. school-led FRIENDS 0.041 (-14.01 to 14.09)	**Incremental RCADS score; mean, adjusted (95% CI):** Health-led FRIENDS vs. usual school provision -2.56 (-6.20 to 1.08) Health-led FRIENDS vs. school-led FRIENDS -1.68 (-5.80 to 2.44) **Total incremental QALYs; mean, adjusted (95% CI):** Health-led FRIENDS vs.	**ICER; adjusted, £ (95% CI):** **Cost per change in RCADS score** Health-led FRIENDS vs. usual school provision 18 per unit decrease [b] in RCADS score Health-led FRIENDS vs. school-led FRIENDS 0 per unit decrease Health-led FRIENDS was dominated [c] by usual school provision (3,407 to dominated)	Cost-effectiveness acceptability curves and cost-effectiveness planes were constructed for health-led FRIENDS vs. usual school provision, and for health-led vs. school-led FRIENDS concluding that the interventions were not likely to be cost-effective. The health-led FRIENDS never reaches more than a 35% probability of being cost-effective at any cost per QALY threshold. Combining the cost data from the economic subsample with the effectiveness data from the whole sample did not alter the conclusions.

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| Study | Limitations | Applicability | Other comments | Incremental | | | Uncertainty |
				Costs	Effects	Cost-effectiveness	
					usual school provision -0.004 (-0.021 to 0.014) Health-led FRIENDS vs. school led FRIENDS -0.015 (-0.031 to 0.002)	Health-led FRIENDS was dominated [c] by school-led FRIENDS (undefined)	

Abbreviations: CEA: cost-effectiveness analysis; CHU-9D: Child Health Utility Nine-Dimension; ICER: incremental cost-effectiveness ratio; QALY: quality-adjusted life year; RCADS: Revised Child Anxiety and Depression Scale; RCT: randomised controlled trial

    a.   The short trial time horizon may not have captured the full effects of the intervention.

    b.   RCADS is a 30-item, youth self-report questionnaire. The scale used for the RCADS is not made clear. However, a decrease in score indicates a reduction in anxiety and an improvement in mood. High anxiety was defined by a total RCADS score of ≥ 49 and low anxiety was defined by a total RCADS score of ≤ 48.

    c.   This is defined as the intervention being more costly and having worse outcomes.

    d.   Converted by the reviewer using historical exchange rates and PSSRU inflation indices

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| Study | Limitations | Applicability | Other comments | Incremental | | | Uncertainty |
				Costs	Effects	Cost-effectiveness	
Turner (2019) Promoting Alternative Thinking Strategies (PATHS)[a] to improve wellbeing and educational	Minor limitations [b]	Directly applicable	The study conducted cost-effectiveness analysis alongside a cluster-randomised controlled trial (RCT) with a 2-year time horizon from a UK health sector perspective. The primary outcome was the Child Health Utility Nine-Dimension (CHU-9D) utility	**Incremental intervention costs [d] per person; mean, £:** PATHS vs. usual practice 32.01 (£33 GBP 2020[g])	**Incremental QALYs per person (95% confidence interval); adjusted mean:** PATHS vs. usual practice 0.0019	**INB; £:** 5.56 per child (£6 GBP 2020[g])	The probability of PATHS resulting in a positive INB, and therefore being cost-effective, is 84%. Using the best-worst scaling algorithm, the probability of PATHS producing a positive INB at a

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| Study | Limitations | Applicability | Other comments | Incremental | | | Uncertainty |
				Costs	Effects	Cost-effectiveness	
attainment vs. usual practice			value which was used to calculate QALYs. Negative incremental QALY estimates were possible. Therefore, instead of calculating an ICER, the incremental net monetary benefit (INB) was calculated using a minimum threshold of £20,000 per QALY. *Full details of the RCT, including CEA, are published in Public Health Research (Humphrey, 2018)* [c].		(0.0009 to 0.0029)		threshold of £20,000 per QALY was 99.4%. In complete case analysis, where observations with missing data were removed, the probability of cost-effectiveness at the £20,000 per QALY threshold was 40% [e] Assuming a 10-year rather than 5-year expected intervention life led to a small reduction in incremental costs of £3.50 per child, increasing the probability of PATHS being cost-effective at a threshold of £20,000 per QALY to 91.0%. Inclusion of teacher salary costs [f] had a substantial impact on INB resulting in a 0% probability of PATHS being cost-effective at a £20,000 threshold per QALY.

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| Study | Limitations | Applicability | Other comments | Incremental | | | Uncertainty |
				Costs	Effects	Cost-effectiveness	
							In a national roll-out scenario, where costs of the intervention would likely differ to those in the trial, the probability of PATHS being cost effective was 98.7% for a threshold of £20,000 per QALY.

Abbreviations: CHU-9D: Child Health Utility Nine-Dimension; ICER: incremental cost-effectiveness ratio; INB: incremental net benefit; PATHS: Promoting Alternative Thinking Strategies; QALY: quality-adjusted life year; RCT: randomised controlled trial

a. The aim of PATHS is to promote self-control, emotional understanding, positive self-esteem, relationships and interpersonal problem-solving skills among children in pre-school and primary education settings through the provision of a taught curriculum.
b. There were no data collected on the use of school-based health services, such as educational psychologists, and external health services, such as GP visits and benefits in other sectors than health were not captured. The short time horizon may not have captured the long-term effects of the intervention and the cost analysis was based on only the costs of the intervention.
c. Despite using the same trial data, the costs reported in Humphrey (2018) and Turner (2019) differ due to the use of different cost years but the overall conclusions remain the same.
d. Only intervention costs were included as no resource or service use costs were reported in the study.
e. The authors did not explain the reason for this impact, but it was assumed it was due to the large proportion of participants with some missing data.
f. Currently, salary costs are paid by the UK Department of Education. The costs would only be considered incremental if the NHS agreed to fund the costs of the proportion of the school day required for implementing the intervention.
g. Converted by the reviewer using historical exchange rates and PSSRU inflation indices

1

| Study | Limitations | Applicability | Other comments | Incremental | | | Uncertainty |
				Costs	Effects	Cost-effectiveness	
Wellander (2016)	Minor limitations [a]	Partly applicable [b]	The study conducted cost-offset analysis with a 2-school-year time horizon [c]	**Intervention cost per person; €:**	**Reduction in prevalence of**	Cost-offset analysis was conducted but	Sensitivity analysis was conducted but combined the costs

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Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs	**Effects**	**Cost-effectiveness**	
A social and emotional training (SET) program consisting of 1 to 2 sessions per week aimed to promote pupils mental health and positive development vs. no SET			from a payer perspective (e.g. local government) in Sweden. The analysis combined 2 interventions, 1 of which was not relevant to the research question [b]. Only costs and effects could be extracted for the SET intervention.	SET 6 to 11 146 (£136 GBP 2020[e]) SET 12 to 16 102 (£95 GBP 2020[e])	**anxiety/depression [d]; %:** 12	combined the costs and effects of 2 interventions, 1 of which was not relevant to the research question. Hence, it was not possible to extract cost-offset analyses for the SET intervention alone.	and effects of 2 interventions, 1 of which was not relevant to the research question. Hence, it was not possible to extract sensitivity analyses for the SET intervention alone.

Abbreviations: SET: social and emotional training

a. The reduction in the number of students needing additional support was estimated based on assumption. Administrative costs were not included in the analysis.
b. The study combines 2 interventions - Comet for teachers and SET. The Comet for Teachers intervention focuses on externalizing behaviour and hyperactivities which is not relevant to the research question. The SET intervention considered is relevant to the UK context, but caution is required when transferring the results of the study given the difference in prices and healthcare systems between the UK and the Sweden.
c. The cost offset was calculated per school year then discounted for the second school year.
d. To calculate the reduction in clinical cases of internalizing mental health problems, the study assumed that 5% of the target population was considered clinical, and the distributions of internalizing mental health problems were normal. The 5-year effectiveness estimate of the SET program were adjusted to a one-year estimate assuming that the reduction observed during a five-year period was proportionally distributed.
e. Converted by the reviewer using historical exchange rates and PSSRU inflation indices

1.1.9 Economic model

A bespoke model was developed to capture the costs and consequences of an intervention, or combination of interventions, that promote social, emotional and mental wellbeing in children and young people in primary and secondary education. It covers more than 1 evidence review in the guideline so the full write up is contained in a separate document rather than in appendix I (see Evidence review J).

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Study	Limitations	Applicability	Other comments	Incremental		Cost-effectiveness	Uncertainty
				Costs	Effects		
Coote [a] (2021) A cost-consequence and cost-benefit analysis of interventions to improve social, emotional and mental wellbeing in schools	Potentially serious limitations [b]	Directly applicable	A bespoke model was developed to capture the costs and consequences of an intervention, or combination of interventions, that promote social, emotional and mental wellbeing in children and young people in primary and secondary education. It is recommended that the model is used as a guide to explore the potential economic and wellbeing implications of interventions. The model was pre-populated with evidence from the NICE guideline reviews but it also allows users to adapt the perspective and input values and generate results, specific to the educational environment of interest. A worked example was provided that considered an intervention for transition between schools and its impact on bullying perpetration. The example used a hypothetical cohort of 200 pupils, a 1-year time	**Costs of the intervention per person; £:** 17.71 **Total intervention cost; £** 3,542	**Relative Risk bullying perpetration** 0.98 (Assumes the intervention reduces bullying by 2%, 4 out of 200 individuals undergoing the intervention) **Utility value assigned to bullying** 0.06 **Length of utility benefit** 1 year **QALYs;** 4 x 0.06 = 0.24 **Monetary QALY; £:** 4,800 (using monetary equivalent per	**Net benefit; £:** 1,258	Sensitivity analyses showed that: • an increase in the intervention cost resulted in a reduction of net benefit • an increase in the number of students undergoing the intervention increased the net benefit • a reduction in the change in utility per student attributed to bullying below 0.044 would result in a negative net benefit

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| Study | Limitations | Applicability | Other comments | Incremental | | | Uncertainty |
				Costs	Effects	Cost-effectiveness	
			horizon and took a societal perspective.		QALY of £20,000)		

Abbreviations: ICER: incremental cost-effectiveness ratio; NHS: National Health Service; PSS: Personal Social Service; QALY: quality-adjusted life-year

a. This economic model was developed for the current guideline update. Full details can be found in the separate economic modelling report.

b. Due to substantial variability in the interventions available and heterogeneity across schools it is neither possible, nor judicious, for this model to provide 'generalised' results.

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1   **1.1.10 Evidence statements**

2   ***Economic evidence statements***

3

4   • Anderson (2014) found that the classroom-based CBT intervention to reduce symptoms of
5   depression was unlikely to be cost-effective compared with usual PSHE. The findings
6   reported were based on analyses of multiple imputed data. The evaluation showed that
7   usual PSHE dominated the intervention per SMFQ score difference and per QALY (lower
8   costs and better outcomes), from a societal perspective. The incremental costs and
9   effects were very small and uncertain (with the 95% CI spanning zero for both costs and
10   SMFQ score). The author comments that cost and effectiveness data were self-reported.
11   Additionally, young people were not blinded to which intervention they received. The
12   analysis was assessed as directly applicable to the review question, with minor limitations.

13   • Coote (2021) aimed to quantify the costs and effectiveness, and hence the impact, of
14   introducing a range of mental health and wellbeing interventions. The large range of
15   interventions on offer and the circumstances in which an intervention is implemented
16   made it difficult to draw robust conclusions regarding the effectiveness of an intervention
17   and the economic impact.

18   • Ford (2019) found that the Incredible Years Classroom Management (TCM) intervention
19   for teachers was cost-effective in improving children's mental health compared with
20   teaching as usual (TAU). The economic evaluation showed TMC dominates TAU (lower
21   cost and better outcomes) from a public sector perspective. However, the reviewer did
22   not agree with this statement based on the figures reported as the TCM was shown to
23   have higher adjusted costs. Cost-effectiveness acceptability curves suggest the
24   probability of the intervention being cost-effective compared with TAU ranges from 40% at
25   a zero willingness to pay (WTP) for a unit improvement in SDQ-Total Difficulties score, to
26   nearly 80% at a £5,000 WTP threshold (£5,420 GBP 2020). Additional scenario analysis
27   did not significantly change the results at the £5,000 WTP threshold. (£5,420 GBP 2020)
28   The author comments that it is not possible to draw a firm conclusion without knowing
29   society's willingness to pay for improvements in SDQ-Total Difficulties score. Additionally,
30   children were exposed to TCM strategies for a relatively short duration. The impact of the
31   intervention might arguably increase in the year after the teacher has attended the course
32   as they could apply the skills gained from TCM training from the outset of the academic
33   year. However, this was not assessable as the trial design followed the children rather
34   than the teacher. The analysis was assessed as directly applicable to the review
35   question, with minor limitations.

36   • Garmy (2019) found that the Depression in Swedish Adolescents (DISA) program for
37   reducing depressive symptoms is cost-effective compared with a school curriculum
38   without a mental health program at a threshold of $15,000 per QALY gained (£9,972 GBP
39   2020). The study conducted a quasi-experimental trial. The analysis showed an ICER of
40     $6,300 per QALY gained. (£4,151 GBP 2020). Assuming 50% higher costs, the cost per
41   QALY gained was $9,375 (£6,178 GBP 2020). Assuming 50% lower effect, the cost per
42   QALY gained was $12,500 (£8,212 GBP 2020). The analysis considered only the
43   intervention costs and the perspective was not stated. Including costs relating to
44   healthcare or other sectors could affect the results. The author notes that a significant
45   limitation is that schools in the intervention condition were already using the program;
46   however, a naturalistic design may have ethical advantages. Additionally, baseline scores
47   for self-reported depressive symptoms and health were worse in the intervention group.
48   Since lower scores tend to improve more, this may result in an overestimation of the
49   intervention effect. The analysis was assessed as partly applicable to the review
50   question, with minor limitations.

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- Humphrey (2018) found that a Promoting Alternative Thinking Strategies (PATHS) intervention to develop children's social and emotional skills was cost-effective compared with usual practice using a threshold of £20,000 per QALY. The analysis showed an incremental net benefit (INB) of £7.64 per child (£8 GBP 2020) The probability of the intervention being cost-effective (i.e. a positive INB) compared with usual practice was 88% at a threshold of £20,000 per QALY and 99% at a threshold of £30,000 per QALY. The author highlighted that no health data were collected, sample may not be considered to be fully representative of primary schools in England and loss-to-follow-up rates experienced at the 12- and 24-month follow-up assessments were very high. The analysis was assessed as directly applicable to the review question, with minor limitations.

- Hunter (2018) found that the implementation of the Social Skills Improvement System - Classwide Intervention Program (SSIS-CIP) in the second grade was more cost-effective option compared with implementing the SSIS-CIP in the first grade. The analysis showed ICERs of $105.50 (£74 GBP 2020) and $52.75 (£37 GBP 2020) per student to achieve a hypothetical 1-unit change in teacher-rated social skills for first and second grade, respectively. Sensitivity analysis was not explored. Some details relating to the multiyear efficacy study of the SSIS-CIP (DiPerna et al., 2015, 2016, 2018), such as perspective and time horizon, were not provided.   The author comments that the effect size metric that was utilized is primarily for research purposes and may be difficult to translate to school-based administrators or policymakers. The analysis was assessed as partly applicable to the review question, with potentially serious limitations.

- Lee (2017) found that hypothetical universal and indicated (targeted) prevention interventions delivered to students via face-to-face pathways were both cost-effective relative to a $50,000 per DALY threshold (£33,780 GBP 2020). The study found an ICER of $7,350($4,965 GBP 2020) per DALY averted for a universal prevention intervention and an ICER of $19,550 (£13,208 GBP 2020) per DALY averted for an indicated prevention intervention. The author comments that the health benefits are limited to those linked to the prevention of incident depression only and that, due to short time horizons of RCT studies used within the analyses, it is unclear whether interventions prevent or merely delay onset of depression. Across the majority of univariate sensitivity analyses, cost-effectiveness results were either consistent or more favourable relative to baseline model. The analysis was assessed as partly applicable to the review question, with potentially serious limitations.

- McCabe (2007) found that a universal intervention to improve mental health was likely to be cost-effective compared with usual school provision at a £30,000 per QALY threshold, while the focused intervention was unlikely to be cost-effective compared with usual school provision for any realistic threshold. For the universal intervention, the ICER was £10,594 (£13,406 GBP 2020) per QALY when impacting emotional functioning alone, and £5,278 (£6,679 GBP 2020) when impacting emotional and cognitive functioning. For the focused intervention, the ICER was £988,404 (£1,250,811 GBP 2020) per QALY when impacting emotional functioning alone, and £177,560 (£244,699 GBP 2020) when impacting emotional and cognitive functioning.   For the universal intervention compared with usual school provision, sensitivity analysis showed that the probability that the ICER is less than £30,000 (£20,257 GBP 2020) per QALY is 65% when impacting emotional functioning alone, and 66% when impacting emotional and cognitive functioning. The author comments that the sample used to describe the health-related quality of life in children in mainstream schools may not be genuinely representative. The reviewer found that the study did not clearly report important information such as costs, QALYs, study perspective and time horizon. The analysis was assessed as partly applicable to the review question, with potentially serious limitations.

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- Stallard (2013) found that the classroom-based CBT intervention to reduce symptoms of depression was unlikely to be cost-effective compared with usual PSHE. The economic evaluation was based on an interview subsample who had complete EQ-5D responses and costs at all study time points. The evaluation showed that usual PSHE generally dominated the intervention per SMFQ score difference and per QALY (lower costs and better outcomes), from a societal perspective. For classroom-based CBT compared with usual PSHE, the ICER was £185,337(£212,814 GBP 2020) per QALY gained. Sensitivity analysis showed a 5% probability that classroom-based CBT is less costly than usual PSHE and a 46% probability that it is less effective than usual PSHE. The author comments that the cohort in the study was not demographically representative of the wider UK school population and that the service use data lacked validity and reliability. Additionally, young people were not blinded to which intervention they received. The analysis was assessed as directly applicable to the review question, with potentially serious limitations.

- Stallard (2015) found that the health-led FRIENDS intervention to reduce anxiety and improve mood was unlikely to be cost-effective compared with usual school provision and compared with the school-led FRIENDS intervention. The economic evaluation was based on complete cases of an interview subsample at 6-months from a joint health sector and education sector perspective. For the QALY outcome, the intervention was dominated by usual school provision (higher costs and worse outcomes). However, considering the RCADS outcome produced an ICER of £18 per unit decrease in RCADS score. (£20 GBP 2020) Sensitivity analysis found that the health-led FRIENDS never reaches more than a 35% probability of being cost-effective at any cost per QALY threshold. Combining the cost data from the economic subsample with the whole trial effectiveness data did not alter the conclusions. The author comments that the subsample used for the economic evaluation was not representative of the whole cohort on outcomes such as RCADS and CHU-9D and therefore, the cost-effectiveness and service use data of the subsample may not be representative of the whole cohort. Additionally, children were not blinded to which intervention they received. The analysis was assessed as directly applicable to the review question, with potentially serious limitations.

- Turner (2019) found that the Promoting Alternative Thinking Strategies (PATHS) intervention has the potential to be cost-effective compared with usual practice, assuming a threshold of £20,000 per QALY. At this threshold, the expected incremental net benefit of introducing the PATHS intervention was £5.56 (£6 GBP 2020)per child (95% CI -14.68 to 25.81) and the probability of cost effectiveness was 84%. Sensitivity analysis found that the probability significantly reduced to 0% when the intervention costs in the analysis included teacher's salary costs. The author highlights that there was no data collected for use of school-based or external health services. Additionally, the analysis was conducted using a health sector perspective, which does not capture costs or benefits in sectors other than health. The analysis was assessed as directly applicable to the review question, with minor limitations.

- Wellander (2016) estimates the costs and the potential cost-offsets of 2 evidence-based school interventions targeting children's mental health problems. A Social and Emotional Training (SET) program was found to reduce the prevalence of anxiety or depression by 12% at a cost per student of €146 (£136 GBP 2020) and €102 (£95 GBP 2020)for students age 6 to 11 and 12 to 16, respectively. The Comet for Teachers intervention focuses on externalizing behaviour and hyperactivities which is not relevant to the research question. Due to the combined economic analysis, the results of the cost-offset and sensitivity analysis could not be applied to the research questions. The analysis was assessed as partly applicable to the review question, with minor limitations.

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1 **1.1.11 Mixed methods integration**

2 The JBI methodology for mixed methods systematic reviews was used to guide the
3 convergent segregated approach to integrating the quantitative and qualitative reviews. This
4 has been completed in <u>Evidence Review C</u>.

5 **1.1.12 The committee's discussion and interpretation of the evidence**

6 **1.1.12.1. The outcomes that matter most**

7 The committee categorised outcomes of interest as social, emotional and mental wellbeing
8 (SEMW) outcomes and academic outcomes and agreed that more weight should be given to
9 the social and emotional wellbeing outcomes. This is because, in theory, improvement in
10 social and emotional wellbeing may lead to the conditions for success in improving academic
11 learning, progress and attainment. Within the category of social and emotional wellbeing
12 outcomes, the committee agreed that these could be sub-categorised into social and
13 emotional skills, behavioural outcomes and emotional distress, with equal importance given
14 to each of these three categories. Social and emotional skills included outcomes such as
15 knowledge, emotional distress included anxiety, depressive and stressful symptoms, and
16 behavioural outcomes included positive social behaviour and conduct problems. Studies
17 provided data for social and emotional skills, emotional distress, behavioural outcomes, and
18 academic outcomes in line with the PICO; but no data were provided for school attendance,
19 school exclusions, quality of life or unintended consequences which were considered highly
20 important by the committee.

21 The committee also noted that the outcomes were frequently reported by multiple
22 populations, the child or young person, teacher or by the parent/carer. Of these the
23 committee prioritised measures reported by the child or young person as this is the
24 population of interest for the guideline. The committee also considered parent- or carer-
25 reported measures as this would demonstrate the impact of the intervention in another
26 setting, thus providing a more holistic view of the impact of the intervention on the child or
27 young person.

28 **1.1.12.2 The quality of the evidence**

29 The committee acknowledged that the 81 cRCTs ,4 RCTs and 1 systematic review
30 represented a substantial evidence base. A substantial proportion of the studies were from
31 Australia (n=20) and the USA (n=18) while the other studies were conducted in Belgium (2),
32 Canada (3), Chile (1), Chile/Colombia (1), Denmark (1), Finland (1) Germany (4), Greece (1),
33 Ireland (5), Italy (6), New Zealand (1), Northern Ireland (1), Norway (1), Portugal (1), Spain
34 (2), Sweden (1), Switzerland (2), The Netherlands (2), and the UK (11). The systematic
35 review was conducted on an international basis. The committee acknowledged that the
36 differences in educational systems and approaches may mean that interventions
37 implemented abroad may not be easily transferrable to a UK setting. However, they agreed
38 that the underlying principles used in these interventions, such as skills-based learning,
39 would be generalisable to the UK context.

40 Overall, the committee's level of certainty in the evidence ranged from high to very low with
41 most outcomes rated as low or moderate. Common reasons for downgrading included risk of
42 bias over the use of self-reported measures and imprecision around the effect of the
43 intervention. It was also noted that the Intra-cluster co-efficient for each outcome was often
44 not provided and so this was imputed from similar studies where appropriate, thereby

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1 allowing the calculation of the effective sample size for each outcome to avoid over-precise
2 results.

3 Studies included students from key stages 1, 2, 3, 4 and post-16 with interventions delivered
4 predominantly in classrooms by teachers. The committee noted that the duration of
5 interventions varied across studies ranging from 2 weeks to 48 months and data were
6 reported between intervention endpoint to 54 months. Most of the outcomes reported in this
7 review were obtained through self-reported measures. The committee noted that this may
8 have implications with regards to methodological limitations. For example, it is likely that
9 participants knew which intervention they were allocated to and therefore the use of self-
10 reported outcomes may introduce bias in outcome reporting. Additionally, lack of adequate
11 observation and control in the comparison condition is a likely source of bias, as
12 differentiation from usual practice may also not be evident from the student perspective.

13 While there were no unintended consequences reported in any of the studies, the committee
14 noted that there was no evidence that the interventions had a negative impact.

15 The committee also noted that many of the included studies were efficacy rather than
16 effectiveness studies. The support and attention given in efficacy studies in terms of training,
17 ongoing support and assurance of fidelity means that the interventions do not have the
18 'demonstrated' effect when used in the real world where such intensive support is not
19 feasible. Thus, the committee gave more weight to findings from effectiveness studies which
20 are more generalisable to the circumstances in which these interventions are used.

21 Concerns were raised over the use of certain terminology, specifically 'depression'.
22 'Depressive symptoms' or 'low mood' were suggested as alternatives, so as not to alienate
23 children. It was clarified that although many of the scales identified in the evidence review
24 use the term depression, this reflects the use of a continuum, and the scales are not used as
25 diagnostic tools. The committee agreed that the use of specific terminology is a guideline-
26 wide issue and will therefore be dealt with on a guideline-wide basis.

27 The committee acknowledged that interventions based on CBT principles appeared to have
28 an effect but questioned the feasibility of recommending these therapies, due to the need for
29 facilitator training. CBT based interventions require an element of training to understand the
30 core principles and methods. Additionally, it was raised that CBT in traumatised children and
31 young people can lead to harm due to fear of failure experienced by the participants.

32 **1.1.12.3 Benefits and harms**

33 The committee agreed that the findings generally showed an improvement or no difference in
34 the reported outcomes. The committee agreed that several factors may have impacted on
35 this, for example the usual practice control may be an effective intervention, or the relatively
36 short-term follow-up (less than 12 months) of an intervention designed to show a benefit over
37 10 years or longer. This is an important consideration as many of these interventions aim to
38 develop social and emotional skills and what has been learnt may not be needed or
39 demonstrated in the time frame of these studies. However, the committee agreed that no
40 study showed a negative outcome in the shorter-term and they concluded that this was an
41 important consideration given the potential for the long-term impact of these interventions.

42 The committee also discussed the potential for iatrogenic harm arising from some of these
43 interventions and they acknowledged that there are contra-indications against the use of
44 cognitive-behavioural therapy in people who have suffered trauma. As these interventions
45 are to be delivered to whole classrooms, there is a risk that children who are vulnerable may

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1 inadvertently be harmed if they received an intervention based on cognitive behavioural
2 therapy principles. One intervention (Uplifting our Health and Wellbeing) was noted to
3 increase anxiety. Additionally, the committee noted that implementation of new interventions
4 also come with opportunity costs, as it removes the prospect of implementing other
5 potentially more effective interventions.

6 On consideration of the evidence the committee wanted a greater understanding of the 'key
7 factors' that could be gleaned from the evidence to understand what was driving an
8 interventions effect. This was in part driven by the committees' discussions regarding the use
9 of 'named off the shelf' universal interventions, the consideration of where the study was
10 undertaken and its applicability to the UK context, and the usefulness and 'implementability'
11 of interventions to facilitate the development of good social and emotional wellbeing.

12 The committee also recognised that several of the interventions in the review had been
13 delivered by external facilitators or teachers that had received formal training. Therefore,
14 factors such as requirements for training and ongoing support should be considered when
15 choosing an intervention. Peer supervision for teachers and staff delivering the interventions
16 was also suggested to ensure fidelity but this may cause an additional burden on school
17 staff.

18 When considering whole school approaches, the committee agreed that curriculum content
19 was an important part of a whole school approach. However, the committee also discussed
20 the opportunity cost if interventions with no apparent short-term benefits are recommended
21 for use in an already crowded curriculum and considered that this was even more important
22 with the ongoing loss of education time due to the disrupted nature of education provision
23 arising from the COVID-19 pandemic. As a result, the committee was able to recommend
24 universal curriculum content about social, emotional and mental wellbeing, but were not able
25 to be specific about a particular format or model. They noted that focus group research
26 undertaken with children and young people to support development of this guideline
27 highlighted the importance of children and young people having a sense of agency and
28 belonging. For this to occur, good communication channels between teachers and pupils
29 need to be in place. Specifically regarding children and young people having the opportunity
30 to nominate topics covered in the interventions, teachers should be responsible for feeding
31 back if a certain topic can / can't be covered. Finally, the committee recognised the need for
32 appropriate language when delivering universal interventions, in order to normalise but not
33 pathologise social, emotional and mental wellbeing issues.

34 The committee agreed that although they could not be specific on the basis of the evidence,
35 guidance on universal curriculum content already existed in the Department for Education's
36 relationships education, relationships and sex education, and health education guidance and
37 they recommended that this should be taken account of.

38 The committee noted that the focus of universal interventions was important and noted that
39 several of those which demonstrated a level of benefit were focused on skills-based learning
40 as part of a spiral curriculum. This is consistent with the committee's knowledge of research
41 into the effective components of social and emotional learning as represented by the
42 acronym SAFE as follows.

43 • Sequenced: Connected and coordinated activities to foster skills development.

44 • Active: Active forms of learning to help students master new skills and attitudes.

45 • Focused: A component that emphasises developing personal and social skills.

46 • Explicit: Targeting specific social and emotional skills.

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1 The context in which these interventions are to be used is also important as the committee
2 noted that these will have the greatest chance of being effective if delivered as part of a
3 whole-school approach to social, emotional, and mental wellbeing. However, the committee
4 noted that these interventions must be able to fit in the schools 'curriculum offer', 'ethos' and
5 with the 'stated aims of education' which is to promote the spiritual, moral, cultural, mental,
6 and physical development of pupils at the school and of society and to prepare pupils at the
7 school for the opportunities, responsibilities, and experiences of adult life.

8 The committee agreed that in line with the key values of a relational whole school approach
9 (see evidence review A), it was important to use approaches to supporting children and
10 young peoples social, emotional and mental wellbeing that built on their strengths and
11 developed their resilience, skills and sense of self-worth.

12 The committee noted that mindfulness showed a positive improvement for some outcomes,
13 including academic outcomes, and emotional distress, and this matched with evidence they
14 heard from expert testimony (see evidence review A) and with their own experience and
15 expertise. The committee discussed the strength of the evidence, but decided that since the
16 evidence was almost all of low or very low quality they could only make a consider
17 recommendation. Similar evidence was provided in expert testimony for the introduction of
18 regular rhythmic movement to help children and young people manage their social,
19 emotional and mental wellbeing (see evidence review A). The committee discussed the
20 positive impacts of all physical activity on peoples' wellbeing but noted that there seemed to
21 be added benefit in the activity being rhythmic and regular, for example a cross trainer or a
22 small trampoline. They also made a weak recommendation about this.

23 The committee also highlighted that the aim of the intervention, alongside the underpinning
24 theoretical framework, should be taken into account when judging effect sizes. For example,
25 FRIENDS for Life aims to ensure that all children and young people have the social,
26 emotional and mental wellbeing skills they need and so in effect this is 'levelling up' of the
27 skillset. This means that although the intervention was not favoured over control, this does
28 not necessarily mean the intervention failed in its goal. Therefore, the committee did not base
29 their recommendations of interventions solely on the effect size and direction demonstrated
30 in the evidence review. With all this in mind, the committee accepted that mindfulness and
31 skills-based teaching did show a benefit and so made a recommendation supporting the use
32 of these interventions. The committee noted that where these interventions are used, time,
33 space and support should be provided.

34 **1.1.12.4 Cost effectiveness and resource use**

35 The committee considered published evidence from 11 studies of the cost effectiveness of
36 universal classroom-based interventions to promote social, emotional, and mental wellbeing
37 in children and young people in primary, secondary or further education.

38 The committee noted most of the studies (n=7) were carried out in the UK. Of the remainder,
39 2 were based in Sweden, 1 in Australia and 1 in the USA. They also noted the focus of the
40 evaluations covered a wide range of topics including depression (n=4), social and emotional
41 wellbeing (n=3), social skills (n-=1), wellbeing and education attainment (n=1) and mental
42 health and positive development (n=1) and age groups (from 4- to 17-year-olds).

43 The committee noted several challenges in interpreting the evidence. They were concerned
44 about the relatively short duration of some interventions and were also mindful that the
45 impact of an intervention might increase beyond the duration of the study (e.g., Ford 2019).
46 The myriad of outcomes (proximal and distal) adopted in the studies were considered to add
47 further complexity. The committee also noted that two studies reported the same RCT but

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1 had different results. Aside from the concern that this over-represented the number of studies
2 of this type of intervention (CBT) the committee observed the underlying values of the two
3 studies were slightly different. On further discussion it became evident the study authors had
4 adopted different analytical approaches: one had used complete case analysis whereas the
5 other had imputed values for missing data. Nevertheless, the committee noted that the
6 different results had not affected the overall decision about cost effectiveness, in both cases
7 the intervention (CBT) was found to be more costly and less effective than usual PHSE.

8 The committee discussed the different perspectives adopted in the analyses which ranged
9 from a single sector approach such as a payer or policy maker perspective to a multi-sector
10 and pseudo-societal perspective. They agreed it made it difficult to generalise across studies
11 and form an overall view of the evidence on cost effectiveness. They were also mindful of the
12 absence of a decision-making framework (such as a cost per QALY) for determining whether
13 interventions delivered in schools to promote social, emotional, and mental wellbeing are
14 cost effective. Specifically, the committee were uncertain as to how much the education
15 sector would be willing to pay for the improvements observed in the cost effectiveness
16 studies. In addition, challenges can arise during partnership working, where the person /
17 establishment funding an intervention may not receive the overall benefit. With costs being
18 borne by the education sector and (potential) health benefits accruing to the health sector the
19 committee were concerned this might negatively impact the adoption of potentially effective
20 and cost-effective interventions.

21 The committee agreed it was important to capture the breadth of potential impacts including
22 on educational attainment, future employability, avoidance of future mental health problems,
23 resilience, etc. They considered that key outcomes for schools will be around children being
24 happy and learning: for them that will mean a blended mix of safe, happy, healthy, learning
25 and achieving with a good today and a bright future. They see health and wellbeing as a
26 means of ensuring that children can learn, progress, and achieve well so that they become
27 responsive and responsible citizens, able to contribute to the wider economy and society.

28 The committee noted the context within which these interventions were assessed and agreed
29 that this will have changed dramatically under the conditions brought about by COVID-19. As
30 a result, they did not consider it reasonable to assume that intervention fidelity would be
31 maintained which in turn would likely impact intervention effectiveness. The committee were
32 therefore concerned about generalising the existing published cost effectiveness to the
33 current context.

34 Given the specific nature of the interventions studied and differences in a range of other key
35 factors including age ranges targeted, country of origin and methodologies the committee did
36 not consider it appropriate to generalise the findings. Rather, they placed more importance
37 on understanding the context, delivery systems and potential underlying mechanisms to
38 inform their view of the cost effectiveness evidence.

39 The committee noted the bespoke economic analysis supported these findings indicating that
40 the potential cost effectiveness of an intervention is impacted by a myriad of factors including
41 those relating to the intervention such as the local cost of delivery and intervention fidelity as
42 well as external factors such as family and peer relationships. They also noted the findings of
43 sensitivity analyses which highlighted the cost and effectiveness of interventions are key
44 drivers of cost effectiveness.

45 There was considerable uncertainty in the model inputs due to a lack of data. Several key
46 limitations were noted including the lack of evidence linking the impact of interventions to
47 long term outcomes, lack of evidence on utility values, oversimplifying the effect of an
48 intervention by dichotomising continuous variables above and below a determined threshold.

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1   They observed that children and young people's outcomes could be positive or negative or a
2   combination of the two and that there was no evidence available to know the combined effect
3   of an intervention across different outcomes. For positive outcomes they considered the
4   model may over-estimate the overall benefit whereas for negative outcomes it may
5   underestimate the total benefit. The committee believed it crucially important schools and
6   other education settings take account of any potential adverse consequences in deciding
7   whether to fund an intervention.

8   The committee were particularly concerned by the lack of studies on the long-term impact of
9   intervening. They agreed that improvement in social and emotional wellbeing could lead to
10 improvements in quality of life as well as improvements in academic progression and
11 attainment. They also agreed there were likely to be benefits to the wider system including
12 helping young people to become happy and successful adults, prepared for the
13 opportunities, responsibilities and experiences of adult life. That the model was unable to
14 capture these potential benefits due to an absence of data was considered a major limitation.
15 From this view, the model could underestimate the benefit of all interventions. Other
16 limitations noted include an oversimplification of the effect of an intervention by dichotomising
17 continuous variables above and below a determined threshold and the lack of evidence on
18 utility values. This could result in either underestimates or overestimates of the cost
19 effectiveness outcomes.

20   They were also aware that the lack of data meant it had not been possible to adopt a holistic
21 approach which captures the importance of a supportive and secure environment (e.g.
22 supportive peers, role models, personal feelings of safety - to feel safe from being bullied,
23 safe to report things without fear of stigma) and an ethos that avoids stigma and
24 discrimination in relation to mental health and social and emotional difficulties.

25 The committee agreed that the potential cost effectiveness of an intervention is impacted by
26 a myriad of factors including those relating to the intervention such as the local cost of
27 delivery and who delivers the intervention as well as external factors such as family and peer
28 relationships. It was also acknowledged by some that this is a relatively new field of science
29 by which very minor changes in context or circumstance can dramatically impact the findings.
30 Taken together with the substantial variability in the interventions available, the heterogeneity
31 across schools and the limitations of the evidence the committee considered it unwise to
32 draw broad conclusions from the model. Rather the committee agreed decision makers
33 should make use of the economic model to understand the potential economic and wellbeing
34 implications when considering the introduction of a new intervention in school and help
35 identify any gaps in current research. The committee believe this could also help guide future
36 research with the aim of improving the mental health and wellbeing of children and young
37 people.

38 The committee highlighted that schools and higher educational settings have a statutory duty
39 to address mental health issues – by teaching about and promoting mental well-being and
40 ways to prevent negative impacts on mental well-being.

41 Finally, whilst the committee considered that implementing interventions might incur
42 additional costs where these are not already in place, they believe that an integrated
43 approach, using universal, whole school, targeted and transition interventions could prevent
44 outcomes which can lead to costly consequences for wider system including the NHS, social
45 services and the criminal justice system.

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1   **1.1.12.5 Other factors the committee took into account**

2   Most of the interventions reviewed were delivered face-to-face in classrooms. There was little
3   evidence of these interventions being delivered remotely or in an online format which was of
4   concern to the committee. This was compounded by the lack of evidence related to the
5   current situation as regards to COVID-19 and disrupted education. The committee asked for
6   expert testimony to fill this gap and to provide a background to how children and young
7   people, and their education, have been affected by the COVID-19 pandemic.

8   The committee also agreed that many of the concerns around efficacy and effectiveness
9   studies were amplified in the current education situation where it may not be feasible to have
10   external providers delivering the intervention or providing additional support to teachers
11   delivering the interventions.

12   The committee invited two experts to fill in 'gaps' in the evidence regarding children and
13   young people's experiences of COVID-19 and lockdown and the impact it had on them.
14   Social connectedness and relationships with peers were identified as key factors for
15   improved mental wellbeing in children and young people.

16   The impact of COVID-19 and lockdown on several sub-groups was discussed, including low
17   socioeconomic status families, SEND children and those in the BAME community. It was
18   recognised that children and young people from these groups are more likely to experience
19   increased difficulties during the pandemic. COVID-19 was also seen to exacerbate pre-
20   existing mental health conditions in young people (16–25 years).

21   Existing challenges experienced by children and young people may have been compounded
22   by the pandemic. Examples may include an unstable home environment, poverty, social and
23   emotional health problems, communication difficulties or caring for family members.
24   Additionally, children and young people of specific age-groups could be more susceptible to
25   the detrimental effects of COVID-19 and lockdown, such as those transitioning from primary
26   to secondary school.

27   The experts reported that primary school children were also experiencing more difficulties
28   compared to secondary school pupils, particularly regarding restlessness, missing friends
29   and routines. Social connectedness was recognised as a key contributing factor to this
30   finding. Secondary school pupils were more likely to regularly communicate with their peers
31   during lockdown, whereas primary pupils did not have the pre-existing social network. The
32   medium to long-term effects of the pandemic and lockdown is currently unknown. Possible
33   concerns highlighted by the committee were ongoing effects on wellbeing, learning,
34   attainment and behaviour, as well as children having missed out on curriculum learning, key
35   social developmental opportunities and opportunities for all of the benefits brought about by
36   play. Furthermore, the effect of the pandemic on children's parents and home life may also
37   have a detrimental impact on the long-term wellbeing of children. Examples may include job
38   losses, furlough, food poverty and lack of adequate heating or home working/learning
39   conditions. Ongoing monitoring may be required to identify any persistent effects once
40   lockdown and the acute phase of the pandemic are over. The committee commented that
41   ongoing monitoring may occur incidentally through existing processes, such as the number
42   of referrals to child and adolescent mental health services (CAMHS), percentage of children
43   missing education and percentage of children attending specialist SEMH education
44   provision.

45   It was also noted that some children preferred being at home than at school. Pupils
46   displaying emotional-based school non-attendance were more likely to fall into this category.

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Additionally, improvements of emotional symptoms shown in secondary school children may be related to in school pressures being lifted, as well as a more relaxed way of life.

The committee suggested that responsibility of intervention implementation should be placed on the school governance structure. Support from senior leadership was identified as a key factor for successful implementation. The committee also suggested appointing a designated lead to think about factors required for intervention success.

1.1.12 Recommendations supported by this evidence review

This evidence review supports recommendations 1.2.1 to 1.2.7.

1.1.13 References – included studies

1.1.13.1 Effectiveness

Ahlen, Johan, Hursti, Timo, Tanner, Lindsey et al. (2018) Prevention of Anxiety and Depression in Swedish School Children: a Cluster-Randomized Effectiveness Study. Prevention science : the official journal of the Society for Prevention Research 19(2): 147-158

Ahlen, Johan; Lenhard, Fabian; Ghaderi, Ata (2019) Long-Term Outcome of a Cluster-Randomized Universal Prevention Trial Targeting Anxiety and Depression in School Children. Behavior therapy 50(1): 200-213

Anthony, Hayley and McLean, Louise A (2015) Promoting mental health at school: Short-term effectiveness of a popular school-based resiliency programme. Advances in School Mental Health Promotion 8(4): 199-215

Araya, R, Fritsch, R, Spears, M et al. (2013) School intervention to improve mental health of students in Santiago, Chile: a randomized clinical trial. JAMA pediatrics 167(11): 1004-1010

Ashdown, Daniela Maree and Bernard, Michael E (2012) Can explicit instruction in social and emotional learning skills benefit the social-emotional development, well-being, and academic achievement of young children?. Early Childhood Education Journal 39(6): 397-405

Barnes, VA, Johnson, MH, Williams, RB et al. (2012) Impact of Williams LifeSkills® training on anger, anxiety, and ambulatory blood pressure in adolescents. Translational behavioral medicine 2(4): 401-410

Berry, Vashti, Axford, Nick, Blower, Sarah et al. (2016) The effectiveness and micro-costing analysis of a universal, school-based, social-emotional learning programme in the UK: A

cluster-randomised controlled trial. School Mental Health: A Multidisciplinary Research and Practice Journal 8(2): 238-256

Bothe, Denise A; Grignon, Josephine B; Olness, Karen N (2014) The effects of a stress management intervention in elementary school children. Journal of developmental and behavioral pediatrics : JDBP 35(1): 62-7

Britton, Willoughby B, Lepp, Nathaniel E, Niles, Halsey F et al. (2014) A randomized controlled pilot trial of classroom-based mindfulness meditation compared to an active control condition in sixth-grade children. Journal of school psychology 52(3): 263-78at Risk 24(1): 1-19

Burckhardt, Rowan, Manicavasagar, Vijaya, Batterham, Philip J et al. (2016) A randomized controlled trial of strong minds: A school-based mental health program combining acceptance and commitment therapy and positive psychology. Journal of school psychology 57: 41-52

Burckhardt, Rowan, Manicavasagar, Vijaya, Shaw, Frances et al. (2018) Preventing mental health symptoms in adolescents using dialectical behaviour therapy skills group: A feasibility study. International Journal of Adolescence and Youth 23(1): 70-85

Calear, A.L., Christensen, H., Brewer, J. et al. (2016) A pilot randomized controlled trial of the e-couch anxiety and worry program in schools. Internet Interventions 6: 1-5

Calear, Alison L, Batterham, Philip J, Poyser, Carmel T et al. (2016) Cluster randomised controlled trial of the e-couch Anxiety and Worry program in schools. Journal of affective disorders 196: 210-7

Campos, Luisa, Dias, Pedro, Duarte, Ana et al. (2018) Is It Possible to "Find Space for Mental Health" in Young People? Effectiveness of a School-Based Mental Health Literacy Promotion Program. International journal of environmental research and public health 15(7)

Caruso, Chiara, Angelone, Lidia, Abbate, Elisa et al. (2018) Effects of a REBT based training on children and teachers in primary school. Journal of Rational-Emotive & Cognitive-Behavior Therapy 36(1): 1-14

Castro-Olivo, Sara M (2014) Promoting social-emotional learning in adolescent Latino ELLs: a study of the culturally adapted Strong Teens program. School psychology quarterly : the

1   official journal of the Division of School Psychology, American Psychological Association
2   29(4): 567-577

3   Cheng, Maryanne, Rooney, Rosanna M, Kane, Robert T et al. (2018) Do parent mental
4   illness and family living arrangement moderate the effects of the Aussie optimism program
5   on depression and anxiety in children?. Frontiers in Psychiatry 9

6   Cheng, Yi-Ju and Ray, Dee C (2016) Child-centered group play therapy: Impact on social-
7   emotional assets of kindergarten children. Journal for Specialists in Group Work 41(3): 209-
8   237

9   Christiansen, L.B., Lund-Cramer, P., Brondeel, R. et al. (2018) Improving children's physical
10 self-perception through a school-based physical activity intervention: The Move for Well-
11 being in School study. Mental Health and Physical Activity 14: 31-38

12 Cipriano, Christina, Barnes, Tia N., Rivers, Susan E. et al. (2019) Exploring Changes in
13 Student Engagement through the Ruler Approach: An Examination of Students at Risk of
14 Academic Failure. Journal of Education for Students Placed at Risk 24(1): 1-19

15 Clarke, AM; Bunting, B; Barry, MM (2014) Evaluating the implementation of a school-based
16 emotional well-being programme: a cluster randomized controlled trial of Zippy's Friends for
17 children in disadvantaged primary schools. Health education research 29(5): 786-798

18 Collins, Sabrina; Woolfson, Lisa Marks; Durkin, Kevin (2014) Effects on coping skills and
19 anxiety of a universal school-based mental health intervention delivered in Scottish primary
20 schools. School Psychology International 35(1): 85-100

21 Connolly, Paul, Miller, Sarah, Kee, Frank et al. (2018) A cluster randomised controlled trial
22 and evaluation and cost-effectiveness analysis of the Roots of Empathy schools-based
23 programme for improving social and emotional well-being outcomes among 8- to 9-year-olds
24 in Northern Ireland. Public Health Research 6(4)

25 Cook, CR, Low, S, Buntain-Ricklefs, J et al. (2018) Evaluation of second step on early
26 elementary students' academic outcomes: a randomized controlled trial. School psychology
27 quarterly 33(4): 561-572

28 Dale, R., Shanley, D.C., Zimmer-Gembeck, M.J. et al. (2016) Empowering and protecting
29 children by enhancing knowledge, skills and well-being: A randomized trial of Learn to BE
30 SAFE with EmmyTM. Child Abuse and Neglect 51: 368-378

31 Daunic, AP, Smith, SW, Garvan, CW et al. (2012) Reducing developmental risk for
32 emotional/behavioral problems: a randomized controlled trial examining the Tools for Getting
33 Along curriculum. Journal of school psychology 50(2): 149-166

34 DiPerna, James C., Lei, Puiwa, Bellinger, Jill et al. (2014) Efficacy of the Social Skills
35 Improvement System--Classwide Intervention Program (SSIS-CIP) in the Primary Grades.:
36 1-13

37 DiPerna, James Clyde, Lei, Puiwa, Bellinger, Jillian et al. (2015) Efficacy of the Social Skills
38 Improvement System Classwide Intervention Program (SSIS-CIP) primary version. School

110
Social, emotional, and mental wellbeing in primary and secondary education:
evidence reviews for Universal curriculum approaches DRAFT FOR CONSULTATION
(January 2022)

1   psychology quarterly : the official journal of the Division of School Psychology, American
2   Psychological Association 30(1): 123-141

3   Diperna, James Clyde, Lei, Puiwa, Bellinger, Jillian et al. (2016) Effects of a Universal
4   Positive Classroom Behavior Program on Student Learning. Psychology in the Schools
5   53(2): 189-203

6   DiPerna, James Clyde, Lei, Puiwa, Cheng, Weiyi et al. (2018) A Cluster Randomized Trial of
7   the Social Skills Improvement System-Classwide Intervention Program (SSIS-CIP) in First
8   Grade. Journal of Educational Psychology 110(1): 1-16

9   Domitrovich, C. E., Bradshaw, C. P., Berg, J. K. et al. (2016) How Do School-Based
10 Prevention Programs Impact Teachers? Findings from a Randomized Trial of an Integrated
11 Classroom Management and Social-Emotional Program. Prevention science 17(3): 325-337

12 Dowling, K; Simpkin, AJ; Barry, MM (2019) A Cluster Randomized-Controlled Trial of the
13 MindOut Social and Emotional Learning Program for Disadvantaged Post-Primary School
14 Students. Journal of youth and adolescence

15 Fitzpatrick, C, Conlon, A, Cleary, D et al. (2013) Enhancing the mental health promotion
16 component of a health and personal development programme in Irish schools. Advances in
17 school mental health promotion 6(2): 122-138

18 Foshee, Vangie A, Reyes, Luz McNaughton, Agnew-Brune, Christine B et al. (2014) The
19 effects of the evidence-based Safe Dates dating abuse prevention program on other youth
20 violence outcomes. Prevention science : the official journal of the Society for Prevention
21 Research 15(6): 907-16

22 Fraguas D, Díaz-Caneja CM, Ayora M et al. (2020) Assessment of School Anti-Bullying
23 Interventions: A Meta-analysis of Randomized Clinical Trials. JAMA pediatrics

24 Froh, Jeffrey J; Sefick, William J; Emmons, Robert A (2008) Counting blessings in early
25 adolescents: an experimental study of gratitude and subjective well-being. Journal of school
26 psychology 46(2): 213-33

27 Garaigordobil, Maite; Jaureguizar, Joana; Bernaras, Elena (2019) Evaluation of the effects of
28 a childhood depression prevention program. The Journal of psychology 153(2): 127-140

29 Garcia-Escalera, J., Valiente, R.M., Sandin, B. et al. (2019) The Unified Protocol for
30 Transdiagnostic Treatment of Emotional Disorders in Adolescents (UP-A) Adapted as a

Social, emotional, and mental wellbeing in primary and secondary education:
evidence reviews for Universal curriculum approaches DRAFT FOR CONSULTATION
(January 2022)

1   School-Based Anxiety and Depression Prevention Program: An Initial Cluster Randomized
2   Wait-List-Controlled Trial. Behavior Therapy

3   Gigantesco, Antonella, Del Re, Debora, Cascavilla, Isabella et al. (2015) A Universal Mental
4   Health Promotion Programme for Young People in Italy. BioMed research international 2015:
5   345926

6   Gorard, Stepehn; Siddiqui, Nadia; See, Beng Huat (2017) Can "Philosophy for Children"
7   Improve Primary School Attainment?. Journal of Philosophy of Education 51(1): 5-22

8   Hagelskamp, Carolin, Brackett, Marc A, Rivers, Susan E et al. (2013) Improving classroom
9   quality with the RULER Approach to Social and Emotional Learning: proximal and distal
10   outcomes. American journal of community psychology 51(34): 530-43

11   Hagins, Marshall and Rundle, Andrew (2016) Yoga Improves Academic Performance in
12   Urban High School Students Compared to Physical Education: A Randomized Controlled
13   Trial. Mind, Brain, and Education 10(2): 105-116

14   Harlacher, Jason E and Merrell, Kenneth W (2010) Social and emotional learning as a
15   universal level of student support: Evaluating the follow-up effect of strong kids on social and
16   emotional outcomes. Journal of Applied School Psychology 26(3): 212-229

17   Holen, Solveig, Waaktaar, Trine, Lervag, Arne et al. (2012) The Effectiveness of a Universal
18   School-Based Programme on Coping and Mental Health: A Randomised, Controlled Study of
19   Zippy' Friends. Educational Psychology 32(5): 657-677

20   Holen, Solveig, Waaktaar, Trine, Lervag, Arne et al. (2013) Implementing a universal stress
21   management program for young school children: Are there classroom climate or academic
22   effects?. Scandinavian Journal of Educational Research 57(4): 420-444

23   Horn, Andrea B; Possel, Patrick; Hautzinger, Martin (2011) Promoting adaptive emotion
24   regulation and coping in adolescence: a school-based programme. Journal of health
25   psychology 16(2): 258-73

26   Humphrey, N; Barlow, A; Lendrum, A (2018) Quality Matters: implementation Moderates
27   Student Outcomes in the PATHS Curriculum. Prevention science 19(2): 197-208

28   Humphrey, Neil, Barlow, Alexandra, Wigelsworth, Michael et al. (2015) Promoting Alternative
29   Thinking Strategies (PATHS): Evaluation Report and Executive Summary.: 46

30   Humphrey, Neil, Barlow, Alexandra, Wigelsworth, Michael et al. (2016) A cluster randomized
31   controlled trial of the Promoting Alternative Thinking Strategies (PATHS) curriculum. Journal
32   of school psychology 58: 73-89

33   Humphrey, Neil, Hennessey, Alexandra, Lendrum, Ann et al. (2018) The PATHS curriculum
34   for promoting social and emotional well-being among children aged 7 9 years: a cluster RCT.
35   Public Health Research 6(10)

Social, emotional, and mental wellbeing in primary and secondary education:
evidence reviews for Universal curriculum approaches DRAFT FOR CONSULTATION
(January 2022)

1   Ialongo, NS, Domitrovich, C, Embry, D et al. (2019) A randomized controlled trial of the
2   combination of two school-based universal preventive interventions. Developmental
3   psychology 55(6): 1313-1325

4   Johnson, Catherine, Burke, Christine, Brinkman, Sally et al. (2017) A randomized controlled
5   evaluation of a secondary school mindfulness program for early adolescents: Do we have the
6   recipe right yet?. Behaviour research and therapy 99: 37-46

7   Johnstone, Julie, Rooney, Rosanna M, Hassan, Shari et al. (2014) Prevention of depression
8   and anxiety symptoms in adolescents: 42 and 54 months follow-up of the Aussie Optimism
9   Program-Positive Thinking Skills. Frontiers in psychology 5: 364

10 Kang, Y, Rahrig, H, Eichel, K et al. (2018) Gender differences in response to a school-based
11 mindfulness training intervention for early adolescents. Journal of school psychology 68: 163-
12 176

13 Kennedy, Patricia, Rooney, Rosanna M., Kane, Robert T. et al. (2015) The enhanced Aussie
14 Optimism Positive Thinking Skills Program: The relationship between internalizing symptoms
15 and family functioning in children aged 9–11 years old. Frontiers in Psychology 6: 504

16 Kindt, Karlijn C M, Kleinjan, Marloes, Janssens, Jan M A M et al. (2014) Evaluation of a
17 school-based depression prevention program among adolescents from low-income areas: a
18 randomized controlled effectiveness trial. International journal of environmental research and
19 public health 11(5): 5273-93

20 Kourmousi, Ntina, Markogiannakis, Georgios, Tzavara, Chara et al. (2018) Students'
21 Psychosocial Empowerment with the 'Steps for Life' Personal and Social Skills Greek

113
Social, emotional, and mental wellbeing in primary and secondary education:
evidence reviews for Universal curriculum approaches DRAFT FOR CONSULTATION
(January 2022)

Elementary Programme. International Electronic Journal of Elementary Education 10(5): 535-549

Kuosmanen, T., Fleming, T.M., Newell, J. et al. (2017) A pilot evaluation of the SPARX-R gaming intervention for preventing depression and improving wellbeing among adolescents in alternative education. Internet Interventions 8: 40-47

Kuosmanen, T.; Fleming, T. M.; Barry, M. M. (2018) The implementation of SPARX-R computerized mental health program in alternative education: Exploring the factors contributing to engagement and dropout. Children and Youth Services Review 84: 176-184

Lang, Christin, Feldmeth, Anna Karina, Brand, Serge et al. (2016) Stress management in physical education class: An experiential approach to improve coping skills and reduce stress perceptions in adolescents. Journal of Teaching in Physical Education 35(2): 149-158

Lang, Christin, Feldmeth, Anne Karina, Brand, Serge et al. (2017) Effects of a physical education-based coping training on adolescents' coping skills, stress perceptions and quality of sleep. Physical Education and Sport Pedagogy 22(3): 213-230

Low, S, Cook, CR, Smolkowski, K et al. (2015) Promoting social-emotional competence: an evaluation of the elementary version of Second Step?. Journal of school psychology 53(6): 463-477

Low, S, Smolkowski, K, Cook, C et al. (2019) Two-year impact of a universal social-emotional learning curriculum: group differences from developmentally sensitive trends over time. Developmental psychology 55(2): 415-433

Luengo Kanacri BP, Zuffiano A, Pastorelli C et al. (2020) Cross-national evidences of a school-based universal programme for promoting prosocial behaviours in peer interactions: Main theoretical communalities and local unicity. International journal of psychology : Journal international de psychologie: 48-59

Malti, Tina; Ribeaud, Denis; Eisner, Manuel P (2011) The effectiveness of two universal preventive interventions in reducing children's externalizing behavior: a cluster randomized controlled trial. Journal of clinical child and adolescent psychology : the official journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53 40(5): 677-92

McCormick, M., White, H., Horn, P. et al. (2018) Instructional Support and Academic Skills: Impacts of INSIGHTS in Classrooms With Shy Children. Early Education and Development 29(5): 691-715

McCormick, Meghan P., Cappella, Elise, O'Connor, Erin et al. (2016) Do Effects of Social-Emotional Learning Programs Vary by Level of Parent Participation? Evidence from the

114
Social, emotional, and mental wellbeing in primary and secondary education:
evidence reviews for Universal curriculum approaches DRAFT FOR CONSULTATION
(January 2022)

Randomized Trial of INSIGHTS. Journal of Research on Educational Effectiveness 9(3): 364-394

Miller, LD, Laye-Gindhu, A, Bennett, JL et al. (2011) An effectiveness study of a culturally enriched school-based CBT anxiety prevention program. Journal of clinical child and adolescent psychology 40(4): 618-629

Miller, Lynn D, Short, Christina, Garland, E. Jane et al. (2010) The ABCs of CBT (cognitive behavior therapy): Evidence-based approaches to child anxiety in public school settings. Journal of Counseling & Development 88(4): 432-439

Morgan, L., Hooker, J. L., Sparapani, N. et al. (2018) Cluster randomized trial of the classroom SCERTS intervention for elementary students with autism spectrum disorder. Journal of Consulting and Clinical Psychology 86(7): 631-644

Muratori, P., Bertacchi, I., Giuli, C. et al. (2017) Implementing Coping Power Adapted as a Universal Prevention Program in Italian Primary Schools: a Randomized Control Trial. Prevention science 18(7): 754-761

Nash, Kathleen A (2007) Implementation and evaluation of the empower youth program. Journal of holistic nursing : official journal of the American Holistic Nurses' Association 25(1): 26-8

O'Connor, Erin E., Cappella, Elise, McCormick, Meghan P. et al. (2014) An examination of the efficacy of INSIGHTS in enhancing the academic and behavioral development of children in early grades. Journal of Educational Psychology

O'Kearney, Richard, Kang, Kanwal, Christensen, Helen et al. (2009) A controlled trial of a school-based Internet program for reducing depressive symptoms in adolescent girls. Depression and anxiety 26(1): 65-72

Palacios, Diego, Berger, Christian, Luengo Kanacri, Bernadette Paula et al. (2019) The Interplay of Adolescents' Aggression and Victimization with Friendship and Antipathy Networks within an Educational Prosocial Intervention. Journal of youth and adolescence

Panayiotou, Margarita; Humphrey, Neil; Wigelsworth, Michael (2019) An empirical basis for linking social and emotional learning to academic performance. Contemporary Educational Psychology 56: 193-204

Perry, Yael, Petrie, Katherine, Buckley, Hannah et al. (2014) Effects of a classroom-based educational resource on adolescent mental health literacy: a cluster randomized controlled trial. Journal of adolescence 37(7): 1143-51

Perry, Yael, Werner-Seidler, Aliza, Calear, Alison et al. (2017) Preventing Depression in Final Year Secondary Students: School-Based Randomized Controlled Trial. Journal of medical Internet research 19(11): e369

Pophillat, Eugenie, Rooney, Rosanna M., Nesa, Monique et al. (2016) Preventing Internalizing Problems in 6-8 Year Old Children: A Universal School-Based Program. Frontiers in psychology 7: 1928

Social, emotional, and mental wellbeing in primary and secondary education:
evidence reviews for Universal curriculum approaches DRAFT FOR CONSULTATION
(January 2022)

1 Possel, P; Adelson, JL; Hautzinger, M (2011) A randomized trial to evaluate the course of
2 effects of a program to prevent adolescent depressive symptoms over 12 months. Behaviour
3 research and therapy 49(12): 838-851

4 Possel, Patrick, Martin, Nina C, Garber, Judy et al. (2013) A randomized controlled trial of a
5 cognitive-behavioral program for the prevention of depression in adolescents compared with

116
Social, emotional, and mental wellbeing in primary and secondary education:
evidence reviews for Universal curriculum approaches DRAFT FOR CONSULTATION
(January 2022)

1   nonspecific and no-intervention control conditions. Journal of counseling psychology 60(3):
2   432-8

3   Possel, Patrick; Seemann, Simone; Hautzinger, Martin (2008) Impact of comorbidity in
4   prevention of adolescent depressive symptoms. Journal of Counseling Psychology 55(1):
5   106-117

6   Putwain, David W.; Gallard, Diahann; Beaumont, Joanna (2019) A Multi-Component
7   Wellbeing Programme for Upper Secondary Students: Effects on Wellbeing, Buoyancy, and
8   Adaptability. School Psychology International 40(1): 49-65

9   Raes, Filip, Griffith, James W, Van der Gucht, Katleen et al. (2014) School-based prevention
10 and reduction of depression in adolescents: A cluster-randomized controlled trial of a
11 mindfulness group program. Mindfulness 5(5): 477-486

12 Reiter, Christina and Wilz, Gabriele (2016) Resource diary: A positive writing intervention for
13 promoting well-being and preventing depression in adolescence. The Journal of Positive
14 Psychology 11(1): 99-108

15 Roberts CM, Kane RT, Rooney RM et al. (2017) Efficacy of the Aussie Optimism Program:
16 Promoting Pro-social Behavior and Preventing Suicidality in Primary School Students. A
17 Randomised-Controlled Trial. Frontiers in psychology 8: 1392

18 Roberts, Clare M, Kane, Robert, Bishop, Brian et al. (2010) The prevention of anxiety and
19 depression in children from disadvantaged schools. Behaviour research and therapy 48(1):
20 68-73

21 Rodgers, A. and Dunsmuir, S. (2015) A controlled evaluation of the 'FRIENDS for life'
22 emotional resiliency programme on overall anxiety levels, anxiety subtype levels and school
23 adjustment. Child and Adolescent Mental Health 20(1): 13-19

24 Rooney, R, Hassan, S, Kane, R et al. (2013) Reducing depression in 9-10 year old children
25 in low SES schools: a longitudinal universal randomized controlled trial. Behaviour research
26 and therapy 51(12): 845-854

27 Rooney, Rosanna M, Morrison, David, Hassan, Sharinaz et al. (2013) Prevention of
28 internalizing disorders in 9-10 year old children: efficacy of the Aussie Optimism Positive
29 Thinking Skills Program at 30-month follow-up. Frontiers in psychology 4: 988

30 Rose, K; Hawes, DJ; Hunt, CJ (2014) Randomized controlled trial of a friendship skills
31 intervention on adolescent depressive symptoms. Journal of consulting and clinical
32 psychology 82(3): 510-520

33 Ross, Steven, Sheard, Mary, Cheung, Alan et al. (2012) Promoting primary pupils' social-
34 emotional learning and pro-social behaviour: Longitudinal evaluation of the Together 4 All
35 Programme in Northern Ireland. Effective Education 3: 1-21

36 Ruini, Chiara, Ottolini, Fedra, Tomba, Elena et al. (2009) School intervention for promoting
37 psychological well-being in adolescence. Journal of behavior therapy and experimental
38 psychiatry 40(4): 522-32

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Social, emotional, and mental wellbeing in primary and secondary education:
evidence reviews for Universal curriculum approaches DRAFT FOR CONSULTATION
(January 2022)

1 Salmoirago-Blotcher, E., Druker, S., Frisard, C. et al. (2018) Integrating mindfulness training
2 in school health education to promote healthy behaviors in adolescents: Feasibility and
3 preliminary effects on exercise and dietary habits. Preventive Medicine Reports 9: 92-95

4 Salmoirago-Blotcher, Elena, Druker, Sue, Meyer, Florence et al. (2015) Design and methods
5 for "Commit to Get Fit" - a pilot study of a school-based mindfulness intervention to promote
6 healthy diet and physical activity among adolescents. Contemporary clinical trials 41: 248-58

7 Salmoirago-Blotcher, Elena, Druker, Susan, Meleo-Meyer, Florence et al. (2019) Beneficial
8 Effects of School-based Mindfulness Training On Impulsivity in Healthy Adolescents: Results
9 From a Pilot Randomized Controlled Trial. Explore (New York, N.Y.) 15(2): 160-164

10 Schonert-Reichl, Kimberly A, Oberle, Eva, Lawlor, Molly Stewart et al. (2015) Enhancing
11 cognitive and social-emotional development through a simple-to-administer mindfulness-
12 based school program for elementary school children: a randomized controlled trial.
13 Developmental psychology 51(1): 52-66

14 Sibinga, E.M.S., Webb, L., Ghazarian, S.R. et al. (2016) School-based mindfulness
15 instruction: An RCT. Pediatrics 137(1): e20152532

16 Skryabina, E; Taylor, G; Stallard, P (2016) Effect of a universal anxiety prevention
17 programme (FRIENDS) on children's academic performance: results from a randomised
18 controlled trial. Journal of child psychology and psychiatry, and allied disciplines 57(11):
19 1297-1307

20 Smith, Stephen W, Daunic, Ann P, Barber, Brian R et al. (2014) Preventing risk for significant
21 behavior problems through a cognitive-behavioral intervention: effects of the tools for getting
22 along curriculum at one-year follow-up. The journal of primary prevention 35(5): 371-87

23 Stallard, P, Phillips, R, Montgomery, AA et al. (2013) A cluster randomised controlled trial to
24 determine the clinical effectiveness and cost-effectiveness of classroom-based cognitive-

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Social, emotional, and mental wellbeing in primary and secondary education:
evidence reviews for Universal curriculum approaches DRAFT FOR CONSULTATION
(January 2022)

1   behavioural therapy (CBT) in reducing symptoms of depression in high-risk adolescents.
2   Health technology assessment (winchester, england) 17(47): vii-xvii1

3   Stallard, P, Sayal, K, Phillips, R et al. (2012) Classroom based cognitive behavioural therapy
4   in reducing symptoms of depression in high risk adolescents: pragmatic cluster randomised
5   controlled trial. BMJ (clinical research ed.) 345: e6058

6   Stallard, P. and Buck, R. (2013) Preventing depression and promoting resilience: Feasibility
7   study of a school-based cognitive-behavioural intervention. British Journal of Psychiatry
8   202(suppl54): 18-s23

9   Stallard, P., Skryabina, E., Taylor, G. et al. (2014) Classroom-based cognitive behaviour
10   therapy (FRIENDS): A cluster randomised controlled trial to Prevent Anxiety in Children
11   through Education in Schools (PACES). The Lancet Psychiatry 1(3): 185-192

12   Stallard, Paul, Simpson, Neil, Anderson, Sue et al. (2008) The FRIENDS emotional health
13   prevention programme: 12 month follow-up of a universal UK school based trial. European
14   child & adolescent psychiatry 17(5): 283-9

15   Stallard, Paul, Skryabina, Elena, Taylor, Gordon et al. (2015) A cluster randomised controlled
16   trial comparing the effectiveness and cost-effectiveness of a school-based cognitive-

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evidence reviews for Universal curriculum approaches DRAFT FOR CONSULTATION
(January 2022)

behavioural therapy programme (FRIENDS) in the reduction of anxiety and improvement in mood in children aged 9/10 years. Public Health Research 3(4)

Standage, M; Cumming, SP; Gillison, FB (2013) A cluster randomized controlled trial of the be the best you can be intervention: effects on the psychological and physical well-being of school children. BMC public health 13: 666

Tak, YR, Lichtwarck-Aschoff, A, Gillham, JE et al. (2016) Universal School-Based Depression Prevention 'Op Volle Kracht': a Longitudinal Cluster Randomized Controlled Trial. Journal of abnormal child psychology 44(5): 949-961

Tak, YR, Van Zundert, RM, Kuijpers, RC et al. (2012) A randomized controlled trial testing the effectiveness of a universal school-based depression prevention program 'Op Volle Kracht' in the Netherlands. BMC public health 12: 21

Tak, Yuli R, Kleinjan, Marloes, Lichtwarck-Aschoff, Anna et al. (2014) Secondary outcomes of a school-based universal resiliency training for adolescents: a cluster randomized controlled trial. BMC public health 14: 1171

Thayer, Andrew J, Campa, Daniel M, Weeks, Mollie R et al. (2019) Examining the Differential Effects of a Universal SEL Curriculum on Student Functioning Through the Dual Continua Model of Mental Health. The journal of primary prevention 40(4): 405-427

Theodore-Oklota, Christina, Orsillo, Susan M, Lee, Jonathan K et al. (2014) A pilot of an acceptance-based risk reduction program for relational aggression for adolescents. Journal of Contextual Behavioral Science 3(2): 109-116

Thomas, George and Atkinson, Cathy (2016) Measuring the effectiveness of a mindfulness-based intervention for children's attentional functioning. Educational and Child Psychology 33(1): 51-64

Thomas, George and Atkinson, Cathy (2017) Perspectives on a Whole Class Mindfulness Programme. Educational Psychology in Practice 33(3): 231-248

Tokolahi, E., Vandal, A.C., Kersten, P. et al. (2018) Cluster-randomised controlled trial of an occupational therapy intervention for children aged 11-13 years, designed to increase

participation to prevent symptoms of mental illness. Child and Adolescent Mental Health 23(4): 313-327

Tyson, Orla; Roberts, Clare M; Kane, Robert (2009) Can implementation of a resilience program for primary school children enhance the mental health of teachers?. Australian Journal of Guidance and Counselling 19(2): 116-130

Van der Gucht, Katleen, Griffith, James W, Hellemans, Romina et al. (2017) Acceptance and Commitment Therapy (ACT) for adolescents: Outcomes of a large-sample, school-based, cluster-randomized controlled trial. Mindfulness 8(2): 408-416

Van der Gucht, Katleen, Takano, Keisuke, Kuppens, Peter et al. (2017) Potential moderators of the effects of a school-based mindfulness program on symptoms of depression in adolescents. Mindfulness 8(3): 797-806

Waters, A. M., Groth, T. A., Sanders, M. et al. (2015) Developing Partnerships in the Provision of Youth Mental Health Services and Clinical Education: a School-Based Cognitive Behavioral Intervention Targeting Anxiety Symptoms in Children. Behavior therapy 46(6): 844-855

Waters, Allison M, Candy, Steven G, Zimmer-Gembeck, Melanie J et al. (2019) A School-Based Comparison of Positive Search Training to Enhance Adaptive Attention Regulation with a Cognitive-Behavioural Intervention for Reducing Anxiety Symptoms in Children. Journal of abnormal child psychology

Wong, N., Kady, L., Mewton, L. et al. (2014) Preventing anxiety and depression in adolescents: A randomised controlled trial of two school based Internet-delivered cognitive behavioural therapy programmes. Internet Interventions 1(2): 90-94

1.1.13.2 Economic

Anderson, R., et al. (2014). Cost-effectiveness of classroom-based cognitive behaviour therapy in reducing symptoms of depression in adolescents: a trial-based analysis. Journal of Child Psychology and Psychiatry 55(12) 1390-1397.

Ford T, Hayes R, Byford S, Edwards V, Fletcher M, Logan S, et al. The effectiveness and cost-effectiveness of the Incredible Years Teacher Classroom Management programme in primary school children: results of the STARS cluster randomised controlled trial. Psychological medicine. 2019;49(5):828-42.

Garmy P, Clausson EK, Berg A, Steen Carlsson K, Jakobsson U. Evaluation of a school-based cognitive-behavioral depression prevention program. Scandinavian journal of public health. 2019;47(2):182-89.

Humphrey, N., et al. (2018). The PATHS curriculum for promoting social and emotional well-being among children aged 7-9 years: a cluster RCT. Public Health Research 6(10).

Hunter LJ, DiPerna JC, Hart SC, Crowley M. At what cost? Examining the cost effectiveness of a universal social-emotional learning program. School psychology quarterly : the official journal of the Division of School Psychology, American Psychological Association. 2018;33(1):147-54.

1   Lee YY, Barendregt JJ, Stockings EA, Ferrari AJ, Whiteford HA, Patton GA, et al. The
2   population cost-effectiveness of delivering universal and indicated school-based
3   interventions to prevent the onset of major depression among youth in Australia.
4   Epidemiology and Psychiatric Sciences. 2017;26(5):545-64.

5   McCabe C. Estimating the cost effectiveness of a universal mental health promotion
6   intervention in primary schools: A preliminary analysis. Report to the NICE Public Health
7   Interventions Programme. Leeds: Institute of Health Sciences, University of Leeds. 2007

8   Stallard P, Phillips R, Montgomery AA, Spears M, Anderson R, Taylor J, et al. A cluster
9   randomised controlled trial to determine the clinical effectiveness and cost-effectiveness of
10   classroom-based cognitive-behavioural therapy (CBT) in reducing symptoms of depression
11   in high-risk adolescents. Health Technology Assessment. 2013;17(47)

12   Stallard P, Skryabina E, Taylor G, Anderson R, Ukoumunne OC, Daniels H, et al. A cluster
13   randomised controlled trial comparing the effectiveness and cost-effectiveness of a school-
14   based cognitive behavioural therapy programme (FRIENDS) in the reduction of anxiety and
15   improvement in mood in children aged 9/10 years. programme NPHR; 18 Nov 2015 2015.
16   Available from: http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?ID=32015001174.

17   Turner AJ, Sutton M, Harrison M, Hennessey A, Humphrey N. Cost-Effectiveness of a
18   School-Based Social and Emotional Learning Intervention: Evidence from a Cluster-
19   Randomised Controlled Trial of the Promoting Alternative Thinking Strategies Curriculum.
20   Applied Health Economics and Health Policy. 2019

21   Wellander L, Wells MB, Feldman I. Does Prevention Pay? Costs and Potential Cost-Savings
22   of School Interventions Targeting Children with Mental Health Problems. Journal of Mental
23   Health Policy and Economics. 2016;19(2):91-101.
24

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1 **Appendices**

2 **Appendix A – Review protocols**

A31 **Review protocol for Universal classroom interventions**

Field	Content
PROSPERO registration number	CRD42020187307
Review title (50 Words)	Universal curriculum content for the promotion of social, emotional and mental wellbeing.
Review questions (250 words)	Quantitative (effectiveness) 3.1a What universal classroom-based interventions to promote social, emotional and mental wellbeing in children in primary education are effective and cost effective? 3.1b What universal classroom-based interventions to promote social, emotional and mental wellbeing in children and young people in secondary and further education are effective and cost effective? Qualitative (views and experiences) 3.2 Are universal classroom-based interventions acceptable to the children and young people receiving them, their parents or carers and to those delivering them? Qualitative and Quantitative (Survey data and views and experiences) 3.3 What are the barriers and facilitators to using universal classroom-based interventions to promote social, emotional and mental wellbeing in children and young people?
Objective	Quantitative (effectiveness) [3.1a and 3.1b] To identify which universal curriculum-focused interventions to promote social, emotional and mental wellbeing are effective and cost-effective in terms of the social, emotional and mental wellbeing of children and young people in UK key stages 1 to 4 and post-16 education or equivalent. Qualitative (views and experiences) [3.2] To understand the acceptability of universal curriculum-focused social and emotional learning interventions for children and young people in UK key stages 1 to 4 and post-16 education or equivalent. [3.3] To identify the barriers and facilitators of universal curriculum-focused social and emotional learning interventions for children and young people in UK key stages 1 to 4 and post-16 education or equivalent either in UK. The purpose of this review is to identify which interventions work rather than which interventions work best.

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Field	Content
	The implication of this is that any effective intervention arising from this evidence review and associated reviews (cost-effectiveness, acceptability and barriers/facilitators) will be recommended in a list of options for schools to use.
Searches (300 words)	Quantitative and Qualitative The following databases will be searched: Medline and Medline in Process (OVID) Embase (OVID) CENTRAL (Wiley)) Cochrane Database of Systematic Reviews (Wiley) PsycINFO (Ovid) Social Policy and Practice (OVID) ERIC (Proquest) Web of Science Database functionality will be used, where available, to exclude: non-English language papers animal studies editorials, letters and commentaries conference abstracts and posters registry entries for ongoing or unpublished clinical trials dissertations duplicates Searches will be restricted by: January 2007 to date Secondary Databases A simple keyword-based search approach will be taken in the following databases: DARE (legacy database - records up to March 2014 only) (CRD) National Guidelines Clearinghouse (US Dept. of Health and Human Services) Bibliomap (eppicentre) Dopher (eppicentre) Trophi (epicentre) Citation searching Depending on initial database results, forward citation searching on key papers may be conducted, if judged necessary, using Web of Science (WOS). Only those references which NICE can access through its WOS subscription would be added to the search results. Duplicates would be removed in WOS before downloading. The reference list of current (within 2 years) systematic reviews will be checked for relevant studies Websites

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Field	Content
	Web searches will also be conducted. Google and Google Scholar will be searched for some key terms and the first 50 results examined to identify any UK reports or publications relevant to the review that have not been identified from another source. Searches will also be conducted on key websites for relevant UK reports or publications: Websites PSHE association Public Health England Department of Health Department for Education Public Health Institute Mentor-Adepis OFSTED National Foundation for Educational Research Research in Practice Education Endowment Foundation Office for Children's Commissioner Council for disabled children Results will be saved to EPPI Reviewer. A record will be kept of number of records found from each database and of the strategy used in each database. A record will be kept of total number of duplicates found and of total results provided to the Public Health team. The searches will be re-run 6 weeks before final submission of the review and further studies retrieved for inclusion. The full search strategies for MEDLINE database will be published in the final review.
Condition or domain being studied (200 words)	Social, emotional and mental wellbeing
Population (200 words)	Quantitative and Qualitative Population Children (including those with SEND) in UK key stages 1 and 2 or equivalent in primary education Children and young people (including those with SEND) in UK key stages 3 to 4 or equivalent in secondary education Young people in post-16 education (further education) up to the age of 18 or 19 for young people without SEND up to the age of 25 for young people with SEND Qualitative (views and experiences) and quantitative (survey data) only

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Field	Content
	Other populations:
	Teachers/practitioners delivering the interventions
	Parents/Carers of children and young people receiving the interventions
	Setting
	The following educational settings will be included:
	Schools providing primary and secondary education including maintained schools, schools with a sixth form, academies, free schools, independent schools, non-maintained schools, and alternative provision including pupil referral units (see Department for Education's Types of school).
	Special schools.
	Further education colleges for young people, generally between the ages of 16 and 18.
	Young offender institutions.
	Secure children's homes.
	Secure training centres.
	Secure schools.
	Exclusion:
	Population
	Children in early years foundation stage (EYFS) (Where the studies define the population by age/UK key stage, we will only exclude if more than 50% of the population is in EYFS.)
	Young people not in education.
	Young people in higher education
	Setting
	Private homes
Intervention (200 words)	Universal curriculum content interventions to improve social, emotional and mental wellbeing that are delivered to an unselected population (for example whole classroom).
	These universal curriculum content interventions aim to do at least one of the following:
	promote good social and emotional wellbeing or
	prevent poor social and emotional wellbeing or
	promote good mental wellbeing or
	prevent poor mental wellbeing
Comparator (200 words)	Quantitative (effectiveness)
	Usual practice (can include no intervention or delayed start of intervention)
	Quantitative (survey)
	Not applicable
	Qualitative (views and experiences)

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Field	Content
	Not applicable
Types of study to be included (150 words)	Quantitative (Effectiveness) Systematic reviews of RCTs Randomised controlled trials Quantitative (Survey) Mixed-method studies with a quantitative component Survey or other cross-sectional studies that report on barriers and facilitators to these interventions. Qualitative (Views and experiences) Qualitative studies of interventions for example focus groups and interview-based studies or mixed-methods studies with a qualitative component
Other exclusion criteria (no separate section for this to be entered on PROSPERO – it gets included in the section above so within that word count)	Quantitative (effectiveness) Papers published in languages other than English will be excluded. Studies from countries outside of OECD list (n=36) will be excluded. Studies published before the year 2007 will be excluded. Studies not published in full text (e.g. protocols or summaries) will be excluded. Studies that do not have a control group. Quantitative (survey) Studies from outside the UK will be excluded. Papers published in languages other than English will be excluded. Studies published before the year 2007 will be excluded. Studies not published in full text (e.g. protocols or summaries) will be excluded. Qualitative (views and experiences) Studies from outside the UK will be excluded. Papers published in languages other than English will be excluded. Studies published before the year 2007 will be excluded. Studies not published in full text (e.g. protocols or summaries) will be excluded.
Context (250 words)	Population and setting: Unselected population of children in UK key stages 1 to 4 and post-16 education or equivalent in primary, secondary and further education. Within this, there may be differences in context depending on type of school, geographical location or

Field	Content
	socioeconomic status as well as subgroups of children such as those with special educational needs and disabilities. Intervention: Universal education delivered within school, during usual school hours and as part of the school's curriculum or approach to social and emotional learning in the context of the new legislation around Relationships Education. Social and emotional skills are key during children and young people's development that may help to achieve positive outcomes in health, wellbeing and future success. These skills can be taught during primary and secondary school in a cumulative approach whereby the skills acquired increase in complexity as appropriate to age and act as a foundation for further development in secondary school. Curriculum content can include interventions to improve social, emotional and mental wellbeing that are standalone subjects. Social, emotional and mental wellbeing interventions can also be embedded in other subjects e.g maths 'which can prove beneficial in curriculum delivery'
Primary outcomes (critical outcomes) (200 words) A separate mandatory box for Timing and Measures of these outcomes needs to be completed within PROSPERO. Please list these under timing and measures heading (200 words)	Quantitative (effectiveness) Social and emotional wellbeing outcomes Any validated child or young person, parent or teacher measure of mental, social, emotional or psychological wellbeing categorised as: Social and emotional skills and attitudes (such as knowledge) Emotional distress (such as depression, anxiety and stress) Behavioural outcomes that are observed (such as positive social behaviour; conduct problems) Academic outcomes Academic progression and attainment Other outcomes Quality of life Quantitative (survey) Proportional data Qualitative (views and experiences) Views and experiences in terms of acceptability and barriers and facilitators of: teachers and practitioners delivering interventions children and young people receiving interventions. parents/carers of children and young people receiving the interventions

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Field	Content
Timings and measures	Quantitative (effectiveness) At least 12 months Studies that report outcomes at less than 12 months will be downgraded for indirectness. Quantitative (survey) Not applicable Qualitative (views and experiences) Not applicable
Secondary outcomes (important outcomes) (200 words) As above a separate entry for the timing and measures of these additional outcomes (200 words)	Quantitative (effectiveness) School attendance School exclusions Unintended consequences (e.g. stigma, reinforcement of negative behaviours) Quantitative (survey) None Qualitative (views and experiences) None
Data extraction (selection and coding) (300 words)	All references identified by the searches and from other sources will be uploaded into EPPI-R5 and de-duplicated. This review will use the EPPI-R5 priority screening functionality. At least 50% of the identified abstracts (or 1,000 records, if that is a greater number) will be screened. After this point, screening will only be terminated if a pre-specified threshold is met for a number of abstracts being screened without a single new include being identified. This threshold is set according to the expected proportion of includes in the review (with reviews with a lower proportion of includes needing a higher number of papers without an identified study to justify termination) and is always a minimum of 500. A random 10% sample of the studies remaining in the database when the threshold is met will be additionally screened, to check if a substantial number of relevant studies are not being correctly classified by the algorithm, with the full database being screened if concerns are identified. The full text of potentially eligible studies will be retrieved and will be assessed in line with the eligibility criteria outlined above (see sections 6-10).

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Field	Content
	A standardised EPPI-R5 template will be used when extracting data from studies (this is consistent with the Developing NICE guidelines: the manual section 6.4). Details of the intervention will be extracted using the TIDieR checklist in EPPI-R5. Outcome data will be extracted into EPPI-R5 as reported in the full text. Study investigators may be contacted for missing data where time and resources allow.
Risk of bias (quality) assessment (200 words)	Risk of bias will be assessed on an outcome basis using the NICE preferred study design appropriate checklists as described in Developing NICE guidelines: the manual (Appendix H) Systematic reviews: ROBIS Individual RCTs: Cochrane risk of bias tool 2.0 Cluster RCTs: Cochrane risk of bias tool 2.0 Quantitative (Survey) Risk of bias will be assessed on an outcome basis using the NICE preferred study design appropriate checklist for surveys as described in Developing NICE guidelines: the manual (Appendix H) CEBM checklist Qualitative (views and experiences) Risk of bias will be assessed on an outcome basis using the following NICE preferred study design appropriate checklist for qualitative studies as described in Developing NICE guidelines: the manual (Appendix H) CASP qualitative checklist
Strategy for data synthesis (300 words)	Quantitative (effectiveness) The primary outcomes will be categorised at data extraction into four categories: social and emotional skills emotional distress behavioural outcomes and academic outcomes. The secondary outcomes will be extracted as reported in the text. It is anticipated that the studies included will be heterogeneous with respect to interventions and outcomes. Where meta-analysis is appropriate, the data will be pooled in a standard pair-wise meta-analysis within the categories above

Field	Content
	using a random effects model to allow for the anticipated heterogeneity. Dichotomous data will be pooled where appropriate and the effect size will be reported using risk ratios in a standard pair-wise meta-analysis. Continuous outcomes reported on the same scale will be pooled in a standard pair-wise meta-analysis using mean difference where possible. Continuous outcomes not reported on the same scale will be pooled using a standardised mean difference in a standard pair-wise meta-analysis. Methods for pooling cluster randomised controlled trials will be considered where appropriate. Unit of analysis issues will be dealt with according to the methods outlined in the Cochrane Handbook. Unexplained heterogeneity will be examined where appropriate with a sensitivity analysis based on risk of bias. Where appropriate, the quality or certainty across all available evidence will be evaluated for each outcome using an the 'Grading of Recommendations Assessment, Development and Evaluation (GRADE) toolbox' developed by the international GRADE working group http://www.gradeworkinggroup.org/ If the studies are found to be too heterogeneous to be pooled statistically, a narrative approach will be conducted and evidence statements used to summarise the findings. Where a pair-wise meta-analysis has been conducted, a meta-regression looking at combinations of components may be undertaken if there are a sufficient number of studies identified for each variable (at least n=10), Quantitative (survey) Where appropriate, the quality or certainty across all available evidence will be evaluated for each outcome using the GRADE approach. Qualitative (views and experiences) The key themes and supporting statements from the studies will be categorised into themes relevant to the review across all studies using a thematic analysis. Where appropriate, the quality or certainty across all available evidence will be evaluated for each outcome using the GRADE CERQual approach. Integration of data As we have included different types of data from different sources as follows: Quantitative

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Field	Content
	effectiveness data from intervention studies (RQ3.1a & RQ3.1b) cross-sectional data from surveys on barriers and facilitators (RQ3.3) Qualitative acceptability data related to interventions (RQ3.2) barriers and facilitators (RQ3.3) An inductive convergent segregated approach will be undertaken to combine findings from each review. Where possible qualitative and quantitative data will be integrated using tables. Where quantitative and qualitative data comes from: the same study, the technical team will present the qualitative analytical themes next to quantitative effectiveness data for the committee to discuss. different studies, the committee will be asked to interpret both sets of finding using a matrix approach for the committee discussion section
Type of method of review	Intervention
Language	English
Country	England
Named contact	5a. Named contact Public Health Guideline Development Team 5b Named contact e-mail PHAC@nice.org.uk 5c Named contact address National Institute for Health and Care Excellence Level 1A City Tower Piccadilly Plaza Manchester M1 4BD 5d Named contact phone number +44 (0)300 323 0148 5e Organisational affiliation of the review National Institute for Health and Care Excellence (NICE) and NICE Public Health Guideline Development Team.
Review team members	From the Centre for Guidelines: Hugh McGuire, Technical Adviser Sarah Boyce, Technical Analyst Lesley Owen, Health economist

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Field	Content	
	Rachel Adams, Information Specialist Chris Carmona, Technical Adviser Giacomo De Guisa, Technical Analyst Adam O'Keefe, Project Manager	
Funding sources/sponsor	This systematic review is being completed by the Centre for Guidelines which receives funding from NICE.	
Conflicts of interest	All guideline committee members and anyone who has direct input into NICE guidelines (including the evidence review team and expert witnesses) must declare any potential conflicts of interest in line with NICE's code of practice for declaring and dealing with conflicts of interest. Any relevant interests, or changes to interests, will also be declared publicly at the start of each guideline committee meeting. Before each meeting, any potential conflicts of interest will be considered by the guideline committee Chair and a senior member of the development team. Any decisions to exclude a person from all or part of a meeting will be documented. Any changes to a member's declaration of interests will be recorded in the minutes of the meeting. Declarations of interests will be published with the final guideline.	
Collaborators NB: This section within PROSPERO does not have free text option. Names of committee members to be inserted individually by the project manager and any additional collaborators	Development of this systematic review will be overseen by an advisory committee who will use the review to inform the development of evidence-based recommendations in line with section 3 of Developing NICE guidelines: the manual. Members of the guideline committee are available on the NICE website.	
Other registration details (50 words)	None	
Reference/URL for published protocol	None	
Dissemination plans	NICE may use a range of different methods to raise awareness of the guideline. These include standard approaches such as: notifying registered stakeholders of publication publicising the guideline through NICE's newsletter and alerts issuing a press release or briefing as appropriate, posting news articles on the NICE website, using social media channels, and publicising the guideline within NICE.	
Keywords	Social, emotional and mental wellbeing, universal curriculum approaches, children and young people	
Details of existing review of same topic by same authors (50 words)	None	
Current review status	X	Ongoing

Field	Content		
	☐	134	Completed but not published
	☐		Completed and published
	☐		Completed, published and being updated
	☐		Discontinued
Additional information	None		
Details of final publication	https://www.nice.org.uk/		

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Appendix B – Literature search strategies

Please see below for Medline strategy. For full search strategies refer to the searches document on the guideline webpage.

Database name: Medline
Database: Ovid MEDLINE(R) <1946 to September 21, 2020>
Search Strategy:

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1   ((Social or emotional or social-emotional or socio or socio-emotional or pro-social or prosocial) and (wellbeing or well-being or wellness or learn* or competenc* or skills)).ti,ab. (77780)

2   ((SEL or SEAL or SEBS or EWB or EMHWB) and (school* or class* or curricul* or intervention* or program*)).ti,ab. (1620)

3   ("social learner*" or "social learning").ti,ab. (2467)

4   (resilien* or coping).ti,ab. (68742)

5   Adaptation, Psychological/ or Resilience, Psychological/ (99149)

6   (self-control or "emotional regulation" or self-aware* or self-efficacy or self-regulat* or self-confiden* or self-management or self-esteem or self-concept or "emotional intelligence" or mindful*).ti,ab. (83731)

7   Emotional Intelligence/ (2154)

8   exp Self Concept/ (110417)

9   Emotional Adjustment/ or Social Adjustment/ (23951)

10   ((social or interpersonal or communication or relationship*) adj2 (skill* or competence* or attribute*)).ti,ab. (19797)

11   (friendship* or friends).ti,ab. (26352)

12   ((social or peer or peers) adj2 (group* or network*)).ti,ab. (25987)

13   empathy.ti,ab. (9854)

14   ("social awareness" or socialisation or socialization or "social interaction*" or "social inclusion").ti,ab. (23520)

15   Social Skills/ or Social Behavior/ or Social Values/ (73492)

16   ("personal development" or "youth development").ti,ab. (2191)

17   ("decision making" or "problem solv*" or problem-solv*).ti,ab. (124516)

18   Decision Making/ (95890)

19   Problem Solving/ (24899)

20   (bully* or bullies or anti-bully* or "anti bully*" or antibully* or cyber-bully* or "cyber bully*" or cyberbully* or victimis* or victimiz* or stigma or anti-stigma or "anti stigma" or antistigma or prejudice*).ti,ab. (34249)

21   (delinquen* or anti-social or "anti social" or antisocial or "conduct disorder*" or "risky behavio*" or "problem behavio*" or (behavio* adj problem*)).ti,ab. (36063)

22   (((substance or drug* or alcohol) adj3 ("use" or abuse or misuse)) and (prevent* or reduc*)).ti,ab. (50561)

23   ((exclu* or expulsion or expel* or absent* or truant* or truancy or conflict or violent or violence or disengage*) and school*).ti,ab. (13080)

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24   bullying/ or cyberbullying/ or problem behavior/ (6476)

25   ((school* or academic) adj2 (achieve* or attain* or engage* or progress* or motivat* or connectedness or belonging)).ti,ab. (8041)

26   Mental Health/ (39108)

27   (mental adj2 (health or wellbeing or well-being or "well being" or wellness)).ti,ab. (120613)

28   ((psychological or "psycho social" or psycho-social or psychosocial) adj2 (wellbeing or "well being" or well-being)).ti,ab. (10497)

29   (anxiety or anxious or depression or depressed or depressive or stress).ti,ab. (1040473)

30   or/1-29 (1763666)

31   ("Aban Aya" or "Academic and Behavioural Competency Program*" or "Active Citizens in Schools" or ACIS or "Adolescent Decision Making Program*" or "ALERT plus" or "Alcohol Education Package" or "Alcohol Education Program*" or "Alcohol Screening and Brief Intervention" or "All Stars" or "Al's Pals" or "Alternatives to Trouble" or "Amazing Alternatives" or "Anti-bullying Program*" or "Attention Academy" or "Aussie Optimism" or BARR or "BBBS Ireland" or "Be the Best You can Be" or "Beat Bullying" or Beatbullying or "Befriending Intervention" or BeyondBlue or "Big Brothers Big Sisters" or "Bounce Back" or "Boys and Girls Club" or "Breathing Awareness Meditation" or "Building Assets Reducing Risks" or "Building Resiliency and Vocational Excellence" or "Bully Proofing" or Bullyproofing or "Bullying Eliminated from Schools Together").ti,ab. (31676)

32   (CAPSLE or CASEL or "Caring School Community" or CharacterPlus or "Child Development Initiative" or "Circle Time" or "Classroom Centred Intervention" or "Classroom Centred Program*" or "Class-wide Function-based Intervention" or "Climate Schools" or Climb-UP or CMCD or "Coalition for Youth Quality of Life" or "Comer School Development Program*" or "Communities that Care" or "Community of Caring" or "Competence Support Program*" or "Competent Kids Caring Communities" or "Conscious Coping" or "Consistency Management and Cooperative Discipline" or "Coping Koala" or "Coping Power" or "Counsellor Peers" or "Creating a Peaceful School Learning Environment" or Cues-ed or CSRP or "Cultivating Awareness and Resilience in Education").ti,ab. (501)

33   ("Early Risers" or "EiE-L" or "Empathic Discipline" or "Empower Youth" or "Engage in Education" or "Expect Respect" or "Expeditionary Learning" or "Facing History and Ourselves" or "Families and Schools Together" or "Family Check-up" or "Family School Partnership" or "Family SEAL" or "Fast Track" or "FearNot*" or "First Steps to Success" or "Formalised Peer Mentoring" or "Foundations of Learning" or "Fourth R-Skills" or "Fourth Step" or "Friendly Schools" or "FRIENDS program*" or FSP or "Gang Resistance Education and Training" or Gatehouse or GBG or "Get Wise" or "Girls First" or "Going for Goals" or "Going Places" or "Good Behaviour Game" or "Grades Attendance and Behaviour" or "Guided Self-change" or HASSP or "Head Start" or "healthy active peaceful playgrounds" or "Healthy for Life" or "Healthy Futures" or "Healthy Lifestyles" or "Healthy Minds in Teenagers" or "Healthy Relationships Training Program*" or "Healthy Schools and Drugs" or "Here's Looking at You" or HighScope or "Home and School Support Program*" or "How to Thrive" or "I Can Problem Solve" or ICPS or "ICAN Kids" or "Improving Social Awareness" or "Incredible Years" or "Inner Explorer" or InnerKids or "Inspiring Futures" or "Interpersonal Cognitive Problem Solving Skills" or "In:tuition" or "ISA-SPS" or Jigsaw).ti,ab. (13869)

34   ("Keepin* It REAL" or "Kia Kaha" or KiVa or "klar bleiben" or "Knightly Virtues" or "Know Your Body" or "Learning for Life" or "Learning to BREATHE" or "Lessons for Living" or "Lessons in Character" or "Life Skills Program*" or "Life Skills Training" or Lift or "Linking the Interests of Families

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and Teachers" or "Lions Quest" or "Living with a Purpose" or "Love in a Big World" or LST or "Master Mind" or "Match Model" or "Michigan Model for Health" or "Middle School Success" or "Midwest* Prevention Project" or "Millennium Volunteers" or "Million Dollar Machine" or "Mind Up" or MindUP or MindfulKids or "Mindfulness in Schools" or MISP or "Mood Gym" or "My Character" or "My Teaching Partner" or "New Beginnings" or Narconon or OBPP or Olweus or "Open Circle" or "Op Volle Kracht" or "Over to You").ti,ab. (11171)

35   (Paths or PATHstoPAX or "Paws B" or "Peace Builders" or "Peace Works" or "Peacemaking Skills for Little Kids" or "Peer Mentoring" or "Peer Acceleration Social Network" or "Penn Resiliency Program*" or "Personality Risk Factors" or PESSOA or Playworks or Ploughshares or "Positive Action" or "Positive Alternative Learning Support" or "Positive Adolescent Life Skills" or "Positive Youth Development Program*" or "Preparation through Responsive Education" or "Primary SEAL" or "Prime for Life" or "Proactive Classroom" or Pro-ACT or "Problem Solving Program*" or Progetto or "Project A.T.T.E.N.D." or "project ALERT" or "project CHARLIE" or "Project Northland" or "Project Pride" or "project SMART" or "Project Based Learning" or "Project STAR" or "Promoting Alternative Thinking Strategies" or "Puppets for Peace" or "Pyramid Project" or "Raising Healthy Children" or RCCP or ReachOut or "Reaching Adolescents for Prevention" or "Reading Apprenticeship" or "Reading, Writing, Repect and Resolution" or "Recognizing, Understanding, Labeling, Expressing and Regulating Emotions" or "Reconnecting Youth" or REDI or "Resilience Program*" or "Resilient Families" or "Resolving Conflict Creatively" or "Respect Program*" or "Responsive Classroom" or "Risk Training Skills" or "Rochester Resilience Program*" or "Resourceful Adolescent Program*" or "Roots of Empathy" or Rtime or Ruler).ti,ab. (19411)

36   ("Safe and Civil Schools" or "Safe Dates" or "SafERteens" or "Say Yes First" or SBIRT or "School-based Resilience Intervention" or "School Health and Alcohol Harm Reduction Project" or "School-wide Positive Behavioural Interventions and Support" or "Second Step" or SS-SSTP or "Secondary SEAL" or "Seattle Social Development Project" or "SEED Scotland" or "Self-determination Program*" or "Self-management and Resistance Training" or "Service Learning" or "SFP10-14" or SHAHRP or "Siblings are Special" or SIBS or "Skills for Adolescence" or "Skills for Change" or "Skills for Success" or SingUp or "Social Competence Training" or "Social Decision Making" or "Social Norms" or "Social Problem Solving Skills" or "Social Skills Group Intervention*" or "Social Skills Training" or "South Carolina Program*" or "Smart Moves" or "S.S.GRIN" or SST or "Steg fur Steg" or STAMPP or "STARS for Families" or "Start Taking Alcohol Risks Seriously" or "Staying Calm" or "Step II" or "Steps towards Alcohol Misuse Prevention" or "Talk about Alcohol" or "Step-by-Step" or "Steps to Respect" or "Stop Breathe Be" or "Strengthening Families Program*" or "Strengths Gym" or "Stress Inoculation Training" or "Stress Management Intervention" or "Student Success Skills" or "Student Success through Prevention" or "Student Threat Assessment" or "Success for Kids" or SWPBIS or SWPBS or "Teach Team" or "Teen Outreach Program*" or "Teen Talk" or "Theatre in Education" or "The GOOD life" or "The Incredible Years" or "Think Feel Do" or "Think Well, Do Well" or "Too Good for Violence" or "Tools for Getting Along" or "Tools of the Mind" or "Towards no drug abuse" or "Transition Mentoring" or "Tribes Learning Communities" or "UK Resilience Program*" or "Unique Minds" or ViSC or "Wise Mind" or Woodrock or YogaKid* or "Yo Puedo" or "You Can Do It!" or "Youth Development Project" or "Youth Matters" or "Zippy's Friends" or "21st Century Community Learning" or "4Rs").ti,ab. (32480)

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37   (PSHE or "personal social health" or PSE or "personal and social education" or SMSC or "spiritual moral social and cultural").ti,ab. (2268)

38   ("positive behavio* intervention*" or "positive behavio* support" or PBIS).ti,ab. (187)

39   ("school-wide positive behavio* support*" or SWPBS).ti,ab. (4)

40   "relationships and sex education".ti,ab. (4)

41   or/31-40 (110898)

42   30 and 41 (14752)

43   (mindful* or meditat* or yoga).ti,ab. (12908)

44   Mindfulness/ or Meditation/ or Yoga/ (7952)

45   "life skills".ti,ab. (903)

46   "motivational interview*".ti,ab. (3378)

47   Motivational Interviewing/ (1888)

48   ((brief or opportunist* or concise or short or direct) adj3 (counsel* or advice* or advise* or advisor* or therap* or support* or guide* or guidance* or intervention*)).ti,ab. (31871)

49   ((behaviour* or behavior* or cognitive) adj3 (technique* or therap* or chang* or modify or modifies or modifying or support* or intervention* or session* or program* or workshop*)).ti,ab. (119612)

50   counseling/ or directive counseling/ or child guidance/ or psychology, adolescent/ (52429)

51   Behavior Therapy/ or Cognitive Behavioral Therapy/ (52716)

52   (skills adj1 (train* or teach* or educat* or develop*)).ti,ab. (9521)

53   ((peer or pastoral or teacher*) adj2 (educat* or support* or group* or led)).ti,ab. (11763)

54   (prevent* and (intervention* or program*)).ti,ab. (210438)

55   "intervention program*".ti,ab. (13835)

56   "social and emotional learning program*".ti,ab. (28)

57   "play therap*".ti,ab. (377)

58   ("mental health" adj3 (intervention* or program*)).ti,ab. (5492)

59   ((Wellbeing or "well being" or well-being) adj3 (intervention* or therap*)).ti,ab. (1042)

60   ((HIIT or fitness or "physical activity") adj2 (intervention or program*)).ti,ab. (4796)

61   ((questionnaire* or survey* or self-report* or "self report*" or assessment*) adj3 (school* or class or classroom* or pupil* or student* or teach*)).ti,ab. (24811)

62   or/43-61 (484103)

63   (classroom* or "whole class*" or whole-class*).ti,ab. (14258)

64   ((multi*-component or multicomponent or "multi* component" or universal or brief or "group based" or group-based or groupbased or "group work*" or group-work* or groupwork* or "small group*" or small-group* or targeted) and (intervention* or program* or project* or pilot* or initiative* or approach* or activit* or lesson* or curricul*)).ti,ab. (208759)

65   ("whole school*" or whole-school* or wholeschool* or "school wide" or school-wide or schoolwide or "school based" or school-based or schoolbased).ti,ab. (11813)

66   (school* adj3 (ethos or culture or life or environment or governance or policy or policies or leadership or SLT)).ti,ab. (6050)

67   (school* and (intervention* or program*)).ti,ab. (67253)

68   or/63-67 (287833)

69   62 and 68 (62272)

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70   30 and 69 (26390)

71   (school* or pupil* or student* or teach* or curricul* or lesson* or learner* or learning or syllabus).ti,ab. (795925)

72   (((city or technical) and (academy or academies or college*)) or sixth-form* or "sixth form*" or "6th form*" or "lower six*" or "upper six*" or "post 16" or post-16 or "further education").ti,ab. (4912)

73   ("secure children* home*" or "young offender* institution*" or "secure training cent*" or "secure school*").ti,ab. (52)

74   ("year one" or "year 1" or "year two" or "year 2" or "year three" or "year 3" or "year four" or "year 4" or "year five" or "year 5" or "year six" or "year 6" or "year seven" or "year 7" or "year eight" or "year 8" or "year nine" or "year 9" or "year ten" or "year 10" or "year eleven" or "year 11" or "year twelve" or "year 12" or "year thirteen" or "year 13" or "key stage one" or "key stage 1" or "key stage two" or "key stage 2" or "key stage three" or "key stage 3" or "key stage four" or "key stage 4" or "key stage five" or "key stage 5" or KS1 or KS2 or KS3 of KS4 or KS5 or "grade one" or "grade 1" or "grade two" or "grade 2" or "grade three" or "grade 3" or "grade four" or "grade 4" or "grade five" or "grade 5" or "grade six" or "grade 6" or "grade seven" or "grade 7" or "grade eight" or "grade 8" or "grade nine" or "grade 9" or "grade ten" or "grade 10" or "grade eleven" or "grade 11" or "grade twelve" or "grade 12" or "first grade" or "1st grade*" or "second grade*" or "2nd grade*" or "third grade*" or "3rd grade*" or "fourth grade*" or "4th grade*" or "fifth grade*" or "5th grade*" or "sixth grade*" or "6th grade*" or "seventh grade*" or "7th grade*" or "eighth grade*" or "8th grade*" or "ninth grade*" or "9th grade*" or "tenth grade*" or "10th grade*" or "eleventh grade*" or "11th grade*" or "twelfth grade*" or "12th grade*").ti,ab. (105865)

75   curriculum/ or schools/ or teaching/ or school health services/ or school nursing/ or school teachers/ (169056)

76   or/71-75 (932670)

77   (medical or medicine or dental or dentist* or doctor* or physician* or nursing or "teaching hospital*" or undergraduate* or graduate* or postgraduate* or preschool* or pre-school* or nursery or "higher education" or university or universities).ti,ab. (2254098)

78   76 not 77 (599715)

79   exp Child/ or exp Child Behavior/ or Child Health/ or Child Welfare/ or Child Development/ (1934624)

80   Adolescent Behavior/ or Adolescent/ or Adolescent Health/ or Adolescent Development/ (2036366)

81   (child* or adolescen* or kid or kids or youth* or youngster* or minor or minors or underage* or under-age* or "under age*" or "young person*" or "young people" or pre-adolescen* or preadolescen* or pre-teen* or preteen* or teen or teens or teenager* or juvenile* or boy or boys or boyhood or girl or girls or girlhood or schoolchild* or student* or pupil* or "school age*" or school-age* or schoolage*).ti,ab. (1963224)

82   or/79-81 (3744899)

83   78 and 82 (289372)

84   42 or 70 (39392)

85   83 and 84 (12583)

86   limit 85 to english language (12029)

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87   limit 86 to (letter or historical article or comment or editorial or news or case reports) (183)

88   86 not 87 (11846)

89   limit 88 to yr="2007 -Current" (8286)

90   limit 89 to ed=20190924-20200901 (980)

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Appendix C – Effectiveness evidence study selection

Identification

Records identified through database searching

N = 67200

Duplicates removed

N = 19878

Records identified through database searching

N = 47322

Screening

Title and abstracts screened using priority screening

N = 24846

Unscreened

N = 22476

Eligibility

Full text articles ordered (to date)

N = 558

Full text articles excluded from this review

N = 401

Full text articles not retrievable

N = 9

Included

Articles included for universal approaches N= 148

RQ 3.1: N = 135 references relating to 1 systematic review and 85 studies

RQs 3.2 /3.3: N= 10 references relating to 10 studies

RQ 3.1 and RQs 3.2 / 3.3 N = 3 references relating to 3 studies

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Appendix D – Effectiveness evidence

D.1.1   Ahlen, 2018

Bibliographic Reference	Ahlen, Johan; Hursti, Timo; Tanner, Lindsey; Tokay, Zelal; Ghaderi, Ata; Prevention of Anxiety and Depression in Swedish School Children: a Cluster-Randomized Effectiveness Study.; Prevention science : the official journal of the Society for Prevention Research; 2018; vol. 19 (no. 2); 147-158
Secondary publication(s)	Ahlen, Johan; Lenhard, Fabian; Ghaderi, Ata (2019) Long-Term Outcome of a Cluster-Randomized Universal Prevention Trial Targeting Anxiety and Depression in School Children. Behavior therapy 50(1): 200-213

Study details

Study design	Cluster randomised controlled trial
Type of study	Effectiveness
Trial registration number	Not reported
Aim	To evaluate FRIENDS for Life, an intervention to prevent anxiety and depression in Swedish school children.
Country/geographical location	Sweden
Type of school	Primary education
Setting	School (Urban and suburban)
UK Key stage	Key stage 2
Inclusion criteria	Public and independent schools with children in third and fourth grade (9 to 10 years old
Exclusion criteria	Very small schools
Method of randomisation	Computerised random block sequence
Method of allocation concealment	Not reported

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Unit of allocation	Cluster (School)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: To find an effect size of Cohen's d = 0.30 in a population with the average correlation between clusters of 0.02 with a two-tailed significance test (α = 0.05), and a power of 80% would need 18 schools with 35 children from each school. Intention to treat: Linear mixed effects regression modeling was used as participants with missing data could be included. Intra-cluster co-efficient: 0.02 sourced from a meta-analysis (Alhlen 2015)
Attrition	294 out of 353 in the intervention group provided data at follow-up 279 out of 342 in the control group provided data at follow-up
Study limitations (author)	• Recordings of adherence did not go according to plan as teacher considered recording to be intrusive • difficulties in collecting parental consent to the structured interviews at follow-up. • the number of schools might have been too few in order to estimate the standard errors of the effects with adequate precision.
Study limitations (reviewer)	None to add
Source of funding	Not reported

Study arms

FRIENDS for Life (N = 353)

9 clusters including 353 participants

Waiting List (N = 342)

9 clusters including 342 participants

Characteristics

Arm-level characteristics

Characteristic	FRIENDS for Life (N = 353)	Waiting List (N = 342)
Age (years) Mean (SD)	9.7 (NR)	9.4 (NR)
Boys Sample size	n = 190 ; % = 54	n = 168 ; % = 49
Girls Sample size	n = 163 ; % = 46	n = 174 ; % = 51
Sweden Sample size	n = 179 ; % = 75.2	n = 192 ; % = 78
US $ 6500-7000 per month Sample size	n = 228 ; % = 64.6	n = 235 ; % = 68.7

Outcomes

Study timepoints
- Baseline
- 36 month (36 month follow-up after post-intervention)

Outcomes

Outcome	FRIENDS for Life, Baseline, N = 353	FRIENDS for Life, 36 month, N = 353	Waiting List, Baseline, N = 342	Waiting List, 36 month, N = 342
Emotional distress - anxiety (0 to 44) Using Spence Children's Anxiety Scale-12 (self-report) Sample size	n = 353 ; % = 100	n = 267	n = 322 ; % = 94.4	n = 279
Emotional distress - anxiety (0 to 44)	23.3 (15)	20.49 (13.5)	27.26 (14.4)	23.4 (14)

Outcome	FRIENDS for Life, Baseline, N = 353	FRIENDS for Life, 36 month, N = 353	Waiting List, Baseline, N = 342	Waiting List, 36 month, N = 342
Using Spence Children's Anxiety Scale-12 (self-report) Mean (SD)				
Behavioural outcomes Using Strength and Difficulties Questionnaire - Pro-social behaviour subscale (Parent report) Sample size	n = 232 ; % = 65.7	n = 161	n = 241 ; % = 70.5	n = 171 ; % = 62.3
Behavioural outcomes Using Strength and Difficulties Questionnaire - Pro-social behaviour subscale (Parent report) Mean (SD)	7.03 (5.42)	7.9 (1.9)	6.13 (5.33)	8.4 (1.8)
Emotional distress - depression Using Children's Depression Inventory Sample size	n = 329 ; % = 93.2	n = 265 ; % = 75.1	n = 322 ; % = 94.2	n = 225 ; % = 65.8
Emotional distress - depression Using Children's Depression Inventory Mean (SD)	1.8 (2.5)	2.6 (3.3)	1.8 (2.5)	2.8 (3.5)

Emotional distress - anxiety - Polarity - Lower values are better

Behavioural outcomes - Polarity - Lower values are better

Emotional distress - depression - Polarity - Lower values are better

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Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - FRIENDS for Life vs Waiting List - 36 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Concerns over selr-reported outcomes and lack of information on blinding)*

Behavioural outcomes - FRIENDS for Life vs Waiting List - 36 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Concerns over selr-reported outcomes and lack of information on blinding)*

Emotional distress -FRIENDS for Life vs Waiting List - 36 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Concerns over selr-reported outcomes and lack of information on blinding)*

Study arms

FRIENDS for Life (N = 353)

Brief name	FRIENDS for Life [P 151]
Rationale/theory/Goal	Based on behavioural and cognitive strategies [P 151]
Materials used	Workbooks for children, exercises to complete during lessons, homework assignments, and manual for teachers [P 151]
Procedures used	The FFL material in four school classes, and a focus group of teachers working with children 8–12 years of age carefully examined, and provided feedback on the workbook and group leader manual [P 151]. Teachers in the intervention group received a full day of training and administered FRIENDS for Life in their classrooms. [Abstract]
Provider	Teacher [P 151]

Method of delivery	Classroom-based teaching [P 151]
Setting/location of intervention	Classroom [P 151]
Intensity/duration of the intervention	Ten 60 minute sessions over 10 weeks [P 149]
Tailoring/adaptation	All educational materials were thoroughly translated and culturally adapted to Swedish children [P 151]
Unforeseen modifications	None
Planned treatment fidelity	Not reported
Actual treatment fidelity	Two teachers only performed eight sessions, and one teacher six sessions [P 153]
Other details	None to add

Waiting List (N = 342)

Brief name	Waiting list [P 149]
Rationale/theory/Goal	Not applicable
Materials used	Usual lessons [P 149]
Procedures used	Not applicable
Provider	Not applicable
Method of delivery	Not applicable
Setting/location of intervention	Not applicable
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable

Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	None to add

D.1.2 Araya, 2013

Bibliographic Reference	Araya, R; Fritsch, R; Spears, M; Rojas, G; Martinez, V; Barroilhet, S; V?hringer, P; Gunnell, D; Stallard, P; Guajardo, V; et, al.; School intervention to improve mental health of students in Santiago, Chile: a randomized clinical trial; JAMA pediatrics; 2013; vol. 167 (no. 11); 1004-1010

Study details

Study design	Cluster randomised controlled trial
Type of study	Effectiveness
Trial registration number	isrctn.org Identifier: ISRCTN19466209
Aim	To assess the effectiveness of a school-based, universal psychological intervention to reduce depressive symptoms among adolescents from low-income families.
Country/geographical location	Santiago, Chile
Type of school	Secondary education
Setting	Secondary schools in deprived socioeconomic areas
UK Key stage	Key stage 4
Inclusion criteria	All students attending 1° Medio grade in the selected schools were eligible
Exclusion criteria	NR

Method of randomisation	Randomisation took place after the baseline assessment to allow balancing of the study arms with respect to the number of classes in that grade, area of social deprivation, and location of schools. This was achieved by calculating an imbalance statistic for all possible allocation sequences. The trial statistician (A.A.M.) used a computer-generated list of random numbers to select 1 allocation sequence from the 1000 sequences with the most desirable balance properties. Six schools selected had more than 4 eligible classes, and so 4 classes within these schools were randomly selected to participate.
Method of allocation concealment	NR
Unit of allocation	Schools
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: An individually randomized trial with 2 arms would require 376 individuals to detect this difference with 90% power and a 2-sided 1% α level. This size was inflated to allow for clustering and non-collection of primary outcome data. Estimated that 2634 students from 20.3 schools were needed to maintain 90% power for the primary analysis. Intention to treat: The primary between-group analysis of covariance was carried out on an intention-to-treat basis for 3-month BDI-II scores using multivariable mixed-effects regression to account for the clustered nature of the data and to adjust for baseline BDI-II scores and randomization variables. Intra-cluster co-efficient: 0.04 sourced from previously gathered local data
Study limitations (author)	- No psychiatric interviews were conducted because it was impractical given the size of the study. - BDI-II is sensitive to change with general adolescent populations in Latin America and elsewhere. - Delivering booster sessions proved difficult, since a large proportion of the students changed schools. - The population under study was selected in terms of their low socioeconomic background - No placebo arm because of the challenges in designing an appropriate comparison, the increased complexity and costs of a 3-arm study, and the pragmatic focus of the trial. - Not possible to have more intensive fidelity checks given the extent of this trial as well as other practicalities. - Some differential attrition across arms in the final follow-up assessment, however results remained unaltered when imputing missing values
Study limitations (reviewer)	None

Source of funding	Wellcome Trust

Study arms

ITPFSA (N = 1221)

11 schools including 1221 participants randomised

Usual Curriculum (Control) (N = 1291)

11 Schools, including 1291 individuals.

Characteristics

Arm-level characteristics

Characteristic	ITPFSA (N = 1221)	Usual Curriculum (Control) (N = 1291)
Age Mean (SD)	14.5 (0.9)	14.5 (0.9)
Male Number	694	699
Female Number	525	590

Outcomes

Study timepoints
- Baseline
- 12 month

Outcomes

Outcome	ITPFSA, Baseline, N = 1221	ITPFSA, 12 month, N = 888	Usual Curriculum (Control), Baseline, N = 1291	Usual Curriculum (Control), 12 month, N = 1048
Emotional distress (0-63) Measuring depression using BDI-II (self-report) Sample size	n = 1219 ; % = 99.8	n = 888 ; % = 100	n = 1289 ; % = 99.8	n = 1048 ; % = 100
Emotional distress (0-63) Measuring depression using BDI-II (self-report) Mean (SD)	13.4 (10.1)	9.5 (9.8)	13.5 (10.4)	10.1 (10.3)

Emotional distress - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - I (Yo), Think (Pienso), Feel (Siento), and Act (Actuo) vs Control - 12 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns

Study arms

ITPFSA (N = 1221)

Brief name	I (Yo), Think (Pienso), Feel (Siento), and Act (Actuo) [P1005]
Rationale/theory/Goal	Based on cognitive-behavioural therapy model [P1005]
Materials used	Students received a workbook with main messages and examples [P1005]
Procedures used	There was an introductory session, 6 sessions dealing with thought restructuring and emotions, 3 sessions of problem-solving strategies, and 1 closing session to revise and integrate all previous

	work. Two booster sessions delivered at 2 and 7 months reviewed challenging negative thoughts and problem-solving strategies [P1005]
Provider	Eight trios of trained young facilitators (psychologists, occupational therapists, and social workers) delivered the intervention. Teachers had no involvement other than rare requests to assist with the discipline of the class [P1005-1006]
Method of delivery	Intervention delivered to whole class during regular schools hours [P1005]
Setting/location of intervention	Classroom [P100]
Intensity/duration of the intervention	Consisted of 11 weekly and 2 booster sessions, each lasting approximately 1 hour [P1005]
Tailoring/adaptation	NR
Unforeseen modifications	NR
Planned treatment fidelity	To ensure treatment integrity, a detailed operational manual was provided to facilitators, training and supervision sessions were conducted, and 10% of the sessions were evaluated by an independent observer [P1005-1006]
Actual treatment fidelity	Variability in therapists' effects was difficult to estimate because facilitators delivering the intervention in each class differed for practical reasons. Nonetheless, the study found that the results were fairly consistent across schools and classes [P1009]
Other details	None to add

Control (N = 1291)

Brief name	Control group
Rationale/theory/Goal	A group of students serving as controls received the standard curriculum [P1006]
Materials used	NA
Procedures used	Control included 1 hour weekly of class assembly during which problems could be discussed [P1006]
Provider	NA
Method of delivery	NA

Setting/location of intervention	Classroom
Intensity/duration of the intervention	NA
Tailoring/adaptation	NA
Unforeseen modifications	NA
Planned treatment fidelity	NA
Actual treatment fidelity	NA
Other details	None to add

D.1.3 Ashdown, 2012

Bibliographic Reference	Ashdown, Daniela Maree; Bernard, Michael E; Can explicit instruction in social and emotional learning skills benefit the social-emotional development, well-being, and academic achievement of young children?; Early Childhood Education Journal; 2012; vol. 39 (no. 6); 397-405

Study details

Study design	Cluster randomised controlled trial
Trial registration number	Not outlined and not available on a search of clinical trials register
Study start date	2009
Study end date	2009
Aim	Investigated the effect of the You Can Do It! (YCDI) Early Childhood Education Program on the social and emotional competencies, well-being, and academic achievement of young children in Australia.

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Country/geographical location	Australia
Setting	Schools classified as being of low socioeconomic status (preparatory and grade 1 classes)
Inclusion criteria	Not specified
Exclusion criteria	Not specified
Method of randomisation	Not specified - "One preparatory and one grade 1 class were randomly assigned to receive the YCDI curriculum"
Method of allocation concealment	Not specified
Unit of allocation	Class level
Unit of analysis	Class level
Statistical method(s) used to analyse the data	Impact of treatment: 1) social and emotional measures ' combined variable' (Positive Social-Emotional Well-being, Total Problem Behavior, Total Social-Emotional Competence and Total Social Skills) - MANOVA 2) Reading Level - ANOVA
Attrition	1% - 1/100 participant within one of the classes did not complete the study
Study limitations (author)	Sample: one school and limits generalisability; Sample size (n=99); Measurment of outcomes (reading) - independent text reading is not a validated measure for academic competence; Teachers were not blinded and knew who they were delivering the intervention to;
Study limitations (reviewer)	Limited details regarding methodology including randomisation and blinding protocols; lack of details regarding numbers of pupils per cluster (class); Author flags that teachers delivering the YCDI "did not closly follow the scripted lesson plans in the YCDI currculum manual" with only general content of the lesson plan covered and significantly modified the lesson plans which potential confounds intervention effects and impacts the generalisability of the findings of this study as details of the modifications are not outlined. Statistical analysis for differences between classes at baseline not undertaken prior to randomisation which could impact the effect of the intervention.
Source of funding	Not outlined - reference made to Australian Scholarships Group as a publisher of the research

Study arms

You Can Do It! Early Childhood Education program - Preparatory (N = 1)

One preparatory and one grade 1 class received the You Can Do It! Early Childhood Education program; delivered by their regular classroom teachers over a 10-week period during Terms 2, 3, and 4.

Standard curriculum - Preparatory (N = 1)

One preparatory and grade 1 class did not receive the YCDI program during the study, but did receive it after the completion of the post-program measures (in Term 4).

You Can Do It! Early Childhood Education program - Grade 1 (N = 1)

One preparatory and one grade 1 class received the You Can Do It! Early Childhood Education program; delivered by their regular classroom teachers over a 10-week period during Terms 2, 3, and 4.

Standard curriculum - Grade 1 (N = 1)

One preparatory and grade 1 class did not receive the YCDI program during the study, but did receive it after the completion of the post-program measures (in Term 4).

Characteristics

Study-level characteristics

Characteristic	Study (N = 99)
5 year olds - preparatory classes Nominal	42
Grade 1 (age not stated) Nominal	57
Gender (% Female) Nominal	44

Characteristic	Study (N = 99)
% English language spoken at home Nominal	46

Outcomes

Study timepoints
- Baseline
- 10 week (The study took place over 3 terms (10 weeks) - a pre-test was administered and post-test at the end of the study)

social-emotional well-being, social-emotional competence, social skills, and reading levels

Outcome	You Can Do It! Early Childhood Education program - Preparatory, Baseline, N = 1	You Can Do It! Early Childhood Education program - Preparatory, 10 week, N = 1	Standard curriculum - Preparatory, Baseline, N = 1	Standard curriculum - Preparatory, 10 week, N = 1	You Can Do It! Early Childhood Education program - Grade 1, Baseline, N = 1	You Can Do It! Early Childhood Education program - Grade 1, 10 week, N = 1	Standard curriculum - Grade 1, Baseline, N = 1	Standard curriculum - Grade 1, 10 week, N = 1
Emotional distress - Positive social and emotional wellbeing (Positive social-emotional well-being)	90.57 (11.17)	96.38 (8.49)	83.33 (8.03)	85.19 (9.98)	90.07 (9.65)	95.02 (8.06)	89.39 (7.23)	85.42 (7.93)

Outcome	You Can Do It! Early Childhood Education program - Preparatory, Baseline, N = 1	You Can Do It! Early Childhood Education program - Preparatory, 10 week, N = 1	Standard curriculum - Preparatory, Baseline, N = 1	Standard curriculum - Preparatory, 10 week, N = 1	You Can Do It! Early Childhood Education program - Grade 1, Baseline, N = 1	You Can Do It! Early Childhood Education program - Grade 1, 10 week, N = 1	Standard curriculum - Grade 1, Baseline, N = 1	Standard curriculum - Grade 1, 10 week, N = 1
ACER Well-being Survey (Teacher Form—Early Years) Mean (SD)								
Behavioural - Total problem behaviors (Total problem behaviours) Social Skills Rating System—Teacher Form (SSRS-T) Mean (SD)	2.02 (1.21)	2.37 (0.99)	2.66 (1.21)	2.45 (0.74)	2.17 (0.72)	1.44 (0.79)	2.97 (0.87)	3.15 (0.67)
Total social-emotional	102.57 (14.85)	110.87 (10.7)	99.97 (7.8)	101.8 (10.81)	105.31 (15.05)	116.85 (12.56)	98.37 (9.06)	97.37 (11.72)

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Outcome	You Can Do It! Early Childhood Education program - Preparatory, Baseline, N = 1	You Can Do It! Early Childhood Education program - Preparatory, 10 week, N = 1	Standard curriculum - Preparatory, Baseline, N = 1	Standard curriculum - Preparatory, 10 week, N = 1	You Can Do It! Early Childhood Education program - Grade 1, Baseline, N = 1	You Can Do It! Early Childhood Education program - Grade 1, 10 week, N = 1	Standard curriculum - Grade 1, Baseline, N = 1	Standard curriculum - Grade 1, 10 week, N = 1
competence Mean (SD)								
Social and emotional skills - Total social skills Social Skills Rating System—Teacher Form (SSRS-T) Mean (SD)	42.94 (10.31)	45.66 (9.6)	38.46 (8.51)	38.33 (5.49)	40.59 (9.12)	46.28 (8.62)	42.5 (6.45)	34.98 (5.83)
Reading level Mean (SD)	5.1 (7.1)	17.96 (7.4)	2.05 (2.04)	18.24 (4.46)	7.86 (7.98)	24.48 (4.86)	5.48 (6.29)	22.98 (5.46)

Emotional distress - Positive social and emotional wellbeing - Polarity - Higher values are better

Behavioural - Total problem behaviors - Polarity - Lower values are better

Total social-emotional competence - Polarity - Higher values are better

Social and emotional skills - Total social skills - Polarity - Higher values are better

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Reading level - Polarity - Higher values are better

Mean reading levels for the 50% of students with the lowest reading levels at time 1

Outcome	You Can Do It! Early Childhood Education program - Preparatory, Baseline, N = 1	You Can Do It! Early Childhood Education program - Preparatory, 10 week, N = 1	Standard curriculum - Preparatory, Baseline, N = 1	Standard curriculum - Preparatory, 10 week, N = 1	You Can Do It! Early Childhood Education program - Grade 1, Baseline, N = 1	You Can Do It! Early Childhood Education program - Grade 1, 10 week, N = 1	Standard curriculum - Grade 1, Baseline, N = 1	Standard curriculum - Grade 1, 10 week, N = 1
Reading level Mean (SD)	2.78 (3.51)	5.56 (4.64)	2.05 (2.04)	5.48 (4.46)	9.25 (3.73)	19.12 (4.79)	10.5 (3.21)	15.24 (3.68)

Reading level - Polarity - Higher values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

social-emotionalwell-being,social-emotionalcompetence,socialskills,andreadinglevels-Positivesocial-emotionalwell-being-MeanSD-You Can Do It! Early Childhood Education program - Preparatory-Standard curriculum - Preparatory-You Can Do It! Early Childhood Education program - Grade 1-Standard curriculum - Grade 1-t10

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Lack of details regarding the randomization process and details regarding baseline characteristics is a source of potential bias;)*
Overall bias and Directness	Overall Directness	Directly applicable

social-emotionalwell-being,social-emotionalcompetence,socialskills,andreadinglevels-Totalproblembehaviors-MeanSD-You Can Do It! Early Childhood Education program -

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Preparatory-Standard curriculum - Preparatory-You Can Do It! Early Childhood Education program - Grade 1-Standard curriculum - Grade 1-t10

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Lack of details regarding the randomization process and details regarding baseline characteristics is a source of potential bias;)*
Overall bias and Directness	Overall Directness	Directly applicable

social-emotionalwell-being,social-emotionalcompetence,socialskills,andreadinglevels-Totalsocial-emotionalcompetence-MeanSD-You Can Do It! Early Childhood Education program - Preparatory-Standard curriculum - Preparatory-You Can Do It! Early Childhood Education program - Grade 1-Standard curriculum - Grade 1-t10

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Lack of details regarding the randomization process and details regarding baseline characteristics is a source of potential bias;)*
Overall bias and Directness	Overall Directness	Directly applicable

social-emotionalwell-being,social-emotionalcompetence,socialskills,andreadinglevels-Totalsocialskills-MeanSD-You Can Do It! Early Childhood Education program - Preparatory-Standard curriculum - Preparatory-You Can Do It! Early Childhood Education program - Grade 1-Standard curriculum - Grade 1-t10

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Lack of details regarding the randomization process and details regarding baseline characteristics is a source of potential bias;)*
Overall bias and Directness	Overall Directness	Directly applicable

social-emotionalwell-being,social-emotionalcompetence,socialskills,andreadinglevels-Readinglevel-MeanSD-You Can Do It! Early Childhood Education program -

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Preparatory-Standard curriculum - Preparatory-You Can Do It! Early Childhood Education program - Grade 1-Standard curriculum - Grade 1-t10

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Lack of details regarding the randomization process and details regarding baseline characteristics is a source of potential bias;)*
Overall bias and Directness	Overall Directness	Directly applicable

Meanreadinglevelsforthe50%ofstudentswiththelowestreadinglevelsattime1-Readinglevel-MeanSD-You Can Do It! Early Childhood Education program - Preparatory-Standard curriculum - Preparatory-You Can Do It! Early Childhood Education program - Grade 1-Standard curriculum - Grade 1-t10

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Lack of details regarding the randomization process and details regarding baseline characteristics is a source of potential bias;)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

You can do IT (N = 2)

Brief name	You Can Do It! Education [P 398]
Rationale/theory/Goal	The aim of YCDI is to all help young people to achieve positive, social, emotional, and behavioural and achievement outcomes.and is based on a cognitive-behavioural appraoch. [P 398]
Materials used	Structured lessons containing activities covering emotional, behavioural and attidudinal characteristics of confidence, persistence, organisationa dn emotional resilience. Use of hand puppets to explain and illustrate ideas to young children Songs for children to sing that contain lyrics supporting what young children learn in their lessons

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	Colour posters of each of the 4 characters (Connie Confidence, Pete Persistence, Oscar Organisation and Ricky Resilience)
	Good classroom practices for establishing a social and emotional learning environment. [P 400]
Procedures used	Eaxch class teacherrs completed the baseline questionnaires and reading assessment and the teachers from the YCDI classes were trained in the implementation of the program. On implenetion the teaxchers running approximately three 20-min YCDI lessons per week, as well as supporting the students to practice the YCDI skills they were learning on an ongoing basis throughout the school day. [P 401]
Provider	Usual teachers [P 400]
Method of delivery	Classroom sessions [P 401]
Setting/location of intervention	Classroom [P 401]
Intensity/duration of the intervention	Three 20 minute sessions per week over a 10 week period [P 399 & P401]
Tailoring/adaptation	YCDI lessons were independetly selected by each teacher so GRADE 1 and Prep classes did not receive exactly the same program. [P 401]
Unforeseen modifications	None reported
Planned treatment fidelity	A classroom observation form was developed to investigate program implementation integrity which considered the extent to which teachers followed the lesson plans, were well-prepared and presented the lessons as intended, provided helpful feedback to children, checked understanding with individual children and presented the lesson in a positive and enthusiastic fashion. [P 400]
Actual treatment fidelity	The ratings of each YCDI teacher on the classroom observation form indicated that both YCDI teachers were well prepared, provided helpful comments to children, checked that individual children understood the lessons, and presented the lessons with enthusiasm. However, neither teacher closely followed the scripted lesson plans in the curriculum manual. [P 401]
Other details	None to add

2 classes (1 prep and 1 Grade 1) Total number of students = 57

Usual curriculum (N = 2)

Brief name	Usual curriculum [P 399]
Rationale/theory/Goal	Not applicable
Materials used	Not applicable
Procedures used	YCDI education programe was implement once all post-program measures ahd been completed [P 399]
Provider	Teachers [P 399]
Method of delivery	Not applicable
Setting/location of intervention	Classroom [P 399]
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	None to add

2 classes (1 prep and 1 Grade 1) Total number of students = 42

D.1.4 Barnes, 2012

Bibliographic Reference	Barnes, VA; Johnson, MH; Williams, RB; Williams, VP; Impact of Williams LifeSkills® training on anger, anxiety, and ambulatory blood pressure in adolescents; Translational behavioral medicine; 2012; vol. 2 (no. 4); 401-410

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Study details

Study design	Randomised controlled trial (RCT)
Type of study	Not clear
Trial registration number	NCT00508612
Aim	To train school teachers to deliver Williams LifeSkills (WLS) training in a real-world classroom setting and examine the impact of WLS training on measures of anger, anxiety, and BP in adolescents
Country/geographical location	United States
Type of School	Secondary education
Setting	Two local high schools in Augusta, Georgia
UK Key Stage	Key stage 4
Inclusion criteria	Students in the 9th grade
Exclusion criteria	Not reported
Method of randomisation	Not reported
Method of allocation concealment	The study was single-blinded as it was not possible to blind the subjects to the intervention. No further details on method of concealment were reported.
Unit of allocation	Individual
Unit of analysis	Individual
Statistical method(s) used to analyse the data	- Power calculation: Not reported. - Correlation between the observations and the possibility of non-constant variance has been modelled using a mixed model repeated measures analysis and an unstructured variance-covariance matrix for the errors. - A mixed model repeated measures ANCOVA was used to analyse endpoint and follow-up data. - Individuals who had at least one post test value but did not complete the study were not excluded, and values that were missing were not imputed. - Statistical significance was assessed at $p<0.05$.

Attrition	Attrition by study arm at 6 month follow-up: • WLS: 60/135; 55.6% attrition • Control: 57/123; 53.7% attrition
Study limitations (author)	Not reported
Study limitations (reviewer)	• Lack of data on exclusion criteria and method of randomisation • Lack of detail on method of allocation concealment • Lack of author reported study limitations
Source of funding	STTR award from the National Heart, Lung and Blood Institute, National Institutes of Health (HL072644)

Study arms

Williams LifeSkills (N = 135)

Individuals from two high schools

Control (N = 123)

Individuals from two high schools

Characteristics

Arm-level characteristics

Characteristic	Williams LifeSkills (N = 135)	Control (N = 123)
Age (years) Sample size	n = 91 ; % = 67.4	n = 79 ; % = 64.2
Age (years) Mean (SD)	15.6 (1.5)	15.7 (1.3)
Male Sample size	n = 46 ; % = 50.5	n = 32 ; % = 40.5

Characteristic	Williams LifeSkills (N = 135)	Control (N = 123)
Female Sample size	n = 45 ; % = 49.5	n = 47 ; % = 59.5
White Sample size	n = 12 ; % = 13.2	n = 3 ; % = 3.8
Black Sample size	n = 74 ; % = 81.3	n = 72 ; % = 91.1
Other Sample size	n = 5 ; % = 5.5	n = 4 ; % = 5.1

Outcomes

Study timepoints
- 6 month (Follow-up)

Outcomes

Outcome	Williams LifeSkills, 6 month, N = 135	Control, 6 month, N = 123
Emotional distress - anxiety Measured by the Basic Assessment System for Children; anxiety subscale (self-reported) - Mean reported as least squares means (SE) adjusted for baseline for ambulatory variables across visits Sample size	n = 60 ; % = 44.4	n = 57 ; % = 46.3
Emotional distress - anxiety Measured by the Basic Assessment System for Children; anxiety subscale (self-reported) - Mean reported as least squares means (SE) adjusted for baseline for ambulatory variables across visits Mean (SE)	3.8 (0.37)	3.2 (0.39)
Behavioural outcomes (8-32) Anger control measured by Anger Expression Scale; anger control subscale (self-reported) - Mean reported as least	n = 60 ; % = 44.4	n = 57 ; % = 46.3

Outcome	Williams LifeSkills, 6 month, N = 135	Control, 6 month, N = 123
squares means (SE) adjusted for baseline for ambulatory variables across visits Sample size		
Behavioural outcomes (8-32) Anger control measured by Anger Expression Scale; anger control subscale (self-reported) - Mean reported as least squares means (SE) adjusted for baseline for ambulatory variables across visits Mean (SE)	23 (0.57)	21.6 (0.6)

Emotional distress - anxiety - Polarity - Lower values are better

Behavioural outcomes - Polarity - Higher values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) - RCT

Emotional distress - anxiety - Williams LifeSkills vs Control - 6-month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Some concerns due to missing outcome data)*

Behavioural outcomes - Williams LifeSkills vs Control - 6-month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Some concerns due to missing outcome data)*

Study arms

Williams LifeSkills (N = 135)

Brief name	Williams LifeSkills. Page 402
Rationale/theory/Goal	Not reported

Materials used	Teacher's manual, in-session exercises, laminated role-playing option cards, workbook. Page 404
Procedures used	Ten skill modules including: • Being aware • Making decisions • Getting over it • Problem solving • Assertion • Saying "NO" • Speaking up • Listening • Empathy • Increasing positives. Pages 403-404
Provider	WLS-trained teachers. Page 404
Method of delivery	Face-to-face. Page 404
Setting/location of intervention	Classroom. Page 404
Intensity/duration of the intervention	Twelve, 50 minute training sessions. Page 404
Tailoring/adaptation	Scheduling was designed such that WLS workshop sessions and evaluations would not inter fere with school testing or important class activities. Page 404
Unforeseen modifications	• The first semester cohort intervention (cohort 1, n=65) was conducted via weekly sessions over nearly 3 months. • Feedback from the health education and physical education teachers suggested that it would be better to conduct the intervention on consecutive school days. • The three following cohorts 2–4 (n=193) were given the intervention in this manner. • Data from this cohort 1 was not included in the analysis. Page 402
Planned treatment fidelity	Teachers were trained using previously developed standardized materials. Sessions were monitored via audio recordings to assess whether various components of each session were correctly implemented, allowing constructive feedback and retraining when needed. Page 404
Actual treatment fidelity	Not reported

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Control (N = 123)

Brief name	Health Education (CTL) condition. Page 404
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Subjects assigned to the control group were instructed regarding BP-lowering lifestyle strategies including physical activity and diet that may improve CV health. Page 404
Provider	Teachers trained in a credible array of BP lowering lifestyle strategies. Page 404
Method of delivery	Face-to-face. Page 404
Setting/location of intervention	Classroom. Page 404
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	- The first semester cohort intervention (cohort 1, n=65) was conducted via weekly sessions over nearly 3 months. - Feedback from the health education and physical education teachers suggested that it would be better to conduct the intervention on consecutive school days. - The three following cohorts 2–4 (n=193) were given the intervention in this manner. - Data from this cohort 1 was not included in the analysis. Page 402
Planned treatment fidelity	Teachers for the CTL group sessions were trained in a credible array of BP-lowering lifestyle strategies including physical activity and diet that may improve CV health. Page 404
Actual treatment fidelity	Not reported

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D.1.5   Berry, 2016

Bibliographic Reference	Berry, Vashti; Axford, Nick; Blower, Sarah; Taylor, Rod S.; Edwards, Rhiannon Tudor; Tobin, Kate; Jones, Carys; Bywater, Tracey; The effectiveness and micro-costing analysis of a universal, school-based, social-emotional learning programme in the UK: A cluster-randomised controlled trial; School Mental Health: A Multidisciplinary Research and Practice Journal; 2016; vol. 8 (no. 2); 238-256

Study details

Trial registration number	www.controlled-trials.com: ISRCTN 32534848
Study start date	2009
Study end date	2011
Aim	Examine the effectiveness and cost-effectiveness of PATHS for reducing children's level of behavioural and emotional difficulty.
Country/geographical location	UK, Birmingham
Setting	School
Inclusion criteria	Mainstream primary schools in Birmingham; boys and girls in Reception and Year One grades of the participating schools in the 2009/2010 academic year who went on to Year One and Year Two, respectively, in 2010/2011.
Exclusion criteria	Special schools
Method of randomisation	Random allocation of schools on a 1:1 basis; stratified by size of school and percentage of children qualifying for free-school meals; School size was set as large or small (n< 257 pupils) and the percentage of free school meals was set as high or low (< 39.8% pupils). The North Wales Organisation for Randomised Trials in Health (& Social Care) (NWORTH) prepared a computer generated random sequence. To ensure concealment, a web randomisation system was used to allocate schools. The allocation procedure was initiated by one of the research team at an event attended by representatives from the relevant schools.
Method of allocation concealment	Web randomisation system was used to allocate schools; initiated by one of the research team at an event attended by representatives from the relevant schools.
Unit of allocation	School

Unit of analysis	Individual child
Statistical method(s) used to analyse the data	intention to treat (ITT) principle; Intervention effects were estimated with mixed linear regression models, fitting both school and classroom as a random effect, with adjustment for baseline outcome, age, gender, ethnicity, qualifying for free school meals, special education needs as fixed factors; Groups are compared at two points in time: baseline vs. 12-months post-baseline and baseline vs. 24-months post-baseline;
Attrition	8/64 schools dropped out post randomisation (12.5%)
Study limitations (author)	Intervention confounding - there was an already existing SEL intervention (SEAL) which may have impacted PATHS and this was not accounted for in the study; Uncertainty regarding intervention implementation fidelity in year 1 as forms to monitor this were low (27% completion rate) which could have impacted intervention delivery; Teachers responsible for the delivery of the intervention were also responsible for assessment of the main outcome measure potentially introducing additional bias; Staff churn and impact on intervention delivery.
Study limitations (reviewer)	The lack of consideration of pre-existing SEL intervention; Some differences in baseline demographics for behavioural, emotional and total clinical cut offs in the PATHS arm compared to Control (not outlined as significantly different) up to 2% difference between arms for behaviour and in total.
Source of funding	Birmingham City Council

Study arms

Promoting Alternative Thinking Strategies (PATHS) (N = 2203)

Pre-kindergarten version of PATHS - School-wide program to impact social and emotional learning; develop skills in five main areas: self-awareness, managing feelings, motivation, empathy and social skills; delivered in classrooms by trained teachers and focus on: (i) techniques for self-control, (ii) emotional and interpersonal understanding, focusing specifically on recognising and dealing with different feelings in oneself and others; (iii) steps for solving interpersonal problems; (iv) positive self-esteem; and (v) improved peer communication and relationships. lesson materials include teacher scripts, pictures, photographs, activity sheets, posters, home activities and parent letters and information.

Waiting list control (N = 1801)

Continuation with services as usual: able to continue to use the national SEAL curriculum if they were already implementing it. Intervention schools were not required to stop SEAL but it is likely that most likely replaced SEAL with PATHS owing to curriculum space, at least for the classroom element. At the end of the two-year study (i.e. the 2011/2012 academic year) control schools were offered the opportunity to implement PATHS.

Characteristics

Study-level characteristics

Characteristic	Study (N = 4004)
Age Mean (SD)	5.07 (0.58)
% boys Nominal	50
% non-white Nominal	68.1

Arm-level characteristics

Characteristic	Promoting Alternative Thinking Strategies (PATHS) (N = 2203)	Waiting list control (N = 1801)
Behaviour clinical cut-offs (SDQ) (% scoring 4 or more on SDQ) Nominal	8.3	6.5
Emotions clinical cut-off (SDQ) (6 or more on emotional difficulties) Nominal	4.6	3.7
total difficulties clinical cut-off (SDQ) (16 or more on total difficulties) Nominal	11.3	8.5

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Outcomes

Study timepoints
- Baseline
- 12 month
- 24 month

Strengths and Difficulties Questionnaire

Outcome	Promoting Alternative Thinking Strategies (PATHS), Baseline, N = 2626	Promoting Alternative Thinking Strategies (PATHS), 12 month, N = 2572	Promoting Alternative Thinking Strategies (PATHS), 24 month, N = 2509	Waiting list control, Baseline, N = 2380	Waiting list control, 12 month, N = 2302	Waiting list control, 24 month, N = 2168
Total score The sum of four sub-scales (conduct problems, emotional difficulties, hyperactivity, peer relationships) Mean (SD)	7.54 (6.06)	6.15 (5.72)	6.6 (6.24)	6.79 (5.81)	6.16 (5.74)	6.39 (6.05)

Total score - Polarity - Lower values are better

PTRS Questionnaire - 5 components

Outcome	Promoting Alternative Thinking Strategies (PATHS), Baseline, N = 2584	Promoting Alternative Thinking Strategies (PATHS), 12 month, N = 2585	Promoting Alternative Thinking Strategies (PATHS), 24 month, N = 2627	Waiting list control, Baseline, N = 2294	Waiting list control, 12 month, N = 2319	Waiting list control, 24 month, N = 2295
Emotion regulation Mean (SD)	4.22 (1)	4.42 (1.02)	4.27 (0.99)	4.28 (0.95)	4.37 (1)	4.45 (1.02)
Prosocial behaviour	3.91 (1.11)	4.35 (1.11)	4.32 (1.07)	3.98 (1.08)	4.23 (1.11)	4.36 (1.12)

Outcome	Promoting Alternative Thinking Strategies (PATHS), Baseline, N = 2584	Promoting Alternative Thinking Strategies (PATHS), 12 month, N = 2585	Promoting Alternative Thinking Strategies (PATHS), 24 month, N = 2627	Waiting list control, Baseline, N = 2294	Waiting list control, 12 month, N = 2319	Waiting list control, 24 month, N = 2295
Mean (SD)						
Social competence Mean (SD)	4.05 (0.99)	4.38 (1.01)	4.3 (0.98)	4.12 (0.96)	4.29 (1.01)	4.4 (1.02)
Aggressive behaviour Mean (SD)	1.7 (0.87)	1.58 (0.78)	1.68 (0.85)	1.66 (0.8)	1.69 (0.8)	1.67 (0.83)
Internalising/ withdrawn Mean (SD)	2.19 (0.85)	1.91 (0.79)	1.95 (0.75)	2.04 (0.85)	2 (0.83)	1.93 (0.81)

Emotion regulation - Polarity - Higher values are better

Prosocial behaviour - Polarity - Higher values are better

Social competence - Polarity - Higher values are better

Aggressive behaviour - Polarity - Lower values are better

Internalising/ withdrawn - Polarity - Lower values are better

Due difference in numbers of participants submitting data for PTRS questionnaire sub-components this has been split into separate tables: Emotion regulation; Pro-social behaviour; Social competence; Aggressive behaviour; Internalising/withdrawn.

PTSR Questionnaire - 2 components

Outcome	Promoting Alternative Thinking Strategies (PATHS), Baseline, N = 2589	Promoting Alternative Thinking Strategies (PATHS), 12 month, N = 2588	Promoting Alternative Thinking Strategies (PATHS), 24 month, N = 2624	Waiting list control, Baseline, N = 2310	Waiting list control, 12 month, N = 2318	Waiting list control, 24 month, N = 2299
Inattention/hyperactivity Mean (SD)	0.67 (0.76)	0.52 (0.67)	0.57 (0.71)	0.6 (0.71)	0.56 (0.68)	0.53 (0.68)

Outcome	Promoting Alternative Thinking Strategies (PATHS), Baseline, N = 2589	Promoting Alternative Thinking Strategies (PATHS), 12 month, N = 2588	Promoting Alternative Thinking Strategies (PATHS), 24 month, N = 2624	Waiting list control, Baseline, N = 2310	Waiting list control, 12 month, N = 2318	Waiting list control, 24 month, N = 2299
Impulsivity/hyperactivity Mean (SD)	0.53 (0.69)	0.42 (0.61)	0.49 (0.67)	0.47 (0.62)	0.46 (0.63)	0.45 (0.65)

Inattention/hyperactivity - Polarity - Lower values are better

Impulsivity/hyperactivity - Polarity - Lower values are better

Due to differing number of participants submitting data the data from PTRS questionnaire have been split and reported separately - this table covers Inattention-hyperactivity and impulsivity-hyperactivity

PTRS questionnaire - Peer relations

Outcome	Promoting Alternative Thinking Strategies (PATHS), Baseline, N = 2580	Promoting Alternative Thinking Strategies (PATHS), 12 month, N = 2591	Promoting Alternative Thinking Strategies (PATHS), 24 month, N = 2596	Waiting list control, Baseline, N = 2317	Waiting list control, 12 month, N = 2311	Waiting list control, 24 month, N = 2284
Peer relations Standardised Mean (SD)	1.71 (0.7)	1.54 (0.64)	1.68 (0.73)	1.65 (0.67)	1.61 (0.7)	1.59 (0.71)

Peer relations - Polarity - Lower values are better

Reported separately due to differences in numbers of participant data submitted

PTRS questionnaire - relational aggression

Outcome	Promoting Alternative Thinking Strategies (PATHS), Baseline, N = 2583	Promoting Alternative Thinking Strategies (PATHS), 12 month, N = 2590	Promoting Alternative Thinking Strategies (PATHS), 24 month, N = 2572	Waiting list control, Baseline, N = 2315	Waiting list control, 12 month, N = 2310	Waiting list control, 24 month, N = 2286
Relational aggression Mean (SD)	1.48 (0.78)	1.49 (0.78)	1.61 (0.86)	1.46 (0.73)	1.58 (0.83)	1.56 (0.82)

Relational aggression - Polarity - Lower values are better

Sub-scale reported separately due to differences in participant data totals

PTRS questionnaire - learning behaviours

Outcome	Promoting Alternative Thinking Strategies (PATHS), Baseline, N = 2581	Promoting Alternative Thinking Strategies (PATHS), 12 month, N = 2589	Promoting Alternative Thinking Strategies (PATHS), 24 month, N = 2592	Waiting list control, Baseline, N = 2292	Waiting list control, 12 month, N = 2284	Waiting list control, 24 month, N = 2277
Learning behaviours Mean (SD)	1.57 (0.41)	1.65 (0.39)	1.6 (0.41)	1.61 (0.38)	1.61 (0.38)	1.6 (0.4)

Learning behaviours - Polarity - Higher values are better

Sub-scale reported separately due to differences in reported outcomes

PTRS questionnaire - academic performance

Outcome	Promoting Alternative Thinking Strategies (PATHS), Baseline, N = 2577	Promoting Alternative Thinking Strategies (PATHS), 12 month, N = 2584	Promoting Alternative Thinking Strategies (PATHS), 24 month, N = 2594	Waiting list control, Baseline, N = 2319	Waiting list control, 12 month, N = 2279	Waiting list control, 24 month, N = 2279
Academic performance Mean (SD)	3 (1.33)	3.14 (1.34)	3.08 (1.33)	3.02 (1.36)	3.11 (1.36)	3.1 (1.31)

Academic performance - Polarity - Lower values are better

sub-scale reported separately due to differences in numbers of participant data reported compared to other sub-scales

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

StrengthsandDifficultiesQuestionnaire-Totalscore-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

StrengthsandDifficultiesQuestionnaire-Totalscore-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSQuestionnaire-5components-Emotionregulation-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSQuestionnaire-5components-Emotionregulation-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low

Section	Question	Answer
Overall bias and Directness	Overall Directness	Directly applicable

PTRSQuestionnaire-5components-Prosocialbehaviour-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSQuestionnaire-5components-Prosocialbehaviour-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSQuestionnaire-5components-Socialcompetence-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSQuestionnaire-5components-Socialcompetence-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSQuestionnaire-5components-Aggressivebehaviour-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSQuestionnaire-5components-Aggressivebehaviour-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSQuestionnaire-5components-Internalising/withdrawn-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSQuestionnaire-5components-Internalising/withdrawn-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

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PTSRQuestionnaire-2components-Inattention/hyperactivity-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTSRQuestionnaire-2components-Inattention/hyperactivity-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSquestionnaire-Peerrelations-Peerrelations-StandardisedMeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSquestionnaire-Peerrelations-Peerrelations-StandardisedMeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSquestionnaire-relationalaggression-Relationalaggression-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSquestionnaire-relationalaggression-Relationalaggression-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSquestionnaire-learningbehaviours-Learningbehaviours-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSquestionnaire-learningbehaviours-Learningbehaviours-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSquestionnaire-academicperformance-Academicperformance-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

PTRSquestionnaire-academicperformance-Academicperformance-MeanSD-Promoting Alternative Thinking Strategies (PATHS)-Waiting list control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

PATHS (N = 2203)

Brief name	PATHS (Promoting Alternative Thinking Strategies) [Abstract]
Rationale/theory/Goal	PATHS aims to develop skills in five main areas: self-awareness, managing feelings, motivation, empathy and social skills [P 12]
Materials used	PATHS manual containing lesson materials and teacher guidance. The lesson materials include teacher scripts, pictures, photographs, activity sheets, posters, home activities and parent letters and information. A supplementary booklet shows how these materials map onto UK curricular requirements and includes ideas for cross-curricular links.. It also provides suggested amendments,which were surface level and suggested by a local teacher in close collaboration with the programme developer so as to preserve the underlying logic.[P 12]
Procedures used	Teachers in the intervention schools received one day of training by accredited PATHS trainers from the US prior to implementation and were supported by one of three coach consultants employed by the Council [P 14]
Provider	Teachers [P 13]

Method of delivery	Delivered as part of classromm lessons [P 13]
Setting/location of intervention	Classroom [P 13]
Intensity/duration of the intervention	44 lessons in Reception/Year 1 and 47 lessons in year 2. Lessons are one hour a week and can be divided to fit with teaching plans. [P 13]
Tailoring/adaptation	Adapted to local context by a local teacher in close collaboration with the programme developer so as to preserve the underlying logic.[P 12]
Unforeseen modifications	None reported
Planned treatment fidelity	Four measues were used using • weekly logs (for exposure/dose and adherence to content) that were completed by teachers and captured the delivery dates of each of the 44 or 47 PATHS lessons and whether they were 'taught as written', 'taught with minor deviations from the curriculum', or 'taught with major deviations from the curriculum'. • quality of programme delivery and pupil engagement respectively, were measured using a semi-structured questionnaire completed by PATHS coaches [P 14 - 15]
Actual treatment fidelity	Teachers reported completing an average of 26 lessons (55% of the 47 possible lessons) though coaches reported a higher rate of lessons delivered than records suggest.. However tehre wa a lot of variation from 8 to all lessons covered. Self-reported teacher adherence to PATHS lesson content were high. but coaches' overall ratings of lesson delivery ranged from 21% to 100%, with a mean fidelity score for the sample of teachers of 79% (SD = 21%).. Drawing an arbitrary threshold of 80% implementation fidelity6, 47 out of a possible 94 PATHS teachers (50%) could be said to have delivered the programme with 'high fidelity'.[P 27]
Other details	None to add

Waiting list (N = 1801)

Brief name	Waiting list [P 15]
Rationale/theory/Goal	Not applicable

Materials used	Teaching as usual:[P 15]
Procedures used	Not applicable
Provider	Teachers [P 15]
Method of delivery	Classroom based lesson [P 15]
Setting/location of intervention	Classroom [P 15]
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	None to add

D.1.6   Bothe, 2014

Bibliographic Reference	Bothe, Denise A; Grignon, Josephine B; Olness, Karen N; The effects of a stress management intervention in elementary school children.; Journal of developmental and behavioral pediatrics : JDBP; 2014; vol. 35 (no. 1); 62-7

Study details

Study design	Cluster randomised controlled trial
Type of study	Effectiveness
Trial registration number	Not reported

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Aim	To test the effectiveness of a daily short stress management technique (SMT) based on hypnosis techniques delivered in the classroom school setting on self-reported anxiety and autonomic reactivity using a biofeedback computer program that measures heart rate variability (HRV) as a measure of relaxation
Country/geographical location	Cleveland, OH, USA
Type of school	Primary education
Setting	Third-grade classroom, schools
UK Key stage	Key stage 2
Inclusion criteria	NR
Exclusion criteria	NR
Method of randomisation	The classes were randomly assigned to the intervention group or the control group. Each child was assigned an identification number. No information on how the randomisation process was done, i.e computer generated
Method of allocation concealment	Not reported
Unit of allocation	Classes
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: none. Repeated-measures multivariate analysis of variance was performed to assess the change in each group over time between baseline (pre-intervention) and 4 months (post-intervention period), and again the next school year (long-term follow-up). Due to the fact that some children had moved out of the school at various points, the analyses include only those children present at each post-intervention phase. Because age and gender had no effect on the results of the analysis, the data were then analysed without those variables. ITT: Not reported
Attrition	2 participants in the intervention group, and 4 in the control group were lost to follow up at 12 months

Study limitations (author)	• Small sample size. • Although the daily in-class time was short to minimize time away from class learning, 4 months may have been longer than necessary. • Lack of information about the participants' previous mental health status
Study limitations (reviewer)	• Lack of information on inclusion/exclusion criteria • Lack of information on blinding • Lack of information on participant characteristics
Source of funding	None reported

Study arms

Stress management technique (SMT) (N = 15)

No information given on number of clusters

Control (N = 13)

No information given on number of clusters

Outcomes

Study timepoints
• Baseline
• 12 month

Outcome

Outcome	Stress management technique (SMT), Baseline, N = 15	Stress management technique (SMT), 12 month, N = 15	Control, Baseline, N = 13	Control, 12 month, N = 13
Emotional distress - anxiety (T scores) Using The Revised Children's Manifest	n = 15 ; % = 100	n = 13 ; % = 86.7	n = 13 ; % = 100	n = 9 ; % = 69.2

Outcome	Stress management technique (SMT), Baseline, N = 15	Stress management technique (SMT), 12 month, N = 15	Control, Baseline, N = 13	Control, 12 month, N = 13
Anxiety Scale (RCMAS) Sample size				
Emotional distress - anxiety (T scores) Using The Revised Children's Manifest Anxiety Scale (RCMAS) Mean (SD)	49.2 (11.23)	41.85 (11.38)	58.69 (9.87)	56 (11.13)

Emotional distress - anxiety - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress Anxiety - daily short stress management technique (SMT) vs Control (12 month follow-up)

Section	Question	Answer
Overall bias	Risk of bias judgement	High

Study arms

Intervention (N = 15)

Brief name	Daily short stress management technique (SMT) [P63]
Rationale/theory/Goal	To assess whether teaching children an SMT provides them with an effective coping skill that transfers into their daily lives [P63]
Materials used	The SMT is based on hypnosis techniques to improve self-reported anxiety and autonomic reactivity. A biofeedback computer program that measures heart rate variability (HRV) was used as a measure of relaxation [P63]
Procedures used	The first session was to discuss definitions of stress and relaxation and how our bodies react to both, and during the second session

	details of the self-regulation technique they would be practicing was reviewed. Early in the intervention period, each child was also instructed 5 to 10 minutes individually by the PI and the research assistant on the technique of diaphragmatic breathing. The stress management technique was done with the children standing or seated at their desk in the classroom and consisted of 3 parts: deep breathing, movement, and guided imagery. The guided imagery was similar to what would be used in teaching self-hypnosis. These parts were divided as follows: about 1 minute of diaphragmatic breathing, 4 minutes of simple stretches and movements designed to help the children focus, another minute of deep breathing, and then 4 minutes of an imaginary journey. Examples of movements include growing like a flower and reaching up to the sky and standing like a tree while focusing on a point in front of them. The imagery scripts included muscle relaxation and variations of using their imaginations to go to their favourite place where they felt safe and happy. The teacher was provided with several different combinations of movements or stretches to use, and 4 imaginary journeys from which to choose, all similar in format [P64]
Provider	The principle study investigator and the research assistant carried out two 30-minute teaching sessions with the intervention class [P64]
Method of delivery	The investigators were present in the intervention class each day during the first week, then weekly for 2 weeks, and then monthly. The teacher kept a daily log documenting participation in the intervention. After the study was completed, results were shared with the teachers in the school [P64}
Setting/location of intervention	Classroom [P63]
Intensity/duration of the intervention	4-month stress management intervention period [P64]
Tailoring/adaptation	Third-grade children were selected because by the age of 8 years, children are capable of noticing specific mind-body links and are able to see how shifts in thinking and images will lead to a physiologic change. They are also able to use these abilities to generalize the self-regulation into their life outside of formal biofeedback practice [P63]
Unforeseen modifications	None reported
Planned treatment fidelity	None reported
Actual treatment fidelity	None reported

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Other details	None to add

Control (N = 13)

Brief name	Control group
Rationale/theory/Goal	NA
Materials used	NA
Procedures used	The control class teacher read from a children's book for 10 minutes daily [P64]
Provider	NA
Method of delivery	NA
Setting/location of intervention	NA
Intensity/duration of the intervention	NA
Tailoring/adaptation	NA
Unforeseen modifications	NA
Planned treatment fidelity	NA
Actual treatment fidelity	NA
Other details	None to add

D.1.7   Britton, 2014

Bibliographic Reference	Britton, Willoughby B; Lepp, Nathaniel E; Niles, Halsey F; Rocha, Tomas; Fisher, Nathan E; Gold, Jonathan S; A randomized controlled pilot trial of classroom-based mindfulness meditation compared to an active control condition in sixth-grade children.; Journal of school psychology; 2014; vol. 52 (no. 3); 263-78

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Study details

Study design	Cluster randomised controlled trial
Trial registration number	Not reported
Study start date	2007
Study end date	2009
Aim	To assess the effects of 6 weeks of classroom-based, teacher-taught mindfulness meditation instruction on Internalizing, Externalizing, and Attention Problems, and affect in sixth-grade school children, as compared to a matched, active control group.
Country/geographical location	USA
Setting	Independent Quaker school
Inclusion criteria	All sixth-grade students from two consecutive years (n = 114) in an independent Quaker school in Providence, RI were eligible to participate in this study
Exclusion criteria	Not reported
Method of randomisation	Sixth-grade students were divided into four classrooms by a committee of educators who were familiar with the characteristics of each student creating four homologous classrooms with symmetrical distributions of students by aptitude, learning style, maturity, social characteristics, and gender. Two classrooms were randomly assigned to the meditation intervention, while the remaining two classrooms were assigned to an active control condition.Randomization was performed by a simple coin flip
Method of allocation concealment	Not reported
Unit of allocation	By school class (sixth grade)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	2-way repeated measures ANOVAs
Attrition	101/114 agreed to participate in the study (11.5% attrition) and a further participant did not complete baseline assessment and was

	excluded so 100/114 completed the intervention and assessments (12.3% attrition)
Study limitations (author)	Limitations of sample selection (Quaker school) limits the generalisability of the findings; Assessment was via self-report which are subject to potential under/over estimation; the validated measure adopted for assessment (STAI) was changed from Likert scale to visual analog scale which may have changed its ability to detect differences but poses issues for the validity of the measurment tool and generalisability. Treatment fidelity was not assessed so cannot be sure that students received the intervention as per outlined protocol although teacher training (and curruculum plans) and student logs indicate protocols were followed; Parallel changes in both groups - Authors highlight the low levels of clinical symptoms in sample, the potential efficacy of the control intervention, short duration of the mindfulness intervention may explain the lack of intervention effect compared to active control and further any effects demonstrated may be due to maturation, simple passage of time, or repeated assessment; Authors highlight that the duration of the intervention (5 to 10 min a day for 4 to 5 days a week for 6 weeks) and duration of evaluation may not have been suffcient to elicit hypthosised effect; The same teachers were utilised to deliver both intervention and controls interventions and this does not control for instructor enthusiasm
Study limitations (reviewer)	Sample size and lack of sample size/power calculation; Lack of allocation concealment; limited details regarding demographics of teachers and participants in the study
Source of funding	Funding for this research was provided by grants T32-AT001287, MH067553-05, and K23-AT006328-01A1 from the National Institutes of Health, the Mind and Life Institute, the Lenz Foundation, the Hershey Foundation, and the Brown University Contemplative Studies Initiative.

Study arms

Teacher-taught mindfulness (N = 52)

6 weeks of classroom-based, teacher-taught mindfulness meditation instruction

Active control condition (N = 48)

6-week curriculum on ancient African History (including Egypt), taught by the same teacher that taught the meditation condition and included a nondidactic, experiential, and novel activity that was matched to the didactic content of the class: construction of a 3-dimensional life-sized model of a Pharaoh's tomb.

Characteristics

Study-level characteristics

Characteristic	Study (N = 101)
Age Mean (SD)	11.79 (0.41)
Male Nominal	55
Female Nominal	46

Outcomes

Study timepoints
- Baseline
- 6 week (All study participants completed questionnaires before and after the 6-week intervention period)

Youth Self Report (YSR)

Outcome	Teacher-taught mindfulness, Baseline, N = 52	Teacher-taught mindfulness, 6 week, N = 52	Active control condition, Baseline, N = 48	Active control condition, 6 week, N = 48
Internalizing problems Mean (SD)	12.5 (7.1)	10.4 (6.6)	13.7 (10.1)	10.6 (10.1)
Externalizing problems Mean (SD)	8.4 (5.8)	6.9 (5.2)	8.1 (6.1)	7 (5.6)
Attention Problems Mean (SD)	4.7 (2.7)	3.8 (2.6)	4.1 (2.5)	3.5 (2.8)

Internalizing problems - Polarity - Lower values are better

Externalizing problems - Polarity - Lower values are better

Attention Problems - Polarity - Lower values are better

Used to assess the presence of clinical and subclinical symptoms and measure general wellbeing. Divided into two primary subscales, Internalizing Problems and Externalizing Problems. Internalizing Problems scale includes 31 items related to internal affective difficulties, such as anxiety and depression as well as somatic complaints like headaches and fatigue; Externalizing Problems subscale includes 29 items related to problem behaviors or "acting out," such as lying, disobedience, substance use, and aggressive behavior; There is a third subscale Attention Problems which includes 7 items related to concentration (daydreaming), self-control (impulsivity) and school performance and learning.

modified Spielberger State-Trait Anxiety Inventory — Child version (STAI-C)

Outcome	Teacher-taught mindfulness, Baseline, N = 52	Teacher-taught mindfulness, 6 week, N = 52	Active control condition, Baseline, N = 48	Active control condition, 6 week, N = 48
STAI total affect disturbance Mean (SD)	453.9 (222.6)	355.7 (231.4)	425.9 (255)	403.3 (292.9)
STAI positive affect Mean (SD)	491.2 (117.8)	551.7 (123.1)	508 (123.1)	528.1 (139.6)

STAI total affect disturbance - Polarity - Lower values are better

STAI positive affect - Polarity - Higher values are better

A modified version of the Spielberger State-Trait Anxiety Inventory — Child version (STAI-C) was used to assess positive and negative affect; STAI-C is a 20-item self-report scale that assesses a respondent's emotional state by rating the presence of negative states ("worried" and "frightened") and positive states ("happy" and "satisfied"); the current study replaced the original 3-choice format with a visual analog scale response format

Cognitive and Affective Mindfulness Scale (CAMS-R)

Outcome	Teacher-taught mindfulness, Baseline, N = 52	Teacher-taught mindfulness, 6 week, N = 52	Active control condition, Baseline, N = 48	Active control condition, 6 week, N = 48
CAMS-R total Mean (SD)	33 (5.6)	33 (6.1)	32.9 (5.7)	32.6 (5.5)

CAMS-R total - Polarity - Higher values are better

CAMS-R is a 12-item measure that assesses subjective ability to regulate attention, maintain an awareness of present-moment experience, and maintain an accepting or non-judgmental attitude toward present-moment experience

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

YouthSelfReport(YSR)-Internalizingproblems-MeanSD-Teacher-taught mindfulness-Active control condition-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Differences between teachers training in mindfulness presents a high risk of bias in the collection, delivery and measurement of intervention)*
Overall bias and Directness	Overall Directness	Partially applicable *(Independent Quaker school with a vary narrow demographic spread which does not reflect the UK context)*

YouthSelfReport(YSR)-Externalizingproblems-MeanSD-Teacher-taught mindfulness-Active control condition-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Differences between teachers training in mindfulness presents a high risk of bias in the collection, delivery and measurement of intervention)*
Overall bias and Directness	Overall Directness	Partially applicable *(Independent Quaker school with a vary narrow*

Section	Question	Answer
		demographic spread which does not reflect the UK context)

YouthSelfReport(YSR)-AttentionProblems-MeanSD-Teacher-taught mindfulness-Active control condition-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Differences between teachers training in mindfulness presents a high risk of bias in the collection, delivery and measurement of intervention)*
Overall bias and Directness	Overall Directness	Partially applicable *(Independent Quaker school with a vary narrow demographic spread which does not reflect the UK context)*

modifiedSpielbergerState-TraitAnxietyInventory—Childversion(STAI-C)-STAItotalaffectdisturbance-MeanSD-Teacher-taught mindfulness-Active control condition-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Differences between teachers training in mindfulness presents a high risk of bias in the collection, delivery and measurement of intervention)*
Overall bias and Directness	Overall Directness	Partially applicable *(Independent Quaker school with a vary narrow demographic spread which does not reflect the UK context)*

modifiedSpielbergerState-TraitAnxietyInventory—Childversion(STAI-C)-STAIpositiveaffect-MeanSD-Teacher-taught mindfulness-Active control condition-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Differences between teachers training in mindfulness presents a high risk of bias in the collection, delivery and measurement of intervention)*

Section	Question	Answer
Overall bias and Directness	Overall Directness	Partially applicable *(Independent Quaker school with a vary narrow demographic spread which does not reflect the UK context)*

CognitiveandAffectiveMindfulnessScale(CAMS-R)-CAMS-Rtotal-MeanSD-Teacher-taught mindfulness-Active control condition-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Differences between teachers training in mindfulness presents a high risk of bias in the collection, delivery and measurement of intervention)*
Overall bias and Directness	Overall Directness	Partially applicable *(Independent Quaker school with a vary narrow demographic spread which does not reflect the UK context)*

Study details

Brief name	A randomized controlled pilot trial of classroom-based mindfulness meditation compared to an active control condition in sixth-grade children
Rationale/theory/Goal	To examine the effects of a non-elective, classroom-based, teacher-implemented, mindfulness meditation intervention on standard clinical measures of mental health and affect in middle school children; To understand the impact of 'mindfulness in isolation; Authors hypothesised that meditating condition would show improvements on the Internalizing Problems scale relative to controls, due to greater reductions in anxiety- and depression-related symptoms, and would improve relative to controls on the Externalizing Problems scale, due to reduced problematic behavior and acting out.
Materials used	Meditation module lasting 6 weeks formulated according to Roth's (Roth, 2006, 2008, 2011, in press) Integrative Contemplative Pedagogy (ICP), which integrates traditional "third person" didactic, knowledge-based learning, with critical 1st person experiential learning; Three Meditation techniques: (1) breath awareness and breath counting; (2) awareness of thoughts, feelings, and sensations; and (3) body sweeps; Student journals to understand student interventiuon acceptabiity; Clinical syndromes mesured via Youth Self Report questionnaire; Intervention affect measured via a modified version of the Spielberger State-Trait Anxiety Inventory

	Child version (STAI-C); Mindfulness measured via Cognitive and Affective Mindfulness Scale (CAMS-R).
Procedures used	Existing school policy meant that sixth-grade students were divided into four homologous classrooms in which there were symmetrical distributions of students by aptitude, learning style, maturity, social characteristics, and gender. Each fall, two classrooms were randomly assigned to the meditation intervention, while the remaining two classrooms were assigned to an active control condition. Randomization was performed by a simple coin flip. In each spring semester, condition assignment was reversed such that during the course of the sixth-grade year, all students received both the meditation curriculum and the active control curriculum. After consent, enrollment, and condition assignment, baseline data were collected from all students by research staff. Data were collected through a packet of questionnaires that were administered at school during regular hours.
Provider	School teachers
Method of delivery	Classroom based
Setting/location of intervention	Independent Quaker school; USA
Intensity/duration of the intervention	6 weeks;
Tailoring/adaptation	No intervention modification; Assessment measures modified for Clinical syndromes (mesured via Youth Self Report questionnaire; Intervention affect measured via a modified version of the Spielberger State-Trait Anxiety Inventory Child version [STAI-C])
Unforeseen modifications	Not reported
Planned treatment fidelity	101/114 agreed to participate in the study (11.5% attrition)
Actual treatment fidelity	A further participant did not complete baseline assessment and was excluded so 100/114 completed the intervention and assessments (12.3% attrition)

Study arms

Teacher-taught mindfulness (N = 52)

6 weeks of classroom-based, teacher-taught mindfulness meditation instruction

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Active control condition (N = 48)

6-week curriculum on ancient African History (including Egypt), taught by the same teacher that taught the meditation condition and included a nondidactic, experiential, and novel activity that was matched to the didactic content of the class: construction of a 3-dimensional life-sized model of a Pharaoh's tomb.

D.1.8 Burckhardt, 2016

Bibliographic Reference	Burckhardt, Rowan; Manicavasagar, Vijaya; Batterham, Philip J; Hadzi-Pavlovic, Dusan; A randomized controlled trial of strong minds: A school-based mental health program combining acceptance and commitment therapy and positive psychology.; Journal of school psychology; 2016; vol. 57; 41-52

Study details

Study design	Cluster randomised controlled trial
Trial registration number	Not reported
Study start date	2014
Study end date	2014
Aim	(a) to improve subjective wellbeing for all participants; (b) to reduce symptoms of anxiety and depression for those who began the program with elevated symptoms (i.e., treatment of psychopathology); and (c) to reduce the likelihood of symptoms emerging in participants who began the program with low levels of anxiety and depression (i.e., prevention of psychopathology).
Country/geographical location	Sydney, Australia
Type of school	Secondary education
Setting	Independent Episcopalian high school
Inclusion criteria	Opportunistic sample of all students in Year 10 and 11 from Independent Episcopalian high school; informed consent

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Exclusion criteria	Not outlined
Method of randomisation	Cluster randomization was conducted, with tutorial groups (8 in each Year) being randomized to receive either the intervention or control condition. School staff member independent from the research group conducted the randomization process. Tutorial groups were listed alphabetically by the tutorial group name. For Year 10 the first four groups on the list were allocated to the Strong Minds condition and for Year 11 the last four groups on the list were allocated to the Strong Minds condition.
Method of allocation concealment	A staff member of the school who was independent from the research group conducted the randomization process.
Unit of allocation	By tutor group within year groups (8 per year group)
Unit of analysis	by year group (cluster)
Statistical method(s) used to analyse the data	An intention-to-treat approach - Mixed Model for Repeated Measures (MMRM) analyses to compare potential differential changes in the outcome scores over time for the intervention group compared to the control group; Clinical significance, examine Generalized Linear Mixed Models (GLMM) for binary outcomes; Baseline differences between the groups were examined using a series of independent samples t-tests.
Attrition	Of the 320 students aged 15 to 18 years of age 269 provided baseline data of which 221 completed follow-up questionaires (attrition of 18%) 24/30 (20%) and 22/33 (33%) of the combined year groups randomised to strong minds and control arms completed both baseline and follow-up assessments.
Study limitations (author)	Lack of participant blinding; small sample that may not be representative and thus findings may be of limited generalisability; A number of uncontrolled factors that could confound intervention efficacy: exams over the period, additional classes/workshops; opportunities for additional support from school outside of the study; Absence of evalaution of process variables given the uncontrolled variables may confound any identified effects of the intervention; Reasons for droputs not collected; Control condition was not measured for adherence against outlined curriculum; Use of self-report measures.
Study limitations (reviewer)	Lack of assessor/participant blinding; potential for intervention and control group mixing as in the same school introducing bias; Potential for intervention confounding due to other on-going elements that may have impacted different members of clusters at different times - lack of clarity regarding how this was adjusted for.
Source of funding	Not reported

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Study arms

Strong Minds (N = 30)

a school-based mental health program combining positive psychology with acceptance and commitment therapy - number of participants n=139; drew on the principles of Positive psychology (PP - comprises a number of constructs that have been found to contribute to subjective wellbeing such as gratitude, mindfulness, and social relationships) and 4 aspects of Acceptance and Commitment Therapy (ACT - Meaning, kindness, social relationships, and healthy lifestyles [2/4 components Exercise and managing stress]); ACT combines mindfulness with behavioral principles and an understanding of personal values. Total contact time for the program was 8.0 hours, comprising 16 half hour sessions spread over 3 months - the first 9 were based on ACT and the following sessions were based on PP; delivered face-to-face by a registered psychologist; The aim of the sessions was to educate students about the concepts and to encourage them to apply these concepts to their lives using verbal explanations, metaphors, personal examples, videos, experiential exercises, and images during sessions.

Control - pastoral care (N = 33)

'Pastoral Care' classes - assisting students face challenges in their lives (e.g. managing social media and engaging in volunteer work). Year 10 students were taught about: (a) social justice at school, in Australia, and globally; and (b) cyber issues such as managing online harassment and the long-term consequences of online activity. Year 11 students were taught (a) social justice at school, in Australia, and globally; (b) drugs; and (c) safe behavior while celebrating. School staff members facilitated Pastoral Care classes and remained with the group for the duration of the study. Classes comprised between 15 and 20 students and the material was delivered using class discussions - Number of participants n=128

Characteristics

Study-level characteristics

Characteristic	Study (N =)
Ethnicity	NR
Nominal	

Arm-level characteristics

Characteristic	Strong Minds (N = 30)	Control - pastoral care (N = 33)
Age Mean (SD)	16.37 (0.65)	16.34 (0.64)
Gender % Males Nominal	63	59
Baseline depression score Mean (SD)	11.3 (10)	11.3 (10)
Baseline anxiety score Mean (SD)	9.6 (8.4)	9.4 (8.6)
Baseline stress score Mean (SD)	13.7 (9.2)	14 (8.9)
Baseline total DASS score Mean (SD)	34.6 (25)	34.6 (24.4)
Baseline FS score Mean (SD)	41.2 (9)	42.8 (7.2)

Outcomes

Study timepoints
- Baseline
- 3 month

The Depression, Anxiety, and Stress Scale – Short form (DASS-21) - Year 10

Outcome	Strong Minds, Baseline, N = 15	Strong Minds, 3 month, N = 11	Control - pastoral care, Baseline, N = 14	Control - pastoral care, 3 month, N = 8
DASS-Total Mean (SD)	76.76 (19.46)	59.27 (26.25)	65.71 (11.03)	78 (27.48)

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DASS-Total - Polarity - Lower values are better

The DASS-21 comprises three symptom-based subscales (Depression, Anxiety, and Stress) of seven items each. Participants respond to each item on a four-point Likert scale (0 = 'not at all' to 3= 'most of the time'). Summed scores for each scale range from 0-42 with more severe symptoms indicated by higher scores.

The Depression, Anxiety, and Stress Scale – Short form (DASS-21) - Year 11

Outcome	Strong Minds, Baseline, N = 15	Strong Minds, 3 month, N = 13	Control - pastoral care, Baseline, N = 19	Control - pastoral care, 3 month, N = 14
DASS-Total Mean (SD)	71 (15.93)	60.31 (22.28)	72.58 (16.29)	57.38 (29.32)

DASS-Total - Polarity - Lower values are better

The DASS-21 comprises three symptom-based subscales (Depression, Anxiety, and Stress) of seven items each. Participants respond to each item on a four-point Likert scale (0 = 'not at all' to 3= 'most of the time'). Summed scores for each scale range from 0-42 with more severe symptoms indicated by higher scores.

Flourishing Scale (FS) - Year 10

Outcome	Strong Minds, Baseline, N = 15	Strong Minds, 3 month, N = 11	Control - pastoral care, Baseline, N = 14	Control - pastoral care, 3 month, N = 8
FS score Mean (SD)	34.33 (10.62)	37.91 (11.29)	36.31 (6.32)	32.88 (10.18)

FS score - Polarity - Higher values are better

8-item measure of subjective wellbeing that emphasizes the behavioral and cognitive view-of-self components of wellbeing; Assesses quality of social relationships, purpose and meaning in life, engagement and interest in activities, self-respect, self-efficacy, and optimism. Each item is rated on a 7-point Likert scale that ranges from 'strongly agree' to 'strongly disagree'. Summed scores deliver scores ranging from 8 (lowest level of wellbeing) to 56 (high wellbeing).

Flourishing Scale (FS) - Year 11

Outcome	Strong Minds, Baseline, N = 15	Strong Minds, 3 month, N = 13	Control - pastoral care, Baseline, N = 19	Control - pastoral care, 3 month, N = 14
FS Mean (SD)	32.27 (9.07)	33.69 (7.96)	34.73 (6.44)	34.58 (9.61)

FS - Polarity - Higher values are better

8-item measure of subjective wellbeing that emphasizes the behavioral and cognitive view-of-self components of wellbeing; Assesses quality of social relationships, purpose and meaning in life, engagement and interest in activities, self-respect, self-efficacy, and optimism. Each item is rated on a 7-point Likert scale that ranges from 'strongly agree' to 'strongly disagree'. Summed scores deliver scores ranging from 8 (lowest level of wellbeing) to 56 (high wellbeing).

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

TheDepression,Anxiety,andStressScale–Shortform(DASS-21)-Year10-DASS-Total-MeanSD-Strong Minds-Control - pastoral care-t3

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Identified imbalances from randomisation process; Measurement of outcome was by student self-report within same school and year groups which may influence reporting)*

TheDepression,Anxiety,andStressScale–Shortform(DASS-21)-Year11-DASS-Total-MeanSD-Strong Minds-Control - pastoral care-t3

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Identified imbalances from randomisation process; Measurement of outcome was by student self-report within same school and year groups which may influence reporting)*

FlourishingScale(FS)-Year10-FSscore-MeanSD-Strong Minds-Control - pastoral care-t3

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Identified imbalances from randomisation process; Measurement of outcome was by student self-report within same school and year groups which may influence reporting)*

FlourishingScale(FS)-Year11-FS-MeanSD-Strong Minds-Control - pastoral care-t3

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Identified imbalances from randomisation process; Measurement of outcome was by student self-report within same school and year groups which may influence reporting)*

Study details

Brief name	A school-based mental health program combining acceptance and commitment therapy and positive psychology vs pastoral care
Rationale/theory/Goal	Aim of the program was three-fold: (a) to improve subjective wellbeing for all participants; (b) to reduce symptoms of anxiety and depression for those who began the program with elevated symptoms (i.e., treatment of psychopathology); and (c) to reduce the likelihood of symptoms emerging in participants who began the program with low levels of anxiety and depression (i.e., prevention of psychopathology). Strong minds is a school-based mental health program combining positive psychology with acceptance and commitment therapy - number of participants n=139; drew on the principles of Positive psychology (PP - comprises a number of constructs that have been found to contribute to subjective wellbeing such as gratitude, mindfulness, and social relationships) and 4 aspects of Acceptance and Commitment Therapy (ACT - Meaning, kindness, social relationships, and healthy lifestyles [2/4 components Exercise and managing stress]); ACT combines mindfulness with behavioral principles and an understanding of personal values.
Materials used	Strong Minds involved a total contact time of 8.0 hours, comprising 16 half hour sessions spread over 3 months - the first 9 were based on ACT and the following sessions were based on PP; delivered face-to-face by a registered psychologist; The aim of the sessions was to educate students about the concepts and to encourage them to apply these concepts to their lives using verbal

	explanations, metaphors, personal examples, videos, experiential exercises, and images during sessions.
	Control was Pastoral Care' classes - assisting students face challenges in their lives (e.g. managing social media and engaging in volunteer work). Year 10 students were taught about: (a) social justice at school, in Australia, and globally; and (b) cyber issues such as managing online harassment and the long-term consequences of online activity. Year 11 students were taught (a) social justice at school, in Australia, and globally; (b) drugs; and (c) safe behavior while celebrating. School staff members facilitated Pastoral Care classes and remained with the group for the duration of the study. Classes comprised between 15 and 20 students and the material was delivered using class discussions
Procedures used	Students were invited to complete self-consent forms and baseline questionnaires one week prior to the start of the workshops.
	Each session of the Strong Minds program was delivered in an amphitheater. For two-thirds of the program, Year 10 and 11 students were combined for the presentation of materials and for the other third they were instructed separately (due to external commitments for Year 10). One week after the conclusion of the workshops, the researchers returned to the school to distribute the post-intervention questionnaires, which were completed by students in their tutorial groups. The researchers returned on two other occasions to collect completed questionnaires from students who were absent on previous collection days.Cluster randomization was conducted, with tutorial groups (8 in each Year) being randomized to receive either the intervention or control condition; by a staff member independent fromt he research group. The intervention facilitator was a board-approved psychologist with masters-level qualifications in clinical psychology (6 years university training in psychology). Statistical analysis was conducted using SPSS 22.0 software package. An intention-to-treat approach, specifically, Mixed Model for Repeated Measures (MMRM) analyses were used to compare whether there were differential changes in the outcome scores over time for the intervention group compared to the control group.
Provider	The intervention facilitator was a board-approved psychologist with masters-level qualifications in clinical psychology; 2 years' experience in clinical psychology (using a variety of approaches including ACT) and had previously led a number of small-group interventions; specific training in ACT and PP and received regular supervision during the delivery of the program from experienced ACT practitioners and a senior researcher in PP.
Method of delivery	Strong Minds involved a total contact time of 8.0 hours, comprising 16 half hour sessions spread over 3 months - the first 9 were based on ACT and the following sessions were based on PP; delivered face-to-face by a registered psychologist; The aim of the sessions

	was to educate students about the concepts and to encourage them to apply these concepts to their lives using verbal explanations, metaphors, personal examples, videos, experiential exercises, and images during sessions. Control was Pastoral Care' classes - assisting students face challenges in their lives (e.g. managing social media and engaging in volunteer work). Year 10 students were taught about: (a) social justice at school, in Australia, and globally; and (b) cyber issues such as managing online harassment and the long-term consequences of online activity. Year 11 students were taught (a) social justice at school, in Australia, and globally; (b) drugs; and (c) safe behavior while celebrating. School staff members facilitated Pastoral Care classes and remained with the group for the duration of the study. Classes comprised between 15 and 20 students and the material was delivered using class discussions
Setting/location of intervention	Strong Minds program was delivered in an amphitheater. For two-thirds of the program, Year 10 and 11 students were combined for the presentation of materials and for the other third they were instructed separately (due to external commitments for Year 10). Control was Pastoral Care' classes were delivered in school classes
Intensity/duration of the intervention	Strong Minds involved a total contact time of 8.0 hours, comprising 16 half hour sessions spread over 3 months Control was Pastoral Care' classes comprised between 15 and 20 students and the material was delivered using class discussions - no further details outlined regarding duration or intensity
Tailoring/adaptation	No tailoring reported in either arm
Unforeseen modifications	No unforseen modifications were outlined
Planned treatment fidelity	The study outlines a process to assess adherence to ACT using an independent clinical psychologist experienced in ACT who scored the audiotaped workshop sessions using an adherence scale specifically developed for this study but based on previous ACT fidelity measures. Neither the control condition nor the PP sections in this study were recorded and rated on a scale of fidelity. Of the 320 students aged 15 to 18 years of age 269 provided baseline data of which 221 completed follow-up questionaires (attrition of 18%) 24/30 (20%) and 22/33 (33%) of the combined year groups randomised to strong minds and control arms completed both baseline and follow-up assessments.

Actual treatment fidelity	The adherence scale for ACT was scored on a 4-point Likert scale where 1= minimal; 2=satisfactory; 3=high; and 4=very high. Scores ranged for the nine components from 2.6 for generalization to 3.6 for values and the mean across all components was 3.0 (high).

Study arms

Strong Minds (N = 30)

a school-based mental health program combining positive psychology with acceptance and commitment therapy - number of participants n=139; drew on the principles of Positive psychology (PP - comprises a number of constructs that have been found to contribute to subjective wellbeing such as gratitude, mindfulness, and social relationships) and 4 aspects of Acceptance and Commitment Therapy (ACT - Meaning, kindness, social relationships, and healthy lifestyles [2/4 components Exercise and managing stress]); ACT combines mindfulness with behavioral principles and an understanding of personal values. Total contact time for the program was 8.0 hours, comprising 16 half hour sessions spread over 3 months - the first 9 were based on ACT and the following sessions were based on PP; delivered face-to-face by a registered psychologist; The aim of the sessions was to educate students about the concepts and to encourage them to apply these concepts to their lives using verbal explanations, metaphors, personal examples, videos, experiential exercises, and images during sessions.

Control - pastoral care (N = 33)

'Pastoral Care' classes - assisting students face challenges in their lives (e.g. managing social media and engaging in volunteer work). Year 10 students were taught about: (a) social justice at school, in Australia, and globally; and (b) cyber issues such as managing online harassment and the long-term consequences of online activity. Year 11 students were taught (a) social justice at school, in Australia, and globally; (b) drugs; and (c) safe behavior while celebrating. School staff members facilitated Pastoral Care classes and remained with the group for the duration of the study. Classes comprised between 15 and 20 students and the material was delivered using class discussions - Number of participants n=128

D.1.9 Burckhardt, 2018

Bibliographic Reference	Burckhardt, Rowan; Manicavasagar, Vijaya; Shaw, Frances; Fogarty, Andrea; Batterham, Philip J; Dobinson, Katie; Karpin, Ilana; Preventing mental health symptoms in adolescents using dialectical behaviour

therapy skills group: A feasibility study.; International Journal of Adolescence and Youth; 2018; vol. 23 (no. 1); 70-85

Study details

Study design	Cluster randomised controlled trial
Type of study	Effectiveness
Trial registration number	Not reported
Aim	The feasibility study was designed to establish the potential utility and feasibility of using a DBT skills group as a prevention programme
Country/geographical location	Sydney, Australia
Type of school	Secondary education
Setting	Year 10 students at an Anglican all-girls private high school. The school is a relatively prestigious school by Australian standards with 82% of students attending considered to be of high socioeconomic status compared to 25% for other schools in Australia. The school is less diverse than other schools in the state with 17% of students coming from a non-English speaking background compared to 30% for other schools. The school performs well academically and falls in the top 5% of schools in the state on a measure of academic success
UK Key stage	Key stage 4
Inclusion criteria	To participate, students were required to provide self- and parental-consent and complete the baseline questionnaire battery.
Exclusion criteria	All students who completed the questionnaires were accepted into the study (i.e. there were no exclusion criteria).
Method of randomisation	Students were randomly allocated by classes using an Excel random number generator by a school staff member who was independent of the research team. There was no blinding of participants, facilitators or researchers.
Method of allocation concealment	Individuals randomly allocated by classes using an Excel random number generator by a school staff member who was independent of the research team
Unit of allocation	Class
Unit of analysis	Individual

Statistical method(s) used to analyse the data	Power calculation: None reported as a feasibility trial. Intention to treat: mixed models for repeated measures (MMRM), was used to assess whether there were statistically significant differences between the conditions across the three time points on the outcome measures. Tutorial group (class) was used as a random factor and the degrees of freedom were estimated using Satterthwaite's correction (Steel & Torrie, 1980). Cohen's d effect sizes were calculated using the difference score between conditions with the formula, dppc2, from Morris (2008).
Attrition	7 subjects were lost to follow up in the intervention group by 6 months post intervention and 0 in the control group.
Study limitations (author)	• Only a selected portion of DBT skills group material was used in this feasibility study. Different findings may be obtained if the entire programme was used or other parts selected. • The sample comprised uniquely of females. • The sample was selected from a high socioeconomic school environment. The use of this programme amongst other socioeconomic groups and males remains untested. • One of the qualitative questions emphasized the benefits of the programme and thus may have influenced participants' responses.
Study limitations (reviewer)	• Lack of information on participant characteristics
Source of funding	Black Puppy Foundation

Study arms

DBT skills group (N = 50)

No information given on number of clusters

Control group (N = 46)

No information on number of clusters

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Characteristics

Study-level characteristics

Characteristic	Study (N = 96)
Age Range	14 to 16
Girls Sample size	n = 96 ; % = 100

Outcomes

Study timepoints
- Baseline
- 6 month (6 months post intervention)

Outcome

Outcome	DBT skills group, Baseline, N = 50	DBT skills group, 6 month, N = 50	Control group, Baseline, N = 46	Control group, 6 month, N = 46
Emotional distress - depression (0-24) Using CES-D 8 scale Sample size	n = 50 ; % = 100	n = 46 ; % = 86	n = 46 ; % = 100	n = 43 ; % = 93.5
Emotional distress - depression (0-24) Using CES-D 8 scale Mean (SD)	6.88 (4.26)	15.15 (4.45)	7.93 (4.51)	13.98 (3.17)
Emotional distress - anxiety Using PROMIOS Anxiety Sample size	n = 50 ; % = 100	n = 46 ; % = 86	n = 46 ; % = 100	n = 43 ; % = 93.5
Emotional distress - anxiety	17.63 (4.42)	18.67 (6.87)	17.71 (6.32)	17.79 (6.15)

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Outcome	DBT skills group, Baseline, N = 50	DBT skills group, 6 month, N = 50	Control group, Baseline, N = 46	Control group, 6 month, N = 46
Using PROMIOS Anxiety Mean (SD)				

Emotional distress - depression - Polarity - Lower values are better

Emotional distress - anxiety - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - Depression - DBT skills group vs Control group - 6 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to self-report outcome data and lack of blinding)*

Emotional distress-anxiety - DBT skills group vs Control group - 6 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to self-report outcome data and lack of blinding)*

Study arms

DBT intervention (N = 50)

Brief name	Dialectical behaviour therapy (DBT) [P71]
Rationale/theory/Goal	DBT is a therapeutic intervention that instructs individuals in the combination of reappraisal, problem-solving and acceptance-based emotion regulation skills [P71]
Materials used	DBT comprises group-based skills-training workshops, individual therapy, phone support, and supervision for the therapist
Procedures used	The skills group component is didactic in format and aims to teach a wide variety of emotion regulation skills, which are used in

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	individual therapy sessions. Phone support is used for coaching the individual to use their emotion regulation skills during periods of intense emotional distress
Provider	DBT intervention was facilitated by the author, RB, who was a clinical psychologist with approximately two years' experience in using DBT and three years as a clinician at the time this study was run. A schoolteacher was also present during the workshops but only as an observer at the school's request. The facilitator received supervision during the workshops by a senior clinical psychologist who specializes in DBT [P73].
Method of delivery	Workshops, consisting of four modules [P73].
Setting/location of intervention	Classroom, school [P73].
Intensity/duration of the intervention	DBT is conducted over a 12 month period. While extensive, this time period is necessary given the level of emotion dysregulation that DBT seeks to address [P72]. The DBT skills group condition comprised a series of six workshops. The workshops were 50 minutes in duration and the total contact time was 5.0 hours [P73].
Tailoring/adaptation	DBT has been adapted for adolescents by modifying the content to make it acceptable and engaging for this population [P72]
Unforeseen modifications	NR
Planned treatment fidelity	NR
Actual treatment fidelity	NR
Other details	None to add

Control (N = 46)

Brief name	Control group
Rationale/theory/Goal	NA
Materials used	students attended their usual classes, which involved learning material regarding future careers [P74].
Procedures used	The specific content taught during these usual classes were: (a) how to write a resume; (b) post-school education options; (c) preparation for work experience; (d) dress etiquette and interview techniques; (e) final preparation for work experience; and (f)

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	feedback from work experience and how to write a formal thank you letter [P74].
Provider	NR
Method of delivery	NR
Setting/location of intervention	Classroom, School [P74]
Intensity/duration of the intervention	These classes were of the same duration as the DBT workshops and took place at the same time [P74].
Tailoring/adaptation	NR
Unforeseen modifications	NR
Planned treatment fidelity	NR
Actual treatment fidelity	NR
Other details	None to add

D.1.10   Calear, 2016a

Bibliographic Reference	Calear, A.L.; Christensen, H.; Brewer, J.; Mackinnon, A.; Griffiths, K.M.; A pilot randomized controlled trial of the e-couch anxiety and worry program in schools; Internet Interventions; 2016; vol. 6; 1-5

Study details

Study design	Cluster randomised controlled trial
Type of study	Effectiveness
Trial registration number	ACTRN12610000408088
Aim	To evaluate the acceptability and feasibility of delivering an online anxiety prevention program in schools, and to assess the effectiveness of the intervention in reducing symptoms of anxiety

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Country/geographical location	Australian Capital Territory and South Australia
Type of school	Secondary education
Setting	Three schools included in the trial. Of these schools, two were coeducational public high schools and one was a private single-sex girl's secondary school. Two of the three schools were located in a metropolitan area
UK Key stage	Key stage 4 Post-16
Inclusion criteria	NR
Exclusion criteria	NR
Method of randomisation	Classes within participating schools randomly allocated to the intervention or wait-list control condition. An independent statistician randomly allocated classes to conditions using a computerised random number generator
Method of allocation concealment	The identity of the classes was concealed from the statistician during the randomisation process
Unit of allocation	Class
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: None reported as a feasibility trial. Intention to treat: intention-to-treat approach using mixed-model repeated measures (MMRM) analysis of variance (ANOVA), with measurement occasion as a within-groups factor and condition as a between-groups factor. School class was included as a random factor to reflect the clustered sampling of students within classes to each condition. A random effect of class was fitted to all models. The ICC coefficient was calculated by dividing the between classes variance by the sum of the between classes variance and the within-classes variance under this model (Donner and Klar, 2000). The test of the significance of the class effect is equivalent to testing whether the ICC is different to zero. ICCs of between 0.03 and 0.05 were obtained for the models in the current study. This indicates that approximately 3% to 5% of the variance in individuals' scores could be explained by between-classes effects
Attrition	Approximately 98% of participants completed the first two weeks of the e-couch Anxiety and Worry program, while 68% completed at least four weeks of the program and 45% completed all six weeks of the intervention. A higher percentage of participants from the wait-list control condition were missing assessments at post-

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	intervention (38.8% vs. 27.6%) and 3-month follow-up (46.9% vs. 37.8%)
Study limitations (author)	• Small number of participating schools • Risk of control contamination due to the presence of intervention and control conditions within the same school • Use of self-report measures • Inability to collect complete data from all participants due to absence or school relocation • Use of a wait-list control condition that does not allow the effects of adult attention or support to be controlled.
Study limitations (reviewer)	• Study had a high number of female participants • Lack of information on participant ethnicity
Source of funding	Funded by an ACT Health and Medical Research Council Grant.

Study arms

E-couch Anxiety and Worry program (N = 127)

6 classes including 127 individuals

wait-list control (N = 98)

6 classes including 98 individuals

Characteristics

Arm-level characteristics

Characteristic	E-couch Anxiety and Worry program (N = 127)	wait-list control (N = 98)
Age Mean (SD)	14.89 (1.2)	15.16 (0.85)
Males Custom value	17.9%	21.2%
Females Custom value	82.1%	78.8%

Outcomes

Study timepoints
- Baseline
- 3 month (After the intervention)

Outcomes

Outcome	E-couch Anxiety and Worry program, Baseline, N = 127	E-couch Anxiety and Worry program, 3 month, N = 127	wait-list control, Baseline, N = 98	wait-list control, 3 month, N = 98
Emotional distress - anxiety (0-21) Generalised anxiety measured by the GAD-7 scale (self-report) (ICC = 0.03) Mean (SD)	4.85 (4.34)	4.65 (4.12)	5.01 (4.59)	4.56 (4.96)
Emotional distress - depression Depression using Center for Epidemiological Studies Depression (self-report) (ICC = 0.03) Mean (SD)	16.53 (11.25)	13.71 (10.36)	16.42 (10.31)	14.44 (11.37)

Emotional distress - anxiety - Polarity - Lower values are better

Emotional distress - depression - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress- Anxiety - E-couch Anxiety and Worry program vs wait-list control - 3 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to lack of blinding and self report data)*

Emotional distress-Depression E-couch Anxiety and Worry program vs wait-list control - 3 months follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to lack of blinding and self report data)*

Study arms

E-couch Anxiety and Worry program (N = 127)

Brief name	E-couch Anxiety and Worry programme [P3]
Rationale/theory/Goal	The intervention consists of two main sections: psychoeducation and evidence-based toolkits for anxiety consisting of cognitive behaviour therapy (CBT), relaxation and physical activity [P3]
Materials used	A psychoeducation section, a CBT toolkit and a relaxation toolkik [P3].
Procedures used	The psychoeducation section includes a definition of worry, differentiation of worry, fear and anxiety, description of anxious thinking, risk factors for generalised anxiety, consequences of anxiety, and medical, psychological and lifestyle treatments for anxiety. The CBT toolkit focuses on the cognitive aspects of worry and how to change them. It essentially teaches participants about worry, what causes and compounds worry, how to detect and reduce worry, and how to problem solve and change thoughts to prevent and reduce worry. The relaxation toolkit contains a mindfulness meditation exercise and progressive muscular relaxation exercise, while the physical activity toolkit teaches participants about some of the benefits of being physically active and allows them to evaluate their own level of physical activity and learn some strategies for increasing or maintaining their current physical activity level [P3]

Provider	Pre-intervention, post-intervention and 3-month follow-up questionnaires were administered by the classroom teacher. Classroom teachers supervised students' completion of the e-couch Anxiety and Worry program, which was delivered in a range of subject areas (e.g., pastoral care, religious education). The role of classroom teachers was to assist with program login and to respond to student questions and enquiries. No formal teaching or classroom discussion about the program was undertaken [P3]
Method of delivery	Pre and post intervention questionnaires were either delivered online via a secure web-based survey or by paper and pencil) and took students approximately 20 to 30 min to complete. Following the pre-intervention questionnaire, students in intervention condition classes completed the online e-couch Anxiety and Worry program during class [P3].
Setting/location of intervention	Classroom [P3}
Intensity/duration of the intervention	The programme was delivered during one class period (30 to 40 min) a week for six weeks [P3]
Tailoring/adaptation	NR
Unforeseen modifications	NR
Planned treatment fidelity	NR
Actual treatment fidelity	NR
Other details	None to add

Wait-list control (N = 98)

Brief name	Wait-list control [P3]
Rationale/theory/Goal	NA
Materials used	NA
Procedures used	During the intervention phase of the trial, students in wait-list control condition classes continued usual classes and were offered the intervention at the conclusion of the trial (after the 3-month follow-up questionnaire) [P3].

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Provider	NA
Method of delivery	NA
Setting/location of intervention	NA
Intensity/duration of the intervention	NA
Tailoring/adaptation	NA
Unforeseen modifications	NA
Planned treatment fidelity	NA
Actual treatment fidelity	NA
Other details	None to add

D.1.11   Calear, 2016b

Bibliographic Reference	Calear, Alison L; Batterham, Philip J; Poyser, Carmel T; Mackinnon, Andrew J; Griffiths, Kathleen M; Christensen, Helen; Cluster randomised controlled trial of the e-couch Anxiety and Worry program in schools.; Journal of affective disorders; 2016; vol. 196; 210-7

Study details

Study design	Cluster randomised controlled trial
Type of study	Effectiveness
Trial registration number	ACTRN12610001103055
Aim	• To evaluate the effectiveness of the e-couch Anxiety and Worry program as a universal preventive intervention in a larger and more representative sample of high school students

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	• To determine whether an enhanced version of program delivery (e-GAD health service method), which incorporated access to a mental health service provider, would result in superior outcomes relative to the standard teacher administered intervention (e-GAD school method)
Country/geographical location	Thirty-two schools from across Australia were recruited
Type of school	Secondary education
Setting	Schools
UK Key stage	Key stage 3 Key stage 4 Post-16
Inclusion criteria	NR
Exclusion criteria	NR
Method of randomisation	Each participating school (cluster) was randomly allocated to one of three conditions: e-GAD school method, e-GAD health service method, or wait-list control, according to headspace centre location. An independent statistician randomly allocated schools within each headspace centre (stratum) to the trial conditions using a computerised random number generator.
Method of allocation concealment	The identity of schools was concealed from the statistician during the randomisation process
Unit of allocation	Schools
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: Conducted on the assumption that average class sizes would be 25 students, with a total of 750 students from 30 schools if at least one class per school was recruited. Based on a previous school-based trial an intraclass correlation (ICC) of .02 and non-participation rate of 30% was expected, resulting in data being available from 525 students. The ICC of .02 led to a design effect of 1.48 and an effective sample size of 354. Assuming a correlation between measurements over time of .5, two-tailed tests and alpha of .05, the trial was expected to have 80% power to detect group differences down to .30 standard deviations. Intention to treat: intention-to-treat approach using mixed-model repeated measures (MMRM) to include all available data, including that from participants who subsequently withdrew from the trial

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Attrition	198/778 participants in the control group, 315/562 participants in the e-GAD health service group and 179/427 participants in the e-GAD school group participants were retained at 12 months follow up. Rates of attrition were significantly different across all groups at each time point, with greatest attrition in the e-GAD school method condition at post-intervention and the wait-list control condition at both follow-up assessments
Study limitations (author)	• The use of self-report measures that may have been influenced by situational factors or biases and the inability to collect complete data from all participants due to absence or school relocation. Defensible missing data techniques were employed in the current study, but these are never a perfect substitute for complete observations. • The e-couch Anxiety and Worry program has been shown to be effective as a treatment program for adults. This suggests that the program may be better suited to a higher literacy population who are motivated to engage with the program due to their high level of symptoms.
Study limitations (reviewer)	• Lack of information on inclusion/exclusion criteria
Source of funding	Vincent Fairfax Family Foundation. ALC, PJB, KMG and HC are supported by National Health and Medical Research Council (NHMRC) Fellowships 1013199, 1083311, 1059620 and 1056964

Study arms

Wait-list control (N = 778)

11 schools (clusters) including 778 individuals randomised

e-GAD health service (N = 562)

11 schools (clusters) including 562 individuals randomised

e-GAD school (N = 427)

10 schools (clusters) including 427 individuals randomised

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Characteristics

Arm-level characteristics

Characteristic	Wait-list control (N = 778)	e-GAD health service (N = 562)	e-GAD school (N = 427)
Age Mean (SD)	14.73 (0.97)	14.79 (0.78)	15.07 (1.15)
Males Custom value	39.6%	29.2%	43.6%
Females Custom value	60.4%	70.8%	56.4%
Ethnicity Indigenous background No of events	n = 22 ; % = 2.8	n = 15 ; % = 2.7	n = 16 ; % = 3.7

Outcomes

Study timepoints
- Baseline
- 12 month (After the intervention)

Outcomes

Outcome	Wait-list control, Baseline, N = 778	Wait-list control, 12 month, N = 193	e-GAD health service, Baseline, N = 562	e-GAD health service, 12 month, N = 315	e-GAD school, Baseline, N = 427	e-GAD school, 12 month, N = 179
Emotional distress - anxiety (0-21) Generalised anxiety measured by the GAD-7 scale (self-report) Mean (SE)	4.67 (0.32)	5.24 (0.41)	4.06 (0.3)	5.28 (0.35)	5.16 (0.4)	5.81 (0.47)

Outcome	Wait-list control, Baseline, N = 778	Wait-list control, 12 month, N = 193	e-GAD health service, Baseline, N = 562	e-GAD health service, 12 month, N = 315	e-GAD school, Baseline, N = 427	e-GAD school, 12 month, N = 179
Emotional distress - depression Using Centre for Epidemiological Studies-Depression Scale (Self-report) Mean (SE)	17.77 (0.68)	17.91 (0.88)	16.68 (0.64)	17.81 (0.76)	18.42 (0.85)	19.06 (1.03)

Emotional distress - anxiety - Polarity - Lower values are better

Emotional distress - depression - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - Anxiety - Wait-list control vs e-GAD health service vs e-GAD school - 12 month follow up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to lack of information on blinding, low attrition rates and self report data)*

Emotional distress-depression - Wait-list control-vs e-GAD health service vs e-GAD school - 12 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to lack of information on blinding, low attrition rates and self report data)*

Study details

Brief name	Y-Worri trial - an online universal anxiety program in schools

Setting/location of intervention	30 Australian schools

Study arms

Wait-list control (N = 778)

Brief name	Wait-list control
Rationale/theory/Goal	NA
Materials used	NA
Procedures used	During the intervention phase of the trial, schools in the waitlist control condition continued usual classes and were offered the intervention at the conclusion of the trial (after the 12-month follow-up questionnaire). None of the wait-list control condition schools reported completing any mental health related programs during the intervention phase of the trial
Provider	NA
Method of delivery	NA
Setting/location of intervention	NA
Intensity/duration of the intervention	NA
Tailoring/adaptation	NA
Unforeseen modifications	NA
Planned treatment fidelity	NA
Actual treatment fidelity	NA
Other details	NA

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e-GAD health service (N = 562)

Brief name	Y-Worri trial - an online universal anxiety programme in schools, including e-GAD health service [P212]
Rationale/theory/Goal	To see if an enhanced version of program delivery (e-GAD health service method), which incorporated access to a mental health service provider, would result in superior outcomes relative to the standard teacher administered intervention (e-GAD school method) [211].
Materials used	The classroom teachers and headspace education officers at each school were provided with a Y-Worri trial manual, which contained detailed instructions on how to deliver the study questionnaires and how to support students in the completion of the e-couch Anxiety and Worry program. No other training was required given the self-directed nature of the intervention [P212].
Procedures used	All consenting students completed pre-intervention, post-intervention, 6- and 12-month follow-up questionnaires. Following the pre-intervention questionnaire, students in the intervention conditions completed the e-couch Anxiety and Worry program (www.ecouch.anu.edu.au) during one class period. The programme consists of two core sections: psychoeducation and three evidence-based toolkits for anxiety. The psychoeducation section was presented over the first two sessions and includes information on generalised anxiety signs and symptoms, risk factors, consequences, and the medical, psychological and lifestyle treatments available. The three toolkits contained in the e-couch Anxiety and Worry program cover CBT, relaxation and physical activity. The CBT toolkit was delivered over sessions three and four, and focuses on the cognitive aspects of worry and how to address them. The relaxation toolkit was presented in the fifth session and introduces the user to the potential benefits of relaxation, with two relaxation exercises. The physical activity toolkit was delivered in the sixth and final session, and teaches users about the benefits of being physically active and identifies strategies for increasing or maintaining their current level of physical activity based on stages of change theory. All sessions were presented consecutively and include practice and homework exercises [P213].
Provider	Pre and post intervention Questionnaires were administered by the classroom teacher (either online via a secure web-based questionnaire or by paper and pencil). Classroom teachers in the e-GAD health service method condition supervised students' completion of the e-couch Anxiety and Worry program and also received assistance and support from a headspace education officer. The role of headspace education officers was to respond to student questions about the intervention and to offer referral pathways to students if they had additional mental health concerns [P213].
Method of delivery	Online

Setting/location of intervention	Classroom
Intensity/duration of the intervention	The e-couch Anxiety and Worry programme was administered during one class for 30– 40 min per week for six weeks [P213].
Tailoring/adaptation	Students were also provided with help seeking contacts (e.g., phone helpline numbers) throughout the trial. Due to confidentiality and the multiple occasions at which a participant could have been referred onto further care in the current trial (e.g., self-referral, elevated questionnaire scores), it was not possible to calculate the total number of referrals made [P213].
Unforeseen modifications	NR
Planned treatment fidelity	NR
Actual treatment fidelity	NR
Other details	None to add

e-GAD school (N = 427)

Brief name	Y-Worri trial - an online universal anxiety program in schools, e-GAD health school version [P212]
Rationale/theory/Goal	To see if an enhanced version of program delivery (e-GAD health service method), which incorporated access to a mental health service provider, would result in superior outcomes relative to the standard teacher administered intervention (e-GAD school method) [211].
Materials used	The classroom teachers and headspace education officers at each school were provided with a Y-Worri trial manual, which contained detailed instructions on how to deliver the study questionnaires and how to support students in the completion of the e-couch Anxiety and Worry program. No other training was required given the self-directed nature of the intervention [P212].
Procedures used	All consenting students completed pre-intervention, post-intervention, 6- and 12-month follow-up questionnaires. Following the pre-intervention questionnaire, students in the intervention conditions completed the e-couch Anxiety and Worry program (www.ecouch.anu.edu.au) during one class period. The programme consists of two core sections: psychoeducation and three evidence-based toolkits for anxiety. The psychoeducation section was presented over the first two sessions and includes information on

	generalised anxiety signs and symptoms, risk factors, consequences, and the medical, psychological and lifestyle treatments available. The three toolkits contained in the e-couch Anxiety and Worry program cover CBT, relaxation and physical activity. The CBT toolkit was delivered over sessions three and four, and focuses on the cognitive aspects of worry and how to address them. The relaxation toolkit was presented in the fifth session and introduces the user to the potential benefits of relaxation, with two relaxation exercises. The physical activity toolkit was delivered in the sixth and final session, and teaches users about the benefits of being physically active and identifies strategies for increasing or maintaining their current level of physical activity based on stages of change theory. All sessions were presented consecutively and include practice and homework exercises [P213].
Provider	Pre and post intervention Questionnaires were administered by the classroom teacher (either online via a secure web-based questionnaire or by paper and pencil). Classroom teachers in the e-GAD school method condition supervised students' completion of the e-couch Anxiety and Worry program, with no direct teaching [P213].
Method of delivery	Online
Setting/location of intervention	Classroom
Intensity/duration of the intervention	The e-couch Anxiety and Worry programme was administered during one class for 30– 40 min per week for six weeks [P213].
Tailoring/adaptation	Students were also provided with help seeking contacts (e.g., phone helpline numbers) throughout the trial. Due to confidentiality and the multiple occasions at which a participant could have been referred onto further care in the current trial (e.g., self-referral, elevated questionnaire scores), it was not possible to calculate the total number of referrals made [P213].
Unforeseen modifications	NR
Planned treatment fidelity	NR
Actual treatment fidelity	NR
Other details	None to add

D.1.12 Campos, 2018

Bibliographic Reference	Campos, Luisa; Dias, Pedro; Duarte, Ana; Veiga, Elisa; Dias, Claudia Camila; Palha, Filipa; Is It Possible to "Find Space for Mental Health" in Young People? Effectiveness of a School-Based Mental Health Literacy Promotion Program.; International journal of environmental research and public health; 2018; vol. 15 (no. 7)

Study details

Study design	Cluster randomised controlled trial
Study type	Effectiveness
Trial registration number	Not reported
Aim	To evaluate the effectiveness of a school-based intervention program focused on the promotion of mental health literacy (MHL) in young people ("Finding Space for Mental Health")
Country/geographical location	Portugal
Type of school	Secondary education
Setting	One of eight schools in northern Portugal
UK Key Stage	Key stage 3
Inclusion criteria	Participants attending the 3rd cycle of their basic education
Exclusion criteria	Not reported
Method of randomisation	Not reported
Method of allocation concealment	Not reported
Unit of allocation	Cluster (class)
Unit of analysis	Individual

Statistical method(s) used to analyse the data	• Power calculation: Not reported • Intention to treat: Not reported • Multivariate models (GEE, or generalized estimating equations) was used to evaluate the effectiveness of the intervention at three moments in time. • Pre-test scores and the variables defined in the study were used as possible confounding factors. • Sum scores for the MHLq dimensions and global score were calculated. • A significance level of alpha = 5% was used in all hypothesis tests.
Attrition	Attrition by study arm at 6 month follow-up: • Finding Space: 211/259; 18.5% attrition • Control: 176/284; 38.0% attrition
Study limitations (author)	Lack of information regarding: • Students' socioemotional developmental characteristics • Family socioeconomic status and other parental variables • Possible health-related programs developed in schools students attend
Study limitations (reviewer)	Lack of data on exclusion criteria, method of randomisation and method of allocation concealment
Source of funding	The Portuguese Foundation for Science and Technology (PTDC/PSI-PCL/112526/2009)

Study arms

Finding Space (N = 259)

11 classes including 259 individuals

Control (N = 284)

11 classes including 284 individuals

Characteristics

Arm-level characteristics

Characteristic	Finding Space (N = 259)	Control (N = 284)
7th Year Sample size	n = 64 ; % = 24	n = 74 ; % = 26
8th Year Sample size	n = 98 ; % = 38	n = 105 ; % = 37
9th Year Sample size	n = 97 ; % = 37	n = 105 ; % = 37
Gender Sample size	n = 254 ; % = 100	n = 281 ; % = 99
Male Sample size	n = 130 ; % = 51	n = 148 ; % = 53
Female Sample size	n = 124 ; % = 49	n = 133 ; % = 47
State-Funded Education Free education Sample size	n = 154 ; % = 59	n = 245 ; % = 86
Public Education Paid for education Sample size	n = 105 ; % = 41	n = 39 ; % = 14

Outcomes

Study timepoints
- 6 month (Follow-up)

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Outcomes

Outcome	Finding Space, 6 month, N = 259	Control, 6 month, N = 284
Social and emotional skills Mental health literacy measured by Mental Health Literacy questionnaire (MHLq) - Global Score (self-reported) Sample size	n = 211 ; % = 81.5	n = 176 ; % = 62
Social and emotional skills Mental health literacy measured by Mental Health Literacy questionnaire (MHLq) - Global Score (self-reported) Mean (SD)	137.76 (11.88)	134.77 (11.02)
Behavioural outcomes Self-Help Strategies measured by Mental Health Literacy questionnaire (MHLq) - Self-Help Strategies score (self-reported) Sample size	n = 211 ; % = 81.5	n = 176 ; % = 62
Behavioural outcomes Self-Help Strategies measured by Mental Health Literacy questionnaire (MHLq) - Self-Help Strategies score (self-reported) Mean (SD)	20.89 (2.86)	20.77 (2.7)

Social and emotional skills - Polarity - Higher values are better

Behavioural outcomes - Polarity - Higher values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Social and emotional skills - Finding Space vs Control - 6-month follow-up

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Serious concerns due to missing outcome data and self-reported outcomes)*

Study arms

Finding Space (N = 259)

Brief name	Finding Space. Page 3
Rationale/theory/Goal	Not reported
Materials used	Videos and music. Page 3
Procedures used	First session included: • Presentation of the project • Establishment of group rules • Exploration of students knowledge regarding physical and mental health • Exploration of the signs and impact of mental health problems • Identification of risk factors • Identification of signs and symptoms • Promotion of non-stigmatised behaviours towards mental disorders and social inclusion of sufferers. Pages 3-4 Second session aimed to: • Explore inadequate beliefs related to mental disorders • Raise awareness and impact of mental health problems • Identify help-seeking options • Promote first aid skills towards people with mental health problems • Address self-help strategies and explore mental health promoting behaviours. Page 4
Provider	A trained psychologist in collaboration with one masters-level psychology student. Page 3
Method of delivery	Face-to-face. Page 3
Setting/location of intervention	Classroom. Page 3
Intensity/duration of the intervention	Two sessions, lasting 90 min each and delivered at one-week intervals. Page 3
Tailoring/adaptation	Session methodology was adapted to the target group. Page 3

Unforeseen modifications	Not reported
Planned treatment fidelity	At the follow-up stage three questions were added to the questionnaire in order to confirm participation in the intervention sessions and to measure satisfaction with the intervention, as well as request suggestions for improvement. Page 5
Actual treatment fidelity	Not reported

Control (N = 284)

Brief name	Control. Page 3
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Not reported
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

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D.1.13 Caruso, 2018

Bibliographic Reference	Caruso, Chiara; Angelone, Lidia; Abbate, Elisa; Ionni, Valentina; Biondi, Claudia; Di Agostino, Cinzia; Mobili, Alice; Verita, Roberta; Navarra, Riccardo; Ruggiero, Giovanni Maria; Mezzaluna, Clarice; Effects of a REBT based training on children and teachers in primary school.; Journal of Rational-Emotive & Cognitive-Behavior Therapy; 2018; vol. 36 (no. 1); 1-14

Study details

Study design	Cluster randomised controlled trial
Trial registration number	Not reported
Aim	Evaluate the efficacy of a REE training based on storytelling in changing children's irrational beliefs - authors hypothisised that there would be a significant reduction of irrational beliefs for children taking part in this training. To observe the efficacy of a teachers' training similar to that applied in REBT-focused school consultation groups in enhancing their self-efficacy.
Country/geographical location	Italy
Type of school	Primary education
Setting	School
UK Key Stage	Key stage 2
Inclusion criteria	Children were able to read and write; no other detail.
Exclusion criteria	Not specified
Method of randomisation	Limited details on the specific randomisation process - Each of the nine classes involved was randomly assigned to one of three different groups: two experimental groups and a control group. Each group was composed of three classes and each received different training. The subjects were not randomly assigned, even though classes were randomly assigned, this is a quasi-experimental design.
Method of allocation concealment	Not specified
Unit of allocation	School class

Unit of analysis	School class
Statistical method(s) used to analyse the data	Teachers: non-parametric Kruskal–Wallis test on pre training differences and pre-post training differences for self-efficacy scores, with the group (A: Children and teachers training; B: Children training; C: No training) as independent variable. Teachers and children: Wilcoxon Matched Paired test on pre-post differences in Self-efficacy scores were performed; A repeated-measures ANOVA was performed on C.S.R.B. questionnaire rates with the Training (Pre and Post) as within factor and the group (A, B, and C) and Sex (F and M) as categorical predictors.
Attrition	Results presented by groups - no detail on the number of participants within group
Study limitations (author)	Lack of normative reliability and validity data of the Children's Survey of Rational Beliefs Form B; Use of measures of irrational beliefs for the children but not measures of emotional distress or behavioral problems. An REBT intervention changes irrational beliefs, but it also changes emotional disturbance and disruptive behaviors and these have not been considered in the analysis; small teacher sample size; lack of a scale assessing teacher's rational/irrational beliefs which is a primary outcome of the intervention itself.
Study limitations (reviewer)	Lack of detail regarding blinding, randomisation and allocation concealment; Lack of detail regarding participant details and participant within group completion of allocated intervention and subsequent attrition; lack of sample size/power calculation; Unclear if the findings reported in table 1 and 2 consider teacher and child responses or just childrens responses
Source of funding	Not specified

Study arms

Group A - Children and teacher training (N = 1)

Rational Emotive Education (REE) - psychological educational program composed of structured lessons. Based on and extends Rational Emotive Behaviour Therapy (REBT) teaches people that their emotions do not directly stem from activating events but from their belief systems about those activating events; helps children by teaching them to challenge irrational thinking, to minimize their reactions to disappointment and frustrations, to cope more effectively with problems, and to more fully accept themselves. 68 children and 8 teachers received REE

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Group B - Children training (N = 1)

Rational Emotive Education (REE) - psychological educational program composed of structured lessons. Group B comprised 78 children and 8 teachers - the teachers received no training; Children's training was also conducted by cognitive behavioral psychotherapists specifically trained in REBT. Training was conducted in regular-sized classrooms once a week over a 2-month period for a total of eight meetings lasting 1 h each. Two psychotherapists conducted the meetings in each class. No teachers were present in the classroom during the meetings;

Group C - No training (N = 1)

Group C was composed of 65 children and 10 teachers (1 male) and neither students nor teachers received training

Characteristics

Study-level characteristics

Characteristic	Study (N = 211)
children Mean (SD)	9 (0)
teachers Mean (SD)	47.5 (9.43)
Boys Nominal	107
Girls Nominal	104
Teacher - females Nominal	25
Teacher - male Nominal	1
% Caucasian Nominal	100

Outcomes

Study timepoints
- Baseline
- 5 month (Children's training conducted by cognitive-behavioral psychotherapists specifically trained in REBT. Training was conducted in regular-sized classrooms once a week over a 2-month period for a total of eight meetings lasting 1 h each; Teacher's training was conducted by cognitive-behavioral psychotherapists, specifically trained in REBT, through a total of eight 1-h sessions held over a 5-month period; i.e., approximately two sessions per month. The training focused on understanding the ABCDE model, identifying teachers' and children's irrational beliefs and linking them to their emotions and behaviors, in order to increase their sense of self-efficacy in challenging problems in the classroom)

Self-efficacy scale

Outcome	Group A - Children and teacher training, Baseline, N = 68	Group A - Children and teacher training, 5 month, N = 68	Group B - Children training , Baseline, N = 78	Group B - Children training , 5 month, N = 78	Group C - No training, Baseline, N = 65	Group C - No training, 5 month, N = 65
Self-efficacy scale Measurement of Teachers SE Mean (SD)	62.75 (11.84)	71.75 (1.98)	58.13 (11.58)	68.13 (4.82)	65.4 (8.25)	64.3 (7.75)

Self-efficacy scale - Polarity - Higher values are better

12 items such as ''I'm able to quickly and effectively intervene in cases of transgressive behaviors'', investigating teachers' self-efficacy perception through a 7-point Likert scale ranging from 1 = ''strongly disagree'' to 7 = ''strongly agree''. Higher scores indicate a high perception of self efficacy in handling critical situations.

Children's Survey of Rational Beliefs Form B (C.S.R.B)

Outcome	Group A - Children and teacher training, Baseline, N = 68	Group A - Children and teacher training, 5 month, N = 68	Group B - Children training , Baseline, N = 78	Group B - Children training , 5 month, N = 78	Group C - No training, Baseline, N = 65	Group C - No training, 5 month, N = 65
C.S.R.B Mean (SD)	10.79 (2.32)	12.28 (2.32)	9.67 (2.21)	12.24 (2.2)	10.8 (2.1)	11.02 (2.57)

C.S.R.B - Polarity - Higher values are better

Children's Survey of Rational Beliefs Form B (C.S.R.B), Italian version (Di Pietro 1992). 18-item multiple choice test designed to measure rational beliefs in children ages 7 to 10. For each item children must select from three answers. For example, survey item number 7 asks ''If you can't learn your school lessons right away:'' possible answers outline irrational beliefs such as (a) ''you should give up because you'll never learn right away'' or (b) ''the lessons are too hard'', or rational beliefs such as (c) ''you'll need more time to practice''. Scores range from 1 to 18 and low scores indicate a more frequent endorsement of irrational beliefs.

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Self-efficacyscale-Self-efficacyscale-MeanSD-Group A - Children and teacher training-Group B - Children training -Group C - No training-t5

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(The study lacks details regarding a blinding, randomisation and allocation protocols; there is a lack of details regarding cluster participants and the data they have submitted within clusters and the adherence to the intervention and the subsequent evaluation;)*
Overall bias and Directness	Overall Directness	Directly applicable

Children'sSurveyofRationalBeliefsFormB(C.S.R.B)-C.S.R.B-MeanSD-Group A - Children and teacher training-Group B - Children training -Group C - No training-t5

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(The study lacks details regarding a blinding, randomisation and allocation protocols; there is a lack of details regarding cluster participants and the data they have submitted within clusters and the adherence to the intervention and the subsequent evaluation;)*
Overall bias and Directness	Overall Directness	Directly applicable

Study details

Brief name	Efficacy of a Rational Emotive Education (REE) training changing children's irrational beliefs
Rationale/theory/Goal	Rational Emotive Education (REE), is an extension of Rational Emotive Behaviour Therapy (REBT - teaches people that their emotions do not directly stem from activating events but from their belief systems about those activating events), with the intent of offering a ''preventive-interventionist approach by which children can be taught sane mental health concepts and the skills to use these concepts''. Authors suppose that REE can be thought as a practical model to promote SEL in school context.
Materials used	Teacher's training was conducted by cognitive-behavioral psychotherapists, specifically trained in REBT, through a total of eight 1-h sessions held over a 5-month period; i.e. The training focused on understanding the ABCDE model, identifying teachers' and children's irrational beliefs and linking them to their emotions and behaviors, in order to increase their sense of self-efficacy in challenging problems in the classroom. Children's training was conducted by cognitive-behavioral psychotherapists specifically trained in REBT. Training was conducted in regular-sized classrooms once a week over a 2-month period for a total of eight meetings lasting 1 h each. Assessment: Self-efficacy scale; Children's Survey of Rational Beliefs Form B
Procedures used	Teacher's training was conducted by cognitive-behavioral psychotherapists, through a total of eight 1-h sessions held over a 5-month period; i.e. The training focused on understanding the ABCDE model, identifying teachers' and children's irrational beliefs and linking them to their emotions and behaviors, in order to

	increase their sense of self-efficacy in challenging problems in the classroom. Children's training was conducted by cognitive-behavioral psychotherapists specifically trained in REBT. Training was conducted in regular-sized classrooms once a week over a 2-month period for a total of eight meetings lasting 1 h each.Two psychotherapists conducted the meetings in each class. No teachers were present in the classroom during the meetings
Provider	Teacher and child training was undertaken by a cognitive-behavioral psychotherapists trained in Rational Emotive Behaviour Therapy
Method of delivery	Teacher's training was conducted by cognitive-behavioral psychotherapists, through a total of eight 1-h sessions held over a 5-month period - location not specified but assume a classroom or alternative within the school setting Children's training was conducted in regular-sized classrooms once a week over a 2-month period for a total of eight meetings lasting 1 h each
Setting/location of intervention	School setting
Intensity/duration of the intervention	Teacher's training was conducted by cognitive-behavioral psychotherapists, through a total of eight 1-h sessions held over a 5-month period - location not specified but assume a classroom or alternative within the school setting Children's training was conducted in regular-sized classrooms once a week over a 2-month period for a total of eight meetings lasting 1 h each
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	Not specified
Actual treatment fidelity	Not specified

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Study arms

Group A - Children and teacher training (N = 1)

Rational Emotive Education (REE) - psychological educational program composed of structured lessons. Based on and extends Rational Emotive Behaviour Therapy (REBT) teaches people that their emotions do not directly stem from activating events but from their belief systems about those activating events; helps children by teaching them to challenge irrational thinking, to minimize their reactions to disappointment and frustrations, to cope more effectively with problems, and to more fully accept themselves. 68 children and 8 teachers received REE

Group B - Children training (N = 1)

Rational Emotive Education (REE) - psychological educational program composed of structured lessons. Group B comprised 78 children and 8 teachers - the teachers received no training; Children's training was also conducted by cognitive behavioral psychotherapists specifically trained in REBT. Training was conducted in regular-sized classrooms once a week over a 2-month period for a total of eight meetings lasting 1 h each. Two psychotherapists conducted the meetings in each class. No teachers were present in the classroom during the meetings;

Group C - No training (N = 1)

Group C was composed of 65 children and 10 teachers (1 male) and neither students nor teachers received training

D.1.14   Castro-Olivo, 2014

Bibliographic Reference	Castro-Olivo, Sara M; Promoting social-emotional learning in adolescent Latino ELLs: a study of the culturally adapted Strong Teens program.; School psychology quarterly : the official journal of the Division of School Psychology, American Psychological Association; 2014; vol. 29 (no. 4); 567-577

Study details

Trial registration number	Not reported

Aim	Assess the effectiveness of the culturally adapted Jóvenes Fuertes SEL program in improving social emotional outcomes (SEL knowledge and resiliency) of Latino ELL students school and the social validity of the intervention enrolled in middle and high.
Country/geographical location	USA
Type of school	Secondary education
Setting	School
UK Key Stage	Key stage 3
Inclusion criteria	Latino adolescents enrolled in beginning to intermediate English language development classes
Exclusion criteria	Not specified
Method of randomisation	Not specified
Method of allocation concealment	Not specified
Unit of allocation	Classroom
Unit of analysis	Classroom
Statistical method(s) used to analyse the data	A repeated measures analysis of variance (ANOVA) was used to identify intervention effects. Descriptive statistics and frequencies were used to determine social acceptability/validity.
Attrition	0% - 102/102 participants who enrolled completed pre and post assessments; The participation rate varied from 85% to 100% per classroom (no further details)
Study limitations (author)	Outcome measures did not consider problem behavior, including acculturative stress in the assessment of SEL interventions effectivenes on decreasing problem behaviour; Lack of non-adapted cultural SEL intervention limits comparrison of how much more effective the intervention could be; small sample size;
Study limitations (reviewer)	Lack of details regarding randomisation, blinding and allocation concealment protocols; no sample size/power calculation; lack of statistical comparison of differences between arms at baseline to check adequate randomisation; lack of details regarding other potential influences on SEL in classes and how these were considered (exams, events, other support)
Source of funding	Not outlined

Study arms

Culturally adapted Jóvenes Fuertes SEL program (N = 4)

A semi-scripted, 12-lesson (one lesson per week), SEL program that teaches students key SEL skills, such as self-awareness, social awareness, empathy, problem solving, anger management, responsible decision making, goal setting, and reframing of destructive thoughts - The main focus of Jóvenes Fuertes is to help students cope with the acculturation process and with life as an Latino English language learner. Participants n=49

Waitlist control (N = 4)

Those in the control arm received the intervention after the last lesson of the program in the intervention arm. Participants n=53

Characteristics

Arm-level characteristics

Characteristic	Culturally adapted Jóvenes Fuertes SEL program (N = 4)	Waitlist control (N = 4)
Age Mean (SD)	13.63 (1.66)	14.17 (2.01)
% boys Nominal	26	23
Country of origin: Mexico (%) Nominal	30	25
Years in English language development class Mean (SD)	2.36 (1.4)	2.88 (1.7)

Outcomes

Study timepoints
- Baseline

- 12 week

Behavior Emotional Rating Scale (BERS-2)

Outcome	Culturally adapted Jóvenes Fuertes SEL program, Baseline, N = 49	Culturally adapted Jóvenes Fuertes SEL program, 12 week, N = 49	Waitlist control, Baseline, N = 53	Waitlist control, 12 week, N = 53
Resiliency Mean (SD)	76.34 (10.82)	79.19 (9.96)	75.3 (12.51)	74.2 (12.37)

Resiliency - Polarity - Higher values are better

self-report social-emotional resiliency measure in which students rate their own behavior/feelings on 33 items that concern interpersonal, intrapersonal, and affective strengths

Strong Teens Knowledge Test—Spanish Version.

Outcome	Culturally adapted Jóvenes Fuertes SEL program, Baseline, N = 49	Culturally adapted Jóvenes Fuertes SEL program, 12 week, N = 49	Waitlist control, Baseline, N = 53	Waitlist control, 12 week, N = 53
Knowledge Mean (SD)	8.41 (2.86)	12.45 (2.9)	9.2 (2.44)	9.2 (2.16)

Knowledge - Polarity - Higher values are better

Assesses students' knowledge of SEL concepts pre- and post-intervention; consists of 20 items in true-false and multiple-choice response formats.

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

BehaviorEmotionalRatingScale(BERS-2)-Resiliency-MeanSD-Culturally adapted Jóvenes Fuertes SEL program-Waitlist control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Data presented by clusters and no details regarding individual participants which is a potential source of bias)*

Section	Question	Answer
Overall bias and Directness	Overall Directness	Partially applicable *(Very specific participants - latino and pre-dominantly non-English speakers)*

StrongTeensKnowledgeTest—SpanishVersion.-Knowledge-MeanSD-Culturally adapted Jóvenes Fuertes SEL program-Waitlist control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Data presented by clusters and no details regarding individual participants which is a potential source of bias)*
Overall bias and Directness	Overall Directness	Partially applicable *(Very specific participants - latino and pre-dominantly non-English speakers)*

Study arms

Culturally adapted Jóvenes Fuertes SEL program (N = 49)

Brief name	Culturally adapted SEL program
Rationale/theory/Goal	Social-emotional resiliency is a strong protective factor. More research is needed to determine the validity and effectiveness of SEL interventions with some of the most at risk and vulnerable school-age populations (Culturally and Linguistically Diverse [CLD] students).
Materials used	A semiscripted, 12-lesson (one lesson per week), SEL program; Participating students received a small token (a pencil with the logo of the sponsoring university and/or a piece ofcandy) as compensation during each assessment period. They also were entered into a raffle for a gift card to a local store. Four gift cards were raffled off per classroom.
Procedures used	Once consent and assent were obtained, all participating students filled out the preintervention assessment packet. Postintervention assessments were collected from all participants (those assigned in the intervention or control group) the week after the intervention group concluded the last lesson of the program [p.6].

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	Principal investigator visited each participating classroom to explain the study to students [p.6]; Teachers were observed on the delivery of the program and received feedback/consultation by the principal investigator, who is bilingual and bicultural, on a weekly basis [p.6].
Provider	Two certified, bilingual, Latina, master's-level teachers served as the interventionists; Both interventionists received a 4-hr training in the socioemotional needs of ELL students and the theory behind SEL programs and cultural adaptations as well as an overview of the Jóvenes Fuertes
Method of delivery	Classroom based; teacher delivered; semi-scripted, 12-lesson (one lesson per week),
Setting/location of intervention	Classroom within schools; Students were drawn from five middle schools and two high schools from three different districts in Southern California
Intensity/duration of the intervention	A semi-scripted, 12-lesson (one lesson per week),
Tailoring/adaptation	Authors identified the theory-based culturally relevant content and concepts to add to the original program (i.e., a lesson on ethnic pride, explicit examples of how to use problem solving and reframing skills to cope with acculturative stress and familial acculturative gaps). Authors conducted focus groups and consulted a panel of experts to ensure that the adaptations were aligned with the goals and values of the target population and to verify that the planned methods of delivery and context were appropriate. A prepost pilot study with 40 recent immigrant high school students to assess the preliminary efficacy of the program.
Unforeseen modifications	Not reported
Planned treatment fidelity	To assess for intervention fidelity, the principal investigator used a checklist to note whether all main goals of the lesson were covered [p.4]. The feedback and consultation received by the interventionists consisted of weekly meetings with the principal investigator [p.4]. Participating students rated the intervention highly in terms of social validity and acceptability [p.6].
Actual treatment fidelity	The participation rate varied from 85% to 100% per classroom [p.6]; None of the items (I liked the program; I found the skills useful; I am likely to use the skills that were taught; I would recommend this program to others; I liked the way this class was taught; This program has taught important skills to my peers; I have noticed a change in my, and my peers; behavior since we started this program; I feel the skills taught in this program have taught; me how to do better in my school work; This program targeted students like me) received a score of lower than 4.5 on a scale of 1–6 [p.7].

Other details	Not reported.

A semi-scripted, 12-lesson (one lesson per week), SEL program that teaches students key SEL skills, such as self-awareness, social awareness, empathy, problem solving, anger management, responsible decision making, goal setting, and reframing of destructive thoughts - The main focus of Jóvenes Fuertes is to help students cope with the acculturation process and with life as an Latino English language learner.

Waitlist control (N = 53)

Brief name	Waiting list control - no further details
Rationale/theory/Goal	Control comparator to allow the assessment of the efficacy of intervention
Materials used	Participating students received a small token (a pencil with the logo of the sponsoring university and/or a piece ofcandy) as compensation during each assessment period. They also were entered into a raffle for a gift card to a local store. Four gift cards were raffled off per classroom.
Procedures used	Once consent and assent were obtained, all participating students filled out the preintervention assessment packet. Postintervention assessments were collected from all participants (those assigned in the intervention or control group) the week after the intervention group concluded the last lesson of the program [p.6]. Principal investigator visited each participating classroom to explain the study to students [p.6]; Teachers were observed on the delivery of the program and received feedback/consultation by the principal investigator, who is bilingual and bicultural, on a weekly basis [p.6].
Provider	Teachers - no further detail regarding if anything other than 'waiting' was provided
Method of delivery	no further detail regarding if anything other than 'waiting' was provided
Setting/location of intervention	Classroom within schools; Students were drawn from five middle schools and two high schools from three different districts in Southern California
Intensity/duration of the intervention	Waiting list control - no further detail
Tailoring/adaptation	Waiting list control - no further detail

Unforeseen modifications	Waiting list control - no further detail
Planned treatment fidelity	Waiting list control - no further detail
Actual treatment fidelity	Waiting list control - no further detail
Other details	Not reported

Those in the control arm received the intervention after the last lesson of the program in the intervention arm

D.1.15 Christiansen, 2018

Bibliographic Reference	Christiansen, L.B.; Lund-Cramer, P.; Brondeel, R.; Smedegaard, S.; Holt, A.-D.; Skovgaard, T.; Improving children's physical self-perception through a school-based physical activity intervention: The Move for Well-being in School study; Mental Health and Physical Activity; 2018; vol. 14; 31-38

Study details

Study design	Cluster randomised controlled trial
Trial registration number	ISRCTN registry (DOI 0.1186/ISRCTN12496336).
Study start date	Aug-2015
Study end date	Jun-2016
Aim	The current study assesses the overall intervention (Move for Well-being in School) vs control for effect on young people aged 10-13 years as regards the primary outcome, physical self-worth, and four additional self-perception, variables: self-perceived sport competence, body attractiveness, social competence and global self-worth.
Country/geographical location	Denmark
Setting	School - Danish school years 4th to 6th.

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Inclusion criteria	Students from 4th, 5th and 6th year groups (10 to 13 years old) were eligible to enter the study
Exclusion criteria	Not specified
Method of randomisation	Not specified
Method of allocation concealment	Not specified
Unit of allocation	School level
Unit of analysis	School level but reference to number of pupils are outlined per arm; Sub-group analysis undertaken but results outlined graphically with limited information in the narrative.
Statistical method(s) used to analyse the data	Linear mixed models
Attrition	Intervention arm - 1301/1449 participants analysed at end of the study (10% attrition); Control arm - 1496/1675 participants analysed at the end of the study (11% attrition); 10% attrition across the study from randomisation to study completion
Study limitations (author)	Physical activity was not measured objectively; limitation of the survey tools applied: validated PSP questionnaires translated and schools and students were assisted the in filling in the questionnaires, there is a risk of misunderstanding, of social desirability bias and of random response. The five subgroups used for differential effect analyses were not pre-specified.
Study limitations (reviewer)	Lack of detail regarding randomisation process, blinding and allocation protocol. Intervention fidelity not measured; Differences between participant arm baseline characteristics not assessed; change in control conditions (an extensive national school reform was initiated a regulation to include an average of 45 min of PA each school day for all year groups at public schools); Study randomised by schools but data presented doesn't reference schools per se but participants unclear why this is.
Source of funding	Not specified - reference to publically funded participation

Study arms

Move for Well-being in School study (MWS) (N = 1301)

MWS is a physical activity intervention program grounded in Self-Determination Theory (SDT); designed to target the three innate psychological needs: competence,

autonomy and relatedness in order to improve intrinsic motivation for physical activity for all students; participants from 12 schools in 66 classes

Control (N = 1496)

Control schools were instructed to continue their normal practice. However, an extensive national school reform was initiated in August 2014 and brought with it alterations at many schools. One of these was a regulation to include an average of 45 min of PA each school day for all year groups at public schools; participants from 12 schools in 78 classes

Characteristics

Arm-level characteristics

Characteristic	Move for Well-being in School study (MWS) (N = 1301)	Control (N = 1496)
% 4th Grade (10 year olds) Nominal	33.7	31.6
% 5th Grade (11 year olds) Nominal	36.7	34.2
% 6th Grade (12 year olds) Nominal	29.7	34.2
% boys Nominal	50.7	51.5
Ethnicity (% Danish native language) Nominal	92.8	93.3
%Upper-middle Nominal	43	39.2
% middle Nominal	46.3	48
% lower-middle Nominal	10.7	12.8

Characteristic	Move for Well-being in School study (MWS) (N = 1301)	Control (N = 1496)
% Leisure time sports participation Nominal	77.1	75.8
% Self-perceived overweight Nominal	13.9	14

Outcomes

Study timepoints
- Baseline
- 9 month (An online baseline survey was conducted during school hours at the beginning of the school year (August 2015) with the participating students and repeated nine months later at the end of the school year (May/June 2016).)

Children's Physical Self-Perception Profile (C-PSPP)

Outcome	Move for Well-being in School study (MWS), Baseline, N = 1301	Move for Well-being in School study (MWS), 9 month, N = 1301	Control, Baseline, N = 1496	Control, 9 month, N = 1496
Physical self-worth Mean (SD)	3.12 (0.69)	3.22 (0.71)	3.12 (0.7)	3.21 (0.74)
Sports competence Mean (SD)	2.95 (0.64)	3.05 (0.65)	2.95 (0.64)	3.03 (0.66)
Body attractiveness Mean (SD)	2.75 (0.78)	2.82 (0.83)	2.75 (0.78)	2.8 (0.82)

Physical self-worth - Polarity - Higher values are better

Sports competence - Polarity - Higher values are better

Body attractiveness - Polarity - Higher values are better

Physical self-perception was measured using the subscales 'self-perceived sports competence', 'body attractiveness', and 'physical self-worth 'physical self-worth' was the primary outcome measure;

Self-Perception Profile for Children (SPPC)

Outcome	Move for Well-being in School study (MWS), Baseline, N = 1301	Move for Well-being in School study (MWS), 9 month, N = 1301	Control, Baseline, N = 1496	Control, 9 month, N = 1496
Social competence Mean (SD)	2.94 (0.77)	3.03 (0.78)	2.92 (0.76)	2.99 (0.78)
Global self-worth Mean (SD)	3.28 (0.68)	3.36 (0.67)	3.28 (0.68)	3.35 (0.69)

Social competence - Polarity - Higher values are better

Global self-worth - Polarity - Higher values are better

The 'self-perceived social competence', and 'global self-worth' subscales were included to measure aspects of psychosocial self-perception and self-esteem

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Children'sPhysicalSelf-PerceptionProfile(C-PSPP)-Physicalself-worth-MeanSD-Move for Well-being in School study (MWS)-Control-t9

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low *(Lack of detail regarding the randomisation process; lack of blinding, allocation concealment but not unusual in this area of research and unlikely to impact study outcomes; all a priori outcomes are accounted for and participant flow through study accounts for all participants from baseline to completion)*
Overall bias and Directness	Overall Directness	Directly applicable *(OECD; School population)*

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Children'sPhysicalSelf-PerceptionProfile(C-PSPP)-Sportscompetence-MeanSD-Move for Well-being in School study (MWS)-Control-t9

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low *(Lack of detail regarding the randomisation process; lack of blinding, allocation concealment but not unusual in this area of research and unlikely to impact study outcomes; all a priori outcomes are accounted for and participant flow through study accounts for all participants from baseline to completion)*
Overall bias and Directness	Overall Directness	Directly applicable *(OECD; School population)*

Children'sPhysicalSelf-PerceptionProfile(C-PSPP)-Bodyattractiveness-MeanSD-Move for Well-being in School study (MWS)-Control-t9

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low *(Lack of detail regarding the randomisation process; lack of blinding, allocation concealment but not unusual in this area of research and unlikely to impact study outcomes; all a priori outcomes are accounted for and participant flow through study accounts for all participants from baseline to completion)*
Overall bias and Directness	Overall Directness	Directly applicable *(OECD; School population)*

Self-PerceptionProfileforChildren(SPPC)-Socialcompetence-MeanSD-Move for Well-being in School study (MWS)-Control-t9

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low *(Lack of detail regarding the randomisation process; lack of blinding, allocation concealment but not unusual in this area of research and unlikely to impact study outcomes; all a priori outcomes are accounted for and participant flow through study accounts for all participants from baseline to completion)*
Overall bias and Directness	Overall Directness	Directly applicable *(OECD; School population)*

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Self-PerceptionProfileforChildren(SPPC)-Globalself-worth-MeanSD-Move for Well-being in School study (MWS)-Control-t9

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low *(Lack of detail regarding the randomisation process; lack of blinding, allocation concealment but not unusual in this area of research and unlikely to impact study outcomes; all a priori outcomes are accounted for and participant flow through study accounts for all participants from baseline to completion)*
Overall bias and Directness	Overall Directness	Directly applicable *(OECD; School population)*

Study arms

Move for Well-being in School study (MWS) (N = 1301)

Brief name	9-Month Physical activity intervention for well-being in school
Rationale/theory/Goal	To examine the effect of a 9-month school intervention focusing on physical self-worth, self-perceived sport competence, body attractiveness, social competences and global self-worth in children aged 10-13 years. The MSW intervention is grounded in Self-Determination Theory (SDT) and designed to target the three innate psychological needs: competence, autonomy and relatedness in order to improve intrinsic motivation for physical activity for all students
Materials used	Tailored activity programme, including educational materials, planning guides and PE lesson plans for incorporating PA throughout the school day; a competency development programme consisting of four full-day workshops focusing on the underlying theoretical approach and opportunities to try out core activities in practice; assorted bag of play and activity equipment to be used at least three times per week; online baseline survey; Children's Physical Self-Perception Profile (C-PSPP); Self-Perception Profile for Children (SPPC)
Procedures used	Schools randomized to MWS or control. MWS consisted of initiatives targeting four settings for school-based physical activity: 1) PE classes, 2) inclass activities, 3) break-time activities, and 4) theme days; Participants assessed online at baseline and followed-up at 9 months on subscales for Children's Physical Self-Perception Profile (C-PSPP) and Self-Perception Profile for Children (SPPC). Analysis undertaken via linear mixed modelling.

Provider	Deliverers of the intervention, teachers and pedagogues teaching 4th to 6th year
Method of delivery	Tailored activity programme, including educational materials, planning guides and PE lesson plans for incorporating PA throughout the school day. The tailored activity programme was supported by a competency development programme consisting of four full-day workshops; MWS programme consisted of initiatives targeting four settings for school-based physical activity: 1) PE classes, 2) inclass activities, 3) break-time activities, and 4) theme days.
Setting/location of intervention	School
Intensity/duration of the intervention	The intervention programme consisted of initiatives targeting four settings for school-based physical activity: 1) PE classes, 2) inclass activities, 3) break-time activities, and 4) theme days. 1) PE - a minimum of 6 out of 8 specially designed courses lasting 4 x 90 min during the course of the school year. Central features were included across all courses (students working in teams, ensuring a high degree of student co-creation through choices, reflection and feedback, and focusing on individual skills development rather than on competition). 2) In-class activities consisted of a minimum of two daily 5-min activity breaks. The focus was on inclusion and doing activities together in the class; activities ranged from those that were highly energetic to massage and mindfulness, and teachers were encouraged to involve students in planning and instructing. 3) break-times, each school was provided with an assorted bag of play and activity equipment to be used at least three times per week (3 x 30 min) to initiate a variety of activities supported by teachers and pedagogues (teacher assistants). Furthermore, schools were encouraged to introduce initiatives promoting activity, such as opening indoor areas for activities, or making rules for limited use of electronic devices during breaktimes 4) Three theme days distributed across the school year provided an opportunity to involve students in the development of activities in all settings and to focus on an inclusive social climate for physical activity at school.
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported

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Planned treatment fidelity	Fidelity not assessed
Actual treatment fidelity	Fidelity not assessed
Other details	No additional details

MWS is a physical activity intervention program grounded in Self-Determination Theory (SDT); designed to target the three innate psychological needs: competence, autonomy and relatedness in order to improve intrinsic motivation for physical activity for all students; participants from 12 schools in 66 classes

Control (N = 1496)

Brief name	Normal practice - not specified
Rationale/theory/Goal	Control comparator to assess the treatment efficacy of MWS intervention
Materials used	Not specified - normal school practice
Procedures used	Not specified - normal school practice
Provider	Teachers and pedagogues teaching 4th to 6th year
Method of delivery	Not specified - normal practice
Setting/location of intervention	School
Intensity/duration of the intervention	Not specified - normal school practice.
Tailoring/adaptation	Not specified
Unforeseen modifications	Control schools were instructed to continue their normal practice. However, an extensive national school reform was initiated in August 2014 and brought with it alterations at many schools (not specified) including an average of 45 min of PA each school day for all year groups at public schools
Planned treatment fidelity	Not specified
Actual treatment fidelity	Not specified

Other details	National school reform was initiated in August 2014 and brought with it alterations at many schools. One of these was a regulation to include an average of 45 min of PA each school day for all year groups at public schools

Control schools were instructed to continue their normal practice. However, an extensive national school reform was initiated in August 2014 and brought with it alterations at many schools. One of these was a regulation to include an average of 45 min of PA each school day for all year groups at public schools; participants from 12 schools in 78 classes

D.1.16   Clarke, 2014

Bibliographic Reference	Clarke, AM; Bunting, B; Barry, MM; Evaluating the implementation of a school-based emotional well-being programme: a cluster randomized controlled trial of Zippy's Friends for children in disadvantaged primary schools; Health education research; 2014; vol. 29 (no. 5); 786-798

Study details

Trial registration number	Not specified
Study start date	2008
Study end date	2010
Aim	Examine the immediate and long term impact of Zippy's friends intervention on children in disadvantaged schools; to investigate the impact of programme implementation on programme outcomes. Outcomes: the impact of the programme on children's emotional literacy skills, emotional and behavioural functioning, and (ii) the impact of programme fidelity on programme outcomes.
Country/geographical location	Ireland
Type of school	Primary education
Setting	School
UK Key Stage	Key stage 1
	Key stage 2

Inclusion criteria	Schools had to be mixed gender school and assigned the designated disadvantaged status by the Department of Education and Skills and (ii) classes had to contain 10 or more children.
Exclusion criteria	Not specfied
Method of randomisation	Not specified - "Schools were randomly assigned intervention Type I, intervention Type II and control status"
Method of allocation concealment	Not specified
Unit of allocation	School
Unit of analysis	By arm of allocation - the data does not appear to be presented by cluster but by all particpants across clusters within each arm.
Statistical method(s) used to analyse the data	Structural equation modelling
Attrition	From allocation to follow-up Type 1: 205/267 participants (23%), 13/18 classes (28%), 13/15 schools (13%) Type 2: 222/277 participants (20%), 16/18 classes (11%), 15/15 (0%) Control: 185/222 participants (17%), 13/16 classes (19%); 13/14 (7%)
Study limitations (author)	Schools were randomly assigned to intervention and control groups, they were not randomly selected to participate in the study they volunteered so this may have impacted motivation; use of teacher self-reportmeasures to evaluate programme effectiveness; high level of inter-correlation across some of the Emotional Literacy Checklist subscales; specific population that may limit generalisability
Study limitations (reviewer)	Lack of blinding, allocation concealment and details regarding the randomisation method undertaken; There was a change in the teacher make up of those delivering the intervention across arms (Clarke 2014); 20% participant dropout (Clarke 2014); Significant Baseline differences across the three groups for school size with significantly more students attending a large school (schools with greater than 100 pupils) in Intervention Type I than Intervention Type II or control [x2 (2, n= 730) = 12.99 , p = .002]; differences in school polices across clusters that may have impacted the efficacy of interventions - this was not controlled for; Significant difference in Total Emotional Literacy Score and subscale scores intervention group having a lower Total Emotional Literacy Score than the

	control group at baseline and the control group's Self Awareness, Motivation, Empathy and Social Skills mean scores were significantly higher than the intervention group's scores at the baseline.
Source of funding	HSE Population Health, Health Promotion Directorate; National Office for Suicide Prevention Ireland and the Irish Research Council for the Humanities and Social Sciences

Study arms

Zippy's Friends - Type 1 and 2 (N = 30)

Universal school-based program for children aged between 5 and 8 years to promote the mental health and emotional well-being of all young children by increasing their repertoire of coping skills and by stimulating varied and flexible ways of coping with problems of day-to-day life - Teachers in intervention Type I were asked to implement the programme as faithfully as possible (15 schools, 18 classes, 267 children) - teachers in intervention Type II were requested to use the program as a resource (15 schools, 18 classes, 277 children)

Control (N = 14)

No direction and Implemented the SPHE curriculum as usual (14 SCHOOLS, 16 CLASSES, 222 CHILDREN)

Characteristics

Arm-level characteristics

Characteristic	Zippy's Friends - Type 1 and 2 (N = 30)	Control (N = 14)
Age (years) Mean age (Intervention arm is the Mean age across the two arms [T1: 7.03 and T2: 7.02] Nominal	7.03	7.03
Gender (male) % male (Mean across T1 [49.4%] and T2 [53.4%] intervention arms Nominal	51.4	53.4

Characteristic	Zippy's Friends - Type 1 and 2 (N = 30)	Control (N = 14)
% School location - Urban For intervention arm (Mean across T1 [28.5%] and T2 [34.3%] intervention arms Nominal	31.4	36.3

Outcomes

Study timepoints
- Baseline
- 24 week
- 12 month

Emotional Literacy Checklist - Children's emotional literacy - pre and post (24 weeks)

Outcome	Zippy's Friends - Type 1 and 2, Baseline, N = 317	Zippy's Friends - Type 1 and 2, 24 week, N = 317	Zippy's Friends - Type 1 and 2, 12 month, N = NR	Control, Baseline, N = 109	Control, 24 week, N = 109	Control, 12 month, N = NR
Total Emotional Literacy Score pre-post Findings for at 24 weeks Mean (SD)	61.54 (11.3)	66.26 (11.5)	NR (NR)	65.53 (10.8)	65.06 (10.2)	NR (NR)

Total Emotional Literacy Score pre-post - Polarity - Higher values are better

Strengths and Difficulties Questionnaire - Children's emotional and behavioural functioning - Score at pre- and post-intervention (24 weeks)

Outcome	Zippy's Friends - Type 1 and 2, Baseline, N = 324	Zippy's Friends - Type 1 and 2, 24 week, N = 324	Zippy's Friends - Type 1 and 2, 12 month, N = NR	Control, Baseline, N = 114	Control, 24 week, N = 114	Control, 12 month, N = NR
Total Difficulties Score Mean (SD)	9.11 (7.3)	7 (6.4)	NR (NR)	8.23 (7.9)	7.04 (5.5)	NR (NR)

Total Difficulties Score - Polarity - Lower values are better

Children's emotional literacy - pre, post (24 weeks) and at 12 months

Outcome	Zippy's Friends - Type 1 and 2, Baseline, N = 248	Zippy's Friends - Type 1 and 2, 24 week, N = 248	Zippy's Friends - Type 1 and 2, 12 month, N = 248	Control, Baseline, N = 87	Control, 24 week, N = 87	Control, 12 month, N = 87
Total Emotional Literacy mean pre-, post-intervention and 12 month follow-up Mean (SD)	61.77 (11.4)	66.32 (11.5)	65.1 (11.6)	66.07 (11.2)	64.37 (9.7)	66.9 (10.4)

Total Emotional Literacy - Polarity - Higher values are better

Strengths and Difficulties Questionnaire - Children's emotional and behavioural functioning - pre-, post-intervention and 12 months follow-up

Outcome	Zippy's Friends - Type 1 and 2, Baseline, N = 251	Zippy's Friends - Type 1 and 2, 24 week, N = 251	Zippy's Friends - Type 1 and 2, 12 month, N = 251	Control, Baseline, N = 91	Control, 24 week, N = 91	Control, 12 month, N = 91
Total Difficulties	8.7 (6.9)	7.16 (6.3)	6.95 (6.4)	8.12 (8.3)	7.19 (5.2)	6.78 (6.1)

Outcome	Zippy's Friends - Type 1 and 2, Baseline, N = 251	Zippy's Friends - Type 1 and 2, 24 week, N = 251	Zippy's Friends - Type 1 and 2, 12 month, N = 251	Control, Baseline, N = 91	Control, 24 week, N = 91	Control, 12 month, N = 91
Mean (SD)						

Total Difficulties - Polarity - Lower values are better

Schoolagers' Coping Strategy Inventory: Neutral Coping Strategies (Score 0-69) - pre- and post-intervention (24 Weeks)

Outcome	Zippy's Friends - Type 1 and 2, Baseline, N = 289	Zippy's Friends - Type 1 and 2, 24 week, N = 289	Zippy's Friends - Type 1 and 2, 12 month, N = NR	Control, Baseline, N = 133	Control, 24 week, N = 133	Control, 12 month, N = NR
Neutral Coping Strategies (Score 0-69) Mean (SD)	30.48 (8.7)	30.95 (8.4)	NR (NR)	30.71 (8.9)	29.64 (8.3)	NR (NR)

Neutral Coping Strategies (Score 0-69) - Polarity - Higher values are better

Frequency of use of Coping Skills

Schoolagers' Coping Strategy Inventory: Violent Coping Strategies (Score 0-9) - pre- and post-intervention (24 Weeks)

Outcome	Zippy's Friends - Type 1 and 2, Baseline, N = 354	Zippy's Friends - Type 1 and 2, 24 week, N = 354	Zippy's Friends - Type 1 and 2, 12 month, N = NR	Control, Baseline, N = 155	Control, 24 week, N = 155	Control, 12 month, N = NR
Violent Coping Strategies (Score 0-9) Mean (SD)	1.42 (2)	1.67 (1.9)	NR (NR)	1.5 (1.9)	1.73 (2)	NR (NR)

Violent Coping Strategies (Score 0-9) - Polarity - Higher values are better

Frequency of use of Coping Skills

Schoolagers' Coping Strategy Inventory: Neutral Coping Strategies

Outcome	Zippy's Friends - Type 1 and 2, Baseline, N = 285	Zippy's Friends - Type 1 and 2, 24 week, N = 285	Zippy's Friends - Type 1 and 2, 12 month, N = NR	Control, Baseline, N = 127	Control, 24 week, N = 127	Control, 12 month, N = NR
Effectiveness: Neutral Coping Strategies Mean (SD)	36.15 (13.6)	36.48 (10.7)	NR (NR)	26.09 (12.3)	34.03 (10.8)	NR (NR)

Effectiveness: Neutral Coping Strategies - Polarity - Higher values are better

Perceived effectiveness of coping strategies

Schoolagers' Coping Strategy Inventory: Violent Coping Strategies pre and post (24 weeks)

Outcome	Zippy's Friends - Type 1 and 2, Baseline, N = 353	Zippy's Friends - Type 1 and 2, 24 week, N = 353	Zippy's Friends - Type 1 and 2, 12 month, N = NR	Control, Baseline, N = 153	Control, 24 week, N = 153	Control, 12 month, N = NR
Effectiveness: Violent Coping Strategies Mean (SD)	1.54 (2.3)	1.46 (1.9)	NR (NR)	1.12 (1.6)	1.39 (2.1)	NR (NR)

Effectiveness: Violent Coping Strategies - Polarity - Higher values are better

Perceived effectiveness of coping strategies

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Children'semotionalliteracy-preandpost(24weeks)-TotalEmotionalLiteracyScorepre-post-MeanSD-Zippy's Friends - Type 1 and 2-Control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(The statistical difference in baseline measures for key*

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Section	Question	Answer
		outcomes indicates potential issues with the randomisation process)
Overall bias and Directness	Overall Directness	Directly applicable *(Ireland, OECD, Schools)*

Children'semotionalandbehaviouralfunctioning-Scoreatpre-andpost-intervention(24weeks)-TotalDifficultiesScore-MeanSD-Zippy's Friends - Type 1 and 2-Control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(The statistical difference in baseline measures for key outcomes indicates potential issues with the randomisation process)*
Overall bias and Directness	Overall Directness	Directly applicable *(Ireland, OECD, Schools)*

Children'semotionalliteracy-pre,post(24weeks)andat12months-TotalEmotionalLiteracy-MeanSD-Zippy's Friends - Type 1 and 2-Control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(The statistical difference in baseline measures for key outcomes indicates potential issues with the randomisation process)*
Overall bias and Directness	Overall Directness	Directly applicable *(Ireland, OECD, Schools)*

Children'semotionalliteracy-pre,post(24weeks)andat12months-TotalEmotionalLiteracy-MeanSD-Zippy's Friends - Type 1 and 2-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(The statistical difference in baseline measures for key outcomes indicates potential issues with the randomisation process)*

Section	Question	Answer
Overall bias and Directness	Overall Directness	Directly applicable *(Ireland, OECD, Schools)*

Children'semotionalandbehaviouralfunctioning-pre-,post-interventionand12monthsfollow-up-TotalDifficulties-MeanSD-Zippy's Friends - Type 1 and 2-Control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(The statistical difference in baseline measures for key outcomes indicates potential issues with the randomisation process)*
Overall bias and Directness	Overall Directness	Directly applicable *(Ireland, OECD, Schools)*

Children'semotionalandbehaviouralfunctioning-pre-,post-interventionand12monthsfollow-up-TotalDifficulties-MeanSD-Zippy's Friends - Type 1 and 2-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(The statistical difference in baseline measures for key outcomes indicates potential issues with the randomisation process)*
Overall bias and Directness	Overall Directness	Directly applicable *(Ireland, OECD, Schools)*

Schoolagers'CopingStrategyInventory:NeutralCopingStrategies(Score0-69)-pre-andpost-intervention(24Weeks)-NeutralCopingStrategies(Score0-69)-MeanSD-Zippy's Friends - Type 1 and 2-Control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(The statistical difference in baseline measures for key outcomes indicates potential issues with the randomisation process)*

Section	Question	Answer
Overall bias and Directness	Overall Directness	Directly applicable *(Ireland, OECD, Schools)*

Schoolagers'CopingStrategyInventory:ViolentCopingStrategies(Score0-9)-pre-andpost-intervention(24Weeks)-ViolentCopingStrategies(Score0-9)-MeanSD-Zippy's Friends - Type 1 and 2-Control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(The statistical difference in baseline measures for key outcomes indicates potential issues with the randomisation process)*
Overall bias and Directness	Overall Directness	Directly applicable *(Ireland, OECD, Schools)*

Schoolagers'CopingStrategyInventory:NeutralCopingStrategies-Effectiveness:NeutralCopingStrategies-MeanSD-Zippy's Friends - Type 1 and 2-Control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(The statistical difference in baseline measures for key outcomes indicates potential issues with the randomisation process)*
Overall bias and Directness	Overall Directness	Directly applicable *(Ireland, OECD, Schools)*

Schoolagers'CopingStrategyInventory:ViolentCopingStrategiespreandpost(24weeks)-Effectiveness:ViolentCopingStrategies-MeanSD-Zippy's Friends - Type 1 and 2-Control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(The statistical difference in baseline measures for key outcomes indicates potential issues with the randomisation process)*

Section	Question	Answer
Overall bias and Directness	Overall Directness	Directly applicable *(Ireland, OECD, Schools)*

Study arms

Zippy's Friends - Type 1 and 2 (N = 30)

Brief name	Intervention to increase coping skills (supervised [Type 1] and unsupervised [type 2])
Rationale/theory/Goal	Zippy's Friends is a universal school-based programme designed to promote the mental health and emotional well-being of all young children by increasing their repertoire of coping skills and by stimulating varied and flexible ways of coping with problems of day-to-day life
Materials used	The Emotional Literacy Checklist; Strengths and Difficulties Questionnaire; Schoolagers' Coping Strategy Inventory, Assessment of programe fidelity via teachers' weekly questionnaires; Children's Coping Skills: Draw and Write Technique (Qualitative - sub-group analysis)
Procedures used	Consent obtained, randomisation of participants; Data collected by intervention and control teachers completed based on children's behaviour over the past month at pre=specified time points; researcher and Health Promotion Officers visited all classes and undertook Schoolagers' Coping Strategy Inventory at various pre-specified timepoints. A prepared script was used to inform the children about the questionnaire and to prepare them for completing the questionnaire; researcher visited schools selected to take part in the Draw and Write Technique - prepared instructions to guide children through the Draw and Write Technique - this was collected at pre-specified timepoints; In May 2008, the intervention and control teachers received the Ethos Questionnaire and complete; The researcher visited a sub-sample of schools and the children took part in the interim child participatory workshops to ascertain the children's views about the programme and to examine their emotional vocabulary and problems solving skills. On completion of the first half of the programme, teachers in the intervention group completed the interim review questionnaire. Teachers from each county met and took part in an interim focus group review session. Teachers were asked a set of questions in a semi-structured format. The teachers in the control and intervention group completed the SPHE Questionnaire in March 2009. Class observations took place and were submitted at outlined time points (pre, post intervention [24 weeks} and follow-up (12 months); Researcher and Health Promotion Officer visited a sample of intervention schools and

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	observed lessons and completed observation questionnaires at various points during the study period. The intervention teachers from each county were invited to attend a focus group review session in June 2009 and completed an end of programme review questionnaire and took part in a semi-structured focus group review session.
Provider	Health promotion officer, School teachers, Study researcher
Method of delivery	24 sessions implemented over one academic year. The 24 sessions are divided into six modules, each module containing four lessons which are conducted once a week for 1 h by the class teacher.
Setting/location of intervention	Primary schools, Ireland
Intensity/duration of the intervention	24 sessions implemented over one academic year. The 24 sessions are divided into six modules, each module containing four lessons which are conducted once a week for 1 h by the class teacher. Each module is centred around a set of six illustrated stories about a group of children, their families, friends and an imaginary stick insect called Zippy. The modules focus on a particular theme: (i) feelings, (ii) communication, (iii)making and breaking relationships, (iv) conflict resolution, (v) dealing with change and loss and (vi) general coping skills.
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	Prior to assessing the impact of the programme, an examination of programme fidelity was carried out. The intervention arm was split into Type I (supervised) and Type II (unsupervised) - The total number of activities fully implemented, partially implemented and not implemented was calculated for each teacher. The mean number of activities fully implemented, partially implemented and not implemented by teachers in Intervention Type I and Type II was subsequently calculated
Actual treatment fidelity	The programme fidelity results revealed that there was no difference in the level of programme fidelity between the two intervention groups and, therefore, the data from the two intervention groups were combined in the analysis and compared with control group data. Fidelity for fully implemented was: Type 1 (86.4%) Type (86.6%)
Other details	NR

Universal school-based program for children aged between 5 and 8 years to promote the mental health and emotional well-being of all young children by increasing their

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repertoire of coping skills and by stimulating varied and flexible ways of coping with problems of day-to-day life - Teachers in intervention Type I were asked to implement the programme as faithfully as possible (15 schools, 18 classes, 267 children) - teachers in intervention Type II were requested to use the program as a resource (15 schools, 18 classes, 277 children)

Control (N = 14)

Brief name	Social Personal and Health Education (SPHE) Curriculum
Rationale/theory/Goal	Usual care conditions to allow intervention efficacy to be assessed
Materials used	The specific aspects of the Curriculum are not specified but could range from: (i) child abuse prevention programme - Stay Safe (ii) Relationship and Sexuality Education - RSE and (iii) Substance Misuse Prevention Programme – Walk Tall; nation-wide delivery facilitated by the Primary Curriculum Support Programme (PCSP), a support unit which provides ongoing professional development and support to teachers and schools and ensures quality control Questionnaire and assessment tools used: The Emotional Literacy Checklist; Strengths and Difficulties Questionnaire; Schoolagers' Coping Strategy Inventory, Assessment of programe fidelity via teachers' weekly questionnaires; Children's Coping Skills: Draw and Write Technique (Qualitative - sub-group analysis)
Procedures used	No additional supervision beyond administering the usual curriculum within the school
Provider	Teachers
Method of delivery	In class delivery of curriculum as per normal school week
Setting/location of intervention	Classroom/School
Intensity/duration of the intervention	30 minutes/week
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	Before the teachers completed the second half of the programme, both intervention and control teachers were asked to complete a Social Personal and Health Education (SPHE) Questionnaire. The purpose of this questionnaire was to determine the level of

	implementation of the SPHE curriculum across both intervention and control schools for the '08/'09 academic year
Actual treatment fidelity	Data from the Weekly Questionnaire, Observations, Review Questionnaire, SPHE Questionnaire and Ethos Questionnaire were analysed. All negatively worded questions were recoded into positive worded questions, similar to majority of questions in the questionnaires. Responses to closed questions were coded and inputted directly, while responses to open questions were transcribed and grouped into meaningful categories. 6/9 teachers (66.7%) taught SPHE curriculum once a week.
Other details	NR

No direction and Implemented the SPHE curriculum as usual (14 SCHOOLS, 16 CLASSES, 222 CHILDREN)

D.1.17   Collins, 2014

Bibliographic Reference	Collins, Sabrina; Woolfson, Lisa Marks; Durkin, Kevin; Effects on coping skills and anxiety of a universal school-based mental health intervention delivered in Scottish primary schools.; School Psychology International; 2014; vol. 35 (no. 1); 85-100

Study details

Study design	Cluster randomised controlled trial
Study type	Effectiveness
Trial registration number	Not reported
Aim	• To investigate if anxiety and coping showed improvement following a universal mental health intervention delivered in primary schools to students aged 9- to 10-years-old • To investigate whether there was a difference between groups led by school psychologists and those led by teachers who had received training and support • To investigate whether any differences were sustained beyond the immediate end of the intervention programme
Country/geographical location	United Kingdom (Scotland)

Type of school	Primary education
Setting	Nine primary schools in central Scotland
UK Key Stage	Key stage 2
Inclusion criteria	Students aged 9-10 years old
Exclusion criteria	Not reported
Method of randomisation	Not reported
Method of allocation concealment	Not reported
Unit of allocation	Cluster (class)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	- One-way analyses of variance (ANOVAs) were carried out to test for differences between the three groups on each of the dependent variables at pre- intervention. - Analyses of covariance were conducted on each of the dependent variables to test for differences between the groups at post-intervention and six-month follow-up. - The frequency of risk status in each group over time was analysed by McNemar tests.
Attrition	Attrition by study arm at 6 month follow-up: - Psychologist-led CBT: 65/103; 36.9% attrition - Teacher-led CBT: 65/79; 17.7% attrition - Comparison group: 32/135; 76.3% attrition
Study limitations (author)	Not reported
Study limitations (reviewer)	Lack of data on exclusion criteria, methods of randomisation and allocation concealment and author limitations
Source of funding	Not reported

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Study arms

Psychologist-led CBT (N = 103)

5 classes including 103 individuals

Teacher-led CBT (N = 79)

4 classes including 79 individuals

Comparison group (N = 135)

7 classes including 135 individuals

Characteristics

Arm-level characteristics

Characteristic	Psychologist-led CBT (N = 103)	Teacher-led CBT (N = 79)	Comparison group (N = 135)
Age (Months) Mean age reported in years and months in publication; SD only reported in months Mean (SD)	122 (4.64)	118 (5.31)	123 (7.06)
Male Sample size	n = 57 ; % = 55	n = 49 ; % = 61.6	n = 65 ; % = 48.3
Female Sample size	n = 46 ; % = 44.5	n = 30 ; % = 38.4	n = 70 ; % = 51.7

Outcomes

Study timepoints
- 6 month (Follow-up)

Outcomes

Outcome	Psychologist-led CBT, 6 month, N = 103	Teacher-led CBT, 6 month, N = 79	Comparison group, 6 month, N = 135
Social and emotional skills (11-33) Measured by Coping strategy indicator (CSI); Problem-solving subscale (self-reported) Sample size	n = 65 ; % = 63.1	n = 65 ; % = 82.3	n = 32 ; % = 23.7
Social and emotional skills (11-33) Measured by Coping strategy indicator (CSI); Problem-solving subscale (self-reported) Mean (SD)	27.04 (5.37)	24.68 (4.61)	16.59 (3.43)
Emotional distress - anxiety (0-114) Measured by Spence Children's Anxiety Scale (SCAS) (self-reported) Sample size	n = 65 ; % = 63.1	n = 65 ; % = 82.3	n = 32 ; % = 23.7
Emotional distress - anxiety (0-114) Measured by Spence Children's Anxiety Scale (SCAS) (self-reported) Mean (SD)	13.27 (10.47)	11.7 (8.44)	22.47 (13.42)

Social and emotional skills - Polarity - Higher values are better

Emotional distress - anxiety - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Social and emotional skills - Psychologist-led CBT vs Teacher-led CBT vs Comparison group - 6-month follow-up

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Serious concerns due to differences in baseline characteristics, missing outcome data, and self-reported outcomes)*

Emotional distress - anxiety - Psychologist-led CBT vs Teacher-led CBT vs Comparison group - 6-month follow-up

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Serious concerns due to differences in baseline characteristics, missing outcome data, and self-reported outcomes)*

Study arms

Psychologist-led CBT (N = 103)

Brief name	Universal mental health intervention (psychologist-led). Page 88
Rationale/theory/Goal	CBT principles. Page 88
Materials used	Detailed facilitator manual. Page 88
Procedures used	Intervention programme lesson content included: 1. Introduction to the programme 2. Building emotional awareness and physiological clues 3. Developing emotional vocabulary and the link between feelings and behaviour 4. Introduction of thoughts into the relationship between feelings and behaviour 5. Introduction to 'more helpful' versus 'less helpful' thinking, positive self-statements, and personal coping tools 6. Helpful and less helpful thinking 7. Being a detective and generating more balanced thoughts 8. Using the problem solving plan for controllable problems or worries 9. Self-assessment of tools learned 1. Relaxation or personal coping tool practice. Page 90

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Provider	Psychologist. Page 89
Method of delivery	Face-to-face. Page 88
Setting/location of intervention	Classroom. Page 88
Intensity/duration of the intervention	Ten-lesson programme. Page 90
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	All teachers and school psychologists in the intervention groups attended a training day for a locally developed manualized mental health programme. Page 90 One of the study's authors, SC, who is a school psychologist, carried out a further training session with all class teachers to provide support on evaluation measure completion. Page 91 Adherence to treatment was evaluated by asking those delivering the intervention to indicate on a scale of 1 (did not follow the manual at all) to 7 (completely followed the manual) the extent to which the manual was followed. Page 91
Actual treatment fidelity	Results in Table 3 show a high level of intervention fidelity. Page 91

Teacher-led CBT (N = 79)

Brief name	Universal mental health intervention (teacher-led). Page 88
Rationale/theory/Goal	CBT principles. Page 88
Materials used	Detailed facilitator manual. Page 88

Procedures used	Intervention programme lesson content included: 1. Introduction to the programme 2. Building emotional awareness and physiological clues 3. Developing emotional vocabulary and the link between feelings and behaviour 4. Introduction of thoughts into the relationship between feelings and behaviour 5. Introduction to 'more helpful' versus 'less helpful' thinking, positive self-statements, and personal coping tools 6. Helpful and less helpful thinking 7. Being a detective and generating more balanced thoughts 8. Using the problem solving plan for controllable problems or worries 9. Self-assessment of tools learned 1. Relaxation or personal coping tool practice. Page 90
Provider	Teacher. Page 89
Method of delivery	Face-to-face. Page 88
Setting/location of intervention	Classroom. Page 88
Intensity/duration of the intervention	Ten-lesson programme. Page 90
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	All teachers and school psychologists in the intervention groups attended a training day for a locally developed manualized mental health programme. Page 90 One of the study's authors, SC, who is a school psychologist, carried out a further training session with all class teachers to provide support on evaluation measure completion. Page 91 Adherence to treatment was evaluated by asking those delivering the intervention to indicate on a scale of 1 (did not follow the manual at all) to 7 (completely followed the manual) the extent to which the manual was followed. Page 91
Actual treatment fidelity	Results in Table 3 show a high level of intervention fidelity. Page 91

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Comparison group (N = 135)

Brief name	Comparison. Page 89
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	The comparison group children undertook their regular PSE sessions. Pages 90
Provider	Teacher. Page 91
Method of delivery	Face-to-face. Pages 90-91
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.18   Connolly, 2018

Bibliographic Reference	Connolly, Paul; Miller, Sarah; Kee, Frank; Sloan, Seaneen; Gildea, Aideen; McIntosh, Emma; Boyer, Nicole; Bland, Martin; A cluster randomised controlled trial and evaluation and cost-effectiveness analysis of the Roots of Empathy schools-based programme for improving social and emotional well-being outcomes among 8- to 9-year-olds in Northern Ireland; Public Health Research; 2018; vol. 6 (no. 4)

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Study details

Trial registration number	Current Controlled Trials ISRCTN07540423.
Study start date	Aug-2011
Study end date	Jan-2014
Aim	Evaluate the immediate and longer-term impacts of ROE on social and emotional well-being outcomes among 8- to 9-year-old pupils; and ROE cost-effectiveness. It also sought to assess the any differential impact on children depending on their gender, the number of siblings they have and their socioeconomic status and/or the socioeconomic profile of the school; and if the impact of the program differed significantly according to variations in implementation fidelity found?
Country/geographical location	Northern Ireland
Type of school	Primary education
Setting	Schools
UK Key Stage	Key stage 2
Inclusion criteria	All primary schools in Northern Ireland were eligible to take part and all Year 5 children within each school were also eligible to participate - eventually recruited from four of the five trust areas in Northern Ireland
Exclusion criteria	Not specified
Method of randomisation	An independent statistician from the Northern Ireland Clinical Trials Unit undertook the (1 : 1) random allocation (stratified by health and social care trust area) of enrolled schools and assigned 37 schools to either the intervention or the control group
Method of allocation concealment	Not specified but appears to not have been undertaken "The Northern Ireland Clinical Trials Unit informed the research team of the allocation outcomes and the research team passed this information to the relevant HSCT personnel, who in turn informed the school"
Unit of allocation	School
Unit of analysis	participant level and clusters within schools
Statistical method(s) used to analyse the data	Descriptive statistics, binary logistic multilevel modelling for categorical data and linear multilevel modelling for continuous data; Differences in mean scores for outcome variables between the

	control and intervention group were tested using multilevel models to control for effects of clustering; Qualitative process evaluation
Attrition	7/74 schools that withdrew before the start of the trial; 76.3% of the pupils who were pre-tested in 2011 remained in the study until the final follow-up data sweep.
Study limitations (author)	23.3% participant attrition from baseline and 9.5% (7/74) schools withdrew before the start of the trial; measures used in relation to the two primary outcomes were based on teacher ratings of the children's behavior and hence were unblinded to condition;
Study limitations (reviewer)	Lack of blinding and allocation concealment
Source of funding	Funded as a PHR programme as project number 10/3006/02.

Study arms

Roots of Empathy (ROE) (N = 37)

Schools-based programme for improving social and emotional well-being outcomes among 8- to 9-year-olds; delivered on a whole-class basis for one academic year (October to June). It consists of 27 lessons, which are based around a monthly classroom visit from an infant and parent, usually recruited from the local community, whom the class 'adopts' at the start of the school year. Children learn about the baby's growth and development through interactions with and observations of the baby during these monthly visits. Schools n=37; Participants n=695

Waiting list control (N = 37)

The remaining schools continued with the regular curriculum and usual classroom activity and placed on a waiting list to receive the programme in 2012/13, but this was on the understanding that ROE would not be delivered to their current Year 5 cohort as they progressed through Years 6 and 7. Schools n=37; Participants n=583

Characteristics

Study-level characteristics

Characteristic	Study (N = 1278)
% Year group: 4 Nominal	6.3

Characteristic	Study (N = 1278)
% Year group: 5 Nominal	89.1
% Year group: 6 Nominal	4.5
Gender (male) Nominal	51.4
Ethnicity Nominal	NR

Arm-level characteristics

Characteristic	Roots of Empathy (ROE) (N = 37)	Waiting list control (N = 37)
Pro-social (SDQ) Mean (SD)	1.59 (0.45)	1.58 (0.46)
Total Difficulties (SDQ) Mean (SD)	0.29 (0.29)	0.36 (0.34)
Aggressive subscale Mean (SD)	0.24 (0.43)	0.25 (0.45)
prosocial subscale Mean (SD)	1.59 (0.42)	1.59 (0.44)
prosocial subscale Mean (SD)	1.74 (0.34)	1.72 (0.31)
Total Difficulties Mean (SD)	0.36 (0.31)	0.4 (0.3)

Outcomes

Study timepoints
- Baseline

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- 9 month (T1 - first (immediately) post-test data)
- 12 month (T2)
- 24 month (T3)
- 36 month (T4)

Teacher assessed SDQ

Outcome	Roots of Empathy (ROE), Baseline, N = 415	Roots of Empathy (ROE), 9 month, N = 415	Roots of Empathy (ROE), 12 month, N = 355	Roots of Empathy (ROE), 24 month, N = 488	Roots of Empathy (ROE), 36 month, N = 405	Waiting list control, Baseline, N = 538	Waiting list control, 9 month, N = 538	Waiting list control, 12 month, N = 481	Waiting list control, 24 month, N = 360	Waiting list control, 36 month, N = 318
Prosocial behaviour (SDQ) Adjusted mean/SD Mean (SD)	1.58 (0.46)	0.047 (1.02)	-0.027 (1.02)	-0.052 (1.02)	0.021 (1.02)	1.59 (0.45)	-0.12 (0.98)	-0.025 (0.98)	-0.1 (0.98)	-0.1 (0.98)
Difficult behaviour (SDQ) Adjusted mean/SD Mean (SD)	0.36 (0.34)	-0.063 (1.07)	-0.048 (1.07)	-0.013 (1.07)	-0.019 (1.07)	0.29 (0.29)	0.098 (0.9)	0.096 (0.9)	0.12 (0.9)	0.12 (0.9)

Prosocial behaviour (SDQ) - Polarity - Higher values are better

Difficult behaviour (SDQ) - Polarity - Lower values are better

The SDQ is a screening instrument used to detect mental health problems in children; The items relate to five subscales covering distinct domains of psychological adjustment in children and adolescents; conduct problems, peer problems, emotional symptoms, hyperactivity and prosocial behaviours - n=415 and

n=538 corresponds to the number of pupils assessed by teachers for teacher assessed primary outcomes

Secondary outcomes Emotional recognition

Outco me	Roots of Empat hy (ROE), Baselin e, N =	Roots of Empat hy (ROE), 9 month, N =	Roots of Empat hy (ROE), 12 month, N =	Roots of Empat hy (ROE), 24 month, N =	Roots of Empat hy (ROE), 36 month, N =	Waitin g list control , Baselin e, N =	Waitin g list contr ol, 9 mont h, N =	Waitin g list contr ol, 12 mont h, N =	Waitin g list contr ol, 24 mont h, N =	Waitin g list contr ol, 36 mont h, N =

ERQ to determine a total emotion recognition score, which could range from 0 to 1 (higher scores reflecting a greater recognition of emotions)

Secondary outcome: Empathy

Outco me	Roots of Empat hy (ROE), Baselin e, N =	Roots of Empat hy (ROE), 9 month, N =	Roots of Empat hy (ROE), 12 month, N =	Roots of Empat hy (ROE), 24 month, N =	Roots of Empat hy (ROE), 36 month, N =	Waitin g list control , Baselin e, N =	Waitin g list contr ol, 9 mont h, N =	Waitin g list contr ol, 12 mont h, N =	Waitin g list contr ol, 24 mont h, N =	Waitin g list contr ol, 36 mont h, N =

IRI - adapted for use with children; Eighteen items reflect the two main components of empathy: affective and cognitive; Items are rated on a 5-point scale, ranging from 'not at all like me' (1) to 'very like me' (5). Mean responses to the 18 items were computed to give a total empathy score, which could range from 1 to 5 (higher scores indicating greater empathy)

Secondary outcome: Emotional regulation

Outco me	Roots of Empat hy (ROE), Baselin e, N =	Roots of Empat hy (ROE), 9 month, N =	Roots of Empat hy (ROE), 12 month, N =	Roots of Empat hy (ROE), 24 month, N =	Roots of Empat hy (ROE), 36 month, N =	Waitin g list control , Baselin e, N =	Waitin g list contr ol, 9 mont h, N =	Waitin g list contr ol, 12 mont h, N =	Waitin g list contr ol, 24 mont h, N =	Waitin g list contr ol, 36 mont h, N =

CAMS - 11 items, covering three areas: inhibition of anger expression, coping, or anger control and dysregulation of anger expression. Responses to each item are on a 3-point scale (1 = not very often true, 2 = sometimes true and 3 = often true). All 11 items loaded onto 1 factor; a total mean score for 'anger management' was therefore

calculated, with the dysregulation items reverse scored. Anger management scores ranged from 1 to 3, with higher scores reflecting greater anger management

Secondary outcome: Bullying (victim)

Outco me	Roots of Empat hy (ROE), Baselin e, N =	Roots of Empat hy (ROE), 9 month, N =	Roots of Empat hy (ROE), 12 month, N =	Roots of Empat hy (ROE), 24 month, N =	Roots of Empat hy (ROE), 36 month, N =	Waitin g list control , Baselin e, N =	Waitin g list contr ol, 9 mont h, N =	Waitin g list contr ol, 12 mont h, N =	Waitin g list contr ol, 24 mont h, N =	Waitin g list contr ol, 36 mont h, N =

Revised Olweus Bully/Victim Questionnaire - Ten victimisation items from the junior version of the scale, suitable for use with primary school pupils, were used. This score could range from 1 to 5, with higher scores reflecting experiencing more types of bullying in school more often. In addition to measuring the extent to which children were victims of bullying behaviour, the bully scale of this measure was also used in the final two data sweeps (T3 and T4) to determine the extent of bullying behaviour that children exhibited

Secondary outcome: Quality of life

Outco me	Roots of Empat hy (ROE), Baselin e, N =	Roots of Empat hy (ROE), 9 month, N =	Roots of Empat hy (ROE), 12 month, N =	Roots of Empat hy (ROE), 24 month, N =	Roots of Empat hy (ROE), 36 month, N =	Waitin g list control , Baselin e, N =	Waitin g list contr ol, 9 mont h, N =	Waitin g list contr ol, 12 mont h, N =	Waitin g list contr ol, 24 mont h, N =	Waitin g list contr ol, 36 mont h, N =

CHU9D - This self-report instrument was developed for use with children aged 7–11 years, and measures nine dimensions of health-related quality of life (worry, sad, pain, tired, annoyed, school work, sleep, daily routine and ability to join in activities) Scores could range from 1 to 5, and a higher score indicated better quality of life

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

TeacherassessedSDQ-Prosocialbehaviour(SDQ)-MeanSD-Roots of Empathy (ROE)-Waiting list control-t9

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low *(There is a lack of blinding and allocation concealment which may introduce potential bias but these are not consider to impact on the study and its outcomes)*
Overall bias and Directness	Overall Directness	Directly applicable

TeacherassessedSDQ-Prosocialbehaviour(SDQ)-MeanSD-Roots of Empathy (ROE)-Waiting list control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low *(There is a lack of blinding and allocation concealment which may introduce potential bias but these are not consider to impact on the study and its outcomes)*
Overall bias and Directness	Overall Directness	Directly applicable

TeacherassessedSDQ-Prosocialbehaviour(SDQ)-MeanSD-Roots of Empathy (ROE)-Waiting list control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low *(There is a lack of blinding and allocation concealment which may introduce potential bias but these are not consider to impact on the study and its outcomes)*
Overall bias and Directness	Overall Directness	Directly applicable

TeacherassessedSDQ-Prosocialbehaviour(SDQ)-MeanSD-Roots of Empathy (ROE)-Waiting list control-t36

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low *(There is a lack of blinding and allocation concealment which may introduce potential bias but these are not consider to impact on the study and its outcomes)*
Overall bias and Directness	Overall Directness	Directly applicable

TeacherassessedSDQ-Difficultbehaviour(SDQ)-MeanSD-Roots of Empathy (ROE)-Waiting list control-t9

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low *(There is a lack of blinding and allocation concealment which may introduce potential bias but these are not consider to impact on the study and its outcomes)*
Overall bias and Directness	Overall Directness	Directly applicable

TeacherassessedSDQ-Difficultbehaviour(SDQ)-MeanSD-Roots of Empathy (ROE)-Waiting list control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low *(There is a lack of blinding and allocation concealment which may introduce potential bias but these are not consider to impact on the study and its outcomes)*
Overall bias and Directness	Overall Directness	Directly applicable

TeacherassessedSDQ-Difficultbehaviour(SDQ)-MeanSD-Roots of Empathy (ROE)-Waiting list control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low *(There is a lack of blinding and allocation concealment*

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Section	Question	Answer
		which may introduce potential bias but these are not consider to impact on the study and its outcomes)
Overall bias and Directness	Overall Directness	Directly applicable

TeacherassessedSDQ-Difficultbehaviour(SDQ)-MeanSD-Roots of Empathy (ROE)-Waiting list control-t36

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low *(There is a lack of blinding and allocation concealment which may introduce potential bias but these are not consider to impact on the study and its outcomes)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

Roots of Empathy (ROE) (N = 37)

Brief name	Schools-based programme for improving social and emotional well-being
Rationale/theory/Goal	Determine the effectiveness and cost-effectiveness of ROE attempting to enhance children's empathy, seeks to achieve improvement in prosocial behaviour and reduction in difficult behaviour; Substantial evidence base demonstrating the links between a child's early social and emotional development and a range of key longer-term education, social and health outcomes. Universal school-based interventions provide a significant opportunity for early intervention in this area
Materials used	Primary outcomes measured via teacher-rated version of the Strengths and Difficulties Questionnaire (SDQ), parent- and child-rated SDQ and teacher-rated Child Behaviour Scale; Secondary outcomes measured via Infant Facial Expression of Emotions Scale, Emotion Recognition Questionnaire, Index, Child Anger Management Scale, Revised Olweus Bully/Victim Scale, Child Health Utility – 9D (CHU9D); Trained ROE instructor and intervention materials (27 lessons, which are based around a monthly classroom visit from an infant and volunteer

	parent (typically the mother) who are usually recruited from the local community); Independent research to randomize clusters
Procedures used	Participants identified and randomised, consent obtained; Each month, a trained ROE instructor (who is not the class teacher) visits the classroom three times for a pre-family visit, the visit of the parent and infant, and a post-family visit; data collected pre-intervention, post intervention, 12m, 24m and 36m
Provider	A trained ROE instructor (who is not the class teacher)
Method of delivery	Face to face: 27 lessons, which are based around a monthly classroom visit from an infant and parent, usually recruited from the local community, whom the class 'adopts' at the start of the school year. Each month, a trained ROE instructor (who is not the class teacher) visits the classroom three times for a pre-family visit, the visit of the parent and infant, and a post-family visit.
Setting/location of intervention	Classroom
Intensity/duration of the intervention	27 lessons, which are based around a monthly classroom visit from an infant and parent, usually recruited from the local community, whom the class 'adopts' at the start of the school year. Each month, a trained ROE instructor (who is not the class teacher) visits the classroom three times for a pre-family visit, the visit of the parent and infant, and a post-family visit.
Tailoring/adaptation	Assessment tools adapted for the primary school population
Unforeseen modifications	Not reported
Planned treatment fidelity	Qualitative process evaluation undertaken; Attrition outlined
Actual treatment fidelity	Qualitative process evalaution concluded that intervention fidelity was high; Attrition: 7/74 schools that withdrew before the start of the trial; 76.3% of the pupils who were pre-tested in 2011 remained in the study until the final follow-up data sweep.

Schools-based programme for improving social and emotional well-being outcomes among 8- to 9-year-olds; delivered on a whole-class basis for one academic year (October to June). It consists of 27 lessons, which are based around a monthly classroom visit from an infant and parent, usually recruited from the local community, whom the class 'adopts' at the start of the school year. Children learn about the baby's growth and development through interactions with and observations of the baby during these monthly visits. Schools n=37; Participants n=695

Waiting list control (N = 37)

Brief name	Waiting list control
Rationale/theory/Goal	Control condition to allow effectiveness of ROE to be assessed
Materials used	Primary outcomes measured via teacher-rated version of the Strengths and Difficulties Questionnaire (SDQ), parent- and child-rated SDQ and teacher-rated Child Behaviour Scale; Secondary outcomes measured via Infant Facial Expression of Emotions Scale, Emotion Recognition Questionnaire, Index, Child Anger Management Scale, Revised Olweus Bully/Victim Scale, Child Health Utility – 9D (CHU9D); Trained ROE instructor and intervention materials (27 lessons, which are based around a monthly classroom visit from an infant and volunteer parent (typically the mother) who are usually recruited from the local community); Independent research to randomize clusters
Procedures used	Participants identified and randomised, consent obtained; regular curriculum and usual classroom activity and placed on a waiting list to receive the programme in 2012/13; data collected pre-intervention, post intervention, 12m, 24m and 36m
Provider	Teacher
Method of delivery	face to face
Setting/location of intervention	Classroom/School
Intensity/duration of the intervention	Regular curriculum and usual classroom activity and placed on a waiting list to receive the programme in 2012/13
Tailoring/adaptation	Assessment tools adapted for the primary school population - a priori
Unforeseen modifications	Not reported
Planned treatment fidelity	Qualitative process evaluation undertaken; Attrition outlined
Actual treatment fidelity	Qualitative process evalaution concluded that intervention fidelity was high; Attrition: 7/74 schools that withdrew before the start of the trial; 76.3% of the pupils who were pre-tested in 2011 remained in the study until the final follow-up data sweep.

The remaining schools continued with the regular curriculum and usual classroom activity and placed on a waiting list to receive the program in 2012/13, but this was on the understanding that ROE would not be delivered to their current Year 5 cohort as they progressed through Years 6 and 7. Schools n=37; Participants n=583

D.1.19   Dale, 2016

Bibliographic Reference	Dale, R.; Shanley, D.C.; Zimmer-Gembeck, M.J.; Lines, K.; Pickering, K.; White, C.; Empowering and protecting children by enhancing knowledge, skills and well-being: A randomized trial of Learn to BE SAFE with EmmyTM; Child Abuse and Neglect; 2016; vol. 51; 368-378

Study details

Study design	Cluster randomised controlled trial
Study type	Effectiveness
Trial registration number	Not reported.
Aim	To evaluate the effectiveness of a child protection education programme for young children in Australia through a randomized controlled study.
Country/geographical location	Australia
Type of school	Primary education
Setting	15 classes from 5 primary schools
UK Key stage	Key stage 1
Inclusion criteria	Not reported. Passive parental consent was required for children to participate in the programme -i.e. parents had to return a form if they did not want their child to receive the programme. However active parental consent was needed for them to be involved in the evaluation of the programme. The children also needed to provide active consent to participate in the evaluation of the programme, which they provided by circling either a smiley or sad face. They were able to participate in the programme even if they did not consent to take part in the research evaluation. Likewise parents could consent for children to participate in the research even if they did not wish to participate themselves.

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Exclusion criteria	Not reported in detail. Some of the schools that were initially approached were excluded as classes consisted of mixed year groups.
Method of randomisation	Not reported
Method of allocation concealment	Not reported but it is stated that research assistants/ outcome assessors were blinded to group allocation at all assessment points.
Unit of allocation	Class
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Cronbach's ∝ was used to test internal consistency for each of the impact outcome measures. ICCs were determined for school and class through multi-level modelling in SPSS. Wald Z ranged from 0.68 to 1.86, with all p > .065. Therefore, nesting of students within school and class in the analyses was not accounted for. Intervention and control groups were compared at baseline using t-tests. No statistically significant differences were found for child age or for any of the major outcome variables. Mixed methods ANOVA analyses were used to determine children's knowledge of protective behaviours compared to controls post intervention and parents observations of children's protective behaviours post intervention compared to parents observations of the same in control group children. One way repeated ANOVA analyses were used to test the impact of time on these outcomes. ITT analyses were used for all pre-post analyses except for 6 month follow up as data was collected only from the intervention group. Missing data for children's knowledge scores at 6 months follow up were replaced with the most recent data available.

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Attrition	95% of children in the intervention group (n=124) and 97% children in the control group (n=111) completed the post intervention questionnaire. 41% parents (n=54) in the intervention group and 27% parents (n= 31) in the control group completed the post intervention tool.
Study limitations (author)	Control children 's ability to choose safe options may have improved due to maturation or due to Hawthorne effects, through the assessment process encouraging them to consider these issues or through knowledge acquired through children in the intervention group. Authors note future studies should randomise by school rather than class to avoid this. Parents completion of the behavioural observations for the control children may have also raised awareness of the issues covered. Authors note that knowledge in the intervention group continued to improve post intervention but as data could not be collected for the control children at 6 months follow up, it is unclear if this was due to normal maturation, the effect of the programme, or if the parents or teachers had continued to discuss the issues and consolidated the children's learning as a result. Authors note that future research could incorporate parents and teachers to determine if this enhances success and suggest training teachers of older children in recognition that repetition may be needed to consolidate learning and promote the long term retention of knowledge. They further suggest booster session at 6 months and one year to enhance retention of knowledge. In addition they note that the concept of 'protective behaviours' is usually understood to relate to sexual abuse and that the terminology of interpersonal safety may better reflect the broader aim of the prgramme for example in addressing bullying.
Study limitations (reviewer)	Method of randomisation not reported.
Source of funding	Supported by a grant from the Griffith University Industry Collaborative Scheme (# 41077 03/12/2922).

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Study arms

Child protection education programme (N = 131)

Inclusion criteria	Not reported. Passive parental consent was required for children to participate in the programme -i.e. parents had to return a form if they did not want their child to receive the programme. However active parental consent was needed for them to be involved in the evaluation of the programme. The children also needed to provide active consent to participate in the evaluation of the programme, which they provided by circling either a smiley or sad face. They were able to participate in the programme even if they did not consent to take part in the research evaluation. Likewise parents could consent for children to participate in the research even if they did not wish to participate themselves.
Exclusion criteria	Not reported in detail. Some of the schools that were initially approached were excluded as classes consisted of mixed year groups.
Unit of analysis	Individual (CHECK with Hugh)
Statistical method(s) used to analyse the data	Cronbach's $\propto$ was used to test internal consistency for each of the impact outcome measures. ICCs were determined for school and class through multi-level modelling in SPSS. Wald Z ranged from 0.68 to 1.86, with all p > .065. Therefore, nesting of students within school and class in the analyses was not accounted for.

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	Intervention and control groups were compared at baseline using t-tests. No statistically significant differences were found for child age or for any of the major outcome variables. Mixed methods ANOVA analyses were used to determine children's knowledge of protective behaviours compared to controls post intervention and parents observations of children's protective behaviours post intervention compared to parents observations of the same in control group children. One way repeated ANOVA analyses were used to test the impact of time on these outcomes. Missing data for children's knowledge scores at 6 months follow up were replaced with the most recent data available.
Attrition	95% of children in the intervention group (n=124) and 97% children in the control group (n=111) completed the post intervention questionnaire. 41% parents (n=54) in the intervention group and 27% parents (n= 31) in the control group completed the post intervention tool. At 6 months follow up, 89% children (n=117) and 27% (n=36 parents) in the intervention group completed questionnaires/ tools. Children who dropped out were accounted for by absence or having left the school.

Study limitations (author)	Control children 's ability to choose safe options may have improved due to maturation or due to Hawthorne effects, through the assessment process encouraging them to consider these issues or through knowledge acquired through children in the intervention group. Authors note future studies should randomise by school rather than class to avoid this. Parents completion of the behavioural observations for the control children may have also raised awareness of the issues covered.
	Authors note that knowledge in the intervention group continued to improve post intervention but as data could not be collected for the control children at 6 months follow up, it is unclear if this was due to normal maturation, the effect of the programme, or if the parents or teachers had continued to discuss the issues and consolidated the children's learning as a result.
	Authors note that future research could incorporate parents and teachers to determine if this enhances success and suggest training teachers of older children in recognition that repetition may be needed to consolidate learning and promote the long term retention of knowledge. They further suggest booster sessions at 6 months and one year to enhance retention of knowledge.
	In addition they note that the concept of 'protective behaviours' is usually understood to relate to sexual abuse and that the terminology of 'interpersonal safety' may better reflect the broader aim of the prgramme, for example in addressing bullying.

Learn to BE SAFE with Emmy - School based child protection education programme

Waitlist control (N = 114)

Classes placed on a waiting list to receive the programme later in the year

Characteristics

Study-level characteristics

Characteristic	Study (N =)
Age Mean (SD)	6.14 (0.36)
Indigenous Australian Approximate percentage of sample Nominal	5
Language background other than English Approximate percentage of sample Nominal	19

Arm-level characteristics

Characteristic	Child protection education programme (N = 131)	Waitlist control (N = 114)
Male Percentage calculated by reviewer Sample size	n = 66 ; % = 50.4	n = 51 ; % = 44.7
Female Percentage calculated by reviewer Sample size	n = 65 ; % = 49.6	n = 63 ; % = 55.3

Outcomes

Study timepoints
- Baseline
- 0 week (Post intervention)

Outcomes

Outcome	Child protection education programme, Baseline, N = 131	Child protection education programme, 0 week, N = 131	Waitlist control , Baseline, N = 114	Waitlist control , 0 week, N = 114
Social and emotional skills Using Protective Behaviours Questionnaire ProBeQ (12 items. Reported ICC Test–retest reliability .772, p < .0001). Mean (SD)	11.19 (2.27)	13.12 (2.29)	10.68 (2.43)	11.32 (1.95)

Social and emotional skills - Polarity - Higher values are better

Behavioural outcomes

Outcome	Child protection education programme, Baseline, N = 71	Child protection education programme, 0 week, N = 71	Waitlist control , Baseline, N = 46	Waitlist control , 0 week, N = 46
Behavioural outcomes Using Parent protective behaviours checklist (PPBC) Parental rating of 10 statements reflecting observed protective behaviours. (Test–retest reliability reported ICC = .683, p = .004). Mean (SD)	29.26 (4.86)	32.21 (4.86)	29.67 (5.45)	28.72 (5.68)

Behavioural outcomes - Polarity - Higher values are better

Unintended consequences

Outcome	Child protection education programme, Baseline, N = 131	Child protection education programme, 0 week, N = 131	Waitlist control , Baseline, N = 114	Waitlist control , 0 week, N = 114
Anxiety as a result of the programme Revised Children's Manifest Anxiety Scale 2nd edition	3.96 (2.36)	3.71 (2.36)	NA (NA)	NA (NA)

Outcome	Child protection education programme, Baseline, N = 131	Child protection education programme, 0 week, N = 131	Waitlist control , Baseline, N = 114	Waitlist control , 0 week, N = 114
(RCMAS- 2 short form). Self report 10 item measure with yes/no answers. Cronbach's alpha for the sample = .68. Mean (SD)				

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Outcomes-Socialandemotionalskills-MeanSD-Child protection education programme-Waitlist control -t0

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Method of randomisation not reported. Baseline characteristics not reported by condition)*
Overall bias and Directness	Overall Directness	Partially applicable *(Study conducted in Australia)*

Behaviouraloutcomes-Behaviouraloutcomes-MeanSD-Child protection education programme-Waitlist control -t0

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Method of randomisation not reported. Baseline characteristics not reported by condition. Difference in completion rate of PPBC by parents of children in the intervention and control groups)*
Overall bias and Directness	Overall Directness	Partially applicable *(Study conducted in Australia)*

Unintendedconsequences-Anxietyasaresultoftheprogramme-MeanSD-Child protection education programme-Waitlist control -t0

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Method of randomisation not reported. Baseline characteristics not reported by condition)*
Overall bias and Directness	Overall Directness	Partially applicable *(Study conducted in Australia)*

Study arms

Child protection education programme (N = 131)

Brief name	Learn to BE SAFE with Emmy. Child protection education programme
Rationale/theory/Goal	The aim of the programme was to enable children to: - identify and articulate their feelings - identify early warning signs of fear - to know the difference between safe and unsafe secrets, - to identify public and private body parts - to develop an awareness of personal space - to identify multiple safe adults The programme focused on building resilience, coping skills and strategies which are useful in a range of situations (e.g., home/school, friends/family, children/adults) and into later life. The content of the workshops was based on multiple theoretical perspectives, including those from cognitive-behavioral (modeling), behavioural (skills practice) and social-learning theories (role-play, discussion).

	(Page 372)
	The programme is intended to be applicable to multiple forms of abuse (physical, emotional, sexual, victimisation, bullying)
	(Page 369)
Materials used	None reported
Procedures used	Five developmentally appropriate workshops were delivered to classes of children by trained facilitators who were external to the school.
	These focused on: 6 areas, enabling children to:
	- identify and articulate their feelings
	- identify early warning signs of fear
	- to know the difference between safe and unsafe secrets
	- to identify public and private body parts
	- to develop an awareness of personal space
	- to identify multiple safe adults
	(Page 372)
	Childrens' knowledge of these topics was assessed using the Protective behaviours questionnaire at baseline, on completion of the intervention and for the intervention group at 6 months follow up.

	Parents' observation of children engaging in the 6 concepts taught through the programme was assessed using the Parents' protective behaviour checklist at baseline, on completion of the intervention and for the intervention group at 6 months follow up. Children in the intervention group also completed the self report Revised Children's Manifest Anxiety Checklist - 2nd edition (RCMAS-2 short form) to determine if participation in the programme had had the unintended consequence of raising anxiety about the issues discussed. (Page 372)
Provider	Six trained 'Act for Kids' staff (external to the schools) delivered the programme in all schools . One was a paid primary facilitator and five were volunteer co-facilitators. All were trained by previous programme staff. (p372)
Method of delivery	Developmentally appropriate workshops (Page 369)
Setting/location of intervention	15 classes in 5 Australian primary schools (Page 370)
Intensity/duration of the intervention	5 x 2 hour workshops The time period over which these were delivered is not reported. (Page 369)

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Tailoring/adaptation	None reported
Unforeseen modifications	None reported
Planned treatment fidelity	A programme logic model was used to ensure fidelity of the programme. (Page 369) All facilitators completed a competency checklist prior to facilitating the programme to ensure they had received adequate training. Primary facilitators completed a fidelity checklist at the end of each session and classroom attendance was taken at the beginning of each session. A research assistant randomly audited 20% of sessions in each classroom to ensure standardised delivery across classrooms and schools. (Page 372)
Actual treatment fidelity	Session checklists indicated that over 94% of the content was covered across all sessions, with 100% of content from sessions 2, 3, and 4 being covered. An independent researcher audited 20% of sessions and found that around 93% of content was delivered during the appropriate session (range = 91%–98%),. This indicated that the programme was delivered in a standardised way across classes and schools.

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	Factors noted by facilitators that potentially impacted successful delivery included for example, child behaviour problems, and conflicting demands.
	(Page 375)
Other details	Each child who completed a consent form received a storybook (regardless of whether they gave consent to participate in the evaluation of the programme).
	(Page 371)

Waitlist control (N = 114)

Brief name	Waitlist control
Rationale/theory/Goal	Not applicable
Materials used	Not applicable
Procedures used	
	Children from both intervention and control groups were assessed for their knowledge of the 6 topics covered by the intervention programme using the Protective behaviours questionnaire at baseline and when the intervention group had completed the intervention.
	Parents' observation of children engaging in the 6 concepts taught through the programme was assessed using the Parents' protective behaviour checklist at baseline and when the intervention group had completed the intervention.
	(Page 372)
	All children in the control arm received the intervention later in the year

	(Page 371)
Provider	Not applicable
Method of delivery	Not applicable
Setting/location of intervention	Classes in 5 Australian primary schools
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	Not applicable

D.1.20   Daunic, 2012

Bibliographic Reference	Daunic, AP; Smith, SW; Garvan, CW; Barber, BR; Becker, MK; Peters, CD; Taylor, GG; Van Loan, CL; Li, W; Naranjo, AH; Reducing developmental risk for emotional/behavioral problems: a randomized controlled trial examining the Tools for Getting Along curriculum; Journal of school psychology; 2012; vol. 50 (no. 2); 149-166
Secondary publication(s)	Smith, Stephen W, Daunic, Ann P, Barber, Brian R et al. (2014) Preventing risk for significant behavior problems through a cognitive-behavioral intervention: effects of the tools for getting along curriculum at one-year follow-up. The journal of primary prevention 35(5): 371-87

Study details

Study design	Cluster randomised controlled trial

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Study type	Efficacy
Trial registration number	Not reported
Aim	Tools for Getting Along (TFGA), is a social problem-solving universally delivered curriculum intended to reduce the the risk of developing serious emotional or behavioral problems among upper elementary grade students. This study tests students knowledge and ability to problem solve following the intervention. Data from 1 year follow up reported here is taken from Smith 2014.
Type of school	Primary education
Setting	14 elementary schools from North Central Florida USA
UK Key stage	Key stage 2
Inclusion criteria	- 75% of teachers of 4th and 5th Grade classes in each of the 14 schools had to agree to participate - Active consent of parents/ guardians was required
Exclusion criteria	Students for whom baseline demographic data, achievement data or a combination of the 2 were missing.
Method of randomisation	Schools were matched on the percentage of students receiving free/ reduced price school meals and were randomly assigned to intervention or control groups by a statistician using a software package for random number generation (MAPLE version 13).
Method of allocation concealment	Schools were informed of their allocation by the project director after all schools in a given year were assigned.
Unit of allocation	School

Unit of analysis	Individual
Statistical method(s) used to analyse the data	To assess the effects of TFGA, the MIXED procedure in SAS (version 9.2) was used to fit a hierarchal
	linear model (HLM) for each outcome measure. Although a three-level model that included classrooms nested
	within school and students nested within classrooms was initially considered, no significant
	variation due to school for any of the outcome measures was found. Each model therefore was made up of two levels: students at Level 1 and classrooms at Level 2. (with all classrooms within each school in the same condition.)
	Dependent variables were posttest scores on measured subscales; covariates included classroom and condition at Level 2 and pre-intervention subscale score, free or reduced price meals, gender, race, and
	FCAT scores at Level 1. Including these covariates adjusts for possible non-equivalence between groups.
	Intraclass correlation coefficients (ICCs) were computed to estimate the proportion of variance in outcomes due to classroom cluster effects.
	Scores for study subscales and individual items were reversed where a low score indicated more risk, so
	that all measures could be interpreted uniformly.
	Demographic and achievement data were obtained from school districts, and merged with study measure data, and the quantity of missing data across data sources was determined.
Attrition	Attrition was 9.08% in the treatment condition and 6.21% in the control condition, resulting in a differential of 2.87%, which was not significant, $\chi^2=3.676$, $p=.06$.

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Study limitations (author)	- Although schools were randomly assigned, the rate of participant consent together with the differential between treatment and control consent rates introduces the potential for sampling bias. As pretest data was not collected from non-consenting students, bias is unknown. While there was no reason to believe that study participants differed significantly from non-participants, higher consent to participate would have lessened this possibility. Once were enrolled in the study, however, overall attrition and the differential between groups was well within the guidelines for evidence-based research. - The problem solving knowledge measure was a student self-report measure. The .67 posttest reliability of this measure was below what is typically considered minimally acceptable for research.
Study limitations (reviewer)	None to add
Source of funding	Supported by a four-year grant from the US Department of Education, Institute of Education Sciences (# R324B06029) submitted to CFDA 84.324, National Center for Special Education Research.

Study arms

Tools For Getting Along (N = 681)

Tools For Getting Along - Social problem solving universal curriculum

No intervention (N = 566)

'Business as usual'

Characteristics

Study-level characteristics

Characteristic	Study (N =)
Males % Nominal	49.4
Females % Nominal	50.6
White % Nominal	53.9
African-American % Nominal	34.8
Hispanic % Nominal	7.4
Other % Nominal	3.8

Arm-level characteristics

Characteristic	Tools For Getting Along (N = 681)	No intervention (N = 566)
Free or reduced lunch eligible % Nominal	70.3	86.7

Outcomes

Study timepoints
- Baseline

- 1 year (Follow- up reported in Smith 2014)

Social and emotional skills and attitudes

Outcome	Tools For Getting Along , Baseline, N = 681	Tools For Getting Along , 1 year, N = 681	No intervention , Baseline, N = 566	No intervention , 1 year, N = 566
Problem solving knowledge questionnaire ICC = 0.2156 Sample size	n = 681 ; % = 100	n = 626 ; % = 91.9	n = 566 ; % = 100	n = 512 ; % = 90.5
Problem solving knowledge questionnaire ICC = 0.2156 Mean (SD)	12.46 (3.26)	21.7 (5.23)	12.16 (3.07)	13.02 (3.26)

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Socialandemotionalskillsandattitudes-Problemsolvingknowledgequestionnaire-MeanSD-Tools For Getting Along -No intervention -t1

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Self reported outcomes by students for which authors noted postest reliability was below what was usually acceptable)*
Overall bias and Directness	Overall Directness	Partially applicable *(USA based study)*

Study arms

Tools for Getting Along (N = 681)

Brief name	Tools for getting along - Social problem solving curriculum (TFGA)

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Rationale/theory/Goal	The aim of TFGA is to prevent or ameliorate emotional and behavioral problems by teaching students to use social problem solving in emotionally-charged situations .
	The curriculum is based on Crick and Dodge's (1994) model of social information processing which accounts for the role that social cognition plays in the development of aggression. The model consists of 6 steps: - encoding of external and internal cues - - cue interpretation and mental representation - clarification or selection of a goal - response access or construction - response decision - behavioural enactment. TGFA is a structured programme with a focus on learning, rehearsing, reviewing, and practicing the steps in a problem-solving sequence. TFGA is delivered at a universal level so that students who are beginning to exhibit emotional or behavioral risk can benefit from participating in discussions and activities with typically developing peers. (Page 151)
Materials used	Curriculum manual and checklists (Page 155)

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Procedures used	The intervention consists of 27 lessons in total. Of these, 21 are initial core lessons, 5 of which focus particularly on role play giving opportunities to put learning into practice. Lessons focus on a step-by-step problem solving strategy to use in emotionally charged social situations. The steps focus on: - recognising a social problem situation, calming down and engaging cognition - defining the problem, in terms of goals and barriers - brainstorming possible solutions - selecting, acting upon and evaluating a response Instructional strategies include cognitive modelling, role-plays, small group activities, and the specific application of strategies to real life social scenarios. Following the core lessons, 6 booster lessons provide review, practice, and opportunities to generalise skills students have learned through student constructed role-plays and real-life problem solving. (Page 154 and 151)
Provider	Teachers who received 10 hours training in cognitive behavioural intervention strategies and TFGA implementation over two days. Teachers were trained 2 weeks before taking baseline assessments and began delivering sessions as soon as baseline data was collected. Follow up meetings with researchers were conducted at the mid point of the year to re-orientate teachers with the goals of the programme and to address queries about implementation.

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	(Page 155-156)
Method of delivery	Group based to whole classes
Setting/location of intervention	Elementary schools classrooms (Page 152)
Intensity/duration of the intervention	27 sessions in total 21 initial core sessions were delivered as 1-2 sessions per week The remaining 6 sessions were booster sessions. the timing of these of the sessions is not clear (Page 156) Duration of lessons averaged 30 mins (Page 161).
Tailoring/adaptation	None reported
Unforeseen modifications	None reported
Planned treatment fidelity	- 9 observers rated 38 teachers, and the number of lessons rated for each teacher ranged from 1 to 16. - Overall treatment fidelity was determined by averaging observer scores across teachers. (If multiple

	observers rated the same teacher on a particular occasion, only the primary observer rating was included for computation.) -To estimate agreement on treatment fidelity observations, the average percent agreement between observers on lesson components checked by pairs of observers who rated the same teacher on the same occasion was computed (Page 157)
Actual treatment fidelity	- Most observed teachers followed the curriculum as it was intended (mean observer-rated treatment fidelity across teachers was 86.1% (SD=9.5%, range 56.6–97.8%)) - Observers use of checklists was reliable (The mean percent agreement within pairs of observers was 94.1% (SD=10.0%, range 71.4–100% with a single outlier of 57.1%) - 31 of 44 teachers who returned TFGA Curriculum Checks indicated that "most" or "all" lesson content, was covered and most indicated they included all associated components such as group activities and worksheets. (Pages 159-160)
Other details	None to add

Tools for Getting Along - Social problem solving curriculum

No intervention (N = 566)

Brief name	Waiting list
Rationale/theory/Goal	
	Not applicable

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Materials used	Not applicable
Procedures used	Schools assigned to the control condition were informed after randomisation that they would be offered the intervention, training, and materials following their participation in the study (Page 153)
Provider	Not applicable
Method of delivery	Not applicable
Setting/location of intervention	Not applicable
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	None to add

'Business as usual'

D.1.21   Diperna, 2016

Bibliographic Reference	Diperna, James Clyde; Lei, Puiwa; Bellinger, Jillian; Cheng, Weiyi; Effects of a Universal Positive Classroom Behavior Program on Student Learning; Psychology in the Schools; 2016; vol. 53 (no. 2); 189-203
Secondary publication(s)	DiPerna, James Clyde, Lei, Puiwa, Bellinger, Jillian et al. (2015) Efficacy of the Social Skills Improvement System Classwide Intervention Program

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(SSIS-CIP) primary version. School psychology quarterly : the official journal of the Division of School Psychology, American Psychological Association 30(1): 123-141

Study details

Trial registration number	Not reported
Aim	Test SSIS-CIP efficacy to improve students' engagement, motivation, and early academic skills in reading and mathematics; Test interactions among student variables (i.e., baseline skill levels, age, sex, race, supplementary services, and special education) and SSIS-CIP exposure on student outcomes (i.e., academic motivation and engagement, on-task behavior, reading, and math).
Country/geographical location	United States
Type of school	Primary education
Setting	Second-grade classrooms
UK Key Stage	Key stage 1 Key stage 2
Inclusion criteria	Not reported
Exclusion criteria	Not reported
Method of randomisation	Not specified
Method of allocation concealment	Not reported
Unit of allocation	Classroom/student
Unit of analysis	Student
Statistical method(s) used to analyse the data	Multilevel modeling; Estimates of effect (SSIS-CIP vs Control) by standardized mean difference
Attrition	SSIS-CIP - 19/20 classrooms (5% attrition post-allocation to analysis); 210/268 (21% attrition post-allocation to analysis)

	Control - 19/19 classrooms (0% attrition post allocation to analysis); 192/226 (15% attrition post-allocation to analysis) Total - 38/40 classrooms (5% attrition post allocation to analysis); 402/494 (19% attrition post allocation to analysis)
Study limitations (author)	Not specified
Study limitations (reviewer)	Lack of sample size/power calculation; Lack of details regarding randomisation; absence of blinding and allocation concealment protocol; outcomes based on teacher judgement self-report; length of follow-up to detect change; controlling for the effect of supplemental academic services across arms (no differences at baseline but sub-group analysis indicated greater mathematical achievement in those receiving the supplement); Significant difference in age and ethnicity of sample between arms
Source of funding	Supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R305A090438 to The Pennsylvania State University

Study arms

SSIS-CIP (N = 210)

Usual practice (N = 192)

19 classrooms/226 students allocated, 19 classrooms/192 students analysed - No further details outlined

Characteristics

Arm-level characteristics

Characteristic	SSIS-CIP (N = 210)	Usual practice (N = 192)
Age Mean (SD)	7.42 (0.4)	7.29 (0.36)
Gender (male) Nominal	45.24	44.79

Characteristic	SSIS-CIP (N = 210)	Usual practice (N = 192)
Ethnicity (% White) Nominal	68.57	81.77
Supplementary services (% receiving supplementary services) Additional help to pupils Nominal	18.57	27.08

Outcomes

Study timepoints
- Baseline
- 4 month

Academic Competence Evaluation Scales (ACES)

Outcome	SSIS-CIP, Baseline, N = 210	SSIS-CIP, 4 month, N = 210	Usual practice, Baseline, N = 192	Usual practice, 4 month, N = 192
Academic Motivation Teacher rated Mean (SD)	3.58 (1.01)	3.82 (0.92)	3.4 (1.05)	3.39 (1.09)
Academic Engagement Teacher rated Mean (SD)	3.93 (0.89)	4.22 (0.8)	3.63 (0.93)	3.66 (0.99)

Academic Motivation - Polarity - Higher values are better

Academic Engagement - Polarity - Higher values are better

11 items that measure a student's approach, persistence, and level of interest regarding academic learning

Cooperative Learning Observation Code for Kids (CLOCK)

Outcome	SSIS-CIP, Baseline, N = 102	SSIS-CIP, 4 month, N = 102	Usual practice, Baseline, N = 96	Usual practice, 4 month, N = 96
Active Engaged Time Direct Observation Mean (SD)	2.42 (0.77)	2.35 (0.83)	2.25 (0.82)	2.18 (0.91)
Passive Engaged Time Direct Observation Mean (SD)	2.09 (0.76)	2.13 (0.82)	2.07 (0.78)	2.16 (0.83)

Active Engaged Time - Polarity - Higher values are better

Passive Engaged Time - Polarity - Higher values are better

Observations of students' on-task behavior in the classroom setting; two categories: Active Engaged Time reflects when a child is actively attending to an assigned task (e.g., raising hand, asking teacher a relevant question, using a finger to guide reading). Passive Engaged Time refers to times when a child is passively attending to an assigned task (e.g., listening to a teacher talk, looking at the whiteboard, looking at a worksheet).

Academic Skills via STAR Reading and Math

Outcome	SSIS-CIP, Baseline, N = 210	SSIS-CIP, 4 month, N = 210	Usual practice, Baseline, N = 192	Usual practice, 4 month, N = 192
Math Scaled Score Study unclear regarding participant numbers - as a primary outcomes assumed n=210/192 respectively Mean (SD)	457.55 (95.89)	489.5 (105.88)	439.5 (87.72)	475.7 (96.3)
Reading Scaled Score Study unclear regarding participant numbers - as a primary outcomes assumed n=210/192 respectively Mean (SD)	257.8 (135.03)	301.14 (144.94)	223.04 (135.03)	276.59 (124.85)

Math Scaled Score - Polarity - Higher values are better

Reading Scaled Score - Polarity - Higher values are better

STAR Reading and Math computerized adaptive tests used to assess changes in students' reading and math skills. Through vocabulary-in-context test items, STAR Reading requires students to rely on background information, apply vocabulary knowledge, and use active strategies to construct meaning from the assessment text. STAR Math is composed of a series of multiple-choice mathematical problems that assess proficiency with numeration and computation objectives.

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

AcademicCompetenceEvaluationScales(ACES)-AcademicMotivation-MeanSD-Social Skills Improvement System Classwide Intervention Program (SSIS-CIP)-Control (Business as Usual)-t4

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Statistical differences of baseline factors between arms in factors that could directly influence study outcomes is a concern regarding the interpretation of the findings)*
Overall bias and Directness	Overall Directness	Directly applicable

AcademicCompetenceEvaluationScales(ACES)-AcademicEngagement-MeanSD-Social Skills Improvement System Classwide Intervention Program (SSIS-CIP)-Control (Business as Usual)-t4

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Statistical differences of baseline factors between arms in factors that could directly influence study outcomes is a concern regarding the interpretation of the findings)*
Overall bias and Directness	Overall Directness	Directly applicable

CooperativeLearningObservationCodeforKids(CLOCK)-ActiveEngagedTime-MeanSD-Social Skills Improvement System Classwide Intervention Program (SSIS-CIP)-Control (Business as Usual)-t4

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Statistical differences of baseline factors between arms in factors that could directly influence study outcomes is a concern regarding the interpretation of the findings)*
Overall bias and Directness	Overall Directness	Directly applicable

CooperativeLearningObservationCodeforKids(CLOCK)-PassiveEngagedTime-MeanSD-Social Skills Improvement System Classwide Intervention Program (SSIS-CIP)-Control (Business as Usual)-t4

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Statistical differences of baseline factors between arms in factors that could directly influence study outcomes is a concern regarding the interpretation of the findings)*
Overall bias and Directness	Overall Directness	Directly applicable

AcademicSkillsviaSTARReadingandMath-MathScaledScore-MeanSD-Social Skills Improvement System Classwide Intervention Program (SSIS-CIP)-Control (Business as Usual)-t4

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Statistical differences of baseline factors between arms in factors that could directly influence study outcomes is a concern regarding the interpretation of the findings)*
Overall bias and Directness	Overall Directness	Directly applicable

AcademicSkillsviaSTARReadingandMath-ReadingScaledScore-MeanSD-Social Skills Improvement System Classwide Intervention Program (SSIS-CIP)-Control (Business as Usual)-t4

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Statistical differences of baseline factors between arms in factors that could directly influence study outcomes is a concern regarding the interpretation of the findings)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

SSIS-CIP (N = 268)

Brief name	Prosocial behavior intervention
Rationale/theory/Goal	Facilitate the development of prosocial behavior that positively impacts learning in the classroom; improve students' engagement, motivation, and early academic skills in reading and mathematics
Materials used	Letters for parental consent; Superintendent approval; lead author conducted a 1-day workshop with teachers from the implementation condition; SSIS-CIP curricular materials; Academic Competence Evaluation Scales; Cooperative Learning Observation Code for Kids; STAR Reading and Math computerized adaptive tests; Classroom Assessment Scoring System: Kindergarten–Third Grade; Fidelity of SSIS-CIP Implementation (Teacher and observer completed weekly standardized checklists for level of implementation); data collectors (N = 27) completed formal training (approximately 12 hours of didactic instruction, practice observations, and individualized feedback) regarding the application and use of the STAR academic assessments and CLOCK observation system
Procedures used	Parental and superintendent approval, Participant identification and randomisation; lead author conducted a 1-day workshop with teachers from the implementation condition; data collection training; data collection pre and post intervention (4 weeks) by teachers and researchers; data analyst via multilevel modelling
Provider	Teacher delivered intervention
Method of delivery	face to face
Setting/location of intervention	school classrooms

Intensity/duration of the intervention	SSIS-CIP includes instructional units focused on 10 key classroom social behaviors that have been identified by teachers as important for classroom success. Each unit focuses on a single skill and includes three scripted lessons, brief video vignettes (30-90s), and practice exercises (student booklets). Each lesson requires approximately 20 to 25 min to complete and relies on six instructional strategies (describe, model, role-play, practice, monitor progress, and generalize) to help children learn the
	target skill for that unit.
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	Two complementary methods were used to evaluate and ensure fidelity of implementation of the SSIS-CIP lessons. First, implementing teachers completed weekly standardized checklists indicating their level of implementation (using a 4-point scale, ranging from Not Implemented to Full Implementation) for the five core components of each lesson within the unit. Independent observers completed direct observations for approximately 20% of the SSIS-CIP lessons taught by each teacher. Specifically, staff observed the entire lesson and then completed a structured report form that included 20 specific instructional actions/activities. Observers recorded whether or not each was completed during the observed lesson and provided a summative judgment regarding the overall implementation of the five core lesson components using a 4-point scale, ranging from Not Implemented (1) to Full Implementation (4).
Actual treatment fidelity	Fidelity was assessed in the intervention arm as being between 97%-98% by teachers and independent observers
Other details	

Usual practice (N = 226)

Brief name	Control - usual school curriculum
Rationale/theory/Goal	Control comparison to allow assessment of the efficacy of SSIS-CIP
Materials used	Not specified
Procedures used	Not specified

Provider	Teachers
Method of delivery	Not specified
Setting/location of intervention	Classroom/School
Intensity/duration of the intervention	Not specified
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	Not specified
Actual treatment fidelity	Not specified
Other details	

D.1.22 DiPerna, 2018

Bibliographic Reference	DiPerna, James Clyde; Lei, Puiwa; Cheng, Weiyi; Hart, Susan Crandall; Bellinger, Jillian; A Cluster Randomized Trial of the Social Skills Improvement System-Classwide Intervention Program (SSIS-CIP) in First Grade; Journal of Educational Psychology; 2018; vol. 110 (no. 1); 1-16

Study details

Trial registration number	Not specified
Aim	Evaluate student outcomes associated with a classroom social skills program, the Social Skills Improvement System Classwide Intervention Program (SSISCIP);
Country/geographical location	USA
Type of school	Primary education

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Setting	Elementary school
UK Key Stage	Key stage 1
Inclusion criteria	Not specified; Informed consent and data points pre-post
Exclusion criteria	Not specified
Method of randomisation	Not specified - multisite cluster randomization outlined - classrooms randomly assigned to experimental conditions
Method of allocation concealment	Not specified
Unit of allocation	Classroom
Unit of analysis	Participant
Statistical method(s) used to analyse the data	Multilevel modelling; Hierarchical Linear Model analysis
Attrition	SSIS-CIP: 341/373 (attrition: 9% from randomization to post-test analysis) Control: 355/393 (attrition: 10% from randomization to post-test analysis)
Study limitations (author)	Generalizability (schools from two districts); Lack of assessor blinding for some outcomes; Possible issues with outcome measure precision (broad rather than specific due to resource implications); Time of follow-up (4 weeks) may not have been adequate to capture the impact of a universal intervention
Study limitations (reviewer)	Allocation concealment and blinding not outlined; randomization methods not specified; self-report measures; sampling and power calculations not outlined; Identified differences in baseline characteristics post randomization (control had higher pre-test scores for social skills measures)
Source of funding	Not specified

Study arms

SSIS-CIP (N = 373)

29 classrooms; social skills improvement system class wide intervention program: 10 instructional units focused on key classroom social skills (receptive skills, selective

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input; productive skills; interactive skills); Each unit: 3 scripted lessons, brief video vignettes; practice exercise via student booklets; Each lesson: 20-25 mins and relies on 6 instructional strategies; Instructors undertook 1-day workshop

Control (N = 393)

30 classrooms; continuation of daily approach to managing and promoting positive classroom behaviour.

Characteristics

Arm-level characteristics

Characteristic	SSIS-CIP (N = 373)	Control (N = 393)
Age Mean (SD)	6.29 (0.42)	6.3 (0.43)
Gender % Male Nominal	51.61	54.93
Ethnicity % White Nominal	72.43	67.89

Outcomes

Study timepoints
- Baseline
- 12 week (Post-test)

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Social and emotional skills - SSIS-RST

Outcome	SSIS-CIP, Baseline, N = 341	SSIS-CIP, 12 week, N = 341	Control, Baseline, N = 355	Control, 12 week, N = 355
Social skills composite - SISS-RST Mean (SD)	1.92 (0.51)	2.18 (0.5)	2.2 (0.51)	2.31 (0.49)

Social skills composite - SISS-RST - Polarity - Higher values are better

Social Skills Improvement Rating Scales - Teacher form (SSIS-RST): 46 ITEM, SEVEN SUBSCALES; TEACHER REPORTED perspectives of student social skills and problem behaviours

Behavioral outcomes - problem behaviours - externalizing

Outcome	SSIS-CIP, Baseline, N = 341	SSIS-CIP, 12 week, N = 341	Control, Baseline, N = 355	Control, 12 week, N = 355
Externalizing Teacher observational data Mean (SD)	0.61 (0.57)	0.57 (0.57)	0.5 (0.53)	0.47 (0.54)

Externalizing - Polarity - Lower values are better

Social skills and problems behavior (SSIS-RST) - Teachers perspectives; The Problem Behaviors Scale includes 24 items across five subscales (Externalizing, Bullying, Hyperactivity, Inattentive, Internalizing, Autistic Behavior [not analyzed])

Academic outcomes - STAR Math and reading

Outcome	SSIS-CIP, Baseline, N = 341	SSIS-CIP, 12 week, N = 341	Control, Baseline, N = 355	Control, 12 week, N = 355
STAR Math Mean (SD)	257 (153.04)	356.05 (128.45)	250.96 (151.8)	351.32 (132.88)
STAR reading Mean (SD)	88.35 (90.76)	81.41 (76.59)	152.1 (106.55)	140.1 (96.94)

STAR Math - Polarity - Higher values are better

STAR reading - Polarity - Higher values are better

Computerized adaptive tests

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Socialandemotionalskills-SSIS-RST-Socialskillscomposite-SISS-RST-MeanSD-SSIS-CIP-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Blinding and allocation concealment not outlined; methods of randomisation not specified; self-report measures)*
Overall bias and Directness	Overall Directness	Directly applicable

Behavioraloutcomes-CLOCK-Interference-MeanSD-SSIS-CIP-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Blinding and allocation concealment not outlined; methods of randomisation not specified; self-report measures)*
Overall bias and Directness	Overall Directness	Directly applicable

Academicoutcomes-STARMathandreading-STARMath-MeanSD-SSIS-CIP-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Blinding and allocation concealment not outlined; methods of randomisation not specified; self-report measures)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

SSIS-CIP (N = 373)

Brief name	Skills Improvement System-Classwide Intervention Program (SSIS-CIP) [page 1]
Rationale/theory/Goal	Aim to support children's social, emotional and educational outcomes using instruction strategies grounded in theories of student learning (operant, social learning) [page 2]
Materials used	• Instructor's handbook • lesson plans • student booklets [page 6]
Procedures used	Teachers completed a 1 day workshop. This covered an overview of the lesson plans, students booklets and video vignettes as well as practice lessons. [page 6]
Provider	Teacher [page 6]
Method of delivery	Classroom lessons [page 6]
Setting/location of intervention	School [page 6]
Intensity/duration of the intervention	10 sessions of between 20 to 25 minutes . [page 6]
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Observations of 20% of lessons covering different aspects of core lesson components (introduce, define, discuss, identify steps and practice) and score from 1 to 4 with 4 being full implementation [page 7]
Actual treatment fidelity	Rating by teachers mean = 3.92 (SD 0.16) and independent observers mean = 3.97 (SD 0.08) [page 7]

Control (N = 393)

Brief name	Daily activities [page 7]
Rationale/theory/Goal	Not applicable

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Materials used	Not applicable
Procedures used	Not applicable
Provider	Not applicable
Method of delivery	Not applicable
Setting/location of intervention	Not applicable
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	

D.1.23   Dowling, 2019

Bibliographic Reference	Dowling, K; Simpkin, AJ; Barry, MM; A Cluster Randomized-Controlled Trial of the MindOut Social and Emotional Learning Program for Disadvantaged Post-Primary School Students; Journal of youth and adolescence; 2019

Study details

Trial registration number	Not reported
Aim	To assess the immediate and longer-term impact of the revised MindOut program on the participants' social and emotional skills development, overall mental health and wellbeing and academic performance; and to examine the process of implementation in

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	order to determine the conditions needed to achieve successful outcomes in the school setting.
Country/geographical location	Ireland
Type of school	Secondary education
Setting	School
UK Key Stage	Key stage 4 Post-16
Inclusion criteria	Schools/students needed to hold the designated disadvantage status (DEIS) by the Department of Education & Skills (70% of the students are classified as educationally disadvantaged by the Department of Education and Skills); providing education at a post-primary level; Englishspeaking (i.e., not Irish only speaking schools "Gael Scoileanna").
Exclusion criteria	Not specified
Method of randomisation	An independent statistician used a computerized random number generator to randomly select 34 schools from the list of 185 eligible schools. DEIS schools were recruited in order of their appearance on the randomized list. Principals of selected schools were contacted by the researchers regarding participation in this study and schools who declined to participate were replaced by contacting the subsequent school on the list. Once all 34 school principals had given consent, the independent statistician randomized the schools into either the i) control (N = 17) or ii) intervention (N = 17) arm.
Method of allocation concealment	Not specified
Unit of allocation	School
Unit of analysis	Student
Statistical method(s) used to analyse the data	Intervention effects were analyzed using a linear mixed model (LMM) framework due to the clustered nature of the data
Attrition	MindOut: Schools pre-intervention to post intervention 15/17 (12% attrition); Participants n=251/345 (27% attrition); Control: Schools pre-intervention to post intervention 17/17 (0% attrition); Participants n=246/330 (25% attrition)

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Study limitations (author)	Data were collected through self-report measures (participant response bias); Evaluation study was led by the intervention developers, which can potentially lead to inflated treatment effects due to bias, higher quality implementation or both of these factors; Short follow-up: outcomes were attained immediately after the intervention had ended - intervention effects diminish over time.
Study limitations (reviewer)	Lack of blinding and allocation concealment; >20% attrition pre to post intervention; No analysis of baseline difference post randomisation with a >10% difference across arms for Year 5 representation (29.9% vs 19%) and Transition year (19% vs 32.1%); other which could impact study findings; Some outcome measures fell under the required threshold for for good internal reliability (Emotional Regulation Questionnaire - expressive suppression subscale;
Source of funding	This work was supported by the Irish Research Council (IRC) Government of Ireland Postgraduate Scholarship and the Health Service Executive (HSE) Health Promotion and Improvement in Ireland.

Study arms

revised MindOut program (N = 345)

MindOut: 13 weekly sessions, which are intended to be delivered by teachers within the Social Personal Health Education (SPHE) curriculum for 15-18 year old students; The program is comprised of a teacher manual, with structured activities and resource materials which promote the development of these social and emotional competencies. The program employs interactive teaching strategies to engage students in a number of skill-building activities. Additionally, the program provides staff with a menu of strategies for promoting social and emotional development at a wider school level (Schools recruited 17 (participants n=?); Schools pre-intervention n=15 (participants n=345); Schools post intervention 15 (participants n=251)

Control (N = 330)

Teachers of control schools were advised to implement the Social Personal Health Education curriculum as they normally would, which includes a component on emotional wellbeing.(Schools recruited 17 (participants n=?); Schools pre-intervention n=17 (participants n=330); Schools post intervention 17 (participants n=246)

Characteristics

Arm-level characteristics

Characteristic	revised MindOut program (N = 345)	Control (N = 330)
15 years % Nominal	12.2	17.4
16 years % Nominal	26.5	29.5
17 years % Nominal	8.9	4.1
18 years % Nominal	1.3	0.1
Gender % Male Nominal	26.2	23.8
Urban mixed % Nominal	29.3	21.3
Rural mixed % Nominal	14.1	19.3
Urban boys % Nominal	1.6	3.4
Urban girls % Nominal	3.9	7.1
Transitional year % Nominal	19	32.1

Characteristic	revised MindOut program (N = 345)	Control (N = 330)
5th Year % Nominal	29.9	19

Outcomes

Study timepoints
- Baseline
- 13 week (Collected immediately following program implementation)

Rosenberg Self-esteem Scale

Outcome	revised MindOut program, Baseline, N = 246	revised MindOut program, 13 week, N = 246	Control, Baseline, N = 251	Control, 13 week, N = 251
Social and emotional skills Using Rosenberg Self-esteem Scale Mean (SD)	28.8 (5.4)	29 (5.2)	27.4 (5.3)	27.5 (5.45)

Social and emotional skills - Polarity - Higher values are better

10-item scale that was originally designed for use with high-school students. Items are answered on a four-point Likert scale.

Emotional Regulation Questionnaire

Outcome	revised MindOut program, Baseline, N = 246	revised MindOut program, 13 week, N = 246	Control, Baseline, N = 251	Control, 13 week, N = 251
Subscale: reappraisal The higher the score, the greater the use of that particular emotion regulation strategy, conversely lower scores represent less frequent use	26.5 (6.8)	26.5 (6.6)	26.3 (8.1)	25.9 (7.4)

Outcome		revised MindOut program, Baseline, N = 246	revised MindOut program, 13 week, N = 246	Control, Baseline, N = 251	Control, 13 week, N = 251
Mean (SD)					

Subscale: reappraisal - Polarity - Higher values are better

10-item scale which was used to assess respondents' (i) cognitive reappraisal and (ii) expressive suppression

Emotional Intelligence - Trait Meta-Mood Scale (TMMS)

Outcome	revised MindOut program, Baseline, N = 244	revised MindOut program, 13 week, N = 244	Control, Baseline, N = 249	Control, 13 week, N = 249
Total emotional intelligence Mean (SD)	69.9 (10)	82.1 (11.5)	68.3 (10.3)	79.3 (11.9)

Total emotional intelligence - Polarity - Higher values are better

48-item scale used to measure people's ability to manage and regulate their moods and emotions - The scale has three subscales: attention to feelings, emotional clarity and emotional repair and items are scored on a five point Likert scale

Coping Strategy Indicator (CSI-15)

Outcome	revised MindOut program, Baseline, N = 245	revised MindOut program, 13 week, N = 245	Control, Baseline, N = 250	Control, 13 week, N = 250
Subscale: avoidance Mean (SD)	16.5 (5.7)	16.1 (5.2)	18.2 (6.2)	18.4 (5.7)
Subscale: problem solving Mean (SD)	16.4 (5.2)	16.1 (5)	16.4 (5.3)	16 (5)
Subscale: social support Mean (SD)	12.5 (5.4)	13.3 (5.3)	13.6 (5.6)	13.1 (5.2)

Subscale: avoidance - Polarity - Higher values are better

Subscale: problem solving - Polarity - Lower values are better

Subscale: social support - Polarity - Lower values are better

A 15-item short form of the original 33 item scale which evaluates three types of coping strategies (Subscales: Problem Solving, Avoidance, Social Support).

The Self-Efficacy Questionnaire (SEQC)

Outcome	revised MindOut program, Baseline, N = 246	revised MindOut program, 13 week, N = 246	Control, Baseline, N = 250	Control, 13 week, N = 250
Social self-efficacy Mean (SD)	27.4 (6.1)	27.4 (6.3)	27.1 (6.2)	27 (6.3)

Social self-efficacy - Polarity - Higher values are better

24 item scale designed for youth aged 13–18 and is comprised of three main subscales only the social self-efficacy was utilized

Adolescent Interpersonal Competence Questionnaire (AICQ)

Outcome	revised MindOut program, Baseline, N = 246	revised MindOut program, 13 week, N = 246	Control, Baseline, N = 251	Control, 13 week, N = 251
Subscale: asserting influence Mean (SD)	23.1 (6.1)	23.6 (5.6)	23.2 (5.8)	23.3 (5.5)
Subscale: conflict resolution Mean (SD)	22.2 (5.6)	22.4 (5.3)	21.9 (5.6)	22.2 (5.5)

Subscale: asserting influence - Polarity - Higher values are better

Subscale: conflict resolution - Polarity - Higher values are better

Composed of five subscales: Only asserting influence and conflict resolution were used for the each of which contains 8-items. .

Making Decisions in Everyday Life Scale

Outcome	revised MindOut program, Baseline, N = 244	revised MindOut program, 13 week, N = 244	Control, Baseline, N = 250	Control, 13 week, N = 250
Decision making Mean (SD)	14 (3.4)	13.8 (3.3)	13.6 (3.3)	13.8 (3.4)

Decision making - Polarity - Higher values are better

20 items and assesses adolescent participants' use of skills during the decision making process. This scale was adapted to a short form, which is composed of five items

Depression Anxiety Stress Scale (DASS-21)

Outcome	revised MindOut program, Baseline, N = 245	revised MindOut program, 13 week, N = 245	Control, Baseline, N = 250	Control, 13 week, N = 250
Stress Mean (SD)	13.3 (9.3)	12.8 (8.5)	15.8 (9.6)	15.8 (9.6)
Anxiety Mean (SD)	11.5 (9.5)	10.5 (9.1)	13.8 (10.2)	13.1 (10.1)
Depression Mean (SD)	10.4 (9.7)	9.7 (9.1)	13.7 (10.8)	12.9 (10.2)

Stress - Polarity - Lower values are better

Anxiety - Polarity - Lower values are better

Depression - Polarity - Lower values are better

21-item self-report scale designed to measure levels of symptoms related to three subscales: depression, anxiety and stress. Each of the three subscales is composed of 7 scale items

Warwick Edinburgh Mental Wellbeing Scale (WEMWBS)

Outcome	revised MindOut program, Baseline, N = 244	revised MindOut program, 13 week, N = 244	Control, Baseline, N = 250	Control, 13 week, N = 250
Wellbeing	48.6 (10.7)	49.1 (10)	45.8 (12.3)	47.7 (11)

Outcome	revised MindOut program, Baseline, N = 244	revised MindOut program, 13 week, N = 244	Control, Baseline, N = 250	Control, 13 week, N = 250
Mean (SD)				

Wellbeing - Polarity - Higher values are better

14-item scale

Attitudes Towards School scale

Outcome	revised MindOut program, Baseline, N = 246	revised MindOut program, 13 week, N = 246	Control, Baseline, N = 251	Control, 13 week, N = 251
Attitudes toward schools Mean (SD)	58 (9.6)	56.6 (10.6)	55.9 (10.2)	54.4 (10.4)

Attitudes toward schools - Polarity - Higher values are better

Used to measure students' (12-17 years) attitudes toward their school environment (e.g., teachers, homework, grades and learning) and their feelings toward school. A higher score on this a 15-item scale indicates a more positive attitude toward school.

School Achievement Motivation Rating Scale (SAMRS)

Outcome	revised MindOut program, Baseline, N = 295	revised MindOut program, 13 week, N = 295	Control, Baseline, N = 243	Control, 13 week, N = 243
School achievement Mean (SD)	51.2 (10.9)	51.1 (11.8)	53.4 (10.6)	54 (11.1)

School achievement - Polarity - Higher values are better

15-item scale is designed for use by teachers to rate the achievement motivation demonstrated by their students (5–18 years) in the classroom.

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

RosenbergSelf-esteemScale-RSES-Self-esteem-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

EmotionalRegulationQuestionnaire-Subscale:reappraisal-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

EmotionalIntelligence-TraitMeta-MoodScale(TMMS)-Totalemotionalintelligence-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

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CopingStrategyIndicator(CSI-15)-Subscale:avoidance-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

CopingStrategyIndicator(CSI-15)-Subscale:problemsolving-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

CopingStrategyIndicator(CSI-15)-Subscale:socialsupport-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

TheSelf-EfficacyQuestionnaire(SEQC)-Socialself-efficacy-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between*

Section	Question	Answer
		arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)
Overall bias and Directness	Overall Directness	Directly applicable

AdolescentInterpersonalCompetenceQuestionnaire(AICQ)-Subscale:assertinginfluence-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

AdolescentInterpersonalCompetenceQuestionnaire(AICQ)-Subscale:conflictresolution-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

MakingDecisionsinEverydayLifeScale-Decisionmaking-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)*

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Section	Question	Answer
Overall bias and Directness	Overall Directness	Directly applicable

DepressionAnxietyStressScale(DASS-21)-Stress-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

DepressionAnxietyStressScale(DASS-21)-Anxiety-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

DepressionAnxietyStressScale(DASS-21)-Depression-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

WarwickEdinburghMentalWellbeingScale(WEMWBS)-Wellbeing-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

AttitudesTowardsSchoolscale-Attitudestowardschools-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

SchoolAchievementMotivationRatingScale(SAMRS)-Schoolachievement-MeanSD-revised MindOut program-Control-t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Observed differences in baseline characteristics between arms could impact study outcomes; lack of blinding and allocation concealment; Outcomes measured by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

revised MindOut program (N = 345)

Brief name	Revised MindOut program

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Rationale/theory/Goal	The school is an important setting for promoting social and emotional wellbeing. The delivery of social and emotional learning programs, help foster the development of youth's social and emotional skills such as managing emotions, coping skills, empathy. Several reviews and meta-analyses have provided strong evidence for the effectiveness of school-based social and emotional learning programs, endorsing their positive outcomes for youth, including increased social emotional skills, improved mental health, increased academic outcomes and the reduction of negative health and social behaviors such as substance misuse, bullying, aggression and risk-taking behaviors. The MindOut program is a universal school-based program designed to be delivered by teachers to promote the social and emotional wellbeing of youth aged 15–18 years in post-primary schools; whose is based on CASEL's five core competencies for social and emotional learning i.e., self awareness, self-management, social awareness, relationship management and responsible decision making (CASEL 2015). This study assess its effectiveness on the participants' social and emotional skills development, overall mental health and wellbeing and academic performance; and to examine the process of implementation in order to determine the conditions needed to achieve successful outcomes in the school setting.
Materials used	MindOut teacher manual, with structured activities and resource materials; menu of strategies for promoting social and emotional development at a wider school level (e.g., practice-at-home activities; teacher reflection; whole-school activities; whole-school tips for staff and for engaging students, parents and the community etc.); one-day comprehensive training session, delivered by a Health Promotion Officer (HPO) from the Health and Wellbeing Division of the national Health Service Executive (HSE); Rosenberg Self-esteem Scale; Emotional Regulation Questionnaire; Trait Meta-Mood Scale (TMMS); Coping Strategy Indicator (CSI-15); Self-Efficacy Questionnaire (SEQ-C); Adolescent Interpersonal Competence Questionnaire (AICQ); Making Decisions in Everyday Life Scale; The Depression Anxiety Stress Scale (DASS-21); Warwick Edinburgh Mental Wellbeing Scale (WEMWBS); The Attitudes Towards School scale; The School Achievement Motivation Rating Scale (SAMRS);
Procedures used	Informed consent from parents/students obtained; Independent statistician used a computerized random number generator to randomly select 34 schools from the list of 185 eligible schools; All teachers attended a one-day comprehensive training session prior to beginning program delivery; baseline assessments; MindOut delivered - 13 weekly sessions; follow-up data collected at week 13; Linear Mixed Modeling undertaken.
Provider	Teachers

Method of delivery	Face to face
Setting/location of intervention	School/classroom
Intensity/duration of the intervention	13 weekly sessions, which are intended to be delivered by teachers within the Social Personal Health Education (SPHE) curriculum
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not assessed
Actual treatment fidelity	Not reported
Other details	Not specified

MindOut: 13 weekly sessions, which are intended to be delivered by teachers within the Social Personal Health Education (SPHE) curriculum for 15-18 year old students; The program is comprised of a teacher manual, with structured activities and resource materials which promote the development of these social and emotional competencies. The program employs interactive teaching strategies to engage students in a number of skill-building activities. Additionally, the program provides staff with a menu of strategies for promoting social and emotional development at a wider school level (Schools recruited 17 (participants n=?); Schools pre-intervention n=15 (participants n=345); Schools post intervention 15 (participants n=251)

Control (N = 330)

Brief name	Social Personal Health Education curriculum as they normally
Rationale/theory/Goal	Control comparator to facilitate assessment of intervention efficacy
Materials used	Social Personal Health Education curriculum
Procedures used	Not reported
Provider	Teachers
Method of delivery	Not reported

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Setting/location of intervention	School/Classroom
Intensity/duration of the intervention	Teachers implemented the Social Personal Health Education curriculum as they normally would, which includes a component on emotional wellbeing
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported
Other details	Not reported

Teachers of control schools were advised to implement the Social Personal Health Education curriculum as they normally would, which includes a component on emotional wellbeing.(Schools recruited 17 (participants n=?); Schools pre-intervention n=17 (participants n=330); Schools post intervention 17 (participants n=246)

D.1.24   Fitzpatrick, 2013

Bibliographic Reference	Fitzpatrick, C; Conlon, A; Cleary, D; Power, M; King, F; Guerin, S; Enhancing the mental health promotion component of a health and personal development programme in Irish schools.; Advances in school mental health promotion; 2013; vol. 6 (no. 2); 122-138

Study details

Trial registration number	Not specified
Aim	To determine whether students participating in SPHE that had been 'enhanced' by the Working Things Out programme had better outcomes in terms of helpseeking, emotional and behavioural difficulties and their view of school social environment, than those who participated in 'standard' SPHE.

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Country/geographical location	Ireland
Type of school	Secondary education
Setting	School
UK Key Stage	Key stage 3
Inclusion criteria	Not specified
Exclusion criteria	Not specified
Method of randomisation	Not specified
Method of allocation concealment	Not specified
Unit of allocation	School
Unit of analysis	Participant
Statistical method(s) used to analyse the data	Chi-squared tests were used to explore gender differences; a series of two-way ANOVAs were used to examine the interaction of condition (SP vs EP) and level of retention (Retained vs Lost) for age and Time 1 data; main analyses, a series of complex factorial ANOVAS were conducted.
Attrition	782/1072 provided data across all three time points across the study (attrition 27%) Standardized residual analysis suggested that significantly more participants from the EP group were lost to attrition than expected
Study limitations (author)	Lack of a 'no intervention' group; Teachers in the EP condition had more input from the research team than those in the SP condition. They had training in delivery of Working Things Out through SPHE, and were required to complete fidelity checks indicating that they had delivered the programme in keeping with the manual; significant differences in baseline characteristics between arms for peer problems
Study limitations (reviewer)	No details on randomisation protocol, blinding and allocation concealment; >20% attrition from inception to completion; More control arm participants completed than intervention arm; Analysis does not outline how clustering was accounted for in the analysis by participants;
Source of funding	Not specified

Study arms

Enhanced SPHE (N = 527)

Standard SPHE plus the use of Working Things Out through SPHE: A programme to enhance the delivery of the mental health promotion aspects of the SPHE programme. Manualized lesson plans 'Working Things Out through SPHE' Teachers' Resource Book. Teachers used nine 'Working Things Out' stories to bring the mental health promotion aspects of the standard modules to life. Each story had a structured lesson plan built around it, and these were manualized

Standard SPHE (N = 545)

Standard delivery of SPHE over an eight-month period coinciding with the school year; one class period per week, following the Guidelines forTeachers published by the DES (Department of Education & Science/National Council for Curriculum & Assessment, 2001). These advise coverage of the 10 modules: belonging and integrating; self-management: a sense of purpose; communication skills; physical health; friendship; relationship and sexuality; emotional health; influences and decisions; substance use and personal safety. Teaching approaches, focusing on active participation, reflection, discussion and role-play, are used, and learning outcomes are defined for each module.

Characteristics

Study-level characteristics

Characteristic	Study (N =)
Age Standardised Mean (SD)	13.6 (0.54)
Gender % Male Nominal	53
Ethnicity Nominal	NR

Outcomes

Study timepoints
- Baseline
- 8 month (After eight months of program delivery (Time 2))
- 14 month (six months after Time 2 (Time 3))

Strengths and difficulties questionnaire (SDQ)

Outcome	Enhanced SPHE, Baseline, N = 361	Enhanced SPHE, 8 month, N = 361	Enhanced SPHE, 14 month, N = 361	Standard SPHE, Baseline, N = 412	Standard SPHE, 8 month, N = 421	Standard SPHE, 14 month, N = 421
Total Difficulties Score Mean (SD)	12.01 (5.65)	11.76 (5.34)	11.68 (5.44)	11.35 (5.61)	11.2 (5.49)	11.31 (5.6)

Total Difficulties Score - Polarity - Lower values are better

Brief behavioural screening questionnaire that provides balanced coverage of children's and young people's behaviours, emotions and relationships

Children's coping strategies checklist (CCSC)

Outcome	Enhanced SPHE, Baseline, N = 361	Enhanced SPHE, 8 month, N = 361	Enhanced SPHE, 14 month, N = 361	Standard SPHE, Baseline, N = 412	Standard SPHE, 8 month, N = 412	Standard SPHE, 14 month, N = 412
Active coping Mean (SD)	2.49 (0.44)	2.48 (0.45)	2.5 (0.46)	2.51 (0.46)	2.51 (0.48)	2.53 (0.5)

Active coping - Polarity - Higher values are better

Four domains: support seeking; avoidance; active coping and distraction. Only Active coping reported which consists of using cognitive decision-making, direct problem-solving, seeking understanding and use of positive cognitive restructuring which was felt to best correspond to promoting good SEWB

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Strengthsanddifficultiesquestionnaire(SDQ)-TotalDifficultiesScore-MeanSD-Enhanced SPHE-Standard SPHE-t8

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Statistical difference at baseline betwqeen trial arms for peer problems which may impact intervention efficacy; no blinding protocols; allocation concealment and limited details regarding randomisation)*
Overall bias and Directness	Overall Directness	Directly applicable

Strengthsanddifficultiesquestionnaire(SDQ)-TotalDifficultiesScore-MeanSD-Enhanced SPHE-Standard SPHE-t14

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Statistical difference at baseline betwqeen trial arms for peer problems which may impact intervention efficacy; no blinding protocols; allocation concealment and limited details regarding randomisation)*
Overall bias and Directness	Overall Directness	Directly applicable

Children'scopingstrategieschecklist(CCSC)-Activecoping-MeanSD-Enhanced SPHE-Standard SPHE-t8

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Statistical difference at baseline betwqeen trial arms for peer problems which may impact intervention efficacy; no blinding protocols; allocation concealment and limited details regarding randomisation)*
Overall bias and Directness	Overall Directness	Directly applicable

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Children'scopingstrategieschecklist(CCSC)-Activecoping-MeanSD-Enhanced SPHE-Standard SPHE-t14

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Statistical difference at baseline betwqeen trial arms for peer problems which may impact intervention efficacy; no blinding protocols; allocation concealment and limited details regarding randomisation)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

Enhanced SPHE (N = 527)

Brief name	Enhanced SPHE
Rationale/theory/Goal	Whether students participating in SPHE that had been 'enhanced' by the Working Things Out programme had better outcomes in terms of helpseeking, emotional and behavioural difficulties and their view of school social environment, than those who participated in 'standard' SPHE
Materials used	Strengths and difficulties questionnaire (SDQ); children's coping strategies checklist (CCSC); help-seeking questionnaire; 'What is your school like?' questionnaire; The enhanced programme (EP) had an additional one-day training course in the use of Working Things; Manualized lesson plans for the nine 'Working Things Out' stories.
Procedures used	Research Ethics approved; ID number was allocated to each student, which enabled tracking of their responses throughout the course of the study. The questionnaires were read out to the class group by one of the researchers (AC or DC), and the students were asked to tick the item on the questionnaire which applied to them. The questionnaires were completed at the start of the programmes (Time 1), after eight months of programme delivery (Time 2) and six months after that (Time 3). With the support of the Principal in each school, the study team worked closely with the key personnel involved in an SPHE delivery. A 'support person', usually the school guidance counsellor, was identified in each school, and teachers delivering both the SP and the EP gave information at the start of each lesson about how to access the support person. School personnel were given additional training in how to access further supports for young people at particular risk.

Provider	Teachers
Method of delivery	face to face classroom lessons
Setting/location of intervention	classroom
Intensity/duration of the intervention	Participated in the delivery of SPHE over an eight-month period as described above, but in addition teachers used nine 'Working Things Out' stories to bring the mental health promotion aspects of the standard modules to life. Each story had a structured lesson plan built around it, and these were manualized; Each of the nine stories was covered in 12 forty-minute class periods over the eight months of the study.
Tailoring/adaptation	not reported
Unforeseen modifications	not reported
Planned treatment fidelity	Teachers were asked to complete a fidelity check after each WTO story class
Actual treatment fidelity	Not reported
Other details	Nothing specified

Standard SPHE plus the use of Working Things Out through SPHE: A programme to enhance the delivery of the mental health promotion aspects of the SPHE programme. Manualized lesson plans 'Working Things Out through SPHE' Teachers' Resource Book. Teachers used nine 'Working Things Out' stories to bring the mental health promotion aspects of the standard modules to life. Each story had a structured lesson plan built around it, and these were manualized

Standard SPHE (N = 54)

Brief name	SPHE
Rationale/theory/Goal	Active control to allow assessment of enhanced SPHE
Materials used	Strengths and difficulties questionnaire (SDQ); children's coping strategies checklist (CCSC); help-seeking questionnaire; 'What is your school like?' questionnaire; As usual curriculum: 10 modules: belonging and integrating; self-management: a sense of purpose; communication skills; physical health; friendship; relationship and sexuality; emotional health; influences and decisions; substance use and personal safety

Procedures used	Standard delivery of SPHE over an eight-month period coinciding with the school year
Provider	Teacher
Method of delivery	face to face
Setting/location of intervention	classroom
Intensity/duration of the intervention	This involved trained SPHE teachers delivering ideally one class period per week, following the Guidelines for Teachers published by the DES (Department of Education & Science/National Council for Curriculum & Assessment, 2001). These advise coverage of the 10 modules: belonging and integrating; self-management: a sense of purpose; communication skills; physical health; friendship; relationship and sexuality; emotional health; influences and decisions; substance use and personal safety.
Tailoring/adaptation	not specified
Unforeseen modifications	not specified
Planned treatment fidelity	not specified
Actual treatment fidelity	not specified
Other details	not reported

Standard delivery of SPHE over an eight-month period coinciding with the school year; one class period per week, following the Guidelines for Teachers published by the DES (Department of Education & Science/National Council for Curriculum & Assessment, 2001). These advise coverage of the 10 modules: belonging and integrating; self-management: a sense of purpose; communication skills; physical health; friendship; relationship and sexuality; emotional health; influences and decisions; substance use and personal safety. Teaching approaches, focusing on active participation, reflection, discussion and role-play, are used, and learning outcomes are defined for each module.

D.1.25   Fraguas, 2020

Bibliographic Reference	Fraguas D; Díaz-Caneja CM; Ayora M; Durán-Cutilla M; Abregú-Crespo R; Ezquiaga-Bravo I; Martín-Babarro J; Arango C; Assessment of School

Anti-Bullying Interventions: A Meta-analysis of Randomized Clinical Trials.; JAMA pediatrics; 2020

Study details

Study design	Systematic review
Trial registration number	
Study end date	Feb-2020
Aim	To evaluate their short-term and medium-term population impact of school interventions with the aim of reducing bullying or cyberbullying rates or improving school climate
Country/geographical location	International
Setting	School
Inclusion criteria	- Study assessed bullying at school; - Study assessed the effectiveness of an anti-bullying program; - Study was an RCT - Study reported results; - Study was published in English.
Exclusion criteria	None reported
Method of randomisation	
Unit of allocation	
Unit of analysis	
Statistical method(s) used to analyse the data	Critical appraisal was conducted using an item checklist constructed for this meta-analysis based on the Cochrane Collaboration's tool for assessing risk of bias Random-effects meta-analyses was conducted using Comprehensive Meta-Analysis, version 2.0 Cohen d values with pooled 95% CIs were used as estimates of the effect size of each anti-bullying intervention compared with control groups.

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	Statistical heterogeneity was assessed through visual inspection of forest plots and using the Q statistic and the I2 statistic. I2 values less than 30% were considered an insignificant amount of heterogeneity.3

Publication bias was assessed by visually inspecting funnel plots and using the fail-safe N described by Orwin, with a criterion for a trivial standardized difference in means of 0.1 and a mean standardized

difference in means in missing studies of 0.

Cohen d values were converted to number needed to treat (NNT) as recommended in the method by Furukawa and Leucht.The NNT was used to obtain the population impact number (PIN) as an estimated measure of the population impact of the intervention. The PIN values were calculated using RCTs that assessed a universal intervention. |
| **Attrition** | |
| **Study limitations (author)** | Substantial methodological heterogeneity among selected RCTs in terms of intervention characteristics, measures of bullying exposure and other outcome variables, sample characteristics, and social context. few RCTs assessed the same specific antibullying program so authors could only assess the effectiveness of anti-bullying programs as a whole Third, most outcome variables were not clearly defined in the original RCTs, and were highly heterogeneous, with few RCTs assessing the same outcome variable. Therefore, it was necessary to classify and subsume specific outcome measures into outcome groups, and there may be some degree of overlap and heterogeneity in terms of internal validity among the resulting categories. Fourth, the original RCTs did not report the presence (or rates) of mental, intellectual, or physical disabilities in sample populations. This may have altered both rates of bullying and bullying exposure and intervention effectiveness. despite our comprehensive search in databases covering the main scientific fields relevant to this meta-analysis, we restricted our search to RCTs published in peer-reviewed journals. Although this strategy None of the RCTs reported concomitant individual interventions, which may have altered the effectiveness of the anti-bullying programs. |

Study limitations (reviewer)	None to add
Source of funding	None specific

Characteristics

Study-level characteristics

Characteristic	Study (N =)
Age Range	3 to 19
% feamle in study sample Range	9 to 75
Primary Nominal	49.3
Secondary Nominal	39.1
Both Nominal	11.6

Study Characteristics

Study design	Systematic review
Search dates	Database inception through to February 2020
Databases searched	Medline, ERIC, PsycINfo were searched using following search terms

	(1) ["bullying" OR "peer abuse" OR "abuse" OR "aggression" OR "harassment" OR "perpetrator" OR "victim" OR "victimization" OR "peer violence" OR "violence" OR cyberbullying" OR "anti-bullying"], (2) AND ["school" OR "peer"], and (3) AND ["intervention" OR "curriculum" OR "prevention" OR "program" OR "resilience" OR "school climate"OR"school-based"OR"therapy"OR"treatment"OR "trial"]. Citation search of the reference lists of articles included in previous systematic reviews and meta-analyses for any RCTs not identified by the literature search
Number of studies included in the systematic review	77 samples from 69 RCTs with a total of 111,659 participants
Inclusion criteria	• assessed bullying at school; • assessed the effectiveness of an anti-bullying program • had an RCT design; • reported results • were published in English
Exclusion criteria	Not reported
Methdoology	• Phase 1 was title and abstract double-screening • Phase 2 full text double screening • Data extracted in pairs and extracted data was double-checked them by pairs, All disagreements were resolved through discussion and consensus Data extracted included the following: • year of publication, • region (country and city if available) where the study was conducted, • name of the intervention program, • date of intervention,

	- duration of intervention, - duration of follow-up (when applicable), - type of randomization (individual or cluster), - type of control group, - type of school (public or private), - primary (age, ≤11 years) vs secondary (age, 12-18 years) education, - sample size, - number of randomized groups, - mean age, age range, and percentage of females (for both intervention and control groups), - type of approach (universal or targeted), - type of bullying variable (dichotomous or continuous), - statistics to calculate effect sizes for the meta-analyses and meta-regressions Random-effects meta-analyses were conducted using Comprehensive Meta-Analysis, version 2.0 (Biostat Inc). Cohen d values with pooled 95% CIs were used as estimates of the effect size of each anti-bullying intervention compared with control groups. Statistical heterogeneity through visual inspection of forest plots and using the Q statistic and the I2 statistic. I2 values less than 30% were considered an insignificant amount of heterogeneity. Publication bias by visually inspecting funnel plots and using the fail-safe N
Critical appraisal	Quality of the 69 selected RCTs using an item checklist constructed for this meta-analysis based on the Cochrane Collaboration's tool for assessing risk of bias.
Studies from the systematic review that are not relevant for use in the current review	Studies of universal intervention sare relevant
Funding	None specific for this review

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Study arms

Anti-bullying interventions (N = NR)

Control (N = NR)

Outcomes

Study timepoints
- 0 week (Endpoint)
- 44 week (average follow up)

Outcomes

Outcome	Anti-bullying interventions vs Control, 0 week, N2 = , N1 =	Anti-bullying interventions vs Control, 44 week, N2 = , N1 =
Overall bullying Cohen's d Custom value	-0.150 (-0.192 to -0.107)	-0.260 (-0.253 to -0.094)
Bullying perpretation Cohen's d Custom value	-0.111 (-0.147 to -0.075)	-0.173 (-0.284 to -0.062)
Bullying exposure Cohen's d Custom value	-0.158 (-0.229 to -0.088)	-0.118 (-0.176 to -0.061)
Cyperbullying Cohen's d Custom value	-0.138 (-0.213 to -0.064)	NR
Mental health problems Cohen's d Custom value	-0.211 (-0.292 to -0.131)	-0.205 (-0.381 to -0.030)

Outcome	Anti-bullying interventions vs Control, 0 week, N2 = , N1 =	Anti-bullying interventions vs Control, 44 week, N2 = , N1 =
School Climate Cohen's d Custom value	0.067 (0.040 to 0.094)	0.120 (0.003 to 0.236)

Overall bullying - Polarity - Lower values are better

Bullying perpretation - Polarity - Lower values are better

Bullying exposure - Polarity - Lower values are better

Cyperbullying - Polarity - Lower values are better

Mental health problems - Polarity - Lower values are better

School Climate - Polarity - Higher values are better

Critical appraisal - GUT ROBIS checklist

Section	Question	Answer
Overall study ratings	Overall risk of bias	Low
Overall study ratings	Applicability as a source of data	Fully applicable

D.1.26 Froh, 2008

Bibliographic Reference	Froh, Jeffrey J; Sefick, William J; Emmons, Robert A; Counting blessings in early adolescents: an experimental study of gratitude and subjective well-being.; Journal of school psychology; 2008; vol. 46 (no. 2); 213-33

Study details

Trial registration number	Not specified
Aim	Examine the effect of the gratitude, hassles, or control interventions for a period of 2 weeks intervention on psychological, physical, and social well-being at both an immediate post-test and 3-week follow-up.

Country/geographical location	USA
Type of school	Secondary education
Setting	School
Inclusion criteria	Not specified
Exclusion criteria	Not specified
Method of randomisation	Not specified
Method of allocation concealment	Unclear: Two out of the three teachers were kept blind to hypotheses and were unaware of the three experimental conditions; They were only informed of the particular condition (i.e., counting blessing's or hassles) assigned to their class; due to scheduling and class size, one teacher had four hassles classes and one control class. Therefore, though this teacher was also kept blind to the hypotheses, it is possible that she was cognizant that between group differences were expected.
Unit of allocation	Class
Unit of analysis	Participant
Statistical method(s) used to analyse the data	One-way analyses of covariance (ANCOVA); Regression analysis; posteriori mediational analyses; Bivariate correlations analysis; mean ratings, standard deviations, and group F's at post-test
Attrition	Details limited but assume 0% - 221/221 randomised within classes provided pre and post data
Study limitations (author)	Not specified by the author as limitations per se: Potential of context-specific or demand characteristics of the study setting impacting responses e.g. those in classrooms were primed to responded to cues and thus counted their blessings for school-related topics; Possible evaluation fatigue impacting outcomes;
Study limitations (reviewer)	No sample size/power calculations; blinding, allocation concealment not outlined; method for ranomisation unclear; assessment of baseline characteristics post ranomisation unclear - identified the impact of a field trip on the control arm as impacting responses to outcomes questionnaires (appears to be a sub-group analysis to account for the potential effect of this)
Source of funding	Not specified

Study arms

Gratitude (N = 76)

4 classes - Participants in the gratitude condition were asked to list up to five things they were grateful for since yesterday. Specifically, participants were given the following instructions: "There are many things in our lives, both large and small, that we might be grateful about. Think back over the past day and write down on the lines below up to five things in your life that you are grateful or thankful for." participants are focused on the presence of a positive outcome or uplift

Hassles (N = 80)

4 classes - Participants were instructed that: "Hassles are irritants—things that annoy or bother you. They occur in various areas of life, including our family, friendships, school, health, and so on. Think back over the past day and, on the lines below, list up to five hassles that occurred in your life." participants are focused on the presence of a negative outcome or stressor

Control (N = 65)

Just completed the measures.

Characteristics

Study-level characteristics

Characteristic	Study (N = 221)
Age Mean (SD)	12.17 (0.67)
Gender % Male Nominal	49.8
Ethnicity % Caucasian Nominal	68.9

Outcomes

Study timepoints
- 8 day (between pre-post test)
- 2 week (post test)
- 3 week (Follow-up)

Well-being: Felt gratitude

Outcome	Gratitude , 8 day, N = 76	Gratitude , 2 week, N = 76	Gratitude , 3 week, N = 76	Hassles, 8 day, N = 80	Hassles, 2 week, N = 80	Hassles, 3 week, N = 80	Control, 8 day, N = 65	Control, 2 week, N = 65	Control, 3 week, N = 65
Felt gratitude Mean (SD)	3.35 (1.11)	3.32 (1.26)	3.56 (1.12)	3.2 (1.03)	2.98 (1.25)	3.19 (1.25)	3.54 (0.91)	3.42 (0.97)	3.6 (0.95)

Felt gratitude - Polarity - Higher values are better

Felt gratitude over the 8 days between pre- and post-test, at post-test, or follow-up.

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Well-being:Feltgratitude-Feltgratitude-MeanSD-Gratitude -Hassles-Control-t8

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Part of the control arm exposed to additional event that would impact on the primary outcome; Analysis doesn't outline how clustering was accounted for in participant analysis; Blinding and allocation concealment unclear and assessment undertaken by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

Well-being:Feltgratitude-Feltgratitude-MeanSD-Gratitude -Hassles-Control-t2

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Part of the control arm exposed to additional event that would impact on the primary outcome; Analysis doesn't outline how clustering was accounted for in participant analysis; Blinding and allocation concealment unclear and assessment undertaken by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

Well-being:Feltgratitude-Feltgratitude-MeanSD-Gratitude -Hassles-Control-t3

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Part of the control arm exposed to additional event that would impact on the primary outcome; Analysis doesn't outline how clustering was accounted for in participant analysis; Blinding and allocation concealment unclear and assessment undertaken by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

Gratitude (N = 76)

Brief name	Gratitude
Rationale/theory/Goal	Given gratitude's relationship to well-being in adult samples and that gratitude may begin to develop in early adolescence it makes logical sense that counting one's blessings within early adolescence will be related to well-being and other positive outcomes (e.g., prosocial behavior). Authors hypothesized that the gratitude induction (i.e., counting blessings) will be related to greater subjective well-being, appreciation toward aid, prosocial behavior, and fewer physical symptoms when compared to those participants who either focus on irritants or serve as controls. Providing adolescents gratitude fostering techniques would be

	valuable in helping them achieve sustainable well-being. Experiencing gratitude, a person is motivated to carry out prosocial behavior, energized to sustain moral behaviors, and is inhibited from committing destructive interpersonal behaviors; gratitude has clearly been linked to subjective-well being;
Materials used	Demographics; Well-being ratings; Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS); Adapted questions from Emmons and McCullough (2003) to assess concurrent and prospective overall life satisfaction; Physical symptoms questionnaire; Reactions to aid questionnaire; Prosocial behavior question (closed); Participants ask to think back on the past day and ask what they are grateful/thankful for'; teachers were provided with a script to introduce the study to the participants.
Procedures used	Random assignment; Participants in the gratitude condition were asked to list up to five things they were grateful for since yesterday; participants are focused on the presence of a positive outcome or uplift; participants were provided with five blank lines to indicate their responses. Daily ratings collected for 2 weeks during class instruction time with a 3-week follow-up. principal investigator introduced himself to the entire classroom prior to study commencement; All students were also informed that not contingent on participation each class would be receiving donuts. One week prior to pre-test, the principal investigator met with each teacher independently and reviewed all measures and general instructions.
Provider	Teacher
Method of delivery	Face-to-face
Setting/location of intervention	School/Classroom
Intensity/duration of the intervention	Participants to engage in the intervention daily for 2 weeks - Monday to Friday
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	Not outlined
Actual treatment fidelity	Not specified
Other details	Not outlined

4 classes - Participants in the gratitude condition were asked to list up to five things they were grateful for since yesterday. Specifically, participants were given the following instructions: "There are many things in our lives, both large and small, that we might be grateful about. Think back over the past day and write down on the lines below up to five things in your life that you are grateful or thankful for." participants are focused on the presence of a positive outcome or uplift

Hassles (N = 80)

Brief name	Hassles
Rationale/theory/Goal	Given gratitude's relationship to well-being in adult samples and that gratitude may begin to develop in early adolescence it makes logical sense that counting one's blessings within early adolescence will be related to well-being and other positive outcomes (e.g., prosocial behavior). Authors hypothesized that the gratitude induction (i.e., counting blessings) will be related to greater subjective well-being, appreciation toward aid, prosocial behavior, and fewer physical symptoms when compared to those participants who either focus on irritants or serve as controls. Providing adolescents gratitude fostering techniques would be valuable in helping them achieve sustainable well-being. Experiencing gratitude, a person is motivated to carry out prosocial behavior, energized to sustain moral behaviors, and is inhibited from committing destructive interpersonal behaviors; gratitude has clearly been linked to subjective-well being;
Materials used	Demographics; Well-being ratings; Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS); Adapted questions from Emmons and McCullough (2003) to assess concurrent and prospective overall life satisfaction; Physical symptoms questionnaire; Reactions to aid questionnaire; Prosocial behavior question (closed); Participants ask to think back on the past day and instructed that: "Hassles are irritants—things that annoy or bother you. They occur in various areas of life, including our family, friendships, school, health, and so on. Think back over the past day and, on the lines below, list up to five hassles that occurred in your life."
Procedures used	Random assignment; Participants in the gratitude condition were asked to list up to five things they were grateful for since yesterday; participants are focused on the presence of a positive outcome or uplift; participants were provided with five blank lines to indicate their responses. Daily ratings collected for 2 weeks during class instruction time with a 3-week follow-up. principal investigator introduced himself to the entire classroom prior to study commencement; All students were also informed that not contingent on participation each class would be receiving donuts. One week prior to pre-test, the principal investigator met with each

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	teacher independently and reviewed all measures and general instructions.
Provider	Teacher
Method of delivery	face-to-face
Setting/location of intervention	school/classroom
Intensity/duration of the intervention	Not specified but assumed the same as the Gratitude schedule - Participants to engage in the intervention daily for 2 weeks - Monday to Friday
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	Not outlined
Actual treatment fidelity	Not specified
Other details	Not specified

4 classes - Participants were instructed that: "Hassles are irritants—things that annoy or bother you. They occur in various areas of life, including our family, friendships, school, health, and so on. Think back over the past day and, on the lines below, list up to five hassles that occurred in your life." participants are focused on the presence of a negative outcome or stressor

Control (N = 65)

Brief name	Control
Rationale/theory/Goal	Usual care comparator
Materials used	Demographics; Well-being ratings; Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS); Adapted questions from Emmons and McCullough (2003) to assess concurrent and prospective overall life satisfaction; Physical symptoms questionnaire; Reactions to aid questionnaire; Prosocial behavior question (closed);
Procedures used	Random assignment; Participants in the gratitude condition were asked to list up to five things they were grateful for since yesterday; participants are focused on the presence of a positive outcome or

	uplift; participants were provided with five blank lines to indicate their responses. Daily ratings collected for 2 weeks during class instruction time with a 3-week follow-up. principal investigator introduced himself to the entire classroom prior to study commencement; All students were also informed that not contingent on participation each class would be receiving donuts. One week prior to pre-test, the principal investigator met with each teacher independently and reviewed all measures and general instructions
Provider	Teacher
Method of delivery	Not specified - assume face to face
Setting/location of intervention	School/Classroom
Intensity/duration of the intervention	Control group just completed the measures
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	Not undertaken
Actual treatment fidelity	Not specified
Other details	>50% control group went on a school trip

Just completed the measures.

D.1.27 Garaigordobil, 2019

Bibliographic Reference	Garaigordobil, Maite; Jaureguizar, Joana; Bernaras, Elena; Evaluation of the effects of a childhood depression prevention program.; The Journal of psychology; 2019; vol. 153 (no. 2); 127-140

Study details

Study design	Cluster randomised controlled trial

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evidence reviews for Universal curriculum approaches DRAFT FOR CONSULTATION
(January 2022)

Type of study	Effectiveness
Trial registration number	NR
Study start date	01-Sep-2015
Aim	The study aimed to design and evaluate a program for the prevention of childhood depression ("Pozik-Bizi" [in English, "Live-Happily"]), comparing its effects with a socio-emotional intervention program based on cooperative play
Country/geographical location	Basque Country of Northern Spain
Type of school	Primary education
Setting	Participants are enrolled in schools, 53.6% public schools and 46.4% private schools, and they study 3rd (52.6%) and 4th grade (47.4%) of Primary Education
UK Key stage	Key stage 2
Inclusion criteria	The sample was intentionally selected from schools of Gipuzkoa (regional area in northern Spain). The criteria used for their selection were: (1) centres that had previous experience of participation in research projects and were open to new practices of educational innovation; (2) centres that would commit to the extensive temporal duration of the project; and (3) public and private schools, so that different socio-economic-cultural levels would be represented
Exclusion criteria	NR
Method of randomisation	The groups were randomly assigned to the experimental condition or control group. No information given on method of randomisation, i.e computer generated
Method of allocation concealment	NR
Unit of allocation	Groups
Unit of analysis	Individual
Statistical method(s) used to analyse the data	A pretest-posttest repeated measures experimental design was used. No information on power calculation. Multivariate analysis of covariance (MANCOVA) used
Attrition	Not reported, assuming no loss to follow up as none reported

Study limitations (author)	• Having used an intentionally selected sample. The selected schools showed a favorable attitude toward the research and the implementation of new practices of educational innovation, but not all the schools expressed this openness; that is, the schools that participated in the study were open to innovation. This could be related to a problem of external validity (e.g., generalizability of results), • Low effect size in all the variables evaluated. However, this is a frequent result in studies evaluating school-based universal childhood depression programs. Many effect sizes may be small, in part, because of the score variability often found in the type of samples used in universal programs
Study limitations (reviewer)	• Lack of information on randomisation process • Lack of information on attrition
Source of funding	Alicia Koplowitz Foundation (FP15/62)

Study arms

Pozik-Bizi Intervention (N = 218)

No information given on number of clusters

Control group (Play program (N = 202)

No information given on number of clusters

Characteristics

Arm-level characteristics

Characteristic	Pozik-Bizi Intervention (N = 218)	Control group (Play program (N = 202)
7-8 years No of events	n = 123 ; % = 56.4	n = 127 ; % = 62.9
9-10 years No of events	n = 95 ; % = 43.6	n = 75 ; % = 37.1

Characteristic	Pozik-Bizi Intervention (N = 218)	Control group (Play program (N = 202)
Males No of events	n = 109 ; % = 50	n = 115 ; % = 56.9
Females No of events	n = 109 ; % = 50	n = 87 ; % = 43.1
Public No of events	n = 116 ; % = 53.2	n = 109 ; % = 54
Private No of events	n = 102 ; % = 46.8	n = 93 ; % = 46

Outcomes

Study timepoints
- Baseline
- 6 month (After the intervention)

Outcomes

Outcome	Pozik-Bizi Intervention, Baseline, N = 218	Pozik-Bizi Intervention, 6 month, N = 218	Control group (Play program, Baseline, N = 202	Control group (Play program, 6 month, N = 202
Emotional distress - depression (66 statements rated on a 5-point scale according to the degree of agreement with the content of the statement (1=disagree strongly, 5=strongly agree)) Total Depression measured by CDS scale (self-report) Mean (SD)	134.77 (31.3)	123.18 (32.75)	142.03 (32.77)	127.22 (33.3)
Emotional distress (0-54) Total Depressive measured	13.14 (5.45)	12.45 (4.36)	13.35 (4.89)	12.93 (4.43)

Outcome	Pozik-Bizi Intervention, Baseline, N = 218	Pozik-Bizi Intervention, 6 month, N = 218	Control group (Play program, Baseline, N = 202	Control group (Play program, 6 month, N = 202
by CDS scale (teacher report) Mean (SD)				
Social and emotional skills Using Social Skills Improvement System -social skills Mean (SD)	109.89 (15.91)	107.96 (15.24)	106.82 (14.47)	109.09 (15.74)
Behavioural outcomes Using Social Skills Improvement System - Problem behaviours) Mean (SD)	20.26 (11.87)	16.71 (10.39)	22.07 (11.9)	19.17 (12.4)

Emotional distress - depression - Polarity - Lower values are better

Emotional distress - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - Pozik-Bizi Intervention vs Control group (Play program) - 6 months follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to lack of information on attrition and blinding and self report data)*

Social and emotional skills - Pozik-Bizi Intervention vs Control group (Play program) - 6 months follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to lack of information on attrition and blinding and self report data)*

Behavioural outcomes - Pozik-Bizi Intervention vs Control group (Play program) - 6 months follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to lack of information on attrition and blinding and self report data)*

Study arms

Pozik-Bizi Intervention (N = 218)

Brief name	Pozik-Bizi [p132].
Rationale/theory/Goal	Pozik-Bizi is a program to improve emotions and depressive symptoms in children aged 8-10 years. The program, using a cognitive-behavioral approach, has three goals: (1) To improve intragroup relations and reduce social stress; (2) To identify, understand, and regulate negative emotions and thoughts, strengthening the positive ones; and (3) To improve the students' skills to reduce anxiety and feelings of failure, increasing their self-confidence [P132].
Materials used	See below
Procedures used	The program consisted of the following structure: the goals are outlined, the activity is described, carried out, and then the participants reflect on it. Various techniques were employed: individual and group reflection exercises, theatrical performances, inventing stories, reading stories with a moral, teacher's explanations to identify, reflect on, and deepen certain concepts (negative or positive thoughts and their consequences, emotions, fear or anxiety); relaxation exercises. For example, in the activity Emotions, first, a card is handed out on which various emotions (fear, sadness, anger, disgust, surprise, happiness) are printed, and the entire group discusses what it's like to feel these emotions, when they feel them, and what their function is. Afterwards, teams are formed, and each team receives an emotion and they must represent a situation in which they have felt that emotion and a

	response to cope with it. At the end, they reflect about the represented emotions and how to deal with them properly [P132-133]
Provider	The weekly sessions were led by the teachers [P132].
Method of delivery	NR
Setting/location of intervention	Classroom [P132].
Intensity/duration of the intervention	18 sessions, administered weekly [P132].
Tailoring/adaptation	NR
Unforeseen modifications	NR
Planned treatment fidelity	NR
Actual treatment fidelity	NR
Other details	None to add

Control group (Play program) (N = 202)

Brief name	Play Program of Socio-Emotional Intervention [P133].
Rationale/theory/Goal	The program has two goals: (1) To promote social development by stimulating multidirectional, friendly, positive, and constructive interaction with classmates, group integration, friendly relationships, verbal and non-verbal communication skills; moral development through the social behaviours of helping and cooperation; and to decrease negative social behaviours of aggression, anxiety, shyness, apathy-withdrawal; and (2) To favour emotional development, promoting the identification and expression of emotions (through drama, activities with music movement, painting, drawing), the understanding of situations that generate positive and negative emotions, coping with/resolving negative emotions, the development of empathy, the improvement of self-concept-self-esteem, happiness [P133].
Materials used	See below

Procedures used	The structure of the sessions (opening, development, debate-discussion) was identical to the those of the "Pozik-Bizi" Program. The Play Program contains activities that encourage communication, cohesion, and trust, with the core idea of helping, cooperating, and sharing. The activities are divided into two major types of games: (1) Communication and prosocial behaviour games (communication, cohesion, support, help, trust, and cooperative games), and (2) Cooperative creative games (verbal, graphic-figurative, constructive, and dramatic). Various cognitive, behavioural, and emotional techniques are used: playing, drawing, group discussion, brainstorming, dramatization, cognitive restructuring through guided dialogue [P133].
Provider	Weekly sessions led by teachers [P133]
Method of delivery	NR
Setting/location of intervention	Classroom [P133]
Intensity/duration of the intervention	18 weekly sessions [P133]
Tailoring/adaptation	NR
Unforeseen modifications	NR
Planned treatment fidelity	NR
Actual treatment fidelity	NR
Other details	None to add

D.1.28   Garcia-Escalera, 2019

Bibliographic Reference	Garcia-Escalera, J.; Valiente, R.M.; Sandin, B.; Ehrenreich-May, J.; Prieto, A.; Chorot, P.; The Unified Protocol for Transdiagnostic Treatment of Emotional Disorders in Adolescents (UP-A) Adapted as a School-Based Anxiety and Depression Prevention Program: An Initial Cluster Randomized Wait-List-Controlled Trial; Behavior Therapy; 2019

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Study details

Study design	Cluster randomised controlled trial
Type of study	Efficacy
Trial registration number	NCT03123991
Study start date	01-Nov-2016
Study end date	01-Apr-2017
Aim	To examine the efficacy of the UP-A adapted as a nine-session universal preventive intervention program delivered in a school setting
Country/geographical location	Madrid, Spain
Type of school	Secondary education
Setting	Classroom, Schools
UK Key stage	Key stage 4
Inclusion criteria	The inclusion criteria for the participants were (a) both the adolescent and at least one parent or legal guardian provided written, informed consent, and (b) having Spanish proficiency based on teacher reporting.
Exclusion criteria	NR
Method of randomisation	Each participating class (cluster) was randomly allocated 1:1 to the preventive intervention or the WLCG by a researcher not involved in the current project, using a computerized random number generator and a balanced design, resulting in approximately the same number of classes in each of the preventive intervention groups and the WLCG (Fig. 1). Random assignment occurred before the T1 measurements took place because the research ethics committee requested that the parents/guardians and the participants knew whether the student was going to be in the UP-A group or the WLCG when they provided informed consent.
Method of allocation concealment	Randomisation was done by a researcher not involved in the project
Unit of allocation	Class
Unit of analysis	Individual

Statistical method(s) used to analyse the data	Power calculation: Not reported. Intention to treat: Not reported. The randomized sample size in this study was large enough to detect a Cohen's d effect of 0.30 with 80% power at the 5% level of significance, allowing for an intra cluster correlation coefficient of 0.02 and a 10% participant dropout rate at follow-up.
Attrition	Intervention group: Participants with data for: T1 and T2 (N = 3, n = 78); T1, T2 and T3 (N = 3, n = 67) Control group: Participants with data for: T1 and T2 (N = 2, n = 56); T1, T2 and T3 (N = 2, n = 46)
Study limitations (author)	• First, and probably most important, it had a small sample size (151 adolescents across five classes) that together with an imbalanced number of students between conditions and higher than expected attrition rates and ICCs resulted in the study possibly being underpowered to estimate the effects with adequate precision. • A WLCG was used when an active control group would have been preferable, and the adolescents were recruited from only one school, which may limit the generalizability of the findings. • Study incorporated only adolescent self-reported measures, and these can be affected by situational factors, high attrition, and social desirability bias. • Intervention adherence was evaluated by group leader self reporting that might have led to biases, and the program itself was not manualized, and, therefore, there could have been variations during delivery that inadvertently had an impact on the effect. • Short follow-up of 3 months made it difficult to assess prevention effects.
Study limitations (reviewer)	None to add
Source of funding	Supported by the Spanish Ministry of Economy, Industry and Competitiveness grant (PSI2013-4480-P) awarded to RMV, BS, and PC, and by the Spanish Ministry of Education, Culture and Sport grants (FPU13/03315) awarded to JGE and (FPU13/05914) to AP

Study arms

UP-A Intervention (N = 90)

3 classes (clusters) including 90 individuals were allocated to the intervention group

Control group WLCG (N = 62)

2 classes (clusters) including 62 individuals were allocated to the control group

Characteristics

Arm-level characteristics

Characteristic	UP-A Intervention (N = 90)	Control group WLCG (N = 62)
Males No of events	n = 40 ; % = 44.4	n = 29 ; % = 47.5
Females No of events	n = 50 ; % = 55.6	n = 32 ; % = 52.5
9 (3°ESO) No of events	n = 59 ; % = 67	n = 31 ; % = 52.5
10 (4°ESO No of events	n = 29 ; % = 33	n = 28 ; % = 47.5
Low No of events	n = 25 ; % = 28.7	n = 21 ; % = 35.6
Medium No of events	n = 39 ; % = 44.8	n = 24 ; % = 40.7
High No of events	n = 23 ; % = 26.4	n = 14 ; % = 23.7

Outcomes

Study timepoints
- Baseline
- 3 month (Labelled as T3 in the paper: 3 months after the UP-A group finished the intervention and 1 week before the WLCG started the intervention)

Outcomes

Outcome	UP-A Intervention, Baseline, N = 90	UP-A Intervention, 3 month, N = 90	Control group WLCG, Baseline, N = 62	Control group WLCG, 3 month, N = 62
Emotional distress Anxiety and Depression measured by the RCADS-30 Child (ICC = 0.13) Sample size	n = 88 ; % = 97.7	n = 73 ; % = 81.1	n = 60 ; % = 96.7	n = 48 ; % = 77.4
Emotional distress Anxiety and Depression measured by the RCADS-30 Child (ICC = 0.13) Mean (SD)	26.39 (15.65)	20.56 (14.24)	28.57 (13.61)	25.06 (13.4)
Emotional distress - depression Using Depression Questionnaire for Children; (self-report) (ICC = 0.11) Sample size	n = 88	n = 73	n = 60	n = 48
Emotional distress - depression Using Depression Questionnaire for Children; (self-report) (ICC = 0.11) Mean (SD)	8.63 (5.34)	8.4 (5.84)	9 (5.51)	8.6 (5.21)
Emotional distress - anxiety Using Anxiety Scale for Children (ICC = 0.14) Sample size	n = 88 ; % = 73	n = 73	n = 60	n = 48
Emotional distress - anxiety Using Anxiety Scale for Children (ICC = 0.14)	7.61 (7.1)	5.64 (6.62)	8 (6.16)	7.1 (6.12)

Outcome	UP-A Intervention, Baseline, N = 90	UP-A Intervention, 3 month, N = 90	Control group WLCG, Baseline, N = 62	Control group WLCG, 3 month, N = 62
Mean (SD)				

Emotional distress - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - UP-A vs Control - 3 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to lack of information on blinding, missing outcome and self report data)*

Emotional distress-depression - UP-A vs Control group - 3 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to lack of information on blinding, missing outcome and self report data)*

Emotional distress-Anxiety - UP-A vs Control - 3 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to lack of information on blinding, missing outcome and self report data)*

Study arms

UP-A (N = 90)

Brief name	UP-A (Spanish version of the UP-A modified) [P4].

Rationale/theory/Goal	To examine whether the adapted UP-A was more effective than a wait-list-control group (WLCG) in reducing the symptoms of anxiety and depression at posttreatment and 3-month follow-up. The second aim was to conduct exploratory analyses of baseline emotional symptom severity as a potential predictor [P3].
Materials used	Session materials included PowerPoint slides and handouts [P5].
Procedures used	Each session targeted one of the eight UP-A core modules except for Module 5 (addressing cognitive distortions and problem solving skills), which was targeted in Sessions 5 and 6. In the first session the adolescents were introduced to the group rules and provided their three top problems and a goal for each. In the second session, the adolescents were taught emotional education, and the "before, during, and after" framework (a functional assessment of emotional experiences) was introduced. In the third session, the adolescents learned about the cycle of avoidance and, after reflecting on their current use of free time, compiled a list of enjoyed activities with which to engage in opposite actions for sadness. In the fourth session, the adolescents learned about physical sensations associated with emotions and conducted interoceptive exposures in class to demonstrate that physiological sensations are normal and harmless. In the fifth session, the concept of cognitive reappraisal was introduced, and the adolescents learned how to address thinking traps using detective thinking skills. In the sixth session, the adolescents learned how to overcome problems using problem-solving skills and reviewed skills learned thus far in the program. In the seventh session, they practiced present-moment awareness skills using non emotional stimuli. In the eighth session, the cycle of avoidance was reviewed, the adolescents were provided with psychoeducation about emotional exposures, and exposure homework was assigned. Finally, in the ninth session, the adolescents reviewed the strategies learned in the program and created an individualized postprogram plan to practice skills [P4].
Provider	The intervention was administered by JGE and a master's student in clinical psychology and was supervised by RMV, BS, and PC [P5].
Method of delivery	The intervention sessions were implemented during "Tutorías," which are 1-hour weekly sessions intended to address issues taking place within the school context (e.g., providing academic support). Teachers in the WLCG were instructed to maintain their normal class schedules without any planned socioemotional focus [P5].
Setting/location of intervention	Classroom [P3].
Intensity/duration of the intervention	Weekly 55-minute, nine-session universal preventive intervention [P4].

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Tailoring/adaptation	The first adaptation to the original treatment protocol was to reduce the number of sessions per module, especially in regard to Module 2 that targets psychoeducation about emotions (two or three suggested sessions), and Module 7 that targets situational emotion exposures (more than two suggested sessions; Ehrenreich-May et al., 2018). The module "Parenting the Emotional Adolescent" was not implemented in this preventive adaptation of the UP-A. Furthermore, some handouts of the UP-A were adapted from the original treatment model for use in a universal prevention setting. For instance, the Weekly Activity Planner handout (Module 3) was adapted to plan and report not only enjoyable activities and emotional levels, but also schoolwork. Additionally, some cultural adaptations were made for application of the UP-A in the Spanish cultural context. For example, some of the activities in the "List of Commonly Enjoyed Activities" that are not common in a Spanish context (e.g., playing lacrosse or yard work) were exchanged for others that are common in a Spanish context (e.g., going to the gym or going for a walk). Finally, in this preventive adaptation of the UP-A, each session began with a short quiz regarding core concepts learned in the previous session [P4].
Unforeseen modifications	NR
Planned treatment fidelity	In all group sessions, a PowerPoint presentation was used to deliver content and increase the fidelity of the implementation. The group leaders also completed a checklist at the end of each session indicating whether they had covered each session objective "completely," "partially," or "not at all." [P10].
Actual treatment fidelity	The group leaders rated 78.3% of the session objectives as covered "completely," 10.7% as "partially," and 11% as "not at all [P10].
Other details	None to add

3 classes (clusters) including 90 individuals

WLCG Control group (N = 62)

Brief name	Wait-list control group [P1].
Rationale/theory/Goal	NA
Materials used	NA
Procedures used	Teachers in the WLCG were instructed to maintain their normal class schedules without any planned socioemotional focus [P5].
Provider	NA

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Method of delivery	NA
Setting/location of intervention	NA
Intensity/duration of the intervention	NA

2 classes (clusters) including 62 individuals

D.1.29 Ghiroldi, 2020

Bibliographic Reference	Ghiroldi, Silvia; Scafuto, Francesca; Montecucco, Nitamo Federico; Presaghi, Fabio; Iani, Luca; Effectiveness of a school-based mindfulness intervention on children?s internalizing and externalizing problems: the Gaia project; Mindfulness; 2020; 1-15

Study details

Study design	Cluster randomised controlled trial
Trial registration number	Not reported
Aim	To evaluate the effectiveness of Gaia, a 12-week program integrating a mindfulness approach into an ecological paradigm.
Country/geographical location	Italy
Type of school	Primary education
Setting	Nine schools, three from each geographic area of the country (North, Center, South, and Islands), took part in the study, with three to four classrooms from each school. The number of students in each school class ranged from a minimum of 11 students to a maximum of 25 students with an average of about 19.9 9SD=3.4) and the total number of school classes was 20 from nine different school institutes.
UK Key Stage	Key stage 2
Inclusion criteria	The students were 2nd–3rd graders (41.5%) or 4th–5th graders (58.5%). The schools choose the classes based on the teachers' availability to assess their students in pre- and post-test conditions.

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Exclusion criteria	Schools with lack of trained volunteer teachers with previous meditation experience
Method of randomisation	Not reported
Method of allocation concealment	Teachers who completed the questionnaires were not blind to the Gaia program because the decision to implement this intervention was shared with all teachers of classes participating in the study, in accordance with the school policy.
Unit of allocation	Cluster (class)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	- ICCs and number of clusters not reported - Due to the high degree of positive skewness of all other syndrome scales, the authors used Poisson regression models to relate the mean number of events to a set of explanatory variables using a logarithmic link function. - Multilevel analyses were conducted with MlwiN. - Estimated regression coefficients obtained from the fitted model were interpreted as rate ratios and will represent the relative change in the mean number of events expected to occur for a one-unit increase in the covariate. - All models were estimated with Markov Chain Monte Carlo (MCMC) estimation methods. - To test whether a regression coefficient or a random parameter (either variance or covariance) is significantly different from zero, the authors considered the 95% credible interval (95% Cred. I.) obtained from MCMC estimates. - Achenbach System of Empirically Based Assessment (ASEBA) scale scores are hierarchically aggregated, we performed the following set of regressions. - The Mann-Whitney U test was used to examine whether the two groups at baseline differ in emotional/behavioural problems - For investigating socio-demographic differences (gender and age), chi-square test and t test were used respectively. - Cut-off points and normalized t scores were calculated based on the procedure of Achenbach and Rescorla (2001).
Attrition	0% attrition
Study limitations (author)	- The study did not include an active control group to test possible nonspecific effects of the intervention (e.g., Hawthorne effect). - Teachers who completed the questionnaires were not blind to the Gaia program. Consequently, the assessment of syndrome scales may have been influenced by teachers'

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	knowledge and expectations about the intervention condition. • Classes from the same school were assigned to intervention and control groups, thereby suggesting a possible diffusion effect. • The authors only used teacher reports to collect data rather than cross-informant measures. Thus, it was not possible to determine if children's levels of behavioural/emotional problems were confirmed by parents' reports or children's self-report measures. • The study only used measures of children's emotional and behavioural problems. • The study did not assess the effectiveness of the intervention at follow-up by comparing the pre- and post-treatment scores for each group.
Study limitations (reviewer)	Lack of information on method of randomisation
Source of funding	This work was funded by the Italian Ministry of Labour and Social Policies and accredited by the Italian Ministry of Education, University and Research and received support from UNESCO.

Study arms

School-based mindfulness intervention (The Gaia Program) (N = 232)

20 classes from 9 schools participated. It is unclear how many classes were randomised to each arm.

Waitlist control (N = 168)

Characteristics

Study-level characteristics

Characteristic	Study (N = 400)
Age (years) Mean (SD)	8.5 (1.46)
Male Sample size	n = 214 ; % = 53.5

Characteristic	Study (N = 400)
Female Sample size	n = 186 ; % = 46.5

Outcomes

Study timepoints
- 1 week (1 week post-intervention (13 weeks after baseline))

Social and emotional wellbeing outcomes

Outcome	School-based mindfulness intervention (The Gaia Program), 1 week, N = 232	Waitlist control, 1 week, N = 168
Social and emotional wellbeing - social problems Teacher's Report Form (TRF/6-18) from the Achenbach System of Empirically Based Assessment (ASEBA) Mean (SD)	0.67 (1.38)	0.89 (1.71)
Emotional distress - anxiety/depression Teacher's Report Form (TRF/6-18) from the Achenbach System of Empirically Based Assessment (ASEBA) Mean (SD)	1.14 (1.59)	1.75 (2.97)
Behavioural outcomes - rule breaking Teacher's Report Form (TRF/6-18) from the Achenbach System of Empirically Based Assessment (ASEBA) Mean (SD)	0.57 (1.41)	0.62 (1.52)

Social and emotional wellbeing - social problems - Polarity - Lower values are better

Emotional distress - anxiety/depression - Polarity - Lower values are better

Behavioural outcomes - rule breaking - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Social and emotional wellbeing -social problems - School-based mindfulness intervention vs Waitlist control

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Baseline differences in outcomes and lack of teacher-assessor blinding)*
Overall bias and Directness	Overall Directness	Directly applicable

Emotional distress - anxiety/depression - School-based mindfulness intervention vs Waitlist control

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Baseline differences in outcomes and lack of teacher-assessor blinding)*
Overall bias and Directness	Overall Directness	Directly applicable

Behavioural outcomes - rule breaking - School-based mindfulness intervention vs Waitlist control

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Baseline differences in outcomes and lack of teacher-assessor blinding)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

School-based mindfulness intervention (The Gaia Program) (N = NA)

Brief name	Mindfulness-based intervention (The Gaia Program) p. 2592

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Rationale/theory/Goal	Mindfulness-based. Based on the ecological paradigm arguing that there is no fundamental separation among self, other, and nature. p. 2592
Materials used	Not reported
Procedures used	**Modules** 1. Motivation to participate in Gaia 2. Body self-awareness 3. Emotional self-awareness and empathy 4. Global and ecological self-awareness. p. 2593
Provider	The instructors were school teachers and professionals (i.e., school psychologists). p. 2591
Method of delivery	Group level. p. 2594
Setting/location of intervention	Classroom. p. 2591
Intensity/duration of the intervention	Twelve 1-hour sessions and four modules lasting 3–4 months. p. 2594
Tailoring/adaptation	
Unforeseen modifications	None reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

Waitlist control (N = NA)

Brief name	Waitlist control. p. 2592
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Usual classes. p. 2592
Provider	Not reported

Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.30   Gigantesco, 2015

Bibliographic Reference	Gigantesco, Antonella; Del Re, Debora; Cascavilla, Isabella; Palumbo, Gabriella; De Mei, Barbara; Cattaneo, Chiara; Giovannelli, Ilaria; Bella, Antonino; A Universal Mental Health Promotion Programme for Young People in Italy.; BioMed research international; 2015; vol. 2015; 345926

Study details

Study design	Cluster randomised controlled trial
Study type	Effectiveness
Trial registration number	Not reported
Study start date	Oct-2010
Study end date	Jun-2011
Aim	To evaluate the effectiveness of the establishing goals and problems solving programme on self-efficacy, psychological well-being and satisfaction with life

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Country/geographical location	Italy
Type of school	Secondary education
Setting	Nine high schools located in a medium-sized town (Velletri) and six cities (Piacenza, Brescia, Crema, Ascoli Piceno, Torino, and Pisa) in central and northern Italy
UK Key Stage	Key stage 4
Inclusion criteria	Students in grades 9, 10 and 11 with parental consent
Exclusion criteria	Not reported
Method of randomisation	Not reported
Method of allocation concealment	Not reported
Unit of allocation	Cluster (class)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	- Power calculation: Not reported - Intention to treat: Not reported - Unpaired t-test was used to compare groups for age. - Wilcoxon test was used to compare total or dimensional scores obtained in the pre- and post-intervention for each group for all outcomes. - Comparisons between groups at pre- and post-intervention, and differences between total scores at baseline by those completing post-intervention assessment and those lost to follow-up, were tested with the Mann-Whitney test. - Differences among percentages were evaluated by the Chi square test.
Attrition	Attrition by study arm at 2 month follow-up: - Establishing goals and problems solving programme: 176/221; 20.4% attrition - Control: 132/170; 22.4% attrition
Study limitations (author)	Lack of data on exclusion criteria and methods of randomisation and allocation concealment

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Study limitations (reviewer)	- The optimal sample size was not estimated a priori. - Follow-up period was only 2 months, and the observed improvements might be lost over a longer follow-up period. - Relatively high student attrition rate. - Differences between pre-and post-programme scores are small in absolute values. - An introduction of contamination within the schools, between intervention and control classes, may have played a role in this, weakening or diluting the intervention effects.
Source of funding	Not reported

Study arms

Establishing goals and problems solving programme (N = 221)

10 classes including 221 individuals

Control (N = 170)

8 classes including 170 individuals

Characteristics

Study-level characteristics

Characteristic	Study (N = 391)
Age (years) Mean (SE)	15.2 (0.05)
Male Sample size	n = 154 ; % = 39.4
Female Sample size	n = 237 ; % = 60.6

Outcomes

Study timepoints
- 2 month (Follow-up)

Outcome

Outcome	Establishing goals and problems solving programme, 2 month, N = 221	Control, 2 month, N = 170
Social and emotional skills (8-40) Measured by Regulatory Emotional Self-Efficacy (RESE); regulating negative emotions scale (self-reported) Sample size	n = 173 ; % = 78.3	n = 132 ; % = 77.6
Social and emotional skills (8-40) Measured by Regulatory Emotional Self-Efficacy (RESE); regulating negative emotions scale (self-reported) Mean (SE)	23.9 (0.44)	23.4 (0.43)
Quality of life (7-35) Measured by The Satisfaction With Life Scale (self-reported) Sample size	n = 176 ; % = 79.6	n = 132 ; % = 77.6
Quality of life (7-35) Measured by The Satisfaction With Life Scale (self-reported) Mean (SE)	25.4 (0.37)	24.8 (0.5)

Social and emotional skills - Polarity - Higher values are better

Quality of life - Polarity - Higher values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Social and emotional skills - Establishing goals and problems solving programme vs Control - 2-month follow-up

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Serious concerns due to baseline differences in characteristics, missing outcome data, and self-reported outcomes)*

Quality of life - Establishing goals and problems solving programme vs Control - 2-month follow-up

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Serious concerns due to baseline differences in characteristics, missing outcome data, and self-reported outcomes)*

Study arms

Establishing goals and problems solving programme (N = 221)

Brief name	Establishing goals and problems solving programme. Page 2
Rationale/theory/Goal	inspired by Goleman's emotional intelligence model and Falloon's psychoeducational approach. Page 2
Materials used	Student manual containing exercises. Page 2
Procedures used	The main contents of the manual address skills are using structured six-step problem-solving, defining personal goals, adopting effective communication skills, using negotiation, coping with stress, coping with anger, and resolving conflict. page 2
Provider	Facilitator, who was the psychologist or pedagogist of the school where the programme was implemented. They were trained by researchers of the ISS Mental Health Unit who also developed the programme. Page 3
Method of delivery	Face-to-face. Page 3
Setting/location of intervention	Classroom. Page 3
Intensity/duration of the intervention	One-hour session a week for a total of 20 hours class time. Page 3
Tailoring/adaptation	Not reported

Planned treatment fidelity	Facilitators, after reading the manual, completed the training through a one-day training session which lasted for 6 hours, where they also received a guide regarding who to implement the programme. The guide provided them with practical information to identify and overcome barriers in order to implement the programme correctly. Page 3
Actual treatment fidelity	An important finding of the current study is that classroom students and school staff conducted the programme effectively. Page 6

Control (N = 170)

Brief name	Curricula as usual. Page 3
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Not reported
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.31 Gorard, 2017

Bibliographic Reference	Gorard, Stepehn; Siddiqui, Nadia; See, Beng Huat; Can "Philosophy for Children" Improve Primary School Attainment?; Journal of Philosophy of Education; 2017; vol. 51 (no. 1); 5-22

Study details

Trial registration number	Not specified
Aim	Determine the effect of the P4C programme on the Key Stage 2 scores of pupils who were in Year 5 when the schools were randomised and Year 6 by the end of the trial
Country/geographical location	UK
Type of school	Primary education
Setting	School
Inclusion criteria	Not specified
Exclusion criteria	Not specified
Method of randomisation	Not specified
Method of allocation concealment	Not specified
Unit of allocation	School level
Unit of analysis	Participant
Statistical method(s) used to analyse the data	Hedges' g (measure of effect size)
Attrition	Intervention: 22/22 schools (0%); 1366/1550 pupils (12%) Control: 26/26 schools (0%); 1455/1609 (10%) Total: 48/48 schools (0%); 2821/3159 (11%)
Study limitations (author)	Schools, rather than pupils, are randomised – reducing the 'power' of the study

Study limitations (reviewer)	Lack of blinding and allocation concealment protocols; lack of detail regarding blinding; No baseline assessment of characteristics between arms with observed differences in English as additional language (9% vs 15%)
Source of funding	Not specified - Society for the Advancement of Philosophical Enquiry and Reflection in Education (SAPERE) promotes the use of P4C in UK schools along with developing teaching resources and providing teacher training courses and thus have a vested interest in the intervention; For the current evaluation, these costs were met by EEF (not specified) both for the treatment schools and then for the waiting-list control schools later. SAPERE states that its current programmes typically cost £25 -30 per pupil.

Study arms

Philosophy for Children - P4C (N = 1550)

P4C practice in classrooms: aims to help pupils' to think logically, to voice their opinion, to use appropriate language in argumentation and to listen to the views and opinions of others. Pupils and teacher sit in a circle so everyone can see and hear one another. The teacher negotiates with pupils on guidelines on the conduct of sessions and the purpose is to set some basic rules of communication agreed all the pupils. 22 Schools

Control (N = 1609)

Waiting list - The evaluators ensured that none of these schools used P4C during the period of the trial; evaluators visited control schools and were not aware of any systematic approach to critical thinking adopted in the control schools.

Characteristics

Study-level characteristics

Characteristic	Study (N = 3159)
Age	NR
Nominal	

Arm-level characteristics

Characteristic	Philosophy for Children - P4C (N = 1550)	Control (N = 1609)
Gender % Male Nominal	51	52
Ethnicity % non-white UK ethnicity Nominal	31	23
Free school meal eligible Nominal	48	46
Special Educational Needs reported Nominal	18	19
English as an additional language Nominal	9	15

Outcomes

Study timepoints
- Baseline
- 12 month (Key stage 2)

Academic achievement - English

Outcome	Philosophy for Children - P4C, Baseline, N = 772	Philosophy for Children - P4C, 12 month, N = 772	Control, Baseline, N = 757	Control, 12 month, N = 757
KS1 to KS2: Reading Mean points z-score Mean (SD)	-0.08 (1.01)	-0.02 (1.01)	0.08 (0.98)	0.02 (0.99)
KS1 to KS2 Writing	-0.07 (1.03)	-0.05 (1)	0.07 (0.96)	0.06 (1)

Outcome	Philosophy for Children - P4C, Baseline, N = 772	Philosophy for Children - P4C, 12 month, N = 772	Control, Baseline, N = 757	Control, 12 month, N = 757
Mean points z-score Mean (SD)				

KS1 to KS2: Reading - Polarity - Higher values are better

KS1 to KS2 Writing - Polarity - Higher values are better

Key stage 2 scores

Cognitive Abilities Test (CAT4)

Outcome	Philosophy for Children - P4C, Baseline, N = 1366	Philosophy for Children - P4C, 12 month, N = 1366	Control, Baseline, N = 1455	Control, 12 month, N = 1455
Overall CAT4 gain score Mean (SD)	94.37 (11.24)	96.59 (12.26)	95.2 (11.19)	96.9 (11.9)

Overall CAT4 gain score - Polarity - Higher values are better

Four sub-scales, representing the core elements thought to be needed for critical thinking

Academic achievement - Maths

Outcome	Philosophy for Children - P4C, Baseline, N = 772	Philosophy for Children - P4C, 12 month, N = 772	Control, Baseline, N = 757	Control, 12 month, N = 757
Maths Mean points z-score Mean (SD)	-0.09 (1.04)	-0.04 (1.01)	0.08 (0.95)	0.04 (0.99)

Maths - Polarity - Higher values are better

Key stage 2 scores

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Academicachievement-English-KS1toKS2:Reading-MeanSD-P4C-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Randomisation not specified; lack of blinding and allocation concealment; self-report for CAT4 outcomes; Control arms potentially receive some aspects of the intervention arm (unclear))*
Overall bias and Directness	Overall Directness	Directly applicable

Academicachievement-English-KS1toKS2Writing-MeanSD-Philosophy for Children - P4C-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Randomisation not specified; lack of blinding and allocation concealment; self-report for CAT4 outcomes; Control arms potentially receive some aspects of the intervention arm (unclear))*
Overall bias and Directness	Overall Directness	Directly applicable

CognitiveAbilitiesTest(CAT4)-OverallCAT4gainscore-MeanSD-Philosophy for Children - P4C-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Randomisation not specified; lack of blinding and allocation concealment; self-report for CAT4 outcomes; Control arms potentially receive some aspects of the intervention arm (unclear))*
Overall bias and Directness	Overall Directness	Directly applicable

Academicachievement-Maths-Maths-MeanSD-Philosophy for Children - P4C-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Randomisation not specified; lack of blinding and allocation concealment; self-report for CAT4 outcomes; Control arms potentially receive some aspects of the intervention arm (unclear))*
Overall bias and Directness	Overall Directness	Directly applicable

Study details

Brief name	
Other details	Society for the Advancement of Philosophical Enquiry and Reflection in Education (SAPERE) promotes the use of P4C in UK schools along with developing teaching resources and providing teacher training courses and thus have a vested interest in the intervention

Study arms

Philosophy for Children - P4C (N = 1550)

Brief name	P4C
Rationale/theory/Goal	Increasing philosophical enquiry can lead to enhanced performance in academic domains.
Materials used	It does not have any specified materials or stimuli that must be used; there are only examples and suggestions; No special equipment is required for this intervention. It may involve standard material for teaching such as a projector, board, pens or sheets of papers. There is also the expectation for teachers to use existing curriculum material in their lessons when they judge it to have the potential to stimulate philosophical discussion and clarify key concepts in subject areas such as democracy, justice, nation, history, truth, cause, evidence, beauty, art, real, belief, knowledge, tolerance, and theory.
Procedures used	Participant schools identified and randomised (Details not specified); Consent obtained; Pupils and teacher sit in a circle so everyone can see and hear one another. The teacher negotiates with pupils on guidelines on the conduct of sessions and the

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	purpose is to set some basic rules of communication agreed all the pupils; planned materials introduced; children present groups questions which are all recorded and discussion are had; Pupils participate in the discussion, building on other pupils' contributions, clarifying them, questioning them and stating their own opinions; summing up of discussion points; teacher invites reflection and evaluation. Data collection is based on pre and post math and reading test scores and responses to CAT4 questionnaire at 12 months
Provider	Teacher
Method of delivery	face to face
Setting/location of intervention	classroom
Intensity/duration of the intervention	Not specified - delivered over the course of one academic year. Sessions negotiated between teachers and pupils; P4C, as promoted by SAPERE, is a template to practice and organise a classroom session for philosophical enquiry. It does not have any specified materials or stimuli that must be used; there are only examples and suggestions. A guide to organising the classroom dialogue and can be used flexibly as the teacher's expertise grows. For example, the stages do not need to be completed all in one session. Choosing a question in one session and discussing it in another is a popular option.
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	The implementation of P4C in the schools was closely monitored to ensure the delivery adhered to the protocol. A P4C accredited trainer provided regular feedback reports about the quality and the level of implementation in the schools
Actual treatment fidelity	Not specified
Other details	Not specified

P4C practice in classrooms: aims to help pupils' to think logically, to voice their opinion, to use appropriate language in argumentation and to listen to the views and opinions of others. Pupils and teacher sit in a circle so everyone can see and hear one another. The teacher negotiates with pupils on guidelines on the conduct of sessions and the purpose is to set some basic rules of communication agreed all the pupils. 22 Schools

Control (N = 1609)

Brief name	Control
Rationale/theory/Goal	Comparator condition to allow the assessment of the efficacy of P4C
Materials used	Waiting list; control schools (on the waiting list) were funded and permitted to receive P4C teacher training and implement the intervention after the trial was completed
Procedures used	Waiting list control - teaching as usual
Provider	Teacher
Method of delivery	face to face
Setting/location of intervention	School
Intensity/duration of the intervention	Not specified
Tailoring/adaptation	Not specified
Planned treatment fidelity	Not specified
Actual treatment fidelity	Not specified
Other details	Not specified

Waiting list - The evaluators ensured that none of these schools used P4C during the period of the trial; evaluators visited control schools and were not aware of any systematic approach to critical thinking adopted in the control schools

D.1.32   Hagins, 2016

Bibliographic Reference	Hagins, Marshall; Rundle, Andrew; Yoga Improves Academic Performance in Urban High School Students Compared to Physical Education: A Randomized Controlled Trial; Mind, Brain, and Education; 2016; vol. 10 (no. 2); 105-116

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Study details

Trial registration number	NCT02329015
Study start date	Sep-2014
Study end date	Sep-2015
Aim	Examine the effects of a year-long school-based yoga program on academic performance and explore potential mediating effects of emotional regulation and executive function.
Country/geographical location	USA, New York
Setting	School
Inclusion criteria	Not specified - Participants recruited from 9th, 10th, and 11th grade students in a single public high school in New York City
Exclusion criteria	Not specified
Method of randomisation	Randomization was based on English class assignment. There were 10 English classes and all students within a class were assigned to yoga or PE. As a result of scheduling and space requirements, the cluster randomization was performed in a 2:3 ratio with four classes assigned to yoga and six classes assigned to PE.
Method of allocation concealment	Not specified
Unit of allocation	School class
Unit of analysis	Participant
Statistical method(s) used to analyse the data	Multivariable linear regression. Model 1: end-of-study mean year GPA as the dependent variable and variables for yoga versus PE assignment and previous mean year GPA as independent variables Model 2: Model 1 + added variable for class participation to account for differences in active participation Model 3: interaction term for class assignment and class participation - assesses the association between assignment to yoga and grades at each level of participation in the assigned class
Attrition	Enrolment to randomisation 112/283 (60% attrition); randomised to end of analysis 112/112 (0% attrition)

Study limitations (author)	A relatively small sample size, findings specific to an urban setting, comparison of yoga to a physical activity intervention rather than other proven educational approaches, and grades observed across a single academic year; lack of blinding of tester and reliance on self-report. Analysis limited by an inability to test effects due to clustering, which would have been performed by comparing last year's academic grades of all students in the six English classes which received PE to all the students in the four English classes that received yoga.
Study limitations (reviewer)	Allocation concealment; no details regarding randomisation method; Statistical differences between arms post randomisation: Number of classes participation (p=0.001); Female (p=0.02)
Source of funding	Sonima Foundation (www.Sonimafoundation.org).

Study arms

PE (N = 64)

PE class two times per week for 45 min across the entire academic year (58 scheduled classes); Included weight lifting, stationary biking, fitness exercises such as jumping jacks and push-ups, and common games such as soccer and volleyball. Activities varied arbitrarily based on the teacher's decisions each week.

Yoga (N = 48)

yoga curriculum (Sonima Foundation, n.d.) used mindfulness and yoga-based exercises with the goal of helping students focus on their work and develop the ability to respond appropriately to various challenging situations; Thematic units were introduced across the entire academic year in the following sequence approximately every 4 weeks: The Power to Connect, The Power of Mindfulness, The Power of the Brain Body Connection, The Power of Integration, The Power to Grow, The Power of Positive Habits.

Characteristics

Arm-level characteristics

Characteristic	PE (N = 64)	Yoga (N = 48)
Age (years) Mean (SD)	15.44 (0.98)	15.2 (0.94)

Characteristic	PE (N = 64)	Yoga (N = 48)
Gender % female Nominal	38.4	61.7
% Asian Nominal	7.6	14.8
% Black Nominal	26.1	25.5
% White Nominal	7.6	14.8
% Hispanic Nominal	58.4	44.6
Number of classes participating Mean (SD)	52.46 (18.51)	39.32 (12.88)
GPA previous academic year Mean (SD)	83.38 (7.68)	85.62 (7.98)
Free lunch % Nominal	67.8	70.4

Outcomes

Study timepoints
- Baseline
- 6 month (Self-report surveys were collected at three time points (September, February, and May).)
- 9 month (Self-report surveys were collected at three time points (September, February, and May).)

Emotional distress - Response to Stress Questionnaire (RSQ)

Outcome	PE, Baseline, N = 64	PE, 6 month, N = 64	PE, 9 month, N = 64	Yoga, Baseline, N = 46	Yoga, 6 month, N = 46	Yoga, 9 month, N = 46
RSQ Voluntary attempts to change the situation or one's emotions in within the person's conscious control (nine items: problem solving, emotional control, emotional expression) Sample size	n = NA ; % = NA	n = 60 ; % = 94	n = 56 ; % = 88	n = NA ; % = NA	n = 38 ; % = 83	n = 39 ; % = 85
RSQ Voluntary attempts to change the situation or one's emotions in within the person's conscious control (nine items: problem solving, emotional control, emotional expression) Mean (SD)	1.23 (0.6)	1.35 (0.6)	1.27 (0.6)	1.35 (0.6)	1.32 (0.5)	1.37 (0.6)
RSQ Involuntary involves more unconscious or temperamental reactions (15 items: rumination, intrusive thoughts, physiological arousal, emotional arousal, involuntary action). Sample size	n = NA ; % = NA	n = 58 ; % = 91	n = 55 ; % = 86	n = 45 ; % = 98	n = 38 ; % = 83	n = 39 ; % = 85
RSQ Involuntary involves more unconscious or temperamental reactions (15 items: rumination, intrusive thoughts, physiological arousal, emotional arousal, involuntary action). Mean (SD)	0.7 (0.6)	0.78 (0.6)	0.67 (0.6)	0.96 (0.6)	0.9 (0.7)	0.84 (0.8)

RSQ Voluntary - Polarity - Lower values are better

RSQ Involuntary - Polarity - Lower values are better

The RSQ, Social Stress Version, is a 57-item self-report questionnaire that was used as a measure of emotional regulation processes; two of the five constructs (24 of the 57 items) within the RSQ because these were most directly theoretically relevant to expected changes because of yoga practice: (1) voluntary engagement, which includes attempts to change the situation or one's emotions in within the person's conscious control (nine items: problem solving, emotional control, emotional expression); and (2) involuntary engagement, which involves more unconscious or temperamental reactions (15 items: rumination, intrusive thoughts, physiological arousal, emotional arousal, involuntary action).

Social and emotional skills - Child and Adolescent Mindfulness Measure (CAMM)

Outcome	PE, Baseline, N = 64	PE, 6 month, N = 57	PE, 9 month, N = 53	Yoga, Baseline, N = 46	Yoga, 6 month, N = 37	Yoga, 9 month, N = 39
CAMM Mean (SD)	25.23 (8.7)	24.12 (9.5)	26.38 (8.5)	22.83 (8)	24.76 (9.4)	25.59 (8.7)

CAMM - Polarity - Higher values are better

Child and Adolescent Mindfulness Measure (CAMM) is a 10-item measure assessing mindfulness skills

Academic outcomes - Grade Point Average

Outcome	PE, Baseline, N = 64	PE, 6 month, N = 64	PE, 9 month, N = 64	Yoga, Baseline, N = 48	Yoga, 6 month, N = 48	Yoga, 9 month, N = 48
Change in mean GPA Standardised Mean (SD)	83.38 (7.68)	NA (NA)	83.45 (8.79)	85.62 (7.98)	NA (NA)	85.71 (8.4)

GPA was calculated as the numeric average of course scores of all courses taken by the student weighted by credit load of each course using a standard process within New York City public schools. The GPA from the previous academic year (2013–2014) and the current academic year (2014–2015) were analyzed

Behavioral - Warwick-Edinburgh Mental Well-Being Scale (WEMWBS)

Outcome	PE, Baseline, N = 64	PE, 6 month, N = 60	PE, 9 month, N = 53	Yoga, Baseline, N = 46	Yoga, 6 month, N = 38	Yoga, 9 month, N = 39
WEMWS	49.58 (13.3)	51.72 (10)	49.51 (12)	48.26 (11)	47.13 (11.7)	48.9 (13.4)

Outcome	PE, Baseline, N = 64	PE, 6 month, N = 60	PE, 9 month, N = 53	Yoga, Baseline, N = 46	Yoga, 6 month, N = 38	Yoga, 9 month, N = 39
Mean (SD)						

WEMWS - Polarity - Higher values are better

Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) is a 14-item measure assessing subjective well-being and psychological functioning in which all items address aspects of positive mental health

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotionaldistress-ResponsetoStressQuestionnaire(RSQ)-RSQVoluntary-MeanSD-PE-Yoga-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of blinding, allocation concealment; Baseline characteristics post randomisation indicated significant differences in charaterisitcs that would influence the impact of a physical activity orientated intervention; self-report measurement with assessor knowledge of allocations)*
Overall bias and Directness	Overall Directness	Partially applicable *(OECD country but >50% sample population from Hispanic backgrounds (which are not a major UK population group)*

Emotionaldistress-ResponsetoStressQuestionnaire(RSQ)-RSQVoluntary-MeanSD-PE-Yoga-t9

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of blinding, allocation concealment; Baseline characteristics post randomisation indicated significant differences in charaterisitcs that would influence the impact of a physical activity orientated intervention; self-report measurement with assessor knowledge of allocations)*
Overall bias and Directness	Overall Directness	Partially applicable *(OECD country but >50% sample population from Hispanic backgrounds (which are not a major UK population group)*

Emotionaldistress-ResponsetoStressQuestionnaire(RSQ)-RSQInvoluntary-MeanSD-PE-Yoga-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of blinding, allocation concealment; Baseline characteristics post randomisation indicated significant differences in charaterisitcs that would influence the impact of a physical activity orientated intervention; self-report measurement with assessor knowledge of allocations)*
Overall bias and Directness	Overall Directness	Partially applicable *(OECD country but >50% sample population from Hispanic backgrounds (which are not a major UK population group)*

Emotionaldistress-ResponsetoStressQuestionnaire(RSQ)-RSQInvoluntary-MeanSD-PE-Yoga-t9

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of blinding, allocation concealment; Baseline characteristics post randomisation indicated significant differences in charaterisitcs that would influence the impact of a physical activity orientated intervention; self-report measurement with assessor knowledge of allocations)*
Overall bias and Directness	Overall Directness	Partially applicable *(OECD country but >50% sample population from Hispanic backgrounds (which are not a major UK population group)*

Socialandemotionalskills-ChildandAdolescentMindfulnessMeasure(CAMM)-CAMM-MeanSD-PE-Yoga-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of blinding, allocation concealment; Baseline characteristics post randomisation indicated significant differences in charaterisitcs that would influence the impact of a physical activity orientated intervention; self-report measurement with assessor knowledge of allocations)*

Section	Question	Answer
Overall bias and Directness	Overall Directness	Partially applicable *(OECD country but >50% sample population from Hispanic backgrounds (which are not a major UK population group)*

Socialandemotionalskills-ChildandAdolescentMindfulnessMeasure(CAMM)-CAMM-MeanSD-PE-Yoga-t9

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of blinding, allocation concealment; Baseline characteristics post randomisation indicated significant differences in charaterisitcs that would influence the impact of a physical activity orientated intervention; self-report measurement with assessor knowledge of allocations)*
Overall bias and Directness	Overall Directness	Partially applicable *(OECD country but >50% sample population from Hispanic backgrounds (which are not a major UK population group)*

Academicoutcomes-GradePointAverage-ChangeinmeanGPA-StandardisedMeanSD-PE-Yoga-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of blinding, allocation concealment; Baseline characteristics post randomisation indicated significant differences in charaterisitcs that would influence the impact of a physical activity orientated intervention; self-report measurement with assessor knowledge of allocations)*
Overall bias and Directness	Overall Directness	Partially applicable *(OECD country but >50% sample population from Hispanic backgrounds (which are not a major UK population group)*

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Academicoutcomes-GradePointAverage-ChangeinmeanGPA-StandardisedMeanSD-PE-Yoga-t9

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of blinding, allocation concealment; Baseline characteristics post randomisation indicated significant differences in charaterisitcs that would influence the impact of a physical activity orientated intervention; self-report measurement with assessor knowledge of allocations)*
Overall bias and Directness	Overall Directness	Partially applicable *(OECD country but >50% sample population from Hispanic backgrounds (which are not a major UK population group)*

Behavioral-Warwick-EdinburghMentalWell-BeingScale(WEMWBS)-WEMWS-MeanSD-PE-Yoga-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of blinding, allocation concealment; Baseline characteristics post randomisation indicated significant differences in charaterisitcs that would influence the impact of a physical activity orientated intervention; self-report measurement with assessor knowledge of allocations)*
Overall bias and Directness	Overall Directness	Partially applicable *(OECD country but >50% sample population from Hispanic backgrounds (which are not a major UK population group)*

Behavioral-Warwick-EdinburghMentalWell-BeingScale(WEMWBS)-WEMWS-MeanSD-PE-Yoga-t9

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of blinding, allocation concealment; Baseline characteristics post randomisation indicated significant differences in charaterisitcs that would influence the impact of a physical activity orientated intervention; self-report measurement with assessor knowledge of allocations)*
Overall bias and Directness	Overall Directness	Partially applicable *(OECD country but >50% sample population from Hispanic backgrounds (which are not a major UK population group)*

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Study details

Study arms

PE (N = 64)

Brief name	PE
Rationale/theory/Goal	Active comparator to allow the assessment of the impact of yoga intervention.
Materials used	Two of the subscales of the Response to Stress Questionnaire (RSQ); Behavior Rating Inventory of Executive Function (BRIEF); Child and Adolescent Mindfulness Measure (CAMM); Warwick-Edinburgh Mental Well-Being Scale (WEMWBS); Fidelity of implementation of the intervention was measured via four classroom observations; PE and yoga classes met two times per week for 45 min across the entire academic year (58 scheduled classes);
Procedures used	Identification, Informed consent and randomisation; The four self-report surveys were collected at three time points (September, February, and May); teacher report survey (BRIEF) was collected at mid-October, February, and May post teacher familarisation with tool. At each time point trained research assistants met with students in their respective PE or yoga classes to complete all of the measures in one session lasting approximately 45min.
Provider	Teacher
Method of delivery	Face to face
Setting/location of intervention	School
Intensity/duration of the intervention	PE and yoga classes met two times per week for 45min across the entire academic year (58 scheduled classes). The PE class included weight lifting, stationary biking, fitness exercises such as jumping jacks and push-ups, and common games such as soccer and volleyball. Activities varied arbitrarily based on the teacher's decisions each week
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified

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Planned treatment fidelity	Fidelity of implementation of the intervention was measured via four classroom observations across the academic year using two observers and a standardized form created by the authors based on previous work related to yoga in schools (Gould et al., 2014). The form has 10 items describing general activities considered essential to every class; There are an additional seven items, which describe the quality of the teacher–student interactions and one item on the physical environment of the classroom.
Actual treatment fidelity	Fidelity of the intervention, 98.7% of the 80 measures (10 activities ×4 classes× 2 observers) suggested that the activities considered essential to every class were being implemented. Mean (SD) values of the two observers for the 7 items (5-point Likert scale) which describe the quality of the teacher student interactions was 4.5 (±.76) and 4.6 (±.56) suggesting that teacher student interactions were being successfully implemented.
Other details	Not specified

PE class two times per week for 45 min across the entire academic year (58 scheduled classes); Included weight lifting, stationary biking, fitness exercises such as jumping jacks and push-ups, and common games such as soccer and volleyball. Activities varied arbitrarily based on the teacher's decisions each week

Yoga (N = 48)

Brief name	Yoga
Rationale/theory/Goal	Success in school is a strong predictor for social and occupational status in adulthood; School programs often focus on factors which have been shown to positively influence academic performance, including physical activity, health, social emotional learning and self-regulation (SR) and executive function (EF). Self-regulation and EF allow students to attend appropriately to classroom activities, remember information, inhibit distractors, and persist toward goals, all of which demonstrate successful behavioral regulation. This study examined the effects of a year-long school-based yoga program on academic performance and explore potential mediating effects of emotional regulation and executive function
Materials used	Two of the subscales of the Response to Stress Questionnaire (RSQ); Behavior Rating Inventory of Executive Function (BRIEF); Child and Adolescent Mindfulness Measure (CAMM); Warwick-Edinburgh Mental Well-Being Scale (WEMWBS); Fidelity of implementation of the intervention was measured via four classroom observations; PE and yoga classes met two times per week for 45 min across the entire academic year (58 scheduled classes); manualized yoga curriculum (Sonima Foundation, n.d.); two teachers providing the yoga curriculum had a minimum 200-hr

	general yoga teacher training and attended 6 days of yoga curriculum training prior to the start of the school year;
Procedures used	Identification, Informed consent and randomisation; The four self-report surveys were collected at three time points (September, February, and May); teacher report survey (BRIEF) was collected at mid-October, February, and May post teacher familarisation with tool. At each time point trained research assistants met with students in their respective PE or yoga classes to complete all of the measures in one session lasting approximately 45min.
Provider	Teacher
Method of delivery	face to face
Setting/location of intervention	school
Intensity/duration of the intervention	PE and yoga classes met two times per week for 45 min across the entire academic year (58 scheduled classes).
Tailoring/adaptation	not specified
Unforeseen modifications	not specified
Planned treatment fidelity	Fidelity of implementation of the intervention was measured via four classroom observations across the academic year using two observers and a standardized form created by the authors based on previous work related to yoga in schools (Gould et al., 2014). The form has 10 items describing general activities considered essential to every class; There are an additional seven items, which describe the quality of the teacher–student interactions and one item on the physical environment of the classroom.
Actual treatment fidelity	Fidelity of the intervention, 98.7% of the 80 measures (10 activities ×4 classes× 2 observers) suggested that the activities considered essential to every class were being implemented. Mean (SD) values of the two observers for the 7 items (5-point Likert scale) which describe the quality of the teacher student interactions was 4.5 (±.76) and 4.6 (±.56) suggesting that teacher student interactions were being successfully implemented.
Other details	Not specified

Yoga curriculum (Sonima Foundation, n.d.) used mindfulness and yoga-based exercises with the goal of helping students focus on their work and develop the ability to respond appropriately to various challenging situations; Thematic units were introduced across the entire academic year in the following sequence approximately every 4 weeks: The Power to Connect, The Power of Mindfulness, The Power of the

Brain Body Connection, The Power of Integration, The Power to Grow, The Power of Positive Habits.

D.1.33   Harlacher, 2010

Bibliographic Reference	Harlacher, Jason E; Merrell, Kenneth W; Social and emotional learning as a universal level of student support: Evaluating the follow-up effect of strong kids on social and emotional outcomes.; Journal of Applied School Psychology; 2010; vol. 26 (no. 3); 212-229

Study details

Study design	Cluster randomised controlled trial
Trial registration number	Not specified
Aim	To determine whether the use of a SEL curriculum, Strong Kids leads to better social and emotional functioning over a moderate time period
Country/geographical location	USA
Type of school	Primary education
Setting	Schools
UK Key Stage	Key stage 2
Inclusion criteria	Not specified - Grades 3 and 4 from an elementary school in the Pacific Northwest
Exclusion criteria	Not specified
Method of randomisation	Not specified: Teachers were randomly assigned to either the treatment or wait-list condition; Random assignment at the individual level was not possible because students were in preexisting groups that could not be altered
Method of allocation concealment	Not specified
Unit of allocation	Teacher/classroom

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Unit of analysis	Participant
Statistical method(s) used to analyse the data	To examine any preexisting differences across and within groups, we conducted a series of multivariate analyses of variance (MANOVA) with age, race, gender, or grade as the independent variable and scores on the dependent measures as the dependent variables; two-way mixed effects MANOVA used to test for intervention effect and gains-score analysis
Attrition	Not specified - assume 0% post-randomisation
Study limitations (author)	Small sample size; homogenous makeup with respect to student characteristics (low generalizability); measures internal consistency coefficients were low for the SK Knowledge Test at pretest.
Study limitations (reviewer)	No blinding; no allocation concealment; differences at baseline indicate issues with randomisation; no details regarding randomisation; analysis does not account for clustering
Source of funding	Not specified

Study arms

Strong Kids (N = 54)

12 lessons + 1 booster session SEL curriculum brief: universal curriculum that teaches social, emotional, and mental health skills to children, and it is based on the notion of psychological wellness (i.e., the concept of developing competencies that promote healthy functioning alongside reducing pathology and risk factors), and the curriculum enlists cognitive change, affective education, and behavioral skills in order to produce social and emotional competency gains and resiliency. 4 classrooms randomised: Participants taken from one third-grade classroom and one fourth-grade classroom

Waiting-list control (N = 52)

The wait-list group implemented the curriculum after the follow-up testing period

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Characteristics

Study-level characteristics

Characteristic	Study (N = 106)
Mean - 3rd grade years Nominal	8.4
Mean - 4th grade years Nominal	9.4
Gender % Boys Nominal	46
% White Nominal	79

Outcomes

Study timepoints
- Baseline
- 13 week (Post-test)
- 7 month (2 month follow-up after post test)

Social and emotional skills - SK Knowledge Test

Outcome	Strong Kids, Baseline, N = 54	Strong Kids, 13 week, N = 54	Strong Kids, 7 month, N = 54	Waiting-list control , Baseline, N = 52	Waiting-list control , 13 week, N = 52	Waiting-list control , 7 month, N = 52
SK Knowledge Test Mean (SD)	10.39 (2.76)	13.27 (3.19)	13.46 (3.3)	10.08 (3.25)	11 (2.99)	11.25 (3.17)

SK Knowledge Test - Polarity - Higher values are better

20-item measure of a students' knowledge of definitions and the application of concepts from the curriculum

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Behavioral outcomes - School Social Behavior Scales

Outcome	Strong Kids, Baseline, N = 54	Strong Kids, 13 week, N = 54	Strong Kids, 7 month, N = 54	Waiting-list control , Baseline, N = 52	Waiting-list control , 13 week, N = 52	Waiting-list control , 7 month, N = 52
SSBS-2 Mean (SD)	37.56 (12.4)	42.97 (12.36)	44.54 (11.69)	27.19 (11.85)	33.17 (11.43)	30.96 (12.35)

SSBS-2 - Polarity - Higher values are better

Measure of social functioning: 14-item peer relations subscale from the School Social Behavior Scales

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Socialandemotionalskills-SKKnowledgeTest-SKKnowledgeTest-MeanSD-Strong Kids-Waiting-list control -t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of details; Randomisation method unclear and there is a statistical difference in the baseline measures for two of the measured outcomes; Randomised by teacher/class but limited details regarding the adjustment for clustering in the participant analysis)*
Overall bias and Directness	Overall Directness	Directly applicable

Socialandemotionalskills-SKKnowledgeTest-SKKnowledgeTest-MeanSD-Strong Kids-Waiting-list control -t7

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of details; Randomisation method unclear and there is a statistical difference in the baseline measures for two of the measured outcomes; Randomised by teacher/class but limited details regarding the adjustment for clustering in the participant analysis)*

Section	Question	Answer
Overall bias and Directness	Overall Directness	Directly applicable

BehavioralOutcomes-SchoolSocialBehaviorScales-SSBS-2-MeanSD-Strong Kids-Waiting-list control -t13

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of details; Randomisation method unclear and there is a statistical difference in the baseline measures for two of the measured outcomes; Randomised by teacher/class but limited details regarding the adjustment for clustering in the participant analysis)*
Overall bias and Directness	Overall Directness	Directly applicable

BehavioralOutcomes-SchoolSocialBehaviorScales-SSBS-2-MeanSD-Strong Kids-Waiting-list control -t7

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of details; Randomisation method unclear and there is a statistical difference in the baseline measures for two of the measured outcomes; Randomised by teacher/class but limited details regarding the adjustment for clustering in the participant analysis)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

Strong Kids (N = 54)

Brief name	SK

Rationale/theory/Goal	Use of a SEL curriculum, leads to better social and emotional functioning over a moderate time period.
Materials used	SK Knowledge Test; shortened version of the Coping Scale; Social-Emotional Assets and Resiliency Scales-Child Self-Report Version (SEARS-C); School Social Behavior Scales (SSBS-2); curriculum manuals for students; small reinforcer (e.g., fruit, snack, eraser, pencil) for completing the measures; monetary compensation for evaluation completion;
Procedures used	Teachers were randomly assigned to either the treatment or wait-list condition; After receiving a 1-hr training, the treatment group teachers implemented the SK curriculum once per week for 12 weeks beginning in September and a booster session in January. Teachers reported spending 15–20 min each week preparing for each lesson. Data were collected during the regular school day.
Provider	Teacher
Method of delivery	face to face
Setting/location of intervention	school/classroom
Intensity/duration of the intervention	once per week for 12 weeks plus a booster session at the end of 12 weeks
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	Fidelity of implementation measured by recording the number of curriculum components implemented for 8 of the total 26 lessons among the teachers, resulting in fidelity checks for 31% of the lessons
Actual treatment fidelity	Fidelity was more than 85%, and interrater reliability for the fidelity measure was 97%.
Other details	Not reported

12 lessons + 1 booster session SEL curriculum brief: universal curriculum that teaches social, emotional, and mental health skills to children, and it is based on the notion of psychological wellness (i.e., the concept of developing competencies that promote healthy functioning alongside reducing pathology and risk factors), and the curriculum enlists cognitive change, affective education, and behavioral skills in order to produce social and emotional competency gains and resiliency. 4 classrooms randomised: Participants taken from one third-grade classroom and one fourth-grade classroom

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Waiting-list control (N = 52)

Brief name	Waiting-list
Rationale/theory/Goal	Control comparator
Materials used	Not specified
Procedures used	Not specified
Provider	Teachers
Method of delivery	not specified
Setting/location of intervention	school/classroom
Intensity/duration of the intervention	not specified
Tailoring/adaptation	not specified
Unforeseen modifications	not specified
Planned treatment fidelity	not specified
Actual treatment fidelity	not specified
Other details	not specified

The wait-list group implemented the curriculum after the follow-up testing period

D.1.34   Holen, 2012

Bibliographic Reference	Holen, Solveig; Waaktaar, Trine; Lervag, Arne; Ystgaard, Mette; The Effectiveness of a Universal School-Based Programme on Coping and Mental Health: A Randomised, Controlled Study of Zippy' Friends; Educational Psychology; 2012; vol. 32 (no. 5); 657-677
Secondary publication(s)	Holen, Solveig, Waaktaar, Trine, Lervag, Arne et al. (2013) Implementing a universal stress management program for young school children: Are

there classroom climate or academic effects?. Scandinavian Journal of Educational Research 57(4): 420-444

Study details

Trial registration number	Not specified
Study start date	2007
Study end date	2008
Aim	To examine the hypothesis that participating in the Zippy's Friends programme would improve children's coping repertoire and prevent mental health problems; whether the effects varied by gender or the socio-economic background of the family.
Country/geographical location	Norway
Type of school	Primary education
Setting	Schools/Classrooms
UK Key Stage	Key stage 1 Key stage 2
Inclusion criteria	Not specified - All children in each class received the program but only data from those whose parents had consented were included in the effectiveness study
Exclusion criteria	Not specified
Method of randomisation	Randomisation performed on school-level; Schools (n=35) matched in pairs based on school socio-economic profile (provided by the local authorities), percentage of special teaching and ethnic minority backgrounds (provided by Norwegian School Statistics) then each pair was randomised - method of randomisation not outlined
Unit of allocation	School level
Unit of analysis	participant
Statistical method(s) used to analyse the data	Structural equation modelling; Mean and standard deviations; regression modelling analysis; Missing data were identified and estimated using limited information weighted least squares estimation.

Attrition	Zippy's friends: randomised to pre-test - 684/745 (8% attrittion); at one year - 684/686 (0.2% attrition); post-test - 640/686 (7%) Control: randomised to pre-test - 638/738 (14% attrittion); at one year - 631/638 (1`% attrition); post-test - 631/638 (1%)
Study limitations (author)	Representative of sample to Norway more generally; Although the schools were randomly assigned into intervention and control groups, they were not randomly selected to take part in the study. Participating schools from the target areas were voluntary enrolled to the program, and may therefore be slightly more typical of schools that are positive to this kind of intervention; teachers reported that they made some minor changes in the program during implementation (fidelity not assessed); Norway has a strong SEL focus - 25% of the control schools running another social skills program potentially confounds intervention effect;
Study limitations (reviewer)	Blinding and allocation concealment not specified; details regarding the method of randomisation not outlined;
Source of funding	The implementation of the programme was funded by the Norwegian Directorate of Health.

Study arms

Zippy's Friends (N = 745)

Teacher implemented universal school-based program targeting children between 6 and 8 years of age; to prevent psychological problems by increasing children's coping repertoire and giving them various ways of coping with problems; 24 weekly lessons - children were stimulated to initiate their own activities, interactions and dialogue, and to share perceptions and experiences- 18 schools; 47 classes;

Control (N = 738)

Control schools were given no directions from the project and thus performed 'business as usual; 17 schools; 44 classes

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Characteristics

Study-level characteristics

Characteristic	Study (N = 1315)
Age years Mean (SD)	7.3 (0.32)
Gender % girls Nominal	49.3
Ethnicity % Caucasian Nominal	97
% completed high school Nominal	85.7
% received higher education Nominal	61.6

Outcomes

Study timepoints
- Baseline
- 24 week (Post-intervention)

Social and emotional skills - Coping: Kidcope (children)

Outcome	Zippy's Friends, Baseline, N = 684	Zippy's Friends, 24 week, N = 640	Control, Baseline, N = 631	Control, 24 week, N = 631
Active/Emotional Regulation Mean (SD)	0.84 (0.19)	0.88 (0.17)	0.84 (0.2)	0.87 (0.19)

Active/Emotional Regulation - Polarity - Higher values are better

Questionnaire based on stress-coping theory for adults; younger children's version (7–12 years) including 15 items was used by the children to measure the same 10

coping strategies (distraction, social withdrawal, cognitive restructuring, self-criticism, blaming others, problem solving, emotional expression, wishful thinking, social support and resignation)

Mental health - Strengths and Difficulties Questionnaire (SDQ) (parent)

Outcome	Zippy's Friends, Baseline, N = 684	Zippy's Friends, 24 week, N = 640	Control, Baseline, N = 631	Control, 24 week, N = 631
Prosocial behaviour Mean (SD)	8.04 (1.27)	8.2 (1.27)	8.07 (1.3)	8.23 (1.23)
Impact score Mean (SD)	0.24 (0.83)	0.26 (0.89)	0.31 (1.12)	0.35 (1.19)

Prosocial behaviour - Polarity - Higher values are better

Impact score - Polarity - Lower values are better

25 items representing five subscales: Emotional Symptoms, Conduct Problems, Hyperactivity/Inattention, Peer Problems and Prosocial Behaviour.

Academic outcome - SIKS (Social integration, Classroom Climate and Self-concept of School Readiness)

Outcome	Zippy's Friends, Baseline, N = 684	Zippy's Friends, 24 week, N = 640	Control, Baseline, N = 631	Control, 24 week, N = 631
Academic Skills Mean (SD)	0.74 (0.16)	0.8 (0.16)	0.77 (0.17)	0.79 (0.16)

Academic Skills - Polarity - Higher values are better

academic skill subscale - CHILD

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Socialandemotionalskills-Coping:Kidcope(children)-Active/EmotionalRegulation-MeanSD-Zippy's Friends-Control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Lack of details regarding randomisation, blinding and allocation concealment; Potential impact of teacher, parent and child knowledge of allocation and self-reported data)*
Overall bias and Directness	Overall Directness	Directly applicable

Metalhealth-StrengthsandDifficultiesQuestionnaire(SDQ)(parent)-Impactscore-MeanSD-Zippy's Friends-Control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Lack of details regarding randomisation, blinding and allocation concealment; Potential impact of teacher, parent and child knowledge of allocation and self-reported data)*
Overall bias and Directness	Overall Directness	Directly applicable

Academicoutcome-SIKS(Socialintegration,ClassroomClimateandSelf-conceptofSchoolReadiness)-AcademicSkills-MeanSD-Zippy's Friends-Control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Lack of details regarding randomisation, blinding and allocation concealment; Potential impact of teacher, parent and child knowledge of allocation and self-reported data)*
Overall bias and Directness	Overall Directness	Directly applicable

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Study arms

Zippy's Friends (N = 745)

Brief name	Zippy's friends
Rationale/theory/Goal	Builds on theory and empirical findings on the relation between negative life events, coping and mental health; Seeks to prevent psychological problems by increasing children's coping repertoire and giving them various ways of coping with problems.
Materials used	Zippy's friends manualised structured program (six stories about Zippy and his friends; large colour posters illustrating the stories; a detailed instruction manual for the teachers; Norwegian (Bokmal) version of Kidcope questionnaire; Norwegian version of the Strengths and Difficulties Questionnaire (SDQ); Programme implementation short computer-based questionnaire; FEESS 1–2: Questionnaires on emotional and social experiences of primary school children, first and second grades; SIKS: Social integration, Classroom Climate and Self-concept of School Readiness; SALGA: School attitude, Effort, Joy of Learning and Feeling of Being Accepted. Training on Zippy's friends implementation.
Procedures used	The teachers collected data for their classes; Plans, questionnaires, information letters to parents and consent forms were circulated in advance of programme implementation. The teachers distributed the parents' information letter, collected the consent forms and subsequently collected the questionnaires from the parents whose children participated in the study. All children in each class received the programme but only data from those whose parents had consented were included in the effectiveness study. Before the programme started, teachers and the staff in each school's health and psychology services received two days of training
Provider	Teacher
Method of delivery	Face to face
Setting/location of intervention	Classroom
Intensity/duration of the intervention	Zippy's Friends is based on six stories about three cartoon characters, their families and friends, and the imaginary stick insect Zippy. Over the course of 24 weekly lessons, children explore themes related to emotions, communication, relations and conflict resolution through the many day-to-day problems, sorrows and joys Zippy and his friends experience (Mishara & Ystgaard, 2006). Through tasks and discussions within a manualised structured programme, the children are stimulated to interact and take part in dialogues in class, and to share experiences and perceptions.
Tailoring/adaptation	13.4% of teachers reported minor deviations from the programme manual (e.g. finished the lesson earlier or used current examples

	instead of manual); Around half of the teachers (45.7%) received support during implementation.
Unforeseen modifications	Not specified
Planned treatment fidelity	The teachers in the intervention group filled out a short computer-based questionnaire after each lesson that allowed them to comment on the lesson noting any changes they may have made relative to the instructions in the program manual.
Actual treatment fidelity	Nearly 85% of the teachers reported that they completed all 24 lessons
Other details	Not reported

Teacher implemented universal school-based program targeting children between 6 and 8 years of age; to prevent psychological problems by increasing children's coping repertoire and giving them various ways of coping with problems; 24 weekly lessons - children were stimulated to initiate their own activities, interactions and dialogue, and to share perceptions and experiences- 18 schools; 47 classes;

Control (N = 738)

Brief name	Control
Rationale/theory/Goal	Control comparator
Materials used	The control schools were given no directions from the project and thus performed 'business as usual'
Procedures used	The control schools were given no directions from the project and thus performed 'business as usual'
Provider	Teachers
Method of delivery	Not specified - assume face to face
Setting/location of intervention	Classroom
Intensity/duration of the intervention	Not specified - The control schools were given no directions from the project and thus performed 'business as usual'
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified

Planned treatment fidelity	Not specified
Actual treatment fidelity	Not specified
Other details	25% of the control schools had a social skills programme

Control schools were given no directions from the project and thus performed 'business as usual; 17 schools; 44 classes

D.1.35 Horn, 2011

Bibliographic Reference	Horn, Andrea B; Possel, Patrick; Hautzinger, Martin; Promoting adaptive emotion regulation and coping in adolescence: a school-based programme.; Journal of health psychology; 2011; vol. 16 (no. 2); 258-73

Study details

Study design	Cluster randomised controlled trial
Study type	Effectiveness
Trial registration number	Not reported
Aim	To test the effects of a universal prevention programme that combines psychoeducational aspects with expressive writing on emotional regulation in a group setting in school. In particular to assess the effect on academic grades , attendance and on negative effect.

This programme was part of a larger prevention trial that included cognitive behavioural therapy, which is not reported as part of this paper or in this data extraction. |
Country/geographical location	The Tubingen region, Germany.
Type of school	Secondary education
Setting	8th grade classes in 5 middle schools

UK Key stage	Key stage 4
Inclusion criteria	- 8th grade classes - Completed parental consent form - Written consent from students
Exclusion criteria	None reported
Method of randomisation	Classes within each school were randomly assigned either to the expressive writing, control group, or to the CBT condition (findings of which are not reported in paper or extraction). One school refused to provide a control group and so randomisation was between the expressive writing and CBT groups. Method of randomisation is not reported but the aim was control variance within school specific variables (socio-economic status, neighbourhood etc)
Method of allocation concealment	None reported
Unit of allocation	Class
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Data was analysed with a mixed-model repeated measure analysis of variance (ANOVA), with class nested within condition, and students nested within class and condition. For grades and days absent analyses of covariance (ANCOVAs) were used, controlling for baseline scores

	of the dependent variable. Class was nested within condition and student was nested within class and condition.

For the analysis including negative effect the model included the variables time (at baseline, three and six months after the prevention) x condition (expressive writing versus control group). If the sphericity assumption was violated, the degrees of freedom were Greenhouse-Geiser corrected. In the case of significant interactions, a posteriori comparisons with Bonferroni tests were conducted. Significance levels of the a posteriori tests were automatically Bonferroni corrected.

The analyses were performed in SPSS 11 for Windows.

Effect sizes were calculated following Hedges's g [=(post/follow-up mean of one group – post/followup

mean of the other group) divided by the pooled standard deviation of the measure of both groups]

and their 95 percent confidence intervals (Cohen 1988). The effect between pre- and the last point of measurement where differences are expected were reported. |
| **Attrition** | 6.7% (n=14) of the students originally randomised to the intervention group did not provide baseline data and so were excluding from the final analysis.

11.3% (n=17) of the students originally randomised to the control group did not provide baseline data and so were excluded from the final analysis

For incomplete data at other timepoints missing data were imputed following the last observation carried forwards approach. |

Study limitations (author)	- Absence of a placebo or neutral writing group means we cannot be certain that the effect of the intervention can be attributed to the expressive writing itself, or if it was due to the psycho-educational elements or other factors such as the break from the usual class routine, completing the PANAS questionnaires, or contact / attention from the psychologist. - The study was not designed to disaggregate the effects of the writing itself and the introduction to the writing sessions which included a brief stretching and deep breathing warm up session. -The effects of the programme could be attributed to a general stress reduction effect from combining group based pscyho-education teaching with the option to individualise the content through writing about personal experiences.
Study limitations (reviewer)	None to add
Source of funding	The project was supported within the DFG graduate programme grant, 'Lifestyles, Social Inequalities and Health Promotion'.

Study arms

Expressive writing and psychoeducation (N = 208)

Expressive writing programme combined with psycho-education for emotional regulation

Waiting list (N = 151)

Waiting list

Characteristics

Arm-level characteristics

Characteristic	Expressive writing and psychoeducation (N = 208)	Waiting list (N = 151)
Age Mean (SD)	14.02 (0.76)	14.21 (0.79)
Males % calculated by reviewer Sample size	n = 96 ; % = 46.2	n = 72 ; % = 47.7
Female % calculated by reviewer Sample size	n = 112 ; % = 53.8	n = 79 ; % = 52.3

Outcomes

Study timepoints
- Baseline
- 3 month (Follow-up)
- 6 month (Follow-up)

Emotional distress

Outcome	Expressive writing and psychoeducation , Baseline, N = 208	Expressive writing and psychoeducation , 3 month, N = 208	Expressive writing and psychoeducation , 6 month, N = 208	Waiting list , Baseline , N = 151	Waiting list , 3 month, N = 151	Waiting list , 6 month, N = 151
Negative effect Postive	n = 194 ; % = 93.3	n = 194 ; % = 93.3	n = 194 ; % = 93.3	n = 134 ; % = 88.7	n = 134 ; % = 88.7	n = 134 ; % = 88.7

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Outcome	Expressive writing and psychoeducation , Baseline, N = 208	Expressive writing and psychoeducation , 3 month, N = 208	Expressive writing and psychoeducation , 6 month, N = 208	Waiting list , Baseline , N = 151	Waiting list , 3 month, N = 151	Waiting list , 6 month, N = 151
and Negative Affect Schedule (PANAS) Negative affect scale - 10 items Sample size						
Negative effect Postive and Negative Affect Schedule (PANAS) Negative affect scale - 10 items Mean (SD)	20.43 (6.61)	18.58 (6.83)	18.59 (6.24)	20.28 (6.81)	18.94 (6.97)	19.88 (7.34)

Negative effect - Polarity - Lower values are better

Academic progression and attainment

Outcome	Expressive writing and psychoeducation , Baseline, N = 208	Expressive writing and psychoeducation , 3 month, N = 208	Expressive writing and psychoeducation , 6 month, N = 208	Waiting list , Baseline , N = 151	Waiting list , 3 month, N = 151	Waiting list , 6 month, N = 151
Grades Last exams in German, maths and English on a 6 point scale Sample size	n = 194 ; % = 93.3	n = 194 ; % = 93.3	n = 194 ; % = 93.3	n = 134 ; % = 88.7	n = 134 ; % = 88.7	n = 134 ; % = 88.7
Grades Last exams in German, maths and English on a 6 point scale Mean (SD)	3.17 (0.77)	2.91 (0.65)	3.06 (0.64)	3.21 (0.78)	2.09 (0.61)	3.06 (0.7)

Grades - Polarity - Lower values are better

School attendance

Outcome	Expressive writing and psychoeducation , Baseline, N = 208	Expressive writing and psychoeducation , 3 month, N = 208	Expressive writing and psychoeducation , 6 month, N = 208	Waiting list , Baseline , N = 151	Waiting list , 3 month, N = 151	Waiting list , 6 month, N = 151
Days absent 'Following	n = 194 ; % = 93.3	n = 194 ; % = 93.3	n = 194 ; % = 93.3	n = 134 ; % = 88.7	n = 134 ; % = 88.7	n = 134 ; % = 88.7

Outcome	Expressive writing and psychoeducation , Baseline, N = 208	Expressive writing and psychoeducation , 3 month, N = 208	Expressive writing and psychoeducation , 6 month, N = 208	Waiting list , Baseline , N = 151	Waiting list , 3 month, N = 151	Waiting list , 6 month, N = 151
semester ' absence rates reported here as 6 months follow-up Sample size						
Days absent 'Following semester ' absence rates reported here as 6 months follow-up Mean (SD)	2.73 (3.08)	NR (NR)	0.91 (2.19)	2.93 (3.39)	NR (NR)	2.12 (3.58)

Days absent - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotionaldistress-Negativeeffect-MeanSD-Expressive writing and psychoeducation - Waiting list -t3

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Self reported outcome was self reported)*

Section	Question	Answer
Overall bias and Directness	Overall Directness	Partially applicable *(Study conducted in Germany)*

Academicprogressionandattainment-Grades-MeanSD-Expressive writing and psychoeducation -Waiting list -t3

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Outcome was self reported at baseline. Unclear if also self reported at follow up)*
Overall bias and Directness	Overall Directness	Partially applicable *(Study conducted in Germany)*

Schoolattendance-Daysabsent-MeanSD-Expressive writing and psychoeducation -Waiting list -t3

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
Overall bias and Directness	Overall Directness	Partially applicable *(Study conducted in Germany)*

Study arms

Expressive writing and psychoeducation (N = 208)

Brief name	Expressive writing and psychoeducation
Rationale/theory/Goal	Adolescence is a critical window in the life course in which it is important to implement behaviours which lead to psycho-social adjustment and wellbeing. Fostering adaptive emotion regulation is an important aim in health promotion. for adolescents. This intervention uses expressive writing combined with psycho-education to regulate emotions. Expressive writing aims to

	promotes coping through triggering the cognitive affective processing of stressful and traumatic experiences. (Pages 258-259)
Materials used	None reported
Procedures used	Each session followed the same pattern: - a two-minute warm-up exercise including stretching body movements and a deep breath - a topic related to coping and emotion regulation was introduced in the first 20 minutes - short assessment of current affective state with the PANAS Negative Affect Scale. - the writing intervention took place in the group setting for 15 minutes - second assessment of negative affect using PANAS Topics covered were as follows: - Stress concept Sensu Lazarus and Folkman(1984), This concept was illustrated by a balance metaphor. Students wrote their coping resources written on cards in one scale-pan and their stressors in the other another, demonstrating the state of stress as the situation when the stressor scale-pan outweighs the coping resource–scale pan. Expressive writing was introduced as one possibility of increasing the counterbalance to the stressor scale-pan.

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	Emotional recognition - a discussion about how to verbally label inner states and an
	exercise labelling the emotional expression of sketched faces.
	Physiological effects of suppressing expression of emotion
	Thought suppression and its short- and long term effects (These were discussed using students' experiences
	In the writing sessions, adolescents were asked to write about 'an experience in your life that bothered you and made you think and that might have influenced your mood'. The students were invited possibly to reflect about their peer group, physical appearance, romantic relationships, and future.
	Students signed their writing with an anonymous code and although they ere free to keep it, they mainly delivered their writing at the end of the session in a covered box.
	(Page 263)
Provider	2 Psychologists (one was the first author) (Page 263)
Method of delivery	Group sessions. School classes of 30 were divided into 2 by gender. This was to ensure privacy during the writing sessions and that desks could be allocated individually and so that students work could not be overlooked by other students or the instructor. (Page 263)

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Setting/location of intervention	In school during regular lesson time (Page 263)
Intensity/duration of the intervention	The intervention took place over 10 weeks. There were 6 sessions of around 45 minutes each. The first 3 sessions took place weekly and the remaining 3 fortnightly. (Page 263)
Tailoring/adaptation	Not reported
Unforeseen modifications	None reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported
Other details	None to add

Expressive writing combined with psychoeducation for emotional regulation

Waiting list (N = 151)

Brief name	Waiting list
Rationale/theory/Goal	Not applicable
Materials used	Not applicable
Procedures used	During the lesson times in which the intervention group received the intervention, the control group attended usual lessons. (Page 263)
Provider	Not applicable
Method of delivery	Not applicable

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Setting/location of intervention	Not applicable
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	None to add

Waiting list control

D.1.36 Humphrey, 2018

Bibliographic Reference	Humphrey, Neil; Hennessey, Alexandra; Lendrum, Ann; Wigelsworth, Michael; Turner, Alexander; Panayiotou, Margarita; Joyce, Craig; Pert, Kirsty; Stephens, Emma; Wo, Lawrence; Squires, Garry; Woods, Kevin; Harrison, Mark; Calam, Rachel; The PATHS curriculum for promoting social and emotional well-being among children aged 7 9 years: a cluster RCT; Public Health Research; 2018; vol. 6 (no. 10)
Secondary publication(s)	Humphrey, N; Barlow, A; Lendrum, A (2018) Quality Matters: implementation Moderates Student Outcomes in the PATHS Curriculum. Prevention science 19(2): 197-208
	Humphrey, Neil, Barlow, Alexandra, Wigelsworth, Michael et al. (2015) Promoting Alternative Thinking Strategies (PATHS): Evaluation Report and Executive Summary.: 46
	Humphrey, Neil, Barlow, Alexandra, Wigelsworth, Michael et al. (2016) A cluster randomized controlled trial of the Promoting Alternative Thinking Strategies (PATHS) curriculum. Journal of school psychology 58: 73-89
	Panayiotou, Margarita; Humphrey, Neil; Wigelsworth, Michael (2019) An empirical basis for linking social and emotional learning to academic performance. Contemporary Educational Psychology 56: 193-204

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Study details

Trial registration number	Current Controlled Trials ISRCTN85087674 (the study protocol can be found at: www.journalslibrary.nihr.ac.uk/programmes/phr/10300601/#/).
Study start date	Jan-2012
Study end date	Oct-2017
Aim	Examine the impact of the PATHS curriculum on the social and emotional well-being of children in primary schools in England
Country/geographical location	England
Setting	Primary schools
Inclusion criteria	All children in Years 3, 4 and 5 (aged 7–9 years) at the start of the 2012/13 school year
Exclusion criteria	Not specified
Method of randomisation	Conducted independently of the authors by the Clinical Trials Unit at the Manchester Academic Health Science Centre and was balanced by proportions of children eligible for free school meals (FSMs) and speaking English as an additional language (EAL) via adaptive stratification (minimisation).
Method of allocation concealment	Random allocation of schools was conducted independently of the authors by the Clinical Trials Unit at the Manchester Academic Health Science Centre, and was balanced by proportions of children eligible for free school meals and speaking English as an additional language via adaptive stratification (minimisation).
Unit of allocation	School
Unit of analysis	Pupil
Statistical method(s) used to analyse the data	ITT analyses conducted using hierarchical linear modelling (HLM) with fixed effects and random intercepts; multilevel structural equation modelling (SEM) with weighted least squares with means and variance adjustment;
Attrition	From Baseline and randomisation (T1) to Post intervention (T3): PATHS: 23/23 schools (0% attrition); 2223/2294 (3% attrition) Control: 17/22 schools (23% attrition); 1665/2106 (21% attrition)
Study limitations (author)	Moderate attrition through the course of the main trial, and significant attrition thereafter (although this was mitigated by the

	use of multiple imputation of missing data); sub-optimal frequency of delivery of PATHS lessons.
Study limitations (reviewer)	Lack of blinding;
Source of funding	Funded by the PHR programme as project number 10/3006/01.

Study arms

PATHS curriculum (N = 2294)

Promoting Alternative THinking Strategies (PATHS) curriculum - aims to promote children's social skills (self-control, emotional understanding, positive self-esteem, relationships and interpersonal problem-solving skills)via a taught curriculum, which is delivered by the class teacher, generalisation activities and techniques, and supplementary materials for parents. Schools in the usual provision group delivered the Social and Emotional Aspects of Learning programme and related interventions. 23 schools;

Control - usual provision (N = 2106)

Schools = 22; Primary schools in England routinely engage in a range of activities that would influence the outcomes of interest in the current trial. In addition to implementing PSHE as part of the standard school curriculum, schools in the usual provision arm of the trial reported that they undertook: Universal initiatives in KS2: (1) SEAL whole-school resources; (2) SEAL whole-class lessons; (3) National Healthy Schools programme; (4) Circle Time; (5) the Inclusion Development Programme; (6) Behaviour for Learning; and (7) other, 'imported' SEL curricula; Targeted level in KS2: (1) SEAL small group work (2) Family SEAL (3) Targeted Mental Health in Schools; (4) Circle of Friends; (5) Nurture Groups; (6) Achievement for All (7) Place2Be; and (8) restorative justice.

Characteristics

Arm-level characteristics

Characteristic	PATHS curriculum (N = 2294)	Control - usual provision (N = 2106)
Year 4 % Nominal	32	33.4

Characteristic	PATHS curriculum (N = 2294)	Control - usual provision (N = 2106)
Year 5 Nominal	31.7	30.8
Year 3 Nominal	36.4	35.7
Gender % Male Nominal	49.9	53
Ethnicity % White Nominal	69.4	66.2
Free school meal eligibility % eligible Nominal	31.3	27.4

Outcomes

Study timepoints
- Baseline
- 24 month (T3)
- 36 month (T4)
- 48 month (T5)

Social skills - Social Skills Improvement System

Outcome	PATHS curriculum, Baseline, N = 2294	PATHS curriculum, 24 month, N = 2223	PATHS curriculum, 36 month, N = 1631	PATHS curriculum, 48 month, N = 1631	Control - usual provision, Baseline, N = 2106	Control - usual provision, 24 month, N = 1665	Control - usual provision, 36 month, N = 1631	Control - usual provision, 48 month, N = 1631
Social skills	n = NA ; % = NA	n = NA ; % = NA	n = 424 ; % = 26	n = 252 ; % = 15	n = NA ; % = NA	n = NA ; % = NA	n = 369 ; % = 23	n = 211 ; % = 13

Outcome	PATHS curriculum, Baseline, N = 2294	PATHS curriculum, 24 month, N = 2223	PATHS curriculum, 36 month, N = 1631	PATHS curriculum, 48 month, N = 1631	Control - usual provision, Baseline, N = 2106	Control - usual provision, 24 month, N = 1665	Control - usual provision, 36 month, N = 1631	Control - usual provision, 48 month, N = 1631
Sample size								
Social skills Mean (SD)	106.16 (19.94)	103.75 (19.39)	NR (NR)	97.81 (19.45)	103.47 (20.4)	102 (20.03)	NR (NR)	95.94 (20.34)

Social skills - Polarity - Higher values are better

46-item social skills domain of the self-report version

Pro-social behaviour - Strengths and Difficulties Questionnaire (SDQ)

Outcome	PATHS curriculum, Baseline, N = 2294	PATHS curriculum, 24 month, N = 2223	PATHS curriculum, 36 month, N = 1631	PATHS curriculum, 48 month, N = 1631	Control - usual provision, Baseline, N = 2106	Control - usual provision, 24 month, N = 1665	Control - usual provision, 36 month, N = 1631	Control - usual provision, 48 month, N = 1631
Prosocial behaviour Sample size	n = NA ; % = NA	n = NA ; % = NA	n = 424 ; % = 26	n = 252 ; % = 15	n = NA ; % = NA	n = NA ; % = NA	n = 369 ; % = 23	n = 211 ; % = 13
Prosocial behaviour Mean (SD)	7.72 (2.46)	7.86 (2.3)	NR (NR)	7.18 (2.54)	7.15 (6.19)	7.63 (2.37)	NR (NR)	6.5 (2.58)

Prosocial behaviour - Polarity - Higher values are better

Teacher-informant-report version of the Strengths and Difficulties Questionnaire (SDQ)44 provides a measure of children's internalising symptoms, externalising problems and pro-social behaviour

Psychological well-being - Kidscreen-27

Outcome	PATHS curriculum, Baseline, N = 2294	PATHS curriculum, 24 month, N = 2223	PATHS curriculum, 36 month, N = 1631	PATHS curriculum, 48 month, N = 1631	Control - usual provision, Baseline, N = 2106	Control - usual provision, 24 month, N = 1665	Control - usual provision, 36 month, N = 1631	Control - usual provision, 48 month, N = 1631
Psychological well-being Sample size	n = NA ; % = NA	n = NA ; % = NA	n = 424 ; % = 26	n = 252 ; % = 15	n = NA ; % = NA	n = NA ; % = NA	n = 369 ; % = 23	n = 211 ; % = 13
Psychological well-being Mean (SD)	29.76 (4.8)	30.16 (4.35)	29.64 (4.38)	29.51 (4.25)	28.97 (5.04)	29.63 (4.97)	29.18 (4.58)	29.17 (4.98)

Psychological well-being - Polarity - Higher values are better

HRQoL - seven items - subscale of the self-report version of the Kidscreen-27

Mental health difficulties SDQ

Outcome	PATHS curriculum, Baseline, N = 2294	PATHS curriculum, 24 month, N = 2223	PATHS curriculum, 36 month, N = 1631	PATHS curriculum, 48 month, N = 1631	Control - usual provision, Baseline, N = 2106	Control - usual provision, 24 month, N = 1665	Control - usual provision, 36 month, N = 1631	Control - usual provision, 48 month, N = 1631
Internalising symptoms Sample size	n = NA ; % = NA	n = NA ; % = NA	n = 424 ; % = 26	n = 252 ; % = 15	n = NA ; % = NA	n = NA ; % = NA	n = 369 ; % = 23	n = 211 ; % = 13
Internalising symptoms Mean (SD)	2.77 (3.25)	2.53 (3.03)	NR (NR)	2.8 (3.44)	2.93 (3.13)	2.37 (3.12)	NR (NR)	3.04 (3.36)

Outcome	PATHS curriculum, Baseline, N = 2294	PATHS curriculum, 24 month, N = 2223	PATHS curriculum, 36 month, N = 1631	PATHS curriculum, 48 month, N = 1631	Control - usual provision, Baseline, N = 2106	Control - usual provision, 24 month, N = 1665	Control - usual provision, 36 month, N = 1631	Control - usual provision, 48 month, N = 1631
Externalising problems Sample size	n = NA ; % = NA	n = NA ; % = NA	n = 424 ; % = 26	n = 252 ; % = 15	n = NA ; % = NA	n = NA ; % = NA	n = 369 ; % = 23	n = 211 ; % = 13
Externalising problems Mean (SD)	4.15 (4.43)	3.44 (3.9)	NR (NR)	3.47 (4.11)	4.21 (4.38)	3.38 (3.69)	NR (NR)	3.69 (3.61)

Internalising symptoms - Polarity - Lower values are better

Externalising problems - Polarity - Lower values are better

Attainment - KS2 standardised assessment tests

Outcome	PATHS curriculum, Baseline, N = 2294	PATHS curriculum, 24 month, N = 2223	PATHS curriculum, 36 month, N = 1631	PATHS curriculum, 48 month, N = 1631	Control - usual provision, Baseline, N = 2106	Control - usual provision, 24 month, N = 1665	Control - usual provision, 36 month, N = 1631	Control - usual provision, 48 month, N = 1631
Reading/Writing Sample size	n = NA ; % = NA	n = NA ; % = NA	n = 424 ; % = 26	n = 252 ; % = 16	n = NA ; % = NA	n = NA ; % = NA	n = 369 ; % = 23	n = 211 ; % = 13
Reading/Writing Mean (SD)	14.86 (4.06)	28.73 (4.09)	NR (NR)	NR (NR)	14.39 (4.09)	28.52 (4.33)	NR (NR)	NR (NR)
Maths Mean (SD)	15.32 (4.09)	29.11 (5.36)	NR (NR)	NR (NR)	14.98 (3.89)	28.77 (5.25)	NR (NR)	NR (NR)

Reading/Writing - Polarity - Higher values are better

Maths - Polarity - Higher values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Socialskills-SocialSkillsImprovementSystem-Socialskills-MeanSD-PATHS curriculum-Control - usual provision-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding outlined; outcome assessments undertaken by self/observer-report)*
Overall bias and Directness	Overall Directness	Directly applicable

Pro-socialbehaviour-StrengthsandDifficultiesQuestionnaire(SDQ)-Prosocialbehaviour-MeanSD-PATHS curriculum-Control - usual provision-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding outlined; outcome assessments undertaken by self/observer-report)*
Overall bias and Directness	Overall Directness	Directly applicable

MentalhealthdifficultiesSDQ-Externalisingproblems-MeanSD-PATHS curriculum-Control - usual provision-t48

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding outlined; outcome assessments undertaken by self/observer-report)*
Overall bias and Directness	Overall Directness	Directly applicable

Socialskills-SocialSkillsImprovementSystem-Socialskills-MeanSD-PATHS curriculum-Control - usual provision-t36

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding outlined; outcome assessments undertaken by self/observer-report)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

Control - usual provision (N = 2106)

Brief name	Usual provision
Rationale/theory/Goal	Control comparator
Materials used	Social Skills Improvement System; Strengths and Difficulties Questionnaire; Kidscreen-27; Child Health Utility 9 Dimensions; National Pupil Database; Primary schools in England routinely engage in a range of activities that would influence the outcomes of interest in the current trial. In addition to implementing PSHE as part of the standard school curriculum, schools in the usual provision arm of the trial reported that they undertook: Universal initiatives in KS2: (1) SEAL whole-school resources; (2) SEAL whole-class lessons; (3) National Healthy Schools programme; (4) Circle Time; (5) the Inclusion Development Programme; (6) Behaviour for Learning; and (7) other, 'imported' SEL curricula; Targeted level in KS2: (1) SEAL small group work (2) Family SEAL (3) Targeted Mental Health in Schools; (4) Circle of Friends; (5) Nurture Groups; (6) Achievement for All (7) Place2Be; and (8) restorative justice.
Procedures used	Not specified - teaching as usual
Provider	Class teachers
Method of delivery	Not specified
Setting/location of intervention	Classroom
Intensity/duration of the intervention	Not specified

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Tailoring/adaptation	Not specified
Unforeseen modifications	Not reported
Planned treatment fidelity	Not specified
Actual treatment fidelity	
Other details	Not reported

Schools = 22; Primary schools in England routinely engage in a range of activities that would influence the outcomes of interest in the current trial. In addition to implementing PSHE as part of the standard school curriculum, schools in the usual provision arm of the trial reported that they undertook: Universal initiatives in KS2: (1) SEAL whole-school resources; (2) SEAL whole-class lessons; (3) National Healthy Schools programme; (4) Circle Time; (5) the Inclusion Development Programme; (6) Behaviour for Learning; and (7) other, 'imported' SEL curricula; Targeted level in KS2: (1) SEAL small group work (2) Family SEAL (3) Targeted Mental Health in Schools; (4) Circle of Friends; (5) Nurture Groups; (6) Achievement for All (7) Place2Be; and (8) restorative justice.

PATHS curriculum (N = 2294)

Brief name	PATHS
Rationale/theory/Goal	Affective-Behavioural-Cognitive-Developmental model of development, which emphasises the developmental integration of affect, emotion language, behaviour and cognitive understanding to promote social and emotional competence
Materials used	Social Skills Improvement System; Strengths and Difficulties Questionnaire; Kidscreen-27; Child Health Utility 9 Dimensions; National Pupil Database; Promoting Alternative THinking Strategies curriculum packs in addition to associated physical resources and artefacts (Feelings Face cards, Feelings Dictionaries and posters relating to PATHS concepts and strategies; class teachers were also given an implementation guidance manual developed by the research team
Procedures used	The PATHS lessons follow a common format that includes an introduction from the teacher (in which the lesson topic and objectives are introduced), a main activity (often built around a group activity or story) and a brief plenary/closure (in which learning is reviewed). Frequent prompts to elicit pupil responses and clarify learning are included throughout. The programme utilises a 'spiral'

	curriculum model, whereby (1) topics and concepts are revisited, (2) units and lessons are developmentally sequenced, (3) new learning is linked to previous learning and (4) the competence of learners increases with each successive visit to a topic or concept. In addition to this, a daily procedure of compliment giving is encouraged using the 'Pupil of the Day' system, in which children are randomly selected and wear a badge or identifier to be recognisable to other pupils and staff around the school. The Pupil of the Day may be assigned special roles and responsibilities, and other pupils and staff complete a compliment sheet for the assigned pupil.
Provider	Teacher-led as part of the normal class timetable. Generalisation activities and strategies are implemented routinely throughout the school day.
Method of delivery	Teacher-led as part of the normal class timetable. Generalisation activities and strategies are implemented routinely throughout the school day.
Setting/location of intervention	Classroom
Intensity/duration of the intervention	Approximately 30–40 minutes and are designed to be delivered twice-weekly throughout the school year. Curriculum packs contain an average of 40 lessons per year group.
Tailoring/adaptation	PATHS is a 'manualised' intervention and optimal fidelity is emphasised by the developer. Implementers are encouraged to make surface adaptations (e.g. changes of names in stories) in order to facilitate a sense of ownership and to fit to local contexts.
Unforeseen modifications	Not reported
Planned treatment fidelity	A structured observation schedule was developed using existing instruments used in other studies of PATHS, advice from the developer and colleagues at PSU, and existing literature on the assessment of implementation of school-based interventions. Two objective indicators – one each for dosage and reach – were generated and supplemented by 10 observer-rated items designed to assess fidelity, quality and participant responsiveness.
Actual treatment fidelity	General trend PATHS was delivered once a week, with most children in a given class present, teachers adhering to most procedural elements outlined in lesson materials and delivering them well, and with children responding appropriately. There was a downwards shift in dosage between the first and second years of the trial, such that in the former, teachers were estimated to deliver 65% of lessons, whereas in the latter, this dropped to 39% (overall average of 53%).
Other details	Not reported

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23 schools; Promoting Alternative THinking Strategies (PATHS) curriculum - aims to promote children's social skills (self-control, emotional understanding, positive self-esteem, relationships and interpersonal problem-solving skills)via a taught curriculum, which is delivered by the class teacher, generalisation activities and techniques, and supplementary materials for parents. Schools in the usual provision group delivered the Social and Emotional Aspects of Learning programme and related interventions.

D.1.37   Ialongo, 2019

Bibliographic Reference	Ialongo, NS; Domitrovich, C; Embry, D; Greenberg, M; Lawson, A; Becker, KD; Bradshaw, C; A randomized controlled trial of the combination of two school-based universal preventive interventions; Developmental psychology; 2019; vol. 55 (no. 6); 1313-1325

Study details

Trial registration number	Not specified
Aim	Test the hypothesis that relative to the control condition both interventions (PAX GBG and PATHS to PAX) would result in significantly lower levels of aggressive/disruptive and off-task behaviors at post-test. Moreover, the effects of the PATHS to PAX condition would be significantly greater than the PAX GBG condition alone in terms of not only aggressive/disruptive and off-task behaviors, but with respect to social competence and emotion regulation, given the direct and explicit focus of the PATHS component of PATHS to PAX on these domains.
Country/geographical location	USA
Type of school	Primary education
Setting	Primary
UK Key Stage	Key stage 1

Based on mean Grade of 2.36 (USA) across study sample |
| Inclusion criteria | Parents provided written consent for their children to participate in the evaluation of the trial |

Exclusion criteria	Charter schools, schools exclusively serving special education students, and schools that participated in pilot efforts aimed at determining the feasibility of combining the PAX GBG and PATHS
Method of randomisation	The schools that agreed to participate were ranked in terms of the proportion of student suspensions in the prior school year and triads were formed based on schools closest in suspension rank. Three triads were randomly selected for inclusion in the study each year for three consecutive years. Schools were then randomized to one of the 3 intervention conditions within the triads.
Method of allocation concealment	Not specified
Unit of allocation	School
Unit of analysis	Participant
Statistical method(s) used to analyse the data	Intent to treat approach was employed; Linear mixed model analysis of covariance was used to evaluate the effects of the intervention on the study outcomes with adjustment for their pre-test levels; School was included as a random effect, given randomization was at the school level.
Attrition	Total students available at baseline that participated 5611/7024 (20.1% attrition) Control: available post test - 1930/2055 (6% attrition); observed 1779/2055 (8% attrition); teacher rated 1887/2055 (2% attrition) PAX GBG: available post test - 1906/1994 (4% attrition); observed 1717/1994 (10% attrition); teacher rated 1870/1994 (2% attrition) PATHS to PAX: available post test - 1474/1562 (6% attrition); observed 1355/1562 (8% attrition); teacher rated 1423/1562 (4% attrition)
Study limitations (author)	Assessment of outcomes was not as frequent as planned due to a trade off between size of sample/duration of study and assessment potentially impacting reliability of assessment of student behavior; Longer-term follow-up; Peer assessment to determine intervention effects with respect to social competence;
Study limitations (reviewer)	Blinding and allocation concealment unclear; specific method of randomisation not outlined; assessment of baseline differences post randomisation unclear
Source of funding	Institute of Education Sciences

Study arms

PATHS to PAX (N = 1562)

Combination of the Good behavior game (GBG) and Promoting Alternative Thinking Strategies (PATHS). PAX GBG - allows teachers to utilize social learning principles within a team-based, game-like context to reduce aggressive/disruptive and off-task behavior and, consequently, facilitate academic instruction; PATHS - based on the Affective-Behavioral-Cognitive-Dynamic model of development which places primary importance on the developmental integration of affect (and emotion language), behavior, and cognitive understanding as they relate to social and emotional competence.

Control (N = 2055)

Control, or standard setting condition where teachers conducted their usual practice

Characteristics

Study-level characteristics

Characteristic	Study (N = 5611)
Age Mean Grade level Nominal	2.36
Gender % male Nominal	50.4
Ethnicity % African American Nominal	89.6
% received free or reduced lunch Nominal	86.5

Outcomes

Study timepoints
- 12 month (Post-test)

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Social and emotional skills - Social Competence - SHP

Outcome	PATHS to PAX, 12 month, N = 1423	Control, 12 month, N = 1887
Social competence Mean (SD)	4.1 (2.74)	3.92 (3.14)

Social competence - Polarity - Higher values are better

Social Health Profile Social Competence Scale (SHP) - include resolves peer problems, understands others, suggests without bossiness

Behavioral outcomes - Authority acceptance - TOCA-R

Outcome	PATHS to PAX, 12 month, N = 1423	Control, 12 month, N = 1887
Authority acceptance Mean (SD)	4.79 (1.97)	4.79 (2.25)

Authority acceptance - Polarity - Higher values are better

Teacher Observation of Classroom Adaptation-Revised (TOCA-R) - The authority acceptance (oppositional defiant/conduct problems behavior) subscale includes items such as, breaks rules and talks backs to teachers, (items were reversed coded so that a higher score translated to less frequent problem behaviors)

Academic outcomes - Readiness to learn - TOCA-R

Outcome	PATHS to PAX, 12 month, N = 1423	Control, 12 month, N = 1887
Readiness to learn Mean (SD)	4.33 (2.41)	4.17 (2.76)

Readiness to learn - Polarity - Higher values are better

Teacher Observation of Classroom Adaptation-Revised (TOCA-R) - readiness to learn (attention-concentration problems) subscale consists of items such as ready to learn, stays on task, and concentrates.

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Socialandemotionalskills-SocialCompetence-SHP-Socialcompetence-MeanSD-PATHS to PAX-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; self-report assessment via teachers with awareness of intervention allocation)*
Overall bias and Directness	Overall Directness	Directly applicable

Behavioraloutcomes-Authorityacceptance-TOCA-R-Authorityacceptance-MeanSD-PATHS to PAX-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; self-report assessment via teachers with awareness of intervention allocation)*
Overall bias and Directness	Overall Directness	Directly applicable

Academicoutcomes-Readinesstolearn-TOCA-R-Readinesstolearn-MeanSD-PATHS to PAX-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; self-report assessment via teachers with awareness of intervention allocation)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

PATHS to PAX (N = 1562)

Brief name	P2P
Rationale/theory/Goal	Combines two interventions Good Behavior Game (GBG) and PATHS. GBG utilize social learning principles within a team-based, game-like context to reduce aggressive/disruptive and off-task behavior and, consequently, facilitate academic instruction; PATHS - based on the Affective-Behavioral-Cognitive-Dynamic model of development which places primary importance on the developmental integration of affect (and emotion language), behavior, and cognitive understanding as they relate to social and emotional competence.
Materials used	Combination and streamlined version of GBG and PATHS training and intervention protocols; Training (1-day, group-based trainings for teachers i followed by ½ day booster sessions 3 months later); Independent Observations of Student Behavior; Teacher Observation of Classroom Adaptation-Revised; The Social Health Profile Social Competence Scale;
Procedures used	Identification; randomisation by school/class; consent and letter mailed out; training undertaken + booster session; intervention (P2P) delivered and baseline assessment undertaken; follow-up assessment; implementation fidelity assessed;
Provider	Teacher
Method of delivery	face to face
Setting/location of intervention	school/class
Intensity/duration of the intervention	Integration of the PAX GBG and PATHS delivered over the school year a) lessons, b) activities and c) practices - On average, teachers played the game 154.22 (SD= 106.46) times over the school year in the PATHS to PAX condition for 1,583.43 minutes (SD= 1,483.14) PAX GBG: Teachers assign students to one of 3 to 4 teams. The teacher seeks to evenly match the teams in terms of student behavior to insure all teams have an equal chance of winning the "game". The teams work cooperatively to maintain PAX behavior (which stands for Peace, Productivity, Health, & Happiness) in the classroom. Points are given to the team when a member displays a "spleem", or an infraction of the Game rules; PATHS: Curriculum designed to improve skills in four domains: 1) prosocial friendship skills, 2) emotional understanding and emotional expression skills, 3) self-control /emotion regulation (e.g., the capacity to inhibit impulsive behavior and organize goal-directed activity) and 4)

	problem solving skills, including interpersonal negotiation and conflict resolution skills which, in turn, are expected to improve problem behavior and social-emotional skills.
Tailoring/adaptation	Not outlined
Unforeseen modifications	Not outlined
Planned treatment fidelity	Teachers maintained a daily log of the number of PAX GBG games and minutes played and PATHS lesson taught
Actual treatment fidelity	On average, teachers played the game 154.22 (SD= 106.46) times over the school year in the PATHS to PAX condition for 1,583.43 minutes (SD= 1,483.14),
Other details	Not reported

Combination of the Good behavior game (GBG) and Promoting Alternative Thinking Strategies (PATHS). PAX GBG - allows teachers to utilize social learning principles within a team-based, game-like context to reduce aggressive/disruptive and off-task behavior and, consequently, facilitate academic instruction; PATHS - based on the Affective-Behavioral-Cognitive-Dynamic model of development which places primary importance on the developmental integration of affect (and emotion language), behavior, and cognitive understanding as they relate to social and emotional competence.

Control (N = 2055)

Brief name	Control
Rationale/theory/Goal	Control comparison: control, or standard setting condition where teachers conducted their usual practice-
Materials used	Not specified - control, or standard setting condition where teachers conducted their usual practice
Procedures used	Not specified - control, or standard setting condition where teachers conducted their usual practice
Provider	Teachers
Method of delivery	Control, or standard setting condition where teachers conducted their usual practice
Setting/location of intervention	School/classroom
Intensity/duration of the intervention	Not specified - control, or standard setting condition where teachers conducted their usual practice

Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Actual treatment fidelity	Not outlined
Other details	Not outlined

Control, or standard setting condition where teachers conducted their usual practice

D.1.38 Janz, 2019

Bibliographic Reference	Janz, Philip; Dawe, Sharon; Wyllie, Melissa; Mindfulness-Based Program Embedded Within the Existing Curriculum Improves Executive Functioning and Behavior in Young Children: A Waitlist Controlled Trial.; Frontiers in psychology; 2019; vol. 10; 2052

Study details

Study design	Cluster randomised controlled trial
Trial registration number	Not reported
Study start date	2017
Aim	To investigate the effects of a mindfulness-based program delivered through the classroom curriculum to young children.
Country/geographical location	Australia
Type of school	Primary education
Setting	The school is in an area is identified as being in the first quintile of Socio Economic Area, placing it in the lowest 20% of areas in Australia (Australian Bureau of Statistics), with nearly a third of people born outside of Australia. The school itself has a population of children that broadly represent this demographic with 8% of students identified as Indigenous Australian, and 23% had a language background other than English.

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UK Key Stage	Key stage 1
	Key stage 2
Inclusion criteria	Preparatory year, year 1 and year 2 children
Exclusion criteria	Not reported
Method of randomisation	Classes within the participant primary school were randomly allocated via a hat draw
Method of allocation concealment	Not reported
Unit of allocation	Class
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• ICC not reported • A repeated measures analysis of covariance (ANCOVA; group: Intervention; waitlist control) was conducted to determine whether children showed an improvement in EFs following exposure to CalmSpace in their classroom compared to the waitlist control group. • Covariates were baseline measures on the Flanker Task. • Changes across the two time periods were examined using planned contrasts as (i) chi-squared tests revealed a gender difference between the CalmSpace group and waitlist group and (ii) potential differences due to grade may influence performance on tests of executive functioning. • Eta-square and Cohen's d effects sizes were calculated. • Correlations between baseline behavioural measures of Executive Functioning and the Strengths and Difficulties Questionnaire were calculated.
Attrition	Mindfulness-based program (CalmSpace): 51/55 = 7.3% attrition Waitlist control: 36/36 = 0% attrition
Study limitations (author)	• Quality or program delivery and responsiveness were not measured. • It is not possible to say definitively that there were no difference between parents who consented and parents who did not. It is always possible that there were some systematic differences. • There was a potential for bias in collection of the data. The researcher who collected the data was also directly involved with supporting the teachers to implement CalmSpace. • It is possible that the researcher may implicitly affect performance of the participants before and during testing.

	Therefore, it is impossible for the complete elimination of potential researcher bias while participants undertook the NIH toolbox. • It is possible that children's behaviour did not improve but rather, teachers' tolerance of poor behaviour increased and reactivity to it decreased.
Study limitations (reviewer)	Lack of information on exclusion criteria and method of allocation concealment
Source of funding	This research was supported by an Australian Government Research Training Program (RTP) Scholarship.

Study arms

Mindfulness-based program (CalmSpace) (N = 55)

3 classes

Waitlist control (N = 36)

2 classes

Characteristics

Arm-level characteristics

Characteristic	Mindfulness-based program (CalmSpace) (N = 55)	Waitlist control (N = 36)
Age (Months) Mean (SD)	76.4 (8.62)	80.53 (13.04)
Male Sample size	n = 34 ; % = 62	n = 12 ; % = 33
Female Sample size	n = 21 ; % = 38	n = 24 ; % = 67

Characteristic	Mindfulness-based program (CalmSpace) (N = 55)	Waitlist control (N = 36)
Ethnicity Reported as English as second language Sample size	n = 16 ; % = 29	n = 5 ; % = 14

Outcomes

Study timepoints

- 10 week

Social and emotional wellbeing outcomes

Outcome	Mindfulness-based program (CalmSpace), 10 week, N = 55	Waitlist control, 10 week, N = 36
Behavioural Strengths and difficulties questionnaire - teacher form (SDQ) Sample size	n = 51 ; % = 92.7	n = 26 ; % = 100
Behavioural Strengths and difficulties questionnaire - teacher form (SDQ) Mean (SD)	4.48 (5.2)	6.26 (5.1)

Behavioural - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Behavioural - Mindfulness-based program vs Waitlist control

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Some concerns due to lack of blinding)*

Section	Question	Answer
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

Mindfulness-based program (CalmSpace) (N = NA)

Brief name	Mindfulness program (CalmSpace). p. 6
Rationale/theory/Goal	Mindfulness-based. p. 6 The overall aim of the CalmSpace program design and activities was to provide multiple experiences of mindfulness that was woven into the existing school day. p. 8
Materials used	CalmSpace program manual including detailed scripts and materials for implementing the CalmSpace program. p. 6 Children's book Mindful Monkey, Happy Panda (Alderfer and MacLean, 2011), an A4 sized scrapbook for each child that was their own mindfulness diary, plastic bottles for a glitter bottle activity, bubble blowing bottles, and a gong. p. 8
Procedures used	The CalmSpace activities were intended to support the development of EFs by (i) helping children to experience both a state of calmness and to develop skills that help return to such a state, thereby reducing the potential impact of bottom up processes such as anxiety and stress and (ii) help foster engagement in tasks that require focused attention in a calm state. p. 6 **Activities** 1. The gong 2. Balloon belly breathing 3. Body scan 4. Change of activity 5. Mindful monkey, happy panda 6. Munch and crunch time – mindful eating 7. Control of the breath "blowing big bubbles" 8. Watching clouds 9. Rainbow walk

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	10. Glitter jar. p. 7
Provider	Teachers. p. 6
Method of delivery	Group level. p. 4
Setting/location of intervention	Intervention was delivered during term time (probably classroom). p. 6
Intensity/duration of the intervention	Each activity was delivered between 0-15 times weekly. p. 9
Tailoring/adaptation	Noe reported
Unforeseen modifications	Noe reported
Planned treatment fidelity	To monitor fidelity and dosage, the CalmSpace program teachers were given a daily CalmSpace checklist in which they were to track and record their daily implementation of the CalmSpace program. Two components of intervention implementation were assessed in the present study. 1. Attending to the sound of a gong at points of major transition ('core practice') 2. An additional 10 mindfulness-based activities. p. 6
Actual treatment fidelity	Teachers involved in the CalmSpace program implemented the program with high fidelity. Teachers in both the intervention and waitlist groups reported implementing the core practice 100% of the time (three times per day throughout the intervention period). Additionally, teachers in the intervention group reported embedding an average of two activities per day (range: 3–8 total activities) from Pre to Post1. and average 2.5 (range: 3–9 total activities) activities from Post1 to Post2. p. 8

Waitlist control (N = NA)

Brief name	Waitlist control p. 6
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Not reported

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Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	To monitor fidelity and dosage, the CalmSpace program teachers were given a daily CalmSpace checklist in which they were to track and record their daily implementation of the CalmSpace program. Two components of intervention implementation were assessed in the present study. 1. Attending to the sound of a gong at points of major transition ('core practice') 2. An additional 10 mindfulness-based activities. p. 6
Actual treatment fidelity	Teachers in both the intervention and waitlist groups reported implementing the core practice 100% of the time (three times per day throughout the intervention period). Teachers in the waitlist group completed two (range: 3–7 total activities) activities from Post1 to Post2. p. 8

D.1.39 Johnson, 2017

Bibliographic Reference	Johnson, Catherine; Burke, Christine; Brinkman, Sally; Wade, Tracey; A randomized controlled evaluation of a secondary school mindfulness program for early adolescents: Do we have the recipe right yet?.; Behaviour research and therapy; 2017; vol. 99; 37-46

Study details

Study design	Cluster randomised controlled trial
Type of study	Not clear

Trial registration number	ACTRN12615001052527
Aim	The aim of this research was to conduct a rigorous evaluation of the .b ("Dot be") mindfulness curriculum, with or without parental involvement, compared to a control condition.
Country/geographical location	Australia
Type of school	Secondary education
Setting	Four urban coeducational secondary schools (one private, three public) participated
UK Key stage	Key stage 3
Inclusion criteria	NR
Exclusion criteria	NR
Method of randomisation	Randomisation using the randomisation function in Excel 2010, and performed by the principal investigator prior to any contact with participating teachers
Method of allocation concealment	NR
Unit of allocation	Class
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: Not reported. Power analysis showed that to detect a Cohen's d effect size of .25 with a power level of .80, 127 participants per group were required. Intention to treat: Logistic regressions were conducted for the post intervention, 6- and 12-month follow-up data to test if any baseline variable predicted missing data. Data were not adjusted for the effect of clustering, given the same instructor delivered all mindfulness classes. Primary and secondary outcome analyses were conducted using Linear Mixed Modelling (LMM), enabling inclusion of cases with missing data via maximum likelihood estimation, with baseline measures entered as covariates
Attrition	• 84.8% of those randomised in the control group were included at baseline and 78.1% at 12 month follow up • 90.9% in the mindfulness group were included at baseline and 73.1% at 12 month follow up • 93.7% in the mindfulness with parents group were included at baseline and 76.4% at 12 months follow up

Study arms

Mindfulness (N = 186)

Number of classes (clusters) unknown

Mindfulness with parents (N = 192)

Number of classes (clusters) unknown

Control group (N = 182)

Number of classes (clusters) unknown

Characteristics

Study-level characteristics

Characteristic	Study (N =)
Males Nominal	54.6
Females Nominal	45.4

Outcomes

Study timepoints
- Baseline
- 12 month (Labelled as T4 in paper)

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Outcomes

Outcome	Mindfulness, Baseline, N = 186	Mindfulness, 12 month, N = 186	Mindfulness with parents, Baseline, N = 192	Mindfulness with parents, 12 month, N = 192	Control group, Baseline, N = 182	Control group, 12 month, N = 182
Emotional distress - depression Using the Short form DASS-21 Sample size	n = 151 ; % = 81.2	n = 139 ; % = 76	n = 179 ; % = 93.2	n = 146 ; % = 76	n = 151 ; % = 83	n = 139 ; % = 76.4
Emotional distress - depression Using the Short form DASS-21 Mean (SD)	0.74 (0.75)	0.75 (0.71)	0.77 (0.65)	0.81 (0.7)	0.74 (0.71)	0.86 (0.77)

Emotional distress - depression - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress Depression - Mindfulness/Mindfulness with parents vs Control - 12 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to lack of blinding and missing outcome data)*

Study arms

Mindfulness curriculum (N = 186)

Brief name	The .b ("Dot be") Mindfulness in Schools curriculum [P5].

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Rationale/theory/Goal	The b. mindfulness curriculum based on adult mindfulness programs but modified for 11-16 year olds [P5].
Materials used	Guided by a homework manual, and with access to the two guided audio files, students were encouraged to practice at home daily [P6].
Procedures used	Throughout the course, a range of mindfulness practices were taught to students: short unguided practices (breath counting, ".b": stop, feel your feet, feel your breathing, and be present, mindfulness of routine daily activities including walking, and watching thought traffic) and two 9-minute guided audio files ("FOFBOC: Feet on floor and bum on chair", a seated body scan and breath awareness; and "Beditation", a lying down body scan and relaxation practice) [P5-6].
Provider	All mindfulness lessons were conducted by the first author (CJ), a mindfulness practitioner with ten years of personal practice, who in addition to .b certification had undergone adult facilitator training, and had taught the .b curriculum 8 times previously. A "team teaching" approach was adopted where classroom teachers were asked to take an active part in the lessons and remind students about their mindfulness home practice. Further, teachers were given a script for a short practice (.b) to run at the start of every lesson they had with this group of students, together with a choice of two meditation audio files to play once a week between formal mindfulness lessons [P6].
Method of delivery	NR
Setting/location of intervention	Classroom [P5].
Intensity/duration of the intervention	The tightly manualized program consists of nine weekly lessons (40-60 minutes in this study) [P5].
Tailoring/adaptation	Greater adherence to the curriculum was promoted as follows. The introductory lesson was delivered in full, and each student received a color, hard copy of the homework manual. A "team teaching" approach was adopted where classroom teachers were asked to take an active part in the lessons and remind students about their mindfulness home practice. Further, teachers were given a script for a short practice (.b) to run at the start of every lesson they had with this group of students, together with a choice of two meditation audio files to play once a week between formal mindfulness lessons. The standard curriculum was also strengthened to maximize potency of the ideas, including a greater focus on motivation in the introductory lesson: emphasising the unique window to "immunize" their brain on the cusp of adolescence and its challenges; recording their individual motivations for retraining

	their brain on a home practice chart, and brainstorming obstacles and helpful ideas for remembering to do each week's exercises at home. Second, we added the .b practice at the start of every formal mindfulness lesson in order to facilitate its use as a very familiar "anchoring" technique in stormy situations. Third, we added a quiz at the start of each lesson reviewing the previous lesson's key points (with small candy rewards). Fourth, we added more pages to the homework manual so that each week's activity could be easily recorded. Fifth, we gave each classroom two colorful A3 posters summarizing the four steps of the .b practice and illustrating a series of key mindfulness ideas. Sixth, at the final lesson, students received a laminated color copy of key ideas, and teachers received a handout describing how to reinforce mindfulness with their class into the future [P6-7].
Unforeseen modifications	NR
Planned treatment fidelity	No consent for recording of lessons so the 10-minute YouTube clips for parents were used as an indirect measurement of the competence of the instructor and fidelity to the .b curriculum. Given there was no direct assessment of classroom delivery, they modified the adult Mindfulness Based Interventions Teaching Assessment Criteria (MBI-TAC, Crane et al., 2012) which assess a combination of adherence and competence, and included the following domains: Coverage, pacing and organization; Embodiment of mindfulness; and Guiding mindfulness practices. Each domain was scored 1 (Incompetent) – 6 (Advanced) and averaged into an overall score for each lesson. This marking rubric was deemed appropriate by the .b organisation [P7-8].
Actual treatment fidelity	A score out of six was given for each of the three domains assessed, together with an overall average score for each lesson (Supplementary Table S1), with an average in the Proficient Band (5/6) across lessons [P11].
Other details	None to add

Mindfulness with parents (N = 192)

Brief name	The .b ("Dot be") Mindfulness in Schools curriculum + parental involvement [P7]
Rationale/theory/Goal	The b. mindfulness curriculum based on adult mindfulness programs but modified for 11-16 year olds [P5], in this arm parents were also invited to be involved [P7].
Materials used	The parental component was designed predominantly in e-format to minimise the time burden and be easily accessible [P7]
Procedures used	Parents were invited to a one hour evening information session at their child's school before the program commenced, with a

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	presentation explaining mindfulness, the research, and the .b program, followed by opportunity for questions. For those parents that could not attend, a link to a recording of this session was sent via email. Once a week, parents received a further email with a link to a 10-minute private YouTube clip which summarised the key points of the current lesson, took parents through an experiential exercise, explained the child's home practices for that week, and invited email feedback or question [P7].
Provider	See Mindfulness curriculum - Study details
Method of delivery	Computer [P7].
Setting/location of intervention	Classroom
Intensity/duration of the intervention	See Mindfulness curriculum - Study details
Tailoring/adaptation	See Mindfulness curriculum - Study details
Unforeseen modifications	NR
Planned treatment fidelity	See Mindfulness curriculum - Study details
Actual treatment fidelity	See Mindfulness curriculum - Study details
Other details	None to add

Control group (N = 182)

Brief name	NA
Rationale/theory/Goal	NA
Materials used	NA
Procedures used	The control group undertook normal lessons (i.e., Pastoral care, Community projects, English, Science or History) [P6].
Provider	NA
Method of delivery	NA

Setting/location of intervention	NA
Intensity/duration of the intervention	NA
Tailoring/adaptation	NA
Unforeseen modifications	NA
Planned treatment fidelity	NA
Actual treatment fidelity	NA
Other details	None to add

D.1.40 Johnstone, 2020

Bibliographic Reference	Johnstone, KM; Middleton, T; Kemps, E; Chen, J; A pilot investigation of universal school-based prevention programs for anxiety and depression symptomology in children: a randomized controlled trial; Journal of clinical psychology; 2020

Study details

Study design	Cluster randomised controlled trial
Trial registration number	Not reported
Aim	To provide a preliminary evaluation of two universal school-based prevention programs, Emotion Regulation (ER) and Behavioral Activation (BA), by increasing resilience to manage excessive worry, a transdiagnostic feature across anxiety and depression.
Country/geographical location	Australia
Type of school	Primary education Secondary education

Setting	Five primary schools within metropolitan and rural Australia
UK Key stage	Key stage 2 Key stage 3
Inclusion criteria	Children between the ages of 8 and 13 years
Exclusion criteria	Not reported
Method of randomisation	A researcher with no other involvement in the study generated a random block sequence for the allocation of schools to condition using IBM Statistical Package for the Social Sciences, Version 25 (IBM SPSS).
Method of allocation concealment	Neither schools nor participants were blind to their allocated condition
Unit of allocation	School
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• ICCs not reported • One-way analysis of variances (ANOVAs) were conducted to examine baseline differences between conditions. • Outcome analyses were conducted using Linear Mixed Modelling (LMM). • The regression model was "mixed" as it included both random effects (student) and fixed effects (condition, time). • Separate LMMs were conducted for each outcome variable. • Cohen's d effect sizes were calculated for within-groups effects. • The mediating roles of level of Emotion Regulation and level of Behavioural Activation were explored separately using the bootstrap method. • Separate analyses were conducted for each proposed mediator at Time 2 and 3.
Attrition	Emotion Regulation: 74/228 = 67.5% attrition Behavioural Activation: 10/197 = 94.9% attrition Usual Class Control: 18/56 = 67.9% attrition
Study limitations (author)	• The study did not include a longer-term follow-up to assess the prevention of disorder diagnoses over time. • A number of classroom teachers felt that the programs would benefit from more rapport building during the first session. Given the sensitive nature of the topics addressed in the programs, they felt that students may not have been

	comfortable to be completely open in their survey responses or during certain program activities with instructors with whom they were not familiar.
	• The sample size fell short of the required number calculated in the power analyses, and attrition rate at 6-month follow-up was high, two factors which may limit the reliability of the findings.
	• There was an uneven number of participants per condition.
	• The researcher who administered the questionnaires also delivered the prevention programs which may introduce bias.
	• There was no assessment of adherence to the prevention protocol, although a random selection of sessions was reviewed by the supervisor.
Study limitations (reviewer)	Lack of information on exclusion criteria
Source of funding	Not reported

Study arms

Emotion regulation (N = 228)

2 schools

Behavioural activation (N = 197)

2 schools

Usual class control (N = 56)

1 school

Characteristics

Study-level characteristics

Characteristic	Study (N = 295)
Age	8 to 13

Characteristic	Study (N = 295)
Range	
Age Mean (SD)	11.04 (1.4)
Male Sample size	n = 140 ; % = 47.5
Female Sample size	n = 155 ; % = 52.5

Outcomes

Study timepoints
- 6 month

Social and emotional wellbeing outcomes

Outcome	Emotion regulation, 6 month, N = 228	Behavioural activation, 6 month, N = 197	Usual class control, 6 month, N = 56
Emotional distress - anxiety and depression Revised child anxiety and depression scales (RCDAS) - student reported Sample size	n = 70 ; % = 30.7	n = 9 ; % = 4.6	n = 18 ; % = 32.1
Emotional distress - anxiety and depression Revised child anxiety and depression scales (RCDAS) - student reported Mean (SD)	30.09 (20.89)	44.59 (18.07)	40.68 (24.4)
Social and emotional skills Cognitive reappraisal subscale of the Emotion Regulation Questionnaire for Children and Adolescents (ERQ-CA)	n = 70 ; % = 30.7	n = 9 ; % = 4.6	n = 18 ; % = 32.1

Outcome	Emotion regulation, 6 month, N = 228	Behavioural activation, 6 month, N = 197	Usual class control, 6 month, N = 56
Sample size			
Social and emotional skills Cognitive reappraisal subscale of the Emotion Regulation Questionnaire for Children and Adolescents (ERQ-CA) Mean (SD)	19.85 (4.72)	20.24 (4.77)	19.6 (4.71)

Emotional distress - anxiety and depression - Polarity - Lower values are better

Social and emotional skills - Polarity - Higher values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - anxiety and depression - Emotion regulation vs Behavioural activation vs Usual class control

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Very serious concerns due to self-reported outcomes, high attrition, and baseline differences)*

Social and emotional skills - Emotion regulation vs Behavioural activation vs Usual class control

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Very serious concerns due to sefl-reported outcomes, high attrition, and baseline differences)*

Study arms

Emotion regulation (N = NA)

Brief name	ER program. p. 1198	ER program. p. 1198

Rationale/theory/Goal	Largely based on modules outlined in Emotion Regulation in Children and Adolescents: A Practitioner's Guide, by Southam-Gerow (2013). 1198	Largely based on modules outlined in Emotion Regulation in Children and Adolescents: A Practitioner's Guide, by Southam-Gerow (2013). 1198
Materials used	Not reported	Not reported
Procedures used	The program contains three main components: (a) identifying and understanding one's own emotions and the emotions of others, (b) developing an understanding that thoughts, feelings, and behaviours are interrelated and how thoughts can interfere with ER, and (c) practical prevention strategies, such as improving physical health and self -efficacy. p. 1198-1199	The program contains three main components: (a) identifying and understanding one's own emotions and the emotions of others, (b) developing an understanding that thoughts, feelings, and behaviours are interrelated and how thoughts can interfere with ER, and (c) practical prevention strategies, such as improving physical health and self -efficacy. p. 1198-1199
Provider	Each program was delivered by a provisional psychologist with experience working in child settings, with assistance from a research assistant, who had completed or was completing an undergraduate degree in psychology. p. 1200	Each program was delivered by a provisional psychologist with experience working in child settings, with assistance from a research assistant, who had completed or was completing an undergraduate degree in psychology. p. 1200
Method of delivery	Classroom-based, with each class consisting of 20–30 students. p. 1198	Classroom-based, with each class consisting of 20–30 students. p. 1198
Setting/location of intervention	Classroom. p. 1198	Classroom. p. 1198
Intensity/duration of the intervention	Eight 50-min sessions delivered weekly. p. 1198	Eight 50-min sessions delivered weekly. p. 1198
Tailoring/adaptation	None reported	None reported
Unforeseen modifications	None reported	None reported
Planned treatment fidelity	The supervisor attended a randomly selected in-person session and reviewed a random selection of the audio recordings to ensure the facilitator's	The supervisor attended a randomly selected in-person session and reviewed a random selection of the audio recordings to ensure the facilitator's

	adherence to the prevention protocols. p. 1201	adherence to the prevention protocols. p. 1201
Actual treatment fidelity	Not reported	Not reported

Behavioural activation (N = NA)

Brief name	Behaviour activation for worry—child (BA) program. p. 1199
Rationale/theory/Goal	Based on the BA for Worry treatment manual developed by Chen et al. (2013). The pivotal goal of the BA program is to develop adaptive behaviours to cope with avoidance by helping participants to identify patterns of avoidant behaviour, and encouraging the development and practice of alternative behaviours p. 1199
Materials used	Not reported
Procedures used	The BA program began with psychoeducation relating to the functional impact of worry. Participants then learned about how avoidance can impact upon worry, and were given opportunities to reflect upon their own patterns of worry and its consequences. Participants were encouraged to identify short-term goals which, together with the assessment of their avoidance patterns, help to develop alternative goal-oriented behaviours. Participants were then encouraged to engage in these alternative behaviours whilst monitoring their own practice and rewarding themselves for successful implementation. p. 1199-1200
Provider	Each program was delivered by a provisional psychologist with experience working in child settings, with assistance from a research assistant, who had completed or was completing an undergraduate degree in psychology. p. 1200
Method of delivery	Classroom-based, with each class consisting of 20–30 students. p. 1198
Setting/location of intervention	Classroom. p. 1198
Intensity/duration of the intervention	Eight 50-min sessions delivered weekly. p. 1198
Tailoring/adaptation	None reported
Unforeseen modifications	None reported

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Planned treatment fidelity	The supervisor attended a randomly selected in-person session and reviewed a random selection of the audio recordings to ensure the facilitator's adherence to the prevention protocols. p. 1201
Actual treatment fidelity	Not reported

Usual class control (N = NA)

Brief name	Usual class control (UCC). p. 1197
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Students in the UCC received Health and Physical Education as outlined in the Australian Curriculum. p. 1203
Provider	Usual class teacher. p. 1203
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.41   Kennedy, 2015

Bibliographic Reference	Kennedy, Patricia; Rooney, Rosanna M.; Kane, Robert T.; Hassan, Sharinaz; Nesa, Monique; The enhanced Aussie Optimism Positive Thinking Skills Program: The relationship between internalizing symptoms

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and family functioning in children aged 9–11 years old; Frontiers in Psychology; 2015; vol. 6; 504

Secondary publication(s)	Cheng, Maryanne, Rooney, Rosanna M, Kane, Robert T et al. (2018) Do parent mental illness and family living arrangement moderate the effects of the Aussie optimism program on depression and anxiety in children?. Frontiers in Psychiatry 9

Study details

Study design	Cluster randomised controlled trial
Type of study	Not clear
Trial registration number	NR
Aim	The main aim of the current study was to investigate whether family functioning affects children's outcomes in internalizing symptomology.
Country/geographical location	Australia
Type of school	Primary education
Setting	Thirteen private schools (eight intervention, five control) were selected from high socioeconomic areas.
UK Key stage	Key stage 2
Inclusion criteria	NR
Exclusion criteria	NR
Method of randomisation	Initially, selected schools were organized into pairs such that the members of each pair were matched in terms factors that might confound the intervention effects (e.g., school size); one member of each pair was then randomly assigned to the intervention condition while the other was assigned to the control condition. This strategy resulted in an equal number of schools in each condition. Unfortunately, several control schools dropped out prior to the pre-test resulting in an unequal distribution of schools across intervention and control conditions
Method of allocation concealment	NR
Unit of allocation	Schools

Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: not reported. Intention to treat: not reported
Attrition	Not reported, lack of information on statistical methods.
Study limitations (author)	• Further research would benefit from investigating different reports of family functioning amongst sub groups of children such as gender, age groups (9, 10, and 11 year olds), high and low academic achievers and time in family structure to further our understanding of how family dysfunction affects what children think about their family life. • This current study targeted the high – socio economic areas, thus generalisability is limited
Study limitations (reviewer)	• Lack of information on inclusion/exclusion criteria • Lack of information on statistical methods • Lack of information on participant demographics
Source of funding	NR

Study arms

AO-PTS (N = 607)

8 schools (clusters) including 607 individuals

Control group (N = 281)

5 schools (clusters) including 281 individuals

Characteristics

Study-level characteristics

Characteristic	Study (N = 888)
Age	9 to 11
Range	

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Characteristic	Study (N = 888)
Males Nominal	429
Females Nominal	418

Outcomes

Study timepoints
- Baseline
- 6 month

Outcomes

Outcome	AO-PTS, Baseline, N = 607	AO-PTS, 6 month, N = 607	Control group, Baseline, N = 281	Control group, 6 month, N = 281
Emotional distress - depression (0-54) Using the CDI (self-report) Mean (SD)	7.52 (6.73)	5.08 (5.81)	8.64 (7.76)	6.69 (6.92)
Emotional distress - anxiety Uisng Spence Children's Anxiety Scale (self-report) Mean (SD)	27.09 (15.42)	20.64 (13.04)	28.39 (15.86)	23.78 (15.31)

Emotional distress - depression - Polarity - Lower values are better

Emotional distress - anxiety - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - Depression - AO-PTS vs Control - 6 month month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Low *(Due to lack of information on methods, subject demographics and missing outcome data)*

Emotional distress-anxiety-- AO-PTS vs Control group - 6 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Low *(Due to lack of information on methods, subject demographics and missing outcome data)*

Study arms

AO-PTS (N = 607)

Brief name	The enhanced Aussie Optimism Positive Thinking Skills Program [P1].
Rationale/theory/Goal	The main aim of the current study was to investigate whether family functioning affects children's outcomes in internalizing symptomology [P3].
Materials used	Teachers in the intervention schools were provided with program manuals and resources. Administration of the program was monitored by the chief investigators for adherence to the assigned intervention program via log books, reports, interviews, and observations. This was conducted by research assistants on all sessions to provide data to triangulate with the teacher log books [P4-5].
Procedures used	The initial module focused on confidentiality followed by discussions on having fun, being brave, differentiating thoughts and feelings, thinking in a helpful way, coping skills and being positive.
Provider	Intervention sessions were carried out by a trained class teacher with support from the teacher assistant. The initial module focused on confidentiality followed by discussions on having fun, being brave, differentiating thoughts and feelings, thinking in a helpful way, coping skills and being positive. All teachers attended a 1-day (8 h) training course, run by clinical psychologists who were members of the research team, in which they were instructed in running groups and the principles of "Positive Thinking." [P5].

Method of delivery	NR
Setting/location of intervention	Intervention was carried out in the usual classroom groups. The average size of the classroom group was around 15 students per class [P5].
Intensity/duration of the intervention	10 weekly intervention sessions [P5].
Tailoring/adaptation	NR
Unforeseen modifications	NR
Planned treatment fidelity	Apart from the integrity checklists, integrity of the program was maximized through observations by research assistants and friendly follow up sessions to help teachers get through the program and by addressing any problems that arose. Dosage effect was measured via attendance of students at sessions [P5].
Actual treatment fidelity	NR
Other details	None to add

Control group (N = 281)

Brief name	NA
Rationale/theory/Goal	NA
Materials used	NR
Procedures used	NR
Provider	NR
Method of delivery	NR
Setting/location of intervention	NR
Intensity/duration of the intervention	NR
Tailoring/adaptation	NR

Unforeseen modifications	NR
Planned treatment fidelity	NR
Actual treatment fidelity	NR
Other details	None to add

D.1.42 Kindt, 2014

Bibliographic Reference	Kindt, Karlijn C M; Kleinjan, Marloes; Janssens, Jan M A M; Scholte, Ron H J; Evaluation of a school-based depression prevention program among adolescents from low-income areas: a randomized controlled effectiveness trial.; International journal of environmental research and public health; 2014; vol. 11 (no. 5); 5273-93

Study details

Study design	Cluster randomised controlled trial
Type of study	Effectiveness
Trial registration number	NTR3110
Aim	The aim of the current study is to test the effectiveness of a depression prevention program on a selective group of adolescents from low-income areas when implemented in a school setting under real-life conditions
Country/geographical location	The Netherlands
Type of school	Secondary education
Setting	Intervention administered to 11 to 16 year old adolescents from low-income areas in the Netherlands at a class level as a part of the school curriculum
UK Key stage	Key stage 3

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Inclusion criteria	Eligible participants for the study were adolescents in the 7th and 8th grades (age 11–16 years, M = 13.42, SD = 0.77) attending secondary schools in the Netherlands that met the criterion that at least 30% of their pupils lived in low-income areas
Exclusion criteria	NR
Method of randomisation	A non-blind two-arm parallel group clustered randomized controlled trial was used to test the effectiveness of the OVK program. Randomisation was conducted within schools at the class level to control for school characteristics, with allocation ratio of 1:1. The sample was stratified by level of education (high versus low). An independent researcher from the research institute used a computerised random number generator with a blocked randomization scheme (block size 2) to perform the allocation. This resulted in a list of classes that were allocated to control or intervention condition, which was communicated to the school by the first author
Method of allocation concealment	NR
Unit of allocation	Class
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: Assuming a small effect size of Cohen's d = 0.20 at 12 month follow-up. It was considered potential loss of power due to clustering of data in classes, a maximum of 20% attrition over time, and multiple imputations. The sample size per condition was fixed at 662 students (alpha < 0.05, power = 0.80). Intention to treat: Attrition at T1 through T4 was analysed with logistic regression analyses in which dropout was the dependent variable, and baseline depressive symptoms, demographics, and outcome variables were predictors. The data was analysed by both means of completers only (N = 948) and intention to treat (N = 1,324). In the intention to treat approach, missing values on the primary outcome variable, that is, depressive symptoms were imputed for all four measurements using 20 imputation sets by multiple imputations in SPSS 19
Attrition	The participation rates at baseline and post intervention measurements were good (T1: 93.7% and T2: 85.8%). After T2, 12.3% dropped out due to change of schools and by consequence, the participation rates decreased at two follow-up assessments (T3: 72.5% and T4: 74.5%). The number analysed using ITT was 667 in the intervention and 676 in the control.
Study limitations (author)	• Use of self-report questionnaires to measure depressive symptoms which were not compared with reports of parents or teachers.

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	• Concerning the questionnaires, parental psychopathology is measured by a single item in which the adolescent reports whether or not a parent is treated by a psychiatrist. Future research on the reliability of this measure is needed. • Relatively more boys, minority youth, older pupils, and adolescents with higher depressive symptoms at baseline were lost to follow-up. Although most participants dropped out because they changed schools, the analysis indicated no difference in drop out between conditions and the analyses conducted separately for intention to treat and completers only did not reveal any differences, still, attrition might reduce the generalisability of the findings. • The study was nonblind; the teachers and adolescents knew whether they received the program or not. This could have resulted in a placebo effect of the program. However, a placebo effect is not likely to have occurred since we did not find an effect of the intervention. Moreover, adolescents were not notified about the goal of the study. Due to the nature of the study in which we did not apply an active control condition, it would be difficult to keep the conditions unknown to the participants. Future studies are encouraged to apply a design using an active control condition and in which participants are blinded to the study conditions
Study limitations (reviewer)	None to add

Study arms

Op Volle Kracht (OVK) (N = 741)

31 classes including 741 individuals were randomised to the intervention group

Control group (N = 699)

30 classes including 699 individuals were randomised to the control group

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Characteristics

Arm-level characteristics

Characteristic	Op Volle Kracht (OVK) (N = 741)	Control group (N = 699)
Native Dutch % Nominal	46	49.4
Ethnic minority % Nominal	54	50.6
Males % Nominal	48.9	46.6
Females % Nominal	51.1	53.4

Outcomes

Study timepoints
- Baseline
- 12 month (Labelled T4 in study)

Outcomes

Outcome	Op Volle Kracht (OVK), Baseline, N = 667	Op Volle Kracht (OVK), 12 month, N = 667	Control group, Baseline, N = 676	Control group, 12 month, N = 676
Emotional distress (0-54) Measured by CDI (self-report) Mean (SD)	8.56 (6.68)	10 (9.14)	8.55 (6.32)	9.22 (7.74)

Emotional distress - Polarity - Lower values are better

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Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - Op Volle Kracht (OVK) vs Control - 12 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to lack of blinding)*

Study arms

OVK Intervention (N = 741)

Brief name	OVK [P5278].
Rationale/theory/Goal	Based on Cognitive Behavioural Therapy (CBT) [P5278].
Materials used	Workbooks and teachers were given a comprehensive manual that thoroughly described each exercise. [P5278].
Procedures used	In OVK, the adolescents are taught skills derived from cognitive behavior therapy (CBT), and social problem-solving and coping skills, through completing pen and paper exercises in a workbook, engaging in the group discussions, performing role-plays, and completing homework assignments. First, they learn about associations among situations, cognitions, feelings, and behavior. Then they learn to check the accuracy of their cognitions and to be flexible in finding alternative interpretations. Further, they learn social and coping skills, including negotiating, assertiveness, and relaxation [P5278].
Provider	Lessons delivered by students mentor, who is the designated teacher to whom parents and adolescents first can turn to in case of problems. The teachers were extensively trained in four days by certified members of the research team. The first two days consisted of "adult skills", in which the teachers were taught to use the CBT skills on their own thoughts and feelings. During the third and fourth day the teachers practiced all the lessons of the program, on which the trainers provided feedback [P5278].
Method of delivery	NR
Setting/location of intervention	Classroom [P5278].
Intensity/duration of the intervention	16 weekly lessons of OVK during school hours [P5278].
Tailoring/adaptation	NR

Unforeseen modifications	NR
Planned treatment fidelity	In order to maximize the generalizability of the present study to the natural setting, the requirements for the teachers was kept close to what would be a reasonable investment after a widespread intervention in real life. Therefore teachers' program integrity and adherence to the program was not checked, such as quality of delivery during the course of the study. Although it was expected that audiotaping several lessons and checking the integrity would increase the teachers' efforts to deliver the program as mentioned, the authors expected that such checks would decrease schools and teachers' willingness to adopt the program into their curriculum [P5289].
Actual treatment fidelity	NR
Other details	None to add

741 randomised to intervention

Control (N = 699)

Brief name	NA
Rationale/theory/Goal	NA
Materials used	NA
Procedures used	Regular school curriculum [P5281]
Provider	NA
Method of delivery	NA
Setting/location of intervention	NA
Intensity/duration of the intervention	NA
Tailoring/adaptation	NA
Unforeseen modifications	NA

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Planned treatment fidelity	NA
Actual treatment fidelity	NA
Other details	None to add

699 randomised to control

D.1.43 Kourmousi, 2018

Bibliographic Reference	Kourmousi, Ntina; Markogiannakis, Georgios; Tzavara, Chara; Kounenou, Kalliope; Mandrikas, Achilleas; Christopoulou, Efstathia; Koutras, Vasilios; Students' Psychosocial Empowerment with the 'Steps for Life' Personal and Social Skills Greek Elementary Programme; International Electronic Journal of Elementary Education; 2018; vol. 10 (no. 5); 535-549

Study details

Trial registration number	Not specified
Study start date	2013
Study end date	2014
Aim	Examine the effectiveness of the elementary version of "Steps for life" universal, teacher-taught mental health promotion school programme for first and second grade students. They hypotesised that students who would attend the "Steps for life" programme for one school-year, would have greater improvement compared to the ones who would attend the existing formal Greek curriculum concerning the taught, targeted and investigated skills: i) concentration of attention, ii) participation/cooperation in class, iii) emotions' identification and expression, iv) emotions' management, v) ability to control verbal and physical aggressiveness, vi) ability to control victimization, vii) empathy, viii) friendship skills, ix) problem-solving ability, x) ability to take responsibility, and xii) use of spoken and written language,
Country/geographical location	Greece, District of Attica

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Type of school	Primary education
Setting	School
UK Key Stage	Key stage 1 Key stage 2
Inclusion criteria	Not specified
Exclusion criteria	Not specified
Method of randomisation	School Counselor provided a list of first and second grade teachers willing to participate in the intervention from his/her district and conducted a draw between them in order to assign their students randomly in the experimental and control groups.
Method of allocation concealment	Not specified
Unit of allocation	Teacher/class
Unit of analysis	Participant
Statistical method(s) used to analyse the data	Quantitative variables were expressed as mean values (SD); For the comparison of proportions chi-square and Fisher's exact tests were used; Student's t-tests were computed for the comparison of mean values. Repeated measurements analysis of variance (ANOVA) was conducted to evaluate the changes observed in the questionnaire dimensions between the two study groups before and after the intervention.
Attrition	Not reported - study outlined sample randomised and does not report any dropouts at end of intervention or post-test (0% attrition)
Study limitations (author)	The use of teachers as facilitators of the intervention programme and evaluators of the students' behaviors
Study limitations (reviewer)	Lack of details regarding blinding and allocation concealment; Attrition outlined as 0% but participant numbers post intervention not specified
Source of funding	Not specified

Study arms

Steps for Life (N = 1516)

"Steps for Life" Curriculum - aims to enhance first and second grade students' self-esteem, empathy, and personal and social skills, with an emphasis on emotion

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management and problem-solving; 27 two-hour weekly lessons, taught in a circle class arrangement, and divided into four modules: a) rule-setting and establishment of a good classroomclimate, b) instruction of basic concepts, c) empathy andemotions' identification and management and d) problem-solving and target-setting.

Control group (N = 923)

Control group teachers were promised that they would receive gratis both the curriculum package and the training during the next school year

Characteristics

Arm-level characteristics

Characteristic	Steps for Life (N = 1516)	Control group (N = 923)
% 6-7 years old Nominal	46.6	43.7
% 7 years and older Nominal	53.4	56.3
% boys Nominal	50.6	51
% Greek Nominal	90.2	88.7
Father's educational level % 2-year college/ University/ Post-graduate studies Nominal	56.1	58.4
Mother's educational level % 2-year college/ University/ Post-graduate studies Nominal	63.3	63.4
% Attendance of full-time instead of classic course Nominal	3.6	3.7

Characteristic	Steps for Life (N = 1516)	Control group (N = 923)
% Re-attendance of the same grade Nominal	2	1.7
Number of students in class Mean (SD)	21.6 (3.3)	21.4 (3.4)

Outcomes

Study timepoints
- Baseline
- 27 week (Post-test - end of study)

Social and Emotional skills - Problem-Solving Ability

Outcome	Steps for Life, Baseline, N = 1516	Steps for Life, 27 week, N = 1516	Control group, Baseline, N = 923	Control group, 27 week, N = 923
Problem-Solving Ability Mean (SD)	4.86 (1.22)	5.31 (1.28)	4.9 (1.2)	4.97 (1.31)

Problem-Solving Ability - Polarity - Higher values are better

Measured via a sub-scale in the Personal and Social Skills Scale for Elementary Students Aged 7-9 questionnaire

Emotional distress - Emotions' Management

Outcome	Steps for Life, Baseline, N = 1516	Steps for Life, 27 week, N = 1516	Control group, Baseline, N = 923	Control group, 27 week, N = 923
Emotions' Management Mean (SD)	4.76 (1.22)	5.17 (1.25)	4.83 (1.17)	4.86 (1.22)

Emotions' Management - Polarity - Higher values are better

Measured via a sub-scale in the Personal and Social Skills Scale for Elementary Students Aged 7-9 questionnaire

Behavioural - Empathy

Outcome	Steps for Life, Baseline, N = 1516	Steps for Life, 27 week, N = 1516	Control group, Baseline, N = 923	Control group, 27 week, N = 923
Empathy Mean (SD)	5.07 (1.11)	5.7 (1.11)	5.09 (1.09)	5.26 (1.13)

Empathy - Polarity - Higher values are better

Measured via a sub-scale in the Personal and Social Skills Scale for Elementary Students Aged 7-9 questionnaire

Academic achievement - Use of Spoken and Written Language

Outcome	Steps for Life, Baseline, N = 1516	Steps for Life, 27 week, N = 1516	Control group, Baseline, N = 923	Control group, 27 week, N = 923
Use of Spoken and Written Language Mean (SD)	4.74 (1.16)	5.26 (1.22)	4.78 (1.21)	4.93 (1.24)

Use of Spoken and Written Language - Polarity - Higher values are better

Measured via a sub-scale in the Personal and Social Skills Scale for Elementary Students Aged 7-9 questionnaire - designed to measure elementary students' personal and social skills in the school environment,

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

SocialandEmotionalskills-Problem-SolvingAbility-Problem-SolvingAbility-MeanSD-Steps for Life-Control group-t27

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment; Method of randomisation lacks detail; Those assessing outcomes were*

Section	Question	Answer
		aware of allocations and assessments carried out by self-report)
Overall bias and Directness	Overall Directness	Directly applicable

Emotionaldistress-Emotions'Management-Emotions'Management-MeanSD-Steps for Life-Control group-t27

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment;Method of randomisation lacks detail; Those assessing outcomes were aware of allocations and assessments carried out by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

Behavioural-Empathy-Empathy-MeanSD-Steps for Life-Control group-t27

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment;Method of randomisation lacks detail; Those assessing outcomes were aware of allocations and assessments carried out by self-report)*
Overall bias and Directness	Overall Directness	Directly applicable

Academicachievement-UseofSpokenandWrittenLanguage-UseofSpokenandWrittenLanguage-MeanSD-Steps for Life-Control group-t27

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment;Method of randomisation lacks detail; Those assessing outcomes were aware of allocations and assessments carried out by self-report)*

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Section	Question	Answer
		Directly applicable
Overall bias and Directness	Overall Directness	

Study arms

Steps for Life (N = 1516)

Brief name	Steps for life
Rationale/theory/Goal	It combines elements and strategies from different approaches. As a mental health education programme, it draws from Bandura's Social Learning Theory (Bandura, 1997). It seeks to identify a school-based approach which would improve Greek students' personal and social skills.
Materials used	Teacher's Manual containing the theoretical basis of the programme and specific instructions for its implementation, b) the structured and analytical Lesson Guide which also ensures an easy implementation, c) two hand-puppets – a boy and a girl students – used to introduce most of the lessons and demonstrate the taught skills, d) 76 pictures which serve for the introduction of the subject in most lessons, and e) the Letters to the Family which inform parents of the taught skills and provide them with simple guidelines and indicative ways of dialoguing, thus supporting the continuation of the child's learning at home; Facilitators' Training; Personal and Social Skills Scale for Elementary Students Aged 7-9; BASE Scale; Fidelity assessment via implementation and evaluation form.
Procedures used	Identification; randomisation by class; baseline assessment; implementation of "Steps for Life" annual universal elementary curriculum consists (27 two-hour weekly lessons); intervention assessment and fidelity.
Provider	Teachers
Method of delivery	Face to face
Setting/location of intervention	School/class
Intensity/duration of the intervention	The "Steps for Life" annual universal elementary curriculum consists of 27 two-hour weekly lessons, taught in a circle class arrangement, and divided into four modules: a) rule-setting and establishment of a good classroom climate, b) instruction of basic concepts, c) empathy and emotions' identification and management and d) problem-solving and target-setting.

Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	Experimental group's teachers had to complete an implementation and evaluation form after the completion of each lesson-teaching. The form, apart from questions concerning the students' concentration and interest, also asked the teachers to note the exact activities proposed by the Lesson Guide that they had realized and to describe any possible differences between the lesson as presented in the curriculum and the way it was carried out. The six District School Counselors, who supervised the conduct of the study, visited their intervention schools on a weekly basis during the whole school-year, in order to inspect the implementation procedure, ensuring that the programme was taught as designed.
Actual treatment fidelity	Not outlined
Other details	Not specified

"Steps for Life" Curriculum - aims to enhance first and second grade students' self-esteem, empathy, and personal and social skills, with an emphasis on emotion management and problem-solving; 27 two-hour weekly lessons, taught in a circle class arrangement, and divided into four modules: a) rule-setting and establishment of a good classroomclimate, b) instruction of basic concepts, c) empathy andemotions' identification and management and d) problem-solving and target-setting.

Control group (N = 923)

Brief name	Control
Rationale/theory/Goal	Control comparator
Materials used	Not specified
Procedures used	Not specified
Provider	Not specified
Method of delivery	Not specified

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Setting/location of intervention	Schools/class
Intensity/duration of the intervention	Not specified
Tailoring/adaptation	Not specified
Planned treatment fidelity	Not specified
Actual treatment fidelity	Not specified
Other details	Not outlined

Control group teachers were promised that they would receive gratis both the curriculum package and the training during the next school year

D.1.44   Kuosmanen, 2017

Bibliographic Reference	Kuosmanen, T.; Fleming, T.M.; Newell, J.; Barry, M.M.; A pilot evaluation of the SPARX-R gaming intervention for preventing depression and improving wellbeing among adolescents in alternative education; Internet Interventions; 2017; vol. 8; 40-47
Secondary publication(s)	Kuosmanen, T.; Fleming, T. M.; Barry, M. M. (2018) The implementation of SPARX-R computerized mental health program in alternative education: Exploring the factors contributing to engagement and dropout. Children and Youth Services Review 84: 176-184

Study details

Study design	Cluster randomised controlled trial
Type of study	Effectiveness
Trial registration number	NR
Aim	This pilot study examined the feasibility of delivering a computerized cognitive behavioral therapy (cCBT) gaming intervention (SPARX-R) for young people (age 15–20 years) who

	have left school early and are attending Youthreach, an alternative education (AE) program in Ireland.
Country/geographical location	Ireland
Type of school	Secondary education Those aged 15-18 years old in alternative education
Setting	Young people (age 15–20 years) who have left school early and are attending Youthreach, an alternative education (AE) program
UK Key stage	Key stage 4 Post-16
Inclusion criteria	As a universal exploratory study, strict inclusion/exclusion criteria were not used
Exclusion criteria	As a universal exploratory study, strict inclusion/exclusion criteria were not used
Method of randomisation	Randomization was conducted in clusters to avoid between condition contamination and for practical reasons. Each Center was randomly assigned a unique identification number after which they were randomized to intervention or control using the random number sequence function in Excel. The researcher was not blind to the randomization process
Method of allocation concealment	NR
Unit of allocation	Centres
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: Original sample size calculations (power = 0.80, α = 0.05) were conducted for a three-arm cluster RCT with two intervention conditions (SPARX-R and MoodGYM). The study was powered to detect an absolute difference of 30% from the mean SMFQ value in the control arm. Based on a pilot study, it was assumed the value in the control arm to be 7.80 (SD 6.36) and the difference in the means 2.34. Assuming an intraclass correlation of 0.02, an average group size of nine students and an attrition rate of 30%, the calculations resulted in a desired sample size of 27 Centre's (216 participants). The sample size was adjusted after excluding the MoodGYM arm to n = 144 or eight Centre's with nine participants per condition. Intention to treat: Participants that provided data at post-assessment (n = 66) were included in the analysis. Missing items were not allowed in the online assessment for items of the outcome measures

Attrition	Attrition rates were high, with 45.2% of the participants assessed at post-intervention. Of the Centers that stayed in the study, 59% of students completed post-assessment. One Center did not complete the user satisfaction questionnaire (n = 5).
Study limitations (author)	- small number of participants due to significant dropout - the lack of follow-up - the participating class of students having been selected by the Centre staff - the use of self-report measures, particularly as literacy issues were prevalent among the study population
Study limitations (reviewer)	None to add
Source of funding	This work was supported by the Hardiman PhD Research Scholarships, National University of Ireland, Galway.

Study arms

SPARX-R gaming intervention (N = 92)

9 centres (clusters) including 92 individuals completed the pre-intervention assessment

Control group (N = 54)

7 centres (clusters) including 54 individuals completed the pre intervention assessment

Characteristics

Arm-level characteristics

Characteristic	SPARX-R gaming intervention (N = 92)	Control group (N = 54)
Age Mean (SD)	17.76 (1.21)	17.31 (1.24)
Males No of events	n = 48.9 ; % = 45	n = 42.6 ; % = 23
Females	n = 51.1 ; % = 47	n = 57.4 ; % = 31

Characteristic	SPARX-R gaming intervention (N = 92)	Control group (N = 54)
No of events		

Outcomes

Study timepoints
- Baseline
- 7 week (Post intervention)

Outcomes

Outcome	SPARX-R gaming intervention, Baseline, N = 30	SPARX-R gaming intervention, 7 week, N = 30	Control group, Baseline, N = 36	Control group, 7 week, N = 36
Emotional distress - depression Using SMFQ (self-report) Mean (SD)	6.33 (5.01)	6.77 (6.01)	8.81 (6.62)	9.89 (6.33)
Behavioural Coping styles measured by CSI-SuSe (self-report) Mean (SD)	9.87 (4.88)	11.73 (5.76)	12.17 (5.9)	11.03 (5.11)
Emotional distress - anxiety Uisng Generalized Anxiety Disorder Scale (self-report) Mean (SD)	7 (5.58)	7.2 (6.53)	9.97 (6.12)	9.31 (5.46)

Emotional distress - depression - Polarity - Lower values are better

Behavioural - Polarity - Higher values are better

Emotional distress - anxiety - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - SPARX-R gaming vs Control - 7 weeks follow up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Due to lack of information on blinding, self report data and a loss to follow up >50% in the intervention group)*

Behavioural outcomes - SPARX-R gaming vs Control - 7 weeks follow up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Due to lack of information on blinding, self report data and a loss to follow up >50% in the intervention group)*

Emotional distress-anxiety - SPARX-R gaming vs Control - 7 weeks follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Due to lack of information on blinding, self report data and a loss to follow up >50% in the intervention group)*

Study arms

SPARX-R (N = 30)

Brief name	SPARX-R gaming intervention [P41].
Rationale/theory/Goal	SPARX-R is a revised version of the original SPARX CBT-based self help intervention, designed to treat symptoms of mild to moderate depression in adolescents seeking help for depression using a serious gaming approach [P41].
Materials used	Each participant was assigned with a program login and password. The staff delivering the program was provided with a list of each 4student's login details in case the students would forget them. The login also served as the participant ID. Participants were asked for their login when they completed the pre-intervention and post-intervention assessments [P42].
Procedures used	The content is in essence the same, however, SPARX-R is framed as a preventative program; instead of focusing exclusively on depression, SPARX-R is aimed for young people who 'feel down, stressed or angry'. The skills taught in SPARX-R include

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	psychoeducation, relaxation skills, activity scheduling, problem solving, cognitive restructuring, interpersonal skills, help seeking, and dealing with strong emotions. SPARX-R incorporates elements of gaming, such as completing goals and challenges, presentation of a narrative and interaction with program characters, to facilitate learning [P41].
Provider	The researcher was present at the start of the program after which a staff member moderated the program. The researcher visited some Centers several times due to technical issues. The staff members were provided with a Program Manual and Study Instructions with detailed information on the day-to-day roll out of the study and the completion of the online assessment questionnaires [P42].
Method of delivery	Gaming programme [P42].
Setting/location of intervention	Although the program was delivered in class, each student progressed with the program at their own pace. If a student missed a class, he/she was able to complete the module another time in the Youthreach Center or just carry on where they left off at the next class [P42].
Intensity/duration of the intervention	The program has seven sequential levels, each taking approximately 20–30 min to complete. The intervention was delivered to groups of Youth reach students during scheduled class time. At each weekly class, the students completed one module of the program. The overall program completion time varied due to gaps in delivery because of mid-term breaks, other inconsistencies in the curriculum or student absenteeism [P42].
Tailoring/adaptation	NR
Unforeseen modifications	NR
Planned treatment fidelity	NR
Actual treatment fidelity	NR
Other details	None to add

Control group (N = 36)

Brief name	Wait-list control [P41].
Rationale/theory/Goal	NA

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Materials used	NA
Procedures used	NA
Provider	NA
Method of delivery	NA
Setting/location of intervention	NA
Intensity/duration of the intervention	NA
Tailoring/adaptation	NA
Unforeseen modifications	NA
Planned treatment fidelity	NA
Actual treatment fidelity	NA
Other details	None to add

D.1.45 Lang, 2017

Bibliographic Reference	Lang, Christin; Feldmeth, Anne Karina; Brand, Serge; Holsboer-Trachsler, Edith; Puhse, Uwe; Gerber, Markus; Effects of a physical education-based coping training on adolescents' coping skills, stress perceptions and quality of sleep.; Physical Education and Sport Pedagogy; 2017; vol. 22 (no. 3); 213-230
Secondary publication(s)	Lang, Christin, Feldmeth, Anna Karina, Brand, Serge et al. (2016) Stress management in physical education class: An experiential approach to improve coping skills and reduce stress perceptions in adolescents. Journal of Teaching in Physical Education 35(2): 149-158

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Study details

Trial registration number	Not specified
Study start date	Aug-2012
Study end date	Nov-2012
Aim	Develop and evaluate the effectiveness of a PE-based coping training for adolescent vocational students, drawing on theoretical frameworks and empirically tested coping training programs. Outcomes were: (a) perceived coping skills, (b) stress perception and (c) sleep quality
Country/geographical location	Switzerland
Type of school	Secondary education Vocational school - mean age of sample 16.22 (1.12)
Setting	Vocational school - Occupational training for the following professionals was offered at this school: polytechnicians, retail assistants, industrial clerks, structural draftsmen and hairdressers
UK Key Stage	Key stage 4 Post-16
Inclusion criteria	Not specified
Exclusion criteria	Not specified
Method of randomisation	Two PE teachers and their Four classes randomised; No further details. To minimize the likelihood that students in the coping program would talk about the specific contents of the program to students in the control condition, the randomization involved the allocation of classes, which did not attend school on the same day.
Method of allocation concealment	Not outlined - To minimize the likelihood that students in the coping program would talk about the specific contents of the program to students in the control condition, the randomization involved the allocation of classes, which did not attend school on the same day.
Unit of allocation	Class/Teacher
Unit of analysis	Participant
Statistical method(s) used to analyse the data	Pearson's correlations (examine how age and perceived family financial situation are associated with coping, stress and quality of sleep); Chi-square tests (determine gender differences in socio-demographic and main outcome variables); univariate analyses of variance - ANOVAs (Between-group differences at baseline were

	tested with); two-by-two repeated-measures ANOVA design (evaluate possible interaction effects of the coping training on coping skills; possible time (pre vs. post) by group (IG vs. CG) interaction effects on stress perception and quality of sleep)
Attrition	Authors outline a 7% dropout rate from baseline to follow-up (authorized absence of PE lesson on assessment day) - participant numbers across study arms do not appear to include this additional 7%
Study limitations (author)	Length of follow-up; non-clinical sample: reduction in perceived stress levels and maladaptive coping skills is less distinctive from before to after the intervention; dropouts differed on some variables at baseline (age and perceived stress); one teacher has done homework control, which influenced student's reflection and compliance
Study limitations (reviewer)	Blinding not outlined and allocation concealment not clarified; Randomisation method not clarified; Significant differences between study arms post randomisation for in emotion-focused coping skills, with higher skills among students of the IG.
Source of funding	This work was supported by the Swiss Federal Sport Commission [grant number 10-05]; Health Promotion Switzerland [grant number IP18.15].

Study arms

EPHECT coping training (N = 63)

EPHECT coping training - eight modules, each implemented in individual PE lessons. In the experimental group, Each regular 90-minute PE class contains a 20-minute intervention consisting of motor tasks for the individual or group instructed by the PE teacher, followed by a reflection and discussion with the teacher. 2 classes

Control (N = 59)

90-minute PE class containing a 20-minute intervention consisting of motor tasks for the individual or group instructed by the PE teacher, without reflection and discussion with the teacher. 4 classes

Characteristics

Study-level characteristics

Characteristic	Study (N = 112)
Age (years) Mean (SD)	16.22 (1.12)
Gender (% Female) Nominal	35.2
Ethnicity Nominal	NR

Outcomes

Study timepoints
- Baseline
- 3 month

Social and emotional skills - Adaptive Coping skills

Outcome	EPHECT coping training, Baseline, N = 63	EPHECT coping training, 3 month, N = 63	Control, Baseline, N = 59	Control, 3 month, N = 59
Adaptive Coping skills Mean (SD)	8.75 (2.23)	8.99 (2.53)	8.36 (1.66)	8.09 (1.8)

Adaptive Coping skills - Polarity - Higher values are better

Coping Questionnaire for Children and Adolescents - 36 items, which referred to the stem question: 'How do you usually deal with stress? - Adaptive coping is the sum of two scales: emotional-focused coping (describes youngsters' ability to mentally minimize problems and to distract oneself from stressors) and problem-focused coping (coping is represented by situation control positive self-instructions and social support

Emotional distress - Perceived stress

Outcome	EPHECT coping training, Baseline, N = 63	EPHECT coping training, 3 month, N = 63	Control, Baseline, N = 59	Control, 3 month, N = 59
Perceived stress Mean (SD)	5.99 (1.45)	6.07 (1.81)	5.85 (1.57)	5.92 (1.53)

Perceived stress - Polarity - Lower values are better

Adolescents Stress Questionnaire (ASQ); measures the perceived stressfulness of events that adolescents commonly experience in their daily lives.

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Socialandemotionalskills-AdaptiveCopingskills-AdaptiveCopingskills-MeanSD-EPHECT coping training-Control-t3

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Statistical differences in baseline measures of primary outcome; No blinding or allocation concealment outlined; self-report observations by assessor who also delivered the intervention with awareness of study allocations)*
Overall bias and Directness	Overall Directness	Directly applicable

Emotionaldistress-Perceivedstress-Perceivedstress-MeanSD-EPHECT coping training-Control-t3

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Statistical differences in baseline measures of primary outcome; No blinding or allocation concealment outlined; self-report observations by assessor who also delivered the intervention with awareness of study allocations)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

EPHECT coping training (N = 63)

Brief name	EPHECT coping training [page 217]
Rationale/theory/Goal	Based on Kolb's experiential learning theory [page 217]
Materials used	Teacher manual, Workbook and homework [page 218]
Procedures used	Two half-day workshops were provided with theoretical and practical content [page 218]
Provider	Teacher [page 217]
Method of delivery	Lesson [page 217]
Setting/location of intervention	School [page 217]
Intensity/duration of the intervention	Eight module sof 20 minutes each (as part of a 90 minute PE class) per week [page 216 - 217]
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Non-participating, standardized classroom observation was conducted in every lesson throughout the implementation. This focused on the quantity of program delivery, quality of program implementation and the perceived responsiveness of the students. Students were asked at the follow-up measurement (post hoc evaluation) whether (a) they read the workbook, (b) they think they have learned something from the stress management program and (c) their teacher has reminded them to read the workbook and do the homework- answers were given on a 5-point rating scale ranging from 1 (not at all) to 5 (very much). [page 220]
Actual treatment fidelity	Implementation rate was judge high by the observer and 75% of children reported that they had read the workbook [page 221]
Other details	

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Control (N = 59)

Brief name	Usual PE class [page 217]
Rationale/theory/Goal	Not applicable
Materials used	Not applicable
Procedures used	Not applicable
Provider	Not applicable
Method of delivery	Not applicable
Setting/location of intervention	Not applicable
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable

D.1.46 Lassander, 2021

Bibliographic Reference	Lassander, Maarit; Hintsanen, Mirka; Suominen, Sakari; Vahlberg, Tero; Mullola, Sari; Volanen, Salla-Maarit; Effects of school-based mindfulness intervention on health-related quality of life: moderating effect of gender, grade, and independent practice in cluster randomized controlled trial; Quality of Life Research; 2021

Study details

Study design	Cluster randomised controlled trial

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Trial registration number	ISRCTN18642659
Study start date	2013
Study end date	Jan-2017
Aim	To investigate the impact of a school-based 9-week mindfulness program vs. active control program (relaxation) and inactive control group on children's mental health and HR-QoL.
Country/geographical location	Finland
Type of school	Secondary education
Setting	Comprehensive schools.
UK Key Stage	Key stage 3 Key stage 4
Inclusion criteria	Participants were 6th, 7th and 8th graders (aged 12 to 15).
Exclusion criteria	Not reported
Method of randomisation	Not reported
Method of allocation concealment	The participants were blinded as to whether they were selected to intervention or active control program. No further detail reported.
Unit of allocation	Custer (school)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	- ICCs at the school level were less than 0.01 for all outcomes - The sample size was estimated to detect the mean difference of 0.2 standard deviation units (effect size = 0.2) on main outcomes between intervention and control groups with 80% power and the two-tailed 5% level of significance. - The effect of intervention on HRQoL was analysed with multilevel models to account for the clustered nature of the data. - The modifying effect of gender, grade and independent practice were analysed with multilevel modeling. - The intervention effect was examined by interaction terms between treatment group and time.

Attrition	The number of participants was reduced by drop-outs (attrition 5.9%, with no significant differences between intervention and control groups)
Study limitations (author)	• The number of participants was reduced by drop-outs. Boys were more likely to drop out than girls. Students whose mother language was other than Finnish/Swedish were also more likely to drop out. • The inactive control group was smaller than the intervention and active control groups (n = 353) and the active control group (n = 1181) was slightly under the power calculations for primary outcomes (n = 1200 in each group), which reduces statistical power. • The authors did not control the experience in mindfulness at baseline, allowing the students varying backgrounds.
Study limitations (reviewer)	• Lack of information on method of randomisation • Lack of detail on method of allocation concealment
Source of funding	Open access funding provided by University of Helsinki including Helsinki University Central Hospital. This study was funded by Signe and Ane Gyllenberg Foundation and Alfred Kordelin Foundation (Grant No. 150307).

Study arms

School-based mindfulness intervention (Stop and Breathe) (N = 1646)

25 schools were assigned

Inactive control (N = 385)

7 schools were assigned

Characteristics

Study-level characteristics

Characteristic	Study (N = 3519)
Age (years) Range	12 to 15

Characteristic	Study (N = 3519)
Male Number of males calculated from percentage Sample size	n = 1759 ; % = 50
Female Number of females calculated from percentage Sample size	n = 1760 ; % = 50

Outcomes

Study timepoints
- 26 week

Social and emotional wellbeing outcomes

Outcome	School-based mindfulness intervention (Stop and Breathe), 26 week, N = 1646	Inactive control, 26 week, N = 385
Social and emotional skills - Emotional wellbeing (0 - 100) Psychological wellbeing domain of KINDL-R Sample size	n = 957 ; % = 58.1	n = 306 ; % = 79.5
Social and emotional skills - Emotional wellbeing (0 - 100) Psychological wellbeing domain of KINDL-R Mean (SD)	75.95 (15.85)	75.63 (15.6)
Emotional distress - depression (0-36) Beck Depression Inventory (RBDPI) Sample size	n = 934 ; % = 56.7	n = 304 ; % = 79
Emotional distress - depression (0-36)	1.81 (3.65)	2.01 (4.23)

Outcome	School-based mindfulness intervention (Stop and Breathe), 26 week, N = 1646	Inactive control, 26 week, N = 385
Beck Depression Inventory (RBDPI) Mean (SD)		
Behavioural outcomes (0-40) Strengths and Difficulties Questionnaire (SDQ) Sample size	n = 947 ; % = 57.5	n = 302 ; % = 78.4
Behavioural outcomes (0-40) Strengths and Difficulties Questionnaire (SDQ) Mean (SD)	9.81 (5.87)	9.75 (5.92)

Social and emotional skills - Emotional wellbeing - Polarity - Higher values are better

Emotional distress - depression - Polarity - Lower values are better

Behavioural outcomes - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Social and emotional skills - Emotional wellbeing - School-based mindfulness intervention vs Teaching as usual

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Outcome measures were self-reported)*
Overall bias and Directness	Overall Directness	Directly applicable

Emotional distress - depression - School-based mindfulness intervention vs Teaching as usual

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Outcome measures were self-reported)*
Overall bias and Directness	Overall Directness	Directly applicable

Behavioural outcomes - School-based mindfulness intervention vs Teaching as usual

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Outcome measures were self-reported)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

School-based mindfulness intervention (Stop and Breathe) (N = NA)

Brief name	Mindfulness intervention (Stop and Breathe). p. 3
Rationale/theory/Goal	Mindfulness-based. p. 3
Materials used	Course website. p. 3
Procedures used	Sessions started with a psychoeducational introduction to the themed lesson (e.g., directing attention, experiencing difficult thoughts, and difficult emotions), including short formal or informal practices, group discussion, and ending with a longer practice. p. 3
Provider	Trained facilitators. p. 3
Method of delivery	Group-based. p. 3
Setting/location of intervention	School-based with home practice. p. 3
Intensity/duration of the intervention	Nine weekly 45-min group sessions short home practices (the recommended amount of practice being 5–6 times per week, approx. 3–15 min at a time). p. 3

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Tailoring/adaptation	None reported
Unforeseen modifications	None reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	None reported

Inactive control (N = NA)

Brief name	Inactive control. p. 3
Rationale/theory/Goal	None reported
Materials used	None reported
Procedures used	Participants followed normal school curriculum without any interventions. p. 3
Provider	None reported
Method of delivery	None reported
Setting/location of intervention	None reported
Intensity/duration of the intervention	None reported
Tailoring/adaptation	None reported
Unforeseen modifications	None reported
Planned treatment fidelity	None reported
Actual treatment fidelity	None reported

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D.1.47 Luengo Kanacri, 2020

Bibliographic Reference	Luengo Kanacri BP; Zuffiano A; Pastorelli C; Jiménez-Moya G; Tirado LU; Thartori E; Gerbino M; Cumsille P; Martinez ML; Cross-national evidences of a school-based universal programme for promoting prosocial behaviours in peer interactions: Main theoretical communalities and local unicity.; International journal of psychology : Journal international de psychologie; 2020
Secondary publication(s)	Palacios, Diego, Berger, Christian, Luengo Kanacri, Bernadette Paula et al. (2019) The Interplay of Adolescents' Aggression and Victimization with Friendship and Antipathy Networks within an Educational Prosocial Intervention. Journal of youth and adolescence

Study details

Trial registration number	Not specified
Study start date	2012
Study end date	2017
Aim	Evaluate the pretest/posttest effects of the adapted CEPIDEA intervention or ProCiviCo program on the improvement of prosocial behaviors and the decline of aggressive behaviors.
Country/geographical location	Columbia/Chile
Type of school	Secondary education
Setting	Schools
UK Key Stage	Key stage 3
Inclusion criteria	Not specified: Columbian arms: All participants attended seventh grade at pretest Chilean arms: All participants attended seventh grade at pretest
Exclusion criteria	Not specified
Method of randomisation	Not specified
Method of allocation concealment	Not specified

Unit of allocation	Class/school
Unit of analysis	Participant
Statistical method(s) used to analyse the data	Analysis of covariance (ANCOVA) approach to test the direct and mediated effects of our intervention programs on prosocial behavior and physical aggression; tested the presence of significant interaction effects between the intervention condition and pretest scores in predicting change scores in the constructs of interest; explored whether students' gender and SES moderated the effects of the intervention program on prosocial behavior and physical aggression. All models were run in Mplus 8.
Attrition	Columbia - Adapted CEPIDEA vs control: 314/320 (2% attrition pre to post test) Chile - Adapted ProCiviCo vs control 593/596 (>1% attrition pre to post test)
Study limitations (author)	Intervention and control group differed on their initial levels of prosocial behaviors and physical aggression in both countries; Temporal distance in time regarding the moment in which the program was implemented and data were collected in both countries; Timing of implementation of an intervention program depends on plausibility of application and availability of resources; effectiveness of the program was not a goal in this study, neither observational data was collected;
Study limitations (reviewer)	Blinding and allocation concealment not specified; randomisation not specified
Source of funding	This work was supported by FONDECYT, CONICYT, Chile (grant number 1160151) and by a grant from Universidad San Buenaventura, Medellin, Colombia. Bernadette Paula Luengo Kanacri was partially funded by the Interdisciplinary Center for Social Conflict and CohesionStudies, COES, GRANT: CONICYT/FONDAP/15130009

Study arms

Adapted CEPIDEA (N = 169)

Adapting "Promoting Prosocial and Emotional Skills to Counteract Externalizing Problems in Adolescence (CEPIDEA); school-based universal program specifically designed to promote prosocial behaviors in the peer context as away to counteract aggressive behaviors during adolescence; a special focus has been given to: (1) the expression of positive emotions as a emotion regulation subcomponent that may

particularly support prosocial behaviors in a context of Colombia; (2) the empathic and communication skills as basis of prosocial strategies for peaceful conflict resolution

Adapted ProCiviCo (N = 315)

ProCiviCo (Promoting prosocial behavior and civic engagement for social cohesion in school settings) ad hoc focus on civic engagement was added to have, as a long-term aim, the promotion of social cohesion and universalism value among Chilean citizens; five components are included and trained in the program: (a) prosocial responding in the peer context, (b) empathic skills, (c) emotion regulation, (d) prejudice and shared identities, (e) and civic participation towards the school community.

Control - Columbia (N = 151)

Not specified

Control - Chile (N = 281)

Not specified

Characteristics

Study-level characteristics

Characteristic	Study (N = 916)
Columbian sample Mean (SD)	12.78 (1.11)
Chilean sample Mean (SD)	12.29 (0.62)
Columbian sample - % males Nominal	58.1
Chilean sample - % males Nominal	55.1

Characteristic	Study (N = 916)
Ethnicity Nominal	NR
Columbian sample - % mothers completed high school Nominal	11.5
Chilean sample - % mothers completed high school Nominal	20.3

Outcomes

Study timepoints
- Baseline
- 6 month (T2)

Behavioral outcome - pro-social behavior

Outcome	Adapted CEPIDEA, Baseline, N = 169	Adapted CEPIDEA, 6 month, N = 169	Adapted ProCiviCo, Baseline, N = 315	Adapted ProCiviCo, 6 month, N = 315	Control - Columbia, Baseline, N = 151	Control - Columbia, 6 month, N = 151	Control - Chile, Baseline, N = 281	Control - Chile, 6 month, N = 281
pro-social behavior Mean (SD)	3.06 (0.46)	3.13 (0.41)	3.25 (0.61)	3.43 (0.55)	3.09 (0.4)	3.15 (0.45)	3.39 (0.52)	3.4 (0.49)

pro-social behavior - Polarity - Higher values are better

16-item Pro-sociality Scale; Prosocial behavior was also assessed by using three peer-reported items and participants rated each classmate on four items intended to assess the frequency of occurrence of basic prosocial behaviors through a 5-point response scale - Unclear how the two items were brought together

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Behavioraloutcome-pro-socialbehavior-pro-socialbehavior-MeanSD-Adapted CEPIDEA-Adapted ProCiviCo-Control - Columbia-Control - Chile-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; Baseline differences for primary outcomes; no accounting for clustering in analysis)*
Overall bias and Directness	Overall Directness	Partially applicable *(Countries and population may not be wholly representative of the UK context)*

Study arms

Adapted ProCiviCo (N = 315)

Brief name	ProCiviCo (Promoting prosocial behavior and civic engagement for social cohesion in school settings) [page 4]
Rationale/theory/Goal	Based on the role of empathy and perspective-talking skills as roots of behaving prosocially [page 6] and aims to improve prosocial behaviors and reduce aggressive behaviors. [page 11]
Materials used	Manual [page 14]
Procedures used	Teacher received 22 hours of training (2 sessions per year) [page 13]
Provider	Teacher [page 13]
Method of delivery	Classroom lessons [page 13]
Setting/location of intervention	School [Abstract]
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Adapted from CEPHIDEA [page 14]
Unforeseen modifications	Not reported
Planned treatment fidelity	Fidelity was controlled by: • manualization of weekly prosocial sessions and prosocial lessons

	• regular communication with, and ongoing supervision of, teachers • weekly staff meetings • an ad hoc checklist completed by the research staff at the end of each prosocial session with the aim to evaluate adherence to the programmed specifications [page 14]
Actual treatment fidelity	Not reported

Control (N = 281)

Brief name	Control [page 12]
Rationale/theory/Goal	Not applicable
Materials used	Not reported
Procedures used	Not reported
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

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D.1.48 Malti, 2011

Bibliographic Reference	Malti, Tina; Ribeaud, Denis; Eisner, Manuel P; The effectiveness of two universal preventive interventions in reducing children's externalizing behavior: a cluster randomized controlled trial.; Journal of clinical child and adolescent psychology : the official journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53; 2011; vol. 40 (no. 5); 677-92

Study details

Trial registration number	(http://www.controlled-trials.com/ISRCTN84472990).
Study start date	Aug-2004
Study end date	Mar-2009
Aim	Our study was designed to compare PATHS (and Triple-P, and PATHS +Triple-P - not outlined in this extraction as outside of scope) with a control group in a cluster randomized longitudinal trial with a 2-year post-intervention follow-up. Authors hypothesized that compared to children in the control condition, children in all the treatment conditions would manifest greater short and long-term reductions in externalizing behavior and greater increases in social competence.
Country/geographical location	Switzerland
Type of school	Primary education
Setting	1st year of elementary school - followed up for 4 years
UK Key Stage	Key stage 1 Key stage 2
Inclusion criteria	Targeted sample - not specified
Exclusion criteria	Targeted sample - not specified
Method of randomisation	Cluster randomized sampling approach with school as the unit of randomization; randomized block design utilized: 14 blocks of 4 schools were created such that the schools within each block were similar in size and came from the same school district. The schools within each block were then randomly allocated to the treatment conditions. The randomization was computer generated.

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Method of allocation concealment	Not specified - block randomisation may have provided some concealment
Unit of allocation	School
Unit of analysis	Participant
Statistical method(s) used to analyse the data	Hierarchical linear modeling used to assess the effects of the PATHS programs on child externalizing behavior and social competence over time.
Attrition	Control - 299/356 from T1 (08/2004) to T4 (03/2009) - (16% attrition) PATHS - 311/360 from T1 (08/2004) to T4 (03/2009) - (14% attrition)
Study limitations (author)	Attrition over time (but <20%); Did not investigate proximal indicators of child externalizing and social competence, such as parenting (did control for the child and family variables known to influence externalizing behavior and social competence); adapted the curricula to the cultural needs of our different subgroups, may not address all social dynamics unique to sample; Generalizability.
Study limitations (reviewer)	Blinding not outlined, allocation concealment not clear although the clarity of the block randomization may have provided some concealment;
Source of funding	Financial support: the Swiss National Science Foundation, the Jacobs Foundation, the Swiss Federal Office of Public Health, the Canton of Zurich Ministry of Education, and the Julius Baer Foundation.

Study arms

PATHS (N = 360)

1-year program includes 46 primary lessons and several secondary ones. The content, methods, and materials were culturally adapted to the Swiss school system, and piloted study. PATHS lessons address problem-solving skills, social relationships, self-regulation, rule understanding, emotion understanding, and positive self-esteem. The PATHS classes consumed about 67 min per week during the 1-year program, an average of 2.4 sessions per week.

Control (N = 356)

Characteristics

Study-level characteristics

Characteristic	Study (N = 1675)
Age Data only provided across all interventions and not for PATHS only Mean (SD)	7.45 (0.39)
Gender (% girls) Data only provided across all interventions and not for PATHS only Nominal	48
Ethnicity % non-Swiss nationality Nominal	45
Primary care giver education Little/No secondary education Nominal	25

Outcomes

Study timepoints
- Baseline
- 12 month (Time 2: 08/2006 - 07/2007)
- 24 month (Time 3: 08/2006 - 07/2007)
- 42 month (Time 4: 03/2009)

Social and emotional skills: Prosocial Behavior

Outcome	PATHS, Baseline, N = 360	PATHS, 12 month, N = 357	PATHS, 24 month, N = 353	PATHS, 42 month, N = 311	Control, Baseline, N = 356	Control, 12 month, N = 342	Control, 24 month, N = 340	Control, 42 month, N = 299
pro-social behavior Mean (SD)	0.82 (0.18)	0.88 (0.16)	0.9 (0.16)	0.83 (0.16)	0.81 (0.19)	0.88 (0.16)	0.92 (0.12)	0.89 (0.14)

pro-social behavior - Polarity - Higher values are better

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Prosocial Behavior: Social Behavior Questionnaire (SBQ)

Social and emotional skills: Socially Competent Problem Solving

Outcome	PATHS, Baseline, N = 360	PATHS, 12 month, N = 357	PATHS, 24 month, N = 353	PATHS, 42 month, N = 311	Control, Baseline, N = 356	Control, 12 month, N = 342	Control, 24 month, N = 340	Control, 42 month, N = 299
Socially Competent Problem Solving Mean (SD)	0.72 (0.27)	NR (NR)	0.77 (0.26)	NR (NR)	0.7 (0.29)	NR (NR)	0.77 (0.26)	NR (NR)

Socially Competent Problem Solving - Polarity - Higher values are better

Socially Competent Problem Solving

Behavioral outcome: Aggressive Behavior

Outcome	PATHS, Baseline, N = 360	PATHS, 12 month, N = 357	PATHS, 24 month, N = 353	PATHS, 42 month, N = 311	Control, Baseline, N = 356	Control, 12 month, N = 342	Control, 24 month, N = 340	Control, 42 month, N = 299
Aggressive Behavior Mean (SD)	0.2 (0.19)	0.17 (0.18)	0.15 (0.16)	0.21 (0.2)	0.17 (0.17)	0.13 (0.16)	0.12 (0.15)	0.22 (0.2)

Aggressive Behavior - Polarity - Lower values are better

Social Behavior Questionnaire (SBQ): Aggressive behavior

Emotional distress: Impulsivity/Attention DHD

Outcome	PATHS, Baseline, N = 360	PATHS, 12 month, N = 357	PATHS, 24 month, N = 353	PATHS, 42 month, N = 311	Control, Baseline, N = 356	Control, 12 month, N = 342	Control, 24 month, N = 340	Control, 42 month, N = 299
Impulsivity/Attention DHD Mean (SD)	0.19 (0.2)	NR (NR)	0.18 (0.2)	NR (NR)	0.17 (0.18)	NR (NR)	0.17 (0.19)	NR (NR)

Impulsivity/Attention DHD - Polarity - Lower values are better

Social Behavior Questionnaire (SBQ)

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Socialandemotionalskills:ProsocialBehavior-pro-socialbehavior-MeanSD-PATHS-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; Awareness of allocation and assessment may increase with age)*
Overall bias and Directness	Overall Directness	Directly applicable

Socialandemotionalskills:ProsocialBehavior-pro-socialbehavior-MeanSD-PATHS-Control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; Awareness of allocation and assessment may increase with age)*
Overall bias and Directness	Overall Directness	Directly applicable

Socialandemotionalskills:ProsocialBehavior-pro-socialbehavior-MeanSD-PATHS-Control-t42

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; Awareness of allocation and assessment may increase with age)*
Overall bias and Directness	Overall Directness	Directly applicable

**Socialandemotionalskills:SociallyCompetentProblemSolving-
SociallyCompetentProblemSolving-MeanSD-PATHS-Control-t24**

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; Awareness of allocation and assessment may increase with age)*
Overall bias and Directness	Overall Directness	Directly applicable

**Behavioraloutcome:AggressiveBehavior-AggressiveBehavior-MeanSD-PATHS-
Control-t12**

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; Awareness of allocation and assessment may increase with age)*
Overall bias and Directness	Overall Directness	Directly applicable

**Behavioraloutcome:AggressiveBehavior-AggressiveBehavior-MeanSD-PATHS-
Control-t24**

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; Awareness of allocation and assessment may increase with age)*
Overall bias and Directness	Overall Directness	Directly applicable

**Behavioraloutcome:AggressiveBehavior-AggressiveBehavior-MeanSD-PATHS-
Control-t42**

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined;*

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Section	Question	Answer
		Awareness of allocation and assessment may increase with age)
Overall bias and Directness	Overall Directness	Directly applicable

Emotionaldistress:Impulsivity/AttentionDHD-Impulsivity/AttentionDHD-MeanSD-PATHS-Control-t24

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; Awareness of allocation and assessment may increase with age)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

PATHS (N = 360)

Brief name	PATHS [page 681]
Rationale/theory/Goal	PATHS promote social-cognitive development, positive social behavior, and understanding of one's emotions [page 679]
Materials used	Course materials -page 681]
Procedures used	PATHS teachers received a 2-day training course prior to the start of the experimental sessions. A refresher seminar was held midterm, and regular PATHS newsletters helped to create a sense of cohesion among the participating teachers. The trainers were then trained to visit the classes and provide feedback to the teachers.[page 682]
Provider	Teachers [page 681]
Method of delivery	Classroom lessons [page 681]
Setting/location of intervention	School [page 681]

Intensity/duration of the intervention	The PATHS classes took about 67 min per week during the 1-year program, an average of 2.4 sessions per week. [page 681]
Tailoring/adaptation	The content, methods, and materials were culturally adapted to the Swiss school system, and the materials were intensively tested in a pilot study [page 681]
Unforeseen modifications	None reported
Planned treatment fidelity	Teacher and child questionnaires in addition to observations by the coach. These assessments included summaries of the content of all components

of the intervention as well as ratings by the teachers and coaches of how well the training and interventions were being implemented.. page 682] |
| Actual treatment fidelity | The checklists completed by the coaches indicated that, on average, 27 of the 30 obligatory lessons, 30 of the recommended vignettes, and 25 small-group activities were completed in the classes. The coaches also gave high ratings to the implementation quality of the 308 PATHS classes that they observed during their classroom [page 682] |

Control (N = 356)

Brief name	Control [page 680]
Rationale/theory/Goal	Not applicable
Materials used	Not applicable
Procedures used	Not applicable
Provider	Not applicable
Method of delivery	Not applicable
Setting/location of intervention	Not applicable
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable

Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	

D.1.49 Miller, 2011

Bibliographic Reference	Miller, LD; Laye-Gindhu, A; Bennett, JL; Liu, Y; Gold, S; March, JS; Olson, BF; Waechtler, VE; An effectiveness study of a culturally enriched school-based CBT anxiety prevention program; Journal of clinical child and adolescent psychology; 2011; vol. 40 (no. 4); 618-629

Study details

Study design	Cluster randomised controlled trial
Type of study	Effectiveness
Trial registration number	NR
Aim	The goals of the present study were (a) to enrich culturally the FRIENDS for Life program, an evidence-based curriculum for anxiety, with culturally sensitive Aboriginal content, and (b) to prevent and reduce anxiety symptoms in children by offering the enriched FRIENDS for Life program in public school classroom contexts.
Country/geographical location	Canada
Type of school	Primary education
Setting	Participants were recruited from 20 elementary schools across three school districts in western Canada.
UK Key stage	Key stage 2

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Inclusion criteria	Written parental active consent and child assent were required as was child English language proficiency. Children in Grades 4 through 6 were specifically targeted for inclusion. However, upon request from some rural schools, students in other grades were permitted to participate due to having cross-grade classrooms (grades ranged from 2 to 7).
Exclusion criteria	NR
Method of randomisation	The 15 schools participating in the study were randomly assigned to either the active treatment or waitlist conditions. Method not reported. Multilevel modeling was chosen to account for any cohort effects that students may have experienced in a school receiving the enriched CBT program. We conceptualize that individual students' scores are nested within schools. The specific analysis we chose was complicated by the fact that the schools in the waitlist condition eventually received the treatment program after data collection at Time 2. This meant that at Time 3, there were no longer any students acting as a true control group.
Method of allocation concealment	Not reported
Unit of allocation	School
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation not reported ITT not reported, there was no imputation for missing data Multilevel modeling was chosen to account for any cohort effects that students may have experienced in a school receiving the intervention
Attrition	Of the 595 children with parental consent, 533 successfully completed our anxiety measure at Time 1 (10.4% attrition), 448 completed it at Time 2 (24.7% attrition), and 353 completed it at Time 3 (40.7% attrition). Attrition is a naturally occurring phenomenon in schools due to student absences, students moving schools, and other changes in school schedules. We did not impute missing values in the present study because the proportions of missing over time are large. Thus, we used list-wise deletion instead.
Study limitations (author)	POssible insufficient power the majority of sessions and program facilitators were not evaluated,
Study limitations (reviewer)	None to add

Source of funding	None reported

Study arms

FRIENDS for life (N = 269)

269 randomised to intervention

Wait-list control (N = 264)

264 randomised to a wait-list control

Outcomes

Study timepoints
- Baseline
- 0 week (At endpoint)

Outcomes

Outcome	FRIENDS for life, Baseline, N = 269	FRIENDS for life, 0 week, N = 269	Wait-list control, Baseline, N = 264	Wait-list control, 0 week, N = 264
Emotional distress - anxiety Using Multidimensional Anxiety Scale for Children (self-report) Sample size	n = 269 ; % = 100	n = 175 ; % = 65.1	n = 264 ; % = 100	n = 178 ; % = 67.4
Emotional distress - anxiety Using Multidimensional Anxiety Scale for Children (self-report) Mean (SD)	45.2 (19.1)	38.77 (17.86)	47.19 (19.1)	42.1 (18.34)

Emotional distress - anxiety - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress-anxiety - FRIENDS for life vs Wait-list control - endpoint

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Study details

Brief name	FRIENDS for Life
Rationale/theory/Goal	The goals of the present study were (a) to enrich culturally the FRIENDS for Life program, an evidence-based curriculum for anxiety, with culturally sensitive Aboriginal content, and (b) to prevent and reduce anxiety symptoms in children by offering the enriched FRIENDS for Life program in public school classroom contexts [P620].

Study arms

FRIENDS for Life (N = 269)

269 individuals randomised to intervention

Wait-list control (N = 264)

264 individuals randomised to a wait-list control

Study arms

FRIENDS for Life (N = 269)

Brief name	FRIENDS for Life [P621]
Rationale/theory/Goal	The goals of the present study were (a) to enrich culturally the FRIENDS for Life program, an evidence-based curriculum for anxiety, with culturally sensitive Aboriginal content, and (b) to prevent and reduce anxiety symptoms in children by offering the enriched FRIENDS for Life program in public school classroom contexts [P620].

Materials used	Group Leader's Manual and an accompanying Child Workbook [P622]
Procedures used	• Training- Sixty-three adults participated in a 1-day training, developed and delivered by the first author, with separate workshops in each of three municipalities participating. development in this specific community. [P622]
Provider	The program was cofacilitated by a trained classroom teacher with a school counsellor, or First Nations School Support Worker. [p622]
Method of delivery	Group and individual activities [P622]
Setting/location of intervention	During the regular school day [P622]
Intensity/duration of the intervention	Nine weekly sessions [P622]
Tailoring/adaptation	Enrichments for aboriginal students • Teachers were encouraged to to read more of the program out loud or use more storytelling. Scripts were written for the beginning and end of each lesson. A character guide was introduced, and stickers were used as a reward to place in workbooks. • The programme introduced the craft and use of a ''medicine'' pouch (i.e., culturally relevant concept, method) in which to place productive (green) thoughts or objects to help support progress throughout the lessons. • A support team activity featuring team T-shirts was replaced with a ''circle of support'' that included concentric circles of family, community, culture, and natural and spiritual world as sources of support and provided culturally relevant examples. • The programme developed the the ''FRIENDS Wheel,'' modelled after the traditional Medicine wheel. [P622]
Unforeseen modifications	Not reported
Planned treatment fidelity	To assess fidelity to the FRIENDS program, facilitators were asked to audio record two sessions (one early, one later in the program) that were then rated for adherence to the protocol using a Likert-scaled checklist of program objectives and learning (content) and facilitator skills (quality of delivery) by a trained graduate student who was blinded to the study. [P622]
Actual treatment fidelity	Overall results with completed tapes (38% of 56 possible sessions from the groups completing the study) indicated that the adherence

	to intervention content and objectives ranged from 96.4% (Session 3) to 83.3% (Session 6). [P623]
Other details	During the project planning phase, the Aboriginal consultant noted a high need for training opportunities in the area of child mental health. Consistent with this, the trainees reported a strong need for training in child anxiety and strategies for helping their students. Thus, more adults were trained than delivered the program, as a commitment to helping with professional. [P622]

269 individuals randomised to intervention

Wait-list control (N = 264)

Brief name	Waitlist control [P621]
Rationale/theory/Goal	Not applicable
Materials used	Not applicable
Procedures used	The students in the waitlist condition received the intervention program following data collection at Time 2 [P621]
Provider	Not applicable
Method of delivery	Not applicable
Setting/location of intervention	Not applicable
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	None

264 individuals randomised to a wait-list control

D.1.50   Miller, 2010

Bibliographic Reference	Miller, Lynn D; Short, Christina; Garland, E. Jane; Clark, Sandra; The ABCs of CBT (cognitive behavior therapy): Evidence-based approaches to child anxiety in public school settings.; Journal of Counseling & Development; 2010; vol. 88 (no. 4); 432-439

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Study details

Study design	Cluster randomised controlled trial
Type of study	Effectiveness
Trial registration number	NR
Aim	To evaluate a locally developed CBT programme in elementary schools on children's anxiety
Country/geographical location	Canada
Type of school	Primary education
Setting	Elementary schools from large suburban districts
UK Key stage	Key stage 2 Key stage 3
Inclusion criteria	NR
Exclusion criteria	NR
Method of randomisation	3 elementary schools were randomly selected and then randomly assigned to either the intervention or control condition.
Method of allocation concealment	NR
Unit of allocation	School
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: Not reported
Attrition	NR
Study limitations (author)	• Self report data • Study did not screen for children with other mental health issues (such as ADHD) which may have affected detection of the program anxiety symptoms • Small sample size

	• Absence of socioeconomic or cultural data • Lack of follow up
Study limitations (reviewer)	• Limited information on methods: such as inclusion/exclusion criteria, randomisation process, statistical methods and missing data
Source of funding	NR

Study arms

TWD (N = 73)

73 individuals randomised to intervention from 3 schools.

Wait-list control (N = 43)

43 individuals randomised to a wait-list control from 3 schools

Characteristics

Study-level characteristics

Characteristic	Study (N =)
Age Range	7 to *empty data*
Males N Nominal	58
Females (n) Nominal	58

Outcomes

Study timepoints
• Baseline
• 9 week

Outcomes

Outcome	TWD, Baseline, N = 73	TWD, 9 week, N = 73	Wait-list control, Baseline, N = 42	Wait-list control, 9 week, N = 42
Emotional distress Anxiety measured by the MACS (self-report)al Mean (SD)	51.04 (11.44)	48.92 (10.86)	47.65 (12.67)	45.09 (14.1)

Emotional distress - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - Anxiety - TWD vs control - 9 weeks follow up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to lack of information on methods such as the randomisation process and blinding)*

Study arms

TWD (N = 73)

Brief name	Taming Worry Dragons Program (TWD) [P436].
Rationale/theory/Goal	TWD is a CBT clinical programme that teaches children to deal with anxiety using physiological, cognitive and behavioural strategies [P435].
Materials used	Training workshops [P435].
Procedures used	The group based treatment programme teaches children to use various tools to cope with anxiety such as thought-stopping, distraction, physical exercise, changing self talk and exposure. The psychoeducation component of the programme focuses on teaching the children the connections between life experiences and anxious habits or negative cognitions to increase self awareness. A cognitive component helps the children to realise how negative self talk and catastrophising perpetuate anxiety as well as how to make

	more positive evaluations and predictions about day to day life experiences [P435].
Provider	Each of the 5 trained teachers delivered the programmes to children in classrooms during the day [P435].
Method of delivery	NR
Setting/location of intervention	Classroom [P435].
Intensity/duration of the intervention	NR
Tailoring/adaptation	NR
Unforeseen modifications	NR
Planned treatment fidelity	To measure the integrity of the intervention all teachers were asked to complete a checklist at the end of each session indicating the level of compliance in following the manual's session content [P435].
Actual treatment fidelity	NR
Other details	None to add

Wait-list control (N = 43)

Brief name	NA
Rationale/theory/Goal	NA
Materials used	NA
Procedures used	NA
Provider	NA
Method of delivery	NA
Setting/location of intervention	NA
Intensity/duration of the intervention	NA

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Tailoring/adaptation	NA
Unforeseen modifications	NA
Planned treatment fidelity	NA
Actual treatment fidelity	NA
Other details	None to add

D.1.51   Morgan, 2018

Bibliographic Reference	Morgan, L.; Hooker, J. L.; Sparapani, N.; Reinhardt, V. P.; Schatschneider, C.; Wetherby, A. M.; Cluster randomized trial of the classroom SCERTS intervention for elementary students with autism spectrum disorder; Journal of Consulting and Clinical Psychology; 2018; vol. 86 (no. 7); 631-644

Study details

Trial registration number	Not specified
Study start date	2011
Study end date	2014
Aim	Evaluated the efficacy of the Classroom SCERTS (Social Communication, Emotional Regulation, Transactional Supports) Intervention (CSI) compared to usual school-based education with Autism Training Modules (ATM).
Country/geographical location	USA
Type of school	Primary education
Setting	Elementary schools
UK Key Stage	Key stage 1

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	Key stage 2
Inclusion criteria	1) enrollment in kindergarten, first, or second grade at the beginning of the school year in either a general education or special education classroom; 2) a diagnosis, either clinical or educational, of Autistic Disorder, PDD-NOS, or Asperger Syndrome as defined by the DSM-IV 3) no presence of severe motor delay/impairment, dual sensory impairment, or history of traumatic brain injury
Exclusion criteria	Not specified
Method of randomisation	Schools were matched pairwise on demographic features (i.e., school size, proportion of students receiving free or a reduced lunch, and ethnic composition); one school from each pair was randomly assigned to either CSI or ATM using a author created computer-generated list.
Method of allocation concealment	Not specified
Unit of allocation	Schools/class
Unit of analysis	Participant
Statistical method(s) used to analyse the data	Baseline equivalency was examined through a series of one-way ANOVAs; Distributional differences in proportional demographics were examined using chi-square tests of independence. A series of linear mixed models were fit to examine whether children in the CSI and ATM treatment conditions differed at posttest on standardized measures of AE, language, adaptive behavior, social skills, and executive functioning, after controlling for baseline levels of each construct.
Attrition	At the end of the study, the attrition rate for students not completing the study was 5% (n= 10 of 197) overall, 6% (n = 7 of 118) in CSI and 4% (n = 3 of 79) in ATM
Study limitations (author)	Active control potentially limits observed effectiveness; Parents and teachers were aware of student treatment condition; Access and completion of training modules to facilitate intervention implementation not measured which may have meant differential intervention implementation potentially impacting effectiveness; Inter-rater reliability for social interaction outcome measure low; Lack of additional data collection at other time points.
Study limitations (reviewer)	No blinding or allocation concealment undertaken; lack of sample size/power calculation

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Source of funding	U.S. Department of Education, Institute of Education Sciences

Study arms

CSI (N = 118)

Classroom SCERTS Intervention (CSI) - developed to address the challenges of engaging children with ASD in social interaction and learning activities. The foundation of CSI is the Social Communication, Emotional Regulation, and Transactional Support (SCERTS) Model, a manualized intervention approach aimed at addressing challenges faced by children with ASD - targeted at individualized intervention goals and objectives for students in the domains of social communication (SC) and emotional regulation (ER). Transactional supports (TS) are intervention or teaching strategies embedded within everyday activities by teachers, parents, or peers to support child learning and AE across settings. SCERTS is characterized as a Naturalistic Developmental Behavioral Intervention (NDBI) and is used in conjunction with the school's existing curriculum to target the unique needs of students with ASD. CSI incorporates a collection of evidence-based practices in that each of the three SCERTS domains (SC, ER, and TS) and each objective within the curriculum are derived from research evidence.

ATM (N = 79)

Autism Training Modules (ATM) - Web-based training modules designed to provide information about evidence-based practice to teachers providing usual school-based education to students with ASD

Characteristics

Study-level characteristics

Characteristic	Study (N = 197)
Age Mean (SD)	6.79 (1.05)
Gender % Male Nominal	81.2

Arm-level characteristics

Characteristic	CSI (N = 118)	ATM (N = 79)
Ethnicity % White Nominal	62.7	64.6
General Education Nominal	44.9	34.2
Specialized Classroom Nominal	55.1	65.8

Outcomes

Study timepoints
- Baseline
- 8 month (End of treatment)

Social and emotional skills - Active Engagement: Instructional Participation

Outcome	CSI, Baseline, N = 118	CSI, 8 month, N = 118	ATM, Baseline, N = 79	ATM, 8 month, N = 79
CMAE Instructional Participation Comprises the emotion regulation, productivity, and academic independence components Mean (SD)	10.81 (4.47)	12.59 (3.85)	11.46 (3.88)	11.49 (4.26)

CMAE Instructional Participation - Polarity - Higher values are better

Measured via Classroom Measure of Active Engagement - assesses student AE in the classroom using video-recorded observations six AE components: emotion regulation, productivity, social connectedness, directed communication, generative language production, and academic independence that are combined to form two composites. The Instructional Participation comprises emotion regulation, productivity, and academic independence components

Teacher Report of Social Skills and Executive Functioning - Social Skills Rating System (SSRS)

Outcome	CSI, Baseline, N = 118	CSI, 8 month, N = 118	ATM, Baseline, N = 79	ATM, 8 month, N = 79
SSRS Problem Behaviors Teacher reported: Mean (SD)	100.79 (14.68)	97.69 (14.61)	98.78 (15.5)	103.31 (15.32)
SSRS Academic Competence Teacher reported Mean (SD)	99.91 (14.6)	101.15 (15.06)	100.13 (15.7)	99.07 (14.95)

SSRS Problem Behaviors - Polarity - Lower values are better

SSRS Academic Competence - Polarity - Higher values are better

The Social Skills Rating System (SSRS) is a norm-referenced rating scale that assesses student behaviors across three social domains to form three scales: Social Skills, Problem Behaviors, and Academic Competence and has been previously examined in school-age samples of children with ASD

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Socialandemotionalskills-ActiveEngagement:InstructionalParticipation-CMAEInstructionalParticipation-MeanSD-CSI-ATM-t8

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; self-report observation with awareness of trial and intervention allocations)*
Overall bias and Directness	Overall Directness	Directly applicable

TeacherReportofSocialSkillsandExecutiveFunctioning-SocialSkillsRatingSystem(SSRS)-SSRSProblemBehaviors-MeanSD-CSI-ATM-t8

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; self-report observation with awareness of trial and intervention allocations)*
Overall bias and Directness	Overall Directness	Directly applicable

TeacherReportofSocialSkillsandExecutiveFunctioning-SocialSkillsRatingSystem(SSRS)-SSRSAcademicCompetence-MeanSD-CSI-ATM-t8

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; self-report observation with awareness of trial and intervention allocations)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

CSI (N = 118)

Brief name	Classroom SCERTS intervention [page 7]
Rationale/theory/Goal	The foundation of CSI is the Social Communication, Emotional Regulation, and Transactional Support (SCERTS) Model. [page 7]
Materials used	Manual, curriculum lessons and supports embedded within everyday activities by teachers, parents, or peers to support child learning and AE across settings[page 7]
Procedures used	Teachers completed an initial training and received ongoing, direct coaching throughout the school year to support implementation of CSI within the classroom. All members of each student's educational support team were invited to participate in the 3-day (18-hour) training held near the beginning of the school year. Coaching was provided a minimum of twice monthly and was increased as needed to a maximum of weekly to facilitate successful implementation. Coaching observations were provided both directly and via video. [page 13]

	The teacher conducted an initial assessment informed by the SCERTS Assessment Process to determine student language stage and to identify student objectives. The child's profile in SC and ER were used to select priority goals and objectives. The CSI Educational Planning Grid was used to integrate goals and supports with target activities. The coaching was provided in order to guide teachers to implement CSI for 25 hours per week across classroom activities with the primary aim of improving students' AE and social communication. [page 14]
Provider	Teacher [page 13]
Method of delivery	Classroom lessons [page 13]
Setting/location of intervention	School [page 13]
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	None reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Implementation fidelity was assessed using the CSI Teacher Fidelity measure. [page 15] Instructor fidelity was scored for both conditions from monthly classroom observation videos [page 15]
Actual treatment fidelity	At the conclusion of treatment, a majority of teachers in the CSI condition were implementing at 70% fidelity. For the General teaching strategies, a large portion of teachers in both conditions were implementing these strategies with fidelity [page 22]

ATM (N = 79)

Brief name	Autism Training Module [page 2]
Rationale/theory/Goal	To provide access to training modules [page 14]
Materials used	Website containing an overview of ASD, a guide to educational programming for students with ASD, and a tutorial on visual support. [page 15]
Procedures used	Access to these training modules was made available to ATM teachers at the start of the study; however, accessing the site was not required for participation. Beyond providing access to the ATM

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	materials, teachers in this condition were not provided any additional education or coaching. [page 15]
Provider	Teacher [page 14]
Method of delivery	Classroom lessons [page 14]
Setting/location of intervention	School [Page 14]
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.52   Muratori, 2017

Bibliographic Reference	Muratori, P.; Bertacchi, I.; Giuli, C.; Nocentini, A.; Lochman, J. E.; Implementing Coping Power Adapted as a Universal Prevention Program in Italian Primary Schools: a Randomized Control Trial; Prevention science; 2017; vol. 18 (no. 7); 754-761

Study details

Study design	Cluster randomised controlled trial
Study type	Effectiveness
Trial registration number	Not reported
Aim	The aim of the study was to assess if Coping Power Universal, could be adapted from the original targeted intervention aimed towards pupils at risk of behavioural problems, to a universal classroom based intervention. It was hypothesised that as a

	universal intervention, it could support teachers to manage the class through positive behaviour management strategies, promote emotional regulation and lead to less behaviour problems in class .
Country/geographical location	Lucca, Pisa and Spoleto in Italy
Type of school	Primary education
Setting	6 elementary schools, 2 in each city.
UK Key stage	Key stage 2
Inclusion criteria	All eligible 3rd and 4th grade classes in the 6 selected schools were included (40 classes in total) Parents provided written consent for the assessments, intervention and the collection of data. All parents agreed with the childrens' participation.
Exclusion criteria	None reported
Method of randomisation	Classes were randomly assigned to either the intervention or control group after the whole group of participants had completed the baseline evaluation. The allocation sequence was generated by an independent researcher. No further details are provided.
Method of allocation concealment	Teachers delivered the intervention and completed the assessments at both baseline and post intervention.
Unit of allocation	Class
Unit of analysis	Individual
Statistical method(s) used to analyse the data	The Strengths and Difficulties Questionnaire was used to determine if the intervention was effective in reducing behavioural difficulties. The linear mixed-effects models (MIXED) procedure in SPSS was used with maximum likelihood (ML) estimation (West 2009). This enables the estimation of fixed and random effects in one model. The model used for the students' outcomes was a multi-level model (measurement occasion within individuals within classes, and within schools) random-intercept model: a random-intercept model was fit to account for within-subject and within-classroom correlations.

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Attrition	95.1% (n= 464) of the Intervention students and 91.3% (n=377) of the Control students provided data at both time points.
Study limitations (author)	There is the possibility of reporting bias as the intervention was delivered by and outcomes assessed by the same teacher.
	It is not possible to determine if improvements in behaviour that occur inside the classroom occur outside the classroom too.
	The teachers who delivered the universal intervention were trained by psychologists (whereas previous studies have used psychologists to deliver the intervention). Authors note that students with aggressive behaviour difficulties may engage in coercive behaviour with the teachers, who often are not trained in classroom behaviour management and may inadvertently escalate such behaviours.
Study limitations (reviewer)	None to add
Source of funding	No specific funds for this study are declared but it is noted that grants are received for research on the Coping Programme from NICHD and NIDA.

Study arms

Coping Power Universal (N = 488)

Coping Power Universal (Italian adaptation)

Usual curriculum (N = 413)

Standard Italian elementary school curriculum

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Characteristics

Study-level characteristics

Characteristic	Study (N = 901)
Age Months Mean (SD)	104 (7)

Outcomes

Study timepoints
- Baseline
- 0 month (Post intervention)

Emotional distress

Outcome	Coping Power Universal , Baseline, N = 488	Coping Power Universal , 0 month, N = 488	Usual curriculum , Baseline, N = 413	Usual curriculum , 0 month, N = 413
Emotional symptoms Strengths and difficulties questionnaire (SDQ) emotional symptoms subscale Sample size	n = 488 ; % = 100	n = 464 ; % = 95.1	n = 413 ; % = 100	n = 377 ; % = 91.3
Emotional symptoms Strengths and difficulties questionnaire (SDQ) emotional symptoms subscale Mean (SD)	1.57 (1.98)	1.19 (1.59)	1.85 (2.24)	2.05 (2.37)

Emotional symptoms - Polarity - Lower values are better

Behavioural outcomes

Outcome	Coping Power Universal , Baseline, N = 488	Coping Power Universal , 0 month, N = 488	Usual curriculum , Baseline, N = 413	Usual curriculum , 0 month, N = 413
Conduct problems Strengths and difficulties questionnaire (SDQ) conduct problems subscale Sample size	n = 488 ; % = 100	n = 464 ; % = 95.1	n = 413 ; % = 100	n = 377 ; % = 91.3
Conduct problems Strengths and difficulties questionnaire (SDQ) conduct problems subscale Mean (SD)	1.49 (2.01)	1.15 (1.64)	1.47 (1.97)	1.58 (1.98)

Conduct problems - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotionaldistress-Emotionalsymptoms-MeanSD-Coping Power Universal -Usual curriculum -t0

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Intervention outcomes were assessed by the teacher who delivered the intervention)*
Overall bias and Directness	Overall Directness	Partially applicable *(Study based in Italy)*

Behaviouraloutcomes-Conductproblems-MeanSD-Coping Power Universal -Usual curriculum -t0

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Intervention outcomes were assessed by the teacher who delivered the intervention)*
Overall bias and Directness	Overall Directness	Partially applicable *(Study based in Italy)*

Study arms

Coping Power Universal (N = 488)

Brief name	Coping Power Universal
Rationale/theory/Goal	The original Coping Power programme is a targeted intervention for students at risk of developing behavioural difficulties. A contextual social-cognitive model is used as a conceptual framework to identify intervention objectives. This framework indicates the child social-cognitive characteristics on which an aggression prevention intervention should intervene to reduce aggressive behavioral problems. This study adapts the original US developed Coping Power programme to be delivered universally to the class as a whole and to be culturally appropriate for delivery in Italy. Reasons for the universal approach are noted as: including: parents not consenting to targeted interventions for fear of their child missing class time and fear of stigma; a significant number of children with aggressive behaviour; the advantage of the intervention being delivered by school staff and as such being able to reach children from less well resourced areas (Page 755)

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Materials used	Goals poster Video equipment (Page 758) Teacher's intervention manual (Page 757)
Procedures used	Sessions were delivered by the class teacher as part of the routine school day. Sessions were divided into 3 parts: - review of weekly goals and discussion - specific session content (see below) - assignment points (participation in activities and goal sheets) Specific content of sessions was as follows: Session 1: group structure and behavioural goal setting Sessions 2–3: goal setting (long- and short-term goals) Sessions 4–6: awareness of feelings and physiological arousal related to anger Session 7: anger and self-control

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	Sessions 8–10: using self statements for anger coping;
	Session 11: relaxation and overcoming barriers to self-control
	Sessions 12–14: perspective taking
	Session 15: perspective taking and problem solving
	Sessions 16–19: social problem solving
	Sessions 20–23: groups create problem-solving videotape
	Session 24: review and termination of the programme.
	(Page 758)
Provider	Class teachers who were trained to deliver the programme by psychologists
	(Page 760)
	Teachers attended an initial 12 hour training workshop, which covered:
	- information about the conceptual background of the program
	- the empirical bases of the programme
	- specific activities to be addressed in each session using discussion and role play
	They also had 2 hour monthly small group meetings over the duration of the programme in which they:

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	- reviewed previous sessions, and previewed forthcoming sessions - problem-solved difficulties that teachers has come across when implementing the programme. They also used intervention manuals. (Page 757)
Method of delivery	Delivered to whole class as part of the usual school day (Page 258)
Setting/location of intervention	In class in 6 elementary schools in Lucca, Pisa, Spoleto in Italy. (Page 757)
Intensity/duration of the intervention	24 sessions of 60 minutes duration each (Page 758)
Tailoring/adaptation	Adapted from the targeted intervention Coping Power for universal classroom based delivery and adapted to be culturally appropriate for Italian schools (Page 755)
Unforeseen modifications	None reported
Planned treatment fidelity	Teachers delivered sessions as detailed in intervention manuals. They completed a measure of fidelity after each intervention session, rating

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	whether they had covered each session objective 'completely', 'partially', or 'not at all.'
	After each intervention session teachers also completed a questionnaire that investigated the theoretical and practical preparation of the teachers on the session activities and principles.
	70% sessions were video-recorded so the clinical supervisor could give performance feedback.
	(Pages 757-758)
Actual treatment fidelity	Self reported intervention fidelity was high with teachers indicating that they completely covered the objectives for 89 % child groups and partially covered them for 11 % child groups.
	A certified supervisor verified the percentage of the correct answers to the questionnaire by teachers was 87 %.
	Due to limited resources, the videos were not rated by an independent observer for completion of intervention objectives.
	(Pages 757-758)
Other details	None to add.

Coping Power Universal (Italian adaptation)

Usual curriculum (N = 413)

Brief name	Usual curriculum
Rationale/theory/Goal	Not applicable
Materials used	Standard Italian elementary school curriculum

Procedures used	Classes were randomised to intervention or control conditions after completion of baseline assessments. Classes in the control condition received the standard Italian elementary school curriculum. No other interventions were ongoing at the time of the study. Outcome measures were taken for both control and intervention groups when the intervention group had completed the intervention. Teachers of the control groups were interviewed at completion of the programme to ensure they had not received any information about the intervention. (Pages 757 and 758)
Provider	Not applicable
Method of delivery	Not applicable
Setting/location of intervention	Classes in 6 Italian elementary schools
Intensity/duration of the intervention	Not applicable
Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	None to add

standard Italian elementary school curriculum

D.1.53 Muratori, 2019

Bibliographic Reference	Muratori, Pietro; Bertacchi, Iacopo; Masi, Gabriele; Milone, Annarita; Nocentini, Annalaura; Powell, Nicole P; Lochman, John E; Jones, Shannon; Kassing, Francesca; Romero, Devon; Effects of a universal prevention program on externalizing behaviors: Exploring the generalizability of findings across school and home settings.; Journal of school psychology; 2019; vol. 77; 13-23

Study details

Study design	Cluster randomised controlled trial
Study start date	Jul-2016
Study end date	May-2017
Aim	To determine the effects of Coping Power Universal (CPU) on children's externalizing behavioural problems, as well as children's emotional problems, peer problems, and prosocial behaviours.
Country/geographical location	Italy
Type of school	Primary education
Setting	6 schools from an Italian city.
UK Key stage	Key stage 2
Inclusion criteria	Children have to attend fourth or fifth grade, and the children's parents were agreeing to be involved.
Exclusion criteria	Parents were given the opportunity to opt their children out of the study
Method of randomisation	An independent researcher generated the allocation sequence
Method of allocation concealment	Parents were not informed of the randomly assigned condition of their children's classrooms (no further detail was provided).
Unit of allocation	Cluster (classroom)
Unit of analysis	Individual

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Statistical method(s) used to analyse the data	- ICC not reported - Hypotheses were tested linear mixed-effects models (MIXED) with full-information maximum likelihood (ML) estimation. - The main CPU effect was tested across the whole sample and the slope within each sample was then calculated together with effect size estimates. - The Cohen's effect size of the pre-post change in the treatment group and in the control group was calculated as standardized effect size in a mixed/ multilevel model, where standard deviations were derived from the standard errors of the estimated marginal means.
Attrition	Complete data at both time points were obtained for 994 students (3.5% attrition).
Study limitations (author)	- Outcome measures did not include direct observations of students, this methodological aspect significant limits causal inference that could be made regarding intervention effects. - No follow-up assessments were conducted. - Assessments were completed by the same teacher during two-time points during an academic year could yield expectancy effects. - The author did not include an evaluation of other factors, which may have influenced children's outcomes such as the school relational climate, teacher characteristics, and parenting characteristics. - The authors did not measure if schools were comparable demographically.
Study limitations (reviewer)	Lack of detail on method of allocation concealment
Source of funding	Grant RC 2016–2018 funded by the Italian Ministry of Health

Study arms

Coping Power Universal (N = 511)

35 classrooms

Usual curriculum (N = 519)

35 classrooms. Number of participants in control arm not reported, and 519 was calculated by reviewer from total sample of 1,030 students.

Characteristics

Study-level characteristics

Characteristic	Study (N = 1030)
Age Range	8 to 10
Age Mean (SD)	9.24 (0.45)
Male Sample size	n = 510 ; % = 49.5
Female Sample size	n = 520 ; % = 50.5
Caucasian Sample size	n = 922 ; % = 89.5
African Sample size	n = 108 ; % = 10.5
Intellectual disability Sample size	n = 35 ; % = 3.4
Sensory disability Sample size	n = 8 ; % = 0.8

Outcomes

Study timepoints
- 0 week (Post-intervention)

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Social and emotional wellbeing outcomes

Outcome	Coping Power Universal, 0 week, N = 511	Usual curriculum , 0 week, N = 519
Behavioural outcomes Teacher-reported - Conduct subscale of Strengths and Difficulties Questionnaire Mean (SD)	1.01 (1.6)	1.23 (1.88)
Social and emotional skills Teacher-reported - Emotional subscale of Strengths and Difficulties Questionnaire Mean (SD)	1.37 (1.75)	1.66 (2.12)

Behavioural outcomes - Polarity - Lower values are better

Social and emotional skills - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Behavioural outcomes - Coping Power Universal vs Usual curriculum

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Some concerns due to teacher-reported outcomes)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

Coping Power Universal (N = NA)

Brief name	Coping Power Universal (CPU). p. 14
Rationale/theory/Goal	Coping Power (CP) based on a contextual social-cognitive model of youth aggression. Coping Power Universal (CPU) was derived from this abbreviated version of the original CP. p. 14
Materials used	CPU intervention manual, a set of created school materials inspired by CPU. p. 18

Procedures used	CPU student curriculum focuses on skills related to understanding and communicating emotions as a basic step toward self-control. Additional lessons help children to understand the difference between feelings and behaviours, and appropriate and inappropriate behavioural responses are discussed. Thereafter, CPU lessons focus on self-control, awareness of feelings, awareness of physiological arousal related to anger, using self-statements for anger coping, and using re laxation. Finally, students are taught a sequence of problem-solving steps to address current classroom problems, and students act out the problem-solving steps to create a video-recorded example. p. 17-18
Provider	Teachers. p. 16
Method of delivery	Delivered at the classroom level. p. 16
Setting/location of intervention	Classroom. p. 16
Intensity/duration of the intervention	24 weekly sessions. p. 16
Tailoring/adaptation	Teachers were encouraged to adjust the level of presentation and amount of practice as dictated by the developmental level of each class. Teachers were also encouraged to generalise their use of CPU concepts across the school day, and we created a set of school materials inspired by CPU to allow teachers to reinforce program concepts. p. 18
Unforeseen modifications	None reported
Planned treatment fidelity	A school psychologist, trained in the CPU model, monitored the teachers' adherence to the intervention using the following procedures. He asked teachers to complete a checklist to document whether major lesson elements were delivered as intended. After each intervention session, he also asked teachers to complete a questionnaire assessing their own understanding of the underlying principles of session activities. Finally, the school psychologist, trained in the CPU model, observed 20% of the sessions, which were previously recorded. p. 16
Actual treatment fidelity	A review of checklists showed that 88% of the elements of the CPU intervention sessions were delivered. A review of questionnaires showed a mean fidelity score of 62 out of 72 (SD=6). Following the observation of 20% of sessions, 84% of the reported levels of adherence were good or excellent. p. 16

Usual curriculum (N = NA)

Brief name	Business-as-usual. p. 15
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Standard social emotional curriculum provided in Italian elementary schools, which involves some form of social-emotional learning activities. p. 18
Provider	Not reported
Method of delivery	Classroom level. p. 18
Setting/location of intervention	Classroom. p. 18
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.54 Nash, 2007

Bibliographic Reference	Nash, Kathleen A; Implementation and evaluation of the empower youth program.; Journal of holistic nursing : official journal of the American Holistic Nurses' Association; 2007; vol. 25 (no. 1); 26-8

Study details

Type of study	Not clear

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Trial registration number	Not specified
Aim	To provide a caring and healing experience that fosters middle school students' ability to take greater control over their health and emotional well-being and achieve a sense of optimism for the future.
Country/geographical location	USA
Type of school	Secondatry education
Setting	two public and one private middle-school - KS 3 and 4; ages 11-14
UK Key Stage	Key stage 2
Inclusion criteria	Not specified - middle school participants recruited from sixth- through eighth-grade classes in a community in the southwestern United States.
Exclusion criteria	Not specified
Method of randomisation	Not specified - "Middle school participants were randomly assigned to treatment and comparison groups"
Method of allocation concealment	Not specified
Unit of allocation	Participant level (middle school pupils)
Unit of analysis	Participant level
Statistical method(s) used to analyse the data	Means/Standard deviation; MANCOVA
Attrition	40/40 who provided consent forms returned data; 40/65 approached provided consent forms (61.5%)
Study limitations (author)	Not specified
Study limitations (reviewer)	Methods of randomization unclear; Blinding and allocation concealment not outlined/not undertaken; generalisation/applicability: private US middle-school
Source of funding	Not specified

Study arms

Empower Youth Program (N = 21)

A 9-week holistic, peer support, and education intervention aimed at enabling middle school–aged adolescents to take greater control over their health through improving self-care resources; includes activities such as guided imagery, stress reduction techniques, journaling, focusing and concentration skills, and brain-integrating techniques that engage the whole brain for learning; Trained group facilitators held groups in local private and public schools once per week for 45 minutes. During group sessions, participants were given the opportunity to (a) talk about any issues or problems with which they needed help, (b) participate in movement exercises designed to engage the whole brain for learning, (c) learn and practice skills to help concentration and memory, (d) learn and practice skills to increase self-awareness and self-control, (e) practice reading skills, (f) practice written and oral communication skills, and (g) experience group support. All participants received the traditional support services available within the school.

Usual School Services (N = 19)

Usual School Services - not specified further

Characteristics

Study-level characteristics

Characteristic	Study (N = 40)
% Aged 11 Nominal	22.5
% Aged 12 Nominal	15
% Aged 13 Nominal	22.5
% Aged 14 Nominal	40
% Female Nominal	72.5

Characteristic	Study (N = 40)
% African American Nominal	47.5
% Hispanic Nominal	27.5
% Caucasian Nominal	22.5

Outcomes

Study timepoints
- Baseline
- 10 week (Once week per week for 45 minutes for 9 weeks)

Outcomes

Outcome	Empower Youth Program, Baseline, N = 19	Empower Youth Program, 10 week, N = 19	Usual School Services, Baseline, N = 21	Usual School Services, 10 week, N = 21
Emotional distress - anxiety Using Multidimensional Anxiety Scale for Children - 10; (self-report) Mean (SD)	1.72 (0.53)	1.65 (0.47)	1.69 (0.66)	1.78 (0.65)

Emotional distress - anxiety - Polarity - Lower values are better

Emotional distress - Depression

Outcome	Empower Youth Program, Baseline, N = 19	Empower Youth Program, 10 week, N = 19	Usual School Services, Baseline, N = 21	Usual School Services, 10 week, N = 21
Emotional distess - Depression	1.75 (0.3)	1.73 (0.36)	1.83 (0.2)	1.78 (0.27)

Outcome	Empower Youth Program, Baseline, N = 19	Empower Youth Program, 10 week, N = 19	Usual School Services, Baseline, N = 21	Usual School Services, 10 week, N = 21
Using Children's Depression Inventory S (self-report) Mean (SD)				

Emotional distess - Depression - Polarity - Higher values are better

CDI-S: Assesses sadness, feelings of worthlessness, and loneliness in children aged 8 to 17 years; 32-item self-report measure with a 3-point rating scale.

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) - RCT

ModifiedEriksonianPsychosocialStageInventory-socialandemotionalskills-ModifiedEriksonianPsychosocialStageInventory-MeanSD-Empower Youth Program-Usual School Services-t10

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of blinding and allocation concealment; Randomization methods not stated; Unclear impact of ranomisation as analysis not undertaken.)*
Overall bias and Directness	Overall Directness	Directly applicable

Children'sDepressionInventory-Emotionaldistress-CDI-S-MeanSD-Empower Youth Program-Usual School Services-t10

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Lack of blinding and allocation concealment; Randomization methods not stated; Unclear impact of ranomisation as analysis not undertaken.)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

Empower Youth Program (N = 21)

Brief name	Empower Youth Program
Rationale/theory/Goal	Modeling and role modeling (MRM) theory underpins the intervention; Empower intervention aimed at enabling middle school–aged adolescents to take greater control over their health through improving self-care resources; includes activities such as guided imagery, stress reduction techniques, journaling, focusing and concentration skills, and brain-integrating techniques that engage the whole brain for learning
Materials used	Outcome measures: Children's Depression Inventory; Multidimensional Anxiety Scale for Children; Academic Competence Evaluation Scales–Academic Enablers Subscale; Modified Eriksonian Psychosocial Stage Inventory. Group facilitator training (MBSP facilitator); Two advanced practice nurses with backgrounds in the nursing theory MRM. Empower Youth Program (9 sessions).
Procedures used	Pretest and posttest design; consent, random assignment; convenience sampling; sample size calculation;
Provider	Two were advanced practice nurses with backgrounds in the nursing theory MRM. One was a community volunteer who had training as an MBSP facilitator and had an interest in adolescents.
Method of delivery	Trained group facilitators held groups in local private and public schools
Setting/location of intervention	USA; two public and one private middle-school principals agreeing to host the study in their schools
Intensity/duration of the intervention	9 weeks once per week for 45 minutes. During group sessions, participants were given the opportunity to (a) talk about any issues or problems with which they needed help, (b) participate in movement exercises designed to engage the whole brain for learning, (c) learn and practice skills to help concentration and memory, (d) learn and practice skills to increase self-awareness and self-control, (e) practice reading skills, (f) practice written and oral communication skills, and (g) experience group support.
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	65 participants approached 40 provided consent and participated in the evaluation

Actual treatment fidelity	40/65 approached, consented and provided data; 40/40 who participated in the study provided data
Other details	Not specified

A 9-week holistic, peer support, and education intervention aimed at enabling middle school–aged adolescents to take greater control over their health through improving self-care resources; includes activities such as guided imagery, stress reduction techniques, journaling, focusing and concentration skills, and brain-integrating techniques that engage the whole brain for learning; Trained group facilitators held groups in local private and public schools once per week for 45 minutes. During group sessions, participants were given the opportunity to (a) talk about any issues or problems with which they needed help, (b) participate in movement exercises designed to engage the whole brain for learning, (c) learn and practice skills to help concentration and memory, (d) learn and practice skills to increase self-awareness and self-control, (e) practice reading skills, (f) practice written and oral communication skills, and (g) experience group support.

Usual School Services (N = 19)

Brief name	Usual School Services
Rationale/theory/Goal	Not specified
Materials used	Outcome measures: Children's Depression Inventory; Multidimensional Anxiety Scale for Children; Academic Competence Evaluation Scales–Academic Enablers Subscale; Modified Eriksonian Psychosocial Stage Inventory. Group facilitator training (MBSP facilitator); Two advanced practice nurses with backgrounds in the nursing theory MRM. Empower Youth Program (9 sessions).
Procedures used	Pretest and posttest design; consent, random assignment; convenience sampling; sample size calculation;
Provider	Not specified
Method of delivery	Not specified
Setting/location of intervention	USA; two public and one private middle-school principals agreeing to host the study in their schools
Intensity/duration of the intervention	Not specified
Tailoring/adaptation	Not specified

Unforeseen modifications	Not specified
Planned treatment fidelity	65 participants approached 40 provided consent and participated in the evaluation
Actual treatment fidelity	40/65 approached, consented and provided data; 40/40 who participated in the study provided data
Other details	Not specified

Usual School Services - not specified further

D.1.55   O'Connor, 2014

Bibliographic Reference	O'Connor, Erin E.; Cappella, Elise; McCormick, Meghan P.; McClowry, Sandee G.; An examination of the efficacy of INSIGHTS in enhancing the academic and behavioral development of children in early grades; Journal of Educational Psychology; 2014
Secondary publication(s)	McCormick, M., White, H., Horn, P. et al. (2018) Instructional Support and Academic Skills: Impacts of INSIGHTS in Classrooms With Shy Children. Early Education and Development 29(5): 691-715
	McCormick, Meghan P., Cappella, Elise, O'Connor, Erin et al. (2016) Do Effects of Social-Emotional Learning Programs Vary by Level of Parent Participation? Evidence from the Randomized Trial of INSIGHTS. Journal of Research on Educational Effectiveness 9(3): 364-394

Study details

Trial registration number	Not specified
Study start date	2008
Study end date	2012
Aim	Test the efficacy of INSIGHTS Into Children's Temperament (INSIGHTS) in increasing the academic achievement and sustained attention and reducing the disruptive behavior problems of low-income kindergarten and 1st grade children
Country/geographical location	USA

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Type of school	Primary education
Setting	Primary school: kindergarten and 1st grade
UK Key Stage	Key stage 1
Inclusion criteria	Not specified
Exclusion criteria	Not specified
Method of randomisation	Teachers at the participating schools were recruited in small group or individual meetings; recruitment at each school stopped after all possible efforts to recruit students had been made and at least four students in each classroom were enrolled in the study; After baseline data were collected in kindergarten, a random numbers table was used to randomize schools to INSIGHTS or the supplemental reading program.
Method of allocation concealment	Not specified but identification and randomisation process may have provided some concealment
Unit of allocation	Schools to limit possible contamination effects that could threaten the internal validity of the study
Unit of analysis	Participant
Statistical method(s) used to analyse the data	Two-level individual growth modeling was used to examine change over four waves of data for each outcome.
Attrition	Total sample enrolled: 7% of students by the end of study (n=31); Data is not presented by arm; Control: 24% of children enrolled in the supplemental reading program participated in the full 10 sessions; an additional 19% took part in eight or nine sessions
Study limitations (author)	Generalizability of the findings is limited; homogeneity of the sample prohibited examining differential effects for children from various racial/ethnic and socioeconomic backgrounds; limited power at the school level (where randomization occurred), we did not operationalize treatment as a Level 3 variable and instead examined treatment effects at Level 2 (student level); control condition did not provide the same level of exposure as the treatment condition;
Study limitations (reviewer)	Blinding and allocation concealment unclear; <30% of control arm participants appeared to undertake the control intervention to completion;

Source of funding	Grant R305A080512 from the Institute of Education Sciences and with the support of Institute of Education Sciences Grant R305B080019 to New York University.

Study arms

INSIGHTS (N = 225)

INSIGHTS (N=225 students; N=57 teachers, 11 schools) into Children's Temperament comprehensive intervention with teacher, parent, and classroom programs that work synergistically to support children's ability to self-regulate by enhancing their attentional and behavioral repertoire. Parents and teachers learn how to recognize the consistent behavioral style a child exhibits across settings as an expression of temperament; The classroom program seeks to expand children's self-regulation. During the first 4 weeks, children are introduced to four puppets with different temperaments. The children explore how, on the basis of a puppet's particular temperament, some situations are easy and others are more challenging. During the remaining weeks, the children work with the puppets to apply problem solving strategies when confronted with daily dilemmas.

Control (N = 210)

Control: (N=210 student participants; N=65 teachers; 11=schools). 10-week, 45-min after-school supplemental reading program

Characteristics

Study-level characteristics

Characteristic	Study (N = 445)
Age Mean (SD)	5.38 (0.61)
Gender % Boys Nominal	52
Ethnicity % black Nominal	75

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Characteristic	Study (N = 445)
Qualified for free or reduced-price lunch programs % Nominal	90

Outcomes

Study timepoints
- Baseline
- 12 week (At intervention completion - Time 2 (T2) data were collected following intervention in the late spring of the kindergarten year.)
- 36 week (Time 3 (T3) data were collected in the fall of first grade prior to the 10 weeks of first grade intervention.)
- 48 week (Time 4 (T4) data were collected after the first grade intervention in the winter of the first grade year,)
- 60 week (Time 5 (T5) data in late spring)

Behavioral outcome - Behavior problems via SESBI

Outcome	INSIGHTS, Baseline, N = 225	INSIGHTS, 12 week, N = 225	INSIGHTS, 36 week, N = 225	INSIGHTS, 48 week, N = 225	INSIGHTS, 60 week, N = 225	Control, Baseline, N = 210	Control, 12 week, N = 210	Control, 36 week, N = 210	Control, 48 week, N = 210	Control, 60 week, N = 210
SESBI Behaviour problems Mean (SD)	2.28 (1.24)	2.48 (1.39)	2.18 (1.14)	2.29 (1.21)	2.28 (1.36)	2.15 (1.19)	2.15 (1.02)	2.26 (1.03)	2.35 (1.27)	2.46 (1.42)

SESBI Behaviour problems - Polarity - Lower values are better

Behavior problems were measured at T1–T5 with the 36-item , the teacher version of the Sutter-Eyberg Child Behavior Inventory (SESBI). On a frequency scale ranging from 1–7 (1=never, 3=seldom, 5=sometimes, 7=always), teachers reported on the frequency that a student engaged in a range of disruptive behaviors, such as "acts defiant when told to do something," "verbally fights with other students," and "is overactive and restless."

Social and emotional skills - Child sustained attention - Leiter-R

Outcome	INSIGHTS, Baseline, N = 225	INSIGHTS, 12 week, N = 225	INSIGHTS, 36 week, N = 225	INSIGHTS, 48 week, N = 225	INSIGHTS, 60 week, N = 225	Control, Baseline, N = 210	Control, 12 week, N = 210	Control, 36 week, N = 210	Control, 48 week, N = 210	Control, 60 week, N = 210
Sustained attention Mean (SD)	46.14 (12.6)	51.34 (11.99)	57.95 (9.45)	60.37 (8.21)	61.44 (9.03)	45.58 (12.85)	54.49 (9.02)	56.05 (8.74)	59.39 (8.73)	60.54 (9.45)

Sustained attention - Polarity - Higher values are better

Child sustained attention. Sustained attention was measured at T1–T5 with the Leiter-R assessed children's ability to sustain attention to detail in a repetitive task. Children were shown a target figure (i.e., flower) located at the top of the stimulus and were instructed to scan an array of figures and cross out all of the target figures as quickly as possible. A total adjusted correct (total errors subtracted from total correct) score was calculated.

Academic outcomes - child academic achievement (Letter–Word ID)

Outcome	INSIGHTS, Baseline, N = 225	INSIGHTS, 12 week, N = 225	INSIGHTS, 36 week, N = 225	INSIGHTS, 48 week, N = 225	INSIGHTS, 60 week, N = 225	Control, Baseline, N = 210	Control, 12 week, N = 210	Control, 36 week, N = 210	Control, 48 week, N = 210	Control, 60 week, N = 210
Letter–Word ID Mean (SD)	16.74 (7.2)	20.51 (7.56)	23.65 (9.2)	31.15 (8.75)	33.54 (9.07)	17.76 (7.15)	23.11 (7.95)	26.73 (8.37)	32.86 (8.46)	33.57 (8.11)

Letter–Word ID - Polarity - Higher values are better

Child academic achievement. Reading assessed at T1–T5 using the Letter–Word ID. The Letter–Word ID subtest assesses letter naming and word decoding skills by asking children to identify a series of letters and words. Possible scores range from 0 to 76.

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Behavioraloutcome-BehaviorproblemsviaSESBI-SESBIBehaviourproblems-MeanSD-INSIGHTS-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment; Baseline differences for primary outcome at baseline)*
Overall bias and Directness	Overall Directness	Directly applicable

Behavioraloutcome-BehaviorproblemsviaSESBI-SESBIBehaviourproblems-MeanSD-INSIGHTS-Control-t36

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment; Baseline differences for primary outcome at baseline)*
Overall bias and Directness	Overall Directness	Directly applicable

Behavioraloutcome-BehaviorproblemsviaSESBI-SESBIBehaviourproblems-MeanSD-INSIGHTS-Control-t48

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment; Baseline differences for primary outcome at baseline)*
Overall bias and Directness	Overall Directness	Directly applicable

Behavioraloutcome-BehaviorproblemsviaSESBI-SESBIBehaviourproblems-MeanSD-INSIGHTS-Control-t60

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment; Baseline differences for primary outcome at baseline)*

Section	Question	Answer
Overall bias and Directness	Overall Directness	Directly applicable

Socialandemotionalskills-Childsustainedattention-Leiter-R-Sustainedattention-MeanSD-INSIGHTS-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment; Baseline differences for primary outcome at baseline)*
Overall bias and Directness	Overall Directness	Directly applicable

Socialandemotionalskills-Childsustainedattention-Leiter-R-Sustainedattention-MeanSD-INSIGHTS-Control-t36

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment; Baseline differences for primary outcome at baseline)*
Overall bias and Directness	Overall Directness	Directly applicable

Socialandemotionalskills-Childsustainedattention-Leiter-R-Sustainedattention-MeanSD-INSIGHTS-Control-t48

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment; Baseline differences for primary outcome at baseline)*
Overall bias and Directness	Overall Directness	Directly applicable

Socialandemotionalskills-Childsustainedattention-Leiter-R-Sustainedattention-MeanSD-INSIGHTS-Control-t60

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment; Baseline differences for primary outcome at baseline)*
Overall bias and Directness	Overall Directness	Directly applicable

Academicoutcomes-childacademicachievement(Letter–WordID)-Letter–WordID-MeanSD-INSIGHTS-Control-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment; Baseline differences for primary outcome at baseline)*
Overall bias and Directness	Overall Directness	Directly applicable

Academicoutcomes-childacademicachievement(Letter–WordID)-Letter–WordID-MeanSD-INSIGHTS-Control-t36

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment; Baseline differences for primary outcome at baseline)*
Overall bias and Directness	Overall Directness	Directly applicable

Academicoutcomes-childacademicachievement(Letter–WordID)-Letter–WordID-MeanSD-INSIGHTS-Control-t48

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment; Baseline differences for primary outcome at baseline)*

Section	Question	Answer
Overall bias and Directness	Overall Directness	Directly applicable

Academicoutcomes-childacademicachievement(Letter–WordID)-Letter–WordID-MeanSD-INSIGHTS-Control-t60

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment; Baseline differences for primary outcome at baseline)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

INSIGHTS (N = 225)

Brief name	INSIGHTS [page 1158]
Rationale/theory/Goal	In INSIGHTS temperament theory is used as the framework for enhancing core dimensions of a child's self-regulation: attentional control and disruptive behaviors. [page 1158]
Materials used	Didactic content and professionally produced vignettes as well as handouts and group activities. [page 1160]
Procedures used	Facilitators attended a graduate-level course in the fall semester to learn the underlying theory and research. [page 1160]
Provider	Trained facilitators with a background in psychology, education, and educational theater and had previous experience working with at-risk children. [page 1160]
Method of delivery	Classroom lessons [page 1160]
Setting/location of intervention	School [page 1160]
Intensity/duration of the intervention	Teachers and parents attended 10 weekly 2-hr facilitated sessions based on a structured curriculum that included didactic content and professionally produced vignettes as well as handouts and group activities. One of the sessions was attended by parents and teachers together; the others were conducted separately. [page 1160]

Tailoring/adaptation	Not reported
Unforeseen modifications	None reported
Planned treatment fidelity	Facilitators followed scripts, used material checklists, documented sessions, and received ongoing training and supervision. Deviations or clinical concerns were discussed weekly in meetings with the program developer. Supervision focused on challenges related to conducting sessions, implementation logistics, and participant concerns. Parent and teacher sessions were videotaped and reviewed for coverage of content and effectiveness of facilitation [page 1160]
Actual treatment fidelity	The assessors noted that 94% of the curriculum was adequately covered in the teacher sessions and 92% of the curriculum was covered in the parent sessions. On a 5-point scale, the mean ratings of facilitator skills were 3.71 (question asking), 3.92 (quality of praise), 3.54 (validation), and 3.83 (limit setting). [page 1160]

Control (N = 210)

Brief name	Attention control [page 1160]
Rationale/theory/Goal	Not applicable
Materials used	After schools supplemental reading program and the programme provided the schools in low-income neighborhood with additional literacy-related resources. [page 1160]
Procedures used	Teachers and parents attended two separate workshops, each 2 hours long, in which strategies to enhance early literacy were presented and reading materials for the children were provided. [page 1160]
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	School [page 1160]
Intensity/duration of the intervention	10 weeks of 45 minutes sessions [page 1160]
Tailoring/adaptation	Not reported

Unforeseen modifications	Not reported
Planned treatment fidelity	Supplemental reading program facilitators had weekly meetings with the project director to ensure that all components of the program were being implemented each week. Supervision of reading coaches dealt with challenges related to conducting the sessions, implementation logistics, and participant concerns. page 1161]
Actual treatment fidelity	Fidelity to the curriculum was high; 95%–100% of topics were covered across the 10 weeks of the program. [page 1161]

D.1.56   Perkins, 2021

Bibliographic Reference	Perkins, Amorette M; Bowers, Gemma; Cassidy, Joseph; Meiser-Stedman, Richard; Pass, Laura; An enhanced psychological mindset intervention to promote adolescent wellbeing within educational settings: A feasibility randomized controlled trial.; Journal of Clinical Psychology; 2021; vol. 77 (no. 4); 946-967

Study details

Study design	Randomised controlled trial (RCT)
Type of study	Not clear
Trial registration number	As this was a feasibility study, the trial was not preregistered
Aim	To explore the feasibility of a novel mindset intervention as a universal mental health tool for schools.
Country/geographical location	UK
Type of school	Secondatry education
Setting	During recruitment, multiple publicly and privately funded institutions were approached across two counties in England.
UK Key Stage	Post 16
Inclusion criteria	Students aged 16–18 years within the UK education system

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Exclusion criteria	Lack of capacity and being involved in other school-based mental health research.
Method of randomisation	Consenting participants were randomly allocated to either the control (usual school activities waitlist) or intervention using a block approach (Suresh, 2011).
Method of allocation concealment	Person external to the research team generated an allocation sequence list using an online randomiser (www.sealedenvelope.com). Thus, neither the researchers nor participants were aware of group allocation until after enrolment.
Unit of allocation	Individual
Unit of analysis	Individual
Statistical method(s) used to analyse the data	- To explore potential intervention effects within the mechanisms of action and determine the suitability and sensitivity of outcome measures, means plus standard deviations were calculated alongside effect sizes for between -group differences across time points. - Participants were analysed according to the group they were originally assigned including if they dropped out, using multiple imputations to estimate missing data. - Treatment condition and baseline scores were used as predictors within this intention-to-treat method; a total of five datasets were generated then pooled means and standard deviations were used to calculate Hedges' g with 95% confidence intervals. - Where there was missing data (=20%) on items within questionnaires, person mean imputation was used.
Attrition	Attrition rates accumulated to 3% at posttreatment, 11% at the 4-week follow up, then 48% at 8-weeks.
Study limitations (author)	- Some populations were underrepresented and it may be beneficial to think about outreach strategies for male students and minority ethnic groups. - It remains unclear whether the intervention and study design are applicable across a wider age group. - Students stated that completing measures was time-consuming.
Study limitations (reviewer)	None to add
Source of funding	Not reported

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Study arms

Computerised enhanced psychological mindset intervention (N = 40)

Usual curriculum waitlist (N = 40)

Characteristics

Arm-level characteristics

Characteristic	Computerised enhanced psychological mindset intervention (N = 40)	Usual curriculum waitlist (N = 40)
Age (years) Mean (SD)	16.6 (0.6)	16.7 (0.6)
Male Sample size	n = 6 ; % = 15	n = 7 ; % = 17.5
Female Sample size	n = 34 ; % = 85	n = 33 ; % = 82.5
White British Sample size	n = 30 ; % = 75	n = 35 ; % = 87.5

Outcomes

Study timepoints
- 8 week

Social and emotional wellbeing outcomes

Outcome	Computerised enhanced psychological mindset intervention, 8 week, N = 40	Usual curriculum waitlist, 8 week, N = 40
Social and emotional skills - Self-esteem Rosenberg Self-Esteem Scale (RSES)	27.03 (4.88)	25.11 (4.94)

Outcome	Computerised enhanced psychological mindset intervention, 8 week, N = 40	Usual curriculum waitlist, 8 week, N = 40
Mean (SD)		
Emotional distress - anxiety Revised Children's Anxiety and Depression Scale-Short Version (RCADS-25) - Anxiety subscale Mean (SD)	10.99 (5.61)	14.58 (5.7)
Emotional distress - depression Revised Children's Anxiety and Depression Scale–Short Version (RCADS-25) - Depression subscale Mean (SD)	12.08 (5.92)	13.38 (5.41)

Social and emotional skills - Self-esteem - Polarity - Higher values are better

Emotional distress - anxiety - Polarity - Lower values are better

Emotional distress - depression - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) - RCT

Social and emotional skills - Self-esteem - Computerised enhanced psychological mindset intervention vs Usual curriculum waitlist

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Very serious concerns due to self-reported outcomes and attrition)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

Computerised enhanced psychological mindset intervention (N = NA)

Brief name	An Enhanced Psychological Mindset Session for Adolescents. p. 951

Rationale/theory/Goal	A blend of models including neurological science and psychological theory from "first-wave" and "second-wave" cognitive-behavioural therapies. p. 951
Materials used	Computer. p. 950
Procedures used	10-min psychoeducational animation followed by 5-min of videos depicting stories from fictional young people describing how they used the content of the animation in their everyday lives or to cope with difficulties. Participants then completed three multiple-choice questions and were given automated feedback following each question. To finish, participants were asked to type a "letter of advice" to a fictional younger student experiencing anxiety and shyness, based on what they had learned in the session. p. 950-951
Provider	Self-administered. p. 950
Method of delivery	Individual. p. 950
Setting/location of intervention	Standard classroom setting. p. 950
Intensity/duration of the intervention	Single, 30-min self-administered session. p. 950
Tailoring/adaptation	None reported
Unforeseen modifications	None reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

Usual curriculum waitlist (N = NA)

Brief name	Usual school activities waitlist. p. 950
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Normal timetabled activities. p. 950

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Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.57   Perry, 2014

Bibliographic Reference	Perry, Yael; Petrie, Katherine; Buckley, Hannah; Cavanagh, Lindy; Clarke, Deborah; Winslade, Matthew; Hadzi-Pavlovic, Dusan; Manicavasagar, Vijaya; Christensen, Helen; Effects of a classroom-based educational resource on adolescent mental health literacy: a cluster randomized controlled trial.; Journal of adolescence; 2014; vol. 37 (no. 7); 1143-51

Study details

Study design	Cluster randomised controlled trial
Study type	Efficacy
Trial registration number	ACTRN12613000823774
Aim	To evaluate the impact of HeadStrong, a universal, curriculum-based educational program, relative to Stage 5 Personal Development, Health and Physical Education (PDHPE) classes

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Country/geographical location	Australia
Type of school	Secondary education
Setting	Five Catholic (56%) and five Independent (44%) schools in Central West New South Wales, Australia
UK Key Stage	Key stage 3
Inclusion criteria	Students in Year 9 or 10 with parental consent to participate in the study
Exclusion criteria	Due to the universal nature of the intervention, there were no exclusion criteria for this study
Method of randomisation	Schools were grouped in matching pairs according to the stratification variables. A coin-toss approach was then used to randomise one of each pair to the intervention and the other to the control condition.
Method of allocation concealment	Group assignment was concealed from researchers involved in data analysis. Participants could not be blinded to group allocation due to the nature of the intervention.
Unit of allocation	Cluster (school)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	- Power calculation: Results of the power calculation indicated that a total of 1554 students would be required to detect a small effect (d= 0.2), where alpha = 0.05, beta = 0.1 and intracluster correlation coefficient (ICC), rho = 0.02. The ICC was based on those utilised in similar educational trials. 30 schools and 60 classes with 25 students each were required. - Intention to treat: Analyses were conducted on an intention-to-treat basis using mixed-model repeated measures (MMRM) analysis of variance to account for participants with missing data. - Logistic regressions were conducted to identify significant predictors of missingness at post-intervention and 6-month follow-up assessment occasions. - t-tests and chi-square analyses were used to identify potential pre-intervention group differences in demographics and mental health literacy.
Attrition	Attrition by study arm at 6 months follow-up: - HeadStrong: 138/207; 33.3% attrition - Control: 70/173; 59.5% attrition

Study limitations (author)	• The primary outcome measure was not a validated measure. • The study was conducted in Catholic and Independent schools in Central West New South Wales, which limits generalisability. • A number of teachers encountered difficulties following research procedures, resulting in several schools failing to complete and return student questionnaires on time. • One control school elected to deliver the HeadStrong program following the post-intervention assessment, but prior to the 6-month follow-up. This data was included in the analysis and may have weakened any effects observed at the follow-up analysis.
Study limitations (reviewer)	None to add
Source of funding	• NIB Foundation • HC (fourth author) HC is supported by NHMRC Fellowship 1056964

Study arms

HeadStrong (N = 207)

5 schools with 19 eligible classes allocated to study arm. 12 classes from 5 schools, including 207 individuals completed pre-intervention assessment. (Total number of individuals in the 19 eligible classes not reported).

Usual PDHPE (N = 173)

5 schools with 19 eligible classes allocated to study arm. 10 classes from 3 schools, including 173 individuals completed pre-intervention assessment. (Total number of individuals in the 19 eligible classes not reported).

Characteristics

Study-level characteristics

Characteristic	Study (N = 380)
Age (years)	13 to 16

Characteristic	Study (N = 380)
Range	
Age (years) Mean (SD)	14.75 (NR)
Aboriginal or Torres Strait Islander Sample size	n = 19 ; % = 5

Outcomes

Study timepoints
- 6 month (Follow-up)

Outcomes

Outcome	HeadStrong, 6 month, N = 207	Usual PDHPE, 6 month, N = 173
Social and emotional skills Depression literacy measured by a modified Depression Literacy Scale (D-Lit) (self-reported) Sample size	n = 128 ; % = 61.8	n = 66 ; % = 38.2
Social and emotional skills Depression literacy measured by a modified Depression Literacy Scale (D-Lit) (self-reported) Mean (SD)	14.27 (4.65)	13.09 (3.15)
Emotional distress - Depression and Anxiety (0-63) Measured by the Depression Anxiety and Stress Scales (DASS-21) (self-reported) Sample size	n = 138 ; % = 66.7	n = 70 ; % = 40.5
Emotional distress - Depression and Anxiety (0-63) Measured by the Depression Anxiety and Stress Scales (DASS-21) (self-reported) Mean (SD)	21.7 (18.88)	23.31 (21.29)

Social and emotional skills - Polarity - Higher values are better

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Emotional distress - Depression and Anxiety - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Social and emotional skills - HeadStrong vs Usual PDHPE - 6 months

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Serious concerns due to missing outcome data and self-reported outcomes)*

Emotional distress - Depression and Anxiety - HeadStrong vs Usual PDHPE - 6-month follow-up

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Serious concerns due to missing outcome data and self-reported outcomes)*

Study arms

HeadStrong (N = 207)

Brief name	HeadStrong. Page 1145
Rationale/theory/Goal	Not reported
Materials used	A booklet, slideshow, and various appendices. Page 1145
Procedures used	The HeadStrong resource contains five modules including: 1. Mood and mental wellbeing 2. The low down on mood disorders 3. Reaching out - helping others 4. Helping yourself 5. Making a difference. Page 1145
Provider	Teacher. Page 1145
Method of delivery	Face-to-face. Page 1145

Setting/location of intervention	Classroom. page 1145
Intensity/duration of the intervention	HeadStrong classroom activities are delivered over a period of 5e8 weeks, and take approximately 10 hours of class time in total. Page 1145
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	All teachers participated in the HeadStrong training program prior to the commencement of the trial. Page 1145
Actual treatment fidelity	Not reported

Usual PDHPE (N = 173)

Brief name	Usual Personal Development, health and Physical Education (PDHPE). Page 1145
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	All schools drew on the following content areas outlined in the Stage 5 PDHPE national curriculum: • Self and Relationships • Movement Skill and Performance • Individual and Community Health • Lifelong Physical Activity. Page 1145
Provider	Teacher. Page 1145
Method of delivery	Face-to-face. Page 1145
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Each school covered different topics over the intervention and follow-up period (depending on the scope and sequence for the year). Page 1145

Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.58 Perry, 2017

Bibliographic Reference	Perry, Yael; Werner-Seidler, Aliza; Calear, Alison; Mackinnon, Andrew; King, Catherine; Scott, Jan; Merry, Sally; Fleming, Theresa; Stasiak, Karolina; Christensen, Helen; Batterham, Philip J; Preventing Depression in Final Year Secondary Students: School-Based Randomized Controlled Trial.; Journal of medical Internet research; 2017; vol. 19 (no. 11); e369

Study details

Study design	Cluster randomised controlled trial
Type of study	Effectiveness
Trial registration number	ACTRN12614000316606
Aim	To the impact of this novel intervention on depressive symptoms,
Country/geographical location	Sydney, Australia
Type of school	Secondary education
Setting	The trial was conducted in selective and partially selective government secondary schools in metropolitan Sydney. Selective schools use an entry exam to enroll students with superior academic ability, while partially selective schools offer both selective and comprehensive (non-selective) streams. Academically gifted students were selected because final school exam outcomes are critical to them. They are particularly sensitive to the stressful nature of exams, with studies finding they experience adverse stress reactions to academic failures coupled

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	with pressure to succeed from parents, schools, the media, and students themselves.
UK Key stage	Key stage 4
Inclusion criteria	NR
Exclusion criteria	NR
Method of randomisation	Each participating school (cluster) was randomized to SPARX-R or lifeSTYLE by a statistician not involved in the implementation of the trial and blind to the identity of the schools. All study staff remained blind to condition except for the 2 trial managers involved in the communication of the materials and instructions to the schools (YP, AWS). The method of Carter and Hood sought to ensure balance between arms. Balance variables were gender, number of enrolled students, Index of Community Socio-Educational Advantage for each school, and language background other than English.
Method of allocation concealment	No research personnel were directly involved in the delivery of the prevention interventions. Schools were not informed whether their assigned program represented the experimental or control condition. All outcome measures were self-report and were completed privately via an online portal. The trial statistician was blind to school allocation.
Unit of allocation	School
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: Power was set at 80%, alpha=.05 (2-tailed), and a correlation of .5 assumed between baseline and endpoint scores. To allow for possible clustering effects, a design effect was calculated assuming an intraclass correlation (ICC) of .02 and an average class size of 25. The estimate of the ICC was derived from a previous Australian school-based study that found a nonsignificant ICC of .02 The estimated sample size was 1166. The total target size sample size was set at 1600, 800 students per condition, in order to accommodate possible attrition at a rate up to 20%. Intention to treat: Primary analyses were undertaken on an intent-to-treat (ITT) basis. Effectiveness of SPARX-R was established using a planned contrast of change from baseline to post-intervention in the active compared to placebo condition on the MDI using a mixed-model

	repeated measures (MMRM) analysis that incorporates all available data under the missing-at-random assumption.
Attrition	Total who provided consent to participate in the study was 242 in the intervention group and 298 in the control group. 140 completed assessment at the 6 month follow up in the intervention group and 201 completed 6 month follow up in the control group. 40 completed 18 months follow up in the intervention group and 64 completed 18 months follow up in the control group.
Study limitations (author)	• Modest completion rate: 59% in the SPARX-R group; defined as completion of 4 or more of 7 modules • Completion may have also been compounded by technical difficulties. Several technical problems occurred during implementation (particularly in schools allocated to the SPARX-R intervention), which impacted some students' ability to complete all of their allocated modules during class time. This was largely due to the excessive load on the school information technology (IT) system associated with multiple students simultaneously accessing the online research platform and downloading the SPARX-R game files. • Decision to recruit in academically selective schools means that caution must be exercised in generalizing results to the broader school population. However, approximately 80% of our sample was born outside Australia and over half did not speak English at home, suggesting this was a culturally, if not academically, diverse sample. • Resources and feasible sample size precluded mounting a trial with incidence of clinically diagnosed depressive disorder as its primary outcome
Study limitations (reviewer)	None to add
Source of funding	Supported by an Australian National Health and Medical Research Council (NHMRC) project grant 1061072 to HC. HC is supported by an NHMRC John Cade fellowship (1056964). ALC and PJB are supported by NHMRC fellowships 013199 and 1083311

Study arms

SPARX-R (N = 242)

5 schools (clusters) including 242 consented to participate in the study

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Control group: lifeSTYLE (N = 298)

5 schools (clusters) including 298 individuals consented to participate in the study

Characteristics

Arm-level characteristics

Characteristic	SPARX-R (N = 242)	Control group: lifeSTYLE (N = 298)
Males No of events	n = 117 ; % = 48.3	n = 82 ; % = 27.5
Females No of events	n = 125 ; % = 51.7	n = 216 ; % = 72.5
English language spoken Sample size	n = 132 ; % = 54.5	n = 175 ; % = 58.7
Other language Sample size	n = 110 ; % = 45.4	n = 123 ; % = 41.3

Outcomes

Study timepoints
- Baseline
- 18 month

Outcomes

Outcome	SPARX-R, Baseline, N = 242	SPARX-R, 18 month, N = 242	Control group: lifeSTYLE, Baseline, N = 298	Control group: lifeSTYLE, 18 month, N = 298
Emotional distress - depression (0-50) Depression measured by MDI (self-report) Sample size	n = 242 ; % = 100	n = 40 ; % = 16.5	n = 298 ; % = 100	n = 64 ; % = 21.5
Emotional distress - depression (0-50)	14.9 (0.9)	10 (1.1)	14.4 (0.9)	11.9 (1)

Outcome	SPARX-R, Baseline, N = 242	SPARX-R, 18 month, N = 242	Control group: lifeSTYLE, Baseline, N = 298	Control group: lifeSTYLE, 18 month, N = 298
Depression measured by MDI (self-report) Mean (SE)				
Emotional distress - anxiety Using Spence Children's Anxiety Scale - GAD (self-report) Sample size	n = 242 ; % = 100	n = 40 ; % = 16.5	n = 298 ; % = 100	n = 64 ; % = 21.5
Emotional distress - anxiety Using Spence Children's Anxiety Scale - GAD (self-report) Mean (SE)	6.7 (0.4)	5.1 (0.5)	6.8 (0.4)	5.7 (0.5)

Emotional distress - depression - Polarity - Lower values are better

Emotional distress - anxiety - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - Depression - SPARX-R vs Control - 18 months follow up

Section	Question	Answer
Overall bias	Risk of bias judgement	Low

Emotional distress-anxiety - SPARX-R vs Control - 18 months follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Low

Study details

Rationale/theory/Goal	To evaluate the effectiveness of SPARX-R, a gamified online cognitive behavior therapy intervention for the prevention of depression relative to an attention-matched control intervention delivered to students prior to facing a significant stressor—final secondary school exams.

Study arms

SPARX-R (N = 242)

Brief name	SPARX-R, a revised version of SPARX [P3].
Rationale/theory/Goal	SPARX-R was developed as an unguided, interactive program using the format of a fantasy game providing cognitive behavioral skills to treat mild to moderate symptoms of depression in help-seeking adolescents [P3].
Materials used	SPARX-R was delivered to students on desktop computers via the Internet and supplemented with a paper notebook for students to review key messages from each module and record personal comments [P3].
Procedures used	SPARX-R users choose and personalize an avatar and are led through the program by a virtual guide who provides context and links the content of the program to their real-life experiences. The user navigates their way through a series of challenges within a fantasy world that has been overrun by GNATs (gloomy, negative, automatic thoughts), with the mission of restoring balance in the game world. The modules cover the following topics: finding hope, being active, dealing with strong emotions, overcoming problems, recognizing unhelpful thoughts, challenging unhelpful thoughts, and bringing it all together. Key skills taught by the program were relaxation, activity scheduling and behavioral activation, emotion regulation, interpersonal skills, problem solving, cognitive restructuring, and distress tolerance [P3].
Provider	Online [P3].
Method of delivery	Online [P3].
Setting/location of intervention	Delivered in school classrooms [P3].

Intensity/duration of the intervention	The program has 7 modules (levels), each of which takes approximately 20 to 30 minutes to complete. Schools scheduled curriculum time for participants to complete 1 to 2 modules per week, allowing a few days in between modules for students to process what they learned and practice new skills before beginning the next module. The intervention was completed over the course of 5 to 7 weeks in class under teacher supervision. [P3].
Tailoring/adaptation	SPARX-R provides users with the same skills as those in SPARX; however, the revised version is framed in preventive terms. For example, participants are told that "this version of SPARX was made to help young people who are having hassles and feeling down, stressed, or angry a lot of the time. Even if you are doing fine, SPARX-R can help strengthen your skills for dealing with problems when they do come along." Further, for the version of SPARX-R used, care was taken to ensure that terminology and local helplines and services were suitable for Australia.
Unforeseen modifications	NR
Planned treatment fidelity	NR
Actual treatment fidelity	NR
Other details	None to add

5 schools (clusters) including 242 individuals consented to participate

Control group: lifeSTYLE (N = 298)

Brief name	lifeSTYLE [P3].
Rationale/theory/Goal	lifeSTYLE is an adaptation of an interactive, online program originally developed as a control intervention for a trial targeting adults with suicidal thoughts [P3].
Materials used	Each module includes information about the specified topic as well as interactive activities such as quizzes, mythbusters, videos, and scenarios to which students can respond [P3].

Procedures used	The aim of the intervention was to provide an engaging and useful resource for young people that matched the intervention in terms of duration and attention without providing any direct mental health content. The program covers the following topics: independence, participating in your community, work skills, mobile phone safety and hygiene, healthy skin, sustainable eating, and maintaining a healthy home environment [P3].
Provider	Online [P3].
Method of delivery	Online [P3]
Setting/location of intervention	As with SPARX-R, the intervention was delivered online to students in school classrooms [P3].
Intensity/duration of the intervention	As with SPARX, lifeSTYLE consisted of 7 modules, each of which took 20 to 30 minutes to complete [P3].
Tailoring/adaptation	The format and structure of the program was retained, but the content was adapted to suit adolescents [P3].
Unforeseen modifications	NR
Planned treatment fidelity	NR
Actual treatment fidelity	NR
Other details	None to add

5 schools (clusters) including 786 individuals consented to participate

D.1.59 Pophillat, 2016

Bibliographic Reference	Pophillat, Eugenie; Rooney, Rosanna M.; Nesa, Monique; Davis, Melissa C.; Baughman, Natalie; Hassan, Sharinaz; Kane, Robert T.; Preventing Internalizing Problems in 6-8 Year Old Children: A Universal School-Based Program; Frontiers in psychology; 2016; vol. 7; 1928

Study details

Trial registration number	Not specified
Aim	Evaluate the efficacy of a universal Cognitive Behavioral Therapy based program in preventing and reducing internalizing problems in 6–8 year old's (Years 1–3 in Australia).
Country/geographical location	Australia
Type of school	Primary education
Setting	School Years 1–3 in Australia
UK Key Stage	Key stage 2
Method of randomisation	10 Year 1–3 classes were blocked into year groups. From within these three blocks, the classes were then randomly allocated to the intervention and usual care control conditions.
Method of allocation concealment	Not specified
Unit of allocation	Class
Unit of analysis	Participant
Statistical method(s) used to analyse the data	Psychometric data analyzed with a multi-level mixed effects linear regression model
Attrition	There was no child attrition at post-test for either group; 18 intervention parents and 11 control parents dropped out at post-test yielding attrition rates of 29% and 21%, respectively
Study limitations (author)	Lack of program implementation fidelity for 2/5 intervention classes; Intervention too complex for age group and may impacted efficacy; self-report measures of internalizing symptoms were only available for the Year 3 children; validity of teacher rating on social competence measures; small control group ,and the disproportionate sizes of both groups, may well have resulted in a corresponding loss of power. Reliance on parent measures of internalizing symptoms, where the response rate was not ideal; Lack of program effects in terms of gains in social competence could be attributed to the validity of teacher ratings on the social competence measure.
Study limitations (reviewer)	Blinding and allocation concealment not outlined;

Source of funding	Western Australian Health Promotion Foundation (Healthway) - research grant: 15148.

Study arms

AOP-FF (N = 106)

Aussie Optimism Program: Feelings and Friends(AOP-FF).10week ,universal mental health promotion program based on social/emotional and cognitive and behavioral strategies.

Usual care (N = 100)

Characteristics

Study-level characteristics

Characteristic	Study (N = 206)
Age (years) Range	6.4 to 9.5
Ethnicity Nominal	NR

Arm-level characteristics

Characteristic	AOP-FF (N = 106)	Usual care (N = 100)
Gender % Male Nominal	46.1	42.2

Outcomes

Study timepoints
- Baseline
- 10 week (Term 3 to Term 4)

Social and emotional skills - ACES

Outcome	AOP-FF, Baseline, N = 101	AOP-FF, 10 week, N = 101	Usual care, Baseline, N = 84	Usual care, 10 week, N = 84
ACES Child measured Mean (SD)	15.44 (2.99)	17.34 (3.33)	14.39 (3.24)	15.45 (3.34)

ACES - Polarity - Higher values are better

The Assessment of Children's Emotional Skills (ACES) designed to measure emotion attribution accuracy in children aged 6 and older, and consists of three sub-scales concerning social behaviors, social situations, and facial expressions. Only the social behaviors and situations subscales were used in this study. Each sub-scale contains 15-items, in which children are asked to label the protagonist's feelings as "happy, sad, mad, scared, or no feeling."

Behavioural outcomes

Outcome	AOP-FF, Baseline, N = 51	AOP-FF, 10 week, N = 51	Usual care, Baseline, N = 15	Usual care, 10 week, N = 15
Using SDQ-P: Total difficulties Parent assessed Mean (SD)	10.71 (7.1)	10.08 (6.08)	9.88 (6.51)	9.8 (6.22)
Emotional distress Using Spence Children's Anxiety Scale Sample size	n = 51	n = 51	n = 15	n = 15
Emotional distress Using Spence Children's Anxiety Scale Mean (SD)	32.75 (19.21)	30.89 (19.6)	35.66 (18.61)	29.05 (17.4)

Using SDQ-P: Total difficulties - Polarity - Lower values are better

Emotional distress - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Socialandemotionalskills-ACES-ACES-MeanSD-AOP-FF-Control-t10

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; Differences in age of (school year) across arms (more older in the intervention arm); Post-test data not provided in >20% of the control arm)*
Overall bias and Directness	Overall Directness	Directly applicable

Emotionaldistress-SDQ-P:Totaldifficulties-Totaldifficultes-SDQ-P-MeanSD-AOP-FF-Control-t10

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; Differences in age of (school year) across arms (more older in the intervention arm); Post-test data not provided in >20% in both arms)*
Overall bias and Directness	Overall Directness	Directly applicable

Behaviouraloutcomes-Emotionaldistress-MeanSD-AOP-FF-Usual care-t10

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; Differences in age of (school year) across arms (more older in the intervention arm); Post-test data not provided in >20% in both arms)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

AOP-FF (N = 106)

Brief name	Aussie Optimism Program: Feelings and Friends [Abstract]
Rationale/theory/Goal	Based based on social/emotional and cognitive and behavioral strategies. [Abstract]
Materials used	Manual and lesson module [page 5 and 6]
Procedures used	Teachers were trained by researcher and two registered clinical psychologists and included the various components vis direct instructions and role-play as well as supervised practice. [page 6]
Provider	Teacher [page 6]
Method of delivery	Classroom lessons [page 6]
Setting/location of intervention	School [page 5]
Intensity/duration of the intervention	Ten weekly sessions [page 5]
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Teacher and expert ratings of programme implementation. [page 6]
Actual treatment fidelity	All of the modules were completed by two of the five intervention classes 90% with oneclass, 80% with another, and 20% by the fifth class. Of the three who completed the logbooks, at least 95% of each group session was completed either in full as presented or with modifications to suit student needs. [page 8]

Usual practice (N = 100)

Brief name	Usual practice [page 4]
Rationale/theory/Goal	Not reported
Materials used	Not reported

Procedures used	Not reported
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.60   Possel, 2011

Bibliographic Reference	Possel, P; Adelson, JL; Hautzinger, M; A randomized trial to evaluate the course of effects of a program to prevent adolescent depressive symptoms over 12 months.; Behaviour research and therapy; 2011; vol. 49 (no. 12); 838-851

Study details

Study design	Cluster randomised controlled trial
Type of study	Not clear
Trial registration number	NR
Aim	The present study investigated the course and magnitude of effects of the prevention program LARS&LISA (reference omitted for blind review) on adolescent depressive symptoms over 12 months post-intervention. In addition, the present study explored possible

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	explanations for sex effects in the prevention of depressive symptoms in adolescents
Country/geographical location	Tübingen (southwest Germany).
Type of school	Secondary education
Setting	8th-grade students located in schools in economically diverse regions of the area.
UK Key stage	Key stage 3
Inclusion criteria	NR
Exclusion criteria	NR
Method of randomisation	
Method of allocation concealment	NR
Unit of allocation	Class
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: not reported. Intention to treat: Although 25 out of 163 intervention students and 17 out of 138 control students dropped out during the course of the study, the data of 163 intervention students and 136 control students were included in the analyses as they participated in assessments at one time point or more. This was possible due to the use of HLM with maximum likelihood estimation, which incorporates all participants observed at least once on the outcome. Because students without 12-month follow-up knowledge data would be eliminated from the analyses, drop-out was due to moving away from the school rather than related to knowledge, and we were not estimating changes in knowledge over time in the model, we used last observation carry forward (LOCF) for the 14% of students with missing data on the knowledge variables; however, we did not do this with the depression measure.
Attrition	During the course of the study, 25 out of the 163 intervention students and 17 out of the 138 control students dropped out because they changed schools
Study limitations (author)	• Absence of any formal intervention as control condition

	• Unclear whether the reduction of an increase in depressive symptoms in girls is specific or only due to an attention effect • The adolescents and their teachers knew about the assignment of the students to the intervention or non-intervention control group due to the fact that common school lessons took place in the control group. • The exclusive usage of student-reports • Lack of assessments of the knowledge at baseline and the relatively low internal consistency and test-retest reliability of the knowledge-test. • The fact that boys were predominantly in larger groups and girls in smaller groups is especially problematic as it can not be excluded that group size might be a confounding factor in the presented study.
Study limitations (reviewer)	None to add
Source of funding	NR

Study arms

LARS&LISA (N = 163)

6 classes (clusters) including 163 individuals

Control group (N = 138)

6 classes (clusters) including 138 individuals

Characteristics

Arm-level characteristics

Characteristic	LARS&LISA (N = 163)	Control group (N = 138)
Boys Mean (SD)	13.74 (0.66)	13.67 (0.58)
Girls Mean (SD)	13.72 (0.59)	13.59 (0.58)

Outcomes

Study timepoints
- Baseline
- 12 month

Outcomes

Outcome	LARS&LISA, Baseline, N = 163	LARS&LISA, 12 month, N = 163	Control group, Baseline, N = 138	Control group, 12 month, N = 138
Boys Sample size	n = 91 ; % = 55.9	n = 77 ; % = 47.2	n = 70 ; % = 50.7	n = 63 ; % = 45.7
Boys Mean (SD)	0.51 (0.42)	0.8 (0.67)	0.52 (0.46)	0.75 (0.65)
Girls Sample size	n = 72 ; % = 42.9	n = 61 ; % = 36.3	n = 68 ; % = 49.3	n = 58 ; % = 42
Girls Mean (SD)	0.7 (0.5)	0.53 (0.51)	0.56 (0.41)	0.71 (0.55)

Emotional distress - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress- Depression - Boys - LARS&LISA vs Control - 12 months follow up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to a lack of blinding and missing outcome data)*

Emotional distress - Depression - Girls - LARS&LISA vs Control - 12 months follow up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to a lack of blinding and missing outcome data)*

Study arms

LARS&LISA (N = 163)

Brief name	LARS&LISA [P13].
Rationale/theory/Goal	The manualized school-based universal primary prevention program LARS&LISA is based on the social information processing model of social competence as described by Dodge (1993). This model distinguishes five stages of Course of effects in prevention of depression information processing: encoding, mental representation, response accessing, response evaluation and selection, and enactment. Many of the methods used in the program are taken from cognitive-behavioral therapy [P13-14].
Materials used	NR
Procedures used	The program targets cognitive and social components of the social information processing model as follows: (a) five cognitive sessions focus on understanding the relations among cognitions, emotions, and behaviors, and teach how to identify and challenge negative cognitions; and (b) four social sessions train participants in assertiveness and social competence. Each part of the program is designed to address stages of the social information processing model (Dodge, 1993) and to improve knowledge and skills [P14].
Provider	Each intervention group was coached by a group leader and a co-leader, who were either master's level psychologists or graduate students experienced in working with adolescents. As the majority of the eight group leaders and co-leaders were female (63%), it was not possible to fit their sex to the sex of the adolescents. To minimize effects of the leader's sex, group leaders and co-leaders worked in mixed-sex teams. Training was provided for all group leaders [P18].
Method of delivery	NR
Setting/location of intervention	Classroom [P14].

Intensity/duration of the intervention	LARS&LISA was administered once a week over a 10-week period during regular school hours. Each session was composed of two 45-minute class periods for a total of 1.5-hours per session [P16].
Tailoring/adaptation	NR
Unforeseen modifications	NR
Planned treatment fidelity	Video recordings were used to ensure that group leaders adhered to the LARS&LISA manual [P18].
Actual treatment fidelity	NR
Other details	None to add

Control group (N = 138)

Brief name	NA
Rationale/theory/Goal	NA
Materials used	NA
Procedures used	Standard Curriculum [P18].
Provider	NA
Method of delivery	NA
Setting/location of intervention	NA
Intensity/duration of the intervention	NA
Tailoring/adaptation	NA
Unforeseen modifications	NA
Planned treatment fidelity	NA

Actual treatment fidelity	NA
Other details	None to add

D.1.61 Possel, 2013

Bibliographic Reference	Possel, Patrick; Martin, Nina C; Garber, Judy; Hautzinger, Martin; A randomized controlled trial of a cognitive-behavioral program for the prevention of depression in adolescents compared with nonspecific and no-intervention control conditions.; Journal of counseling psychology; 2013; vol. 60 (no. 3); 432-8

Study details

Study design	Cluster randomised controlled trial
Type of study	Efficacy
Trial registration number	NR
Aim	To evaluate the effects of a cognitive-behavioral program for the prevention of depression in adolescents
Country/geographical location	USA
Type of school	Secondary education
Setting	Wellness classes at a high school in the mid-south. Census data indicated that the school serves communities characterized as predominantly working to middle class. According to county data, 29% of the students were eligible for free or reduced-price lunches
UK Key stage	Key stage 4
Inclusion criteria	NR
Exclusion criteria	NR
Method of randomisation	Participants were randomly assigned by Wellness class to one of three conditions: the CB program, the nonspecific control (NSp), or the no-intervention control (NIC) condition. To eliminate any potential systematic effects of class period, randomization to

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	conditions varied across the days, times, and time of year (spring versus fall) from semester to semester.
Method of allocation concealment	NR
Unit of allocation	Class
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: not reported. Intention to treat: not reported.
Attrition	Over the course of the follow-up period, 12% of the total sample was not available for evaluation mainly due to their having changed schools during the study. No significant differences were found between the unavailable and the remaining students as a function of condition
Study limitations (author)	• The primary outcome depressive symptoms was measured with a single self-report inventory • Second, given that the intervention might affect other outcomes (e.g., anxiety, behavior problems, functioning), measures of these constructs also should be included. • Third, although the drop-out rates were not significantly different across the three conditions, a nonsignificant trend indicated that dropouts were more likely to be male and older than those who did not drop out. Therefore, generalizability of the findings to older male adolescents might be limited • Fourth, the theoretical mechanisms of change, such as social information processing or common, nonspecific factors were not analyzed. • Fifth, although both the CB and NSp conditions were structurally equivalent, thereby controlling for many nonspecific factors as noted earlier, we did not assess whether the interventions were similarly credible for the group leaders and participating students
Study limitations (reviewer)	None to add
Source of funding	NR

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Study arms

CB (N = 166)

NSp (N = 175)

NIC (N = 177)

Characteristics

Arm-level characteristics

Characteristic	CB (N = 166)	NSp (N = 175)	NIC (N = 177)
Age Mean (SD)	15.13 (0.75)	15.05 (0.66)	15.07 (0.85)
Females No of events	n = 102 ; % = 61.5	n = 108 ; % = 61.7	n = 115 ; % = 65
Caucasian No of events	n = 125 ; % = 75.3	n = 116 ; % = 66.7	n = 136 ; % = 76.4
African-American No of events	n = 18 ; % = 10.8	n = 34 ; % = 19.5	n = 24 ; % = 13.5
Latino No of events	n = 8 ; % = 4.8	n = 10 ; % = 5.7	n = 10 ; % = 5.6
Asian/Pacific islander No of events	n = 3 ; % = 1.8	n = 2 ; % = 1.1	n = 2 ; % = 1.1
Native American No of events	n = 1 ; % = 0.6	n = 2 ; % = 1.1	n = 1 ; % = 0.6
Mixed Heritage No of events	n = 9 ; % = 5.4	n = 9 ; % = 5.2	n = 5 ; % = 2.8
Other No of events	n = 2 ; % = 1.2	n = 1 ; % = 0.6	n = 0 ; % = 0

Outcomes

Study timepoints
- Baseline
- 12 month

Outcomes

Outcome	CB, Baseline, N = 140	CB, 12 month, N = 140	NSp, Baseline, N = 151	NSp, 12 month, N = 151	NIC, Baseline, N = 152	NIC, 12 month, N = 152
Emotional distress Depression measured by CDI (self-report) Mean (SD)	10.3 (8.25)	8.4 (8.94)	11.38 (8.37)	8.66 (7.82)	10.79 (8.83)	8.38 (8.5)

Emotional distress - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - Depression - CB vs NSp vs NIC - 12 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Lack of information on methods including blinding)*

Study arms

CB (N = 140)

Brief name	The Cognitive-Behavioral Program: LARS&LISA [P8].
Rationale/theory/Goal	The LARS&LISA intervention is based on the social information processing (SIP) model (Dodge, 1993) and uses various methods from CBT [P8].

Materials used	NR
Procedures used	Cognitive and social components of the social information processing model are targeted as follows: (a) four cognitive sessions focus on understanding the relations among cognitions, emotions, and behaviors and teach how to identify and challenge negative cognitions; and (b) four social sessions train participants in assertiveness and social competence skills. the first session outlines the rationale for the program, and the 10th session is a review and celebration [P8].
Provider	The 20 CB and 19 NSp groups were led by two facilitators, one designated as the group leader (Masters level or higher; n = 3) and the other as co-leader (graduate students in clinical psychology or counseling psychology, n = 17). All eaders were experienced in working with adolescents and trained in either a cognitivebehavioral or a humanistic counseling tradition (NSp) [P9].
Method of delivery	NR
Setting/location of intervention	Classroom [P8].
Intensity/duration of the intervention	Ten 90-minute weekly sessions [P8].
Tailoring/adaptation	The manualized school-based prevention program, LARS&LISA, was originally developed in Germany (Pössel, Horn, Seemann et al., 2004) and was modified for youth in the United States. Modifications included constructing culturally appropriate role plays for American students in which relevant idiomatic expressions were used and otherwise tailoring the program for use by American youth. To ensure a similar level of therapist experience, which is one element of structural equivalence, each group was led by at least one group leader who was trained in and implemented both programs [P8].
Unforeseen modifications	NR
Planned treatment fidelity	Supervision was provided for all trainers with the help of video recordings of each session and a 1.5-hour weekly meeting with the first author. These recordings were also used to ensure that trainers adhered to the LARS&LISA manual [P9].
Actual treatment fidelity	NR
Other details	None to add

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NSp (N = 151)

Brief name	The Nonspecific Control Condition (NSp) [P8].
Rationale/theory/Goal	The NSp condition was structurally equivalent to the LARS&LISA program [P8].
Materials used	NR
Procedures used	The primary difference between the LARS&LISA and the NSp program was that the latter did not convey any information about the cognitivebehavioral

model or teach specific cognitive or social skills. Instead, NSp used basic supportive humanistic strategies with more broad-based and open-ended conversations (e.g., a discussion about what emotions are without connecting feelings to thoughts or behaviors) [P9]. |
| **Provider** | The 20 CB and 19 NSp groups were led by two facilitators, one designated as the group leader (Masters level or higher; n = 3) and the other as co-leader (graduate students in clinical psychology or counseling psychology, n = 17). All eaders were experienced in working with adolescents and trained in either a cognitivebehavioral or a humanistic counseling tradition (NSp). To ensure a similar level of therapist experience, which is one element of structural equivalence, each group was led by at least one

group leader who was trained in and implemented both programs [P9]. |
Method of delivery	NR
Setting/location of intervention	Classroom [P8].
Intensity/duration of the intervention	Ten 90-minute weekly sessions [P8].
Tailoring/adaptation	NR
Unforeseen modifications	NR
Planned treatment fidelity	NR
Actual treatment fidelity	NR

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Other details	None to add

NIC (N = 152)

Brief name	The No Intervention Control (NIC) [P9].
Rationale/theory/Goal	NR
Materials used	NR
Procedures used	Students randomized to the NIC condition remained in their regular Wellness class. Wellness classes included discussions about health, nutrition, sleep, and exercise. Control students participated in the same assessments at each time point as those in the CB and NSp conditions [P9].
Provider	NR
Method of delivery	NR
Setting/location of intervention	NR
Intensity/duration of the intervention	The same duration as the CB and NSp conditions [P9].
Tailoring/adaptation	NR
Unforeseen modifications	NR
Planned treatment fidelity	NR
Actual treatment fidelity	NR
Other details	NR

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D.1.62 Possel, 2008

Bibliographic Reference	Possel, Patrick; Seemann, Simone; Hautzinger, Martin; Impact of comorbidity in prevention of adolescent depressive symptoms.; Journal of Counseling Psychology; 2008; vol. 55 (no. 1); 106-117

Study details

Study design	Cluster randomised controlled trial
Type of study	Not clear
Trial registration number	NR
Aim	To replicate earlier positive effects of a cognitive-behavioral prevention program of depressive symptoms and to test the hypothesis that the prevention program would be less effective in adolescents with comorbid anxiety and externalizing symptoms
Country/geographical location	Germany
Type of school	Secondary education
Setting	Six middle schools in the area of Tuebingen (southwest Germany),
UK Key stage	Key stage 3
Inclusion criteria	NR
Exclusion criteria	NR
Method of randomisation	Within the schools, the classes were randomly assigned to the intervention and control group. Both intervention and control conditions were recruited in each school, so that one class was randomly assigned to one condition and the other class was automatically assigned to the other. Method (i.e computer generated) not reported.
Method of allocation concealment	NR
Unit of allocation	Class
Unit of analysis	Individual

Statistical method(s) used to analyse the data	Power calculation: Not reported. Based on the included sample size of 301 adolescents and the calculated effect sizes for the impact of comorbid symptoms reported in the literature, this study design was adequate (>0.80) to detect medium or larger effect sizes ($f2 = 0.07$; Cohen, 1988) with 4-way interactions. Intention to treat: not reported
Attrition	During the course of the study 17/163 students of the intervention condition and 13/138 of the control condition dropped out because they changed schools. There were no differences between the drop-outs and remaining students in conditions.
Study limitations (author)	- the absence of any formal intervention as control condition - The adolescents and their teachers knew about the assignment of the students to the intervention or non-intervention control group due to the fact that common school lessons take place in the control group. This may have influenced the answers of both, adolescents and teachers. However, if this is true the effects should be similar for both genders, but the findings show different effects for girls and boys. - Exclusive usage of self-reports for the measurement of depressive symptoms.
Study limitations (reviewer)	- Lack of information on inclusion/exclusion criteria - Lack of information on statistical methods
Source of funding	NR

Study arms

LARS&LISA (N = 163)

6 classes (clusters) including 163 individuals randomised to the intervention

Control group (N = 138)

6 classes (clusters) including 138 individuals randomised to the non-intervention control group

Characteristics

Arm-level characteristics

Characteristic	LARS&LISA (N = 163)	Control group (N = 138)
Boys Mean (SD)	13.74 (0.66)	13.67 (0.58)
Girls Mean (SD)	13.72 (0.59)	13.59 (0.58)
Boys Nominal	91	70
Girls Nominal	72	68

Outcomes

Study timepoints
- Baseline
- 6 month

Outcomes

Outcome	LARS&LISA, Baseline, N = 163	LARS&LISA, 6 month, N = 163	Control group, Baseline, N = 138	Control group, 6 month, N = 138
Boys Mean (SD)	0.51 (0.42)	0.67 (0.66)	0.52 (0.46)	0.67 (0.66)
Girls Mean (SD)	0.7 (0.5)	0.55 (0.48)	0.56 (0.41)	0.58 (0.45)

Emotional distress - Polarity - Lower values are better

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Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress- Depression - Boys - LARS&LISA vs Control - 6 months follow up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Due to lack of blinding and lack of information on missing data and general statistical methods)*

Emotional distress - Depression: Girls - LARS&LISA vs Control - 6 months follow up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Due to lack of blinding and lack of information on missing data and general statistical methods)*

Study arms

LARS&LISA (N = 168)

Brief name	LARS&LISA [P12].
Rationale/theory/Goal	Manualised school-based universal primary prevention program based on the social information processing model of social competence as described by Dodge (1993). Methods used are taken from cognitive behavioral therapy [P12}.
Materials used	NR
Procedures used	Intervention includes a) two sessions about the relationship between cognition, emotion, and behavior; b) three sessions about exploration and changing dysfunctional cognitions; c) two sessions of assertiveness training; and d) two sessions of social competence training. The cognitive part of the program is based on the cognitive therapy approach of Beck, Rush, Shaw, and Emery (1979). The social part of the program includes trainings for assertiveness and social competence. Additionally, LARS&LISA includes a motivation section (one session) which is a main improvement to the previous program (LISA-T: Pössel et al., 2005; Pössel, Horn, Hautzinger, & Groen, 2004) and is gives students an opportunity to consider their goals and immediate plans of action to achieve them [P12].
Provider	Each intervention group was coached by a trainer and a co-trainer, who were either master level psychologists or graduate students

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	experienced in working with adolescents. As the majority of trainers and co-trainers were female (female = 5, male = 3), it was not possible to fit their gender to the gender of the adolescents. To minimize effects of the trainer's gender, trainers/co-trainers worked in gender mixed teams. Special training was provided for all trainers [P12].
Method of delivery	Intervention classes were conducted separately by gender, because adolescents may be hesitant to portray themselves authentically in front of peers of the opposite gender [P12].
Setting/location of intervention	Classroom [P12].
Intensity/duration of the intervention	LARS&LISA was administered once a week over a 10-week period during regular school hours. One session comprised two class periods with a total of 1.5 hours each [P12].
Tailoring/adaptation	NR
Unforeseen modifications	NR
Planned treatment fidelity	Supervision was provided for all trainers with the help of video recordings of each session and a 1.5-hour weekly meeting with the first author. These recordings were also used to ensure that trainers adhered to the LARS&LISA manual [P12].
Actual treatment fidelity	NR
Other details	None to add

Control group (N = 138)

Brief name	Control group [P12].
Rationale/theory/Goal	NR
Materials used	NR
Procedures used	During the intervention time the control classes attended their usual school lessons, because of this design adolescents and teacher knew about the assignment of the students to the intervention or non-intervention control group [P12].
Provider	NR
Method of delivery	NR

Setting/location of intervention	NR
Intensity/duration of the intervention	NR
Tailoring/adaptation	NR
Unforeseen modifications	NR
Planned treatment fidelity	NR
Actual treatment fidelity	NR
Other details	None to add

D.1.63 Putwain, 2019

Bibliographic Reference	Putwain, David W.; Gallard, Diahann; Beaumont, Joanna; A Multi-Component Wellbeing Programme for Upper Secondary Students: Effects on Wellbeing, Buoyancy, and Adaptability; School Psychology International; 2019; vol. 40 (no. 1); 49-65

Study details

Type of study	Not clear
Trial registration number	Not outlined
Aim	Assessed if a multi-component wellbeing program, drawing on elements of positive psychology, cognitive behavior therapy, and mindfulness, impacted on the school-related wellbeing of students in upper secondary education. In addition to school-related wellbeing as the primary outcome adaptability and buoyancy were measured as process variables.
Country/geographical location	UK

Type of school	Secondatry education
Setting	Year 12 (the first year of upper secondary education; 6th Form) - post-16 education
UK Key Stage	Post 16
Inclusion criteria	Not specified. All participants were in Year 12 (first year of upper secondary education)
Exclusion criteria	Not specified
Method of randomisation	Blind block randomization procedure used by a member of college staff to allocate participants to groups that were concealed from the research team
Method of allocation concealment	Not specified - But allocations were undertaken by a member of college staff and concealed from the research team
Unit of allocation	Participant level
Unit of analysis	Participant level
Statistical method(s) used to analyse the data	A series of 2x3 mixed ANOVAs; Means and Standard deviations
Attrition	Students could not opt-in or out of the intervention as it was a compulsory part of their timetable. Participation in the research element to evaluate BePART was voluntary; 20.06% of the Year 12 cohort did not participate. Those that participated (n=543) in the study all provided pre-post data.
Study limitations (author)	Self-report measures; Did not examine the impact of BePART on behavioral data; Did not implement a strategy to assess the fidelity or quality of intervention delivery;
Study limitations (reviewer)	
Source of funding	Not specified

Study arms

BePART (N = 263)

BePART (Be Positive, Ambitious, Resilient and Thoughtful) - Multi-component Wellbeing Programme: Six-session multi-component, intervention on school-related wellbeing, academic buoyancy, and adaptability. Aim at providing students with the opportunity to learn and practice personal resources required to be happy, healthy,

and academically successful persons. BePART was delivered to all participants as part of their personal, social, and health education, lessons (these are compulsory lessons taken alongside the academic program of study). Delivered over six weeks; one hour-long lesson per week. Lessons delivered by college staff with a pastoral role who received training in the psychological principles underpinning the intervention as well as the delivery and use of materials

Waiting list control (N = 271)

The wait-list intervention groups were delivered in a six-week block in the spring term, immediately following the Christmas break - no further details

Characteristics

Study-level characteristics

Characteristic	Study (N = 534)
Age (years) Mean (SD)	16.71 (0.54)
Male Nominal	217
Female Nominal	317
Asian Nominal	16
Black Nominal	2
White Nominal	508
Other Nominal	4
Mixed Heritage Nominal	4

Outcomes

Study timepoints
- Baseline
- 6 week (After the early intervention groups had completed the intervention six-week block in the autumn term, approximately six weeks after students had started at college)
- 18 week (The wait-list intervention groups were delivered in a six-week block in the spring term, immediately following the Christmas break.)

Behavioural outcome

Outcome	BePART, Baseline, N = 263	BePART, 6 week, N = 263	BePART, 18 week, N = 263	Waiting list control, Baseline, N = 271	Waiting list control, 6 week, N = 271	Waiting list control, 18 week, N = 271
College-related Wellbeing Mean (SD)	3.75 (0.52)	3.06 (0.39)	2.94 (0.48)	3.8 (0.6)	3.02 (0.45)	2.91 (0.49)

College-related Wellbeing - Polarity - Higher values are better

Six-item scale (Loderer, Vogl, and Pekrun 2016) - measures the sense of wellbeing felt by participants

Emotional distress

Outcome	BePART, Baseline, N = 263	BePART, 6 week, N = 263	BePART, 18 week, N = 263	Waiting list control, Baseline, N = 271	Waiting list control, 6 week, N = 271	Waiting list control, 18 week, N = 271
Academic Buoyancy Mean (SD)	3.34 (0.81)	3.41 (0.83)	3.28 (0.79)	3.34 (0.82)	3.28 (0.7)	3.17 (0.83)

Academic Buoyancy - Polarity - Higher values are better

Four-item scale developed by Martin and Marsh (2008) - Measures the sense of buoyancy

Social and emotional skills and attitudes

Outcome	BePART, Baseline, N = 263	BePART, 6 week, N = 263	BePART, 18 week, N = 263	Waiting list control, Baseline, N = 271	Waiting list control, 6 week, N = 271	Waiting list control, 18 week, N = 271
Adaptability Mean (SD)	3.56 (0.62)	3.62 (0.56)	3.57 (0.52)	3.57 (0.68)	3.47 (0.59)	3.51 (0.64)

Adaptability - Polarity - Higher values are better

Adaptability was measured using the nine-item scale developed by Martin et al. (2012) - measures cognitive adaptability

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) - RCT

College-relatedWellbeing-Behaviouraloutcome-College-relatedWellbeing-MeanSD-BePART-Waiting list control-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Blinding and allocation concealment undertaken but unlikely that those delivering the intervention were blinded to allocation; Lack of analysis to account for 20% of participants that were randomised but chose not to participate in the study evaluation)*
Overall bias and Directness	Overall Directness	Directly applicable *(UK based)*

College-relatedWellbeing-Behaviouraloutcome-College-relatedWellbeing-MeanSD-BePART-Waiting list control-t18

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Blinding and allocation concealment undertaken but unlikely that those delivering the intervention were blinded to allocation; Lack of analysis to account for 20% of participants that were randomised but chose not to participate in the study evaluation)*

Section	Question	Answer
Overall bias and Directness	Overall Directness	Directly applicable *(UK based)*

AcademicBuoyancy-Emotionaldistress-AcademicBuoyancy-MeanSD-BePART-Waiting list control-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Blinding and allocation concealment undertaken but unlikely that those delivering the intervention were blinded to allocation; Lack of analysis to account for 20% of participants that were randomised but chose not to participate in the study evaluation)*
Overall bias and Directness	Overall Directness	Directly applicable *(UK based)*

AcademicBuoyancy-Emotionaldistress-AcademicBuoyancy-MeanSD-BePART-Waiting list control-t18

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Blinding and allocation concealment undertaken but unlikely that those delivering the intervention were blinded to allocation; Lack of analysis to account for 20% of participants that were randomised but chose not to participate in the study evaluation)*
Overall bias and Directness	Overall Directness	Directly applicable *(UK based)*

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Adaptability-Socialandemotionalskillsandattitudes-Adaptability-MeanSD-BePART-Waiting list control-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Blinding and allocation concealment undertaken but unlikely that those delivering the intervention were blinded to allocation; Lack of analysis to account for 20% of participants that were randomised but chose not to participate in the study evaluation)*
Overall bias and Directness	Overall Directness	Directly applicable *(UK based)*

Adaptability-Socialandemotionalskillsandattitudes-Adaptability-MeanSD-BePART-Waiting list control-t18

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(Blinding and allocation concealment undertaken but unlikely that those delivering the intervention were blinded to allocation; Lack of analysis to account for 20% of participants that were randomised but chose not to participate in the study evaluation)*
Overall bias and Directness	Overall Directness	Directly applicable *(UK based)*

Study arms

BePART (N = 263)

Brief name	Wellbeing program
Rationale/theory/Goal	BePART incorporated elements of positive psychology (gratitude), mindfulness (how to down-regulate negative emotions and improve the quality of sleep), cognitive-behavioural therapy (how to reappraise negative and stressful events), and a focus on setting positive goals (drawing on elements of CBT and positive psychology); chosen to reflect perceived student needs in the college context, namely poor management of stress, giving up in the face of difficulty, poor sleep hygiene, and poor diet choices.

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Materials used	BePART was delivered to all participants as part of their personal, social, and health education, lessons; college staff received training in the psychological principles underpinning the intervention as well as the delivery and use of materials; all staff received a common training pack consisting of a presentation slides and a manual; Students receive a information sheets, workbook for reflective exercises; 3 self-report outcome questionnaires: College-related wellbeing Loderer, Vogl, and Pekrun (2016); Academic buoyancy Martin and Marsh (2008); Adaptability Martin et al. (2012).
Procedures used	Intervention delivered in a Six-week block in the autumn term (Intervention arm); Self-report data were collected by college pastoral staff at baseline, post intervention arm completion and post waiting list control completion.
Provider	College staff with pastoral responsibility
Method of delivery	Classroom based delivered in PSHE lesson
Setting/location of intervention	Classroom
Intensity/duration of the intervention	six weeks; one hour-long lesson per week
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	668 pupils (total year 12 group) - 100%
Actual treatment fidelity	534/668 (79.94%) - 134 pupils declined to participate in the evaluation but still received the intervention
Other details	Not specified

BePART (Be Positive, Ambitious, Resilient and Thoughtful) - Multi-component Wellbeing Programme: Six-session multi-component, intervention on school-related wellbeing, academic buoyancy, and adaptability. Aim at providing students with the opportunity to learn and practice personal resources required to be happy, healthy, and academically successful persons. BePART was delivered to all participants as part of their personal, social, and health education, lessons (these are compulsory lessons taken alongside the academic program of study). Delivered over six weeks; one hour-long lesson per week. Lessons delivered by college staff with a pastoral role who received training in the psychological principles underpinning the intervention as well as the delivery and use of materials

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Waiting list control (N = 271)

Brief name	Control
Rationale/theory/Goal	BePART incorporated elements of positive psychology (gratitude), mindfulness (how to down-regulate negative emotions and improve the quality of sleep), cognitive-behavioural therapy (how to reappraise negative and stressful events), and a focus on setting positive goals (drawing on elements of CBT and positive psychology); chosen to reflect perceived student needs in the college context, namely poor management of stress, giving up in the face of difficulty, poor sleep hygiene, and poor diet choices.
Materials used	BePART was delivered to all participants as part of their personal, social, and health education, lessons; college staff received training in the psychological principles underpinning the intervention as well as the delivery and use of materials; all staff received a common training pack consisting of a presentation slides and a manual; Students receive a information sheets, workbook for reflective exercises; 3 self-report outcome questionnaires: College-related wellbeing Loderer, Vogl, and Pekrun (2016); Academic buoyancy Martin and Marsh (2008); Adaptability Martin et al. (2012).
Procedures used	Intervention delivered in a Six-week block in the the spring term (Waiting list control); Self-report data were collected by college pastoral staff at baseline, post intervention arm completion and post waiting list control completion.
Provider	College staff with pastoral responsibility
Method of delivery	Classroom based delivered in PSHE lesson
Setting/location of intervention	Classroom
Intensity/duration of the intervention	six weeks; one hour-long lesson per week
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	668 pupils (total year 12 group) - 100%
Actual treatment fidelity	534/668 (79.94%) - 134 pupils declined to participate in the evaluation but still received the intervention
Other details	Not specified

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The wait-list intervention groups were delivered in a six-week block in the spring term, immediately following the Christmas break - no further details

D.1.64 Raes, 2014

Bibliographic Reference	Raes, Filip; Griffith, James W; Van der Gucht, Katleen; Williams, J. Mark G; School-based prevention and reduction of depression in adolescents: A cluster-randomized controlled trial of a mindfulness group program.; Mindfulness; 2014; vol. 5 (no. 5); 477-486
Secondary publication(s)	Van der Gucht, Katleen, Takano, Keisuke, Kuppens, Peter et al. (2017) Potential moderators of the effects of a school-based mindfulness program on symptoms of depression in adolescents. Mindfulness 8(3): 797-806

Study details

Study design	Cluster randomised controlled trial
Type of study	Efficacy
Trial registration number	NR
Aim	To conduct the first randomized controlled trial of the efficacy of a group mindfulness program aimed at reducing and preventing depression in an adolescent school-based population
Country/geographical location	Belgium
Type of school	Secondary education
Setting	Participating classes were from years 3 to 6 in secondary school, roughly referring to ages 14 to 17, a time that is characterized by the highest percentage of age at onset of first major depressive episode
UK Key stage	Key stage 3

Key stage 4

Post-16 |
| **Inclusion criteria** | NR |

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Exclusion criteria	NR
Method of randomisation	Randomization, using an online random number generator, was done by the first author who did not participate in the assessments and who had no contact with schools, classes, or students.
Method of allocation concealment	NR
Unit of allocation	Class
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: not reported. Intention to treat: Cases with missing data at T2 or T3 were still included in the analyses, which still allows for estimation of change over time with full maximum likelihood estimation
Attrition	At 6 months follow up the Missing data in the intervention group was n = 31 (15%), and in the control group it was Missing n = 32 (16%)
Study limitations (author)	• There was a disproportionately high percentage of females versus males in this study (see Table 1). Although we did not find a significant gender × condition interaction they may have lacked sufficient power to detect such effects • did not assess the fidelity of the intervention by recording (e.g., videotaping) the sessions and having the sessions coded. • Did not measure any psychotherapy process variables (e.g., how much homework was completed, what specific topics were discussed), • Control group did not receive any active ingredient of psychotherapy (e.g., attention, supportive listening). Thus, the mechanism by which the mindfulness intervention was effective is unclear.
Study limitations (reviewer)	• Lack of information on inclusion/exclusion criteria o Lack of information on statistical method
Source of funding	NR

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Study arms

MFS (N = 201)

12 classes/groups including 201 individuals randomized to the MFS condition

CON (N = 207)

12 classes/groups including 207 individuals randomized to the CON condition

Characteristics

Arm-level characteristics

Characteristic	MFS (N = 201)	CON (N = 207)
Females Nominal	131	119
Males Nominal	63	80

Outcomes

Study timepoints
- Baseline
- 6 month

Outcomes

Outcome	MFS, Baseline, N = 201	MFS, 6 month, N = 201	CON, Baseline, N = 207	CON, 6 month, N = 207
Emotional distress (0 - 100) Depression measured by DASS (self-report) Sample size	n = 194 ; % = 96.5	n = 167 ; % = 83.1	n = 199 ; % = 96.1	n = 168 ; % = 81.2
Emotional distress (0 - 100)	19.4 (16.6)	12.9 (17.3)	21.2 (19.2)	21 (21.3)

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Outcome	MFS, Baseline, N = 201	MFS, 6 month, N = 201	CON, Baseline, N = 207	CON, 6 month, N = 207
Depression measured by DASS (self-report) Mean (SD)				

Emotional distress - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - Depression - MFS vs Control - 6 months follow up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to lack of information on blinding and self-report data)*

Study arms

MFS (N = 201)

Brief name	Mindfulness intervention [P479].
Rationale/theory/Goal	The intervention was a mindfulness group training specifically developed for adolescents. It integrated elements of MBCT and MBSR [P479].
Materials used	The program included guided experiential mindfulness exercises (e.g., mindfulness of breathing, breathing space, body scan), sharing of experience of these exercises; reflections in small groups, inspiring stories; psycho-education (e.g., stress, depression, self-care), and review of homework. Homework assignments were 15 min of mindfulness practice each day, suggested reading, and weekly tips on how to bring mindfulness into daily life. Participants in this program received the book Mindfulness voor jongeren [Mindfulness for adolescents] for reviewing the material at home. For formal practice, the book comes with a double CD with mindfulness exercises and several sitting meditations. Participants were also encouraged to apply mindfulness throughout their daily lives. They received a workbook for making notes on their home practice; these notes are then used as input for discussion during the next group session.[P479].

Procedures used	Each session focused on a specific theme, and some exercises are repeated throughout the program. Sessions thematically focus on "attention to the breath and the moment" (session 1), "attention to the body and pleasant moments" (session 2), "attention to your inner boundaries and to unpleasant moments" (session 3), "attention to stress and space" (session 4), "attention to thoughts and emotion" (session 5), "attention to interpretations and communication" (session 6), "attention to your attitudes and your moods" (session 7), and "attention to yourself and your heartfulness" (session 8) [P479].
Provider	The three instructors, two men and one woman, were experienced mindfulness trainers; two of them were psychologists; one was a medical doctor. One of them, D. Dewulf, developed the mindfulness intervention and is the founder and chairman of the Institute for Attention and Mindfulness (I AM). The other two completed their mindfulness training at I AM. They had extensive experience with delivering the program to adults and adolescents and also have an ongoing personal mindfulness meditation practice [P479].
Method of delivery	See above
Setting/location of intervention	Classroom and home [P479].
Intensity/duration of the intervention	Each mindfulness session lasted 100 min, once a week for 8 weeks [P479].
Tailoring/adaptation	NR
Unforeseen modifications	NR
Planned treatment fidelity	NR
Actual treatment fidelity	NR
Other details	None to add

CON (N = 207)

Brief name	Control group [P479].
Rationale/theory/Goal	NA
Materials used	NA
Procedures used	Participants in the control groups followed their regular school program; no intervention or attention was provided to them [P479].
Provider	NA
Method of delivery	NA
Setting/location of intervention	NA
Intensity/duration of the intervention	NA
Tailoring/adaptation	NA
Unforeseen modifications	NA
Planned treatment fidelity	NA
Actual treatment fidelity	NA
Other details	None to add

D.1.65   Reiter, 2016

Bibliographic Reference	Reiter, Christina; Wilz, Gabriele; Resource diary: A positive writing intervention for promoting well-being and preventing depression in adolescence.; The Journal of Positive Psychology; 2016; vol. 11 (no. 1); 99-108

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Study details

Trial registration number	Not specified
Aim	To examine the effects of a resource diary as a positive writing intervention on well-being and depressive symptoms, as well as on resource realization and emotion regulation, for adolescents compared to active control.
Country/geographical location	Germany
Type of school	Secondary education
Setting	Middle school - mean age 12.17; range 13-15
UK Key Stage	Key stage 3 Key stage 4
Inclusion criteria	Not specified
Exclusion criteria	Not specified
Method of randomisation	Not specified - cluster randomization - classes randomly assigned to intervention or control
Method of allocation concealment	Not specified
Unit of allocation	Classes
Unit of analysis	Participant - post-hoc only
Statistical method(s) used to analyse the data	Binary logistic regression analysis, ANCOVA
Attrition	From randomization 77/144 participated and provided data across study arms (53% attrition from randomization)
Study limitations (author)	7 students drop out post completion of the pre-post measures due to incorrect completion indicates potential issues with intervention instructions and fidelity; Short follow-up may have meant that intervention efficacy could not properly be assessed; small sample size; generalizability of findings (3 schools from a German region)
Study limitations (reviewer)	Blinding and allocation concealment not specified; details regarding randomization method not specified; study attrition post-randomization >40%; no sample size or power calculation; participant schools volunteered potentially indicating higher levels

	of motivation; post-participant data only; no analysis of baseline characteristics across arms post-randomization so unclear if randomization was adequate.
Source of funding	Not specified

Study arms

Resource diary (N = 38)

Resource diary focused on Positive Psychology Interventions (PPIs) - semi-structured and consists of 12 questions. Students reply to two questions each day, on three consecutive days over the course of four weeks, such that the questions are repeated after two weeks. Participants were given the following instructions: 'In the next four weeks you will write a diary about events and moments of your life. The diary consists of 12 different questions. Please answer these questions on three consecutive days (e.g. from Monday to Friday) over a period of four weeks. You have to answer two questions per day. (six classes of 8th-form students from three schools volunteered to participate in this intervention programme)

Control (N = 39)

Active control designed according to Emmons and McCullough (2003) - a neutral writing condition, with the instruction to record five neutral events of the subject's life once a week over a period of four weeks. Participants were given the following instructions: 'What were some of the events that effected you in the past week? Think back over the past week and write down up to five events that had an impact on you.' (six classes of 8th-form students from three schools volunteered to participate in this intervention programme)

Characteristics

Study-level characteristics

Characteristic	Study (N = 77)
Age Mean (SD)	13.64 (0.58)
Gender % Male Nominal	35.1

Characteristic	Study (N = 77)
Ethnicity % German as first language Nominal	94.7

Outcomes

Study timepoints
- 5 week (Baseline assessments were undertaken but not outlined in the paper)

Behavioral outcome - well-being: self-esteem - BQW

Outcome	Resource diary, 5 week, N = 38	Control, 5 week, N = 39
Self-esteem Mean difference (Average treatment effect) and standard error (MD/SE) Custom value	0.06/0.14	0.06/0.14

Self-esteem - Polarity - Higher values are better

Bernese Questionnaire of subjective Well-being in youth (BQW) inventory includes six scales of subjective well-being: positive outlook on life, self-esteem, problems and worries, depressive mood, physical problems and happiness.

Emotional distress - Pyschosomatic symptoms of depression - DTK

Outcome	Resource diary, 5 week, N = 38	Control, 5 week, N = 39
Pyschosomatic symptoms of depression Mean difference (Average treatment effect) and standard error (MD/SE) Custom value	0.01/0.15	0.01/0.15

Pyschosomatic symptoms of depression - Polarity - Lower values are better

The Depression Test for Children (DTK) is a self-rating inventory that measures current depressive symptoms. The 55 questions are divided into three scales: dysphoria and low self-esteem, agitation, fatigue and other psychosomatic symptoms of depression.

Social and emotional skills - overcoming daily hassles - RES

Outcome	Resource diary, 5 week, N = 38	Control, 5 week, N = 39
overcoming daily hassles Mean difference (Average treatment effect) and standard error (MD/SE) Custom value	-0.13/0.15	-0.13/0.15

Adapted Berne Resource Inventory (RES); 53 items, divided into seven scales of resources: well-being, overcoming daily hassles, support in daily life, overcoming early crises, strengths and abilities, self-esteem, and current relationships.

Outcomes

Outcome	Control vs Resource diary, 5 week, N2 = 39, N1 = 38
Social and emotional skills Mean (SE)	-0.13 (0.15)
Emotional distress Using Psychosomatic symptoms of depression Mean (SE)	0.01 (0.15)
Behavioural outcomes Using Bernese Questionnaire of subjective Well-being in youth (BQW) Mean (SE)	0.06 (0.14)

Emotional distress - Polarity - Lower values are better

Behavioural outcomes - Polarity - Higher values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Behavioral outcome - BQW-Self-esteem -Resource diary vs Control - 5-week follow-up

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Serious concerns due to baseline differences and self-reported outcomes)*

Emotional distress - Psychosomatic symptoms of depression - DTK - Resource diary vs Control - 5-week follow-up

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Serious concerns due to baseline differences and self-reported outcomes)*

Social and emotional skills - overcoming daily hassles - RES - Resource diary vs Control - 5-week follow-up

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Serious concerns due to baseline differences and self-reported outcomes)*

Social and emotional skills - Resource diary vs Control - 5-week follow-up

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Serious concerns due to baseline differences and self-reported outcomes)*

Emotional distress - Resource diary vs Control - 5-week follow-up

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Serious concerns due to baseline differences and self-reported outcomes)*

Behavioural outcomes - Resource diary vs Control - 5-week follow-up

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Serious concerns due to baseline differences and self-reported outcomes)*

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Study arms

Resource diary (N = 38)

Brief name	Resource diary [page 102]
Rationale/theory/Goal	To promote positive mood through memories, reflection of personal emotions and recognition of personal resources. [page 102]
Materials used	Introductory session containing information about the study as well as a short exercise. [page 101] Diary and questions to be answered [page 102]
Procedures used	The resource diary is semi-structured and consists of 12 questions. Students reply to two questions each day, on three consecutive days over the course of four weeks, such that the questions are repeated after two weeks. A group of clinical psychologists and researchers of positive writing and resource activation created the questions for the resource diary. They aimed to enhance resource dimensions, for instance, well-being, personal strengths, self-esteem, supporting relationships and coping skills. [page 102]
Provider	Not reported
Method of delivery	Self-completed [page 102]
Setting/location of intervention	School [page 100]
Intensity/duration of the intervention	Four weeks [Abstract]
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

Control (N = 39)

Brief name	Neutral writing [Abstract]
Rationale/theory/Goal	Not reported
Materials used	Diary [page 101]
Procedures used	Students were asked to write about neutral life events [page 102]
Provider	Not clear
Method of delivery	Self-report [page 102]
Setting/location of intervention	School [page 101]
Intensity/duration of the intervention	Four weeks [Abstract]
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.66 Roberts, 2017

Bibliographic Reference	Roberts CM; Kane RT; Rooney RM; Pintabona Y; Baughman N; Hassan S; Cross D; Zubrick SR; Silburn SR; Efficacy of the Aussie Optimism Program: Promoting Pro-social Behavior and Preventing Suicidality in Primary School Students. A Randomised-Controlled Trial.; Frontiers in psychology; 2017; vol. 8

Study details

Study design	Cluster randomised controlled trial

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Type of study	Efficacy
Trial registration number	NR
Aim	The purpose of the current study was to evaluate the efficacy of two delivery strategies of the AOP: SLS and OTS programs in combination with the self-directed AOP for PF. The study employed two active implementation strategies and one usual care control condition, the regular Western Australian Health Education Curriculum
Country/geographical location	Australia
Type of school	Primary education Secondary education
Setting	Grade 6 students
UK Key stage	Key stage 2 Key stage 3
Inclusion criteria	NR
Exclusion criteria	NR
Method of randomisation	63 schools were stratified by SES1, school size, and the number of Grade 6 students, and randomly allocated to training only, training/coaching, and a usual care control condition such that there were 20, 22, and 21 schools in each condition, respectively. Method (i.e computer generated) not reported.
Method of allocation concealment	NR
Unit of allocation	School
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: not reported. Intention to treat: not reported
Attrition	The student cohort comprised 2288 students at pre-test (the beginning of Grade 6), of which 2259 responded at post-test 1 at the end of Grade 6 (1.22% attrition), 2227 at post-test 2 at the end

	of Grade 7 (2.62% attrition), and 2156 at the follow-up at the end of Grade 8 (5.73% attrition rate). At
Study limitations (author)	• No effects were found for internalizing problems or disorders, with effects being limited to pro-social behaviors and suicidality • More sensitive screening measures for internalising problems, such as the Child Depression Inventory (CDI, Kovacs, 1985) and the Spence Child Anxiety Scale (SCAS, Spence, 1998) could have been included, which may have increased the likelihood of finding significant effects for anxiety and depression outcomes in this sample • Study was limited to the investigation of a small number of internalizing disorders. o Study was further limited by the lack of measurement of externalizing problems and comorbid disorders. In addition, internalizing symptoms decreased in all groups over the period of the study. • As the intervention was conducted in natural settings, there is a possibility that the treatment—related improvements may be influenced by teacher allegiance effects.
Study limitations (reviewer)	• Lack of information on inclusion/exclusion criteria • Lack of information on statistical methods
Source of funding	The study was supported by grants from the Australian Research Council and the Mental Health Division of the Western Australian Department of Health.

Study arms

Training group only (N = 863)

Training/coaching group (N = 794)

Usual care control group (N = 630)

Outcomes

Study timepoints
• Baseline

- 12 month

Outcomes

Outcome	Training group only, Baseline, N = 863	Training group only, 12 month, N = 863	Training/coaching group, Baseline, N = 794	Training/coaching group, 12 month, N = 794	Usual care control group, Baseline, N = 630	Usual care control group, 12 month, N = 630
Behavioural Total difficulty score measured by the SDQ-S Sample size	n = 863 ; % = 100	n = 809 ; % = 93.7	n = 794 ; % = 100	n = 746 ; % = 94	n = 630 ; % = 100	n = 601 ; % = 95.4
Behavioural Total difficulty score measured by the SDQ-S Mean (SD)	10.94 (6.09)	9.54 (5.71)	10.95 (5.62)	8.73 (5.25)	11.09 (5.79)	9.43 (5.3)

Behavioural - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Behavioural outcomes - Training group only vs Training/coaching group vs control - 12 months follow up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Due to lack of information on blinding and self-report data)*

Study arms

Training group only (N = 863)

Brief name	Aussie Optimism Program (AOP) plus training [P1].
Rationale/theory/Goal	The programs aim to develop emotional, social and cognitive skills and strategies such as communication, decision-making, social awareness, self-management, coping and optimistic thinking, as competencies in these areas are associated with better mental health. The content of the AOP: SLS and OTS programs target social, emotional, and cognitive skills. The difference between the two versions is that one version involved coaching in addition to the standard training to help teachers implement the program with fidelity and to manage implementation issues with schools [P5].
Materials used	The modules include didactic information, interactive activities, games, co-operative learning tasks, Health and Physical Education cross-curriculum links, worksheets, and homework activities to help students generalize skills outside of the school setting. Each program includes a Student and Parent booklet to accompany the SLS and OTS content taught at school. The Student booklet consists of 10 modules and is structured with the following features to enhance the program implementation, i.e., (1) Resource sheets for some of the skill-based modules, (2) A practice exercise to generalize the skills at home and community settings beyond the classroom, (3) A key message and important points from each module, (4) A rating sheet to describe enjoyment and usefulness of the module, and (5) A skills checklist for students to reflect on and assess their understanding and skills learnt. In addition, the Parent booklet was used to inform parents of the program content and provide advice on how to support their child's use of the skills in the home environment [P5].
Procedures used	See above

Provider	Modules are designed for implementation by teachers with whole classes [P5].
Method of delivery	NR
Setting/location of intervention	Classroom [P4].
Intensity/duration of the intervention	The SLS and OTS programs each contain 10 60-min modules that can be incorporated into regular primary school classes for health education or personal development [P5].
Tailoring/adaptation	NA
Unforeseen modifications	NR
Planned treatment fidelity	Implementation of the SLS and OTS programs was measured by teacher log books, which recorded the number of implemented activities in each of the 20 modules. The log books were completed by teachers on a weekly basis. Each implemented activity was rated 0 (not completed), 1 (partially completed), and 2 (completed in full). Ratings were summed for each module and converted to a score out of 10. In addition, five student workbooks were randomly selected from each class to corroborate program implementation. These were coded using the same metric as before [P1392].
Actual treatment fidelity	NR
Other details	None to add

Training and coaching group (N = 794)

Brief name	Aussie Optimism Program (AOP) with teacher training plus coaching [P1].
Rationale/theory/Goal	The programs aim to develop emotional, social and cognitive skills and strategies such as communication, decision-making, social awareness, self-management, coping and optimistic thinking, as competencies in these areas are associated with better mental health. The content of the AOP: SLS and OTS programs target social, emotional, and cognitive skills. The difference between the two versions is that one version involved coaching in addition to the standard training to help teachers implement the program with fidelity and to manage implementation issues with schools [P5].

Materials used	The modules include didactic information, interactive activities, games, co-operative learning tasks, Health and Physical Education cross-curriculum links, worksheets, and homework activities to help students generalize skills outside of the school setting. Each program includes a Student and Parent booklet to accompany the SLS and OTS content taught at school. The Student booklet consists of 10 modules and is structured with the following features to enhance the program implementation, i.e., (1) Resource sheets for some of the skill-based modules, (2) A practice exercise to generalize the skills at home and community settings beyond the classroom, (3) A key message and important points from each module, (4) A rating sheet to describe enjoyment and usefulness of the module, and (5) A skills checklist for students to reflect on and assess their understanding and skills learnt. In addition, the Parent booklet was used to inform parents of the program content and provide advice on how to support their child's use of the skills in the home environment [P5].
Procedures used	While teachers in both intervention groups received program manuals, resources, and student workbooks, teachers in the training/coaching condition were able to additionally access up to 5 h of coaching per year to support them in program implementation. The coaching was provided by school psychologists who were accredited

trainers in AOP and had experience in school-based interventioN programs. Teachers in this condition accessed coaching at their own convenience for a variety of issues including: individualizing the program to meet the needs of their students, advice on how to implement certain activities and motivate students, advice on how to adapt the content for children with special needs, encouraging parent participation, and assistance with dealing with referrals for children with more serious problems [P6]. |
Provider	Modules are designed for implementation by teachers with whole classes [P5].
Method of delivery	NR
Setting/location of intervention	Classroom [P4].
Intensity/duration of the intervention	The SLS and OTS programs each contain 10 60-min modules that can be incorporated into regular primary school classes for health education or personal development [P5].
Tailoring/adaptation	Teachers in the coaching condition were able to access five 1-h coaching sessions per year. Coaching dealt with program content, implementation of activities, class and student issues, plus parent and ethical issues that arose during the implementation phase. It was expected that teachers who had access to additional coaching support would be better able to individualize the implementation of

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	the programs to meet the needs of the students. The coaching protocol included asking teachers what issues they wanted to discuss, supporting and praising their efforts with implementation and other issues, providing corrective feedback as required, and reviewing the teacher logbook for program implementation and process issues. In addition, coaches checked for any problems brought up by students or parents as a result of the AOP lessons [P4-5].
Unforeseen modifications	NR
Planned treatment fidelity	Implementation of the SLS and OTS programs was measured by teacher log books, which recorded the number of implemented activities in each of the 20 modules. The log books were completed by teachers on a weekly basis. Each implemented activity was rated 0 (not completed), 1 (partially completed), and 2 (completed in full). Ratings were summed for each module and converted to a score out of 10. In addition, five student workbooks were randomly selected from each class to corroborate program implementation. These were coded using the same metric as before [P1392].
Actual treatment fidelity	NR
Other details	None to add

Usual care control group (N = 630)

Brief name	Usual care condition that received the regular Western Australian Health Education Curriculum [P1]
Rationale/theory/Goal	NA
Materials used	NA
Procedures used	NA
Provider	NA
Method of delivery	NA
Setting/location of intervention	NA
Intensity/duration of the intervention	NA

Tailoring/adaptation	NA
Unforeseen modifications	NA
Planned treatment fidelity	NA
Actual treatment fidelity	NA
Other details	None to add

D.1.67   Roberts, 2010

Bibliographic Reference	Roberts, Clare M; Kane, Robert; Bishop, Brian; Cross, Donna; Fenton, Jamie; Hart, Bret; The prevention of anxiety and depression in children from disadvantaged schools.; Behaviour research and therapy; 2010; vol. 48 (no. 1); 68-73

Study details

Study design	Cluster randomised controlled trial
Type of study	Efficacy
Trial registration number	Not reported
Aim	To investigate the efficacy of the Aussie Optimism Program
Country/geographical location	Australia
Type of school	Secondary education
Setting	School
UK Key stage	Key stage 3
Inclusion criteria	School were included if they were in the lowest decile of socio-economic status

Exclusion criteria	None reported
Method of randomisation	Not reported
Method of allocation concealment	Not reported
Unit of allocation	Cluster (School)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation: Not reported Intention to treat: not reported A two-group (intervention versus control) ANCOVA for each outcome was conducted at each post-intervention assessment. In order to control for intra-school dependencies in the data, school was included as a nested factor.
Attrition	79 (28.8%) of the intervention group and 44 (19.8%) of the control group dropped out
Study limitations (author)	None reported
Source of funding	National Medical and Health Research Council, Save the Children Fund, Curtin University's Munja Festival Curtin University's Division of Health Sciences

Study arms

Aussie Optimism Program (AOP) (N = 274)

6 schools (clusters) including 274 individuals were randomised to the intervention group

Control group (N = 222)

6 schools (clusters) including 222 individuals were randomised to the control group

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Outcomes

Study timepoints
- Baseline
- 18 month (After intervention)

Outcomes

Outcome	Aussie Optimism Program (AOP), Baseline, N = 274	Aussie Optimism Program (AOP), 18 month, N = 274	Control group, Baseline, N = 222	Control group, 18 month, N = 222
Emotional distress - anxiety Using Reynolds Children's Manifest Anxiety Scale (self-report) Sample size	n = 237	n = 198	n = 191	n = 180
Emotional distress - anxiety Using Reynolds Children's Manifest Anxiety Scale (self-report) Mean (SD)	8.21 (6.65)	5.6 (5.85)	7.09 (6.53)	4.71 (4.74)
Emotional distress - depression Using Children's Depression Inventory (self-report) Sample size	n = 237	n = 199	n = 190	n = 180
Emotional distress - depression Using Children's Depression Inventory (self-report) Mean (SD)	4.91 (6.92)	6.66 (6.56)	7.78 (7.63)	6.29 (6.92)
Behavioural outcomes Using Child Behavior Checklist -	n = 135	n = 110	n = 102	n = 88

Outcome	Aussie Optimism Program (AOP), Baseline, N = 274	Aussie Optimism Program (AOP), 18 month, N = 274	Control group, Baseline, N = 222	Control group, 18 month, N = 222
Externalising (Parent report) Sample size				
Behavioural outcomes Using Child Behavior Checklist - Externalising (Parent report) Standardised Mean (SD)	9.48 (9.66)	7.23 (6.65)	9.89 (9.5)	8.11 (8.03)

Emotional distress - anxiety - Polarity - Lower values are better

Emotional distress - depression - Polarity - Lower values are better

Behavioural outcomes - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress-anxiety - Aussie Optimism Program (AOP) vs Control 18 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Emotional distress-depression - Aussie Optimism Program (AOP) vs Control - 18 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Behavioural outcomes- Aussie Optimism Program (AOP) vs Control - 18 month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Study arms

Aussie Optimism Program (AOP) (N = 274)

6 schools (clusters) including 274 were randomised to the intervention group

Control group (N = 222)

6 schools (clusters) including 222 individuals were randomised to the control group

Study arms

Aussie Optimism Program (AOP) (N = 274)

Brief name	Aussie Optimism Program [P70]
Rationale/theory/Goal	Aussie Optimism has two components. Social Life Skills (SLS) was developed to overcome interpersonal risks, such as poor social skills and social problem solving, lack of social support, and friendship difficulties. Optimistic Thinking Skills (OTS) targets cognitive vulnerabilities, including pessimistic attribution style, negative self-perceptions and future expectations. Rational problem solving and problem and emotion-focused coping are targeted to reduce stress. [P68]
Materials used	Program manuals, resources, and student workbooks [P70]
Procedures used	Ten intervention group teachers completed 16 hours of training, consisting of information on the symptoms and burden of anxiety and depression, mental health promotion strategies, activity demonstrations, skills practice and feedback, and discussion of implementation issues for individual classrooms. Teachers received eight 60-minute coaching sessions to support the

implementation. [P70] |
| **Provider** | Teachers [P70] |

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Method of delivery	The lessons included didactic information; interactive activities such as role-plays, games, and co-operative learning tasks; cross curriculum applications; worksheets; and homework activities to integrate skills into the home setting. [P70]
Setting/location of intervention	Taught at times convenient to the teachers [P70]
Intensity/duration of the intervention	Ten 60-minute lessons [P70]
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Program integrity was assessed by teacher logbooks, student workbook samples, and blind independent observations of three randomly selected lessons per teacher. [P70]
Actual treatment fidelity	The mean percentage of content covered for the Social Life Skills (SLS) lessons reported by teachers and cross checked against student workbooks ranged from 87.3% to 98.3% (M¼ 95.3%). [P71]
Other details	Each lesson related to interpersonal or self-management skills, consistent with the Western Australian Health Education Curriculum. Teachers implemented one module per week for 20 weeks. [P70]

6 schools (clusters) including 274 were randomised to the intervention group

Control group (N = 222)

Brief name	Control group [P70]
Rationale/theory/Goal	Not applicable
Materials used	Not applicable
Procedures used	Control group teachers implemented 20 regular health education lessons relating to self-management and interpersonal skills. They used a variety of resources, but the lessons had similar

learning outcomes as AOP. A 30-minute presentation on building resilience within the school curriculum was conducted for these teachers. Control group teachers received training and resources in Year 2 of the research project. [P70] |
Provider	Not applicable
Method of delivery	Not applicable
Setting/location of intervention	Not applicable
Intensity/duration of the intervention	Not applicable

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Tailoring/adaptation	Not applicable
Unforeseen modifications	Not applicable
Planned treatment fidelity	Not applicable
Actual treatment fidelity	Not applicable
Other details	None

6 schools (clusters) including 222 individuals were randomised to the control group

D.1.68 Rodgers, 2015

Bibliographic Reference	Rodgers, A.; Dunsmuir, S.; A controlled evaluation of the 'FRIENDS for life' emotional resiliency programme on overall anxiety levels, anxiety subtype levels and school adjustment; Child and Adolescent Mental Health; 2015; vol. 20 (no. 1); 13-19

Study details

Study design	Cluster randomised controlled trial
Type of study	Effectiveness
Trial registration number	Not reported
Aim	• To investigate the impact of the 'FRIENDS for Life' intervention, delivered in a school setting, on both 'overall anxiety' and anxiety subtypes. • To examine the dyadic agreement between child and parent ratings of the child's anxiety at different time points during the school-based intervention. • To examine the relationship between anxiety and school adjustment. • To explore whether the 'FRIENDS for Life' programme may indirectly improve school performance, social adjustment and school adjustment through reducing anxiety.
Country/geographical location	Ireland
Type of school	Secondary education

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Setting	Secondary schools
UK Key stage	Key stage 3
Inclusion criteria	First Year students (aged 12/13 years) in three secondary schools in a socially disadvantaged catchment area in a major city in Ireland
Exclusion criteria	Not reported
Method of randomisation	Not reported
Method of allocation concealment	Not reported
Unit of allocation	Cluster (school)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	- Power calculation: Power calculations based on a Cohen's d effect size of 0.72 (Cohen, 1988) indicated that with an alpha level of 0.05 a sample size of 50–64 would result in a power level of 80%. - Mixed design ANOVA was used the two study arms were subjected to repeated measures across three time points. - Pearson Correlation Coefficient was used to analyse positive and negative relationships. - Intention to treat: not reported
Attrition	Not reported
Study limitations (author)	- The three schools that participated in this study educated students from low socioeconomic backgrounds, which reduces generalisability of the results. - The statistical analysis was based on self-reported subjective interpretation of anxiety and school adjustment, which raises questions around the degree of accuracy of the self-reported measures.
Study limitations (reviewer)	No data on exclusion criteria, method of randomisation, method of allocation concealment and attrition
Source of funding	Not reported

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Study arms

FRIENDS for Life (N = 32)

3 schools (clusters) including 32 individuals

Waitlist control (N = 30)

3 schools (clusters) including 30 individuals

Characteristics

Study-level characteristics

Characteristic	Study (N = 62)
Age (years) Average age reported by school but not by study arm or overall study population Range	12 to 13

Arm-level characteristics

Characteristic	FRIENDS for Life (N = 32)	Waitlist control (N = 30)
Male Sample size	n = 10 ; % = 31.25	n = 9 ; % = 30
Female Sample size	n = 22 ; % = 68.75	n = 21 ; % = 70

Outcomes

Study timepoints
- 4 month (Follow-up)

Outcomes

Outcome	FRIENDS for Life, 4 month, N = 32	Waitlist control, 4 month, N = 30
Emotional distress (0-114) Anxiety measured using the Spence Children's Anxiety Scale (SCAS) (self-reported) Mean (SD)	12.06 (6.91)	16.16 (12.89)

Emotional distress - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - FRIENDS for Life vs control - 4 months follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Study arms

FRIENDS for Life (N = 32)

Brief name	FRIENDS for Life emotional resiliency programme. Page 14
Rationale/theory/Goal	Based on cognitive behavioural therapy (CBT) principles. Page 14
Materials used	Workbook exercises , role plays, games, activities, quizzes and homework tasks. Page 15
Procedures used	The programme has three main components based on CBT principles: • Learning/Behaviour. • Cognitive. • Physiological. Page 14 The first author completed a 1-day training session to be awarded 'group facilitator' status with the 'FRIENDS for Life' programme. Page 15
Provider	Group facilitator (first author) Page 15

Method of delivery	Face-to-face. Page 15
Setting/location of intervention	Social Personal and Health Education (SPHE) classes. Page 15
Intensity/duration of the intervention	10 weekly 60 min sessions. Page 15
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Random FRIENDS for Life sessions were videotaped. On viewing the sessions, a checklist indicating compliance with the manual content for these sessions was completed by a second trained researcher. Page 15
Actual treatment fidelity	The protocol integrity checks showed concordance between session and manual content (89%). Page 15

Waitlist control (N = 30)

Brief name	Waitlist control. Page 14
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	After assessment at 4 months follow-up, the control group received the 10 week FRIENDS for Life programme. Page 15
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported

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Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.69 Rooney, 2013

Bibliographic Reference	Rooney, R; Hassan, S; Kane, R; Roberts, CM; Nesa, M; Reducing depression in 9-10 year old children in low SES schools: a longitudinal universal randomized controlled trial; Behaviour research and therapy; 2013; vol. 51 (no. 12); 845-854
Secondary publication(s)	Johnstone, Julie, Rooney, Rosanna M, Hassan, Shari et al. (2014) Prevention of depression and anxiety symptoms in adolescents: 42 and 54 months follow-up of the Aussie Optimism Program-Positive Thinking Skills. Frontiers in psychology 5: 364
	Rooney, Rosanna M, Morrison, David, Hassan, Sharinaz et al. (2013) Prevention of internalizing disorders in 9-10 year old children: efficacy of the Aussie Optimism Positive Thinking Skills Program at 30-month follow-up. Frontiers in psychology 4: 988
	Tyson, Orla; Roberts, Clare M; Kane, Robert (2009) Can implementation of a resilience program for primary school children enhance the mental health of teachers?. Australian Journal of Guidance and Counselling 19(2): 116-130

Study details

Study design	Cluster randomised controlled trial
Type of study	Efficacy
Trial registration number	Not reported
Aim	To assess the efficacy of the revised The Aussie Optimism: Positive Thinking Skills Program (AOP-PTS) program in preventing anxiety and depressive disorders among children aged 9-10 years compared to a control group who receive their regular education program
Country/geographical location	Australia

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Type of school	Primary education
Setting	Twelve schools randomly selected from the largest and poorest schools in the districts of Swan and Canning, West Australia
UK Key stage	Key stage 2
Inclusion criteria	Students in Year 4
Exclusion criteria	No parental permission for their child to be involved in the study
Method of randomisation	Not reported
Method of allocation concealment	Not reported
Unit of allocation	Cluster (school)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	- Power calculation: Not reported - Intention to treat: Not reported - Psychometric data were analysed with multi-level mixed effects linear regression models. - Diagnostic Interview for Children and Adolescents, IV data was were analysed with multi-level mixed effects binary logistic regression. - SPSS's Generalised Linear Mixed Models reduces the impact of subject attrition on statistical power.
Attrition	Attrition of children by study arm at 18 month follow-up: - AOP-PTS: 409/467; 12.4% attrition - Control: 373/443; 15.8% attrition Attrition of children by study arm at 54 month follow-up reported by Johnstone et al. 2014: - AOP-PTS: 100/467; 78.6% attrition - Control: 80/443; 81.9% attrition Attrition of parents for the entire study population at 12 month follow-up: 485/617; 21.39% attrition

Study limitations (author)	• Lack of parental or teacher data to triangulate with the DICA-IV data from the children. • Incidence and recovery analyses of the DICA data had much less power than the analyses of the psychometric outcomes, possibly explaining lack of intervention effects for clinical depression, anxiety and internalising problems. • Lack of an attention placebo group means that children may have just been responding positively to the attention they received.
Study limitations (reviewer)	Lack of data on methods of randomisation and allocation concealment
Source of funding	Not reported

Study arms

The Aussie Optimism: Positive Thinking Skills Program (N = 467)

11 schools including 467 individuals

Control (N = 443)

11 schools including 443 individuals

Outcomes

Study timepoints
• 18 month (Follow-up)
• 54 month (Follow-up - reported in secondary publication Johnstone et al. 2014)

Outcomes

Outcome	The Aussie Optimism: Positive Thinking Skills Program, 18 month, N = 467	The Aussie Optimism: Positive Thinking Skills Program, 54 month, N = 467	Control, 18 month, N = 443	Control, 54 month, N = 443
Emotional distress - depression (0-52) Reported in Johnstone et al. 2014: Measured by the children's depression inventory (self-reported) Mean (SD)	7.58 (7.61)	6.98 (7.18)	7.2 (7.16)	5.86 (5.76)
Emotional distress - anxiety (0-114) Johnstone et al. 2014: Measured by the Spence Children's Anxiety Scale (self-reported) Mean (SD)	21.6 (15.56)	29.85 (11.18)	20.17 (14.3)	30.41 (10.45)
Social and emotional skills (0-10) Measured by Strength and Difficulties Parent Questionnaire-Social Skills (parent-reported) Mean (SD)	8.16 (1.72)	NR (NR)	8.02 (1.85)	NR (NR)

Emotional distress - depression - Polarity - Lower values are better

Emotional distress - anxiety - Polarity - Lower values are better

Social and emotional skills - Polarity - Higher values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress-depression - Aussie Optimism: Positive Thinking Skills Program vs Control - 54 months follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Social and emotional skills - Aussie Optimism: Positive Thinking Skills Program vs Control - 18 months follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Emotional distress-anxiety - Aussie Optimism: Positive Thinking Skills Program vs Control 54 months follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Study arms

The Aussie Optimism: Positive Thinking Skills Program (N = 467)

Brief name	The Aussie Optimism: Positive Thinking Skills Program (AOP-PTS). Page 847
Rationale/theory/Goal	Cognitive and behavioural intervention principles. Page 848
Materials used	Facilitator's manual and student workbook. Page 848
Procedures used	Program modules included: • Introduction and planning for fun activities • Identifying feelings and being BRAVE • Feelings, situations and thoughts • The thought feeling connection • Helpful and unhelpful thinking • Looking for evidence and thinking positively • Think before you sink • Challenging situations and thinking the worst • Best, worst and most likely outcomes • Being positive. Page 848
Provider	Facilitators (Year 4 classroom teachers) who had received eight hours of training in a workshop run by the Aussie Optimism Team. Page 848
Method of delivery	Face-to-face. Page 848

Setting/location of intervention	Classroom. Page 848
Intensity/duration of the intervention	Ten weekly 60-min sessions. Page 848
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	- Teachers implementing the program received supervision and support from the program developers. - Implementation of the program was assessed by teacher logs, including checklists to monitor program integrity. - A random selection of 25% of each teacher's sessions was observed by trained research assistants. - A random sample of student workbooks and interviews were assessed at the end of the program implementation. Page 848
Actual treatment fidelity	88.46% of teacher log checklists were completed. - Integrity check data indicated that the mean percentage of content covered across all 10 sessions was 95.60% (SD = 5.31%). - Each student completed an average of 9 sessions (M = 9.03; SD = 2.143). Page 848

Control (N = 443)

Brief name	Regular education program. Page 846
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Not reported
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported

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Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.70   Rose, 2014

Bibliographic Reference	Rose, K; Hawes, DJ; Hunt, CJ; Randomized controlled trial of a friendship skills intervention on adolescent depressive symptoms; Journal of consulting and clinical psychology; 2014; vol. 82 (no. 3); 510-520

Study details

Study design	Cluster randomised controlled trial
Study type	Effectiveness
Trial registration number	Not reported
Study start date	2008
Study end date	2009
Aim	To evaluate the effectiveness of a friendship-building skills program—the Peer Interpersonal Relatedness (PIR) program—in producing larger effects when used in conjunction with RAP
Country/geographical location	Australia
Type of school	Secondary education

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Setting	Independent and Catholic schools in the local metropolitan area of Sydney
UK Key Stage	Key stage 2 Key stage 3
Inclusion criteria	Parental and student consent to participate in the study
Exclusion criteria	Not reported
Method of randomisation	Randomisation was conducted within schools so that within each school, classes were randomly assigned across the three conditions. No further details are reported.
Method of allocation concealment	Not reported
Unit of allocation	Cluster (class)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• Power calculation: Power analyses based on an effect size change of 0.20 would have required a sample size of over 300 students to be retained in each condition. • Cronbach's alpha values and means and standard deviations were found for each outcome measure. • Analyses of variance (ANOVAs) were used to determine the presence of significant differences between conditions on any of the measures or for age at baseline. • Chi-square tests was used to determine the presence of significant differences between conditions for sex and ethnicity. • HLM 6 hierarchical linear modelling software was used to determine the intraclass correlation coefficient ICC value for each outcome variable (2.21%). • Missing values were not imputed, as Level 1 hierarchical linear modelling can accommodate missing data. • Assessment of treatment integrity was conducted within the research team and therefore would not have been immune from potential therapy allegiance effects. • Group facilitators were involved in the adolescent assessments, potentially causing the adolescents to report more positively than they might otherwise have done.
Attrition	Attrition by study arm at 12 month follow-up: • RAP-PIR: 63/104; 39.4% attrition • RAP-placebo: 62/100; 38% attrition • Control: 79/165; 52.1% attrition

Study limitations (author)	• Small sample size meant that there was not sufficient power to detect significant between-group differences that would be expected on the basis of previous universal trials. • In the absence of a PIR–placebo condition, it is impossible to tell if the PIR itself or the RAP–PIR interaction was responsible for the effects. • School or classroom effects may have differed had students been recruited from schools drawing from lower socioeconomic status areas, as differences in resources might have an impact on the PIR program. • A high amount of missing data from parents lead to the exclusion of parent reports, meaning findings were reliant on adolescent self-report. • Depressive diagnosis was only measured at Time 4, meaning it is difficult to interpret these results without knowledge of diagnostic status at earlier timepoints. • Results might have differed had more experienced therapists or school staff been trained to implement the program.
Study limitations (reviewer)	Lack of data on exclusion criteria and method of allocation concealment. Lack o detail on method of randomisation.
Source of funding	Supported in part by a National Health and Medical Research Council postgraduate scholarship

Study arms

Resourceful Adolescent Programme-Peer Interpersonal Relatedness (RAP-PIR) (N = 104)

4 classes including 104 individuals (RAP followed by PIR)

Resourceful Adolescent Programme-placebo (N = 100)

4 classes including 100 individuals (RAP followed by placebo)

Control (N = 165)

6 classes including 165 individuals

Characteristics

Study-level characteristics

Characteristic	Study (N = 369)
Age (years) Range	9 to 14
Age (years) Sample size	n = 210 ; % = 56.9
Age (years) Mean (SD)	12.22 (0.77)
Gender Sample size	n = 210 ; % = 56.9
Male Sample size	n = 117 ; % = 56
Female Sample size	n = 93 ; % = 44
Ethnicity Sample size	n = 210 ; % = 56.9
Caucasian Sample size	n = 136 ; % = 64.8
Asian Sample size	n = 36 ; % = 17.1
Mediterranean Sample size	n = 24 ; % = 11.4
Middle Eastern Sample size	n = 7 ; % = 3.3

Outcomes

Study timepoints
- 12 month (Follow-up (referred to as Time 4 in the publication))

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Outcomes

Outcome	Resourceful Adolescent Programme-Peer Interpersonal Relatedness (RAP-PIR), 12 month, N = 104	Resourceful Adolescent Programme-placebo, 12 month, N = 100	Control, 12 month, N = 165
Emotional distress - depression (0-54) Measured by Children's Depression Inventory (CDI) (self-reported) Sample size	n = 60 ; % = 57.7	n = 53 ; % = 53	n = 74 ; % = 44.8
Emotional distress - depression (0-54) Measured by Children's Depression Inventory (CDI) (self-reported) Mean (SD)	6.62 (9.14)	6.28 (6.74)	6.65 (7.74)
Quality of life (1-6) Measured by Multidimensional Students' Life Satisfaction Scale (MSLSS) (self-reported) Sample size	n = 60 ; % = 57.7	n = 53 ; % = 53	n = 74 ; % = 44.8
Quality of life (1-6) Measured by Multidimensional Students' Life Satisfaction Scale (MSLSS) (self-reported) Mean (SD)	4.58 (1.18)	4.34 (1.07)	4.52 (0.98)

Emotional distress - depression - Polarity - Lower values are better

Quality of life - Polarity - Higher values are better

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Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - depression - Resourceful Adolescent Programme - Peer Interpersonal Relatedness (RAP-PIR) vs Resourceful Adolescent Programme-placebo vs Control - 12-month follow-up

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Serious concerns due to missing outcome data and self-reported outcomes)*

Quality of life - Resourceful Adolescent Programme-Peer Interpersonal Relatedness (RAP-PIR) vs Resourceful Adolescent Programme-placebo vs Control - 12-month follow-up

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(Serious concerns due to missing outcome data and self-reported outcomes)*

Study arms

Resourceful Adolescent Programme-Peer Interpersonal Relatedness (RAP-PIR) (N = 104)

Brief name	Resourceful Adolescent Programme-Peer Interpersonal Relatedness (RAP-PIR). Page 512
Rationale/theory/Goal	RAP is based on cognitive behaviour therapy and interpersonal psychotherapy principles. Page 512 PIR: Not reported
Materials used	Detailed session-by-session group leader manuals and participant workbooks. Page 512
Procedures used	RAP weekly program sessions: 1. Getting to know you 2. Building self-esteem 3. The RAP model 4. Keeping calm 5. Self-talk 6. Thinking resourcefully 7. Finding solutions to problems 8. Identifying and accessing support networks 9. Considering the other person's perspective 10. Keeping and making the peace at home

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	11. Putting it all together PIR weekly program sessions: 1. The importance of friendships 2. What our peers look for in a friend 3. Social skills training 4. Sending out invitations for friendship 5. Making friendships last 6. Be a friend to ourselves 7. Resolving conflicts with friends 8. Dealing with bullying 9. Review and goals for future. Page 512
Provider	Groups were facilitated by graduate students (all provisionally registered psychologists) enrolled in doctoral-level clinical training and thus were external to the schools. Page 512
Method of delivery	Face-to-face. Page 512
Setting/location of intervention	Classroom. Page 512
Intensity/duration of the intervention	RAP: 11 weekly 40–50 min sessions PIR: 9 weekly 40–50 min sessions. Page 512
Tailoring/adaptation	No deviations from the manualised programs were observed. Page 512
Unforeseen modifications	Not reported
Planned treatment fidelity	• Psychologists were trained in the intervention they facilitated • Weekly supervision was provided and direct observed observation of 20% of group sessions. A further random 20% of sessions were been tape recorded and assessed by either Kirsten Rose or Caroline J. Hunt. Page 512
Actual treatment fidelity	No deviations from the manualised programs were observed. Page 512

Resourceful Adolescent Programme-Peer Interpersonal Relatedness-placebo (RAP-placebo) (N = 100)

Brief name	Resourceful Adolescent Programme-Peer Interpersonal Relatedness-placebo (RAP-placebo). Page 512
Rationale/theory/Goal	RAP is based on cognitive behaviour therapy and interpersonal psychotherapy principles. Page 512 Placebo: Not reported
Materials used	Detailed session-by-session group leader manuals and participant workbooks. Page 512
Procedures used	RAP weekly program sessions: 1. Getting to know you 2. Building self-esteem 3. The RAP model 4. Keeping calm 5. Self-talk 6. Thinking resourcefully 7. Finding solutions to problems 8. Identifying and accessing support networks 9. Considering the other person's perspective 10. Keeping and making the peace at home 11. Putting it all together Placebo 1. Getting to know you 2. Relaxation activity 3. Discussion: Starting high school 4. Discussion: Homework 5. Discussion: Balancing leisure and work 6. Relaxation activity 7. Discussion: Resisting peer pressure 8. Discussion: Cyberspace 1. Review. Page 512
Provider	Groups were facilitated by graduate students (all provisionally registered psychologists) enrolled in doctoral-level clinical training and thus were external to the schools. Page 512
Method of delivery	Face-to-face. Page 512
Setting/location of intervention	Classroom. Page 512

Intensity/duration of the intervention	RAP: 11 weekly 40–50 min sessions Placebo: 9 weekly 40–50 min sessions. Page 512
Tailoring/adaptation	No deviations from the manualised programs were observed. Page 512
Unforeseen modifications	Not reported
Planned treatment fidelity	• Psychologists were trained in the intervention they facilitated • Weekly supervision was provided and direct observed observation of 20% of group sessions. A further random 20% of sessions were been tape recorded and assessed by either Kirsten Rose or Caroline J. Hunt. Page 512
Actual treatment fidelity	No deviations from the manualised programs were observed. Page 512

Control (N = 165)

Brief name	Control. Page 512
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Usual pastoral care activities. Page 512
Provider	Teacher. Page 512
Method of delivery	Face-to-face. Page 512
Setting/location of intervention	Classroom. Page 512
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported

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Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.71 Ross, 2012

Bibliographic Reference	Ross, Steven; Sheard, Mary; Cheung, Alan; Elliott, Louise; Slavin, Robert; Promoting primary pupils' social-emotional learning and pro-social behaviour: Longitudinal evaluation of the Together 4 All Programme in Northern Ireland; Effective Education; 2012; vol. 3; 1-21

Study details

Study design	Cluster randomised controlled trial
Trial registration number	Not reported
Aim	To assess the effectiveness of the Together 4 All intervention on children's pro-social behaviours, mutual respect and understanding and ability to recognise, express and deal constructively with feelings.
Country/geographical location	UK
Type of school	Primary education
Setting	School
UK Key Stage	Key stage 1 Key stage 2
Inclusion criteria	None reported
Exclusion criteria	None reported
Method of randomisation	Not reported

Method of allocation concealment	Not reported
Unit of allocation	Cluster (School)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Power calculation not reported. Planned to use a hierarchical linear model to account for nested nature of the data, however power to detect treatment differences was too small due to small sample size (6 schools per group) so data cluster at student level. Missing data were few and so not imputation used
Attrition	Not reported
Study limitations (author)	None reported
Study limitations (reviewer)	Lack of detail on methodology and preliminary findings nature of results
Source of funding	None reported

Study arms

PATHS - Together 4 All (N = 6)

6 schools (N per arm not reported)

Usual practice (N = 6)

6 schools (N per arm not reported)

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Characteristics

Study-level characteristics

Characteristic	Study (N = 1448)
Age

Range | 4 to 5 |

Outcomes

Study timepoints
- 1 year

Outcomes

Outcome	PATHS - Together 4 All vs Usual practice, 1 year, N2 = NR, N1 = NR
Social and emotional skills
Reported as Factor 1 (Empathy, coping and co-operation)

Custom value | ES = +0.37 |
| **Emotional distress - Mental health symptoms**
Reported as Lack of negative affect

Custom value | ES = +0.27 |

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Outcomes-Socialandemotionalskills-CustomValue0-PATHS - Together 4 All-Usual practice-t1

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High
(No blinding or allocation concealment outlined; lack of details/no information regarding procedures; Unclear how clustering was accounted for)

Section	Question	Answer
Overall bias and Directness	Overall Directness	Directly applicable

Outcomes-Emotionaldistress-Mentalhealthsymptoms-CustomValue0-PATHS - Together 4 All-Usual practice-t1

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(No blinding or allocation concealment outlined; lack of details/no information regarding procedures; Unclear how clustering was accounted for)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

PATHS - Together 4 All (N = 6)

Brief name	Together 4 all [page 63]
Rationale/theory/Goal	Based on socio-cultural perspective that a child can learn desirable social practices from teachers, parents and othe rsignificnat adults [page 63]
Materials used	Lesson materials, manual , poster, puppets [page 14, Main report]
Procedures used	Not clear
Provider	Teacher [page 63]
Method of delivery	Classroom lesson [page 63]
Setting/location of intervention	School [page 63]
Intensity/duration of the intervention	Twice a week for 20 minutes [page 64]
Tailoring/adaptation	Adapted to local context in terms of language and culturally appropriate literature an dthemes [page 64]

Unforeseen modifications	Not reported
Planned treatment fidelity	Assessed T4A coaches' reports from support visits, principals' perceptions, teachers' perceptions, and T4A co-ordinators' perceptions. [page 10, Main report]
Actual treatment fidelity	Implementation is fairly strong in all six Cohort 1 schools [page 32 Main reported]

Usual Practice (N = 6)

Brief name	Personal Development Mutual Understanding [page 64]
Rationale/theory/Goal	Aims to develop children's prosocial skills and mutual understanding. [page 73, Mian report]
Materials used	Not reported
Procedures used	Not reported
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.72 Ruini, 2009

Bibliographic Reference	Ruini, Chiara; Ottolini, Fedra; Tomba, Elena; Belaise, Carlotta; Albieri, Elisa; Visani, Dalila; Offidani, Emanuela; Caffo, Ernesto; Fava, Giovanni A; School intervention for promoting psychological well-being in adolescence.; Journal of behavior therapy and experimental psychiatry; 2009; vol. 40 (no. 4); 522-32

Study details

Trial registration number	Not specified
Aim	Test the efficacy of a new school program for the promotion of psychological well-being compared to an attention-placebo intervention in a high school setting.
Country/geographical location	Italy
Type of school	Secondary education
Setting	Eight classes attending the first year of high school (9th grade) and one class attending the second year (10th grade)
UK Key Stage	Key stage 4
Inclusion criteria	Not specified
Exclusion criteria	Not specified
Method of randomisation	The classes (and not the single students) were randomly assigned - no further details
Method of allocation concealment	Not specified
Unit of allocation	Class
Unit of analysis	Participant
Statistical method(s) used to analyse the data	Differences between groups at baseline were analyzed with Student's t Test for independent or Chi Square; Efficacy of the two interventions was compared using a repeated measure analysis of variance
Attrition	AP - 0% attrition from randomisation to end of study analysis (98/98 provided pre and post data)

	WBI - 19% attrition from randomisation to end of study analysis (104/129 provided pre and post data)
Study limitations (author)	The limited number of sessions in each intervention (6 sessions, once a week); the sample characteristics (self-selected school students of only one high school in Northern Italy, with no particular physical or mental problems); assessment based on self-rating scales only.
Study limitations (reviewer)	No blinding or allocation concealment outlined (or methods outlined to mitigate potential impacts of the absence of these processes); Details regarding randomisation process is not specified; Statistically significant difference at baseline between arms post randomisation - WBT group significantly higher levels of SQ somatization, SQ physical well-being (i.e., the higher the score, the higher the distress), and RCMAS physiological anxiety compared to attention-placebo group (p< 0.05), higher percentage of females compared to the attention-placebo group (p < 0.05); At follow-up WBT group consisted of 104 students, instead of 129 (one class was missing due to no data provided).
Source of funding	supported by a grant from Fondazione Cassa di Risparmio di Cesena and SOS Telefono Azzurro Bologna

Study arms

WBI (N = 129)

Well-Being intervention - WBI (5 classes): six, two hour sessions, which were held once a week in the class, where role-playing and group discussions were performed: 1) students were trained to identify, recognize and express a wide range of emotions (positive and negative) and they were asked to relate different colors or different animals to different emotions for helping them realize the variety of emotions they can feel and how all these emotions can influence their behavior. Then students were trained to recognize emotions by face expressions or body gestures, and through role-playing were asked to communicate their emotions to the class in an assertive way. 2) Students were trained to self-observation in a diary and were asked to report their daily situations (at school, with friends, with parents) for helping them realize that the way they interpret situations can influence their emotions. 3) based on cognitive restructuring according to CBT model (Beck et al., 1979) and was performed through role-playings and games in the class. Students were taught to identify and differentiate between negative thoughts and helpful thoughts, taking as examples their daily activities. They were instructed to recognize their cognitive errors and to correct them with alternative, more positive interpretations. The group format allowed an immediate feedback to each individual. The last three sessions (4,5 & 6) were the novel and based on Ryff's (1989) model of well-being , encompassing six dimensions: autonomy, environmental mastery, positive interpersonal relationships, personal growth, purpose in life and self-acceptance.

AP (N = 98)

Attention-placebo - AP (4 classes): six, two hour sessions, which were held once a week in the class, where role-playing and group discussions were performed - first session, students were trained to identify, recognize and express a wide range of emotions (positive and negative) and they were asked to relate different colors or different animals to different emotions for helping them realize the variety of emotions they can feel and how all these emotions can influence their behavior. Then students were trained to recognize emotions by face expressions or body gestures, and through role-playing were asked to communicate their emotions to the class in an assertive way.

Characteristics

Study-level characteristics

Characteristic	Study (N = 227)
Ethnicity Nominal	NR

Arm-level characteristics

Characteristic	WBI (N = 129)	AP (N = 98)
Age Mean (SD)	14.47 (0.77)	14.32 (0.55)
Gender % Male Nominal	32.3	46.9

Outcomes

Study timepoints
- Baseline
- 6 week (re-test)
- 6 month (follow-up)

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Outcomes

Outcome	WBI, Baseline, N = 129	WBI, 6 week, N = 129	WBI, 6 month, N = 129	AP, Baseline, N = 98	AP, 6 week, N = 98	AP, 6 month, N = 98
Social and emotional skills Using Total PWB score Mean (SD)	79.47 (12.13)	80.63 (11.11)	80.06 (12.2)	80.41 (12.45)	79.1 (13.6)	79.94 (13.31)
Emotional distress Using the Revised Children's Manifest Anxiety Scale Mean (SD)	10.39 (5.52)	9.84 (5.85)	9.66 (5.47)	9.32 (4.86)	9.05 (5.68)	8.9 (5.93)

Social and emotional skills - Polarity - Higher values are better

Emotional distress - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Social and emotional skills Using Total PWB score_WBI_AP_6wk

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(No blinding or allocation concealment outlined; Randomisation method not outlined; clustering not accounted for in analysis; self-report measures used (unclear if this is teacher or student led); Significant differences in baseline charateristics post-randomisation which may impact the efficacy of treatment)*
Overall bias and Directness	Overall Directness	Directly applicable

Social and emotional skills Using Total PWB score_WBI_AP-t6m

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(No blinding or allocation concealment outlined; Randomisation method not outlined; clustering not accounted for in analysis; self-report measures used (unclear if this is teacher or student led); Significant differences in baseline charaterics post-randomisation which may impact the efficacy of treatment)*
Overall bias and Directness	Overall Directness	Directly applicable

Outcomes-Emotionaldistress-MeanSD-WBI-AP_6wk

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(No blinding or allocation concealment outlined; Randomisation method not outlined; clustering not accounted for in analysis; self-report measures used (unclear if this is teacher or student led); Significant differences in baseline charaterics post-randomisation which may impact the efficacy of treatment)*
Overall bias and Directness	Overall Directness	Directly applicable

Outcomes-Emotionaldistress-MeanSD-WBI-AP-t6m

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	High *(No blinding or allocation concealment outlined; Randomisation method not outlined; clustering not accounted for in analysis; self-report measures used (unclear if this is teacher or student led); Significant differences in baseline charaterics post-randomisation which may impact the efficacy of treatment)*
Overall bias and Directness	Overall Directness	Directly applicable

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Study arms

WBI (N = 129)

Brief name	Well-being intervention [Abstract]
Rationale/theory/Goal	Based on Ryff's model of psychological well-being, encompassing autonomy, personal growth, environmental mastery, purpose in life, positive relations and self-acceptance best represents this eudaimonic perspective. [page 523]
Materials used	Role-playing and group discussions [page 524]
Procedures used	The first session was based on recognition of different emotions and improvement of team work in classes. The second focused on the relationship between thoughts and emotions, according to the cognitive model, the third session was based on cognitive restructuring and the last three sessions were based on Ryff's model of well-being. [page 524]
Provider	Clinical psychologist [page 524]
Method of delivery	Classroom lesson [page 524]
Setting/location of intervention	School [page 524]
Intensity/duration of the intervention	Six, two hour sessions, held once a week [page 524]
Tailoring/adaptation	Not reported
Unforeseen modifications	None reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

Attention placebo (N = 98)

Brief name	Attention placebo [Abstract]
Rationale/theory/Goal	
Materials used	Group discussions, games and role-playing [page 526]

Procedures used	The first session was based on recognition of different emotions and improvement of team work in classes. Students were taught also some relaxation techniques, the second session was focused on the recognition of the physical components of different emotions, the third was focused on structured relaxation for helping students dealing with these physical symptoms and the last three sessions were addressed to improving communication and conflicts in the class. [page 526]
Provider	Clinical psychologist [page 524]
Method of delivery	Classroom lesson [page 524]
Setting/location of intervention	School [page 524]
Intensity/duration of the intervention	Six, two hour sessions, which were held once a week in the class. [page 524]
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.73   Salmoirago-Blotcher, 2019

Bibliographic Reference	Salmoirago-Blotcher, Elena; Druker, Susan; Meleo-Meyer, Florence; Frisard, Christine; Crawford, Sybil; Pbert, Lori; Beneficial Effects of School-based Mindfulness Training On Impulsivity in Healthy Adolescents: Results From a Pilot Randomized Controlled Trial.; Explore (New York, N.Y.); 2019; vol. 15 (no. 2); 160-164
Secondary publication(s)	Salmoirago-Blotcher, E., Druker, S., Frisard, C. et al. (2018) Integrating mindfulness training in school health education to promote healthy behaviors in adolescents: Feasibility and preliminary effects on exercise and dietary habits. Preventive Medicine Reports 9: 92-95
	Salmoirago-Blotcher, Elena, Druker, Sue, Meyer, Florence et al. (2015) Design and methods for "Commit to Get Fit" - a pilot study of a school-

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based mindfulness intervention to promote healthy diet and physical activity among adolescents. Contemporary clinical trials 41: 248-58

Study details

Study design	Cluster randomised controlled trial
Trial registration number	Clinicaltrials.gov NCT01975896
Study start date	2014
Study end date	2015
Aim	Preliminary estimates of effect of mindfulness training integrated in standard high school health education on impulsivity
Country/geographical location	USA
Type of school	Secondary education
Setting	High School (9th Grade)
UK Key Stage	Key stage 3 Key stage 4
Inclusion criteria	9th graders and English-speaking - Enrollment in the study will be on a "first come, first served" basis; namely, students returning consent/assent forms first will be enrolled until we reach our planned sample size
Exclusion criteria	Not specified
Method of randomisation	Random number generator in SAS version 9.4
Method of allocation concealment	Not specified
Unit of allocation	School
Unit of analysis	School
Statistical method(s) used to analyse the data	Between group differences in change from baseline impulsivity were estimated using linear mixed models with a random effect for class to account for clustering by school.

	Between group differences in impulsivity were estimated using Beckett's method to minimize floor or ceiling effects.
Attrition	53/201 (74% invited did not participate) of those invited enrolled and completed intervention
Study limitations (author)	Small sample size (n=27); use of a quasi-experimental design; did not include an active comparison condition; sample from a small geographical location; employing mindfulness instructors outside of the school setting to deliver MT may limit the scalability of this approach;
Study limitations (reviewer)	Lack of details regarding allocation concealment and blinding protocols; generalisability of findings; Unclear if analysis of baseline differences was undertaken there is quite a large difference between female % across study arms (difference of 26.5%); Attrition from recruitment to completion is >75%
Source of funding	Funded by a grant from the National Institutes of Health (R21 HL119665)

Study arms

School-based health education plus mindfulness training (HE-MT) (N = 30)

Students received one 45-min health education session for four days/week for two consecutive weeks delivered by the regular health education (HE) teachers - based on the standard curriculum for Massachusetts high schools enriched with materials from current guidelines plus one 45-min session of mindfulness training (MT) per week for 8 weeks, delivered by a certified mindfulness instructor trained at the Center for Mindfulness, University of Massachusetts Medical School. The curriculum was based on the standard Mindfulness-Based Stress Reduction (MBSR) program, adapted to the needs of adolescents. (1 school, 30 pupils)

School-based health education plus Attention control (HE-AC) (N = 23)

Students received one 45-min health education session for four days/week for two consecutive weeks delivered by the regular health education (HE) teachers - based on the standard curriculum for Massachusetts high schools enriched with materials from current guidelines plus one 45-min "attention control" session/week for 8 weeks - added to control for the mindfulness intervention. (1 school, 23 pupils)

Characteristics

Arm-level characteristics

Characteristic	School-based health education plus mindfulness training (HE-MT) (N = 30)	School-based health education plus Attention control (HE-AC) (N = 23)
Age (years) Mean (SD)	14.6 (0.3)	14.5 (0.4)
Gender (% Female) Nominal	70	43.5
Ethnicity (% White) Nominal	66.7	52.2
Barratt Impulsivity scores Mean (SD)	51.9 (6.8)	52.2 (8.1)

Outcomes

Study timepoints
- 8 week (End of treatment)
- 6 month (Post intervention follow-up)

Barratt Impulsiveness Scale (BIS)

Outcome	School-based health education plus mindfulness training (HE-MT) vs School-based health education plus Attention control (HE-AC), 8 week, N2 = 30, N1 = 23	School-based health education plus mindfulness training (HE-MT) vs School-based health education plus Attention control (HE-AC), 6 month, N2 = 30, N1 = 23
Impulsivity Mean (SE)	-3.06 (2.3)	-2.89 (2.23)

Impulsivity - Polarity - Lower values are better

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Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

BarrattImpulsivenessScale(BIS)-Impulsivity-MeanSE-School-based health education plus mindfulness training (HE-MT)-School-based health education plus Attention control (HE-AC)-t8

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low *(The lack of clarity regarding blinding and allocation concealment for those delivering interventions and the lack of clarity regarding who collected the data is not though to influence intervention outcomes)*
Overall bias and Directness	Overall Directness	Directly applicable

BarrattImpulsivenessScale(BIS)-Impulsivity-MeanSE-School-based health education plus mindfulness training (HE-MT)-School-based health education plus Attention control (HE-AC)-t6

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low *(The lack of clarity regarding blinding and allocation concealment for those delivering interventions and the lack of clarity regarding who collected the data is not though to influence intervention outcomes)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

School-based health education plus mindfulness training (HE-MT) (N = 30)

Brief name	Health education plus mindfulness training
Rationale/theory/Goal	Estimate the effect of school-based mindfulness training on impulsivity among adolescents

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Materials used	Health education teacher delivered Massachusetts standard curriculum; Certified mindfulness instructor delivered standard Mindfulness-Based Stress Reduction (MBSR) program, adapted to the needs of adolescents; Research Electronic Data capture (REDCap) technology; Barratt Impulsiveness Scale (BIS);
Procedures used	Recruitment and randomisation undertaken; Interventions were delivered during the time allocated for health education classes at each school; all students received the study interventions but only those who provided assent and parental consent completed study assessments and received study stipends; Students received one 45-min health education session for four days/week for two consecutive weeks plus one 45-min session of MT per week for 8 weeks; assessment conducted at school at baseline, end of treatment (EOT), and 6 months after EOT
Provider	Regular health education teachers at each school; certified mindfulness instructor trained at the Center for Mindfulness, University of Massachusetts Medical School
Method of delivery	Face to face in classrooms
Setting/location of intervention	School classroom
Intensity/duration of the intervention	Students received one 45-min health education session for four days/week for two consecutive weeks plus one 45-min session of MT per week for 8 weeks
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	Mindfulness sessions were digitally recorded and a random selection of 10% of all recordings was audited; health education teachers used a structured checklist to record whether or not planned topics were discussed during each session.
Actual treatment fidelity	Retention at intervention completion and at 6 months of follow-up was 100%. Class attendance was 96%.
Other details	Not reported

Students received one 45-min health education session for four days/week for two consecutive weeks delivered by the regular health education (HE) teachers - based on the standard curriculum for Massachusetts high schools enriched with materials from current guidelines plus one 45-min session of mindfulness training (MT) per week for 8 weeks, delivered by a certified mindfulness instructor trained at the Center for Mindfulness, University of Massachusetts Medical School. The curriculum was based on the standard Mindfulness-Based Stress Reduction (MBSR) program, adapted to the needs of adolescents. (1 school, 30 pupils)

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School-based health education plus Attention control (HE-AC) (N = 23)

Brief name	Health education plus attention control
Rationale/theory/Goal	Control condition to control for the non-specific effects of the mindfulness intervention
Materials used	Health education teacher delivered Massachusetts standard curriculum; "attention control" focused on topics including wellness, health risk factors, self-confidence, self-esteem, and resiliency; Research Electronic Data capture (REDCap) technology; Barratt Impulsiveness Scale (BIS);
Procedures used	Recruitment and randomisation undertaken; Interventions were delivered during the time allocated for health education classes at each school; all students received the study interventions but only those who provided assent and parental consent completed study assessments and received study stipends; Students received one 45-min health education session for four days/week for two consecutive weeks plus one 45-min "attention control" session/week for 8 weeks.; assessment conducted at school at baseline, end of treatment (EOT), and 6 months after EOT
Provider	Regular health education teachers at each school; certified mindfulness instructor trained at the Center for Mindfulness, University of Massachusetts Medical School
Method of delivery	Face to face in classroom
Setting/location of intervention	School class
Intensity/duration of the intervention	Students received one 45-min health education session for four days/week for two consecutive weeks plus one 45-min "attention control" session/week for 8 weeks
Tailoring/adaptation	Not specified
Unforeseen modifications	Not specified
Planned treatment fidelity	Health education teachers used a structured checklist to record whether or not planned topics were discussed during each session.
Actual treatment fidelity	Retention at intervention completion and at 6 months of follow-up was 98%, respectively. Class attendance was 96%.
Other details	Not reported

Students received one 45-min health education session for four days/week for two consecutive weeks delivered by the regular health education (HE) teachers - based

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on the standard curriculum for Massachusetts high schools enriched with materials from current guidelines plus one 45-min "attention control" session/week for 8 weeks - added to control for the mindfulness intervention. (1 school, 23 pupils)

D.1.74   Schonert-Reichl, 2015

Bibliographic Reference	Schonert-Reichl, Kimberly A; Oberle, Eva; Lawlor, Molly Stewart; Abbott, David; Thomson, Kimberly; Oberlander, Tim F; Diamond, Adele; Enhancing cognitive and social-emotional development through a simple-to-administer mindfulness-based school program for elementary school children: a randomized controlled trial.; Developmental psychology; 2015; vol. 51 (no. 1); 52-66

Study details

Trial registration number	Not specified
Aim	Test whether a social and emotional learning program that incorporates mindfulness practices (MindUP) would lead to improvements in executive functions, stress regulation, social–emotional competence, and school achievement in fourth and fifth grade children.
Country/geographical location	Canada
Type of school	Primary education
Setting	Elementary school
UK Key Stage	Key stage 2
Inclusion criteria	Not specified
Exclusion criteria	Not specified
Method of randomisation	Given the potential for diffusion effects, only one classroom in each school was considered eligible for participation. Teachers were aware that once they decided to participate, their classroom had a 50% chance of being randomized as a comparison classroom. After the collection of baseline data, randomization was done by a coin flip that assigned two of the four classrooms to receive the MindUP curriculum and two to receive promotion of social responsibility (BAU condition).

Method of allocation concealment	Not specified
Unit of allocation	Class
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Changes in the sets of measures were collected from student self-report and peer nomination, accounting for multicollinearity in these measures by informant. Multivariate analyses of covariance (MANCOVAs), followed by ANCOVAs were used. Teacher-reported math grades from the end of the school year and differences between groups were analysed using ANCOVA;
Attrition	99/100 randomized participants completed the study and provided post-test data (1% attrition)
Study limitations (author)	Analysis by individuals and not clusters due to low class numbers and subsequent statistical power; significant differences were found between MindUP and comparison children at baseline on child self-report measures (empathy) and most of the peer behavioral assessment indices; teacher and peer assessments, raters were not blind to treatment condition
Study limitations (reviewer)	Allocation concealment not specified but cluster randomization may provide some concealment;
Source of funding	Grants from the Mind and Life Institute (Hadley, MA), the Hawn Foundation (Miami Beach, FL), and the Human Early Learning Partnership (University of British Columbia).

Study arms

MindUP (N = 48)

Mindfulness-based education SEL program that consists of 12 lessons, once a week, with each lesson lasting 40–50 min. The core mindfulness practices in the program (done every day for 3 min three times a day) consist of focusing on one's breathing and attentive listening to a single resonant sound. The curriculum includes lessons that promote EFs and self-regulation (e.g., mindful smelling, mindful tasting), social–emotional understanding (e.g., using literature to promote perspective-taking skills and empathy), and positive mood (e.g., learning optimism, practicing gratitude). In addition, the MindUP curriculum includes lessons that involve performing acts of kindness for one another and collectively engaging in community service learning activities.

Control - business as usual (N = 51)

Social responsibility program - represented the BAU condition in this study was informed by British Columbia's (BC's) Ministry of Education. The framework for BC's Social Responsibility Performance Standards includes a common set of expectations for the development of students along four categories: (a) contributing to classroom and school community (b) solving problems in peaceful ways, (c) valuing diversity and defending human rights and (d) practicing democratic rights and responsibilities.

Characteristics

Study-level characteristics

Characteristic	Study (N = 99)
Age Mean (SD)	10.24 (0.53)
Male Nominal	56
Female Nominal	44
Ethnicity Reported as % English first language learned Nominal	66

Outcomes

Study timepoints
- Baseline
- 12 week (Post-intervention)

Social and emotional skills - emotional control - RI

Outcome	MindUP, Baseline, N = 48	MindUP, 12 week, N = 48	Control - business as usual, Baseline, N = 51	Control - business as usual, 12 week, N = 51
Emotional control Child reported Mean (SD)	3.39 (0.73)	3.7 (0.63)	3.49 (0.64)	3.3 (0.68)

Emotional control - Polarity - Higher values are better

Sub-scale from the Resiliency Inventory (RI). A measure of resilience in adolescents. The emotional control sub-scale consists of five items assessing the degree to which the respondent feels he or she has some control over his or her emotional reactivity and emotional displays (e.g., "I stay calm even when there's a crisis"). Ratings on the five items are averaged.

Emotional distress - depressive symptoms - SPQC

Outcome	MindUP, Baseline, N = 48	MindUP, 12 week, N = 48	Control - business as usual, Baseline, N = 51	Control - business as usual, 12 week, N = 51
Depressive symptoms Child reported Mean (SD)	2.04 (0.48)	1.85 (0.51)	1.92 (0.51)	2.02 (0.48)

Depressive symptoms - Polarity - Lower values are better

Seattle Personality Questionnaire for Children (SPQC) - comprises four constructs: (a) conduct problems, (b) anxiety, (c) somatization, and (d) depressive symptoms - 11-item depressive symptoms subscale USED ONLY Items are scored on a four-point Likert-type scale (1 = not at all, 4 = always). Ratings are then averaged.

Behavioral outcome - social responsibility - SGQ

Outcome	MindUP, Baseline, N = 48	MindUP, 12 week, N = 48	Control - business as usual, Baseline, N = 51	Control - business as usual, 12 week, N = 51
social responsibility Child reported Mean (SD)	4.01 (0.55)	4.07 (0.59)	4.23 (0.48)	4.19 (0.55)

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social responsibility - Polarity - Higher values are better

Social Goals Questionnaire comprises two subscales measuring prosocial goals and social responsibility - only the seven-item social responsibility subscale was used.

Academic outcome - end of year math test

Outcome	MindUP, Baseline, N = NR	MindUP, 12 week, N = 48	Control - business as usual, Baseline, N = NR	Control - business as usual, 12 week, N = 51
math test objective measure Mean (SD)	NR (NR)	6.12 (2.17)	NR (NR)	5.25 (2.46)

math test - Polarity - Higher values are better

Math achievement was assessed via students' end-of-the-school-year math grades obtained from school records. The schools provided only math grades for 89 of the 99 participating students. Grades were recorded on a continuous scales (1 = C–, 9 = A+).

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Socialandemotionalskills-emotionalcontrol-RI-Emotionalcontrol-MeanSD-MindUP-Control - business as usual-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; Accounting for clustering is not outlined; Child self-report utilised)*
Overall bias and Directness	Overall Directness	Directly applicable

Emotionaldistress-depressivesymptoms-SPQC-Depressivesymptoms-MeanSD-MindUP-Control - business as usual-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined;*

Section	Question	Answer
		Accounting for clustering is not outlined; Child self-report utilised)
Overall bias and Directness	Overall Directness	Directly applicable

Behavioraloutcome-socialresponsibility-SGQ-socialresponsibility-MeanSD-MindUP-Control - business as usual-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; Accounting for clustering is not outlined; Child self-report utilised)*
Overall bias and Directness	Overall Directness	Directly applicable

Academicoutcome-endofyearmathtest-mathtest-MeanSD-MindUP-Control - business as usual-t12

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns *(No blinding or allocation concealment outlined; Accounting for clustering is not outlined;)*
Overall bias and Directness	Overall Directness	Directly applicable

Study arms

MindUP (N = 48)

Brief name	MIndUP program [page 6]
Rationale/theory/Goal	To promote children's cognitive control abilities and regulation of stress, well-being, and prosociality [page 4]
Materials used	Manual covering lessons and activities [page 6 & Supplementary material]

Procedures used	Teachers underwent an intensive one-day training session wherein they were provided with information about the theory and research guiding each unit and its lessons, and a curriculum manual in which lesson plans were explicitly delineated. The training session also included interactive discussions on social and emotional learning, the developmental characteristics of children's social and emotional competence, and presentation of material through lecture, video and readings, and role-plays of curriculum instructional techniques. Teachers received a "booster session" midway through the implementation of the program conducted by the MindUp trainer. This session allowed an opportunity for instructors to share their experiences with each another, ask questions, and obtain assistance for any issues that they confronted with regard to program implementation. [Supplementary materials]
Provider	Teachers [page 6]
Method of delivery	Classroom lessons [page 6]
Setting/location of intervention	Classroom [page 6]
Intensity/duration of the intervention	12 lessons taught approximately once a week, with each lesson lasting approximately 40–50 min [page 6].
Tailoring/adaptation	None reported
Unforeseen modifications	None reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

Business as usual (N = 51)

Brief name	Business as usual [Abstract]
Rationale/theory/Goal	To promote social responsibility [page 7]
Materials used	Lessons and activities [Supplementary materials]
Procedures used	Teachers received a minimum of three days of professional development by the District Social Responsibility coordinator at the start of the school year. The professional development included information about the performance standards for social

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	responsibility that included ideas and strategies for promoting the four dimensions of social responsibility in the classroom and school community. [Supplementary materials]
Provider	Teacher [Supplementary materials]
Method of delivery	Classroom lessons [Supplementary materials]
Setting/location of intervention	Classroom [Supplementary materials]
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.75   Sibinga, 2016

Bibliographic Reference	Sibinga, E.M.S.; Webb, L.; Ghazarian, S.R.; Ellen, J.M.; School-based mindfulness instruction: An RCT; Pediatrics; 2016; vol. 137 (no. 1); e20152532

Study details

Study design	Cluster randomised controlled trial
Type of study	Effectiveness
Trial registration number	NCT02493218
Study start date	2012
Study end date	2013

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Aim	To evaluated an adapted mindfulness-based stress reduction (MBSR) program among low-income, minority, middle school public school students.
Country/geographical location	United States
Type of school	Primary education Secondary education
Setting	Two Baltimore City Public Schools
UK Key stage	Key stage 2 Key stage 3
Inclusion criteria	Students in grades 5-8 (including special education) in either of the selected Elev8 Baltimore schools during the 2012-2013 academic year.
Exclusion criteria	Not reported
Method of randomisation	Students were randomly assigned by school and grade into either the intervention program or the active control program. No further details are reported on the method of randomisation.
Method of allocation concealment	Blinding to group assignment occurred at the data management, analysis, and interpretation levels. No further details are reported on the method of allocation concealment.
Unit of allocation	Cluster (Year group/grade)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	- Power calculation: A priori power calculations demonstrated power >80% with a sample of at least N = 90. - Preliminary analyses examined descriptive statistics (eg, means, median, proportions) for all study variables of interest. - Potential differences in participant characteristics measured by t tests (continuous variables) and χ2 for categorical variables. - Multivariate linear regression models used to test the overall potential intervention effect. - Intention to treat: not reported
Attrition	Missing data due to attrition/absence occurred. Classes were provided to 400 students at 2 schools, baseline data were collected from 300 students, with subsequent data collection sessions ranging from 292 to 300 students (72.8%–74.8%). Arm specific attrition data was not reported.

Study limitations (author)	• Variability of student session engagement and attendance • No information regarding outside student mindfulness exposure and/or practice • Missing data • Variability in school administration support for programs • Variability in classroom teacher support for programs
Study limitations (reviewer)	• Lack of information on exclusion criteria • Lack of detail on methods of randomisation and allocation concealment
Source of funding	Elev8 Baltimore

Study arms

Mindfulness-based stress reduction (MBSR) (N = 159)

4 year groups from 2 schools including 159 individuals

Healthy Topics (HT) (N = 141)

4 year groups from 2 schools including 141 individuals

Characteristics

Arm-level characteristics

Characteristic	Mindfulness-based stress reduction (MBSR) (N = 159)	Healthy Topics (HT) (N = 141)
5th Grade Sample size	n = 45 ; % = 28.3	n = 28 ; % = 19.9
6th Grade Sample size	n = 34 ; % = 21.4	n = 48 ; % = 34
7th Grade Sample size	n = 45 ; % = 28.3	n = 15 ; % = 10.6
8th grade Sample size	n = 35 ; % = 22	n = 50 ; % = 35.5

Characteristic	Mindfulness-based stress reduction (MBSR) (N = 159)	Healthy Topics (HT) (N = 141)
Male Sample size	n = 78 ; % = 49.4	n = 69 ; % = 49.3
Female Sample size	n = 80 ; % = 50.6	n = 71 ; % = 50.7
African American Sample size	n = 128 ; % = 100	n = 129 ; % = 99.2
White Sample size	n = 0 ; % = 0	n = 1 ; % = 0.8

Outcomes

Study timepoints
- 12 week (Endpoint)

Outcomes

Outcome	Mindfulness-based stress reduction (MBSR), 12 week, N = 141	Healthy Topics (HT), 12 week, N = 159
Emotional distress - anxiety Anxiety measured using the Multidimensional Anxiety Scale for Children (MASC) (self-reported) Mean (SD)	10.53 (7.6)	11.09 (8)
Behavioural outcomes (0-66) Aggression measured by the Aggression Scale (self-reported) Mean (SD)	19.81 (16.98)	22.2 (16.86)
Social and emotional skills (0-260) Coping measured using Coping Self-Efficacy Scale (CSE) Mean (SD)	149 (57.74)	156.05 (57.89)

Emotional distress - anxiety - Polarity - Lower values are better

Behavioural outcomes - Polarity - Lower values are better

Social and emotional skills - Polarity - Higher values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress-anxiety - Mindfulness-based stress reduction (MBSR) vs Control - 12 months follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Behavioural outcomes - Mindfulness-based stress reduction (MBSR) vs Control - 12 months follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Social and emotional skills - Mindfulness-based stress reduction (MBSR) vs Control - 12 months follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Study arms

Mindfulness-based stress reduction (MBSR) (N = 159)

Brief name	Mindfulness-based stress reduction (MBSR) program. Page 2
Rationale/theory/Goal	Mindfulness-based principles. Page 2
Materials used	Not reported

Procedures used	• Didactic material related to mindfulness, meditation, yoga, and the mind-body connection. • Experiential practice of various mindfulness meditations, mindful yoga, and body awareness. • Group discussion focused on the application of mindfulness to everyday situations and problem solving related to barriers to effective practice. Page 2
Provider	2 experienced MBSR instructors, both with long-standing personal meditation practices, >10 years' experience teaching mindfulness, and MBSR instructor training through the University of Massachusetts Center for Mindfulness. Page 3
Method of delivery	Face-to-face. Page 3
Setting/location of intervention	Classroom (incorporated into school curriculum). Page 3
Intensity/duration of the intervention	12 weeks. Page 3
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Students attended an average of ~80% (74%–85%) Page 3

Healthy Topics (HT) (N = 141)

Brief name	Healthy topics (HT). Page 2
Rationale/theory/Goal	Adapted from the Glencoe Health Curriculum. Page 3
Materials used	Not reported
Procedures used	Covers age appropriate topics such as nutrition, exercise, body systems, adolescence, and puberty. Page 3
Provider	3 trained, experienced health instructors. Page 3
Method of delivery	Face-to-face. Page 3

Setting/location of intervention	Classroom (incorporated into school curriculum). Page 3
Intensity/duration of the intervention	12 weeks. Page 3
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Students attended an average of ~80% (76%–88%) of the program sessions. Page 3

D.1.76 Stallard, 2014

Bibliographic Reference	Stallard, P.; Skryabina, E.; Taylor, G.; Phillips, R.; Daniels, H.; Anderson, R.; Simpson, N.; Classroom-based cognitive behaviour therapy (FRIENDS): A cluster randomised controlled trial to Prevent Anxiety in Children through Education in Schools (PACES); The Lancet Psychiatry; 2014; vol. 1 (no. 3); 185-192
Secondary publication(s)	Stallard, Paul, Skryabina, Elena, Taylor, Gordon et al. (2015) A cluster randomised controlled trial comparing the effectiveness and cost-effectiveness of a school-based cognitive-behavioural therapy programme (FRIENDS) in the reduction of anxiety and improvement in mood in children aged 9/10 years. Public Health Research 3(4)

Skryabina, E; Taylor, G; Stallard, P (2016) Effect of a universal anxiety prevention programme (FRIENDS) on children's academic performance: results from a randomised controlled trial. Journal of child psychology and psychiatry, and allied disciplines 57(11): 1297-1307 |

Study details

Study design	Cluster randomised controlled trial
Type of study	Efficacy

Trial registration number	ISRCTN23563048
Study start date	Sep-2011
Study end date	Jul-2012
Aim	To assess the effectiveness of a classroom-based anxiety prevention programme (FRIENDS) universally delivered by health and school professionals to school years 4 and 5 (children aged 9–10 years) in UK junior schools
Country/geographical location	United Kingdom
Type of school	Primary education
Setting	Primary schools in Bath and northeast Somerset, Swindon Borough, and Wiltshire within a 50 mile radius of the University of Bath
UK Key stage	Key stage 2
Inclusion criteria	All children aged 9–10 years (years 4 and 5) within state-funded junior schools in three Local Education Authorities in southwest England
Exclusion criteria	- Children not attending school due to e.g. long-term sickness or exclusion - Children not participating in Personal Social and Health Education (PSHE) lessons
Method of randomisation	A statistician with no other involvement in the study randomly selected one sequence from a subset with the most desirable balance properties. Schools were randomly assigned to study arms on a 1:1:1 ratio.
Method of allocation concealment	Group allocation was kept in a separate password-protected database. Researchers who analysed data were also masked to allocation—trial groups were numerically coded and data analysis undertaken masked to which code related to each trial group.
Unit of allocation	Cluster (school)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	- Power calculation: Study powered to detect a difference of 3·6 points in mean RCADS total scores between FRIENDS and usual PSHE. - Intention to treat: The primary outcome (symptoms of anxiety and low mood 12 months after baseline) was assessed by intention to treat without imputation.

	- Descriptive statistics to assess balance between the trial groups at baseline. - Multivariable mixed effects models to compare means for primary and secondary outcomes. - Sensitivity analyses to assess the potential effect of missing data.
Attrition	Attrition at 24 months follow-up reported in Health Technology Assessment 2015 - Health-led FRIENDS: 221/509; 56.6% attrition - School-led FRIENDS: 206/497; 58.6% attrition - Usual school provision: 167/442; 62.2% attrition
Study limitations (author)	- Study relied on self-report measures and did not undertake any diagnostic interviews, therefore it was unclear if reduction in anxiety symptoms were indicative of changes in diagnostic status or impairment. - Study population was less socially disadvantaged and had more white British participants than did the average UK state school reducing generalisability of the results. - Few differences in school culture and ethos across the study population, which could have affected outcomes. - Delivery of treatment was not assessed, therefore differences between groups might be indicative of leader delivery methods e.g. enthusiasm. - Unable to establish whether improvements would be sustained over time (24 month follow-up results reported in Health Technology Assessment may negate this point).
Study limitations (reviewer)	None to add
Source of funding	The National Institute for Health Research Public Health Research Programme (09/3000/03)

Study arms

Health-led FRIENDS (N = 509)

14 schools including 509 individuals

School-led FRIENDS (N = 497)

14 schools including 497 individuals

Usual school provision (N = 442)

12 schools containing 442 individuals (1 school withdrew after randomisation but before baseline assessments. Number of individuals for this school were not reported)

Characteristics

Study-level characteristics

Characteristic	Study (N = 1448)
Age (years) Range	9 to 10

Arm-level characteristics

Characteristic	Health-led FRIENDS (N = 509)	School-led FRIENDS (N = 497)	Usual school provision (N = 442)
Gender Baseline characteristics Sample size	n = 489 ; % = 96.1	n = 472 ; % = 95	n = 401 ; % = 90.7
Male Sample size	n = 255 ; % = 52.1	n = 237 ; % = 50.2	n = 170 ; % = 42.4
Female Sample size	n = 234 ; % = 47.9	n = 235 ; % = 49.8	n = 231 ; % = 57.6
Ethnicity Baseline characteristics Sample size	n = 489 ; % = 96.1	n = 472 ; % = 95	n = 401 ; % = 90.7
British White Sample size	n = 455 ; % = 94.2	n = 439 ; % = 95.2	n = 359 ; % = 92.1
Non-white Sample size	n = 28 ; % = 5.8	n = 22 ; % = 4.8	n = 31 ; % = 7.9

Characteristic	Health-led FRIENDS (N = 509)	School-led FRIENDS (N = 497)	Usual school provision (N = 442)
Socioeconomic status (0-8) Baseline characteristics: Measured by Family Affluence Scale (FAS) Sample size	n = 489 ; % = 96.1	n = 472 ; % = 95	n = 401 ; % = 90.7
Low (0-2) Sample size	n = 6 ; % = 1.5	n = 11 ; % = 2.4	n = 13 ; % = 3.3
Medium (3-5) Sample size	n = 142 ; % = 29.4	n = 139 ; % = 30.1	n = 128 ; % = 32.9
High 6-8 Sample size	n = 331 ; % = 69.1	n = 311 ; % = 67.5	n = 249 ; % = 63.8

Outcomes

Study timepoints
- 12 month (Follow-up)
- 24 month (Follow-up reported in Health Technology Assessment 2015)

Outcomes

Outcome	Health-led FRIENDS, 12 month, N = 509	Health-led FRIENDS, 24 month, N = 509	School-led FRIENDS, 12 month, N = 497	School-led FRIENDS, 24 month, N = 497	Usual school provision, 12 month, N = 442	Usual school provision, 24 month, N = 442
Emotional distress - anxiety (0-18) Reported in Health Technology Assessment 2015: Measured	*empty data*	n = 221 ; % = 43.4	*empty data*	n = 206 ; % = 41.4	*empty data*	n = 167 ; % = 37.8

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Outcome	Health-led FRIENDS, 12 month, N = 509	Health-led FRIENDS, 24 month, N = 509	School-led FRIENDS, 12 month, N = 497	School-led FRIENDS, 24 month, N = 497	Usual school provision, 12 month, N = 442	Usual school provision, 24 month, N = 442
by Revised Child Anxiety and Depression scale (RCADS 30) generalised anxiety subscale (self-reported) Sample size						
Emotional distress - anxiety (0-18) Reported in Health Technology Assessment 2015: Measured by Revised Child Anxiety and Depression scale (RCADS 30) generalised anxiety subscale (self-reported) Mean (SD)	*empty data*	3.68 (2.63)	*empty data*	3.81 (2.8)	*empty data*	3.89 (2.58)
Emotional distress - depression (0-30) Reported in Health Technology Assessment 2015: Measured by Revised Child Anxiety and Depression scale (RCADS 30) depression subscale (self-reported)	*empty data*	n = 221 ; % = 43.4	*empty data*	n = 206 ; % = 41.4	*empty data*	n = 167 ; % = 37.8

Outcome	Health-led FRIENDS, 12 month, N = 509	Health-led FRIENDS, 24 month, N = 509	School-led FRIENDS, 12 month, N = 497	School-led FRIENDS, 24 month, N = 497	Usual school provision, 12 month, N = 442	Usual school provision, 24 month, N = 442
Sample size						
Emotional distress - depression (0-30) Reported in Health Technology Assessment 2015: Measured by Revised Child Anxiety and Depression scale (RCADS 30) depression subscale (self-reported) Mean (SD)	*empty data*	2.63 (2.03)	*empty data*	2.12 (1.9)	*empty data*	2.56 (1.95)
Social and emotional skills (0-30) Reported in Health Technology Assessment 2015: Self-esteem measured by Rosenberg Self-Esteem Scale (self-reported) Sample size	*empty data*	n = 221 ; % = 43.4	*empty data*	n = 206 ; % = 41.4	*empty data*	n = 167 ; % = 37.8
Social and emotional skills (0-30) Reported in Health Technology Assessment 2015: Self-esteem	*empty data*	21.58 (5.71)	*empty data*	22.75 (5.37)	*empty data*	21.8 (5.35)

Outcome	Health-led FRIENDS, 12 month, N = 509	Health-led FRIENDS, 24 month, N = 509	School-led FRIENDS, 12 month, N = 497	School-led FRIENDS, 24 month, N = 497	Usual school provision, 12 month, N = 442	Usual school provision, 24 month, N = 442
measured by Rosenberg Self-Esteem Scale (self-reported) Mean (SD)						
Quality of life Reported in Health Technology Assessment 2015: Total life satisfaction measured by a subjective wellbeing assessment, including 12 items identified in The Good Childhood Report, 2012 (self-reported) Sample size	*empty data*	n = 221 ; % = 43.4	*empty data*	n = 206 ; % = 41.4	*empty data*	n = 167 ; % = 37.8
Quality of life Reported in Health Technology Assessment 2015: Total life satisfaction measured by a subjective wellbeing assessment, including 12 items identified in The Good Childhood Report, 2012 (self-reported)	*empty data*	12.05 (4.5)	*empty data*	11.69 (4.03)	*empty data*	12.26 (4.21)

Outcome	Health-led FRIENDS, 12 month, N = 509	Health-led FRIENDS, 24 month, N = 509	School-led FRIENDS, 12 month, N = 497	School-led FRIENDS, 24 month, N = 497	Usual school provision, 12 month, N = 442	Usual school provision, 24 month, N = 442
Mean (SD)						
Reading Key stage 1 Sample size	n = 473 ; % = 92.9	*empty data*	n = 457 ; % = 92	*empty data*	n = 387 ; % = 87.6	*empty data*
Reading Key stage 1 Mean (SD)	16.13 (4.1)	*empty data*	16.18 (3.81)	*empty data*	15.97 (4.1)	*empty data*
Writing Key stage 1 Sample size	n = 473 ; % = 92.9	*empty data*	n = 457 ; % = 92	*empty data*	n = 387 ; % = 87.6	*empty data*
Writing Key stage 1 Mean (SD)	14.64 (3.87)	*empty data*	14.67 (3.63)	*empty data*	14.14 (3.88)	*empty data*
Maths Key stage 1 Sample size	n = 473 ; % = 92.9	*empty data*	n = 457 ; % = 92	*empty data*	n = 387 ; % = 87.6	*empty data*
Maths Key stage 1 Mean (SD)	16.14 (3.77)	*empty data*	16.15 (3.28)	*empty data*	15.54 (3.68)	*empty data*
Reading Key stage 2 Sample size	n = 410 ; % = 80.6	*empty data*	n = 438 ; % = 88.1	*empty data*	n = 365 ; % = 82.5	*empty data*
Reading Key stage 2 Mean (SD)	28.56 (4.68)	*empty data*	29.39 (4.44)	*empty data*	28.46 (4.71)	*empty data*
Writing Key stage 2 Sample size	n = 410 ; % = 80.6	*empty data*	n = 438 ; % = 88.1	*empty data*	n = 365 ; % = 82.5	*empty data*

Outcome	Health-led FRIENDS, 12 month, N = 509	Health-led FRIENDS, 24 month, N = 509	School-led FRIENDS, 12 month, N = 497	School-led FRIENDS, 24 month, N = 497	Usual school provision, 12 month, N = 442	Usual school provision, 24 month, N = 442
Writing Key stage 2 Mean (SD)	27.86 (4.89)	*empty data*	28.66 (4.74)	*empty data*	27.18 (4.36)	*empty data*
Maths Key stage 2 Sample size	n = 410 ; % = 80.6	*empty data*	n = 438 ; % = 88.1	*empty data*	n = 365 ; % = 82.5	*empty data*
Maths Key stage 2 Mean (SD)	29.91 (4.92)	*empty data*	29.23 (5.04)	*empty data*	28.08 (5.06)	*empty data*

Emotional distress - anxiety - Polarity - Lower values are better

Emotional distress - depression - Polarity - Lower values are better

Social and emotional skills - Polarity - Higher values are better

Quality of life - Polarity - Higher values are better

Academic outcomes - Polarity - Higher values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Outcomes-Emotionaldistress-anxiety-MeanSD-Health-led FRIENDS-School-led FRIENDS-Usual school provision-t24

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Outcomes-Emotionaldistress-depression-MeanSD-Health-led FRIENDS-School-led FRIENDS-Usual school provision-t24

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Outcomes-Socialandemotionalskills-MeanSD-Health-led FRIENDS-School-led FRIENDS-Usual school provision-t24

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Outcomes-Qualityoflife-MeanSD-Health-led FRIENDS-School-led FRIENDS-Usual school provision-t24

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Study arms

Health-led FRIENDS (N = 509)

Brief name	Health-led FRIENDS. Page 187
Rationale/theory/Goal	Cognitive behavioural therapy principles. Page 187
Materials used	Workbook and detailed session plan. Page 187
Procedures used	Manualised cognitive behaviour therapy intervention that develops skills to counter the cognitive, emotional, and behavioural aspects of anxiety. Page 187
Provider	Two trained health facilitators working along side the class teacher. All facilitators had at least an undergraduate university degree in a relevant discipline, appropriate professional backgrounds or experience working with children or young people. Page 187
Method of delivery	Face-to-face. Page 187
Setting/location of intervention	Classroom. Page 187
Intensity/duration of the intervention	Nine, 60 minute weekly sessions. Page 187
Tailoring/adaptation	Not reported

Unforeseen modifications	Not reported
Planned treatment fidelity	Initial 2 day training and supervision every 2 weeks were provided by accredited FRIENDS trainers. Group supervision included: • Review of session plans • The underlying cognitive model • Class and behaviour • Management skill • Any interpersonal difficulties or communication problems with the class teacher. Page 187 24 sessions were recorded and independently rated. Page 189
Actual treatment fidelity	All specified core tasks and home activities were delivered in the 24 sessions. Page 189

School-led FRIENDS (N = 497)

Brief name	School-led FRIENDS. Page 187
Rationale/theory/Goal	Cognitive behavioural therapy principles. Page 187
Materials used	Workbook and detailed session plan. Page 187
Procedures used	Manualised cognitive behaviour therapy intervention that develops skills to counter the cognitive, emotional, and behavioural aspects of anxiety. Page 187
Provider	Teacher or member of the school staff (eg, teaching assistant) who were trained in delivery of the programme and were supported by two facilitators. Page 187
Method of delivery	Face-to-face. Page 187
Setting/location of intervention	Classroom. Page 187
Intensity/duration of the intervention	Nine, 60 minute weekly sessions. Page 187
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported

Planned treatment fidelity	School staff attended the same 2 day initial training as the facilitators and were offered ongoing supervision. Page 187 25 sessions were recorded and independently rated. Page 189
Actual treatment fidelity	15 of 25 (60%) delivered all core tasks and the home activity, eight (32%) delivered all except the home activity, and two (8%) did not deliver one core task and the home activity. Page 189

Usual school provision (N = 442)

Brief name	Usual school provision. Page 187
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	PSHE sessions following a UK National Curriculum programme. Page 187
Provider	Teacher. Page 187
Method of delivery	Face-to-face. Page 187
Setting/location of intervention	Classroom. Page 187
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	One school from usual school provision withdrew before baseline assessments were undertaken. Page 189
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

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D.1.77 Stallard, 2013

Bibliographic Reference	Stallard, P; Phillips, R; Montgomery, AA; Spears, M; Anderson, R; Taylor, J; Araya, R; Lewis, G; Ukoumunne, OC; Millings, A; et, al.; A cluster randomised controlled trial to determine the clinical effectiveness and cost-effectiveness of classroom-based cognitive-behavioural therapy (CBT) in reducing symptoms of depression in high-risk adolescents; Health technology assessment (winchester, england); 2013; vol. 17 (no. 47); vii-xvii1
Associated Reference	Stallard, P; Sayal, K; Phillips, R; Taylor, JA; Spears, M; Anderson, R; Araya, R; Lewis, G; Millings, A; Montgomery, AA; Classroom based cognitive behavioural therapy in reducing symptoms of depression in high risk adolescents: pragmatic cluster randomised controlled trial; BMJ (clinical research ed.); 2012; vol. 345; e6058

Study details

Study design	Cluster randomised controlled trial
Type of study	Efficacy
Trial registration number	ISRCTN19083628
Study start date	Sep-2009
Study end date	Jul-2010
Aim	To evaluate the effectiveness of a classroom based cognitive behavioural therapy programme (the resourceful adolescent programme) when implemented in UK schools; specifically among adolescents identified at baseline as being at high risk of depression.
Country/geographical location	United Kingdom
Type of school	Secondary education
Setting	**Setting** Eight UK secondary schools
UK Key stage	Key stage 3 Key stage 4
Inclusion criteria	• Eligible schools were non-denominational mixed sex secondary schools in five local education authorities in the East Midlands and south west of England

	• All adolescents in years 8-11 (ages 12-16 years) in the participating schools were eligible
Exclusion criteria	• Children not attending school for e.g. long term sickness, exclusion, or alternative education • Children that did not participate in participate in personal, social, and health education (PSHE) lessons
Method of randomisation	Randomisation was conducted by by school year rather than by individual class to minimise the potential for contamination between trial arms. Year groups were allocated on a 1:1:1 ratio. A statistician with no other involvement in the study randomly selected one sequence from a subset with the most desirable balance properties.
Method of allocation concealment	Participants were not blinded to treatment allocation. Facilitators were blind to the depression risk status of the pupils. Outcomes were collected during class time by self completed questionnaires administered by researchers blind to arm allocation.
Unit of allocation	Cluster (year group)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• Power calculation: The study was to detect a difference of two points in mean short mood and feelings questionnaire scores between classroom based cognitive behavioural therapy and each of the control arms. The authors anticipated a mean cluster size for analysis of 26 high risk participants, requiring a total of 22 year groups to detect a difference of two points with 80% power and 2.7% Dunnett corrected two sided α. • Intention to treat: The primary outcome was assessed by intention to treat without imputation. • Descriptive statistics were used to assess and balance between trial arms at baseline. • Multivariable mixed effects regression to compare primary and secondary outcomes across study arms. • Sensitivity analyses were conducted to assess the potential effect of missing data using multiple imputation chained equation methods. • The compiler average causal effect was estimated using instrumental variable regression to investigate the effect of attendance at allocated lessons.
Attrition	Attrition by study arm at 12 month follow-up: • Classroom based CBT: 1290/2032; 36.5% attrition

	• Usual school provision: 1282/1809; 29.1% attrition
Study limitations (author)	• The CBT programme was developed for individuals aged 12-15 years, therefore the inclusion of 16 year olds may have reduced the effects. • Reliance on self-report ratings of depressive symptoms meant there could have been important changes diagnostic in clinically depressed adolescents that were not captured. • Delivering the intervention to all children while targeting those at high risk of depression may have compromised the potency of the intervention.
Study limitations (reviewer)	None to add
Source of funding	National Institute of Health Research Health Technology Assessment (06/37/04).

Study arms

Resourceful adolescent programme (N = 2032)

10 year groups including 2032 individuals

Usual Personal, Social and Health Education (N = 1809)

9 year groups including 1809 individuals

Characteristics

Arm-level characteristics

Characteristic	Resourceful adolescent programme (N = 2032)	Usual Personal, Social and Health Education (N = 1809)
Age (years) Assenting students at baseline Sample size	n = 1753 ; % = 86.3	n = 1604 ; % = 88.7
Age (years) Assenting students at baseline	14.1 (1.1)	13.9 (1.2)

Characteristic	Resourceful adolescent programme (N = 2032)	Usual Personal, Social and Health Education (N = 1809)
Mean (SD)		
Gender Assenting students at baseline Sample size	n = 1753 ; % = 86.3	n = 1604 ; % = 88.7
Male Sample size	n = 880 ; % = 50.2	n = 834 ; % = 52
Female Sample size	n = 873 ; % = 49.8	n = 770 ; % = 48
Ethnicity Assenting students at baseline Sample size	n = 1753 ; % = 86.3	n = 1604 ; % = 88.7
White Sample size	n = 1372 ; % = 86.7	n = 1275 ; % = 86.1
Non-white Sample size	n = 210 ; % = 13.9	n = 205 ; % = 13.9

Outcomes

Study timepoints
- 12 month (Follow-up)

Outcomes

Outcome	Resourceful adolescent programme, 12 month, N = 2032	Usual Personal, Social and Health Education, 12 month, N = 1809
Emotional distress - anxiety (0-18) Measured using revised child anxiety and depression scale (RCADS) -	n = 1290 ; % = 63.5	n = 1282 ; % = 70.9

Outcome	Resourceful adolescent programme, 12 month, N = 2032	Usual Personal, Social and Health Education, 12 month, N = 1809
General anxiety subscale (self-reported) Sample size		
Emotional distress - anxiety (0-18) Measured using revised child anxiety and depression scale (RCADS) - General anxiety subscale (self-reported) Mean (SD)	3.36 (2.96)	2.93 (2.65)
Emotional distress - depression (0-30) Measured using revised child anxiety and depression scale (RCADS) - Depression subscale (self-reported) Sample size	n = 1290 ; % = 63.5	n = 1282 ; % = 70.9
Emotional distress - depression (0-30) Measured using revised child anxiety and depression scale (RCADS) - Depression subscale (self-reported) Mean (SD)	2.54 (2.99)	2.07 (2.53)
Social and emotional skills (0-30) Self-esteem measured by Rosenberg self esteem scale (RSE) (self-reported) Sample size	n = 1290 ; % = 63.5	n = 1282 ; % = 70.9
Social and emotional skills (0-30) Self-esteem measured by Rosenberg self esteem scale (RSE) (self-reported) Mean (SD)	21.48 (5.71)	21.74 (5.43)
Emotional distress - depression (0-26) Measured by Short Mood and	n = 1290 ; % = 63.5	n = 1282 ; % = 70.9

Outcome	Resourceful adolescent programme, 12 month, N = 2032	Usual Personal, Social and Health Education, 12 month, N = 1809
Feelings Questionnaire (SMFQ) (self-reported) Sample size		
Emotional distress - depression (0-26) Measured by Short Mood and Feelings Questionnaire (SMFQ) (self-reported) Mean (SD)	3.95 (5.44)	3.21 (4.5)
Quality of life (-0.594-1.0) Measured by European Quality of Life-5 Dimensions (EQ-5D) preference-based index (self-reported) Sample size	n = 1006 ; % = 49.5	n = 1067 ; % = 59
Quality of life (-0.594-1.0) Measured by European Quality of Life-5 Dimensions (EQ-5D) preference-based index (self-reported) Mean (SD)	0.93 (0.16)	0.94 (0.13)
Behavioural outcomes (No. of students that bully others) Bullying of others determined by Olweus Bully/Victim Questionnaire (self-reported) No of events	n = 178 ; % = 13.6	n = 161 ; % = 12.44
Behavioural outcomes (No. of students that bully others) Bullying of others determined by Olweus Bully/Victim Questionnaire (self-reported) Sample size	n = 1309 ; % = 51.1	n = 1294 ; % = 71.5

Emotional distress - anxiety - Polarity - Lower values are better

Emotional distress - depression - Polarity - Lower values are better

Social and emotional skills - Polarity - Higher values are better

Emotional distress - depression - Polarity - Lower values are better

Quality of life - Polarity - Higher values are better

Behavioural outcomes - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - anxiety -Resourceful adolescent programme vs Usual Personal, Social and Health Education - 12-month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Serious concerns due to baseline differences, missing outcome data, and self-reported outcomes)*

Emotional distress - depression - Resourceful adolescent programme vs Usual Personal, Social and Health Education - 12-month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Serious concerns due to baseline differences, missing outcome data, and self-reported outcomes)*

Social and emotional skills - Resourceful adolescent programme vs Usual Personal, Social and Health Education - 12-month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Serious concerns due to baseline differences, missing outcome data, and self-reported outcomes)*

Study arms

Resourceful adolescent programme (N = 2032)

Brief name	Resourceful adolescent programme (RAP). Page 6
Rationale/theory/Goal	Cognitive behavioural therapy and interpersonal therapy principles. Page 6

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Materials used	Workbook. Page 6
Procedures used	The key elements of RAP are personal strengths, helpful thinking, keeping calm, problem solving, support networks and keeping the peace. Page 6
Provider	Facilitators had completed at least an undergraduate degree and had experience of working with young

people and/or in a health-care setting. Page 6 |
Method of delivery	Face-to-face. Page 6
Setting/location of intervention	Classroom. Page 6
Intensity/duration of the intervention	The programme consists of nine modules and two booster sessions, each lasting about 50-60 minutes. Two additional booster sessions were offered to schools approximately 6 months after the initial programme had been completed. Page 6
Tailoring/adaptation	The programme modules can be flexibly delivered to fit within the school timetable. Page 6
Unforeseen modifications	One year group (n = 199) was withdrawn from classroom-based CBT after four sessions because of school closures in adverse weather. Page 15
Planned treatment fidelity	• Treatment fidelity was assessed by independent observation of 5% of the resourceful adolescent programme sessions. Page 8
Actual treatment fidelity	• Of the 36 class based cognitive behavioural therapy sessions observed to assess intervention fidelity, 31 covered all the specified core tasks, with at least 75% of core tasks being covered in the remaining five sessions.
• A total of 832 young people in the classroom-based CBT group (47.8%) attended at least one RAP-UK booster session to refresh and consolidate their skills approximately 6 months after completing the core programme. Page 17

Usual Personal, Social and Health Education (N = 1809)

Brief name	Usual Personal, Social and Health Education (PSHE). Page 6
Rationale/theory/Goal	Not reported
Materials used	Not reported

Procedures used	Not reported
Provider	School staff. Page 6
Method of delivery	Face-to-face. Page 3
Setting/location of intervention	Classroom. Page 3
Intensity/duration of the intervention	No reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.78   Tak, 2016

Bibliographic Reference	Tak, YR; Lichtwarck-Aschoff, A; Gillham, JE; Van Zundert, RM; Engels, RC; Universal School-Based Depression Prevention 'Op Volle Kracht': a Longitudinal Cluster Randomized Controlled Trial; Journal of abnormal child psychology; 2016; vol. 44 (no. 5); 949-961
Secondary publication(s)	Tak, YR, Van Zundert, RM, Kuijpers, RC et al. (2012) A randomized controlled trial testing the effectiveness of a universal school-based depression prevention program 'Op Volle Kracht' in the Netherlands. BMC public health 12: 21
	Tak, Yuli R, Kleinjan, Marloes, Lichtwarck-Aschoff, Anna et al. (2014) Secondary outcomes of a school-based universal resiliency training for adolescents: a cluster randomized controlled trial. BMC public health 14: 1171

Study details

Study design	Cluster randomised controlled trial

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Type of study	Effectiveness
Trial registration number	NTR2879
Study start date	Jan-2011
Study end date	Jun-2013
Aim	To analyse effectiveness of Op Volle Kracht (OVK) in both reducing the level of depressive symptoms and the number of adolescents experiencing elevated levels of depressive symptoms. To investigate whether gender and whether high levels of depressive symptoms at baseline would moderate intervention effects.
Country/geographical location	The Netherlands
Type of school	Secondary education
Setting	Schools providing secondary education in the southern and middle part of the Netherlands
UK Key stage	Key stage 3
Inclusion criteria	All adolescents in the eighth grade from participating schools were eligible to participate
Exclusion criteria	Withdrawal by child or parent
Method of randomisation	Randomization of schools to condition was conducted by an independent statistician from Utrecht University after active consent from all school principals was received. To ensure a more even distribution of the different types of education (pre-vocational secondary, higher general secondary education, pre-university education) across conditions, the randomisation was stratified by type of education. No further details on method of randomisation reported.
Method of allocation concealment	Adolescents, principals and teachers were not blinded to research condition.
Unit of allocation	Cluster (school)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• Power calculation: A power calculation was performed to enable detection of a low to medium effect (Cohen's d=0.20) at 1 year follow-up on a dichotomous outcome (CDI =>13

	yes/no), resulting in a required sample sizes of at least 662 per condition (alpha<0.05, power=0.80).
	• Intention to treat: For the ITT analyses only, missing data were imputed 20 times by multiple imputation for the control and intervention group separately as advised by Graham (2009).
	• Attrition over the course of the study was analysed by means of logistic regression analysis in which study drop-out was the outcome variable and gender, age, education, and depressive symptoms at baseline were predictors.
	• Univariate tests were performed using t-tests (continuous outcomes) and Chi-square tests (dichotomous outcomes) to compare conditions at every follow-up assessment.
	• Multiple regression analysis was used in Mplus 6.1 (Muthén and Muthén 1998–2010) to analyse the primary intervention effect for the continuous and dichotomous outcome of depressive symptoms at 1 year follow-up.
	• Latent Growth Curve Modeling was conducted in Mplus 6.1 (Muthén and Muthén 1998–2010) analyse the effectiveness of OVK on the continuous outcome across the 2 year follow-up period.
Attrition	• OVK arm at 2 year follow-up: 53/655; 8.1% attrition • Lessons as Usual arm at 2 year follow-up: 6.7% attrition
Study limitations (author)	• Treatment fidelity was assessed solely relying on self-reports meant that group trainers may have the tendency to answer in a socially desirable way. • Inclusion of schools as the unit of randomisation instead of individuals increased the risk of participant characteristics differing across the intervention and control groups. • The use of only one self-report measure of depressive symptoms, as reports from parents, teachers, and clinicians could have provided a more comprehensive picture. • Concerns around generalisability of this study as relatively few participants followed prevocational secondary education in contrast to higher educational levels. • Limited variation between ethnic backgrounds of the participants.
Study limitations (reviewer)	Limited detail on method of randomisation
Source of funding	The research was supported by a ZonMW grant nr. 200210007, the Trimbos-Institute and the Behavioural Science Institute.

Study arms

Op Volle Kracht (OVK) (N = 655)

4 clusters (schools) including 655 individuals

Lessons as usual (N = 735)

5 clusters (schools) including 735 individuals

Characteristics

Arm-level characteristics

Characteristic	Op Volle Kracht (OVK) (N = 655)	Lessons as usual (N = 735)
Age (years) Sample size	n = 634 ; % = 96.8	n = 707 ; % = 96.2
Age (years) Mean (SD)	13.95 (0.53)	13.86 (0.56)
Gender Sample size	n = 634 ; % = 96.8	n = 707 ; % = 96.2
Male Sample size	n = 333 ; % = 52.5	n = 374 ; % = 52.9
Female Sample size	n = 301 ; % = 47.5	n = 333 ; % = 47.1
Ethnicity Sample size	n = 634 ; % = 96.8	n = 707 ; % = 96.2
Dutch Sample size	n = 501 ; % = 79	n = 614 ; % = 86.8
Other ethnicity Sample size	n = 133 ; % = 21	n = 93 ; % = 13.2
Education level	n = 634 ; % = 96.8	n = 707 ; % = 96.2

Characteristic	Op Volle Kracht (OVK) (N = 655)	Lessons as usual (N = 735)
Sample size		
Pre-vocational secondary education Sample size	n = 72 ; % = 11.4	n = 22 ; % = 3.1
Higher general secondary education Sample size	n = 307 ; % = 48.4	n = 379 ; % = 53.6
Pre-university education Sample size	n = 255 ; % = 40.2	n = 306 ; % = 43.3

Outcomes

Study timepoints
- 2 year (Follow-up (completers only (CO) analyses))

Outcome

Outcome	Op Volle Kracht (OVK), 2 year, N = 655	Lessons as usual, 2 year, N = 735
Emotional distress - depression (0-54) Using using Dutch translation of the Children's Depression Inventory (CDI) (self-reported) Sample size	n = 538 ; % = 82.1	n = 620 ; % = 84.4
Emotional distress - depression (0-54) Using using Dutch translation of the Children's Depression Inventory (CDI) (self-reported) Mean (SD)	8.4 (7.6)	8 (7.3)
Social and emotional skills Using Self-Efficacy Questionnaire (self-report) Mean (SD)	25.78 (5.05)	25.17 (5.33)

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Outcome	Op Volle Kracht (OVK), 2 year, N = 655	Lessons as usual, 2 year, N = 735
Academic attainment Using school grades Mean (SD)	6.56 (1.01)	6.73 (0.99)

Emotional distress - depression - Polarity - Lower values are better

Social and emotional skills - Polarity - Higher values are better

Academic attainment - Polarity - Higher values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - depression - Op Volle Kracht (OVK) vs Lessons as usual - 2-year follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Serious concerns due to self-reported outcomes and baseline differences)*

Social and emotional skills - Op Volle Kracht (OVK) vs Lessons as usual - 2-year follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Serious concerns due to self-reported outcomes and baseline differences)*

Academic attainment - Op Volle Kracht (OVK) vs Lessons as usual - 2-month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Some concerns due to differences in baseline characteristics)*

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Study arms

Op Volle Kracht (N = 655)

Brief name	Op Volle Kracht (OVK). Page 951
Rationale/theory/Goal	Based on the Penn Resiliency Program (PRP). Page 951 Both OVK and PRP are based on several psychological theories and principles, namely Cognitive Behavioural (CBT) Therapy, the ABC model and the hopelessness theory of depression. Page 950
Materials used	Workbook, pen and paper assignments, homework, a hip-hop performance by professional artists. Page 952
Procedures used	- The first eight lessons of OVK covered the CBT principles and the latter eight lessons were used to practice coping, decision making, social skills, and problem solving skills. - Under the supervision of a group trainer, adolescents practiced the skills in a variety of ways: role-playing, holding discussions, or completing pen and paper assignments. - A 2 hour booster session at 8 months follow up included hip-hop performance by professional artists who addressed the core principles of OVK. This was followed by a rap workshop for the students. Page 952
Provider	Psychologists with varying degrees of experience in Cognitive Behavioural Therapy and teaching. Page 952
Method of delivery	Face-to-face. Page 952
Setting/location of intervention	During mentor lessons. Page 951
Intensity/duration of the intervention	16 lessons lasting 50 min each, and a 2 h booster session delivered at 12 months follow-up. Page 952
Tailoring/adaptation	Classes were split in two to create smaller groups, resulting in 10–16 students per group. In some schools, the teachers determined the group composition and aimed to distribute students who generally showed more disruptive behaviour evenly across the two groups. Page 951
Unforeseen modifications	Not reported
Planned treatment fidelity	- Group trainers and the research team remained in close, frequent contact. - Two meetings were held which included the OVK developers, the research team, and the group trainers. - All group trainers completed a 5 day training in CBT principles and the OVK program led by two experienced

	psychologists who had been trained by PRP team members. • Program fidelity was measured through a self-report questionnaire which was completed by group trainers after each lesson. Page 952
Actual treatment fidelity	Program fidelity was 80 %. Page 954

Lessons as usual (N = 735)

Brief name	Lessons as usual. Page 951
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Mentor lesson as usual. Page 951
Provider	Teacher responsible for the class. Page 951
Method of delivery	Face-to-face. Page 951
Setting/location of intervention	Classroom. Page 951
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.79 Theodore-Oklota, 2014

Bibliographic Reference	Theodore-Oklota, Christina; Orsillo, Susan M; Lee, Jonathan K; Vernig, Peter M; A pilot of an acceptance-based risk reduction program for relational aggression for adolescents.; Journal of Contextual Behavioral Science; 2014; vol. 3 (no. 2); 109-116

Study details

Study design	Cluster randomised controlled trial
Type of study	Efficacy
Trial registration number	Not reported
Aim	To develop and pilot a school-based program aimed at decreasing the negative consequences associated with relational aggression.
Country/geographical location	United States (New England)
Type of school	Secondary education
Setting	Middle school
UK Key stage	Key stage 3
Inclusion criteria	Seventh grade students
Exclusion criteria	Parent's of the children indicated a lack of consent for their child to participate in the program
Method of randomisation	Coin toss
Method of allocation concealment	Not reported
Unit of allocation	Cluster (class)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	- t-tests to determine if there were any pre-intervention differences between the groups. - Baseline correlations examined between experiential avoidance and relational aggression. - Hierarchal regression analyses to investigate the efficacy of the program.

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	• Multiple regressions used, rather than repeated measures analyses, in order to avoid making assumptions about the pattern of within member covariance matrices. • Power calculation: not reported • Intention to treat: not reported
Attrition	Three parents permitted their children to participate in the program but refused the assessment phase of the study. No details reported on which arms of the study these children were assigned.
Study limitations (author)	• Program implemented through universal delivery based on previous research suggesting that most adolescents are affected by relational aggression. Classroom-based approach reduces ability to adapt the program to individual needs, which may have hindered personal disclosure. • Unable to use random assignment and waitlist control group reported more physical aggression at baseline. These cohort factors may have impacted results. • Potential diffusion of the intervention to those waitlisted through student discussion, which may have influenced findings. • Reliance on self-reporting. • Low alphas of problem-solving subscale of RSQ could limit the amount of interpretation that can be drawn from the scale and measure.
Study limitations (reviewer)	Lack of detail regarding the attrition
Source of funding	No specific grant received from any funding agency in the public, commercial or non-profit sectors

Study arms

Acceptance-based behavioural program (N = 105)

2 clusters (classes) including 105 individuals

Waitlist Control (N = 105)

2 clusters (classes) including 105 individuals

Characteristics

Study-level characteristics

Characteristic	Study (N = 210)
Age (years) Mean (SD)	12.45 (0.51)
Male Sample size	n = 118 ; % = 56
Female Sample size	n = 92 ; % = 44
White Sample size	n = 142 ; % = 67.6
Not reported Sample size	n = 51 ; % = 24.3

Outcomes

Study timepoints
- 3 month (Follow-up)

Outcomes

Outcome	Acceptance-based behavioural program, 3 month, N = 105	Waitlist Control, 3 month, N = 105
Social and emotional skills (3-12) Problem-solving coping measured using Responses to Stress Questionnaire (RSQ) Mean (SD)	4.65 (2.43)	3.92 (2.4)
Behavioural outcomes (0-206) Using Child Behavior Checklist - Youth Self-Report (YSR) checklist Mean (SD)	31.01 (21.81)	31.92 (22.78)

Outcome	Acceptance-based behavioural program, 3 month, N = 105	Waitlist Control, 3 month, N = 105
Behavioural outcomes Using Revised Social Experiences Questionnaire - Relational victimisation (self-report) Mean (SD)	5.78 (2.35)	6.23 (2.44)

Social and emotional skills - Polarity - Higher values are better

Behavioural outcomes - Polarity - Lower values are better

Behavioural outcomes - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Social and emotional skills - Acceptance-based behavioural program vs Waitlist Control - 3-month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Some concerns due to self-reported outcomes)*

Behavioural outcomes - Acceptance-based behavioural program vs Waitlist Control - 3-month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Some concerns due to self-reported outcomes)*

Behavioural outcomes - Acceptance-based behavioural program vs Waitlist Control - 3-month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Some concerns due to self-reported outcomes)*

Study arms

Acceptance-based behavioural program (N = 105)

Brief name	Acceptance-based program. Page 111
Rationale/theory/Goal	Based on acceptance and commitment therapy (ACT) and acceptance-based behavioural therapies (ABBT). Page 111
Materials used	Worksheet, finger trap. Page 112
Procedures used	- Discussion of positive and negative aspects of friendships - Evaluation of strengths and weaknesses of different coping strategies - How being open to experiencing one's emotions can facilitate effective, values-driven coping in response to peer conflict. Page 112
Provider	Two doctoral students trained in the delivery of the program. Page 112
Method of delivery	Face-to-face. Page 112
Setting/location of intervention	Classroom. Page 112
Intensity/duration of the intervention	3 sessions that occurred over the course of 2 weeks during a 48-minute class period. Page 112
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	The two doctoral students were trained in the delivery of the program (2-3 sessions lasting 6 hours). The doctoral students met with the first author after each session to troubleshoot any issues that arose. Page 112
Actual treatment fidelity	Not reported

Waitlist Control (N = 105)

Brief name	Waitlist group. Page 112
Rationale/theory/Goal	Not reported

Materials used	Not reported
Procedures used	Not reported
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.80   Thomas, 2016

Bibliographic Reference	Thomas, George; Atkinson, Cathy; Measuring the effectiveness of a mindfulness-based intervention for children's attentional functioning.; Educational and Child Psychology; 2016; vol. 33 (no. 1); 51-64

Study details

Study design	Cluster randomised controlled trial
Trial registration number	Not reported
Aim	To answer the research question: To what extent does the Paws .b mindfulness programme lead to an improvement in mainstream primary school aged pupils' suppressing and sustaining attention skills?

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Country/geographical location	United Kingdom (North-West England)
Type of school	Primary education
Setting	Comprehensive primary school
UK Key stage	Key stage 2
Inclusion criteria	Year 4 pupils (8- and 9-year-olds)
Exclusion criteria	Not reported
Method of randomisation	Coin toss
Method of allocation concealment	Not reported
Unit of allocation	Cluster (class)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	- Power calculation: Given the present sample size was ≥28 but <85, Cohen (1992) states that there was only sufficient statistical power to detect large estimated effect sizes (i.e. $r \geq .5$). - Wilcoxon signed-rank test (Wilcoxon, 1945) to determine significance of within-condition comparisons. - Mann-Whitney test (Mann & Whitney, 1947) to determine significance of between-condition comparisons.
Attrition	Not reported
Study limitations (author)	A change of class teacher within the waitlist control group may have had a marked impact on the findings
Study limitations (reviewer)	Lack of information on exclusion criteria, method of allocation concealment and attrition
Source of funding	Not reported

Study arms

Paws .b mindfulness programme (N = 16)

1 class (cluster) including 16 individuals

Waitlist Control (N = 14)

1 class (cluster) including 14 individuals

Characteristics

Arm-level characteristics

Characteristic	Paws .b mindfulness programme (N = 16)	Waitlist Control (N = 14)
Age (years) Reported as mean age in years and months (months converted into decimal) Mean (SD)	8.75 (NR)	8.83 (NR)
Male Sample size	n = 9 ; % = 56	n = 6 ; % = 43
Female Sample size	n = 7 ; % = 44	n = 8 ; % = 57

Outcomes

Study timepoints
- 6 week (Endpoint referred to as Time 1)

Outcomes

Outcome	Paws .b mindfulness programme, 6 week, N = 16	Waitlist Control, 6 week, N = 14
Social and emotional skills (1-7) Attention measured by A Developmental	6 (NR to NR)	4.5 (NR to NR)

Outcome	Paws .b mindfulness programme, 6 week, N = 16	Waitlist Control, 6 week, N = 14
NEuroPSYchological Assessment (NEPSY-II) (researcher administered) Median (IQR)		

Social and emotional skills - Polarity - Higher values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Social and emotional skills - Paws .b mindfulness programme vs Waitlist Control - 6-week follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Some concerns as outcome were measured by unblinded researcher)*

Study arms

Paws .b (N = 16)

Brief name	Paws .b mindfulness programme. Page 54
Rationale/theory/Goal	Mindfulness-based principles. Page 53
Materials used	Microsoft PowerPoint presentation and plan for each lesson. Page 54
Procedures used	• Introduction to the brain • Ability to make choices discussion • Breath counting • 'Searchlight' of attention • Philosophy of mindfulness • Two mindful breathing exercises • Grounding mindfulness exercise • Wobbly feelings discussion • 'Count and add two' breathing exercise • How to avoid reacting badly to situations discussion • Discussion of worries • How worries can be supported by exercises discussion • Learning recap

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	• Practise of learnt exercises. Page 55
Provider	Established mindfulness practitioner. Page 54
Method of delivery	Face-to-face. Page 54
Setting/location of intervention	Classroom. Page 54
Intensity/duration of the intervention	6 lessons 1 hour in duration on a weekly basis. Page 54
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	The mindfulness practitioner had received training to deliver Paws .b from the Mindfulness in Schools Project. Implementation checks were carried out by the first researcher throughout the two intervention periods. Page 54
Actual treatment fidelity	Not reported

Waitlist control (N = 14)

Brief name	Waitlist control. Page 54
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Not reported
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported

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Unforeseen modifications	• The original waitlist control teacher went on maternity leave half way through the study and was replaced by another female class teacher. Page 54 • This meant that waitlist control pupils received Paws .b at the same time as having to adjust to, and build new relationships with, the second waitlist control teacher. Page 59
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.81 Tokolahi, 2018

Bibliographic Reference	Tokolahi, E.; Vandal, A.C.; Kersten, P.; Pearson, J.; Hocking, C.; Cluster-randomised controlled trial of an occupational therapy intervention for children aged 11-13 years, designed to increase participation to prevent symptoms of mental illness; Child and Adolescent Mental Health; 2018; vol. 23 (no. 4); 313-327

Study details

Study design	Cluster randomised controlled trial
Type of study	Effectiveness
Trial registration number	ACTRN12614000453684
Aim	• To determine if an occupational therapy intervention run in schools (Uplifting our Health and Wellbeing) is effective in in preventing symptoms of anxiety and depression and improving self-esteem and participation in children aged 11–13 years. • To determine if improvements in measures are sustained after follow-up period of 8–9 weeks.
Country/geographical location	New Zealand

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Type of school	Secondary education
Setting	Schools in the Auckland region
UK Key stage	Key stage 3
Inclusion criteria	Mainstream students (i.e. no known intellectual disability), aged 11–13 years, and able to converse in English.
Exclusion criteria	• Children reporting para/suicidal thoughts or behaviours • Children involved with a secondary mental health service
Method of randomisation	Computer-generated procedure coded by the trial statistician who was unaware of the cluster identifiers
Method of allocation concealment	Individual participants (children and parents) were blinded to allocation until after completion of the baseline measures. Research assistant taking outcome measures were blinded to the treatment allocation of each cluster. Further details of blinding methods were not reported.
Unit of allocation	Cluster (school)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• Repeated Measures Analysis of Covariance (RM-ANCOVA) analysis for comparisons of between-subject and within subject factors and their interactions. • Intention-to-Treat (ITT): ITT approach to analysis to preserve the value of randomisation and to reduce the potential for upward bias in the estimated effect size. • Power calculation: Analysis-adjustment factor of 2(1-r) was used instead of the correct factor of (1-r^2) to adjust for the planned ANCOVA analysis. The actual adjusted analysis design effect was 0.81. Sample size yields a power of 87% to detect the target difference under the other design parameters.
Attrition	• Intervention arm: 4 participants lost to follow-up; 4/69 = 5.8% attrition • Control arm: 12 participants lost to follow-up ; 12/73 = 16.4%
Study limitations (author)	• Due to the complex nature of the intervention, blinding of participants and personnel (other than outcome assessors was not feasible. • Due to the complex nature of the intervention, comparison to an attention-control intervention or the collection of qualitative data was not feasible.

	• Recruitment of participants followed a non-standardised process increasing risk of selection bias. • Lack of comparison at follow-up. • Short follow-up period. • Missing data/low response rates from parents.
Study limitations (reviewer)	Lack of details regarding allocation concealment
Source of funding	• Auckland University of Technology (AUT) Vice Chancellors Scholarship • AUT Centre for Person-Centred Research • Oakley Mental Health Foundation: Youth Fund • Lotteries Translational Research; and The Warehouse Ltd.

Study arms

Uplifting our Health and Wellbeing (N = 69)

7 schools, including 69 individuals

Waitlist Control (N = 73)

7 schools, including 73 individuals

Characteristics

Arm-level characteristics

Characteristic	Uplifting our Health and Wellbeing (N = 69)	Waitlist Control (N = 73)
Age (years) Range	11 to 13.2	11 to 13.3
Age (years) Mean (SD)	12.1 (0.6)	12.1 (0.6)
Male Sample size	n = 38 ; % = 55.1	n = 27 ; % = 37

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Characteristic	Uplifting our Health and Wellbeing (N = 69)	Waitlist Control (N = 73)
Female Sample size	n = 31 ; % = 44.9	n = 46 ; % = 63
New Zealand European Nominal	33	25
Maori Nominal	8	19
Pacific Includes Cook Island Maori, Niuean, Samoan and Tongan Nominal	10	20
Asian Nominal	10	7
Other Nominal	19	14

Outcomes

Study timepoints
- 8 week (Endpoint (parallel phase assessment point))

Outcomes

Outcome	Uplifting our Health and Wellbeing, 8 week, N = 69	Waitlist Control, 8 week, N = 73
Emotional distress - anxiety Measured by Multidimensional Anxiety Scale for Children – Short form (MASC-10) (self-reported) Sample size	n = 65 ; % = 94.2	n = 67 ; % = 91.8
Emotional distress - anxiety Measured by Multidimensional Anxiety Scale	56.3 (51.9 to 60.8)	49.1 (45.3 to 52.8)

Outcome	Uplifting our Health and Wellbeing, 8 week, N = 69	Waitlist Control, 8 week, N = 73
for Children – Short form (MASC-10) (self-reported) Mean (95% CI)		
Quality of life Measured as Wellbeing using Student Life Satisfaction Scale (SLSS) (self-reported) Sample size	n = 65 ; % = 94.2	n = 64 ; % = 87.7
Quality of life Measured as Wellbeing using Student Life Satisfaction Scale (SLSS) (self-reported) Mean (95% CI)	14.3 (12.3 to 16.4)	14.35 (12.6 to 16.1)
Social and emotional skills (0-30) Self-esteem measured using the Rosenberg Self Esteem Scale (RSES) Sample size	n = 65 ; % = 94.2	n = 64 ; % = 87.7
Social and emotional skills (0-30) Self-esteem measured using the Rosenberg Self Esteem Scale (RSES) Mean (95% CI)	19.2 (16.1 to 22.3)	18.9 (14.8 to 22.9)
Emotional distress - depression Using Children's Depression Inventory – 2nd edition (self-report) Sample size	n = 59	n = 65
Emotional distress - depression Using Children's Depression Inventory – 2nd edition (self-report) Mean (95% CI)	74.9 (71.8 to 77.9)	73.5 (70.3 to 76.6)

Emotional distress - anxiety - Polarity - Lower values are better

Quality of life - Polarity - Higher values are better

Social and emotional skills - Polarity - Higher values are better

Emotional distress - depression - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - anxiety - Uplifting our Health and Wellbeing vs Waitlist Control - 8-week follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Some concerns due to self-reported outcomes)*

Quality of life - Uplifting our Health and Wellbeing vs Waitlist Control - 8--week follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Some concerns due to self-reported outcomes)*

Social and emotional skills - Uplifting our Health and Wellbeing vs Waitlist Control - 8-week follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Some concerns due to self-reported outcomes)*

Emotional distress - depression - Uplifting our Health and Wellbeing - Waitlist Control - 8-week follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Some concerns due to self-reported outcomes)*

Study arms

Uplifting our Health and Wellbeing (N = 69)

Brief name	Uplifting our Health and Wellbeing. Page 315
Rationale/theory/Goal	Not reported

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Materials used	Not reported
Procedures used	Intervention uses engagement in developmentally appropriate activities to promote mental health and wellbeing. Enables students to understand: • The relationship between what they do and how they feel/thinkt. • Understand how activities in which they engage influence their identity, self-concept, health and wellbeing. • Practice and develop strategies for overcoming difficult emotions. • Apply the knowledge in building and designing healthy routines, behaviours and habits in their day-to-day life. Page 315
Provider	Occupational therapist. Page 314
Method of delivery	Face-to-face. Page 314
Setting/location of intervention	In groups of 7–12 children from Years 7 and 8. Page 314
Intensity/duration of the intervention	1 hour per week over 8 weeks. Page 315
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

7 schools, including 69 participants

Waitlist control (N = 73)

Brief name	Waitlist intervention. Page 315
Rationale/theory/Goal	Not reported
Materials used	Not reported

Procedures used	The waitlist group did not receive any input during the parallel component of the trial. In the crossover component of the trial, the waitlist group went on to receive the Uplifting our Health and Wellbeing intervention. Page 315
Provider	Occupational therapist (following 8 week waitlist period). Page 314-315
Method of delivery	Face-to-face (following 8 week waitlist period). Page 314-315
Setting/location of intervention	In groups of 7–12 children from Years 7 and 8 (following 8 week waitlist period). Page 314-315
Intensity/duration of the intervention	1 hour per week over 8 weeks (following 8 week waitlist period). Page 315
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

7 schools, including 73 individuals

D.1.82   Van der Gucht, 2017

Bibliographic Reference	Van der Gucht, Katleen; Griffith, James W; Hellemans, Romina; Bockstaele, Maarten; Pascal-Claes, Francis; Raes, Filip; Acceptance and Commitment Therapy (ACT) for adolescents: Outcomes of a large-sample, school-based, cluster-randomized controlled trial.; Mindfulness; 2017; vol. 8 (no. 2); 408-416

Study details

Study design	Cluster randomised controlled trial
Type of study	Efficacy

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Trial registration number	Not reported
Study start date	2012
Study end date	2014
Aim	• To analyse whether participants exposed to the Acceptance and commitment therapy (ACT) intervention showed improvements on internalising and externalising problems, as well as thought and attention problems. • To analyse whether participants exposed to the ACT intervention showed increased quality of life and psychological flexibility.
Country/geographical location	Belgium
Type of school	Secondary education
Setting	14 secondary schools in the cities of Sint-Niklaas and Leuven
UK Key stage	Key stage 3 Key stage 4 Post-16
Inclusion criteria	To have at least one pair of parallel classes in the 5th grade (as only 5th grade students could participate) and two teachers motivated to follow and teach the ACT training.
Exclusion criteria	Not reported
Method of randomisation	Online random number generator
Method of allocation concealment	Not reported
Unit of allocation	Cluster (school)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• Hierarchical linear modelling (HLM) to test the effects of ACT. • Effect sizes were calculated based on Cohen's d. • Post hoc repeated measures ANOVA on a subgroup of students with mild to moderate symptoms of depression

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	was conducted to allow comparison with studies described in Livheim et al. (2014). • Power calculation: not reported. • Intention to treat: not reported.
Attrition	Attrition by study arm at 12 month follow up (T3): • ACT: 93/195; 32% attrition • Control 112/298; 38% attrition
Study limitations (author)	• Fidelity of the intervention was not systematically measured, meaning the delivery of ACT may have been carried out sub-optimally. • "Treatment contamination" not controlled for. • Large post-treatment assessment window (1-8 weeks after intervention) made it impossible to detect an immediate post-treatment effect that washes out over time.
Study limitations (reviewer)	Lack of information of method of allocation concealment and exclusion criteria
Source of funding	This study was co-funded by the foundation "Go for Happiness" and the Province of Flemish Brabant

Study arms

Acceptance and commitment therapy (N = 288)

17 classes including 288 individuals

Control (N = 298)

17 classes including 298 individuals

Characteristics

Study-level characteristics

Characteristic	Study (N = 586)
Age (years) Range	14 to 21

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Characteristic	Study (N = 586)
Age (years) Mean (SD)	17 (0.66)
Male Sample size	n = 275 ; % = 47
Female Sample size	n = 311 ; % = 53

Outcomes

Study timepoints
- 12 month (Follow up (referred to as T3 in publication))

Outcomes

Outcome	Acceptance and commitment therapy, 12 month, N = 288	Control, 12 month, N = 298
Quality of life Measured using the World Health Organization Quality of Life questionnaire - psychological health items Sample size	n = 186 ; % = 64.6	n = 180 ; % = 60.4
Quality of life Measured using the World Health Organization Quality of Life questionnaire - psychological health items Mean (SD)	21.95 (2.48)	21.48 (2.48)
Social and emotional skills Measured using the World Health Organization Quality of Life questionnaire - social relations items Sample size	n = 187 ; % = 64.9	n = 181 ; % = 60.7
Social and emotional skills Measured using the World Health	11.96 (1.5)	11.43 (1.68)

Outcome	Acceptance and commitment therapy, 12 month, N = 288	Control, 12 month, N = 298
Organization Quality of Life questionnaire - social relations items Mean (SD)		
Emotional distress - anxiety Using Youth Self Report - anxiety items Sample size	n = 188 ; % = 65.3	n = 181 ; % = 60.7
Emotional distress - anxiety Using Youth Self Report - anxiety items Mean (SD)	2.78 (1.61)	2.98 (1.56)

Quality of life - Polarity - Higher values are better

Social and emotional skills - Polarity - Higher values are better

Emotional distress - anxiety - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Quality of life - Acceptance and commitment therapy vs Control - 12-month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Serious concerns due to attrition and self-reported outcomes)*

Social and emotional skills - Acceptance and commitment therapy vs Control - 12-month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Serious concerns due to attrition and self-reported outcomes)*

Emotional distress - anxiety - Acceptance and commitment therapy vs Control - 12-month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Serious concerns due to attrition and self-reported outcomes)*

Study arms

Acceptance and commitment therapy (N = 288)

Brief name	Acceptance and commitment therapy (ACT). Page 410
Rationale/theory/Goal	To improve psychological flexibility, which is defined as "the ability to be in the present moment with full awareness and openness to our experience, and to take action guided by our values". Page 409
Materials used	Workbook. Page 410
Procedures used	- Session one and two focussed on values clarification, defusion, and self-as-context techniques to help students experience the difference between "experiencing something" and "the person having the experience." - Session three focussed on stress and acceptance as an alternative for experiential avoidance. - Session four used the "passenger on the bus" metaphor to link all the processes together.
Provider	Teacher trained by two experienced ACT instructors. Page 410
Method of delivery	Face-to-face. Page 410
Setting/location of intervention	Classroom during school hours. Page 410
Intensity/duration of the intervention	4 weekly, 120 minute classroom sessions. Page 410
Tailoring/adaptation	Not reported
Unforeseen modifications	Two schools that stopped their participation in the study because the teachers who delivered the ACT training were no longer working at these school. Page 412
Planned treatment fidelity	Teachers received training from two experienced ACT instructors during a 2-day training course.

	• Classroom simulations were conducted throughout the training, including practicing the delivery of the techniques. • Teachers also received a comprehensive manual in which each exercise was described in detail. • Teachers received two 2 hour group supervision sessions from the instructors. • During the delivery of the program, the teachers could contact the instructors with questions about the program. Page 410
Actual treatment fidelity	Not reported

Control (N = 298)

Brief name	Control. Page 410
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Teachers assigned to the control condition gave their regular academic courses. Page 410
Provider	Teacher. Page 410
Method of delivery	Face-to-face. Page 410
Setting/location of intervention	Classroom. Page 410
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

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D.1.83   Waters, 2015

Bibliographic Reference	Waters, A. M.; Groth, T. A.; Sanders, M.; O'Brien, R.; Zimmer-Gembeck, M. J.; Developing Partnerships in the Provision of Youth Mental Health Services and Clinical Education: a School-Based Cognitive Behavioral Intervention Targeting Anxiety Symptoms in Children; Behavior therapy; 2015; vol. 46 (no. 6); 844-855

Study details

Study design	Cluster randomised controlled trial
Type of study	Effectiveness
Trial registration number	Not reported
Aim	Implement and examine the outcomes for children of an evidence-informed CBI for child anxiety symptoms within a school setting.
Country/geographical location	Australia
Type of school	Primary education
Setting	Primary school
UK Key stage	Key stage 2
Inclusion criteria	All children in grade 5 whose parents also gave consent for children to take part in the intervention
Exclusion criteria	Not reported
Method of randomisation	Random selection of each class name by the clinic administration officer (fourth author)
Method of allocation concealment	Children were not masked to treatment allocation but no details on allocation concealment from other groups was reported
Unit of allocation	Cluster (class)
Unit of analysis	Individual

Statistical method(s) used to analyse the data	• Parent-reported demographic information and children's mental health histories were compared between groups with t-tests and χ2 analyses. • Hierarchical linear mixed models with Satterthwaite's approximation for degrees of freedom were used to test the study hypotheses, change in child- and parent-reported symptom measures from pre- to post-assessment, and child-reported measures from post- to 12-month follow-up. • Subsequent hierarchical linear mixed model s examined change from post-intervention to 12-month follow-up with only a repeated measure effect (post-CBI and 12-month follow-up). • Values for the eight children who were absent at the time of the 12-month assessment were estimated using Multiple imputation (Schafer & Graham, 2002). • Chi-square analyses to determine if the number of highly anxious children declined more in the CBI or CAU arms. • Power calculation not reported
Attrition	• No attrition between assessment before (Time 1) and after (Time 2) completion of assigned condition (i.e. CBI or CAU). • 8 children did not provide data at Time 2 assessment, but no details were given about which groups these children were in
Study limitations (author)	• Children in the control arm commenced the CBI at the end of the intervention period of the active arm, meaning that long-term intervention effects were not compared against a control condition. • Analyses from post-intervention to 12-month follow-up were based on a subset of children due to constraints in assessing the second cohort of students. • Outcome data were based on child self-report. • Children were not blinded to the intervention. • Treatment reliability was not assessed. • Low parental response rate. • The present CBI was delivered by clinical psychologists and clinical psychology graduate students. Recent studies have found that classroom-based CBIs are more effective when delivered by trained health professionals compared to trained school staff (Stallard et al.).
Study limitations (reviewer)	Lack of information of exclusion criteria
Source of funding	Not reported

Study arms

Taking Action Program (N = 74)

Curriculum as Usual (N = 77)

Characteristics

Arm-level characteristics

Characteristic	Taking Action Program (N = 74)	Curriculum as Usual (N = 77)
Age (years) Mean (SD)	10.02 (0.47)	9.9 (0.54)
Male Sample size	n = 33 ; % = 44.6	n = 35 ; % = 45.5
Female Sample size	n = 41 ; % = 55.4	n = 42 ; % = 54.5
Australia Sample size	n = 67 ; % = 90	n = 75 ; % = 97
Mother Mean (SD)	4.37 (1.18)	4.55 (0.87)
Father Mean (SD)	4.36 (0.95)	4.5 (0.77)

Outcomes

Study timepoints
- 0 month (Endpoint)

Outcomes

Outcome	Taking Action Program, 0 month, N = 74	Curriculum as Usual, 0 month, N = 77
Emotional distress (0-114) Using Spence Children's Anxiety Scale, Child version Mean (SD)	18.14 (11.21)	21.62 (7.54)
Social and emotional skills Using Spence Social Skills Questionnaire (SSQ) Mean (SD)	51.23 (6.31)	49.23 (7.91)

Emotional distress - Polarity - Lower values are better

Social and emotional skills - Polarity - Higher values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - Taking Action Program vs Curriculum as Usual - Endpoint

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Some concerns due to self-reported outcomes)*

Social and emotional skills - Taking Action Program vs Curriculum as Usual - Endpoint

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Some concerns due to self-reported outcomes)*

Study arms

Taking Action Program (N = 74)

Brief name	Take Action Program. Page 848

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Rationale/theory/Goal	Based on cognitive behavioural intervention principles for anxious children and young people between the ages of 4-18 years of age. Page 848-849
Materials used	Workbooks containing session handouts, homework exercises for children and psychoeducational handouts for parents. Page 849
Procedures used	The intervention included: • Psychoeducation about anxiety and bodily reactions associated with being anxious. • Training in relaxation techniques to cope with anxiety-provoking situations. • Identifying anxious self-talk and assisting children to use coping statements and calm thoughts in the place of threatening self-talk. • Between-session graded exposure to challenging or anxiety-provoking situations. • The development of "strength" cards; the use of "strength" sayings, problem-solving skills, the identification of a "strong team". • Social skills training. • How to manage challenging social interactions. • Relapse prevention and maintenance skills. Children received individual workbooks containing session handouts and homework exercises to complete between sessions. Page 849
Provider	School-based clinic manager (clinical psychologist) and a co-therapist (second year clinical training clinical psychologist). Page 849
Method of delivery	Face-to-face. Page 849
Setting/location of intervention	Classroom. Page 849
Intensity/duration of the intervention	Eight 1-hour sessions conducted on a weekly basis. Page 849
Tailoring/adaptation	When children missed a session, a therapist or co-therapist would meet with the children prior to the next session to review the missed content and provide them with relevant session handouts. Page 850
Unforeseen modifications	Not reported
Planned treatment fidelity	• The completion of the homework tasks was checked at the start of each session by the therapists. Page 849 • Therapists followed a detailed therapist manual and were required to complete a session checklist within the manual

	by ticking each activity outlined in the therapist manual after it had been completed. Page 849-850 • Treatment adherence was checked in each clinician's manual during supervision. Page 850
Actual treatment fidelity	Adherence to the intervention content ranged from 92% to 97% across sessions. Page 850
Other details	

CAU (N = 77)

Brief name	Curriculum as usual. Page 849
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Regular class timetable. Page 850
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.84 Waters, 2019

Bibliographic Reference	Waters, Allison M; Candy, Steven G; Zimmer-Gembeck, Melanie J; Groth, Trisha A; Craske, Michelle G; Bradley, Brendan P; Mogg, Karin; A School-Based Comparison of Positive Search Training to Enhance Adaptive Attention Regulation with a Cognitive-Behavioural Intervention for Reducing Anxiety Symptoms in Children.; Journal of abnormal child psychology; 2019

Study details

Study design	Cluster randomised controlled trial
Type of study	Efficacy
Trial registration number	Not reported
Aim	To compare classroom-based, enhanced positive-search-training (delivered on laptops without therapist assistance) relative to classroom-based, manualised cognitive-behavioural intervention and curriculum-as-usual (control).
Country/geographical location	Australia
Type of school	Primary education
Setting	Local primary school
UK Key stage	Key stage 2
Inclusion criteria	School children in Years 3, 4 and 5 at a local primary school
Exclusion criteria	No parental consent for the child to complete pre-, post- and follow-up assessments. For attention biases, reaction-times (RTs) were excluded from trials with errors, and if the RTs were <200 ms, >1100 ms and then >3 SD above the participant's mean RT. A participant's data from a time-point was excluded if more than 50% of trials were missing. Child self-report data were excluded if the child had no pre-intervention assessment data, or if they had pre-intervention assessment data but no subsequent data.
Method of randomisation	Computer-generated randomisation schedule (randomization.com)

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Method of allocation concealment	Not reported
Unit of allocation	Cluster (classroom)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Data were analysed using linear mixed model. The base model included fixed effects of condition (i.e., PST, CBI, CAU), child gender, assessment time-point (Time) (i.e., pre, post, 6-month, 12-month), and the Condition × Time interaction. Two random effects, Classroom and Participant within Classroom, were also specified. Power calculation was not reported. Linear Mixed Model (LMM) software uses maximum likelihood or residual maximum likelihood, as a 'state-the-art' method for dealing with missing values when these are missing at random, as it is a less complex approach than multiple imputation.
Attrition	Sample that provided 12-month follow-up data due to study attrition in each study arm (based on child outcome measures Spence Children's Anxiety Scale, Child version; Short Mood and Feelings Questionnaire, Child version; attention bias data): • PST arm: 91/116; 78.4% • CBI arm: 104/127; 81.9% • CAU arm: 49/60; 81.7%
Study limitations (author)	• Reliance on self-report and nonblinded parent- and teacher-reports, as outcomes may be influenced by intervention expectancies in relation to teacher-reported outcomes. • High rate of missing parent-report data. • The use of a customised teacher-report measure rather than a standardised teacher report measure.
Study limitations (reviewer)	Lack of allocation concealment data
Source of funding	Australian Rotary Health

Study arms

Positive-search-training (N = 116)

6 classrooms randomised across 3 year groups

Take Action Program (N = 127)

6 classrooms randomised across 3 year groups

Curriculum-as-usual (N = 60)

3 classrooms randomised across 2 year groups

Characteristics

Study-level characteristics

Characteristic	Study (N = 303)
Age (years) Range	7 to 11
Age (years) Mean (SD)	9.1 (1)
Australia Sample size	n = 270 ; % = 89
New Zealand, Asia and Europe Sample size	n = 33 ; % = 11

Arm-level characteristics

Characteristic	Positive-search-training (N = 116)	Take Action Program (N = 127)	Curriculum-as-usual (N = 60)
Male Sample size	n = 59 ; % = 50.9	n = 65 ; % = 51.2	n = 29 ; % = 48.3
Female Sample size	n = 57 ; % = 49.1	n = 62 ; % = 48.8	n = 31 ; % = 51.7

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Outcomes

Study timepoints
- 12 month

Outcomes

Outcome	Positive-search-training, 12 month, N = 116	Take Action Program, 12 month, N = 127	Curriculum-as-usual, 12 month, N = 60
Emotional distress - anxiety (0-114) Using The Spence Children's Anxiety Scale, Child version (SCAS-C); square root transformed means and SE Sample size	n = 91 ; % = 78.4	n = 104 ; % = 81.9	n = 49 ; % = 81.7
Emotional distress - anxiety (0-114) Using The Spence Children's Anxiety Scale, Child version (SCAS-C); square root transformed means and SE Mean (SE)	4.86 (0.23)	4.82 (0.22)	5.24 (0.3)
Emotional distress - depression Using ShortMood and Feelings Questionnaire; Child (self-report) Sample size	n = 91	n = 104	n = 49
Emotional distress - depression Using ShortMood and Feelings Questionnaire; Child (self-report) Mean (SE)	1.55 (0.17)	1.22 (0.17)	1.28 (0.24)

Emotional distress - anxiety - Polarity - Lower values are better

Emotional distress - depression - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Emotional distress - anxiety - Positive-search-training vs Take Action Program vs Curriculum-as-usual - 12-month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Serious concerns due to self-reported outcomes and missing outcome data)*

Emotional distress - depression - Positive-search-training-Take Action Program vs Curriculum-as-usual - 12-month follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Serious concerns due to self-reported outcomes and missing outcome data)*

Study arms

Positive-search-training (N = 116)

Brief name	Positive-search-training (PST). Page 1822
Rationale/theory/Goal	Not reported
Materials used	School laptops with headphones and microphones provided by the research team. Page 1825
Procedures used	Children were instructed to click on 'good' and 'calm' pictures from a picture array of good, calm and unpleasant pictures. Feedback (pleasant tone) was given on each trial for correct detection of positive and calm cues. Page 1825 PST was pre-installed onto the children's laptops, with headphones and microphones connected. A scripted explanation of how to find, open and complete PST on the laptop was given by the research assistant in the first session. The research assistant followed an administration manual and was required to complete a PST Session Checklist within after each session. Page 1826
Provider	Research assistant (three-year degree in psychology). Page 1826
Method of delivery	Scripted face-to-face explanation given by research assistant, then children completed PST on the school laptop. Page 1826

Setting/location of intervention	Classroom. Page 1825
Intensity/duration of the intervention	Eight 30 min sessions conducted twice weekly over 4 weeks. Page 1825
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	The research assistant followed a detailed administration manual and was required to complete a PST Session Checklist within the manual after each session. An independent assessor also completed the PST Session Checklist to ensure adherence to the administration procedures and consistency across classes. The research assistant received weekly supervision with the first author. Page 1826
Actual treatment fidelity	Administration adherence was checked during supervision and were found to be very high ranging from 95 to 100% across sessions. Page 1826

Take Action Program (N = 127)

Brief name	Cognitive-behavioural intervention (CBI) Page 1821
Rationale/theory/Goal	Based on cognitive behavioural intervention principles for the treatment of clinical anxiety in children between 4-12 years of age. Page 1825
Materials used	• Individual workbooks containing session handouts and homework exercises for children. Page 1825 • Psycho-educational handouts for parents. Page 1826
Procedures used	The program included: • Psycho-education about anxiety • Training in relaxation techniques • Identifying anxious self-talk • Between-session graded exposure to challenging or anxiety-provoking situations • The development of 'strength' cards Page 1825 Facilitators followed a detailed manual and were required to complete a CBI Session Checklist after each session. Page 1826

Provider	Registered clinical psychologist(postgraduate training in clinical psychology, CBIs and the Take Action Program). Co-facilitator (clinical psychology postgraduate interns in their second year of training on external placement) . Page 1826
Method of delivery	Face-to-face. Page 1826
Setting/location of intervention	Classroom. Page 1826
Intensity/duration of the intervention	30 min sessions conducted twice weekly over 4 weeks. Page 1825
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Facilitators followed a detailed manual and were required to complete a CBI Session Checklist after each session. An independent assessor (school-based administration officer) attended each session and also completed the CBI Session Checklist. Treatment adherences reviewed using facilitator and assessor checklists. Facilitators received weekly group supervision with the first author. Page 1826
Actual treatment fidelity	Adherence to the program content was high, ranging from 94%–98% across sessions. Page 1826

Curriculum-as-usual (N = 60)

Brief name	Curriculum-as-usual. Page 1823
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Regular class timetable. Page 1827
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported

Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported
Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.85 Wigelsworth, 2018

Bibliographic Reference	Michael Wigelsworth; FRIENDS for life Evaluation report and executive summary; 2018

Study details

Study design	Cluster randomised controlled trial
Type of study	Efficacy
Trial registration number	ISRCTN (REF: 13721202)
Study start date	Mar-2016
Study end date	Jul-2017
Aim	To examine the impact of the FRIENDS for Life programme specifically in relation to its impact on primary school children's: • Academic attainment at Key Stage 2 • Health related outcomes Subgroup effects were examined for: • Children eligible for free school meals • Children with elevated internalising difficulties at baseline

Country/geographical location	United Kingdom
Type of school	Primary education
Setting	Primary schools in Kent Local Authority
UK Key stage	Key stage 2
Inclusion criteria	Year 5 pupils attending state-funded primary schools who have not previously implemented FRIENDS
Exclusion criteria	Not reported
Method of randomisation	A cluster-randomised design was utilised, using matched pair or 'randomised block'
Method of allocation concealment	When collecting anxiety and depression (RCADS-25) and stress (PSWQ-C) outcome data, a team of research assistants (blinded to condition) scored the completed questionnaire packs. No further detail was included on the method of allocation concealment.
Unit of allocation	Cluster (class)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	• Power calculation: Post-hoc power calculations, including pre-test data give a 2-tailed minimum detectable effect size (MDES) of 0.151. • Intention to treat: An ITT analysis was conducted for Hypothesis 1 and Hypothesis 2. This analysis was carried out through fitting 3-level (schools, classes, pupils) hierarchical models to account for the nested nature of the data. Academic ITT - p=0.908; anxiety and depression ITT p=0.983; stress ITT p=0.269. • Basic descriptive statistics were reported for pupil-level outcome data at baseline and post-test. • For sensitivity analysis, statistical models using multiple imputation to account for missing data support the findings of the complete case analysis.
Attrition	Attrition by study arm at follow-up: • FRIENDS for Life: 1476/1565 = 5.7% attrition • Usual Provision: 1534/1642 = 6.6% attrition
Study limitations (author)	• Trial schools were seen to be higher in the proportion of pupils eligible for free school meals and showed a much small number of pupils with special education and additional

	needs or disabilities and those speaking English as an additional language. • Although self-reported worry was initially chosen on the basis of its alignment with the primary health outcome of the current trial, the use of self-report raised some questions regarding its suitability in providing a dichotomous cut-off. • PSWQ does not have clinically identifiable categories, and literature indicated difficulties in reliability distinguishing an appropriate cut-point. • The use of class as the unit of randomisation (rather than school) means that the possibility of contamination between trial arms cannot be completely ruled out. • Lack of longitudinal observer data from research staff meant that observation data may be subject to researcher/ observer effects.
Study limitations (reviewer)	Lack of detail regarding method of allocation concealment
Source of funding	The programme was co-funded by the Department for Education as part of an EEF funding round on Character Education

Study arms

FRIENDS for Life (N = 1565)

62 classes including 1565 individuals

Usual Provision (N = 1642)

60 classes including 1642 individuals

Characteristics

Arm-level characteristics

Characteristic	FRIENDS for Life (N = 1565)	Usual Provision (N = 1642)
Male Mean (SD)	47.01 (14.32)	48.17 (10.72)
Female	52.99 (NR)	51.83 (NR)

Characteristic	FRIENDS for Life (N = 1565)	Usual Provision (N = 1642)
Mean (SD)		
Socioeconomic status Reported as proportion of pupils eligible for free school meals within class Mean (SD)	0.14 (0.12)	0.16 (0.14)

Outcomes

Study timepoints
- 5 month (Follow-up)

Outcomes

Outcome	FRIENDS for Life, 5 month, N = 1565	Usual Provision, 5 month, N = 1642
Emotional distress - anxiety and depression Measured by Revised Child Anxiety and Depression Scale (RCADS 25) (self-reported) Sample size	n = 1476 ; % = 94.3	n = 1534 ; % = 93.4
Emotional distress - anxiety and depression Measured by Revised Child Anxiety and Depression Scale (RCADS 25) (self-reported) Mean (SD)	19.36 (11.87)	19.33 (12.43)
Emotional distress - stress Measured by Penn State Worry Questionnaire for Children (PSWQ-C) (self-reported) Sample size	n = 1476 ; % = 94.3	n = 1534 ; % = 93.4
Emotional distress - stress Measured by Penn State Worry	16.06 (8.53)	15.8 (9.03)

Outcome	FRIENDS for Life, 5 month, N = 1565	Usual Provision, 5 month, N = 1642
Questionnaire for Children (PSWQ-C) (self-reported) Mean (SD)		
Academic outcomes Measured by Key Stage 2 Maths and Reading combined score Sample size	n = 1476 ; % = 94.3	n = 1534 ; % = 93.4
Academic outcomes Measured by Key Stage 2 Maths and Reading combined score Mean (SD)	104.06 (7.79)	104.07 (7.74)

Emotional distress - anxiety and depression - Polarity - Lower values are better

Emotional distress - stress - Polarity - Lower values are better

Academic outcomes - Polarity - Higher values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Outcomes-Emotionaldistress-anxietyanddepression-MeanSD-FRIENDS for Life-Usual Provision-t5

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Outcomes-Emotionaldistress-stress-MeanSD-FRIENDS for Life-Usual Provision-t5

Section	Question	Answer
Overall bias	Risk of bias judgement	Some concerns *(Self-reported outcomes)*

Outcomes-Academicoutcomes-MeanSD-FRIENDS for Life-Usual Provision-t5

Section	Question	Answer
Overall bias	Risk of bias judgement	Low

Study arms

FRIENDS for Life (N = 1565)

Brief name	FRIENDS for Life. Page 6
Rationale/theory/Goal	Cognitive Behaviour Therapy (CBT) principles. Page 6
Materials used	Group leader's manual and pupil workbooks. Page 7
Procedures used	The programme aims to promote various protective factors, such as recognising physiological symptoms (e.g. session 2), emotional self-management (e.g. session 4), and supporting peer relationships (e.g. session 8). Page 7
Provider	External delivery team; 'Salus'. Page 7
Method of delivery	Face-to-face. Page 7
Setting/location of intervention	Classroom. Page 7
Intensity/duration of the intervention	FRIENDS is delivered through 10 weekly sessions. The length of each weekly session varies (e.g. between 60 – 90 minutes) Additionally, there are two one-hour whole-class booster sessions reinforcing the application of FRIENDS to real life situations that can be held approximately 1 to 3 months after completing the program, and 2 information sessions for parents of approximately 2 hours length each. Page 7
Tailoring/adaptation	FRIENDS is a highly prescriptive, however, given variable session lengths (in contrast to fixed school timetables) and the context of implementing any 'real world' intervention in complex social environments, adaptation is inevitable. Adaptation usually occurs in the form of truncation (or omission), substitution or expansion of activities by implementers. Page 8
Unforeseen modifications	Not reported
Planned treatment fidelity	• Implementers receive 1 day of training provided by 'Interactive Connections' a licensed training company (now retired). Page 8

	• Information on the level to which FRIENDS was delivered by facilitators was mainly gathered through observations during case studies but also through interviews with the other key stakeholders. Page 39
Actual treatment fidelity	• No dimension of implementation variability was seen to be associated with pupil academic outcomes. Page 36 • Quality of delivery by the Project Officers was seen to be associated with a statistically significant reduction in pupil's self-rated worry. Page 37 • A smaller but also significant effect was seen for level of engagement by Project Officer, however this effect is associated with a small increase in self rated worry score. Page 37 • A fidelity map is presented (Figure 5). Page 37 • Mean scores of lessons' observations as rated by the observers reported (Figure 6) with average scores of all parameters ranging from 7.9-9.9. Page 40
Other details	

Usual Provision (N = 1642)

Brief name	Usual Provision. Page 15
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Not reported
Provider	Not reported
Method of delivery	Not reported
Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Tailoring/adaptation	Not reported

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Unforeseen modifications	Not reported
Planned treatment fidelity	Not reported
Actual treatment fidelity	Not reported

D.1.86   Wong, 2014

Bibliographic Reference	Wong, N.; Kady, L.; Mewton, L.; Sunderland, M.; Andrews, G.; Preventing anxiety and depression in adolescents: A randomised controlled trial of two school based Internet-delivered cognitive behavioural therapy programmes; Internet Interventions; 2014; vol. 1 (no. 2); 90-94

Study details

Study design	Cluster randomised controlled trial
Type of study	Efficacy
Trial registration number	ACTRN12612000414819
Aim	To examine the efficacy of course on anxiety and depression in comparison with usual practice (health education;)
Country/geographical location	Australia
Type of school	Secondary education
Setting	School
UK Key stage	Key stage 4
Inclusion criteria	Students from years 9 to 10, aged between 14 and 16 years, from independent high schools in New South Wales, Australia
Exclusion criteria	Not reported
Method of randomisation	Not reported

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Method of allocation concealment	Not reported
Unit of allocation	Cluster (School)
Unit of analysis	Individual
Statistical method(s) used to analyse the data	Outcome analyses were conducted on an intention to treat basis using linear mixed-model repeated measures (MMRM) analysis of variance tests. Under the assumption that data is missing at random (MAR), mixed models estimate statistical parameters in repeated measures studies with unbalanced data using maximum likelihood estimation. All three outcome variables were analysed using MIXED procedure in SPSS Version 22 with random intercept and the model was examined with several residual covariance structures. Missing data analysis - Chi-square difference tests determined whether loss of data occurred differentially across treatment groups. t-Tests determined whether baseline scores on the GAD-7, PHQ-5 and K6 differed for those students with and without post-treatment data. Baseline analysis - The distribution of scores for the GAD-7, PHQ-5 and K6were first examined in the full sample (n= 976). In both the full (n=976) and reduced (n=265) samples, a series of one-way analysis of variance tests were used to assess baseline equivalence between the three trial arms, using the GAD-7, PHQ-5 and K6 as dependent variables.
Attrition	Sample that provided post-intervention data due to study attrition in each study arm: - Control arm: 72/224; 32.1% - Anxiety arm: 92/372; 24.7% - Depression arm: 101/380; 26.6%
Study limitations (author)	The loss of most of the post-intervention data through both attrition and data corruption, this meant that we were not able to take account of the cluster nature of the data and the numbers were too small to show a significant effect and this limitation affects the generalisability of the findings.

	• The lack of longer term follow-up data as this limits the interpretation of the findings.
Study limitations (reviewer)	Lack of detail regarding inclusion/exclusion criteria, randomisation and concealment.
Source of funding	Not reported

Study arms

Thiswayup Schools - D (N = 380)

5 schools randomised

Thiswayup Schools - A (N = 372)

4 schools randomized

Usual practice (N = 224)

3 schools randomised

Characteristics

Study-level characteristics

Characteristic	Study (N = 976)
Age (years) Range	14 to 16
Female Sample size	n = 683 ; % = 70

Outcomes

Study timepoints
• 7 week

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Outcomes

Outcome	Thiswayup Schools - D, 7 week, N = 380	Thiswayup Schools - A, 7 week, N = 372	Usual practice, 7 week, N = 224
Emotional distress - depression (0 - 15) Using Patient Health Questionnaire-9 short-form (self-reported) Sample size	n = 101 ; % = 26.6	n = 92 ; % = 24.7	n = 72 ; % = 32.1
Emotional distress - depression (0 - 15) Using Patient Health Questionnaire-9 short-form (self-reported) Mean (SD)	2.32 (2.42)	2.55 (2.41)	2.67 (2.47)
Emotional distress - anxiety Using Generalised Anxiety Disorder scale (self-report) Sample size	n = 101 ; % = 26.6	n = 92 ; % = 24.7	n = 72 ; % = 32.1
Emotional distress - anxiety Using Generalised Anxiety Disorder scale (self-report) Mean (SD)	3.47 (3.19)	3.83 (3.17)	4.41 (3.22)

Emotional distress - depression - Polarity - Lower values are better

Emotional distress - anxiety - Polarity - Lower values are better

Critical appraisal - Cochrane Risk of Bias tool (RoB 2.0) Cluster trials

Social and emotional skills - Thiswayup Schools - D vs Thiswayup Schools - A vs Control - 7 weeks follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Serious concerns due to missing outcome data and self-reported outcomes)*

Emotional distress - anxiety - Thiswayup Schools vs D-Thiswayup Schools vs A-Control - 7 weeks follow-up

Section	Question	Answer
Overall bias	Risk of bias judgement	High *(Serious concerns due to missing outcome data and self-reported outcomes)*

Study details

Brief name	
Rationale/theory/Goal	The efficacy of the Thiswayup Schools courses have been demonstrated in stress, alcohol and cannabis. Page 91
Materials used	Cartoon-based storyline and class work sheets. Page 91
Procedures used	Students undertook 40 minute lessons. In the first component of the lesson, students completed a 15-20 minute self-directed activity following a cartoon based storyline. In the second component of each lesson, class work sheets were provided to the participants to stimulate discussion and reinforce the information learnt from the cartoon. Page 91
Provider	Regular teacher. Page 91
Method of delivery	Self-directed. Page 91
Setting/location of intervention	Regular personal development and health classes. Page 91
Intensity/duration of the intervention	Once a week over 7 weeks. Page 91
Tailoring/adaptation	Not reported

Unforeseen modifications	Not reported
Planned treatment fidelity	Teachers in the intervention groups were not provided training except for a manual. Page 91
Actual treatment fidelity	Not reported

Study arms

Thiswayup School - D (N = 380)

Brief name	Combating Depression. Page 91
Rationale/theory/Goal	Not reported

Thiswayup Schools - A (N = 372)

Brief name	Overcoming Anxiety. Page 91
Rationale/theory/Goal	Not reported
Intensity/duration of the intervention	Once a week over 6 weeks. Page 91

Usual practice (N = 224)

Brief name	Usual health classes. Page 91
Rationale/theory/Goal	Not reported
Materials used	Not reported
Procedures used	Students in the control school completed the same pattern of assessments as the intervention schools, but received their regular health classes instead of the online programme received by the intervention schools. Page 91
Provider	Not reported
Method of delivery	Not reported

Setting/location of intervention	Not reported
Intensity/duration of the intervention	Not reported
Planned treatment fidelity	Not reported

Appendix E   – Forest plots

E.1 Steps for life curriculum

E.1.1 Social and emotional skills
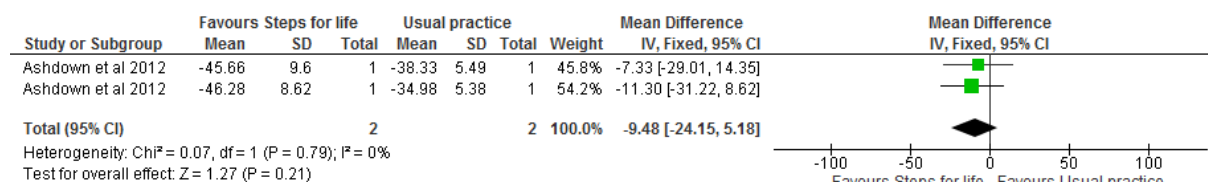
E.1.2 Emotional distress
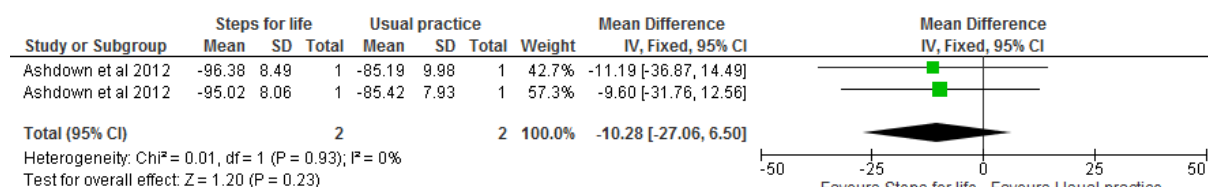
E.1.3 Behavioural outcomes

E.1.4 Academic outcomes

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E.2 Rational Emotive Education

E.2.1 Social and emotional skills

Study or Subgroup	Rational emotive Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI
Caruso et al 2018	-12.28	2.32	68	-11.02	2.57	65	47.5%	-1.26 [-2.09, -0.43]
Caruso et al 2018	-12.24	2.2	78	-11.02	2.57	65	52.5%	-1.22 [-2.01, -0.43]
Total (95% CI)			**146**			**130**	**100.0%**	**-1.24 [-1.81, -0.66]**

Heterogeneity: Chi² = 0.00, df = 1 (P = 0.95); I² = 0%
Test for overall effect: Z = 4.23 (P < 0.0001)

E.3 Jovenes Fuertes Social Emotional Learning

E.3.1 Social and emotional skills

Study or Subgroup	Jovenes Fuertes Mean	SD	Total	Waiting list Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI
Castro-Olivo et al 2014	-79.19	9.96	49	-74.2	12.37	53	100.0%	-4.99 [-9.33, -0.65]
Total (95% CI)			**49**			**53**	**100.0%**	**-4.99 [-9.33, -0.65]**

Heterogeneity: Not applicable
Test for overall effect: Z = 2.25 (P = 0.02)

E.4 Move for well-being in school

E.4.1 Social and emotional skills

Study or Subgroup	Move Mean	SD	Total	Usual practice Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI
Christiansen et al 2018	-3.03	0.78	951	-2.99	0.78	1093	100.0%	-0.04 [-0.11, 0.03]
Total (95% CI)			**951**			**1093**	**100.0%**	**-0.04 [-0.11, 0.03]**

Heterogeneity: Not applicable
Test for overall effect: Z = 1.16 (P = 0.25)

E.4.2 Behavioural outcomes

Study or Subgroup	Move Mean	SD	Total	Usual practice Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI
Christiansen et al 2018	-3.36	0.67	1301	-3.35	0.69	1496	100.0%	-0.01 [-0.06, 0.04]
Total (95% CI)			**1301**			**1496**	**100.0%**	**-0.01 [-0.06, 0.04]**

Heterogeneity: Not applicable
Test for overall effect: Z = 0.39 (P = 0.70)

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E.5 Roots of Empathy

E.5.1 Social and emotional skills

Study or Subgroup	Roots of Empathy Mean	SD	Total	Usual practice Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI	Mean Difference IV, Fixed, 95% CI
Connolly et al 2018	-0.02	1.018	138	0.101	0.979	109	100.0%	-0.12 [-0.37, 0.13]	
Total (95% CI)			138			109	100.0%	-0.12 [-0.37, 0.13]	

Heterogeneity: Not applicable
Test for overall effect: Z = 0.95 (P = 0.34)

Favours Roots of Empathy Favours Usual practice

E.5.2 Behavioural outcomes

Study or Subgroup	Roots of Empathy Mean	SD	Total	Usual practice Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI	Mean Difference IV, Fixed, 95% CI
Connolly et al 2018	-0.019	1.068	138	0.123	0.896	109	100.0%	-0.14 [-0.39, 0.10]	
Total (95% CI)			138			109	100.0%	-0.14 [-0.39, 0.10]	

Heterogeneity: Not applicable
Test for overall effect: Z = 1.14 (P = 0.26)

Favours Roots of Empathy Favours Usual practice

E.6 Social Skills Improvement System Class wide Intervention Program (SSIS-CIP)

E.6.1 Social and emotional skills

Study or Subgroup	SSIS-CIP Mean	SD	Total	Usual practice Mean	SD	Total	Weight	Std. Mean Difference IV, Fixed, 95% CI	Std. Mean Difference IV, Fixed, 95% CI
Diperna et al 2018	-2.2	0.51	125	-2.31	0.49	130	100.0%	0.22 [-0.03, 0.47]	
Total (95% CI)			125			130	100.0%	0.22 [-0.03, 0.47]	

Heterogeneity: Not applicable
Test for overall effect: Z = 1.75 (P = 0.08)

Favours SSIS-CIP Favours Usual practice

E.6.2 Behavioural outcomes

Study or Subgroup	SSIS-CIP Mean	SD	Total	Usual practice Mean	SD	Total	Weight	Std. Mean Difference IV, Fixed, 95% CI	Std. Mean Difference IV, Fixed, 95% CI
Diperna et al 2016	-3.82	0.92	95	-3.39	1.09	87	49.2%	-0.43 [-0.72, -0.13]	
Diperna et al 2018	0.57	0.57	129	0.33	0.68	73	50.8%	0.39 [0.10, 0.68]	
Total (95% CI)			224			160	100.0%	-0.01 [-0.22, 0.20]	

Heterogeneity: Chi² = 15.04, df = 1 (P = 0.0001); I² = 93%
Test for overall effect: Z = 0.11 (P = 0.91)

Favours SSIS-CIP Favours Usual practice

E.6.3 Academic outcomes

Study or Subgroup	SSIS-CIP Mean	SD	Total	Usual practice Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI	Mean Difference IV, Fixed, 95% CI
Diperna et al 2016	-489.5	105.88	95	-475.7	96.3	87	61.9%	-13.80 [-43.17, 15.57]	
Diperna et al 2018	-356.05	128.45	92	-351.3	132.8	95	38.1%	-4.75 [-42.19, 32.69]	
Total (95% CI)			187			182	100.0%	-10.35 [-33.46, 12.76]	

Heterogeneity: Chi² = 0.14, df = 1 (P = 0.71); I² = 0%
Test for overall effect: Z = 0.88 (P = 0.38)

Favours SSIS-CIP Favours Usual practice

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E.7 Social, Personal and Health Education Programme (SPHE) plus Working things out through SPHE

E.7.1 Social and emotional skills

Study or Subgroup	WTO Mean	WTO SD	WTO Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Fixed, 95% CI
Fitzpatrick et al 2013	11.68	5.44	361	11.31	5.6	421	100.0%	0.37 [-0.41, 1.15]
Total (95% CI)			361			421	100.0%	0.37 [-0.41, 1.15]

Heterogeneity: Not applicable
Test for overall effect: Z = 0.94 (P = 0.35)

Mean Difference IV, Fixed, 95% CI
-4 -2 0 2 4
Favours WTO Favours control

E.7.2 Behavioural outcomes

Study or Subgroup	WTO Mean	WTO SD	WTO Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Fixed, 95% CI
Fitzpatrick et al 2013	-2.5	0.46	361	-2.53	0.5	412	100.0%	0.03 [-0.04, 0.10]
Total (95% CI)			361			412	100.0%	0.03 [-0.04, 0.10]

Heterogeneity: Not applicable
Test for overall effect: Z = 0.87 (P = 0.39)

Mean Difference IV, Fixed, 95% CI
-0.2 -0.1 0 0.1 0.2
Favours WTO Favours control

E.8 Gratitude intervention

E.8.1 Behavioural outcomes

Study or Subgroup	Gratitude Mean	Gratitude SD	Gratitude Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Fixed, 95% CI
Froh et al 2008	-3.56	1.12	76	-3.6	0.95	65	100.0%	0.04 [-0.30, 0.38]
Total (95% CI)			76			65	100.0%	0.04 [-0.30, 0.38]

Heterogeneity: Not applicable
Test for overall effect: Z = 0.23 (P = 0.82)

Mean Difference IV, Fixed, 95% CI
-1 -0.5 0 0.5 1
Favours Gratitude Favours Control

E.9 Hassle intervention

E.9.1 Behavioural outcomes

Study or Subgroup	Hassle Mean	Hassle SD	Hassle Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Fixed, 95% CI
Froh et al 2008	-3.19	1.25	80	-3.6	0.95	65	100.0%	0.41 [0.05, 0.77]
Total (95% CI)			80			65	100.0%	0.41 [0.05, 0.77]

Heterogeneity: Not applicable
Test for overall effect: Z = 2.24 (P = 0.02)

Mean Difference IV, Fixed, 95% CI
-4 -2 0 2 4
Favours Hassle Favours Control

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E.10 Philosophy for Children

E.10.1 Social and emotional skills

Study or Subgroup	P4C Mean	SD	Total	Waiting list Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI	Mean Difference IV, Fixed, 95% CI
Gorard et al 2017	-96.59	12.26	109	-96.9	11.9	116	100.0%	0.31 [-2.85, 3.47]	
Total (95% CI)			109			116	100.0%	0.31 [-2.85, 3.47]	

Heterogeneity: Not applicable
Test for overall effect: Z = 0.19 (P = 0.85)

Favours P4C Favours Waiting list

E.10.2 Academic outcomes

Study or Subgroup	P4C Mean	SD	Total	Waiting list Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI	Mean Difference IV, Fixed, 95% CI
Gorard et al 2017	0.04	1.01	108	-0.04	0.99	106	100.0%	0.08 [-0.19, 0.35]	
Total (95% CI)			108			106	100.0%	0.08 [-0.19, 0.35]	

Heterogeneity: Not applicable
Test for overall effect: Z = 0.59 (P = 0.56)

Favours P4C Favours Waiting list

E.11 Strong kids

E.11.1 Social and emotional skills

Study or Subgroup	Strong kids Mean	SD	Total	Waiting list Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI	Mean Difference IV, Fixed, 95% CI
Harlacher et al 2010	-13.46	3.3	54	-11.25	3.17	52	100.0%	-2.21 [-3.44, -0.98]	
Total (95% CI)			54			52	100.0%	-2.21 [-3.44, -0.98]	

Heterogeneity: Not applicable
Test for overall effect: Z = 3.52 (P = 0.0004)

Favours Strong kids Favours Waitig list

E.11.2 Behavioural outcomes

Study or Subgroup	Strong kids Mean	SD	Total	Waiting list Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI	Mean Difference IV, Fixed, 95% CI
Harlacher et al 2010	-44.54	11.69	54	-30.96	12.35	52	100.0%	-13.58 [-18.16, -9.00]	
Total (95% CI)			54			52	100.0%	-13.58 [-18.16, -9.00]	

Heterogeneity: Not applicable
Test for overall effect: Z = 5.81 (P < 0.00001)

Favours Strong kids Favours Waitig list

E.12 PATHS

E.12.1 Social and emotional skills

Study or Subgroup	PATHS Mean	SD	Total	Usual practice Mean	SD	Total	Weight	Std. Mean Difference IV, Fixed, 95% CI	Std. Mean Difference IV, Fixed, 95% CI
Berry et al 2016	-6.6	6.24	116	-6.39	6.05	100	4.7%	-0.03 [-0.30, 0.23]	
Humphrey et al 2018	-97.81	19.45	252	-95.94	20.34	211	10.0%	-0.09 [-0.28, 0.09]	
Lalongo et al 2019	-4.1	2.74	1423	-3.92	3.14	1887	70.4%	-0.06 [-0.13, 0.01]	
Malti et al 2011	-0.77	0.26	353	-0.77	0.26	340	15.0%	0.00 [-0.15, 0.15]	
Total (95% CI)			2144			2538	100.0%	-0.05 [-0.11, 0.00]	

Heterogeneity: Chi² = 0.74, df = 3 (P = 0.86); I² = 0%
Test for overall effect: Z = 1.82 (P = 0.07)

Favours PATHS Favours Usual practice

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E.12.2 Emotional distress

Study or Subgroup	PATHS Mean	SD	Total	Usual practice Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI
Berry et al 2016	1.95	0.75	492	1.93	0.81	429	7.6%	0.02 [-0.08, 0.12]
Humphrey et al 2018	3.47	4.11	76	3.69	3.61	64	0.0%	-0.22 [-1.50, 1.06]
Malti et al 2011	0.18	0.2	353	0.17	0.19	340	92.4%	0.01 [-0.02, 0.04]
Total (95% CI)			**921**			**833**	**100.0%**	**0.01 [-0.02, 0.04]**

Heterogeneity: Chi² = 0.16, df = 2 (P = 0.92); I² = 0%
Test for overall effect: Z = 0.75 (P = 0.45)

E.12.3 Behavioural outcomes

Study or Subgroup	PATHS Mean	SD	Total	Usual practice Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI
Berry et al 2016	1.95	0.75	492	1.93	0.81	429	7.6%	0.02 [-0.08, 0.12]
Humphrey et al 2018	3.47	4.11	76	3.69	3.61	64	0.0%	-0.22 [-1.50, 1.06]
Malti et al 2011	0.18	0.2	353	0.17	0.19	340	92.4%	0.01 [-0.02, 0.04]
Total (95% CI)			**921**			**833**	**100.0%**	**0.01 [-0.02, 0.04]**

Heterogeneity: Chi² = 0.16, df = 2 (P = 0.92); I² = 0%
Test for overall effect: Z = 0.75 (P = 0.45)

E.12.4 Academic outcomes

Study or Subgroup	PATHS Mean	SD	Total	Usual practice Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI
Berry et al 2016	-3.08	1.33	489	-3.1	1.31	430	51.0%	0.02 [-0.15, 0.19]
Humphrey et al 2018	-29.11	5.36	99	-28.77	5.25	1665	1.3%	-0.34 [-1.43, 0.75]
Lalongo et al 2019	-4.33	2.41	1423	-4.17	2.76	1887	47.8%	-0.16 [-0.34, 0.02]
Total (95% CI)			**2011**			**3982**	**100.0%**	**-0.07 [-0.19, 0.05]**

Heterogeneity: Chi² = 2.30, df = 2 (P = 0.32); I² = 13%
Test for overall effect: Z = 1.13 (P = 0.26)

E.13 EPHECT

E.13.1 Social and emotional skills

Study or Subgroup	EPHECT Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI
Lang et al 2017	8.99	2.53	63	8.09	1.8	59	100.0%	0.90 [0.12, 1.68]
Total (95% CI)			**63**			**59**	**100.0%**	**0.90 [0.12, 1.68]**

Heterogeneity: Not applicable
Test for overall effect: Z = 2.27 (P = 0.02)

E.13.2 Emotional distress

Study or Subgroup	EPHECT Mean	SD	Total	Control Mean	SD	Total	Weight	Mean Difference IV, Fixed, 95% CI
Lang et al 2017	-6.07	1.81	63	-5.92	1.53	59	100.0%	-0.15 [-0.74, 0.44]
Total (95% CI)			**63**			**59**	**100.0%**	**-0.15 [-0.74, 0.44]**

Heterogeneity: Not applicable
Test for overall effect: Z = 0.50 (P = 0.62)

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E.14 ProCiviCo

E.14.1 Behavioural outcomes

E.15 Class SCERTS intervention (CSI)

E.15.1 Social and emotional skills
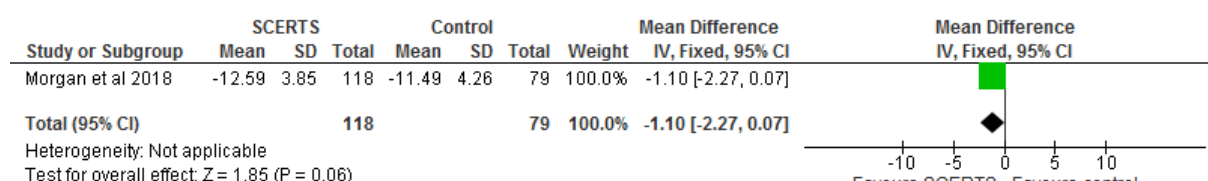
E.15.2 Behavioural outcomes
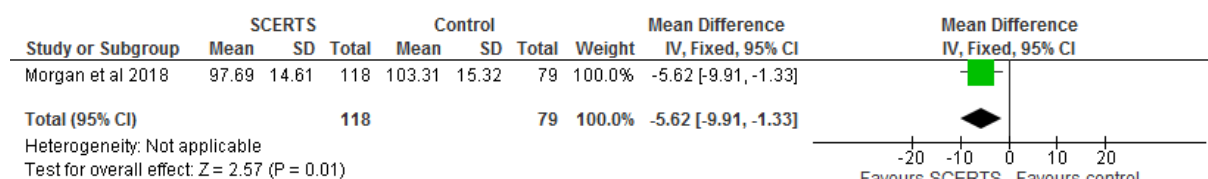
E.16 INSIGHTS

E.16.1 Social and emotional skills

E.16.2 Behavioural outcomes

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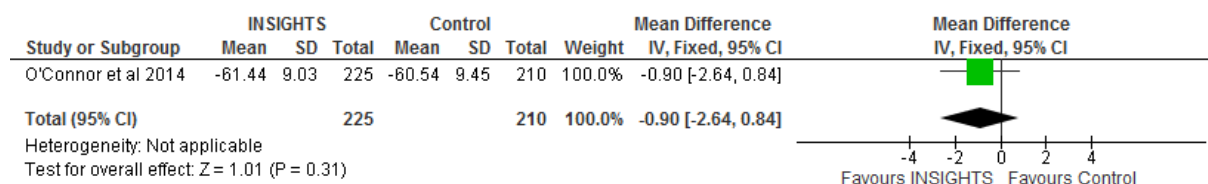
E.16.3 Academic outcomes

E.17 Mindfulness

E.17.1 Social and emotional skills

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E.17.2 Emotional Distress - Depression

Study or Subgroup	Mindfulness Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
21.2.1 Primary education									
Schonert-Reichl et al 2015	1.85	0.51	48	2.02	0.48	51	13.0%	-0.34 [-0.74, 0.06]	
Subtotal (95% CI)			48			51	13.0%	-0.34 [-0.74, 0.06]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.68 (P = 0.09)									
21.2.2 Secondary education									
Burckhardt et al 2016 (year 10)	59.27	25.25	11	78	27.48	8	3.5%	-0.68 [-1.63, 0.26]	
Burckhardt et al 2016 (year 11)	60.31	22.28	13	57.38	29.32	14	5.1%	0.11 [-0.65, 0.86]	
Dowling et al 2019	12.8	8.5	190	15.8	9.6	194	23.1%	-0.33 [-0.53, -0.13]	
Hagins et al 2016	0.84	0.8	55	0.67	0.6	39	12.4%	0.23 [-0.18, 0.64]	
Lassander 2021	1.805	3.651	678	2.007	4.232	221	26.1%	-0.05 [-0.20, 0.10]	
Raes 2014	12.9	17.3	82	21	21.3	82	16.9%	-0.42 [-0.72, -0.11]	
Subtotal (95% CI)			1029			558	87.0%	-0.17 [-0.38, 0.04]	
Heterogeneity: Tau² = 0.03; Chi² = 12.43, df = 5 (P = 0.03); I² = 60%									
Test for overall effect: Z = 1.59 (P = 0.11)									
Total (95% CI)			1077			609	100.0%	-0.19 [-0.38, -0.01]	
Heterogeneity: Tau² = 0.03; Chi² = 13.17, df = 6 (P = 0.04); I² = 54%									
Test for overall effect: Z = 2.03 (P = 0.04)									
Test for subgroup differences: Chi² = 0.55, df = 1 (P = 0.46), I² = 0%									

-2 -1 0 1 2
Favours Mindfulness Favours Control

E.17.3 Emotional Distress -Anxiety

Study or Subgroup	Mindfulness Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
21.3.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
21.3.2 Secondary education									
Britton et al 2014	355.7	231.4	52	403.3	292.9	48	67.1%	-0.18 [-0.57, 0.21]	
Subtotal (95% CI)			52			48	67.1%	-0.18 [-0.57, 0.21]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.90 (P = 0.37)									
21.3.3 Mix									
Sibinga 2016	10.53	7.6	23	11.09	8	26	32.9%	-0.07 [-0.63, 0.49]	
Subtotal (95% CI)			23			26	32.9%	-0.07 [-0.63, 0.49]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.25 (P = 0.81)									
Total (95% CI)			75			74	100.0%	-0.14 [-0.47, 0.18]	
Heterogeneity: Tau² = 0.00; Chi² = 0.10, df = 1 (P = 0.75); I² = 0%									
Test for overall effect: Z = 0.88 (P = 0.38)									
Test for subgroup differences: Chi² = 0.10, df = 1 (P = 0.75), I² = 0%									

-2 -1 0 1 2
Favours Mindfulness Favours Control

E.17.4 Emotional Distress – Anxiety and Depression

E.17.5 Behavioural outcomes

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Study or Subgroup	log[]	SE	Weight	IV, Fixed, 95% CI	IV, Fixed, 95% CI
21.5.1 Primary education					
Subtotal (95% CI)				**Not estimable**	
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					
21.5.2 Secondary education					
Salmoirago-Blotcher et al 2019	-2.89	2.23	100.0%	0.06 [0.00, 4.40]	
Subtotal (95% CI)			**100.0%**	**0.06 [0.00, 4.40]**	
Heterogeneity: Not applicable					
Test for overall effect: Z = 1.30 (P = 0.19)					

Favours Mindfulness   Favours Control

Test for subgroup differences: Not applicable

E.17.6 Academic outcomes

	Mindfulness			Control				Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
21.6.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
21.6.2 Secondary education									
Hagins et al 2016	-85.71	8.4	64	-83.45	8.79	48	52.8%	-0.26 [-0.64, 0.11]	
Schonert-Reichl et al 2015	-6.12	2.17	48	-5.25	2.46	51	47.2%	-0.37 [-0.77, 0.03]	
Subtotal (95% CI)			112			99	100.0%	-0.31 [-0.59, -0.04]	
Heterogeneity: Tau² = 0.00; Chi² = 0.15, df = 1 (P = 0.69); I² = 0%									
Test for overall effect: Z = 2.25 (P = 0.02)									
Total (95% CI)			112			99	100.0%	-0.31 [-0.59, -0.04]	
Heterogeneity: Tau² = 0.00; Chi² = 0.15, df = 1 (P = 0.69); I² = 0%									
Test for overall effect: Z = 2.25 (P = 0.02)									
Test for subgroup differences: Not applicable									

Favours Mindfulness   Favours Control

E.17.7 Quality of life

No studies identified

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E.18 Aussie Optimism Program

E.18.1 Social and emotional skills

	AOP			Control				Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
22.1.1 Primary education									
Pophillat et al 2016	-17.34	3.33	101	-15.45	3.34	84	100.0%	-0.56 [-0.86, -0.27]	
Subtotal (95% CI)			101			84	100.0%	-0.56 [-0.86, -0.27]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 3.75 (P = 0.0002)									
22.1.2 Secondary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
Total (95% CI)			101			84	100.0%	-0.56 [-0.86, -0.27]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 3.75 (P = 0.0002)									
Test for subgroup differences: Not applicable									

Favours AOP Favours Control

E.18.2 Emotional Distress - Depression

	AO			Control				Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
22.2.1 Primary education									
Kennedy 2015	5.08	5.81	62	6.69	6.92	29	26.4%	-0.26 [-0.70, 0.18]	
Rooney 2013	6.98	7.18	93	5.86	5.76	75	47.9%	0.17 [-0.14, 0.47]	
Subtotal (95% CI)			155			104	74.3%	-0.01 [-0.43, 0.40]	
Heterogeneity: Tau² = 0.05; Chi² = 2.43, df = 1 (P = 0.12); I² = 59%									
Test for overall effect: Z = 0.06 (P = 0.95)									
22.2.2 Secondary education									
Roberts 2010	6.66	6.56	40	6.29	6.92	36	25.7%	0.05 [-0.40, 0.50]	
Subtotal (95% CI)			40			36	25.7%	0.05 [-0.40, 0.50]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.24 (P = 0.81)									
Total (95% CI)			195			140	100.0%	0.03 [-0.22, 0.27]	
Heterogeneity: Tau² = 0.01; Chi² = 2.44, df = 2 (P = 0.30); I² = 18%									
Test for overall effect: Z = 0.21 (P = 0.83)									
Test for subgroup differences: Chi² = 0.05, df = 1 (P = 0.83), I² = 0%									

Favours AOP Favours Control

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E.18.3 Emotional Distress -Anxiety

Study or Subgroup	AOP Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
22.3.1 Primary education								
Kennedy 2015	20.64	13.04	58	23.78	15.31	27	20.5%	-0.23 [-0.68, 0.23]
Rooney 2013	29.85	11.18	93	30.41	10.45	75	46.5%	-0.05 [-0.36, 0.25]
Pophillat et al 2016	30.89	19.6	51	29.05	17.4	15	13.0%	0.10 [-0.48, 0.67]
Subtotal (95% CI)			202			117	80.0%	-0.07 [-0.30, 0.16]

Heterogeneity: Tau² = 0.00; Chi² = 0.77, df = 2 (P = 0.68); I² = 0%

Test for overall effect: Z = 0.61 (P = 0.54)

Study or Subgroup	AOP Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
22.3.2 Secondary education								
Roberts 2010	5.6	5.85	38	4.71	4.74	34	20.0%	0.16 [-0.30, 0.63]
Subtotal (95% CI)			38			34	20.0%	0.16 [-0.30, 0.63]

Heterogeneity: Not applicable

Test for overall effect: Z = 0.70 (P = 0.49)

Study or Subgroup	AOP Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
Total (95% CI)			240			151	100.0%	-0.02 [-0.23, 0.18]

Heterogeneity: Tau² = 0.00; Chi² = 1.57, df = 3 (P = 0.67); I² = 0%

Test for overall effect: Z = 0.24 (P = 0.81)

Test for subgroup differences: Chi² = 0.80, df = 1 (P = 0.37), I² = 0%

Favours AOP   Favours Control

E.18.4 Behavioural outcomes

Study or Subgroup	AOP Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
22.4.1 Primary education								
Pophillat et al 2016	10.08	6.08	60	9.8	6.22	53	14.9%	0.05 [-0.32, 0.41]
Subtotal (95% CI)			60			53	14.9%	0.05 [-0.32, 0.41]

Heterogeneity: Not applicable

Test for overall effect: Z = 0.24 (P = 0.81)

Study or Subgroup	AOP Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
22.4.2 Secondary education								
Roberts 2010	7.23	6.65	47	8.11	8.03	38	11.1%	-0.12 [-0.55, 0.31]
Subtotal (95% CI)			47			38	11.1%	-0.12 [-0.55, 0.31]

Heterogeneity: Not applicable

Test for overall effect: Z = 0.55 (P = 0.58)

Study or Subgroup	AOP Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
22.4.3 Mix								
Roberts 2017 T	9.54	5.71	252	9.43	5.3	94	36.2%	0.02 [-0.22, 0.26]
Roberts 2017 T/C	8.73	5.25	250	9.43	5.3	101	37.9%	-0.13 [-0.36, 0.10]
Subtotal (95% CI)			502			195	74.1%	-0.06 [-0.22, 0.11]

Heterogeneity: Tau² = 0.00; Chi² = 0.81, df = 1 (P = 0.37); I² = 0%

Test for overall effect: Z = 0.69 (P = 0.49)

Study or Subgroup	AOP Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
Total (95% CI)			609			286	100.0%	-0.05 [-0.19, 0.09]

Heterogeneity: Tau² = 0.00; Chi² = 1.18, df = 3 (P = 0.76); I² = 0%

Test for overall effect: Z = 0.68 (P = 0.49)

Test for subgroup differences: Chi² = 0.37, df = 2 (P = 0.83), I² = 0%

Favours AOP   Favours Control

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E.18.5   Academic outcomes

No studies identified

E.18.6   Quality of life

No studies identified

E.19   FRIENDS for Life

E.19.1   Social and emotional skills

Study or Subgroup	FRIENDS for Life Mean	SD	Total	Usual practice Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
23.1.1 Primary education								
Stallard 2014 HL	-21.58	5.71	67	-21.8	5.35	25	49.6%	0.04 [-0.42, 0.50]
Stallard 2014 SL	-22.75	5.37	65	-21.8	5.35	26	50.4%	-0.18 [-0.63, 0.28]
Subtotal (95% CI)			**132**			**51**	**100.0%**	**-0.07 [-0.39, 0.25]**
Heterogeneity: Tau² = 0.00; Chi² = 0.42, df = 1 (P = 0.52); I² = 0%								
Test for overall effect: Z = 0.42 (P = 0.67)								
23.1.2 Secondary education								
Subtotal (95% CI)			**0**			**0**		**Not estimable**
Heterogeneity: Not applicable								
Test for overall effect: Not applicable								
Total (95% CI)			**132**			**51**	**100.0%**	**-0.07 [-0.39, 0.25]**
Heterogeneity: Tau² = 0.00; Chi² = 0.42, df = 1 (P = 0.52); I² = 0%								
Test for overall effect: Z = 0.42 (P = 0.67)								
Test for subgroup differences: Not applicable								

Std. Mean Difference IV, Random, 95% CI

-2   -1   0   1   2

Favours FRIENDS for Life   Favours Usual practice

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E.19.2 Emotional Distress - Depression

Study or Subgroup	FRIENDS for Life			Usual practice			Weight	Std. Mean Difference	Std. Mean Difference
	Mean	SD	Total	Mean	SD	Total		IV, Random, 95% CI	IV, Random, 95% CI
23.1.1 Primary education									
Stallard 2014 HL	-21.58	5.71	67	-21.8	5.35	25	49.6%	0.04 [-0.42, 0.50]	
Stallard 2014 SL	-22.75	5.37	65	-21.8	5.35	26	50.4%	-0.18 [-0.63, 0.28]	
Subtotal (95% CI)			132			51	100.0%	-0.07 [-0.39, 0.25]	

Heterogeneity: Tau² = 0.00; Chi² = 0.42, df = 1 (P = 0.52); I² = 0%

Test for overall effect: Z = 0.42 (P = 0.67)

Study or Subgroup	FRIENDS for Life			Usual practice			Weight	Std. Mean Difference	Std. Mean Difference
23.1.2 Secondary education									
Subtotal (95% CI)			0			0		Not estimable	

Heterogeneity: Not applicable

Test for overall effect: Not applicable

Study or Subgroup	FRIENDS for Life			Usual practice			Weight	Std. Mean Difference	Std. Mean Difference
Total (95% CI)			132			51	100.0%	-0.07 [-0.39, 0.25]	

Heterogeneity: Tau² = 0.00; Chi² = 0.42, df = 1 (P = 0.52); I² = 0%

Test for overall effect: Z = 0.42 (P = 0.67)

Test for subgroup differences: Not applicable

Favours FRIENDS for Life   Favours Usual practice

E.19.3 Emotional Distress -Anxiety

Study or Subgroup	FRIENDS for Life			Usual practice			Weight	Std. Mean Difference	Std. Mean Difference
	Mean	SD	Total	Mean	SD	Total		IV, Random, 95% CI	IV, Random, 95% CI
23.3.1 Primary education									
Ahlen 2018	20.49	13.5	57	23.4	14	48	16.9%	-0.21 [-0.60, 0.17]	
Miller 2011	38.77	17.86	143	42.1	18.34	145	46.9%	-0.18 [-0.41, 0.05]	
Stallard 2014 HL	3.68	2.63	88	3.89	2.58	34	16.0%	-0.08 [-0.48, 0.32]	
Stallard 2014 SL	3.81	2.8	85	3.89	2.58	34	15.9%	-0.03 [-0.43, 0.37]	
Subtotal (95% CI)			373			261	95.7%	-0.15 [-0.31, 0.02]	

Heterogeneity: Tau² = 0.00; Chi² = 0.65, df = 3 (P = 0.89); I² = 0%

Test for overall effect: Z = 1.76 (P = 0.08)

Study or Subgroup	FRIENDS for Life			Usual practice			Weight	Std. Mean Difference	Std. Mean Difference
23.3.2 Secondary education									
Rodgers 2015	12.06	6.91	14	16.16	12.89	13	4.3%	-0.39 [-1.15, 0.37]	
Subtotal (95% CI)			14			13	4.3%	-0.39 [-1.15, 0.37]	

Heterogeneity: Not applicable

Test for overall effect: Z = 1.00 (P = 0.32)

Study or Subgroup	FRIENDS for Life			Usual practice			Weight	Std. Mean Difference	Std. Mean Difference
Total (95% CI)			387			274	100.0%	-0.16 [-0.31, 0.00]	

Heterogeneity: Tau² = 0.00; Chi² = 1.02, df = 4 (P = 0.91); I² = 0%

Test for overall effect: Z = 1.93 (P = 0.05)

Test for subgroup differences: Chi² = 0.37, df = 1 (P = 0.54), I² = 0%

Favours FRIENDS for Life   Favours Usual practice

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E.19.4 Behavioural outcomes

	FRIENDS for Life			Usual practice				Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
23.4.1 Primary education									
Ahlen 2018	7.9	1.9	65	8.4	1.8	69	100.0%	-0.27 [-0.61, 0.07]	
Subtotal (95% CI)			**65**			**69**	**100.0%**	**-0.27 [-0.61, 0.07]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.55 (P = 0.12)									
23.4.2 Secondary education									
Subtotal (95% CI)			**0**			**0**		**Not estimable**	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
Total (95% CI)			**65**			**69**	**100.0%**	**-0.27 [-0.61, 0.07]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.55 (P = 0.12)									
Test for subgroup differences: Not applicable									

Favours FRIENDS for Life   Favours Usual practice

E.19.5 Academic outcomes

	FRIENDS for Life			Control				Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
23.5.1 Primary education									
Stallard 2014 HL Key Stage 1	-16.13	4.1	251	-15.97	4.1	103	25.4%	-0.04 [-0.27, 0.19]	
Stallard 2014 HL Key Stage 2	-28.56	4.68	230	-28.46	4.71	103	24.8%	-0.02 [-0.25, 0.21]	
Stallard 2014 SL Key Stage 1	-16.18	3.81	245	-15.97	4.1	104	25.4%	-0.05 [-0.28, 0.18]	
Stallard 2014 SL Key Stage 2	-29.39	4.44	240	-28.46	4.71	100	24.5%	-0.21 [-0.44, 0.03]	
Subtotal (95% CI)			**966**			**410**	**100.0%**	**-0.08 [-0.19, 0.04]**	
Heterogeneity: Tau² = 0.00; Chi² = 1.52, df = 3 (P = 0.68); I² = 0%									
Test for overall effect: Z = 1.34 (P = 0.18)									
23.5.2 Secondary education									
Subtotal (95% CI)			**0**			**0**		**Not estimable**	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
Total (95% CI)			**966**			**410**	**100.0%**	**-0.08 [-0.19, 0.04]**	
Heterogeneity: Tau² = 0.00; Chi² = 1.52, df = 3 (P = 0.68); I² = 0%									
Test for overall effect: Z = 1.34 (P = 0.18)									
Test for subgroup differences: Not applicable									

Favours FRIENDS for Life   Favours Control

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E.19.6 Quality of life

	FRIENDS for Life			Control				Std. Mean Difference		Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI		IV, Random, 95% CI
23.6.1 Primary education										
Stallard 2014 HL	-12.05	4.5	64	-12.26	4.21	24	49.5%	0.05 [-0.42, 0.52]		
Stallard 2014 SL	-11.69	4.03	62	-12.26	4.21	25	50.5%	0.14 [-0.33, 0.60]		
Subtotal (95% CI)			126			49	100.0%	0.09 [-0.24, 0.42]		
Heterogeneity: Tau² = 0.00; Chi² = 0.07, df = 1 (P = 0.79); I² = 0%										
Test for overall effect: Z = 0.55 (P = 0.58)										
23.6.2 Secondary education										
Subtotal (95% CI)			0			0		Not estimable		
Heterogeneity: Not applicable										
Test for overall effect: Not applicable										
Total (95% CI)			126			49	100.0%	0.09 [-0.24, 0.42]		
Heterogeneity: Tau² = 0.00; Chi² = 0.07, df = 1 (P = 0.79); I² = 0%										
Test for overall effect: Z = 0.55 (P = 0.58)										
Test for subgroup differences: Not applicable										

Favours FRIENDS for Life   Favours Control

E.20 I Think, Feel and Act

E.20.1 Social and emotional skills

No studies identified

E.20.2 Emotional Distress - Depression

	I Think, Feel and Act			Usual practice				Std. Mean Difference		Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI		IV, Random, 95% CI
24.2.1 Primary educationp										
Subtotal (95% CI)			0			0		Not estimable		
Heterogeneity: Not applicable										
Test for overall effect: Not applicable										
24.2.2 Secondary education										
Araya 2013	9.5	9.8	198	10.1	10.3	234	100.0%	-0.06 [-0.25, 0.13]		
Subtotal (95% CI)			198			234	100.0%	-0.06 [-0.25, 0.13]		
Heterogeneity: Not applicable										
Test for overall effect: Z = 0.62 (P = 0.54)										
Total (95% CI)			198			234	100.0%	-0.06 [-0.25, 0.13]		
Heterogeneity: Not applicable										
Test for overall effect: Z = 0.62 (P = 0.54)										
Test for subgroup differences: Not applicable										

Favours I Think, Feel and Act   Favours Usual practice

E.20.3 Emotional Distress -Anxiety

No studies identified

E.20.4 Behavioural outcomes

No studies identified

E.20.5 Academic outcomes

No studies identified

E.20.6 Quality of life

No studies identified

E.21 Williams LifeSkills

E.21.1 Social and emotional skills

No studies identified

E.21.2 Emotional Distress - Depression

No studies identified

E.21.3 Emotional Distress -Anxiety

	Williams LifeSkills			Control				Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
25.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
25.2.2 Secondary education									
Barnes 2012	3.8	2.866	60	3.2	2.9444	57	100.0%	0.21 [-0.16, 0.57]	
Subtotal (95% CI)			60			57	100.0%	0.21 [-0.16, 0.57]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.11 (P = 0.27)									
Total (95% CI)			60			57	100.0%	0.21 [-0.16, 0.57]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.11 (P = 0.27)									
Test for subgroup differences: Not applicable									

-2 -1 0 1 2
Favours Williams LifeSkil   Favours Control

E.21.4 Behavioural outcomes

Study or Subgroup	Williams LifeSkills Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
25.3.1 Primary education								
Subtotal (95% CI)			0			0		Not estimable
Heterogeneity: Not applicable								
Test for overall effect: Not applicable								
25.3.2 Secondary education								
Barnes 2012	-23	4.4152	60	-21.6	4.5299	57	100.0%	-0.31 [-0.68, 0.05]
Subtotal (95% CI)			60			57	100.0%	-0.31 [-0.68, 0.05]
Heterogeneity: Not applicable								
Test for overall effect: Z = 1.67 (P = 0.09)								
Total (95% CI)			60			57	100.0%	-0.31 [-0.68, 0.05]
Heterogeneity: Not applicable								
Test for overall effect: Z = 1.67 (P = 0.09)								
Test for subgroup differences: Not applicable								

Std. Mean Difference IV, Random, 95% CI

-2 -1 0 1 2

Favours Williams LifeSkills   Favours Control

E.21.5 Academic outcomes

No studies identified

E.21.6 Quality of life

No studies identified

E.22 Daily short stress management technique

E.22.1 Social and emotional skills

No studies identified

E.22.2 Emotional Distress - Depression

No studies identified

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E.22.3 Emotional Distress -Anxiety

Study or Subgroup	Daily short SMT			Control			Weight	Std. Mean Difference
	Mean	SD	Total	Mean	SD	Total		IV, Random, 95% CI
26.2.1 Primary education								
Bothe 2014	41.85	11.38	13	56	11.13	9	100.0%	-1.21 [-2.14, -0.27]
Subtotal (95% CI)			13			9	100.0%	-1.21 [-2.14, -0.27]
Heterogeneity: Not applicable								
Test for overall effect: Z = 2.53 (P = 0.01)								
26.2.2 Secondary education								
Subtotal (95% CI)			0			0		Not estimable
Heterogeneity: Not applicable								
Test for overall effect: Not applicable								
Total (95% CI)			13			9	100.0%	-1.21 [-2.14, -0.27]
Heterogeneity: Not applicable								
Test for overall effect: Z = 2.53 (P = 0.01)								
Test for subgroup differences: Not applicable								

Std. Mean Difference IV, Random, 95% CI

-2 -1 0 1 2

Favours Daily short SMT   Favours Control

E.22.4 Behavioural outcomes

No studies identified

E.22.5 Academic outcomes

No studies identified

E.22.6 Quality of life

No studies identified

E.23 Dialectical behaviour therapy

E.23.1 Social and emotional skills

No studies identified

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E.23.2 Emotional Distress - Depression

Study or Subgroup	DBT Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
27.2.1 Primary education									
Subtotal (95% CI)			**0**			**0**		**Not estimable**	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
27.2.2 Secondary education									
Burckhardt 2018	15.15	4.45	46	13.98	3.17	43	100.0%	0.30 [-0.12, 0.72]	
Subtotal (95% CI)			**46**			**43**	**100.0%**	**0.30 [-0.12, 0.72]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.40 (P = 0.16)									
Total (95% CI)			**46**			**43**	**100.0%**	**0.30 [-0.12, 0.72]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.40 (P = 0.16)									
Test for subgroup differences: Not applicable									

Favours DBT   Favours Control
-2   -1   0   1   2

E.23.3 Emotional Distress -Anxiety

No studies identified

E.23.4 Behavioural outcomes

No studies identified

E.23.5 Academic outcomes

No studies identified

E.23.6 Quality of life

No studies identified

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E.24 Pozik-Bizi (Live happily)

E.24.1 Social and emotional skills

Study or Subgroup	Favours Steps for life Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
28.1.1 Primary education								
Garaigordobil 2019	107.96	15.24	218	109.09	15.74	202	100.0%	-0.07 [-0.26, 0.12]
Subtotal (95% CI)			218			202	100.0%	-0.07 [-0.26, 0.12]
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.75 (P = 0.46)								
28.1.2 Secondary education								
Subtotal (95% CI)			0			0		Not estimable
Heterogeneity: Not applicable								
Test for overall effect: Not applicable								
Total (95% CI)			218			202	100.0%	-0.07 [-0.26, 0.12]
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.75 (P = 0.46)								
Test for subgroup differences: Not applicable								

Std. Mean Difference IV, Random, 95% CI. Axis from -2 to 2. Favours Steps for life — Favours Control.

E.24.2 Emotional Distress - Depression

Study or Subgroup	Pozik-Bizi Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
28.2.1 Primary education								
Garaigordobil 2019	123.18	32.75	218	127.22	33.3	202	100.0%	-0.12 [-0.31, 0.07]
Subtotal (95% CI)			218			202	100.0%	-0.12 [-0.31, 0.07]
Heterogeneity: Not applicable								
Test for overall effect: Z = 1.25 (P = 0.21)								
28.2.2 Secondary education								
Subtotal (95% CI)			0			0		Not estimable
Heterogeneity: Not applicable								
Test for overall effect: Not applicable								
Total (95% CI)			218			202	100.0%	-0.12 [-0.31, 0.07]
Heterogeneity: Not applicable								
Test for overall effect: Z = 1.25 (P = 0.21)								
Test for subgroup differences: Not applicable								

Std. Mean Difference IV, Random, 95% CI. Axis from -2 to 2. Favours Pozik-Bizi — Favours Control.

E.24.3 Emotional Distress -Anxiety

No studies identified

E.24.4 Behavioural outcomes

Study or Subgroup	Steps for life Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
28.3.1 Primary education								
Garaigordobil 2019	16.71	10.39	218	19.17	12.4	202	100.0%	-0.22 [-0.41, -0.02]
Subtotal (95% CI)			**218**			**202**	**100.0%**	**-0.22 [-0.41, -0.02]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 2.20 (P = 0.03)								
28.3.2 Secondary education								
Subtotal (95% CI)			**0**			**0**		**Not estimable**
Heterogeneity: Not applicable								
Test for overall effect: Not applicable								
Total (95% CI)			**218**			**202**	**100.0%**	**-0.22 [-0.41, -0.02]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 2.20 (P = 0.03)								
Test for subgroup differences: Not applicable								

Std. Mean Difference IV, Random, 95% CI

-2   -1   0   1   2

Favours Steps for life   Favours Control

E.24.5 Academic outcomes

No studies identified

E.24.6 Quality of life

No studies identified

E.25 UP-A

E.25.1 Social and emotional skills

No studies identified

E.25.2 Emotional Distress - Depression

Study or Subgroup	UP-A Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
29.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
29.2.2 Secondary education									
Garcia-Escalera 2019	8.4	5.84	21	8.6	5.21	14	100.0%	-0.03 [-0.71, 0.64]	
Subtotal (95% CI)			21			14	100.0%	-0.03 [-0.71, 0.64]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.10 (P = 0.92)									
Total (95% CI)			21			14	100.0%	-0.03 [-0.71, 0.64]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.10 (P = 0.92)									
Test for subgroup differences: Not applicable									

```
      -2    -1    0     1     2
      Favours UP-A  Favours Control
```

E.25.3 Emotional Distress -Anxiety

Study or Subgroup	UP-A Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
29.3.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
29.3.2 Secondary education									
Garcia-Escalera 2019	5.64	6.62	17	7.1	6.12	11	100.0%	-0.22 [-0.98, 0.54]	
Subtotal (95% CI)			17			11	100.0%	-0.22 [-0.98, 0.54]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.57 (P = 0.57)									
Total (95% CI)			17			11	100.0%	-0.22 [-0.98, 0.54]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.57 (P = 0.57)									
Test for subgroup differences: Not applicable									

```
      -2    -1    0     1     2
      Favours UP-A  Favours Control
```

E.25.4 Behavioural outcomes

No studies identified.

E.25.5 Academic outcomes

No studies identified

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E.25.6 Quality of life

No studies identified

E.26 Cognitive-behavioural program

E.26.1 Social and emotional skills

	CB program			Control				Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Horowitz 2007 a	-41.36	9.37	88	-40.13	8.76	142	100.0%	-0.14 [-0.40, 0.13]	
Total (95% CI)			88			142	100.0%	-0.14 [-0.40, 0.13]	

Heterogeneity: Not applicable

Test for overall effect: Z = 1.00 (P = 0.32)

Favours CB program   Favours Control

E.26.2 Emotional Distress - Depression

	CB program			Control				Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Horowitz 2007 a	8.19	6.86	88	11.78	9.69	142	100.0%	-0.41 [-0.68, -0.14]	
Total (95% CI)			88			142	100.0%	-0.41 [-0.68, -0.14]	

Heterogeneity: Not applicable

Test for overall effect: Z = 2.99 (P = 0.003)

Favours CB program   Favours Control

E.26.3 Emotional Distress -Anxiety

No studies identified

E.26.4 Behavioural outcomes

	CB program			Control				Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Horowitz 2007 a	6.51	5.47	88	6.85	5.17	142	100.0%	-0.06 [-0.33, 0.20]	
Total (95% CI)			88			142	100.0%	-0.06 [-0.33, 0.20]	

Heterogeneity: Not applicable

Test for overall effect: Z = 0.47 (P = 0.64)

Favours CB program   Favours Control

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E.26.5 Academic outcomes

No studies identified

E.26.6 Quality of life

No studies identified

E.27 IPT-AST

E.27.1 Social and emotional skills

Study or Subgroup	IPT-AST			Control			Weight	Std. Mean Difference	Std. Mean Difference
	Mean	SD	Total	Mean	SD	Total		IV, Random, 95% CI	IV, Random, 95% CI
31.1.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
31.1.2 Secondary education									
Horowitz 2007 b	-41.19	8.6	84	-40.13	8.76	142	100.0%	-0.12 [-0.39, 0.15]	
Subtotal (95% CI)			84			142	100.0%	-0.12 [-0.39, 0.15]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.88 (P = 0.38)									
Total (95% CI)			84			142	100.0%	-0.12 [-0.39, 0.15]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.88 (P = 0.38)									
Test for subgroup differences: Not applicable									

Favours IPT-AST Favours Control

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E.27.2 Emotional Distress - Depression

Study or Subgroup	IPT-AST Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
31.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
31.2.2 Secondary education									
Horowitz 2007 b	9.47	7.3	84	11.78	9.69	142	100.0%	-0.26 [-0.53, 0.01]	
Subtotal (95% CI)			84			142	100.0%	**-0.26 [-0.53, 0.01]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.88 (P = 0.06)									
Total (95% CI)			84			142	100.0%	**-0.26 [-0.53, 0.01]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.88 (P = 0.06)									
Test for subgroup differences: Not applicable									

Favours IPT-AST Favours Control

E.27.3 Emotional Distress -Anxiety

No studies identified

E.27.4 Behavioural outcomes

Study or Subgroup	IPT-AST Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
31.3.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
31.3.2 Secondary education									
Horowitz 2007 b	6.88	5.71	84	6.85	5.17	142	100.0%	0.01 [-0.26, 0.28]	
Subtotal (95% CI)			84			142	100.0%	**0.01 [-0.26, 0.28]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.04 (P = 0.97)									
Total (95% CI)			84			142	100.0%	**0.01 [-0.26, 0.28]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.04 (P = 0.97)									
Test for subgroup differences: Not applicable									

Favours IPT-AST Favours Control

E.27.5 Academic outcomes

No studies identified

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E.27.6 Quality of life

No studies identified

E.28 Op Volle Kracht (OVK)

E.28.1 Social and emotional skills

Study or Subgroup	Favours OVK Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
32.1.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
32.1.2 Secondary education									
Tak 2016	-25.78	5.05	96	-25.17	5.33	1111	100.0%	-0.11 [-0.32, 0.09]	
Subtotal (95% CI)			96			1111	100.0%	-0.11 [-0.32, 0.09]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.08 (P = 0.28)									
Total (95% CI)			96			1111	100.0%	-0.11 [-0.32, 0.09]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.08 (P = 0.28)									
Test for subgroup differences: Not applicable									

Favours OVK   Favours Control

E.28.2 Emotional Distress - Depression

Study or Subgroup	OVK Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
32.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
32.2.2 Secondary education									
Kindt 2014	10	9.14	179	9.22	7.74	181	63.6%	0.09 [-0.11, 0.30]	
Tak 2016	8.4	7.6	96	8	7.3	111	36.4%	0.05 [-0.22, 0.33]	
Subtotal (95% CI)			275			292	100.0%	0.08 [-0.09, 0.24]	
Heterogeneity: Tau² = 0.00; Chi² = 0.05, df = 1 (P = 0.83); I² = 0%									
Test for overall effect: Z = 0.93 (P = 0.35)									
Total (95% CI)			275			292	100.0%	0.08 [-0.09, 0.24]	
Heterogeneity: Tau² = 0.00; Chi² = 0.05, df = 1 (P = 0.83); I² = 0%									
Test for overall effect: Z = 0.93 (P = 0.35)									
Test for subgroup differences: Not applicable									

Favours OVK   Favours Control

E.28.3   Emotional Distress -Anxiety

No studies identified

E.28.4   Behavioural outcomes

No studies identified

E.28.5   Academic outcomes

E.28.6   Quality of life

No studies identified

E.29   SPARX-R

E.29.1   Social and emotional skills

No studies identified

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E.29.2 Emotional Distress - Depression

Study or Subgroup	SPARX-R Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
33.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
33.2.2 Secondary education									
Kuosmanen 2017	6.77	6.01	21	9.89	6.33	26	50.3%	-0.50 [-1.08, 0.09]	
Perry 2017	10	17.112	18	11.9	17.2627	29	49.7%	-0.11 [-0.70, 0.48]	
Subtotal (95% CI)			39			55	100.0%	-0.30 [-0.72, 0.11]	
Heterogeneity: Tau² = 0.00; Chi² = 0.84, df = 1 (P = 0.36); I² = 0%									
Test for overall effect: Z = 1.43 (P = 0.15)									
Total (95% CI)			39			55	100.0%	-0.30 [-0.72, 0.11]	
Heterogeneity: Tau² = 0.00; Chi² = 0.84, df = 1 (P = 0.36); I² = 0%									
Test for overall effect: Z = 1.43 (P = 0.15)									
Test for subgroup differences: Not applicable									

Favours SPARX-R   Favours Control

E.29.3 Emotional Distress -Anxiety

Study or Subgroup	SPARX-R Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
33.3.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
33.3.2 Secondary education									
Kuosmanen 2017	7.2	6.53	21	9.31	5.46	25	51.6%	-0.35 [-0.93, 0.24]	
Perry 2017	5.1	2.5981	17	5.7	3.3166	28	48.4%	-0.19 [-0.80, 0.41]	
Subtotal (95% CI)			38			53	100.0%	-0.27 [-0.69, 0.15]	
Heterogeneity: Tau² = 0.00; Chi² = 0.13, df = 1 (P = 0.72); I² = 0%									
Test for overall effect: Z = 1.27 (P = 0.20)									
Total (95% CI)			38			53	100.0%	-0.27 [-0.69, 0.15]	
Heterogeneity: Tau² = 0.00; Chi² = 0.13, df = 1 (P = 0.72); I² = 0%									
Test for overall effect: Z = 1.27 (P = 0.20)									
Test for subgroup differences: Not applicable									

Favours SPARX-R   Favours Control

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E.29.4 Behavioural outcomes

Study or Subgroup	SPARX-R Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
33.4.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
33.4.2 Secondary education									
Kuosmanen 2017	-11.73	5.76	24	-11.03	5.11	28	100.0%	-0.13 [-0.67, 0.42]	
Subtotal (95% CI)			24			28	100.0%	-0.13 [-0.67, 0.42]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.46 (P = 0.65)									
Total (95% CI)			24			28	100.0%	-0.13 [-0.67, 0.42]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.46 (P = 0.65)									
Test for subgroup differences: Not applicable									

Favours SPARX-R   Favours Control

E.29.5 Academic outcomes

No studies identified

E.29.6 Quality of life

No studies identified

E.30 LARS&LISA

E.30.1 Social and emotional skills

No studies identified

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E.30.2 Emotional Distress – Depression (Secondary education)

Study or Subgroup	LARS&LISA Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
34.2.1 Male								
Possel 2008	0.67	0.66	39	0.67	0.66	33	17.3%	0.00 [-0.46, 0.46]
Possel 2011	0.8	0.67	32	0.75	0.65	26	13.9%	0.07 [-0.44, 0.59]
Subtotal (95% CI)			71			59	31.3%	0.03 [-0.31, 0.38]
Heterogeneity: Tau² = 0.00; Chi² = 0.04, df = 1 (P = 0.83); I² = 0%								
Test for overall effect: Z = 0.19 (P = 0.85)								
34.2.2 Female								
Possel 2008	0.55	0.48	39	0.58	0.45	33	17.3%	-0.06 [-0.53, 0.40]
Possel 2011	0.53	0.51	28	0.71	0.55	27	13.1%	-0.33 [-0.87, 0.20]
Subtotal (95% CI)			67			60	30.5%	-0.18 [-0.53, 0.17]
Heterogeneity: Tau² = 0.00; Chi² = 0.57, df = 1 (P = 0.45); I² = 0%								
Test for overall effect: Z = 1.01 (P = 0.31)								
34.2.3 Male and female								
Possel 2013	8.4	8.94	76	8.38	8.5	82	38.3%	0.00 [-0.31, 0.31]
Subtotal (95% CI)			76			82	38.3%	0.00 [-0.31, 0.31]
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.01 (P = 0.99)								
Total (95% CI)			214			201	100.0%	-0.04 [-0.24, 0.15]
Heterogeneity: Tau² = 0.00; Chi² = 1.47, df = 4 (P = 0.83); I² = 0%								
Test for overall effect: Z = 0.44 (P = 0.66)								
Test for subgroup differences: Chi² = 0.86, df = 2 (P = 0.65), I² = 0%								

Favours LARS&LISA   Favours Control

E.30.3 Emotional Distress -Anxiety

No studies identified

E.30.4 Behavioural outcomes

No studies identified

E.30.5 Academic outcomes

No studies identified

E.30.6 Quality of life

No studies identified

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E.31   Resourceful adolescent programme (RAP)

E.31.1   Social and emotional skills

Study or Subgroup	RAP Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
35.1.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
35.1.2 Secondary education									
Stallard 2013	-21.48	5.71	296	-21.74	5.43	294	100.0%	0.05 [-0.11, 0.21]	
Subtotal (95% CI)			296			294	100.0%	0.05 [-0.11, 0.21]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.57 (P = 0.57)									
Total (95% CI)			296			294	100.0%	0.05 [-0.11, 0.21]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.57 (P = 0.57)									
Test for subgroup differences: Not applicable									

Favours RAP   Favours Control

E.31.2   Emotional Distress - Depression

Study or Subgroup	RAP Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
35.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
35.2.2 Secondary education									
Rose 2014	6.28	6.74	42	6.65	7.74	59	14.7%	-0.05 [-0.45, 0.35]	
Stallard 2013	2.54	2.99	296	2.07	2.53	294	85.3%	0.17 [0.01, 0.33]	
Subtotal (95% CI)			338			353	100.0%	0.14 [-0.02, 0.29]	
Heterogeneity: Tau² = 0.00; Chi² = 1.01, df = 1 (P = 0.31); I² = 1%									
Test for overall effect: Z = 1.76 (P = 0.08)									
Total (95% CI)			338			353	100.0%	0.14 [-0.02, 0.29]	
Heterogeneity: Tau² = 0.00; Chi² = 1.01, df = 1 (P = 0.31); I² = 1%									
Test for overall effect: Z = 1.76 (P = 0.08)									
Test for subgroup differences: Not applicable									

Favours RAP   Favours Control

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E.31.3   Emotional Distress -Anxiety

Study or Subgroup	RAP Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
35.3.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
35.3.2 Secondary education									
Stallard 2013	3.36	2.96	296	2.93	2.65	294	100.0%	0.15 [-0.01, 0.31]	
Subtotal (95% CI)			296			294	100.0%	0.15 [-0.01, 0.31]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.85 (P = 0.06)									
Total (95% CI)			296			294	100.0%	0.15 [-0.01, 0.31]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.85 (P = 0.06)									
Test for subgroup differences: Not applicable									

Favours RAP   Favours Control

E.31.4   Behavioural outcomes

Study or Subgroup	RAP Events	Total	Control Events	Total	Weight	Risk Ratio M-H, Random, 95% CI	Risk Ratio M-H, Random, 95% CI
35.4.1 Primary education							
Subtotal (95% CI)		0		0		Not estimable	
Total events	0		0				
Heterogeneity: Not applicable							
Test for overall effect: Not applicable							
35.4.2 Secondary education							
Stallard 2013	43	310	39	306	100.0%	1.09 [0.73, 1.63]	
Subtotal (95% CI)		310		306	100.0%	1.09 [0.73, 1.63]	
Total events	43		39				
Heterogeneity: Not applicable							
Test for overall effect: Z = 0.41 (P = 0.68)							
Test for subgroup differences: Not applicable							

Favours RAP   Favours Control

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E.31.5   Academic outcomes

Study or Subgroup	RAP Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
35.6.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
35.6.2 Secondary education									
Rose 2014	-4.34	1.07	42	-4.52	0.98	59	14.9%	0.18 [-0.22, 0.57]	
Stallard 2013	-0.93	0.16	272	-0.94	0.13	288	85.1%	0.07 [-0.10, 0.23]	
Subtotal (95% CI)			314			347	100.0%	0.08 [-0.07, 0.24]	
Heterogeneity: Tau² = 0.00; Chi² = 0.24, df = 1 (P = 0.63); I² = 0%									
Test for overall effect: Z = 1.08 (P = 0.28)									
Total (95% CI)			314			347	100.0%	0.08 [-0.07, 0.24]	
Heterogeneity: Tau² = 0.00; Chi² = 0.24, df = 1 (P = 0.63); I² = 0%									
Test for overall effect: Z = 1.08 (P = 0.28)									
Test for subgroup differences: Not applicable									

Favours RAP   Favours Control

E.31.6   Quality of life

No studies identified

E.32   Resourceful adolescent programme-Peer interpersonal relatedness

E.32.1   Social and emotional skills

No studies identified

E.32.2 Emotional Distress - Depression

Study or Subgroup	RAP-PIR Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
36.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
36.2.2 Secondary education									
Rose 2014	6.62	9.14	47	6.65	7.74	58	100.0%	-0.00 [-0.39, 0.38]	
Subtotal (95% CI)			47			58	100.0%	-0.00 [-0.39, 0.38]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.02 (P = 0.99)									
Total (95% CI)			47			58	100.0%	-0.00 [-0.39, 0.38]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.02 (P = 0.99)									
Test for subgroup differences: Not applicable									

Favours RAP-PIR   Favours Control

E.32.3 Emotional Distress -Anxiety

No studies identified

E.32.4 Behavioural outcomes

No studies identified

E.32.5 Academic outcomes

No studies identified

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E.32.6   Quality of life

Study or Subgroup	RAP-PIR Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
36.5.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
36.5.2 Secondary education									
Rose 2014	-4.58	1.18	47	-4.52	0.98	58	100.0%	-0.06 [-0.44, 0.33]	
Subtotal (95% CI)			47			58	100.0%	-0.06 [-0.44, 0.33]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.28 (P = 0.78)									
Total (95% CI)			47			58	100.0%	-0.06 [-0.44, 0.33]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.28 (P = 0.78)									
Test for subgroup differences: Not applicable									

Favours RAP-PIR   Favours Control

E.33   Acceptance-based behavioural program

E.33.1   Social and emotional skills

Study or Subgroup	Acceptance-based program Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
37.1.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
37.1.2 Secondary education									
Theodore-Oklota 2014	-4.65	2.43	9	-3.92	2.4	9	100.0%	-0.29 [-1.22, 0.64]	
Subtotal (95% CI)			9			9	100.0%	-0.29 [-1.22, 0.64]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.61 (P = 0.54)									
Total (95% CI)			9			9	100.0%	-0.29 [-1.22, 0.64]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.61 (P = 0.54)									
Test for subgroup differences: Not applicable									

Favours Acceptance-based program   Favours Control

E.33.2   Emotional Distress - Depression

No studies identified

E.33.3   Emotional Distress -Anxiety

No studies identified

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E.33.4 Behavioural outcomes

Study or Subgroup	Acceptance-based program Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
37.3.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
37.3.2 Secondary education									
Theodore-Oklota 2014	31.01	21.81	20	31.92	22.78	20	100.0%	-0.04 [-0.66, 0.58]	
Subtotal (95% CI)			20			20	100.0%	-0.04 [-0.66, 0.58]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.13 (P = 0.90)									
Total (95% CI)			20			20	100.0%	-0.04 [-0.66, 0.58]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.13 (P = 0.90)									
Test for subgroup differences: Not applicable									

Favours Acceptance-based program   Favours Control

E.33.5 Academic outcomes

No studies identified

E.33.6 Quality of life

No studies identified

E.34 Uplifting our Health and Wellbeing

E.34.1 Social and emotional skills

Study or Subgroup	UHW Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
38.1.1 Secondary education									
Tokolahi 2018	-19.2	12.5107	36	-18.9	16.4136	35	100.0%	-0.02 [-0.49, 0.44]	
Subtotal (95% CI)			36			35	100.0%	-0.02 [-0.49, 0.44]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.09 (P = 0.93)									
38.1.2 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
Total (95% CI)			36			35	100.0%	-0.02 [-0.49, 0.44]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.09 (P = 0.93)									
Test for subgroup differences: Not applicable									

Favours UHW   Favours Control

E.34.2 Emotional Distress - Depression

Study or Subgroup	UHW Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
38.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
38.2.2 Secondary education									
Tokolahi 2018	74.9	9.9856	45	73.5	10.7926	49	100.0%	0.13 [-0.27, 0.54]	
Subtotal (95% CI)			45			49	100.0%	0.13 [-0.27, 0.54]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.65 (P = 0.52)									
Total (95% CI)			45			49	100.0%	0.13 [-0.27, 0.54]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.65 (P = 0.52)									
Test for subgroup differences: Not applicable									

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Favours UHW   Favours Control

E.34.3 Emotional Distress -Anxiety

Study or Subgroup	UHW Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
38.3.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
38.3.2 Secondary education									
Tokolahi 2018	56.3	18.1607	65	49.1	15.169	67	100.0%	0.43 [0.08, 0.77]	
Subtotal (95% CI)			65			67	100.0%	0.43 [0.08, 0.77]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 2.43 (P = 0.02)									
Total (95% CI)			65			67	100.0%	0.43 [0.08, 0.77]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 2.43 (P = 0.02)									
Test for subgroup differences: Not applicable									

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Favours UHW   Favours Control

E.34.4 Behavioural outcomes

No studies identified

E.34.5 Academic outcomes

No studies identified

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E.34.6 Quality of life

Study or Subgroup	UHW Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
38.6.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
38.6.2 Secondary education									
Tokolahi 2018	-14.3	8.0714	22	-14.35	7.0058	22	100.0%	0.01 [-0.58, 0.60]	
Subtotal (95% CI)			22			22	100.0%	0.01 [-0.58, 0.60]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.02 (P = 0.98)									
Total (95% CI)			22			22	100.0%	0.01 [-0.58, 0.60]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.02 (P = 0.98)									
Test for subgroup differences: Not applicable									

Favours UHW   Favours Control

E.35 Acceptance and commitment therapy (ACT)

E.35.1 Social and emotional skills

Study or Subgroup	ACT Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
39.1.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
39.1.2 Secondary education									
Van der Gucht 2017	-11.96	1.5	60	-11.43	1.68	58	100.0%	-0.33 [-0.69, 0.03]	
Subtotal (95% CI)			60			58	100.0%	-0.33 [-0.69, 0.03]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.78 (P = 0.07)									
Total (95% CI)			60			58	100.0%	-0.33 [-0.69, 0.03]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.78 (P = 0.07)									
Test for subgroup differences: Not applicable									

Favours ACT   Favours Control

E.35.2 Emotional Distress - Depression

No studies identified

E.35.3 Emotional Distress -Anxiety

Study or Subgroup	ACT Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
39.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
39.2.2 Secondary education									
Van der Gucht 2017	2.78	1.61	79	2.98	1.56	121	100.0%	-0.13 [-0.41, 0.16]	
Subtotal (95% CI)			79			121	100.0%	-0.13 [-0.41, 0.16]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.87 (P = 0.38)									
Total (95% CI)			79			121	100.0%	-0.13 [-0.41, 0.16]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.87 (P = 0.38)									
Test for subgroup differences: Not applicable									

Favours ACT Favours Control

E.35.4 Behavioural outcomes

No studies identified

E.35.5 Academic outcomes

No studies identified

E.35.6 Quality of life

Study or Subgroup	ACT Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
39.5.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
39.5.2 Secondary education									
Van der Gucht 2017	-21.95	2.48	57	-21.48	2.48	55	100.0%	-0.19 [-0.56, 0.18]	
Subtotal (95% CI)			57			55	100.0%	-0.19 [-0.56, 0.18]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.99 (P = 0.32)									
Total (95% CI)			57			55	100.0%	-0.19 [-0.56, 0.18]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.99 (P = 0.32)									
Test for subgroup differences: Not applicable									

Favours ACT Favours Control

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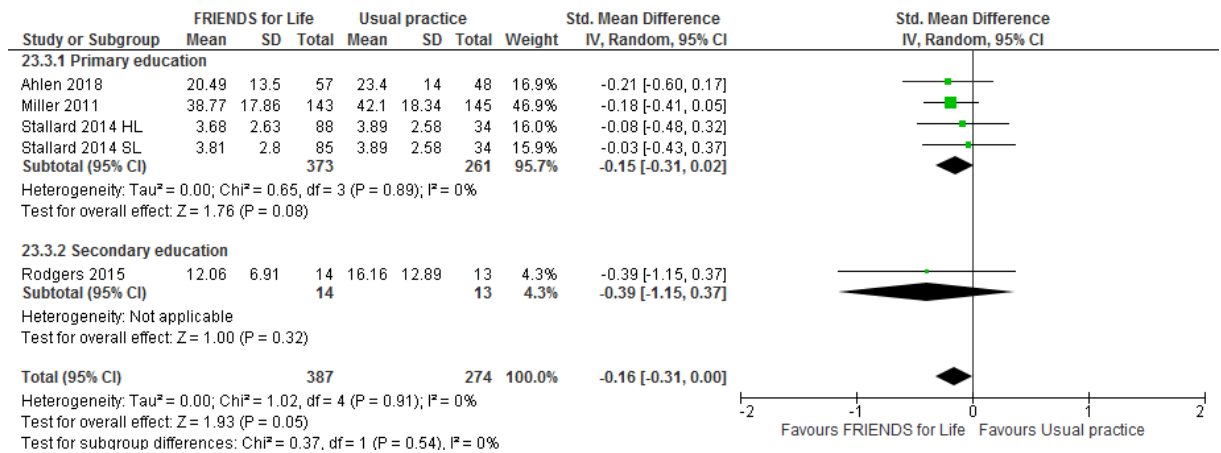# E.36 Take Action Program

E.36.1 Social and emotional skills
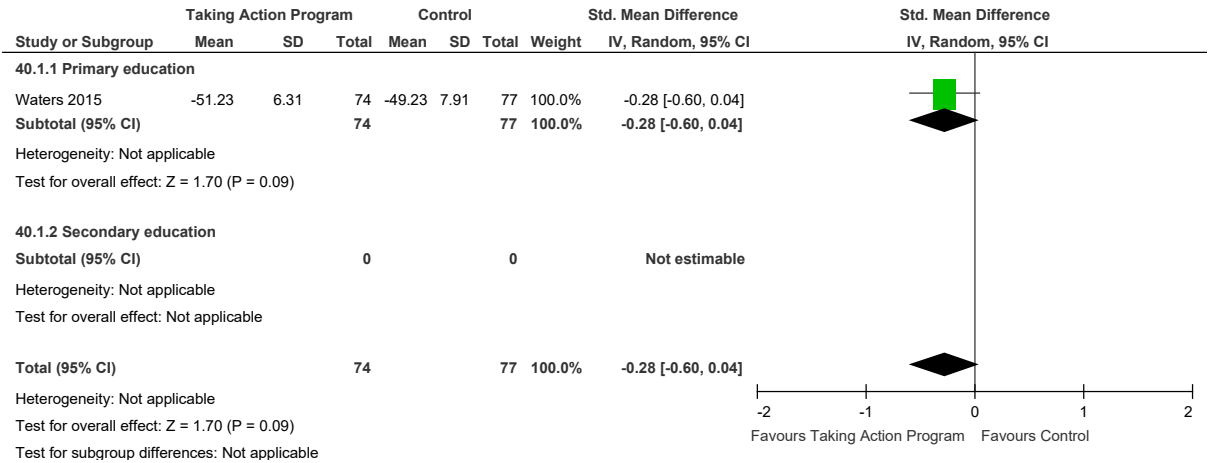
E.36.2 Emotional Distress - Depression

E.36.3 Emotional Distress -Anxiety

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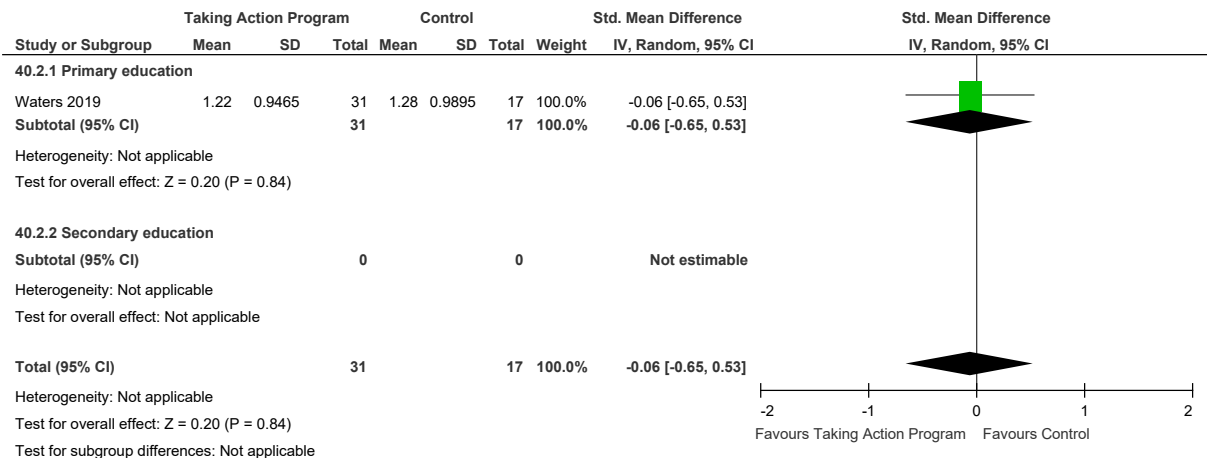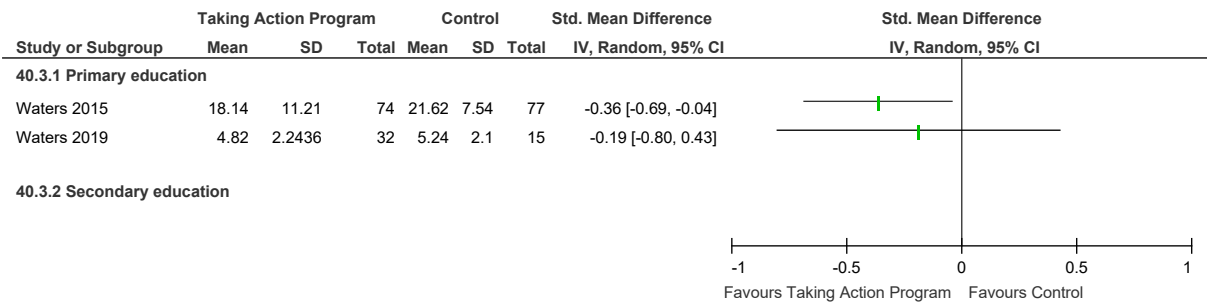
E.36.4 Behavioural outcomes

No studies identified

E.36.5 Academic outcomes

No studies identified

E.36.6 Quality of life

No studies identified

E.37 Positive Search Training

E.37.1 Social and emotional skills

No studies identified

E.37.2 Emotional Distress - Depression

Study or Subgroup	Positive Search Training Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
41.2.1 Primary education								
Waters 2019	1.55	0.9465	31	1.28	0.9895	17	100.0%	0.28 [-0.32, 0.87]
Subtotal (95% CI)			**31**			**17**	**100.0%**	**0.28 [-0.32, 0.87]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.91 (P = 0.36)								
41.2.2 Secondary education								
Subtotal (95% CI)			**0**			**0**		**Not estimable**
Heterogeneity: Not applicable								
Test for overall effect: Not applicable								
Total (95% CI)			**31**			**17**	**100.0%**	**0.28 [-0.32, 0.87]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.91 (P = 0.36)								
Test for subgroup differences: Not applicable								

Std. Mean Difference IV, Random, 95% CI

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Favours Positive Search Training Favours Control

E.37.3 Emotional Distress -Anxiety

Study or Subgroup	Positive Search Training Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
41.3.1 Primary education								
Waters 2019	4.86	2.1941	30	5.24	2.1	16	100.0%	-0.17 [-0.78, 0.44]
Subtotal (95% CI)			30			16	100.0%	-0.17 [-0.78, 0.44]
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.56 (P = 0.58)								
41.3.2 Secondary education								
Subtotal (95% CI)			0			0		Not estimable
Heterogeneity: Not applicable								
Test for overall effect: Not applicable								
Total (95% CI)			30			16	100.0%	-0.17 [-0.78, 0.44]
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.56 (P = 0.58)								
Test for subgroup differences: Not applicable								

Std. Mean Difference IV, Random, 95% CI

-2   -1   0   1   2

Favours Positive Search Training   Favours Control

E.37.4 Behavioural outcomes

No studies identified

E.37.5 Academic outcomes

No studies identified

E.37.6 Quality of life

No studies identified

E.38 Thiswayup Schools - Depression course

E.38.1 Social and emotional skills

No studies identified

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E.38.2   Emotional Distress - Depression

Study or Subgroup	Thiswayup Schools - Dep			Control			Weight	Std. Mean Difference	Std. Mean Difference
	Mean	SD	Total	Mean	SD	Total		IV, Random, 95% CI	IV, Random, 95% CI
42.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
42.2.2 Secondary education									
Wong 2014	2.32	2.42	27	2.67	2.47	20	100.0%	-0.14 [-0.72, 0.44]	
Subtotal (95% CI)			27			20	100.0%	-0.14 [-0.72, 0.44]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.48 (P = 0.63)									
Total (95% CI)			27			20	100.0%	-0.14 [-0.72, 0.44]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.48 (P = 0.63)									
Test for subgroup differences: Not applicable									

Favours Thiswayup Schools - Dep   Favours Control

E.38.3   Emotional Distress - Anxiety

Study or Subgroup	Thiswayup Schools Depress			Control			Weight	Std. Mean Difference	Std. Mean Difference
	Mean	SD	Total	Mean	SD	Total		IV, Random, 95% CI	IV, Random, 95% CI
42.3.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
42.3.2 Secondary education									
Wong 2014	3.47	3.19	26	4.41	3.22	19	100.0%	-0.29 [-0.88, 0.31]	
Subtotal (95% CI)			26			19	100.0%	-0.29 [-0.88, 0.31]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.95 (P = 0.34)									
Total (95% CI)			26			19	100.0%	-0.29 [-0.88, 0.31]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.95 (P = 0.34)									
Test for subgroup differences: Not applicable									

Favours Thiswayup Schools Depress   Favours Control

E.38.4   Behavioural outcomes

No studies identified

E.38.5   Academic outcomes

No studies identified

E.38.6   Quality of life

No studies identified

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E.39 Thiswayup Schools - Anxiety course

E.39.1 Social and emotional skills

No studies identified

E.39.2 Emotional Distress - Depression

Study or Subgroup	Thiswayup Schools - Anx			Control			Weight	Std. Mean Difference	Std. Mean Difference
	Mean	SD	Total	Mean	SD	Total		IV, Random, 95% CI	IV, Random, 95% CI
43.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
43.2.2 Secondary education									
Wong 2014	2.55	2.41	23	2.67	2.47	18	100.0%	-0.05 [-0.67, 0.57]	
Subtotal (95% CI)			23			18	100.0%	-0.05 [-0.67, 0.57]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.15 (P = 0.88)									
Total (95% CI)			23			18	100.0%	-0.05 [-0.67, 0.57]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.15 (P = 0.88)									
Test for subgroup differences: Not applicable									

Favours Thiswayup Schools - Anx   Favours Control

E.39.3 Emotional Distress -Anxiety

Study or Subgroup	Thiswayup Schools Anxiety			Control			Weight	Std. Mean Difference	Std. Mean Difference
	Mean	SD	Total	Mean	SD	Total		IV, Random, 95% CI	IV, Random, 95% CI
43.3.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
43.3.2 Secondary education									
Wong 2014	3.83	3.17	22	4.41	3.22	17	100.0%	-0.18 [-0.81, 0.46]	
Subtotal (95% CI)			22			17	100.0%	-0.18 [-0.81, 0.46]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.55 (P = 0.58)									
Total (95% CI)			22			17	100.0%	-0.18 [-0.81, 0.46]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.55 (P = 0.58)									
Test for subgroup differences: Not applicable									

Favours Thiswayup Schools Anxiety   Favours Control

E.39.4 Behavioural outcomes

No studies identified

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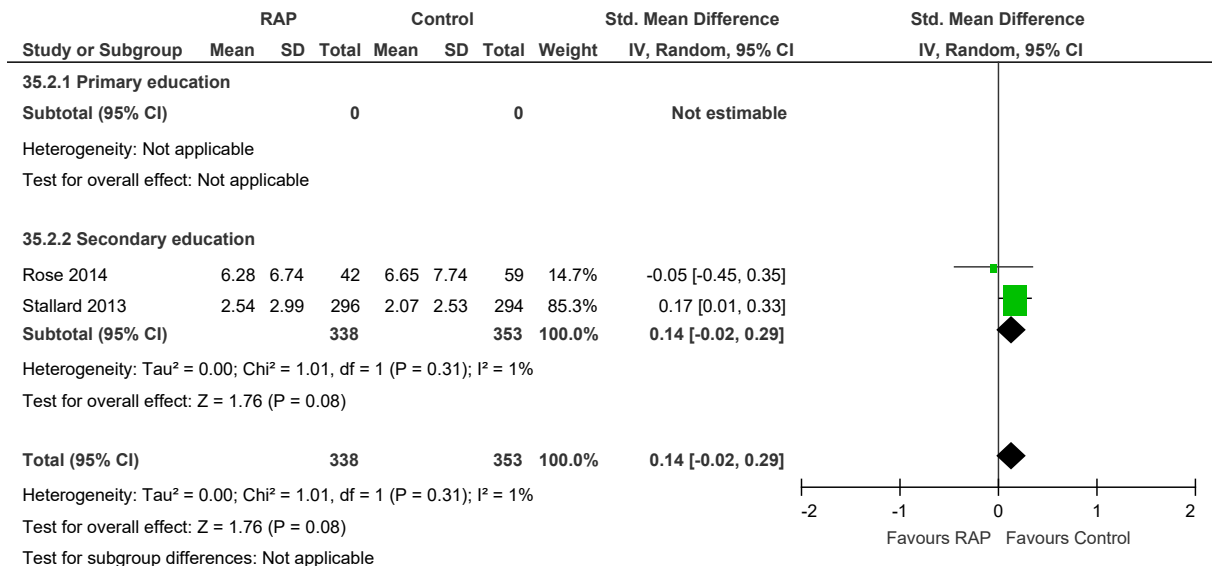### E.39.5   Academic outcomes

No studies identified

E.39.6   Quality of life

No studies identified

E.40   E-couch Anxiety and Worry program

E.40.1   Social and emotional skills

No studies identified

E.40.2   Emotional Distress - Depression

Study or Subgroup	E-couch Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
44.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
44.2.2 Secondary education									
Calear 2016 a HS	17.81	10.9081	206	17.91	6.9848	63	37.1%	-0.01 [-0.29, 0.27]	
Calear 2016 a Sch	19.06	11.7889	131	17.91	7.3626	70	35.1%	0.11 [-0.18, 0.40]	
Calear 2016 b	13.71	10.36	83	14.44	11.37	64	27.8%	-0.07 [-0.39, 0.26]	
Subtotal (95% CI)			420			197	100.0%	0.02 [-0.16, 0.19]	
Heterogeneity: Tau² = 0.00; Chi² = 0.68, df = 2 (P = 0.71); I² = 0%									
Test for overall effect: Z = 0.18 (P = 0.85)									
Total (95% CI)			420			197	100.0%	0.02 [-0.16, 0.19]	
Heterogeneity: Tau² = 0.00; Chi² = 0.68, df = 2 (P = 0.71); I² = 0%									
Test for overall effect: Z = 0.18 (P = 0.85)									
Test for subgroup differences: Not applicable									

Favours E-couch   Favours Control

E.40.3 Emotional Distress -Anxiety

Study or Subgroup	E-couch Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
44.3.1 Primary eduucation									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
44.3.2 Secondary education									
Calear 2016 a HS	5.28	6.2119	206	5.24	5.6959	63	37.1%	0.01 [-0.28, 0.29]	
Calear 2016 a Sch	5.81	6.2882	131	5.24	4.038	70	35.1%	0.10 [-0.19, 0.39]	
Calear 2016 b	4.65	4.12	83	4.56	4.96	64	27.8%	0.02 [-0.31, 0.35]	
Subtotal (95% CI)			420			197	100.0%	0.04 [-0.13, 0.22]	
Heterogeneity: Tau² = 0.00; Chi² = 0.24, df = 2 (P = 0.89); I² = 0%									
Test for overall effect: Z = 0.50 (P = 0.62)									
Total (95% CI)			420			197	100.0%	0.04 [-0.13, 0.22]	
Heterogeneity: Tau² = 0.00; Chi² = 0.24, df = 2 (P = 0.89); I² = 0%									
Test for overall effect: Z = 0.50 (P = 0.62)									
Test for subgroup differences: Not applicable									

Favours E-couch   Favours Control

E.40.4 Behavioural outcomes

No studies identified

E.40.5 Academic outcomes

No studies identified

E.40.6 Quality of life

No studies identified

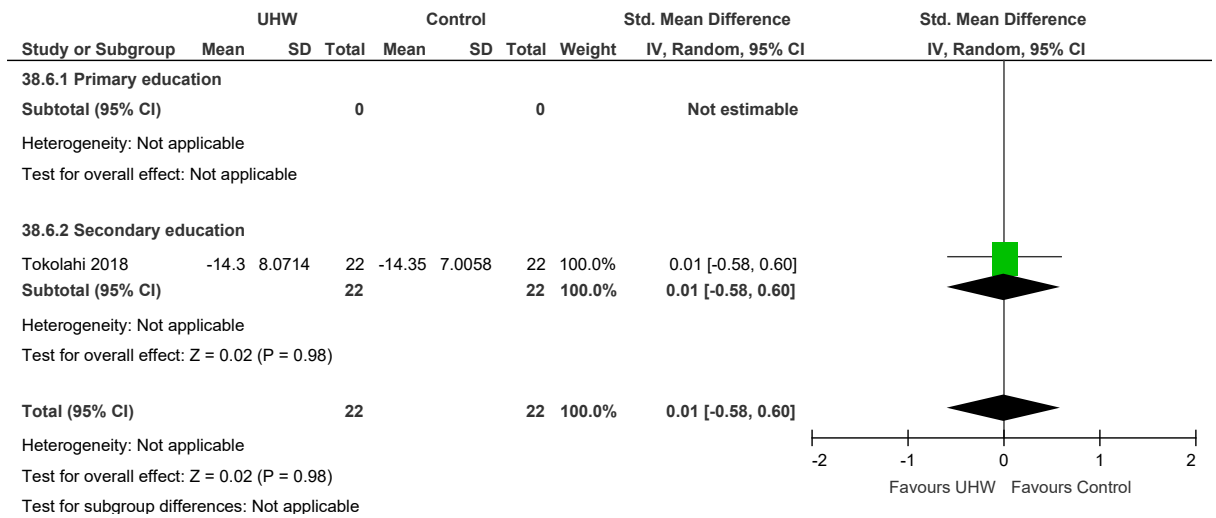# E.41 Taming Worry Dragons (TWD)

E.41.1 Social and emotional skills

No studies identified

E.41.2 Emotional Distress - Depression

No studies identified

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E.41.3 Emotional Distress -Anxiety

Study or Subgroup	TWD Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
45.2.1 Primary education									
Miller 2010	48.92	10.86	21	45.09	14.1	12	100.0%	0.31 [-0.41, 1.02]	
Subtotal (95% CI)			**21**			**12**	**100.0%**	**0.31 [-0.41, 1.02]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.85 (P = 0.40)									
45.2.2 Secondary education									
Subtotal (95% CI)			**0**			**0**		**Not estimable**	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
Total (95% CI)			**21**			**12**	**100.0%**	**0.31 [-0.41, 1.02]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.85 (P = 0.40)									
Test for subgroup differences: Not applicable									

Favours TWD   Favours Control

E.41.4 Behavioural outcomes

No studies identified

E.41.5 Academic outcomes
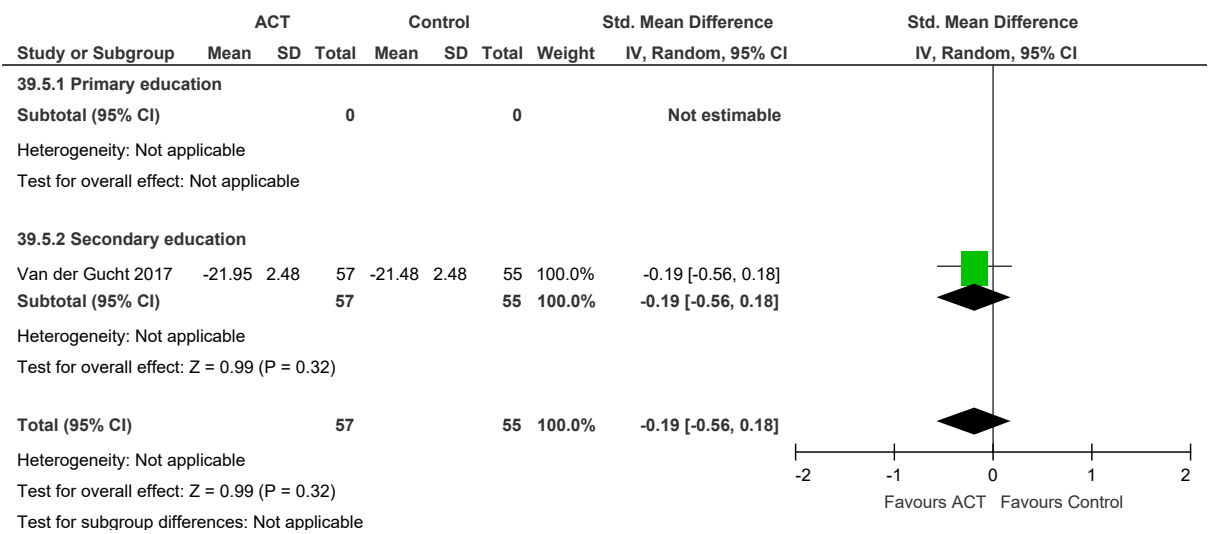
No studies identified

E.41.6 Quality of life

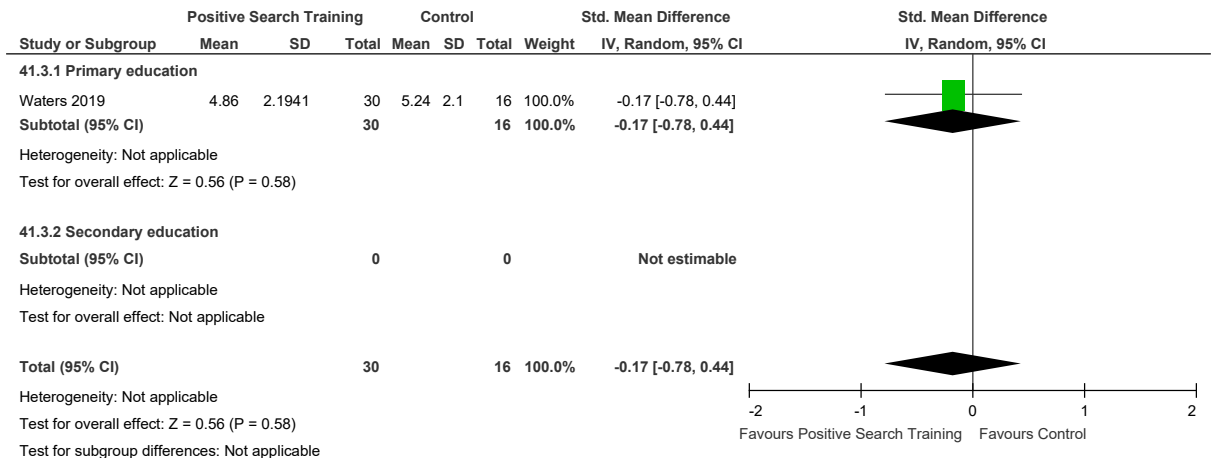No studies identified

E.42 Finding Space

E.42.1 Social and emotional skills

Study or Subgroup	Finding Space Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
47.1.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
47.1.2 Secondary education									
Campos 2018	-137.76	11.88	46	-134.77	11.02	38	100.0%	-0.26 [-0.69, 0.17]	
Subtotal (95% CI)			46			38	100.0%	-0.26 [-0.69, 0.17]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.17 (P = 0.24)									
Total (95% CI)			46			38	100.0%	-0.26 [-0.69, 0.17]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.17 (P = 0.24)									
Test for subgroup differences: Not applicable									

Favours Finding Space Favours Control

E.42.2 Emotional Distress - Depression

No studies identified

E.42.3 Emotional Distress -Anxiety

No studies identified

E.42.4 Behavioural outcomes

Study or Subgroup	Finding Space Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
47.3.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
47.3.2 Secondary education									
Campos 2018	-20.89	2.86	88	-20.77	2.7	73	100.0%	-0.04 [-0.35, 0.27]	
Subtotal (95% CI)			88			73	100.0%	-0.04 [-0.35, 0.27]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.27 (P = 0.79)									
Total (95% CI)			88			73	100.0%	-0.04 [-0.35, 0.27]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.27 (P = 0.79)									
Test for subgroup differences: Not applicable									

Favours Finding Space Favours Control

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E.42.5　Academic outcomes

No studies identified

E.42.6　Quality of life

No studies identified

E.43　CBT

E.43.1　Social and emotional skills

Study or Subgroup	CBT Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
48.1.1 Primary education									
Collins 2014 PL	-27.04	5.37	29	-16.59	3.43	7	48.6%	-2.01 [-2.97, -1.05]	
Collins 2014 TL	-24.68	4.61	29	-16.59	3.43	7	51.4%	-1.79 [-2.72, -0.85]	
Subtotal (95% CI)			**58**			**14**	**100.0%**	**-1.90 [-2.57, -1.23]**	

Heterogeneity: Tau² = 0.00; Chi² = 0.11, df = 1 (P = 0.74); I² = 0%

Test for overall effect: Z = 5.55 (P < 0.00001)

| **48.1.2 Secondary education** | | | | | | | | | |
| **Subtotal (95% CI)** | | | **0** | | | **0** | | **Not estimable** | |

Heterogeneity: Not applicable

Test for overall effect: Not applicable

| **Total (95% CI)** | | | **58** | | | **14** | **100.0%** | **-1.90 [-2.57, -1.23]** | |

Heterogeneity: Tau² = 0.00; Chi² = 0.11, df = 1 (P = 0.74); I² = 0%

Test for overall effect: Z = 5.55 (P < 0.00001)

Test for subgroup differences: Not applicable

Favours CBT　Favours Control

E.43.2　Emotional Distress - Depression

No studies identified

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E.43.3 Emotional Distress -Anxiety

Study or Subgroup	CBT Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
48.2.1 Primary education									
Collins 2014 PL	13.27	10.47	34	22.47	13.42	8	51.1%	-0.82 [-1.61, -0.03]	
Collins 2014 TL	11.7	8.44	34	22.47	13.42	8	48.9%	-1.11 [-1.92, -0.30]	
Subtotal (95% CI)			**68**			**16**	**100.0%**	**-0.96 [-1.53, -0.40]**	

Heterogeneity: Tau² = 0.00; Chi² = 0.26, df = 1 (P = 0.61); I² = 0%

Test for overall effect: Z = 3.33 (P = 0.0009)

48.2.2 Secondary education									
Subtotal (95% CI)			**0**			**0**		**Not estimable**	

Heterogeneity: Not applicable

Test for overall effect: Not applicable

Total (95% CI)			**68**			**16**	**100.0%**	**-0.96 [-1.53, -0.40]**	

Heterogeneity: Tau² = 0.00; Chi² = 0.26, df = 1 (P = 0.61); I² = 0%

Test for overall effect: Z = 3.33 (P = 0.0009)

Test for subgroup differences: Not applicable

Favours CBT   Favours Control

E.43.4 Behavioural outcomes

No studies identified

E.43.5 Academic outcomes

No studies identified

E.43.6 Quality of life

No studies identified

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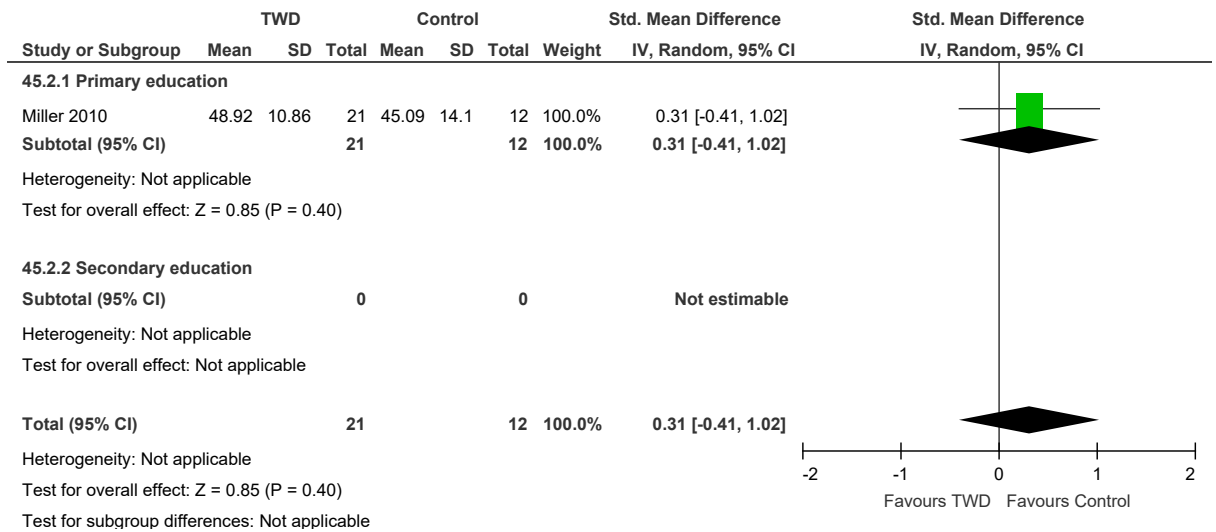Social, emotional, and mental wellbeing in primary and secondary education:
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E.44 Establishing goals and problem solving programme

E.44.1 Social and emotional skills

Study or Subgroup	Establishing goals			Control			Weight	Std. Mean Difference	Std. Mean Difference
	Mean	SD	Total	Mean	SD	Total		IV, Random, 95% CI	IV, Random, 95% CI
49.1.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
49.1.2 Secondary education									
Gigantesco 2015	-23.9	5.7873	39	-23.4	4.9403	30	100.0%	-0.09 [-0.57, 0.39]	
Subtotal (95% CI)			39			30	100.0%	-0.09 [-0.57, 0.39]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.37 (P = 0.71)									
Total (95% CI)			39			30	100.0%	-0.09 [-0.57, 0.39]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.37 (P = 0.71)									
Test for subgroup differences: Not applicable									

-2   -1   0   1   2

Favours Establishing goals   Favours Control

E.44.2 Emotional Distress - Depression

No studies identified

E.44.3 Emotional Distress -Anxiety
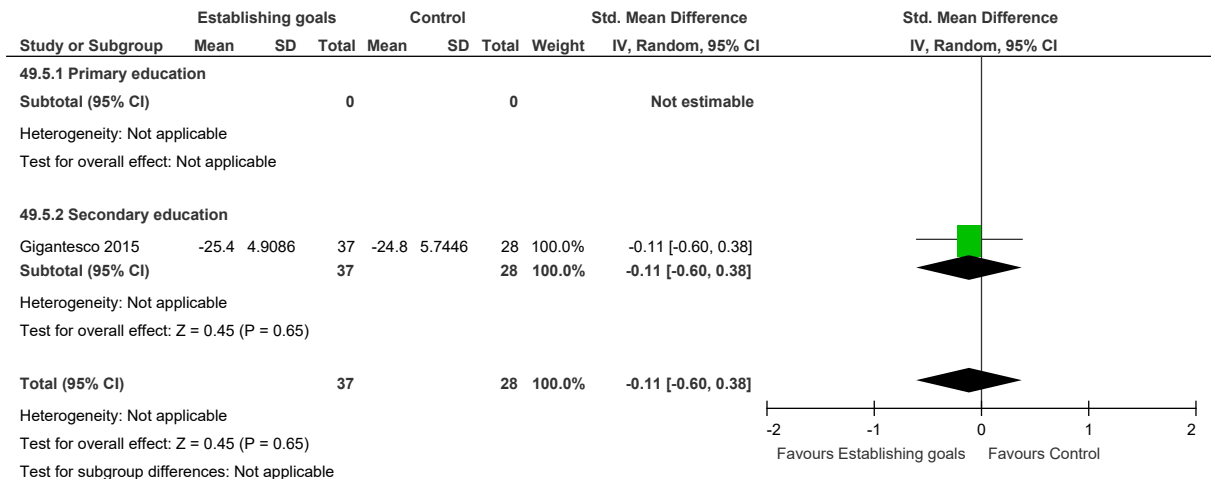
No studies identified

E.44.4 Behavioural outcomes
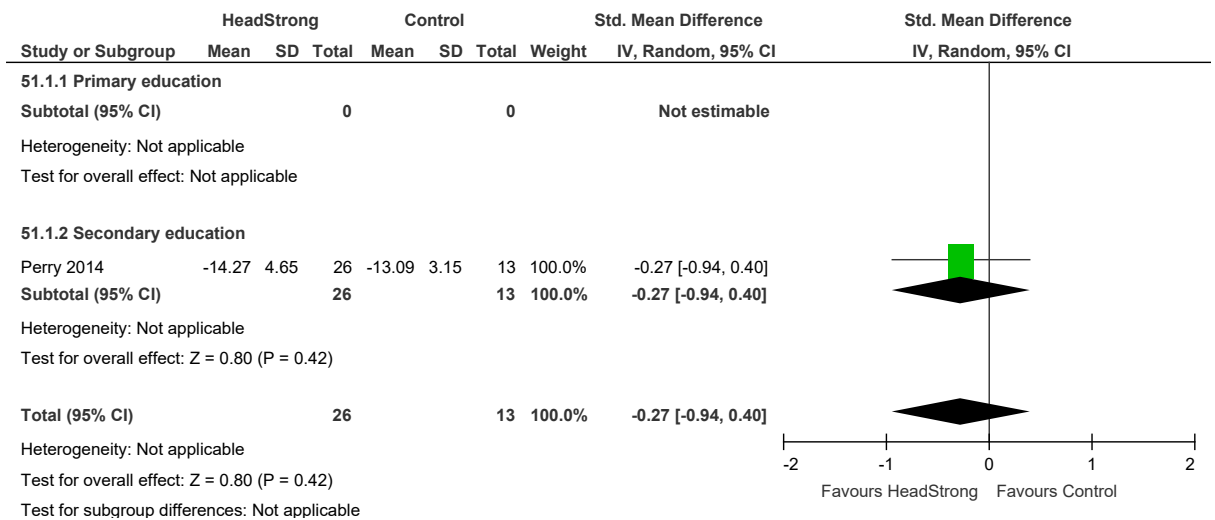
No studies identified
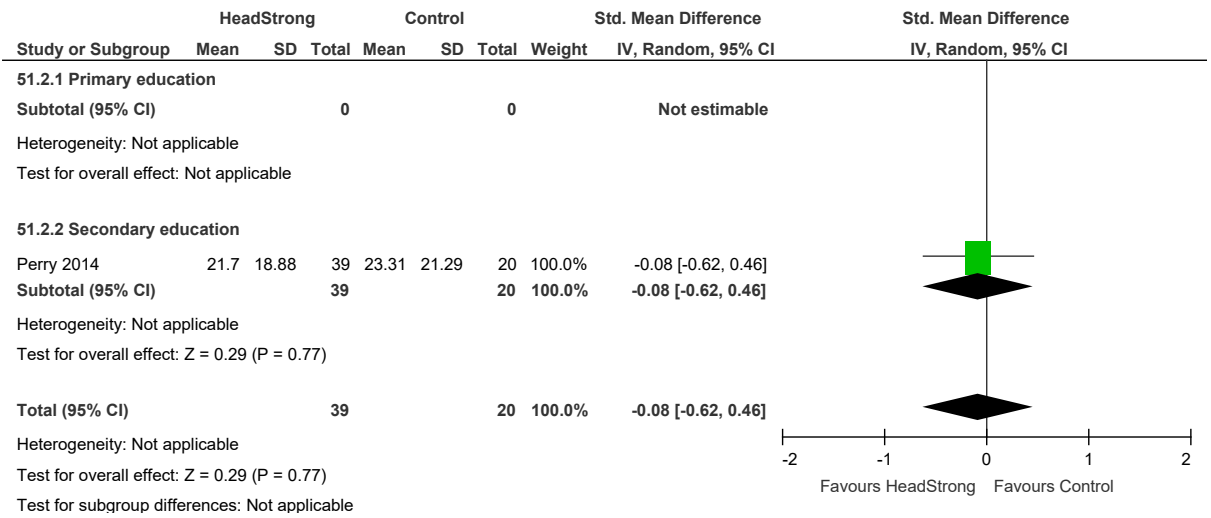
E.44.5 Academic outcomes

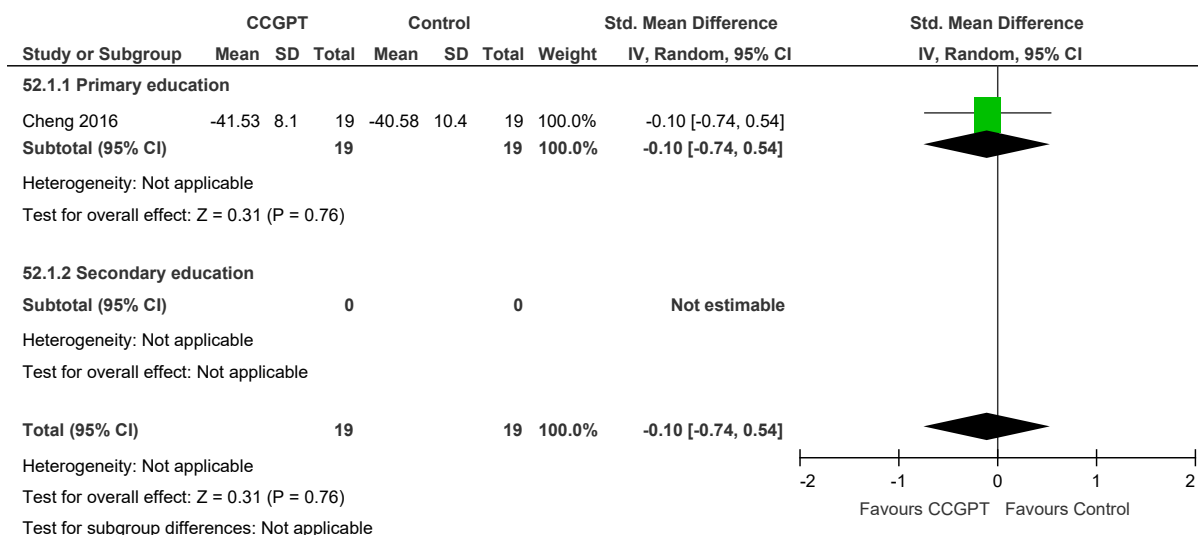No studies identified

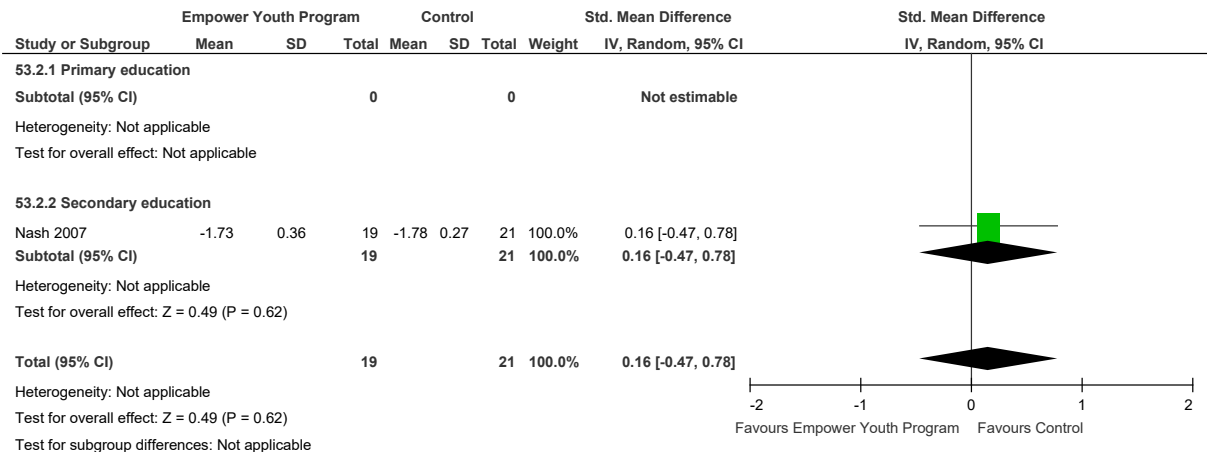Social, emotional, and mental wellbeing in primary and secondary education:
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E.44.6 Quality of life

Study or Subgroup	Establishing goals Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
49.5.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
49.5.2 Secondary education									
Gigantesco 2015	-25.4	4.9086	37	-24.8	5.7446	28	100.0%	-0.11 [-0.60, 0.38]	
Subtotal (95% CI)			37			28	100.0%	-0.11 [-0.60, 0.38]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.45 (P = 0.65)									
Total (95% CI)			37			28	100.0%	-0.11 [-0.60, 0.38]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.45 (P = 0.65)									
Test for subgroup differences: Not applicable									

Favours Establishing goals Favours Control

E.45 HeadStrong

E.45.1 Social and emotional skills

Study or Subgroup	HeadStrong Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
51.1.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
51.1.2 Secondary education									
Perry 2014	-14.27	4.65	26	-13.09	3.15	13	100.0%	-0.27 [-0.94, 0.40]	
Subtotal (95% CI)			26			13	100.0%	-0.27 [-0.94, 0.40]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.80 (P = 0.42)									
Total (95% CI)			26			13	100.0%	-0.27 [-0.94, 0.40]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.80 (P = 0.42)									
Test for subgroup differences: Not applicable									

Favours HeadStrong Favours Control

E.45.2 Emotional Distress – Depression and anxiety

Study or Subgroup	HeadStrong Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
51.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
51.2.2 Secondary education									
Perry 2014	21.7	18.88	39	23.31	21.29	20	100.0%	-0.08 [-0.62, 0.46]	
Subtotal (95% CI)			39			20	100.0%	-0.08 [-0.62, 0.46]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.29 (P = 0.77)									
Total (95% CI)			39			20	100.0%	-0.08 [-0.62, 0.46]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.29 (P = 0.77)									
Test for subgroup differences: Not applicable									

Favours HeadStrong   Favours Control

E.45.3 Emotional Distress -Anxiety

No studies identified

E.45.4 Behavioural outcomes

No studies identified

E.45.5 Academic outcomes

No studies identified

E.45.6 Quality of life

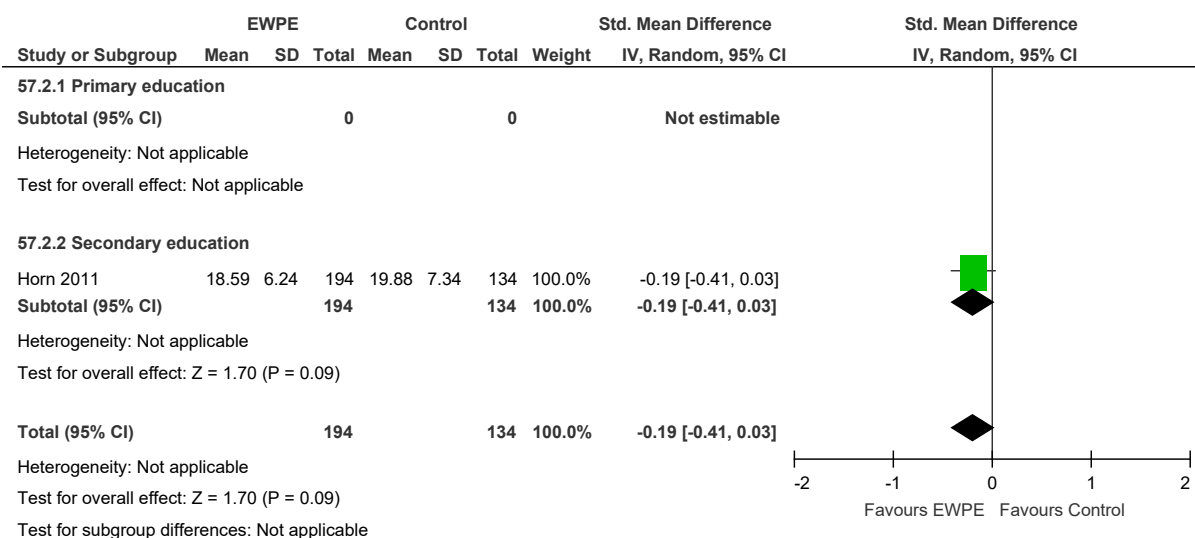No studies identified

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E.46 Child-centred group play therapy

E.46.1 Social and emotional skills

Study or Subgroup	CCGPT Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
52.1.1 Primary education									
Cheng 2016	-41.53	8.1	19	-40.58	10.4	19	100.0%	-0.10 [-0.74, 0.54]	
Subtotal (95% CI)			**19**			**19**	**100.0%**	**-0.10 [-0.74, 0.54]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.31 (P = 0.76)									
52.1.2 Secondary education									
Subtotal (95% CI)			**0**			**0**		**Not estimable**	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
Total (95% CI)			**19**			**19**	**100.0%**	**-0.10 [-0.74, 0.54]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.31 (P = 0.76)									
Test for subgroup differences: Not applicable									

Favours CCGPT   Favours Control

E.46.2 Emotional Distress - Depression

No studies identified

E.46.3 Emotional Distress -Anxiety

No studies identified

E.46.4 Behavioural outcomes

No studies identified

E.46.5 Academic outcomes

No studies identified

E.46.6 Quality of life

No studies identified

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E.47 Empower Youth Program

E.47.1 Social and emotional skills

No studies identified

E.47.2 Emotional Distress - Depression

Study or Subgroup	Empower Youth Program Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
53.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
53.2.2 Secondary education									
Nash 2007	-1.73	0.36	19	-1.78	0.27	21	100.0%	0.16 [-0.47, 0.78]	
Subtotal (95% CI)			19			21	100.0%	0.16 [-0.47, 0.78]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.49 (P = 0.62)									
Total (95% CI)			19			21	100.0%	0.16 [-0.47, 0.78]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.49 (P = 0.62)									
Test for subgroup differences: Not applicable									

Favours Empower Youth Program   Favours Control

E.47.3 Emotional Distress -Anxiety

Study or Subgroup	Empower Youth Program Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
53.3.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
53.3.2 Secondary education									
Nash 2007	1.65	0.47	19	1.78	0.65	21	100.0%	-0.22 [-0.85, 0.40]	
Subtotal (95% CI)			19			21	100.0%	-0.22 [-0.85, 0.40]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.70 (P = 0.48)									
Total (95% CI)			19			21	100.0%	-0.22 [-0.85, 0.40]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.70 (P = 0.48)									
Test for subgroup differences: Not applicable									

Favours Empower Youth Program   Favours Control

E.47.4 Behavioural outcomes

No studies identified

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E.47.5 Academic outcomes

No studies identified

E.47.6 Quality of life

No studies identified
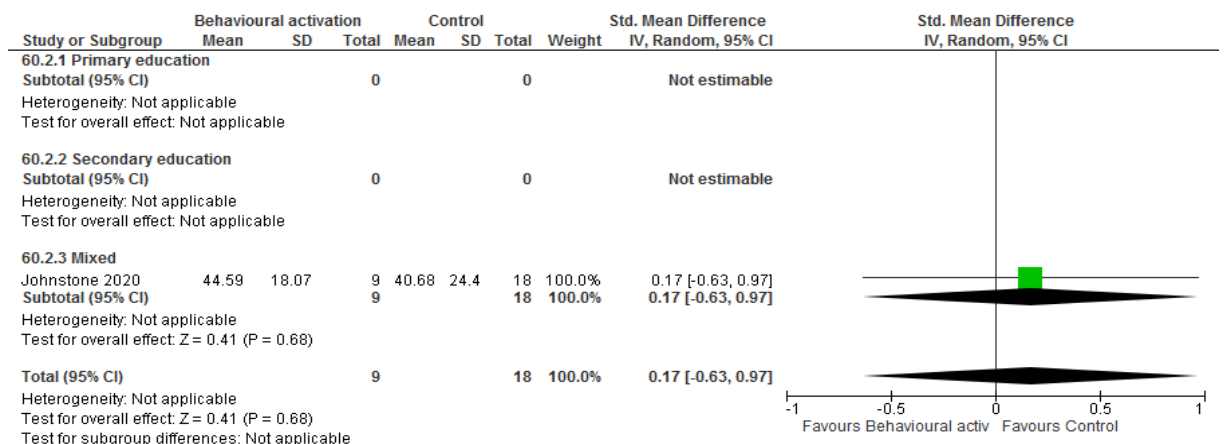
E.48 BePART

E.48.1 Social and emotional skills

Study or Subgroup	BePART Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
54.1.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
54.1.2 Secondary education									
Putwain 2019	-3.62	0.56	263	-3.47	0.59	271	100.0%	-0.26 [-0.43, -0.09]	
Subtotal (95% CI)			263			271	100.0%	-0.26 [-0.43, -0.09]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 2.99 (P = 0.003)									
Total (95% CI)			263			271	100.0%	-0.26 [-0.43, -0.09]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 2.99 (P = 0.003)									
Test for subgroup differences: Not applicable									

-2   -1   0   1   2
Favours BePART   Favours Control

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E.48.2   Emotional Distress - Stress

	BePART			Control				Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
54.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
54.2.2 Secondary education									
Putwain 2019	-3.41	0.83	263	-3.28	0.7	271	100.0%	-0.17 [-0.34, 0.00]	
Subtotal (95% CI)			263			271	100.0%	-0.17 [-0.34, 0.00]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.95 (P = 0.05)									
Total (95% CI)			263			271	100.0%	-0.17 [-0.34, 0.00]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.95 (P = 0.05)									
Test for subgroup differences: Not applicable									

Favours BePART   Favours Control

E.48.3   Emotional Distress -Anxiety

No studies identified

E.48.4   Behavioural outcomes

	BePART			Control				Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
54.3.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
54.3.2 Secondary education									
Putwain 2019	-3.06	0.39	263	-3.02	0.45	271	100.0%	-0.09 [-0.26, 0.07]	
Subtotal (95% CI)			263			271	100.0%	-0.09 [-0.26, 0.07]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.09 (P = 0.27)									
Total (95% CI)			263			271	100.0%	-0.09 [-0.26, 0.07]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.09 (P = 0.27)									
Test for subgroup differences: Not applicable									

Favours BePART   Favours Control

E.48.5   Academic outcomes

No studies identified

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E.48.6 Quality of life

No studies identified

E.49 Child protection education programme

E.49.1 Social and emotional skills

Study or Subgroup	CPEP Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
55.1.1 Primary education									
Dale 2016	-13.12	2.29	131	-11.32	1.95	114	100.0%	-0.84 [-1.10, -0.58]	
Subtotal (95% CI)			**131**			**114**	**100.0%**	**-0.84 [-1.10, -0.58]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 6.28 (P < 0.00001)									
55.1.2 Secondary education									
Subtotal (95% CI)			**0**			**0**		**Not estimable**	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
Total (95% CI)			**131**			**114**	**100.0%**	**-0.84 [-1.10, -0.58]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 6.28 (P < 0.00001)									
Test for subgroup differences: Not applicable									

-2 -1 0 1 2
Favours CPEP   Favours Control

E.49.2 Emotional Distress - Depression

No studies identified

E.49.3 Emotional Distress -Anxiety

No studies identified

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E.49.4 Behavioural outcomes

Study or Subgroup	CPEP Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
55.3.1 Primary education									
Dale 2016	-32.21	4.86	71	-28.72	5.68	46	100.0%	-0.67 [-1.05, -0.29]	
Subtotal (95% CI)			71			46	100.0%	**-0.67 [-1.05, -0.29]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 3.43 (P = 0.0006)									
55.3.2 Secondary education									
Subtotal (95% CI)			0			0		**Not estimable**	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
Total (95% CI)			71			46	100.0%	**-0.67 [-1.05, -0.29]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 3.43 (P = 0.0006)									
Test for subgroup differences: Not applicable									

Favours CPEP   Favours Control

E.49.5 Academic outcomes

No studies identified

E.49.6 Quality of life

No studies identified

E.50 Tools for Getting Along

E.50.1 Social and emotional skills

Study or Subgroup	Tools For Getting Along Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
56.1.1 Primary education									
Daunic 2012	-17.07	4.87	34	-13.96	3.46	26	100.0%	-0.71 [-1.24, -0.18]	
Subtotal (95% CI)			34			26	100.0%	**-0.71 [-1.24, -0.18]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 2.64 (P = 0.008)									
56.1.2 Secondary education									
Subtotal (95% CI)			0			0		**Not estimable**	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
Total (95% CI)			34			26	100.0%	**-0.71 [-1.24, -0.18]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 2.64 (P = 0.008)									
Test for subgroup differences: Not applicable									

Favours Tools For Getting Along   Favours Control

E.50.2 Emotional Distress - Depression

No studies identified

E.50.3 Emotional Distress -Anxiety

No studies identified

E.50.4 Behavioural outcomes

No studies identified

E.50.5 Academic outcomes

No studies identified

E.50.6 Quality of life

No studies identified

E.51 Expressive writing and psychoeducation

E.51.1 Social and emotional skills

No studies identified

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E.51.2 Emotional Distress - stress

Study or Subgroup	EWPE Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
57.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
57.2.2 Secondary education									
Horn 2011	18.59	6.24	194	19.88	7.34	134	100.0%	-0.19 [-0.41, 0.03]	
Subtotal (95% CI)			194			134	100.0%	-0.19 [-0.41, 0.03]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.70 (P = 0.09)									
Total (95% CI)			194			134	100.0%	-0.19 [-0.41, 0.03]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 1.70 (P = 0.09)									
Test for subgroup differences: Not applicable									

Favours EWPE Favours Control

E.51.3 Emotional Distress -Anxiety

No studies identified

E.51.4 Behavioural outcomes

Study or Subgroup	EWPE Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
57.3.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
57.3.2 Secondary education									
Horn 2011	0.91	2.19	60	2.12	3.58	41	100.0%	-0.42 [-0.83, -0.02]	
Subtotal (95% CI)			60			41	100.0%	-0.42 [-0.83, -0.02]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 2.07 (P = 0.04)									
Total (95% CI)			60			41	100.0%	-0.42 [-0.83, -0.02]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 2.07 (P = 0.04)									
Test for subgroup differences: Not applicable									

Favours EWPE Favours Control

E.51.5 Academic outcomes

Study or Subgroup	EWPE Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
57.4.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
57.4.2 Secondary education									
Horn 2011	3.06	0.64	100	3.06	0.7	69	100.0%	0.00 [-0.31, 0.31]	
Subtotal (95% CI)			100			69	100.0%	0.00 [-0.31, 0.31]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.00 (P = 1.00)									
Total (95% CI)			100			69	100.0%	0.00 [-0.31, 0.31]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.00 (P = 1.00)									
Test for subgroup differences: Not applicable									

Favours EWPE Favours Control

E.51.6 Quality of life

No studies identified

E.52 Coping Power Universal

E.52.1 Social and emotional skills

No studies identified

E.52.2 Emotional Distress - Symptoms

Study or Subgroup	CPU Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
58.2.1 Primary education									
Muratori 2017	1.19	1.59	464	2.05	2.37	377	52.2%	-0.43 [-0.57, -0.30]	
Muratori 2019	1.37	1.75	236	1.66	2.12	240	47.8%	-0.15 [-0.33, 0.03]	
Subtotal (95% CI)			700			617	100.0%	-0.30 [-0.58, -0.02]	
Heterogeneity: Tau² = 0.03; Chi² = 6.11, df = 1 (P = 0.01); I² = 84%									
Test for overall effect: Z = 2.09 (P = 0.04)									
58.2.2 Secondary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
Total (95% CI)			700			617	100.0%	-0.30 [-0.58, -0.02]	
Heterogeneity: Tau² = 0.03; Chi² = 6.11, df = 1 (P = 0.01); I² = 84%									
Test for overall effect: Z = 2.09 (P = 0.04)									
Test for subgroup differences: Not applicable									

Favours CPU Favours Control

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E.52.3 Emotional Distress -Anxiety

No studies identified

E.52.4 Behavioural outcomes

E.52.5 Academic outcomes

No studies identified

E.52.6 Quality of life

No studies identified

E.53 Emotion Regulation

E.53.1 Social and emotional skills

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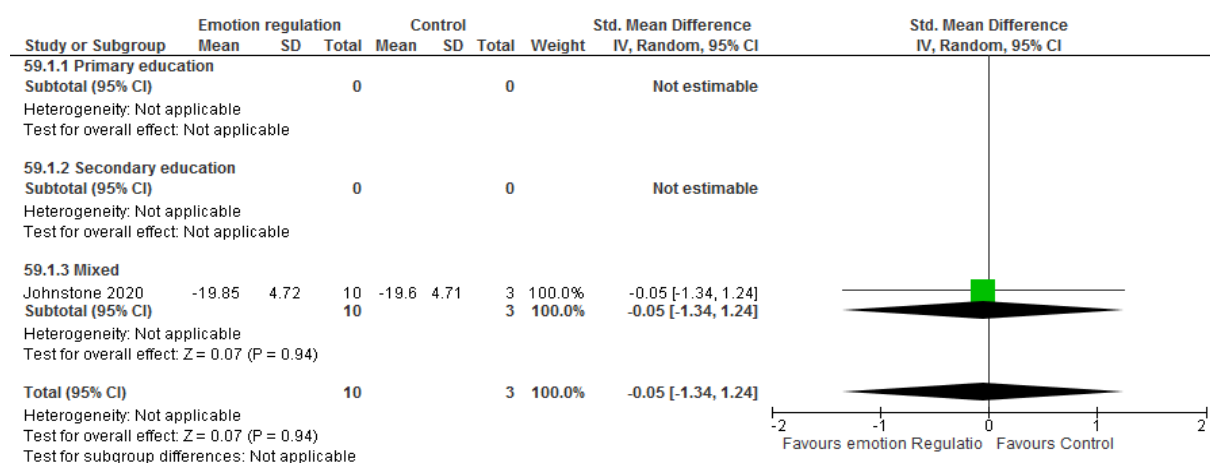
E.53.2 Emotional Distress - Depression

No studies identified

E.53.3 Emotional Distress -Anxiety

No studies identified

E.53.4 Emotional Distress -Anxiety and Depression
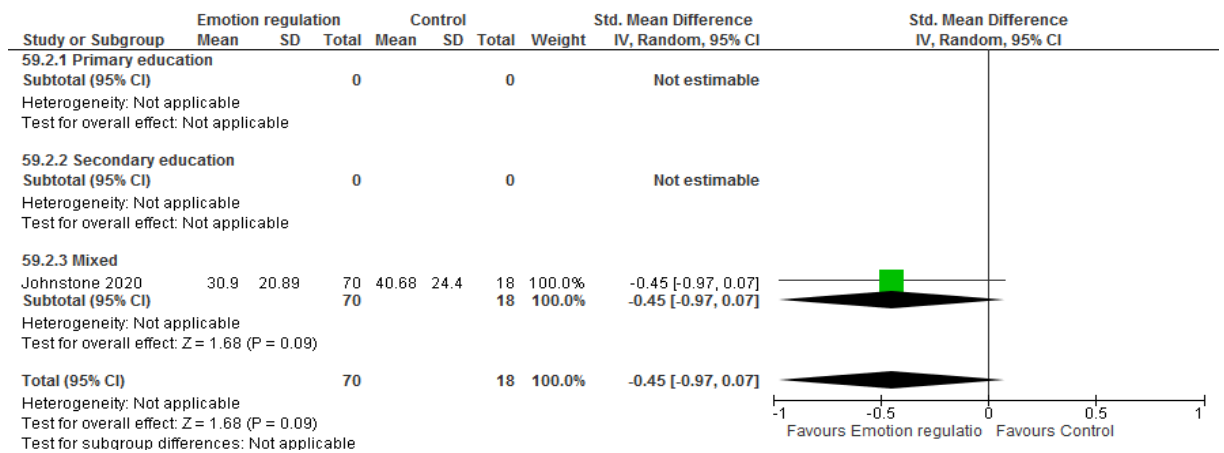
E.53.5 Behavioural outcomes

No studies identified

E.53.6 Academic outcomes

No studies identified

E.53.7 Quality of life

No studies identified

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E.54 Behavioural Activation

E.54.1 Social and emotional skills
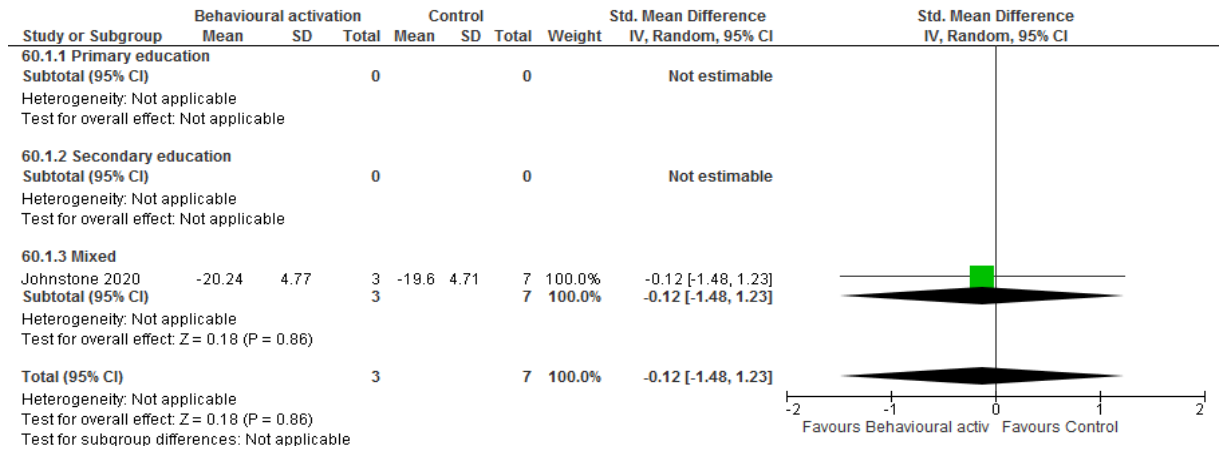
E.54.2 Emotional Distress - Depression

No studies identified

E.54.3 Emotional Distress -Anxiety

No studies identified

E.54.4 Emotional Distress -Anxiety and Depression

E.54.5 Behavioural outcomes

No studies identified

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E.54.6 Academic outcomes

No studies identified

E.54.7 Quality of life

No studies identified

E.54.8 Computerised Enhanced Psychological Mindset Intervention

E.54.9 Social and emotional skills

E.54.10 Emotional Distress - Depression

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E.54.11 Emotional Distress -Anxiety

Study or Subgroup	Comp psych mindset int Mean	SD	Total	Control Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI	Std. Mean Difference IV, Random, 95% CI
61.2.1 Primary education									
Subtotal (95% CI)			0			0		Not estimable	
Heterogeneity: Not applicable									
Test for overall effect: Not applicable									
61.2.2 Secondary education									
Perkins 2021	10.99	5.61	40	14.58	5.7	40	100.0%	-0.63 [-1.08, -0.18]	
Subtotal (95% CI)			40			40	100.0%	-0.63 [-1.08, -0.18]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 2.74 (P = 0.006)									
Total (95% CI)			40			40	100.0%	-0.63 [-1.08, -0.18]	
Heterogeneity: Not applicable									
Test for overall effect: Z = 2.74 (P = 0.006)									
Test for subgroup differences: Not applicable									

Favours comp psych mindse Favours Control

E.54.12 Behavioural outcomes

No studies identified

E.54.13 Academic outcomes

No studies identified

E.54.14 Quality of life

No studies identified

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Appendix F   – GRADE

F.1 GRADE Profiles

F.1.1 Bullying

	Quality assessment						No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations		Control	Relative (95% CI)	Absolute		
Overall bullying - endpoint (Better indicated by lower values) (Fraguas, 2020)												
39	randomised trials	no serious risk of bias[1]	serious[2]	serious[3]	no serious imprecision[4]	none	44289	45385	-	SMD 0.15 lower (0.192 to 0.107 lower)	⊕⊕OO LOW	
Overall bullying - follow-up (follow-up mean 46.1 weeks; Better indicated by lower values) (Fraguas, 2020)												
17	randomised trials	no serious risk of bias[1]	serious[2]	serious[3]	no serious imprecision[4]	none	10608	10549	-	SMD 026 lower (0.253 to 0.094 lower)	⊕⊕OO LOW	
Bullying perpetration - endpoint (Better indicated by lower values) (Fraguas, 2020)												
33	randomised trials	no serious risk of bias[1]	serious[2]	serious[3]	no serious imprecision[4]	none	42727	42721	-	SMD 0.111 lower (0.147 to 0.075 lower)	⊕⊕OO LOW	
Bullying perpetration - follow-up (follow-up mean 41.1 weeks; Better indicated by lower values) (Fraguas, 2020)												
14	randomised trials	no serious risk of bias[1]	serious[2]	serious[3]	no serious imprecision[4]	none	7646	7743	-	SMD 0.173 lower (0.284 to 0.062 lower)	⊕⊕OO LOW	
Bullying exposure - endpoint (Better indicated by lower values) (Fraguas, 2020)												
27	randomised trials	no serious risk of bias[1]	serious[2]	serious[3]	no serious imprecision[4]	none	36878	36650	-	SMD 0.158 lower (0.229 to 0.088 lower)	⊕⊕OO LOW	
Bullying exposure - follow-up (follow-up mean 39.8 weeks; Better indicated by lower values) (Fraguas, 2020)												

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| 10 | randomised trials | no serious risk of bias[1] | no serious inconsistency[5] | serious[3] | no serious imprecision[4] | none | 6594 | 7207 | - | SMD 0.118 lower (0.176 to 0.061 lower) | ⊕⊕⊕O MODERATE | |

Cyberbullying - endpoint (Better indicated by lower values) (Fraguas, 2020)

| 4 | randomised trials | no serious risk of bias[1] | no serious inconsistency[5] | serious[3] | no serious imprecision[4] | none | 3263 | 2464 | - | SMD 0.138 lower (0.213 to 0.064 lower) | ⊕⊕⊕O MODERATE | |

Mental health problems - endpoint (Better indicated by lower values) (Fraguas, 2020)

| 15 | randomised trials | no serious risk of bias[1] | serious[2] | serious[3] | no serious imprecision[4] | none | 14231 | 14298 | - | SMD 0.211 lower (0.292 to 0.131 lower) | ⊕⊕OO LOW | |

Mental health problems - follow-up (follow-up mean 22.4 weeks; Better indicated by lower values) (Fraguas, 2020)

| 5 | randomised trials | no serious risk of bias[1] | serious[2] | serious[3] | no serious imprecision[4] | none | 1418 | 1427 | - | SMD 0.205 lower (0.381 to 0.03 lower) | ⊕⊕OO LOW | |

School climate - endpoint (Better indicated by higher values) (Fraguas, 2020)

| 9 | randomised trials | no serious risk of bias | no serious inconsistency[5] | serious[3] | no serious imprecision[4] | none | 11127 | 11667 | - | SMD 0.067 higher (0.04 to 0.094 higher) | ⊕⊕⊕O MODERATE | |

School climate - follow-up (follow-up mean 65 weeks; Better indicated by higher values) (Fraguas, 2020)

| 4 | randomised trials | no serious risk of bias | serious[2] | serious[3] | no serious imprecision[4] | none | 2460 | 2784 | - | SMD 0.120 higher (0.003 to 0.236 higher) | ⊕⊕OO LOW | |

[1] No concerns over risk of bias of review

[2] Serious concerns as I2 > 50%

[3] Serious concerns over uncertainty of interventions but population and outcomes match the review protocol

[4] No concerns as 95%CI do not cross the line of no effect

[5] No concerns as I2 < 50%

F.1.2 You Can Do It!

Quality assessment			No of patients	Effect	Quality	Importance

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No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	You can do it!	Usual practice	Relative (95% CI)	Absolute		
Social and emotional skills: (Better indicated by lower values) (Ashdown 2012)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	2	2	-	MD 9.48 lower (24.15 lower to 5.18 higher)	⊕⊕OO LOW	
Emotional distress (Better indicated by lower values) (Ashdown 2012)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	2	2	-	MD 10.28 lower (27.06 lower to 6.5 higher)	⊕⊕OO LOW	
Behavioural outcomes (Better indicated by lower values) (Ashdown 2012)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	2	2	-	MD 1.05 lower (2.59 lower to 0.49 higher)	⊕⊕OO LOW	
Academic outcomes (Better indicated by lower values) (Ashdown 2012)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	2	2	-	MD 0.74 lower (11.8 lower to 10.31 higher)	⊕⊕OO LOW	

[1] Downgraded 1 level: No blinding or allocation concealment; Method of randomisation lacks detail; Those assessing outcomes were aware of allocations and assessments carried out by self-report
[2] N/A: Single study with data split by year group
[3] Study met inclusion criteria in PICO
[4] 95% confidence interval crosses the line of effect

F.1.3   Rational Emotive Education

	Quality assessment						No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Rational Emotive Education	Control (not specified)	Relative (95% CI)	Absolute	Quality	Importance
Social and emotional skills (Better indicated by lower values) (Caruso 2018)												
1	randomised trials	no serious risk of bias[1]	NA[2]	no serious indirectness[3]	serious[4]	none	146	130	-	MD 1.24 lower (1.81 to 0.66 lower)	⊕⊕⊕O MODERATE	

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[1] Study appraised as being at low risk of bias
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the standardised mean difference cross the line of effect

F.1.4   Jovenes Fuertes SEL

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Jovenes Fuertes SEL	Waiting list control	Relative (95% CI)	Absolute	Quality	Importance
				Quality assessment				No of patients	Effect			
Social and emotional skills (Better indicated by lower values) (Castro-Olivio 2014)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[4]	none	49	53	-	MD 4.99 lower (9.33 to 0.65 lower)	⊕⊕⊕O MODERATE	

[1] Downgraded 1 level: Data presented by clusters with indivdual participants not considered in the study
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the standardised mean difference cross the line of effect

F.1.5   Move for well-being in school

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Move for well-being in school	Usual practice	Relative (95% CI)	Absolute	Quality	Importance
				Quality assessment				No of patients	Effect			
Social and emotional skills (Better indicated by lower values) (Christiansen 2018)												
1	randomised trials	no serious risk of bias[1]	NA[2]	no serious indirectness[3]	serious[4]	none	951	1093	-	MD 0.04 lower (0.11 lower to 0.03 higher)	⊕⊕⊕O MODERATE	
Behavioural outcomes (Better indicated by lower values) (Christiansen 2018)												
1	randomised trials	no serious risk of bias[1]	NA[2]	no serious indirectness[3]	serious[4]	none	1301	1496	-	MD 0.01 lower (0.06 lower to 0.04 higher)	⊕⊕⊕O MODERATE	

[1] Study appraised as low risk of bias
[2] N/A - single study

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[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the standardised mean difference cross the line of effect

F.1.6 Zippy's Friends

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Zippy's Friends	Usual practice	Relative (95% CI)	Absolute	Quality	Importance
Quality assessment							**No of patients**		**Effect**			
Social and emotional skills (Better indicated by lower values) (Clarke 2014, Holen 2012)												
2	randomised trials	serious[1]	serious[2]	no serious indirectness[3]	serious[4]	none	888	718	-	SMD 0.03 lower (0.13 lower to 0.07 higher)	⊕OOO VERY LOW	
Behavioural distress (Better indicated by lower values) (Clarke 2014, Holen 2012)												
2	randomised trials	no serious risk of bias[1]	serious[2]	no serious indirectness[3]	serious[4]	none	891	722	-	SMD 0.07 lower (0.17 lower to 0.03 higher)	⊕⊕OO LOW	

[1] Studies appraised as 'some conerns' of risk of bias: Statistical differences in baseline measures of outcomes post randomisations (Clarke et al 2014); Blinding and allocation concealment not specified, assessor knowledge of allocation and self-report measures (Holen et al 2012)
[2] I2>40% and p>0.05
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

F.1.7 Roots of Empathy

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Roots of Empathy (RoI)	Usual practice	Relative (95% CI)	Absolute	Quality	Importance
Quality assessment							**No of patients**		**Effect**			
Social and emotional skills (Better indicated by lower values) (Connolly 2018)												
1	randomised trials	no serious risk of bias[1]	NA[2]	no serious indirectness[3]	serious[4]	none	138	109	-	MD 0.12 lower (0.37 lower to 0.13 higher)	⊕⊕⊕O MODERATE	
Behavioural outcomes (Better indicated by lower values) (Connolly 2018)												

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| 1 | randomised trials | no serious risk of bias[1] | NA[2] | no serious indirectness[3] | serious[4] | none | 138 | 109 | - | MD 0.14 lower (0.39 lower to 0.1 higher) | ⊕⊕⊕O MODERATE | |

[1] Study appraised as low risk of bias
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

F.1.8 Social Skills Improvement System Classwide Intervention Program

	Quality assessment						No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Social Skills Improvement System Classwide Intervention Program (SSIS-CIP)	Control	Relative (95% CI)	Absolute	Quality	Importance
Social and emotional skills (Better indicated by lower values) (Diperna 2018)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	125	130	-	MD 0.11 higher (0.01 lower to 0.23 higher)	⊕⊕OO LOW	
Behavioural outcomes (Better indicated by lower values) (Diperna 2016, Diperna 2018)												
2	randomised trials	serious[1]	serious[5]	no serious indirectness[3]	serious[4]	none	224	160	-	SMD 0.01 lower (0.22 lower to 0.2 higher)	⊕OOO VERY LOW	
Academic outcomes (Better indicated by lower values) (Diperna 2016, Diperna 2018)												
2	randomised trials	serious[1]	no serious inconsistency	no serious indirectness[3]	serious[4]	none	187	182	-	MD 10.35 lower (33.46 lower to 12.76 higher)	⊕⊕OO LOW	

[1] Studies appraised as 'some conerns' of risk of bias: Statisitical differences in baseline characteristics between arms post randomisation (Diperna et al 2016; Blinding and allocation concealment not specified, self-report msures utilised and randomisation method unclear (Diperna et al 2018)
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect
[5] I2>75% and study 95% confidence intervals do not overlap

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F.1.9 SPHE + Working things out through SPHE

		Quality assessment					No of patients		Effect			Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	SPHE + Working things out through SPHE	SPHE	Relative (95% CI)	Absolute			
Social and emotional skills (Better indicated by lower values) (Fitzpatrick 2013)													
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	361	421	-	MD 0.37 higher (0.41 lower to 1.15 higher)	⊕⊕OO LOW		
Behavioural outcomes (Better indicated by lower values) (Fitzpatrick 2013)													
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	361	412	-	MD 0.03 higher (0.04 lower to 0.1 higher)	⊕⊕OO LOW		

[1] Study appraised as 'some conerns' of risk of bias: Statisitical differences in baseline characteristics between arms post randomisation; Blinding and allocation concealment not specified, randomisation method unclear.
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

F.1.10 Gratitude intervention

		Quality assessment					No of patients		Effect			Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Gratitude intervention	Control	Relative (95% CI)	Absolute			
Behavioural outcomes (Better indicated by lower values) (Froh 2008)													
1	randomised trials	very serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	76	65	-	MD 0.04 higher (0.3 lower to 0.38 higher)	⊕OOO VERY LOW		

[1] Study appraised as at high risk of bias due to: Part of control arm exposed to additional event that would impact on primary outcome; Clustering not accounted for in participant analysis; Lack of blinding and allocation concealment; self-report measures
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

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F.1.11 Hassle intervention

	Quality assessment						No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Hassle intervention	Control	Relative (95% CI)	Absolute	Quality	Importance
Behavioural outcomes (Better indicated by lower values) (Froh 2008)												
1	observational studies	very serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	80	65	-	MD 0.41 higher (0.05 to 0.77 higher)	⊕OOO VERY LOW	

[1] Study appraised as at high risk of bias due to: Part of control arm exposed to additional event that would impact on primary outcome; Clustering not accounted for in participant analysis; Lack of blinding and allocation concealment; self-report measures
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

F.1.12 Philosophy for Children (P4C)

	Quality assessment						No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Philosophy for Children (P4C)	Waiting list control	Relative (95% CI)	Absolute	Quality	Importance
Social and emotional skills (Better indicated by lower values) (Gorard 2017)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	109	116	-	MD 0.31 higher (2.85 lower to 3.47 higher)	⊕⊕OO LOW	
Academic outcomes (Better indicated by lower values) (Gorard 2017)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	108	106	-	MD 0.08 higher (0.19 lower to 0.35 higher)	⊕⊕OO LOW	

[1] Study appraised as 'some conerns' of risk of bias: Blinding and allocation concealment not specified, randomisation method unclear; self-report measures; Control arms potentially received some of the intervention arm.
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

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F.1.13 Strong kids

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Strong kids	Waiting list control	Relative (95% CI)	Absolute	Quality	Importance
				Quality assessment			No of patients		Effect			
Social and emotional skills (Better indicated by lower values) (Harlacher 2010)												
1	randomised trials	very serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	54	52	-	MD 2.21 lower (3.44 to 0.98 lower)	⊕OOO VERY LOW	
Behavioural outcomes (Better indicated by lower values) (Harlacher 2010)												
1	randomised trials	very serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[4]	none	54	52	-	MD 13.58 lower (18.16 to 9 lower)	⊕⊕OO LOW	

[1] Studies appraised as some concerns and high risk of bias due to: Blinding, allocation concealment unclear; Baseline characteristics post randomisation indicated significant differences in charateristics and primary outcome; clustering does not appear to be accounted for in the analysis.
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

F.1.14 PATHS

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	PATHS	Usual practice	Relative (95% CI)	Absolute	Quality	Importance
				Quality assessment			No of patients		Effect			
Social and emotional skills (Better indicated by lower values) (Berry 2016, Humphrey 2018, Lalongo 2019, Malti 2011)												
4	randomised trials	serious[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	2144	2538	-	SMD 0.05 lower (0.11 lower to 0 higher)	⊕⊕OO LOW	
Emotional distress (Better indicated by lower values) (Berry 2016, Humphrey 2018, Malti 2011)												
3	randomised trials	serious[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	921	833	-	MD 0.01 higher (0.02 lower to 0.04 higher)	⊕⊕OO LOW	

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Behavioural outcomes (Better indicated by lower values) (Berry 2016, Lalongo 2019, Malti 2011)												
3	randomised trials	serious[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	1818	2259	-	MD 0.01 higher (0.02 lower to 0.04 higher)	⊕⊕OO LOW	
Academic outcomes (Better indicated by lower values) (Berry 2016, Humphrey 2018, Lalongo 2019)												
3	randomised trials	serious[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	2011	3982	-	MD 0.07 lower (0.19 lower to 0.05 higher)	⊕⊕OO LOW	

[1] 2 of the 3 studies appraised as 'some conerns' of risk of bias: Blinding and allocation concealment not specified, Randomisation method unclear; outcome assessments undertaken by self/observer-report
[2] I2<40% and 95% confidence intervals of studies overlap
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the pooled standardised mean difference cross the line of effect

F.1.15 Steps for life

		Quality assessment					No of patients		Effect		Quality	Importance
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Steps for life**	**Waiting list control**	**Relative (95% CI)**	**Absolute**	**Quality**	**Importance**
Social and emotional skills (Better indicated by lower values) (Kourmousi 2018)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[4]	none	1516	923	-	MD 0.34 lower (0.45 to 0.23 lower)	⊕⊕⊕O MODERATE	
Emotional distress (Better indicated by lower values) (Kourmousi 2018)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[4]	none	1516	923	-	MD 0.31 lower (0.41 to 0.21 lower)	⊕⊕⊕O MODERATE	
Behavioural outcomes (Better indicated by lower values) (Kourmousi 2018)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[4]	none	1516	923	-	MD 0.44 lower (0.53 to 0.35 lower)	⊕⊕⊕O MODERATE	
Academic outcomes (Better indicated by lower values) (Kourmousi 2018)												

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No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	EPHECT	Control	Relative (95% CI)	Absolute	Quality	Importance
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[4]	none	1516	923	-	MD 0.33 lower (0.43 to 0.23 lower)	⊕⊕⊕O MODERATE	

[1] Study appraised as at 'some concern' of bias: Blinding or allocation concealment not specified; Method of randomisation lacks detail; Those assessing outcomes were aware of allocations and assessments carried out by self-report
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] 95% confidence intervals around the standardised mean difference does not cross the line of effect

F.1.16 EPHECT coping training

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	EPHECT coping training	Control	Relative (95% CI)	Absolute	Quality	Importance
Social and emotional skills (Better indicated by lower values) (Lang 2017)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[4]	none	63	59	-	MD 0.9 higher (0.12 to 1.68 higher)	⊕⊕⊕O MODERATE	
Emotional distress (Better indicated by lower values) (Lang 2017)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[5]	none	63	59	-	MD 0.15 lower (0.74 lower to 0.44 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] No concerns as 95% CI do not cross line of no effect
[5] Serious concerns as 95% CI cross line of no effect

F.1.17 ProCiviCo

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	ProCiviCo	Control (not specified)	Relative (95% CI)	Absolute	Quality	Importance

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Behavioural outcomes (Better indicated by lower values) (Luengo-Kanacri 2020)											
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	315	281	-	MD 0.03 lower (0.11 lower to 0.05 higher)	⊕⊕OO LOW	

F.1.18 Classroom SCERTS

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Classroom SCERTS Intervention (CSI)	Autism Training Modules (ATM)	Relative (95% CI)	Absolute		
Social and emotional skills (Better indicated by lower values) (Morgan 2018)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	118	79	-	MD 1.1 lower (2.27 lower to 0.07 higher)	⊕⊕OO LOW	
Behavioural outcomes (Better indicated by lower values) (Morgan 2018)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[5]	none	118	79	-	MD 5.62 lower (9.91 to 1.33 lower)	⊕⊕⊕O MODERATE	

[1] Serious concerns over risk of bias due to self-reported outcomes
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] Serious concerns as 95% CI cross line of no effect
[5] No concerns as 95% CI do not cross line of no effect

F.1.19 INSIGHTS

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	INSIGHTS	Control	Relative (95% CI)	Absolute		
Social and emotional skills (Better indicated by lower values) (O'Connor 2014)												

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1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	225	210	-	MD 0.9 lower (2.64 lower to 0.84 higher)	⊕⊕OO LOW	

Behavioural outcomes (Better indicated by lower values) (O'Connor 2014)

1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	225	210	-	MD 0.18 lower (0.44 lower to 0.08 higher)	⊕⊕OO LOW	

Academic outcomes (Better indicated by lower values) (O'Connor 2014)

1	randomised trials	no serious risk of bias[5]	NA[2]	no serious indirectness[3]	serious[4]	none	225	210	-	MD 0.03 higher (1.58 lower to 1.64 higher)	⊕⊕⊕O MODERATE	

[1] Serious concerns over risk of bias due to self-reported outcomes
[2] N/A - single study
[3] Study met inclusion criteria in PICO
[4] Serious concerns as 95% CI cross line of no effect
[5] No concerns as outcome can be objectively measured

F.1.20   Well-Being intervention (WBI)

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Well-Being intervention (WBI)	Attention-placebo	Relative (95% CI)	Absolute	Quality	Importance
			Quality assessment				No of patients			Effect		

Social and emotional skills (Better indicated by lower values)

1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	98	98	-	MD 0.12 lower (3.73 lower to 3.49 higher)	⊕⊕OO LOW	

Emotional distress (Better indicated by lower values) (Ruini 2009)

1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	129	98	-	MD 0.76 higher (0.75 lower to 2.27 higher)	⊕⊕OO LOW	

F.1.21   Mindfulness interventions

Quality assessment	No of patients	Effect	Quality	Importance

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No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Mindfulness interventions	Active control/usual curriculum	Relative (95% CI)	Absolute		
Social and emotional skills - Primary education (Better indicated by lower values) (Ghiroldi 2020, Schonert-Reichl 2015)												
2	randomised trials	serious[1]	serious[2]	no serious indirectness[3]	serious[4]	none	280	219	-	SMD 0.34 lower (0.79 lower to 0.11 higher)	⊕OOO VERY LOW	
Social and emotional skills - Secondary education (Better indicated by lower values) (Britton 2014, Burckhardt 2016 (year 10), Burckhardt 2016 (year 11), Dowling 2019, Hagins 2016, Lassander 2021)												
6	randomised trials	serious[1]	no serious inconsistency[5]	no serious indirectness[3]	serious[4]	none	1011	524	-	SMD 0.1 lower (0.23 lower to 0.03 higher)	⊕⊕OO LOW	
Social and emotional skills - Mix (Better indicated by lower values) (Sibinga 2016)												
1	randomised trials	serious[1]	NA[6]	no serious indirectness[3]	serious[4]	none	16	18	-	MD 7.05 higher (31.88 lower to 45.98 higher)	⊕⊕OO LOW	
Emotional distress - Depression - Primary education (Better indicated by lower values) (Schonert-Reichl 2015)												
1	randomised trials	serious[1]	NA[6]	no serious indirectness[3]	serious[4]	none	48	51	-	MD 0.17 lower (0.37 lower to 0.03 higher)	⊕⊕OO LOW	
Emotional distress - Depression - Secondary education (Better indicated by lower values) (Burckhardt 2016 (year 10), Burckhardt 2016 (year 11), Dowling 2019, Hagins 2016, Lassander 2021, Raes 2014)												
6	randomised trials	serious[1]	serious[2]	no serious indirectness[3]	serious[4]	none	1029	558	-	SMD 0.17 lower (0.38 lower to 0.04 higher)	⊕OOO VERY LOW	
Emotional distress - Anxiety - Secondary education (Better indicated by lower values) (Britton 2014)												
1	randomised trials	serious[1]	NA[6]	no serious indirectness[3]	serious[4]	none	52	48	-	MD 47.60 lower (151.63 lower to 56.43 higher)	⊕⊕OO LOW	
Emotional distress - Anxiety - Mix (Better indicated by lower values) (Sibinga 2016)												

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№	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other	n1	n2	-	Effect	Quality
1	randomised trials	serious[1]	NA[6]	no serious indirectness[3]	serious[4]	none	23	26	-	MD 0.56 lower (4.93 lower to 3.81 higher)	⊕⊕OO LOW

Emotional distress - Anxiety/Depression - Primary education (Better indicated by lower values) (Ghiroldi 2020)

№	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other	n1	n2	-	Effect	Quality
1	randomised trials	serious[1]	no serious inconsistency[6]	no serious indirectness[3]	no serious imprecision[7]	none	232	168	-	MD 0.61 lower (1.1 to 0.12 lower)	⊕⊕⊕O MODERATE

Behavioural outcomes - Primary education (Better indicated by lower values) (Ghiroldi 2020, Janz 2019, Schonert-Reichl 2015)

№	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other	n1	n2	-	Effect	Quality
3	randomised trials	serious[1]	no serious inconsistency[5]	no serious indirectness[3]	serious[4]	none	303	231	-	SMD 0 higher (0.18 lower to 0.18 higher)	⊕⊕OO LOW

Behavioural outcomes - Secondary education (Better indicated by lower values) (Britton 2014, Dowling 2019, Hagins 2016, Lassander 2021)

№	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other	n1	n2	-	Effect	Quality
4	randomised trials	serious[1]	no serious inconsistency[5]	no serious indirectness[3]	serious[4]	none	973	500	-	SMD 0.03 lower (0.15 lower to 0.08 higher)	⊕⊕OO LOW

Behavioural outcomes - Mix (Better indicated by lower values) (Sibinga 2016)

№	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other	n1	n2	-	Effect	Quality
1	randomised trials	serious[1]	NA[6]	no serious indirectness[3]	serious[4]	none	34	39	-	MD 2.39 lower (10.17 lower to 5.39 higher)	⊕⊕OO LOW

Academic outcomes - Primary education (Better indicated by lower values) (Schonert-Reichl 2015)

№	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other	n1	n2	-	Effect	Quality
1	randomised trials	no serious risk of bias[8]	NA[6]	no serious indirectness[3]	serious[4]	none	48	51	-	MD 0.87 lower (1.78 lower to 0.04 higher)	⊕⊕⊕O MODERATE

Academic outcomes - Secondary education (Better indicated by lower values) (Hagins 2016)

№	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other	n1	n2	-	Effect	Quality
1	randomised trials	no serious risk of bias[8]	NA[6]	no serious indirectness[3]	serious[4]	none	64	48	-	MD 0.26 lower (0.64 lower to 0.11 higher)	⊕⊕⊕O MODERATE

Emotional distress - Anxiety Subgroup by gender - Males (Better indicated by lower values) (Britton 2014 (year 1), Britton 2014 (year 2))

№	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other	n1	n2	-	Effect	Quality
2	randomised trials	serious[1]	no serious inconsistency[5]	no serious indirectness[3]	serious[4]	none	16	17	-	SMD 0.22 higher (0.48 lower to 0.91 higher)	⊕⊕OO LOW

Emotional distress - Anxiety Subgroup by gender - Females (Better indicated by lower values) (Britton 2014 (year 1), Britton 2014 (year 2))

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| 2 | randomised trials | serious[1] | no serious inconsistency[5] | no serious indirectness[3] | serious[4] | none | 13 | 14 | - | SMD 0.05 higher (0.7 lower to 0.81 higher) | ⊕⊕OO LOW | |

| **Social and emotional skills Subgroup by gender - Males (Better indicated by lower values) (Britton 2014 (year 1), Britton 2014 (year 2))** | | | | | | | | | | | | |

| 2 | randomised trials | serious[1] | no serious inconsistency[5] | no serious indirectness[3] | serious[4] | none | 13 | 11 | - | SMD 0.7 lower (1.93 lower to 0.54 higher) | ⊕⊕OO LOW | |

| **Social and emotional skills Subgroup by gender - Females (Better indicated by lower values) (Britton 2014 (year 1), Britton 2014 (year 2))** | | | | | | | | | | | | |

| 2 | randomised trials | serious[1] | no serious inconsistency[5] | no serious indirectness[3] | serious[4] | none | 11 | 12 | - | SMD 0.55 lower (1.39 lower to 0.3 higher) | ⊕⊕OO LOW | |

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Serious concerns as I2 >50%
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as I2 <50%
[6] Not applicable - single study analysis
[7] No concerns as 95%CI do not cross the line of no effect
[8] No concerns as outcome can be objectively measured

F.1.22 Aussie Optimism Program

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Aussie Optimism Program	Control	Relative (95% CI)	Absolute		
Social and emotional skills - Primary education (Better indicated by lower values) (Pohillat 2016)												
1	randomised trials	serious[1]	no serious inconsistency[2]	no serious indirectness[3]	no serious imprecision[4]	none	101	84	-	MD 1.89 lower (2.86 to 0.92 lower)	⊕⊕⊕O MODERATE	
Emotional distress - Depression - Primary education (Better indicated by lower values) (Kennedy 2015, Rooney 2013)												
2	randomised trials	serious[1]	serious[7]	no serious indirectness[3]	serious[6]	none	155	104	-	SMD 0.01 lower (0.43 lower to 0.4 higher)	⊕OOO VERY LOW	
Emotional distress - Depression - Secondary education (Better indicated by lower values) (Roberts 2010)												

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| 1 | randomised trials | serious[1] | NA[2] | no serious indirectness[3] | serious[6] | none | 40 | 36 | - | MD 0.37 higher (2.67 lower to 3.41 higher) | ⊕⊕OO LOW | |

Emotional distress - Anxiety - Primary education (Better indicated by lower values) (Kennedy 2015, Rooney 2013, Pohillat 2016)

| 3 | randomised trials | serious[1] | no serious inconsistency[5] | no serious indirectness[3] | serious[6] | none | 202 | 117 | - | SMD 0.11 lower (0.30 lower to 0.16 higher) | ⊕⊕OO LOW | |

Emotional distress - Anxiety - Secondary education (Better indicated by lower values) (Roberts 2010)

| 1 | randomised trials | serious[1] | NA[2] | no serious indirectness[3] | serious[6] | none | 38 | 34 | - | MD 0.89 higher (1.56 lower to 3.34 higher) | ⊕⊕OO LOW | |

Behavioural outcomes - Primary education (Better indicated by lower values) (Pohillat 2016)

| 1 | randomised trials | serious[1] | NA[2] | no serious indirectness[3] | serious[6] | none | 60 | 53 | - | MD 0.28 higher (1.99 lower to 2.55 higher) | ⊕⊕OO LOW | |

Behavioural outcomes - Secondary education (Better indicated by lower values) (Roberts 2010)

| 1 | randomised trials | serious[1] | NA[2] | no serious indirectness[3] | serious[6] | none | 57 | 38 | - | MD 0.88 lower (4.06 lower to 2.3 higher) | ⊕⊕OO LOW | |

Behavioural outcomes - Mix (Better indicated by lower values) (Roberts 2017 (training only group), Roberts 2017 (training/coaching group))

| 2 | randomised trials | serious[1] | no serious inconsistency[5] | no serious indirectness[3] | serious[6] | none | 501 | 195 | - | SMD 0.06 lower (0.46 lower to 0.34 higher) | ⊕⊕OO LOW | |

[1] Serious concerns due to use of self-report outcome measure
[2] Not applicable - Single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] No concerns as 95%CI do not cross the line of no effect
[5] No concerns as I2 < 50%
[6] Serious concerns as 95%CI cross the line of no effect
[7] Serious concerns as I2 > 50%

F.1.23 FRIENDS for Life

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	FRIENDS for Life	Usual practice	Relative (95% CI)	Absolute		

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Social and emotional skills: - Primary education (Better indicated by lower values) (Stallard 2014 (health-led), Stallard 2014 (school-led))

| 2 | randomised trials | serious[4] | no serious inconsistency[1] | no serious indirectness[2] | serious[3] | none | 132 | 51 | - | SMD 0.07 lower (0.39 lower to 0.25 higher) | ⊕⊕OO LOW | |

Emotional distress - Depression - Primary Education (Better indicated by lower values) (Ahlen 2018, Stallard 2014 (health-led), Stallard 2014 (school-led))

| 3 | randomised trials | serious[4] | no serious inconsistency[1] | no serious indirectness[2] | serious[3] | none | 241 | 122 | - | SMD 0.08 lower (0.31 lower to 0.14 higher) | ⊕⊕OO LOW | |

Emotional distress - Anxiety - Primary education (Better indicated by lower values) (Ahlen 2018, Miller 2011, Stallard 2014 (health-led), Stallard 2014 (school-led))

| 4 | randomised trials | serious[4] | no serious inconsistency[1] | no serious indirectness[2] | serious[3] | none | 387 | 274 | - | SMD 0.16 lower (0.31 lower to 0.00 higher) | ⊕⊕OO LOW | |

Emotional distress - Anxiety - Secondary education (Better indicated by lower values) (Rodgers 2015)

| 1 | randomised trials | serious[4] | NA[5] | no serious indirectness[2] | serious[3] | none | 14 | 13 | - | MD 4.10 lower (11.99 lower to 3.79 higher) | ⊕⊕OO LOW | |

Behavioural outcomes - Primary education (Better indicated by lower values) (Ahlen 2018)

| 1 | randomised trials | serious[4] | NA[5] | no serious indirectness[2] | serious[3] | none | 65 | 69 | - | MD 0.5 lower (1.13 lower to 0.13 higher) | ⊕⊕OO LOW | |

Academic outcomes - Primary education (Better indicated by lower values) (Stallard 2014 (health-led, key stage 1), Stallard 2014 (health-led, key stage 2), Stallard 2014 (school-led, key stage 1), Stallard 2014 (school-led, key stage 2), Wigelsworth 2018)

| 5 | randomised trials | no serious risk of bias[6] | no serious inconsistency[1] | no serious indirectness[2] | serious[3] | none | 1763 | 1238 | - | SMD 0.03 lower (0.13 lower to 0.04 higher) | ⊕⊕⊕O MODERATE | |

Quality of life - Primary education (Better indicated by lower values) (Stallard 2014 (health-led), Stallard 2014 (school-led))

| 2 | randomised trials | serious[4] | no serious inconsistency[1] | no serious indirectness[2] | serious[3] | none | 126 | 49 | - | SMD 0.09 higher (0.24 lower to 0.42 higher) | ⊕⊕OO LOW | |

Emotional distress – Anxiety and Depression - Primary education (Better indicated by lower values) (Wigelsworth 2018)

| 1 | randomised trials | serious[4] | NA[5] | no serious indirectness[2] | serious[3] | none | 1476 | 1534 | - | MD 0.03 higher (0.84 lower to 0.90 higher) | ⊕⊕OO LOW | |

Emotional distress – Stress - Primary education (Better indicated by lower values) (Wigelsworth 2018)

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| 1 | randomised trials | serious[4] | NA[5] | no serious indirectness[2] | serious[3] | none | 1476 | 1534 | - | MD 0.26 higher (0.37 lower to 0.89 higher) | ⊕⊕OO LOW | |

[1] No concerns as I2 50%
[2] No concerns as population, intervention and outcome match review protocol
[3] Serious concerns as 95%CI cross line of no effect
[4] Serious concerns over risk of bias due to self-reported outcome measures
[5] Not applicable - single study analysis
[6] No concerns over risk of bias

F.1.24 I Think, Feel and Act

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	I Think, Feel and Act	Usual practice	Relative (95% CI)	Absolute	Quality	Importance
				Quality assessment				No of patients		Effect		
Emotional distress - Depression (Better indicated by lower values) (Araya 2013)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	198	234	-	MD 0.6 lower (2.5 lower to 1.3 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.25 Williams LifeSkills

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Williams LifeSkills	Usual practice	Relative (95% CI)	Absolute	Quality	Importance
				Quality assessment				No of patients		Effect		
Emotional distress - Anxiety (Better indicated by lower values) (Barnes 2012)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	60	57	-	MD 0.6 higher (0.45 lower to 1.65 higher)	⊕⊕OO LOW	
Behavioural outcomes (Better indicated by lower values) (Barnes 2012)												

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| 1 | randomised trials | serious[1] | NA[2] | no serious indirectness[3] | serious[4] | none | 60 | 57 | - | MD 1.4 lower (3.02 lower to 0.22 higher) | ⊕⊕OO LOW | |

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.26 Daily short stress management technique (SMT)

			Quality assessment				No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Daily short stress management technique (SMT)	Usual practice	Relative (95% CI)	Absolute	Quality	Importance
Emotional distress - Anxiety (Better indicated by lower values) (Bothe 2014)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[4]	none	13	9	-	MD 14.15 lower (23.7 to 4.6 lower)	⊕⊕⊕O MODERATE	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] No concerns as 95%CI do not cross the line of no effect

F.1.27 Dialectical behaviour therapy

			Quality assessment				No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Dialectical behaviour therapy	Usual practice	Relative (95% CI)	Absolute	Quality	Importance
Emotional distress - Depression (Better indicated by lower values) (Burckhardt 2018)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	46	43	-	MD 1.17 higher (0.43 lower to 2.77 higher)	⊕⊕OO LOW	
Emotional distress - Anxiety (Better indicated by lower values) (Burckhardt 2018)												

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| 1 | randomised trials | serious[1] | NA[2] | no serious indirectness[3] | serious[4] | none | 46 | 43 | - | MD 0.88 higher (1.83 lower to 3.59 higher) | ⊕⊕OO LOW | |

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.28 Pozik-Bizi

	Quality assessment						No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Pozik-Bizi	Control	Relative (95% CI)	Absolute	Quality	Importance
Social and emotional skills: - Primary education (Better indicated by lower values) (Garaigordobil 2019)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	218	202	-	MD 1.13 lower (4.1 lower to 1.84 higher)	⊕⊕OO LOW	
Emotional distress - Depression - Primary education (Better indicated by lower values) (Garaigordobil 2019)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	218	202	-	MD 4.04 lower (10.36 lower to 2.28 higher)	⊕⊕OO LOW	
Behavioural outcomes - Primary education (Better indicated by lower values) (Garaigordobil 2019)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[5]	none	218	202	-	MD 2.46 lower (4.66 to 0.26 lower)	⊕⊕⊕O MODERATE	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as 95%CI do not cross the line of no effect

F.1.29 UP-A

Quality assessment	No of patients	Effect	Quality	Importance

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No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	UP-A	Control	Relative (95% CI)	Absolute		
Emotional distress - Depression - Secondary education (Better indicated by lower values) (Garcia-Escalera 2019)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	21	14	-	MD 0.2 lower (3.9 lower to 3.5 higher)	⊕⊕OO LOW	
Emotional distress - Anxiety - Secondary education (Better indicated by lower values) (Garcia-Escalera 2019)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	17	11	-	MD 1.46 lower (6.25 lower to 3.33 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.30 Cognitive-behavioural program

	Quality assessment						No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cognitive-behavioural program	Control	Relative (95% CI)	Absolute		
Social and emotional skills: (Better indicated by lower values) (Horowitz 2007a)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	88	142	-	MD 1.23 lower (3.66 lower to 1.2 higher)	⊕⊕OO LOW	
Emotional distress - Depression (Better indicated by lower values) (Horowitz 2007a)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[5]	none	88	142	-	MD 3.59 lower (5.73 to 1.45 lower)	⊕⊕⊕O MODERATE	
Behavioural outcomes (Better indicated by lower values) (Horowitz 2007a)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	88	142	-	MD 0.34 lower (1.76 lower to 1.08 higher)	⊕⊕OO LOW	

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[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as 95%CI do not cross the line of no effect

F.1.31 IPT-AST

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	IPT-AST	Control	Relative (95% CI)	Absolute	Quality	Importance
				Quality assessment				No of patients		Effect		
Social and emotional skills: (Better indicated by lower values) (Horowitz 2007b)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	84	142	-	MD 1.06 lower (3.4 lower to 1.28 higher)	⊕⊕OO LOW	
Emotional distress - Depression (Better indicated by lower values) (Horowitz 2007b)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[5]	none	84	142	-	MD 2.31 lower (4.54 to 0.08 lower)	⊕⊕⊕O MODERATE	
Behavioural outcomes (Better indicated by lower values) (Horowitz 2007b)												
1	randomised trials	serious[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	84	142	-	MD 0.03 higher (1.46 lower to 1.52 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as 95%CI do not cross the line of no effect

F.1.32 Op Volle Kracht (OVK)

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Op Volle Kracht (OVK)	Control	Relative (95% CI)	Absolute	Quality	Importance
				Quality assessment				No of patients		Effect		

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Social and emotional skills: - Primary education (Better indicated by lower values) (Tak 2016)											
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	96	1111	-	MD 0.61 lower (2.03 lower to 0.81 higher)	⊕⊕OO LOW	
Emotional distress - Depression - Secondary education (Better indicated by lower values) (Kindt 2014, Tak 2016)											
2	randomised trials	serious[1]	no serious inconsistency[5]	no serious indirectness[3]	serious[4]	none	275	292	-	SMD 0.08 higher (0.09 lower to 0.24 higher)	⊕⊕OO LOW	
Academic outcomes - Secondary education (Better indicated by lower values) (Tak 2016)											
1	randomised trials	no serious risk of bias[6]	NA[2]	no serious indirectness[3]	serious[4]	none	96	111	-	MD 0.17 higher (0.1 lower to 0.44 higher)	⊕⊕⊕O MODERATE	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as I2 <50%
[6] No concerns over risk of bias due to standardised outcome measures

F.1.33 SPARX-R gaming intervention

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	SPARX-R gaming intervention	Control	Relative (95% CI)	Absolute	Quality	Importance
			Quality assessment				No of patients		Effect			
Emotional distress - Depression - Secondary education (Better indicated by lower values) (Kuosmanen 2017, Perry 2017)												
2	randomised trials	serious[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	39	55	-	SMD 0.3 lower (0.72 lower to 0.11 higher)	⊕⊕OO LOW	
Emotional distress - Anxiety - Secondary education (Better indicated by lower values) (Kuosmanen 2017, Perry 2017)												
2	randomised trials	serious[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	38	53	-	SMD 0.27 lower (0.69 lower to 0.15 higher)	⊕⊕OO LOW	
Behavioural outcomes - Secondary education (Better indicated by lower values) (Kuosmanen 2017)												

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| 1 | randomised trials | serious[1] | NA[2] | no serious indirectness[3] | serious[4] | none | 10 | 11 | - | MD 0.7 lower (3.68 lower to 2.28 higher) | ⊕⊕OO LOW | |

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] No concerns as I2 <50%
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] Not applicable - single study analysis

F.1.34 LARS&LISA

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	LARS&LISA	Control	Relative (95% CI)	Absolute	Quality	Importance

Quality assessment spans Design–Other considerations; **No of patients** spans LARS&LISA–Control; **Effect** spans Relative–Absolute.

Emotional distress - Depression - Male (Better indicated by lower values) (Possel 2008, Possel 2011)												
2	randomised trials	serious[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	71	59	-	SMD 0.03 higher (0.31 lower to 0.38 higher)	⊕⊕OO LOW	
Emotional distress - Depression - Female (Better indicated by lower values) (Possel 2008, Possel 2011)												
2	randomised trials	serious[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	67	60	-	SMD 0.18 lower (0.53 lower to 0.17 higher)	⊕⊕OO LOW	
Emotional distress - Depression - Male and female (Better indicated by lower values) (Possel 2013)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	76	82	-	MD 0.02 higher (2.7 lower to 2.74 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] No concerns as I2 <50%
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] Not applicable - single study analysis

F.1.35 Resourceful adolescent programme (RAP)

Quality assessment		No of patients	Effect	Quality	Importance

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No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Resourceful adolescent programme (RAP)	Control	Relative (95% CI)	Absolute		
Social and emotional skills: - Secondary education (Better indicated by lower values) (Stallard 2013)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	296	294	-	MD 0.26 higher (0.64 lower to 1.16 higher)	⊕⊕OO LOW	
Emotional distress - Depression - Secondary education (Better indicated by lower values) (Rose 2014, Stallard 2013)												
2	randomised trials	serious[1]	no serious inconsistency[5]	no serious indirectness[3]	serious[4]	none	338	353	-	SMD 0.14 higher (0.02 lower to 0.29 higher)	⊕⊕OO LOW	
Behavioural outcomes - Secondary education (Stallard 2013)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	43/32 (134.4%)	6/250 (2.4%)	not pooled	RR 1.09 (0.73 to 1.63)	⊕⊕OO LOW	
Quality of life - Secondary education (Better indicated by lower values) (Rose 2014, Stallard 2013)												
2	randomised trials	serious[1]	no serious inconsistency[5]	no serious indirectness[3]	serious[4]	none	314	347	-	SMD 0.08 higher (0.07 lower to 0.24 higher)	⊕⊕OO LOW	
Emotional distress - Anxiety - Secondary education (Better indicated by lower values) (Stallard 2013)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	296	294	-	MD 0.43 higher (0.02 lower to 0.88 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as I2 <50%

F.1.36   Resourceful adolescent programme-Peer interpersonal relatedness (RAP-PIR)

	Quality assessment						No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Resourceful adolescent programme-Peer interpersonal relatedness (RAP-PIR)	Control	Relative (95% CI)	Absolute		

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Emotional distress - Depression - Secondary education (Better indicated by lower values) (Rose 2014)

1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	47	58	-	MD 0.03 lower (3.32 lower to 3.26 higher)	⊕⊕OO LOW

Quality of life - Secondary education (Better indicated by lower values) (Rose 2014)

1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	47	58	-	MD 0.06 lower (0.48 lower to 0.36 higher)	⊕⊕OO LOW

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.37 Acceptance-based behavioural program

		Quality assessment					No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Acceptance-based behavioural program	Control	Relative (95% CI)	Absolute		
Social and emotional skills: - Secondary education (Better indicated by lower values) (Theodore-Oklota 2014)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	9	9	-	MD 0.73 lower (2.96 lower to 1.5 higher)	⊕⊕OO LOW	
Behavioural outcomes - Secondary education (Better indicated by lower values) (Theodore-Oklota 2014)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	20	20	-	MD 0.91 lower (14.73 lower to 12.91 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.38 Uplifting our Health and Wellbeing

Quality assessment	No of patients	Effect	Quality	Importance

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No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Uplifitng our Health and Wellbeing	Control	Relative (95% CI)	Absolute		
Social and emotional skills: - Secondary education (Better indicated by lower values) (Tokolahi 2018)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	36	35	-	MD 0.3 lower (7.1 lower to 6.5 higher)	⊕⊕OO LOW	
Emotional distress - Depression - Secondary education (Better indicated by lower values) (Tokolahi 2018)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	45	49	-	MD 1.40 higher (2.80 lower to 5.60 higher)	⊕⊕OO LOW	
Emotional distress - Anxiety - Secondary education (Better indicated by lower values) (Tokolahi 2018)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[5]	none	65	67	-	MD 7.2 higher (1.48 to 12.92 higher)	⊕⊕⊕O MODERATE	
Quality of life - Secondary education (Better indicated by lower values) (Tokolahi 2018)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness	serious[4]	none	22	22	-	MD 0.05 higher (4.42 lower to 4.52 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as 95%CI do not cross the line of no effect

F.1.39 Acceptance and commitment therapy (ACT)

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Acceptance and commitment therapy (ACT)	Control	Relative (95% CI)	Absolute		
Social and emotional skills: - Secondary education (Better indicated by lower values) (Van der Gucht 2017)												

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1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	60	58	-	MD 0.53 lower (1.11 lower to 0.05 higher)	⊕⊕OO LOW	

Emotional distress - Anxiety (Better indicated by lower values) (Van der Gucht 2017)

1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	79	121	-	MD 0.2 lower (0.65 lower to 0.25 higher)	⊕⊕OO LOW	

Quality of life (Better indicated by lower values) (Van der Gucht 2017)

1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	57	55	-	MD 0.47 lower (1.39 lower to 0.45 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.40 Take Action Program

	Quality assessment						No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Take Action Program	Control	Relative (95% CI)	Absolute		
Social and emotional skills: - Primary education (Better indicated by lower values) (Waters 2015)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	74	77	-	MD 2 lower (4.28 lower to 0.28 higher)	⊕⊕OO LOW	
Emotional distress - Depression - Primary education (Better indicated by lower values) (Waters 2019)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	31	17	-	MD 0.06 lower (0.64 lower to 0.52 higher)	⊕⊕OO LOW	
Emotional distress - Anxiety - Primary education (Better indicated by lower values) (Waters 2015, Waters 2019)												
2	randomised trials	serious[1]	no serious inconsistency[5]	no serious indirectness[3]	no serious imprecision[6]	none	662	104	-	SMD 0.29 lower (0.54 to 0.04 lower)	⊕⊕⊕O MODERATE	

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[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as I2 <50%
[6] No concerns as 95%CI do not cross the line of no effect

F.1.41 Positive Search Training

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Positive Search Training	Control	Relative (95% CI)	Absolute	Quality	Importance
			Quality assessment				No of patients		Effect			
Emotional distress - Depression - Primary education (Better indicated by lower values) (Waters 2019)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	31	17	-	MD 0.27 higher (0.31 lower to 0.85 higher)	⊕⊕OO LOW	
Emotional distress - Anxiety - Primary education (Better indicated by lower values) (Waters 2019)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	30	16	-	MD 0.38 lower (1.67 lower to 0.91 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.42 Thiswayup Schools - Depression course

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Thiswayup Schools - Depression course	Control	Relative (95% CI)	Absolute	Quality	Importance
			Quality assessment				No of patients		Effect			
Emotional distress - Depression - Secondary education (Better indicated by lower values) (Wong 2014)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	27	20	-	MD 0.35 lower (1.77 lower to 1.07 higher)	⊕⊕OO LOW	

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No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Intervention	Control	Relative (95% CI)	Absolute	Quality	Importance
Emotional distress - Anxiety - Secondary education (Better indicated by lower values) (Wong 2014)												
1	randomised trials	serious[1]	no serious inconsistency[2]	no serious indirectness[3]	serious[4]	none	26	19	-	not pooled	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.43 Thiswayup Schools - Anxiety course

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Thiswayup Schools - Anxiety course	Control	Relative (95% CI)	Absolute	Quality	Importance
Emotional distress - Depression - Secondary education (Better indicated by lower values) (Wong 2014)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	23	18	-	MD 0.12 lower (1.63 lower to 1.39 higher)	⊕⊕OO LOW	
Emotional distress - Anxiety - Secondary education (Better indicated by lower values) (Wong 2014)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	22	17	-	MD 0.58 lower (2.6 lower to 1.44 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.44 E-couch Anxiety and Worry program

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	E-couch Anxiety and Worry program	Control	Relative (95% CI)	Absolute	Quality	Importance

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No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	No of patients		Relative (95% CI)	Effect	Quality	Importance

Emotional distress - Anxiety (Better indicated by lower values) (Calear 2016a (health service), Calear 2016a (school), Calear 2016b)

| 3 | randomised trials | serious[1] | no serious inconsistency[2] | no serious indirectness[3] | serious[4] | none | 420 | 197 | - | SMD 0.04 higher (0.13 lower to 0.22 higher) | ⊕⊕OO LOW | |

Emotional distress - Depression (Better indicated by lower values) (Calear 2016a (health service), Calear 2016a (school), Calear 2016b)

| 3 | randomised trials | serious[1] | no serious inconsistency[2] | no serious indirectness[3] | serious[4] | none | 420 | 197 | - | SMD 0.02 higher (0.16 lower to 0.19 higher) | ⊕⊕OO LOW | |

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] No concerns as I2 <50%
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.45 Taming Worry Dragons (TWD)

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	No of patients		Relative (95% CI)	Effect	Quality	Importance
			Quality assessment				**No of patients**			**Effect**		
							Taming Worry Dragons (TWD)	Control		Absolute		

Emotional distress - Anxiety - Primary education (Better indicated by lower values) (Miller 2010)

| 1 | randomised trials | serious[1] | no serious inconsistency[2] | no serious indirectness[3] | serious[4] | none | 21 | 12 | - | MD 3.83 higher (5.4 lower to 13.06 higher) | ⊕⊕OO LOW | |

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.46 Finding Space

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Finding Space	Control	Relative (95% CI)	Absolute	Quality	Importance
			Quality assessment				**No of patients**			**Effect**		

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Social and emotional skills: (Better indicated by lower values) (Campos 2018)

| 1 | randomised trials | serious[1] | no serious inconsistency[2] | no serious indirectness[3] | serious[4] | none | 46 | 38 | - | MD 2.99 lower (7.9 lower to 1.92 higher) | ⊕⊕OO LOW | |

Emotional distress (Better indicated by lower values)

Behavioural outcomes (Better indicated by lower values)

| 1 | randomised trials | serious[1] | NA[2] | no serious indirectness[3] | serious[4] | none | 88 | 73 | - | SMD 0.04 lower (0.75 lower to 0.67 higher) | ⊕⊕OO LOW | |

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.47 CBT

	Quality assessment						No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	CBT	Control	Relative (95% CI)	Absolute	Quality	Importance

Social and emotional skills: (Better indicated by lower values) (Collins 2014 (psychologist-led), Collins 2014 (teacher-led))

| 2 | randomised trials | serious[1] | no serious inconsistency[2] | no serious indirectness[3] | no serious imprecision[4] | none | 58 | 14 | - | SMD 1.90 lower (2.57 to 1.23 lower) | ⊕⊕⊕O MODERATE | |

Emotional distress - Anxiety (Better indicated by lower values) (Collins 2014 (psychologist-led), Collins 2014 (teacher-led))

| 2 | randomised trials | serious[1] | no serious inconsistency[2] | no serious indirectness[3] | no serious imprecision[4] | none | 68 | 16 | - | SMD 0.96 lower (1.53 to 0.40 lower) | ⊕⊕⊕O MODERATE | |

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] No concerns as I2 <50%
[3] No concerns as population, intervention and outcome match review protocol
[4] No concerns as 95%CI do not cross the line of no effect

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F.1.48 Establishing goals and problem solving programme

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Establishing goals and problem solving programme	Control	Relative (95% CI)	Absolute	Quality	Importance
				Quality assessment				No of patients		Effect		
Social and emotional skills: - Secondary education (Better indicated by lower values) (Gigantesco 2015)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	39	30	-	MD 0.5 lower (3.03 lower to 2.03 higher)	⊕⊕OO LOW	
Quality of life - Secondary education (Better indicated by lower values) (Gigantesco 2015)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	37	28	-	MD 0.6 lower (3.25 lower to 2.05 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.49 HeadStrong

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	HeadStrong	Control	Relative (95% CI)	Absolute	Quality	Importance
				Quality assessment				No of patients		Effect		
Social and emotional skills: - Secondary education (Better indicated by lower values) (Perry 2014)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	26	13	-	MD 1.18 lower (3.66 lower to 1.3 higher)	⊕⊕OO LOW	
Emotional distress - Depression and Anxiety - Secondary education (Better indicated by lower values) (Perry 2014)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	39	20	-	MD 1.61 lower (12.66 lower to 9.44 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis

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[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.50 Child-centred group play therapy (CCGPT)

	Quality assessment						No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Child-centered group play therapy (CCGPT)vs Control	Control	Relative (95% CI)	Absolute		
Social and emotional skills: (Better indicated by lower values) (Cheng 2016)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	19	19	-	MD 0.95 lower (6.88 lower to 4.98 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.51 Empower Youth Program

	Quality assessment						No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Empower Youth Program	Control	Relative (95% CI)	Absolute		
Emotional distress - Depression - Secondary education (Better indicated by lower values) (Nash 2007)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	19	21	-	MD 0.05 higher (0.15 lower to 0.25 higher)	⊕⊕OO LOW	
Enotional distress - Anxiety - Secondary education (Better indicated by lower values) (Nash 2007)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	19	21	-	MD 0.13 lower (0.48 lower to 0.22 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

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F.1.52 BePART

	Quality assessment						No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	BePART	Control	Relative (95% CI)	Absolute		
Social and emotional skills: - Secondary education (Better indicated by lower values) (Putwain 2019)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[4]	none	263	271	-	MD 0.15 lower (0.25 to 0.05 lower)	⊕⊕⊕O MODERATE	
Emotional distress - Stress - Secondary education (Better indicated by lower values) (Putwain 2019)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[5]	none	263	271	-	MD 0.13 lower (0.26 lower to 0 higher)	⊕⊕OO LOW	
Behavioural outcomes - Secondary education (Better indicated by lower values) (Putwain 2019)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[5]	none	263	271	-	MD 0.04 lower (0.11 lower to 0.03 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] No concerns as 95%CI do not cross the line of no effect
[5] Serious concerns as 95%CI cross line of no effect

F.1.53 Child protection education programme

	Quality assessment						No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Child protection education programme	Control	Relative (95% CI)	Absolute		
Social and emotional skills: (Better indicated by lower values) (Dale 2016)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[4]	none	131	114	-	MD 1.8 lower (2.33 to 1.27 lower)	⊕⊕⊕O MODERATE	
Behavioural outcomes (Better indicated by lower values) (Dale 2016)												

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| 1 | randomised trials | serious[1] | NA[2] | no serious indirectness[3] | no serious imprecision[4] | none | 71 | 46 | - | MD 3.49 lower (5.48 to 1.5 lower) | ⊕⊕⊕Ο MODERATE | |

| **Unintended consequences (Better indicated by lower values)** | | | | | | | | | | | | |

| 1 | randomised trials | serious[1] | NA[2] | no serious indirectness[3] | | none | 131 | - | - | not pooled | | |

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] No concerns as 95%CI do not cross the line of no effect

F.1.54 Tools For Getting Along

	Quality assessment						No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Tools For Getting Along	Control	Relative (95% CI)	Absolute		
Social and emotional skills: (Better indicated by lower values) (Daunic 2012)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[4]	none	34	26	-	MD 3.11 lower (5.22 to 1 lower)	⊕⊕⊕Ο MODERATE	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] No concerns as 95%CI do not cross the line of no effect

F.1.55 Expressive writing and psychoeducation

	Quality assessment						No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Expressive writing and psychoeducation	Control	Relative (95% CI)	Absolute		
Emotional distress - Stress - Secondary education (Better indicated by lower values) (Horn 2011)												

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| 1 | randomised trials | serious[1] | NA[2] | no serious indirectness[3] | serious[4] | none | 194 | 134 | - | MD 1.29 lower (2.81 lower to 0.23 higher) | ⊕⊕OO LOW | |

Behavioural outcomes - Secondary education (Better indicated by lower values) (Horn 2011)

| 1 | randomised trials | serious[1] | NA[2] | no serious indirectness[3] | serious[4] | none | 60 | 41 | - | MD 1.21 lower (2.44 lower to 0.02 higher) | ⊕⊕OO LOW | |

Academic outcomes - Secondary education (Better indicated by lower values) (Horn 2011)

| 1 | randomised trials | no serious risk of bias[5] | NA[2] | no serious indirectness[3] | serious[4] | none | 100 | 69 | - | MD 0 higher (0.21 lower to 0.21 higher) | ⊕⊕⊕O MODERATE | |

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns over risk of bias due to standardised outcome measures

F.1.56   Coping Power Universal

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Coping Power Universal	Control	Relative (95% CI)	Absolute		

Emotional distress - Primary education (Better indicated by lower values) (Muratori 2017, Muratori 2019)

| 2 | randomised trials | serious[1] | serious[2] | no serious indirectness[3] | no serious imprecision[4] | none | 700 | 617 | - | SMD 0.3 lower (0.58 to 0.02 lower) | ⊕⊕OO LOW | |

Behavioural outcomes - Primary education (Better indicated by lower values) (Muratori 2017, Muratori 2019)

| 2 | randomised trials | serious[1] | no serious inconsistency[5] | no serious indirectness[3] | no serious imprecision[4] | none | 408 | 380 | - | SMD 0.17 lower (0.31 to 0.03 lower) | ⊕⊕⊕O MODERATE | |

[1] Serious concerns over riskof bias due to self-reported outcome measures
[2] Serious concerns as I2 >50%
[3] No concerns as population, intervention and outcome match review protocol
[4] No concerns as 95%CI do not cross the line of no effect
[5] No concerns as I2 <50%

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F.1.57 Emotion Regulation

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Emotion regulation	Control	Relative (95% CI)	Absolute	Quality	Importance
			Quality assessment				No of patients			Effect		
Social and emotional skills: - Mixed (Better indicated by lower values) (Johnstone 2020)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	10	3	-	MD 0.25 lower (6.33 lower to 5.83 higher)	⊕⊕OO LOW	
Emotional distress - anxiety/depression - Mixed (Better indicated by lower values) (Johnstone 2020)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	70	18	-	MD 9.78 lower (22.07 lower to 2.51 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.58 Behavioural Activation

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Behavioural activation	Control	Relative (95% CI)	Absolute	Quality	Importance
			Quality assessment				No of patients			Effect		
Social and emotional skills: - Mixed (Better indicated by lower values) (Johnstone 2020)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	3	7	-	MD 0.64 lower (7.07 lower to 5.79 higher)	⊕⊕OO LOW	
Emotional distress - Anxiety/Depression - Mixed (Better indicated by lower values) (Johnstone 2020)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	9	18	-	MD 3.91 higher (12.41 lower to 20.23 higher)	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis

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[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect

F.1.59 Computerised Enhanced Psychological Mindset Intervention

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Computerised enhanced psychological mindset intervention	Control	Relative (95% CI)	Absolute	Quality	Importance
Social and emotional skills: - Secondary education (Better indicated by lower values) (Perkins 2021)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	serious[4]	none	40	40	-	MD 1.92 lower (4.07 lower to 0.23 higher)	⊕⊕OO LOW	
Emotional distress - anxiety - Secondary education (Better indicated by lower values) (Perkins 2021)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[5]	none	40	40	-	MD 3.59 lower (6.07 to 1.11 lower)	⊕⊕⊕O MODERATE	
Emotional distress - depression - Secondary education (Better indicated by lower values) (Perkins 2021)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness[3]	no serious imprecision[5]	none	40	40	-	MD 1.3 lower (3.79 lower to 1.19 higher)		

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] Not applicable - single study analysis
[3] No concerns as population, intervention and outcome match review protocol
[4] Serious concerns as 95%CI cross line of no effect
[5] No concerns as 95%CI do not cross the line of no effect

F.1.60 Positive writing intervention

No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Positive writing intervention	Control	Relative (95% CI)	Absolute	Quality	Importance
Social and emotional skills (Better indicated by lower values) (Reiter 2016)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness	serious[3]	none	0	-	-	IV 0.88 higher (0.65 to 1.18 higher)[5]	⊕⊕OO LOW	
Emotional distress (Better indicated by lower values) (Reiter 2016)												

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1	randomised trials	serious[1]	NA[2]	no serious indirectness	serious[3]	none	0	-	-	IV 1.01 higher (0.75 to 1.36 higher) [5]	⊕⊕OO LOW	
Behavioural outcomes (Better indicated by lower values) (Reiter 2016)												
1	randomised trials	serious[1]	NA[2]	no serious indirectness	serious[3]	none	0	-	-	IV 1.06 higher (0.79 to 1.42 higher) [5]	⊕⊕OO LOW	

[1] Serious concerns over risk of bias due to self-reported outcome measures
[2] N/A - single study
[3] Serious concerns as 95% CI cross line of no effect
[4] Study met inclusion criteria in PICO

[5] Study reports outcome as inverse variance

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Appendix G – Economic evidence study selection

Identification

Records identified through database searching
(n = 4,102)

Additional records identified through other sources
(n = 1)

Records after duplicates removed
(n = 3,504)

Screening

Records screened
(n = 3,504)

Records excluded
(n = 3,433)

Eligibility

Full-text articles assessed for eligibility
(n = 71)

Full-text articles excluded, with reasons
(n = 56)

22 = Systematic review
16 = No economic evaluation
5 = Wrong outcomes
8 = Wrong setting
3 = Wrong study design
1 = Paper not found
1 = Wrong patient population

Included studies
(n =13)

Included

| RQ 1 (n = 4) | RQ 2 (NA) | RQ 3 (n = 9) | RQ 4 (n = 0) | RQ 5 (n = 2) | RQ 6 (n = 0) |

Notes:
702 records were identified in the search reruns of which 17 duplications were removed, 685 were screened, 6 were assessed at full text and 2 were included in the review.
2 studies were included in both RQ 3 and RQ 5.
9 studies were included in RQ 3 but were reported across 11 papers.

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Appendix H   Economic evidence tables

Anderson (2014)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
Study type: Anderson (2014) **Country:** UK **Population:** Children aged 12 to 16 years **Sample size:** 5,503 (3,357 were allocated to the two trial arms analysed) **Intervention:** Resourceful Adolescent Programme [a] (RAP), a cognitive-behavioural therapy (CBT) aimed at reducing symptoms of depression. 9 sessions, each approximately 50-60 minutes, were delivered by two trained facilitators external to the school either weekly or fortnightly	**Perspective:** Health (NHS) and social care perspective **Time horizon:** 12 months **Discounting:** NA **Data sources** **Costs:** Department of Health's NHS reference costs (for primary care trust and NHS trusts); Personal Social Services Research Unit's unit costs of health and social care; other costs from RCT **Effects:** From RCT **Utilities:** From RCT (EQ-5D used to calculate QALYs)	**Total cost per person; unadjusted mean, £ (SD):** CBT 553 (£635 GBP 2020[c]) Usual PSHE 406 (1,240) (£466 GBP 2020[c]) **Intervention cost per person; £:** CBT 41.96 (£48 GBP 2020[c]) Usual PSHE 0 **Currency & cost year:** GBP (£); 2010	**QALY per person; unadjusted mean (SD):** CBT 3.9 (5.4) Usual PSHE 3.2 (4.5) **SMFQ score per person, unadjusted mean (SD):** CBT 0.90 (0.12) Usual PSHE 0.91 (0.12)	**ICER; adjusted, £:** Classroom-based CBT is more costly and less effective than usual school provision, with respect to both SMFQ and QALYs **Uncertainty:** The incremental costs and effects were very small and uncertain (with the 95% CI spanning zero for both costs and SMFQ score).	**Author identified:** • The CBT programme evaluated was developed for use with children aged 12–15 years of age and the inclusion of 16-year olds could have reduced the effects • Delivered to all student to prevent depression in the minority who were high risk of depression • Considered self-reported cost and effectiveness data • Young people were not blinded to which intervention they received **Reviewer identified:** None.	**Source of funding:** National Institute for Health Research Health Technology Assessment (06/37/04) **Further research:** Future studies of such programmes should always incorporate and report well-designed and properly conducted cost-effectiveness analysis, to compare any detected health gains with the opportunity costs and savings of delivering the programme.

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Anderson (2014)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
Comparator(s): Usual PSHE [b]						

Overall applicability: Directly applicable   **Overall quality: Minor limitations**

Abbreviations: ICER: incremental cost-effectiveness ratio; QALY: quality-adjusted life year; SD = standard deviation

a. The RAP programme is based on CBT and interpersonal therapy principles. The programme aims to target negative thoughts and low self-worth/image with core treatment components such as psycho-education, identifying and challenging negative thoughts, identifying personal strengths, managing social problems and learning to problem solve.
b. The usual school PSHE curriculum provided by the school staff and did not involve any external input from the research team.
c. Converted by the reviewer using historical exchange rates and PSSRU inflation indices.

Ford (2019)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
Study type: Randomised control trial (RCT) with cost-effectiveness analysis **Country:** UK **Population:** Children aged between 4 and 9 years (Reception to Year 4) **Sample size:**	**Perspective:** Public-sector [b] **Time horizon:** 30-months **Discounting:** 3.5% costs **Data sources Costs:** Standard micro-costing from RCT, NHS reference costs, British national formulary, ONS annual survey of hours and	**Total cost per person [d]; mean, £:** Unadjusted TCM 524.16 (£568 GBP 2020[g]) TAU 528.14 (£572 GBP 2020[g]) **Intervention cost per person; £:** TCM 11.52 (£12 GBP 2020[g]) TAU 0.00 **Currency & cost year:** GBP (£); 2014/15	**SDQ - total difficulties score [e]; mean:** TCM 5.17 TAU 5.39	**ICER; £:** -29.70 per unit improvement in SDQ (£32 GBP 2020[g]) TCM dominates TAU (lower cost and better outcomes) [f] **Uncertainty:** Cost-effectiveness acceptability curves were constructed for all 3 scenarios. The probability of the intervention being cost-effective compared with TAU	**Author identified:** • It is not possible to draw a firm conclusion without knowing society's willingness to pay for improvements in SDQ-Total Difficulties score • Children were exposed to TCM strategies for	**Source of funding:** The National Institute for Health Research Public Health Research Programme (project number 10/ 3006/07) and the National Institute for Health Research Collaboration for Leadership in Applied Health Research and

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Ford (2019)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
2075 children (80 schools) **Intervention:** Incredible Years Teacher Classroom Management (TCM) [a] delivered to groups of teachers in 6 whole-day sessions and facilitated by behaviour support practitioners **Comparator:** Teaching as usual (TAU)	earnings and Curtis (2015) **Effects:** From RCT **Other:** 3 scenarios were explored for the economic analysis. The figures shown here are for the primary analysis which was based on complete cases [c] and partially adjusted for pre-specified potential confounders (CC1). Fully adjusted complete case analysis (CC2) and fully adjusted analysis of imputed data (MI) were also reported in the study.			for CC1 ranges from 40% at a zero willingness to pay (WTP) for a unit improvement in SDQ-Total Difficulties score, to nearly 80% at a £5,000 WTP threshold. Results of CC2 were similar to CC1 supporting the high probability of TCM being cost-effective. Results of MI had a negative impact on the probability of TCM being cost-effective, but only at the lower levels of the WTP.	a relatively short duration. The impact of the intervention might arguably increase in the year after the teacher attended the course, which were not assessable as the trial design followed the children rather than the teacher **Reviewer identified:** • It is unclear how the ICER was calculated • The reviewer did not agree that TCM dominates TAU since	Care South West Peninsula. **Further research:** Future research should explore TCM as a whole school approach. Future economic modelling would enable the SDQ-Total Difficulties to be mapped onto the adult quality of life.

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Ford (2019)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
					adjusted costs were higher in the TCM group	

Overall applicability: Directly applicable   Overall quality: Minor limitations

Abbreviations: CC1: partially-adjusted complete case analysis; CC2: fully-adjusted complete case analysis; ICER: incremental cost-effectiveness ratio; MI: fully-adjusted analysis of imputed data; RCT: randomised control trial; SDQ: Strengths and Difficulties Questionnaire; TAU: teaching as usual; TCM: Teacher Classroom Management; WTP: willingness to pay

a. TCM's explicit goals are to: enhance teacher classroom management skills and improve teacher–student relationships; assist teachers to develop effective proactive behaviour plans; encourage teachers to adopt and promote emotional regulation skills; and encourage teachers to strengthen positive teacher–parent relationships.
b. The economic evaluation took a broad public-sector perspective, including hospital services, community health services, medication and LA accommodation, as well as productivity losses of parents relating to their child.
c. Complete cases: intervention n = 507, control n = 500.
d. Total costs include cost for baseline, intervention, hospital, community, medication, accommodation and productivity loss (parents).
e. A widely used measure of mental health in childhood (Goodman, 2001). Scores range from 0 to 40 with higher scores indicating poorer mental health.
f. It is unclear which values were used to generate the ICER. The reviewer was unable to replicate the calculation and disagree with the statement that TCM dominates TAU since adjusted costs were higher in the TCM group.
g. Converted by the reviewer using historical exchange rates and PSSRU inflation indices. (2014)

Garmy (2019)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
Study type: Quasi-experimental trial with cost-utility analysis **Country:**	**Perspective:** Not reported **Time horizon:** 12-months **Discounting:**	**Intervention cost per person; $:** DISA 250 (£165 GBP 2020[c]) Control	**Mean difference between baseline and 12-monbth follow-up:** CES-D score [a] DISA -0.73	**ICER; $:** 6,250 per QALY gained (£4,105 GBP 2020[c]) **Uncertainty:**	**Author identified:** • Schools in the intervention condition were already using the program	**Source of funding:** This work was supported by grants from the Swedish Association of Health Professionals, Brand och livförsäkringsaktiebolaget

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Garmy (2019)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
Sweden **Population:** Students in grade 8 (aged 13 to 15) **Sample size:** 948 students (21 schools) **Intervention:** Depression in Swedish Adolescents (DISA) is a school-based cognitive-behavioural depression prevention program. The program was conducted once per week for 1.5 hours over a period of 10 weeks. All tutors complete a 3-day DISA training course.	NA **Data sources Costs:** From trial (intervention costs only) **Effects:** From trial	0 Other costs were not considered **Currency & cost year:** SEK (Kr); 2014 Costs were converted to US ($) using the exchange rate 1 SEK = 0.15 US$	Control 1.74 **EQ VAS score [b]** DISA 1.92 Control -2.70 The EQ VAS scores (divided by 100 for transformation to a 0-1 scale) were used as QALY weights	Assuming 50% higher costs, the cost per QALY gained was $9,375. (£6,178 GBP 2020[c]) Assuming 50% lower effect, the cost per QALY gained was $12,500. (£8212 GBP 2020 [c])	• Intervention group contained more girls than boys • Baseline scores for self-reported depressive symptoms and health were worse in the intervention group – the intervention effect could therefore be overestimated **Reviewer identified:** None	Skånes Jubileumsfond, the Jerring Foundation, the Amalia and Marcus Wallenberg Foundation, the Gyllenstierna Krapperup Foundation, the Clas Groschinsky Foundation, Södra Sveriges Sjuksköterskehem SSSH, the Queen Silvia Jubilee Fund, the Swedish Society of Nursing, and the Crafoord Foundation **Further research:** Investigation with a target group as well as exploring the active element in the prevention program are recommended

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Garmy (2019)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
Comparator: Schools without mental health programs in their curriculum were recruited as control schools						

Overall applicability: Partly applicable   Overall quality: Minor limitations

Abbreviations: CES-D: Center for Epidemiological Studies Depression Scale; DISA: Depression in Swedish Adolescents; EQ: Euro Qol; ICER: incremental cost-effectiveness ratio; QALY: quality-adjusted life-year; VAS: visual analog scale

    a. The CES-D is a self-reported measure of depressive symptoms occurring during the previous week with score ranging from 0 to 60. Higher scores indicated more depressive symptoms, with a threshold value to be at risk for depression of 20 points.

    b. The EQ-VAS measure self-rated health on a particular day using a vertical VAS ranging from 0 to 100. Higher scores indicate better self-rated health.

    c. Converted by the reviewer using historical exchange rates and PSSRU inflation indices.

Humphrey (2018)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
Study type: Economic evaluation and cluster-randomised controlled trial (RCT) **Country:** UK	**Perspective:** Policy-maker perspective **Time horizon:** 2-year [b] **Discounting:** 3.5% costs	**Total intervention cost per person** [b,c]**; £:** PATHS 29.93 (£32 GBP 2020[k]) **Currency & cost year:** GBP (£); 2014/15	**Total QALYs per person; unadjusted, mean:** PATHS 1.711 Usual practice 1.698	**Incremental net benefit (INB); £:** 7.64 per child (£8 GBP 2020[k]) **Uncertainty:** The probability of the intervention being cost-effective	**Author identified:** • No data on use of school-based health services or external health services were collected	**Source of funding:** The National Institute for Health Research (NIHR) Public Health Research programme

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Humphrey (2018)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
Population: Children aged 7-9 years at the start of the 2012/13 school year **Sample size:** 5218 children total (45 schools); 2745 (2676 study participants and 69 opt-outs) children in intervention arm (23 schools) **Intervention:** Promoting Alternative Thinking Strategies (PATHS)[a] • Implemented and delivered by class teachers as part of the general classroom timetable	3.5% QALYs **Data sources Costs:** Standard micro-costing from RCT, Birmingham City Council, research budget account, University of Manchester, National Union of Teachers **Effects:** From RCT **Utilities:** From RCT; CHU-9D utility values used to calculate QALYs			(i.e. a positive INB) compared with usual care was 88% and 99% at a threshold of £20,000 per QALY and £30,000 per QALY, respectively. Using alternative preference weights for constructing CHU-9D utility values, changing the expected life of the intervention over which training and non-recurrent materials costs were annuitized, and costing PATHS in a hypothetical scenario similar to that in the event of roll-out all resulted in a higher probability of cost-effectiveness. However, including costs relating to	alongside the trial. • The sample may not be considered to be fully representative of primary schools in England. • Loss-to-follow-up rates experienced at the 12- and 24-month follow-up assessments were very high. **Reviewer identified:** None	**Further research:** Further work is needed to examine how best to optimise retention rates, to examine the possibility of further modifications to the PATHs intervention to improve its goodness of fit and to identify whether or not particular subgroups benefit differentially from PATHS.

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Humphrey (2018)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
• Lessons lasted 30-40 minutes and were designed to be delivered twice weekly throughout the school year • Teachers received a full day of group training prior to the school year led by certified trainers and PATHS coaches **Comparator(s):** Usual practice (non-PATHS social and emotional learning-related activities)				teachers' time in delivering the intervention (teaching and preparation) increased incremental costs to more than £185 per child and results in a 0% probability of being cost-effective at either threshold.		

Overall applicability: Directly applicable   Overall quality: Minor limitations

Abbreviations: CHU-9D: Child Health Utility Nine-Dimension; ICER: incremental cost-effectiveness ratio; INB: incremental net benefit; PATHS: Promoting Alternative Thinking Strategies; QALY: quality-adjusted life year; RCT: randomised controlled trial

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Humphrey (2018)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments

    h.   The aim of PATHS is to promote self-control, emotional understanding, positive self-esteem, relationships and interpersonal problem-solving skills among children in pre-school and primary education settings through the provision of a taught curriculum.

    i.   A 5-year intervention life was assumed. All non-recurrent cost were annuitized for the 2-year trial period.

    j.   The cost analysis was based on only the costs of the PATHS intervention itself, as resource use data were not collected alongside the trial. Micro-costing was used to calculate the costs of the intervention which comprised of non-recurrent costs (materials, training for teachers and PATHS coaches) and recurrent costs (curriculum and teacher support).

    k.   Converted by the reviewer using historical exchange rates and PSSRU inflation indices. (2014)

Hunter (2018)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
Study type: Cost-effectiveness methods for school-based programs, and a cost-effectiveness analysis (CEA) **Country:** US **Population:** First and second grade students in Pennsylvania elementary schools	**Perspective:** Not reported **Time horizon:** Not reported **Discounting:** Not reported **Data sources Costs:** Training cost from the *CostOut* database (2013 prices); material and equipment costs from the SSIS-CIP efficacy trial [a] (2016 prices)	**Intervention cost per person; $:** Start-up 24.26 (£17 GBP 2020[b]) Maintenance 13.72 (£10 GBP 2020[b]) Average across both periods 18.99 (£14 GBP 2020[b]) Other costs were not reported **Currency & cost year:** US ($); 2013/2016	**Hedges' g effect size (95% CI):** Intervention vs. control First grade 0.18 (0.03 to 0.33) Second grade 0.36 (0.17 to 0.55) **Improvement index; %:** Intervention vs. control First grade 7.14 Second grade	**ICER; $ (95% CI)** **Per student to achieve a hypothetical 1-unit change in teacher-rated social skills:** First grade 105.50 (£74 GBP 2020[b]) (57.55 to 633.00) Second grade 52.75 (34.53 to 111.17) (£37 GBP 2020[b]) **Per 1 percentile point increase in**	**Author identified:** • The trial on which analyses were based provided multiple outcomes but CEA focuses only on social skills • The effect size metric that was utilized is primarily for research purposes and may be difficult to	**Source of funding:** Not reported **Further research:** Future CEA studies should consider effect sizes that are more practically meaningful

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Hunter (2018)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
Population size (hypothetical): 12 teacher (classrooms) with 25 students per classroom **Intervention:** The Social Skills Improvement System - Classwide Intervention Program (SSIS-CIP) is a universal program intended to positively impact social skills and reduce problem behaviour in the classroom. Teachers participate in a 4-hr training before implementing the SSIS-CIP in their classrooms. Teachers were	**Effects:** SSIS-CIP efficacy trial [a]		14.06	**average student's social skills:** First grade 2.66 Second grade 1.35 **Uncertainty:** Not reported	translate to school-based administrators or policymakers **Reviewer identified:** • Details of the multiyear efficacy study of the SSIS-CIP were not provided [a]	

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Hunter (2018)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
encouraged to complete one SSIS-CIP unit per week for 10 weeks (some classrooms required 1–2 additional weeks to complete). **Comparator:** Business-as-usual control group						

Overall applicability: Partly applicable   Overall quality: Potentially serious limitations

Abbreviations: CEA: cost-effectiveness analysis; CI: confidence interval; ICER: incremental cost-effectiveness ratio; SSIS – CIP: social skills improvement system - classwide intervention program

a. A multisite cluster randomized trial design to test the efficacy of SSIS-CIP (DiPerna et al., 2015, 2016, 2018)
b. Converted by the reviewer using historical exchange rates and PSSRU inflation indices. (2013)

Lee (2017)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
Study type: A Markov model to calculate health benefit followed by cost-effectiveness analysis (CEA)	**Perspective:** Health and education perspective **Time horizon:** 10-years	**Total intervention cost (95% UI); AUD$ thousands:** Universal 37,178 (£25,118 GBP 2020[f]) (16,404 to 72,107)	**Total DALYs averted (95% UI):** Universal 3,367 (£2,275 GBP 2020[f]) (1,618 to 5,184)	**ICER (95% UI); mean, AUD$:** Universal 7,350 (£4,965 GBP 2020[f])per DALY averted	**Author identified:** • Limits health benefits to those linked to the prevention of incident	**Source of funding:** The project was funded through the Australian Government National Health and Medical Research

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Lee (2017)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
Country: Australia **Population:** Students aged 11 to 17 **Population size (hypothetical):** 1,558,171 (78.6% of the 2013 Australian population aged 11 to 17 years) for the universal intervention 161,835 for the indicated intervention **Interventions:** A school-based psychological universal intervention targeting youth in the general population [a]; and a school-based	**Discounting:** 3% for costs 3% for benefits **Data sources Costs:** Published literature **Effects:** Meta-analyses of randomised control trial data using the quality effects model **Disability weights:** Global Burden of Disease (2013)	Indicated 77,592 (£52421 GBP 2020[f]) (48,096 to 118,754) **Cost offset [d] (95% UI); AUD$ thousands:** Universal -15,376 (-22,968 to -7,585) (£10388 GBP 2020[f]) Indicated -18,749 (£12666 GBP 2020[f]) (-41,988 to -5,853) **Net costs (95% UI); AUD$ thousands:** Universal 21,802 (£14,729 GBP 2020[f]) (-75 to 55,743) Indicated 58,843 (£39,760 GBP 2020[f]) (23,460 to 102,573)	Indicated 4,083 (£2,757 GBP 2020[f]) (1,295 to 9,361)	(dominates to 23,070) Indicated 19,550 per DALY averted (3,081 to 56,713) (£13,208 GBP 2020[f]) **Uncertainty:** Across the majority of univariate sensitivity analyses, cost-effectiveness results were either consistent or more favourable relative to baseline model. Sensitivity analysis found that unmoderated internet-delivered [e] prevention interventions were highly cost-effective when assuming intervention effect sizes of 100 and 50% relative to effect sizes observed for face-	depression only • Assumes preventative interventions for depression lead to a reduction in depression incidence; however, due to short time horizons of RCT studies, it is unclear whether interventions prevent or merely delay onset **Reviewer identified:** None	Council Centre of Research Excellence in Mental Health Systems Improvement **Further research:** Further evaluation of the cost-effectiveness of school-based prevention will be required as evidence regarding system-level implementation of these programmes is refined

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Lee (2017)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
psychological indicated intervention targeting youth with elevated depressive symptoms but who do not have a diagnosis of major depression [b] **Comparator:** No intervention [c]		**Currency & cost year:** AUD ($); 2013		to-face delivered interventions. While clinician moderated internet-delivered [e] prevention interventions were not deemed cost-effective, it is likely that the unmoderated intervention pathway would be implemented in practice.		

Overall applicability: Partly applicable   Overall quality: Potentially serious limitations

Abbreviations: CEA: cost-effectiveness analysis; CES-D: Center for Epidemiologic Studies Depression Scale; DALY: disability-adjusted life-year; ICER: incremental cost-effectiveness ratio; RCT: randomised control trial; UI: uncertainty interval

a. The intervention pathway for face-to-face delivery of universal psychological prevention involved teachers delivering psychological intervention modules in the classroom during regular school hours.
b. The intervention pathway for face-to-face delivery of indicated psychological prevention involves three main steps: (1) screening students at participating schools for elevated symptoms of depression using the CES-D; (2) psychologists conducting further diagnostic testing to identify students without a depression diagnosis; and (3) psychologists delivering group-based psychological intervention modules to eligible students
c. The eligible population receives neither the proposed intervention nor any established prevention services currently being delivered by the education/health sector. This equates to a 'partial null' comparator scenario.
d. The cost offsets are the costs of treating major depression that are averted due to the prevention of incident cases. The average annual cost offset for a treated case of depression was calculated to be $1,182.
e. The study was unable to identify any relevant RCT studies involving internet-delivered prevention interventions, which met the inclusion criteria for the model. It was assumed that the effect sizes of internet-delivered prevention interventions were equal to some proportion of the pooled intervention effect sizes calculated for face-to-face prevention interventions. Given the heroic nature of this assumption, this investigation was

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Lee (2017)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments

relegated to a separate sensitivity analysis. Unmoderated modalities (i.e., self-help) or clinician-moderated modalities (i.e., self-directed treatment with periodic monitoring by a health professional or clinician) were both considered.

f. Converted by the reviewer using historical exchange rates and PSSRU inflation indices.

McCabe (2007)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
Study type: Cost-effectiveness analysis **Country:** UK **Population:** Primary school children aged 7 to 11 **Population size:** Not reported **Intervention:** A universal intervention that is based broadly on the Promoting Alternative Thinking	**Perspective:** Not reported **Time horizon:** Not reported **Discounting:** Not reported [b] **Data sources Costs:** Not reported **Effects:** Not reported **Utilities:** Health Utilities Index Mark 2 (HUI2) data came from a subset of the UK Paediatric Intensive Care	**Total cost per person; £:** Not reported **Intervention cost per person; £:** Universal intervention 125 (£158 GBP 2020[g]) Focused intervention Not reported [c] Usual school provision Not reported **Currency & cost year:** GBP (£); year not reported	**QALYs per person:** Not reported **HUI2 score:** Not reported	**ICER; £:** Universal intervention vs. usual school provision Emotional functioning alone [d] 10,594 per QALY (£13,406 GBP 2020[g]) Emotional and cognitive functioning [e] 5,278 per QALY (£6,679 GBP 2020[g]) Focused intervention vs. usual school provision Emotional functioning alone [d]	**Author identified:** • The sample used in the analysis may not be genuinely representative and thus it is unclear whether the results are generalisable • The analyses do not consider the costs incurred by the parents to attend the training sessions **Reviewer identified:**	**Comments:** The difference in the results is driven by the large reduction in the number of children who benefit from the focused intervntion compared to the universal programme without a proportionate reduction in the cost of providing the intervention **Source of funding:** Not reported

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McCabe (2007)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
Strategies [a] (PATHS) programme. The program consists of three 20-minute sessions per week for each class in school that are run by the class teacher as well as a 10-week parent training course involving 10 2-hour sessions. A focused intervention that is similar in content to the universal intervention but children with identified problems receive the intervention outside of the classroom in small groups or individually	Outcome Study (UK PICOS)			988,404 per QALY (£1,250,811 GBP [g]) Emotional and cognitive functioning [f] 177,560 per QALY (£244,699 GBP 2020[g]) **Uncertainty:** The uncertainty around the ICER was represented as a scatterplot on the cost-effectiveness plane. Cost-effectiveness acceptability curves were constructed to represent the decision uncertainty. For emotion alone, the probability that the ICER is less than £30,000 per QALY is 65%. For emotion and cognition, the probability that the ICER is below £30,000 per QALY is 66%.	• Costs were not clearly reported • QALYs, study perspective and time horizon were not reported	**Further research:** Further research should be done to establish the long-term cost-effectiveness of focused interventions in primary schools

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McCabe (2007)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
Comparator: Usual school provision						

Overall applicability: Partly applicable   Overall quality: Potentially serious limitations
Abbreviations: HRQoL: health-related quality of life; HUI2: Health Utilities Index Mark 2; ICER: incremental cost-effectiveness ratio; PATHS: Promoting Alternative Thinking Strategies; PICOS: Paediatric Intensive Care Outcome Study; QALY: quality-adjusted life year

    a. The aim of PATHS is to promote self-control, emotional understanding, positive self-esteem, relationships and interpersonal problem-solving skills among children in pre-school and primary education settings through the provision of a taught curriculum.

    b. As the study is defined as a short-term study, it is assumed that discounting would not be applicable.

    c. According to the report, the cost of the focused intervention is similar to that of the universal intervention, except for a reduction in school co-ordinator time and parent training resource costs. This cost was not reported.

    d. This represents the ICER assuming the intervention produces a one-level improvement upon the emotion dimension of HRQoL only.

    e. This represents the ICER assuming the intervention produces a one-level improvement upon both the emotion and cognition dimensions of HRQoL.

    f. This represents the ICER assuming the intervention produces a two-level improvement on both the emotion and cognition dimensions of HRQoL.

    g. Converted by the reviewer using historical exchange rates and PSSRU inflation indices. Assuming 2007 currency year.

Stallard (2013)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
Study type: Cluster-randomised controlled trial (RCT) and cost-effectiveness analysis **Country:** UK	**Perspective:** Societal perspective across the health, education and social care sectors **Time horizon:** 12 months	**Total cost per person; unadjusted, £ (SD):** **SMFQ score [e]** Classroom-based CBT 553 (£635 GBP 2020[g]) (1392)	**Total effects; unadjusted, mean (SD):** **SMFQ score [e]** Classroom-based CBT: 3.73 (5.34)	**ICER; adjusted, £ (95% CI):** **SMFQ score [e]** Classroom-based CBT vs. usual PSHE Dominated [f]	**Author identified:** • It is unclear whether the results are generalisable, due to sampling biases • Young people were not	**Source of funding:** The NIHR Health Technology Assessment programme. Trial registered as ISRCTN19083628. **Further research:**

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Stallard (2013)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
Population: Children aged 12 to 16 years **Population size:** 5761 children (8 schools) [a] **Intervention:** Resourceful Adolescent Programme [b] (RAP), a cognitive-behavioural therapy (CBT) aimed at reducing symptoms of depression. 9 sessions, each approximately 50-60 minutes, were delivered by two trained facilitators external to the school either weekly or fortnightly **Comparator:**	**Discounting:** NA **Data sources Costs:** Department of Health's NHS reference costs (for primary care trust and NHS trusts); Personal Social Services Research Unit's unit costs of health and social care; other costs from RCT **Effects:** From RCT **Utilities:** From RCT (EQ-5D used to calculate QALYs) **Other:** Two cost-effectiveness analyses were conducted, one	Attention control PSHE 539 (£619 GBP 2020[g]) (1572) Usual PSHE 406 (£466 GBP 2020[g])(1240) **QALY** Classroom-based CBT 526 (1294) (£604 GBP 2020[g]) Attention control PSHE 517 (1553) (£594 GBP 2020[g]) Usual PSHE 385 (1169) (£442 GBP 2020[g]) **Intervention cost per person; £:** Classroom-based CBT 41.96 (£48 GBP 2020[g]) Attention control PSHE 34.45 (£40 GBP 2020[g])	Attention control PSHE: 3.89 (5.12) Usual PSHE 3.18 (4.46) **QALY** Classroom-based CBT: 0.90 (0.12) Attention control PSHE: 0.89 (0.12) Usual PSHE 0.91 (0.12)	Attention control PSHE vs. usual PSHE Dominated [f] **QALY** Classroom-based CBT vs. usual PSHE 185,337 (undefined) (£212,814 GBP 2020[g]) Attention control PSHE vs. usual PSHE Dominated [f] **Uncertainty:** Scatterplots of incremental costs and QALYs and the related cost-effectiveness acceptability curve were produced. The probability that classroom-based CBT or attention control PSHE were both less effective and more costly than usual PSHE	blinded to trial allocation after randomisation • The validity and reliability of the self-reporting of service use data from children cannot be assured without linked data collection from health or other support services **Reviewer identified:** • It was unclear why the costs would differ for each outcome	Further research should investigate the cost-effectiveness of universal prevention programmes with younger children (e.g. 10-11 years). Further research should also investigate the cost-effectiveness of alternative preventative approaches (for example, programmes targeting those who already have increased symptoms or are at high risk for depression).

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Stallard (2013)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
Attention control PSHE [c] Usual PSHE [d]	using the SMFQ score and one using QALYs based on EQ-5D	Usual PSHE 0 **Health and social care service use costs per person; £ (SD):** Classroom-based CBT 484 (1294) (£556 GBP 2020[g]) Attention control PSHE 483 (1294) (£556 GBP 2020[g]) Usual PSHE 385 (1169) (£442 GBP 2020[g]) **Currency & cost year:** GBP (£); 2010		ranged from 43% to 98% in the adjusted analyses. The curve showed that there was a 5% probability that classroom-based CBT is less costly than usual PSHE and a 46% probability that it is less effective than usual PSHE. There is a 25% probability that the ICER is less than £20,000 when comparing classroom-based CBT with usual PHSE.		
Overall applicability: Directly applicable Overall quality: Potentially serious limitations						

Abbreviations: CBT: cognitive-behavioural therapy; CEA: cost-effectiveness analysis; ICER: incremental cost-effectiveness ratio; PSHE: Personal, Social, Health and Economic education; QALY: quality-adjusted life year; RAP: Resourceful Adolescent Programme; RCT: randomised controlled trial; SMFQ: Short Mood and Feelings Questionnaire

    a.   The economic evaluation was based on a subsample who had complete EQ-5D responses and costs at all study time points.

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Stallard (2013)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
	b. The RAP programme is based on CBT and interpersonal therapy principles. The programme aims to target negative thoughts and low self-worth/image with core treatment components such as psycho-education, identifying and challenging negative thoughts, identifying personal strengths, managing social problems and learning to problem solve.					
	c. The attention control PSHE curriculum involved the delivery of the usual school PSHE curriculum but included additional support to the class teacher by two external facilitators who assisted with delivering the lessons and engaging with young people.					
	d. The usual school PSHE curriculum provided by the school staff and did not involve any external input from the research team.					
	e. Total SMFQ score calculated at 12 months. Elevated symptoms of depression were defined as a score of ≥ 5 hence a lower score on the SMFQ indicates better outcomes.					
	f. The intervention is more expensive and less effective.					
	g. Converted by the reviewer using historical exchange rates and PSSRU inflation indices					

Stallard (2015)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
Study type: Cluster-randomised controlled trial (RCT) and cost-effectiveness analysis **Country:** UK **Population:** Children aged 9-10 years **Sample size:**	**Perspective:** Joint perspective of the health sector and the education/social services sector **Time horizon:** 24 months [a] **Discounting:** Discounting was not applied **Other:** The economic evaluation was	**Total cost per person; mean, £ (SD):** Health-led FRIENDS 63.68 (60.2) (£70 GBP 2020[e]) School-led FRIENDS 64.37 (£70 GBP 2020[e]) (34.82) Usual school provision 11.19(£12 GBP 2020[e]) (44.15)	**Total RCADS score [c], mean (SD):** Health-led FRIENDS 25.61 (16.0) School-led FRIENDS 23.98 (14.0) Usual school provision 27.70 (16.7) **Total QALYs; mean (SD):**	**ICER; adjusted, £ (95% CI):** **RCADS score:** Health-led FRIENDS vs. usual school provision 18 per unit decrease in RCADS score Health-led FRIENDS vs. school-led FRIENDS 0 per unit in RCADS score	**Author identified:** • Children were not blinded to the intervention that they received • It was unclear whether the results are generalisable, due to participant ethnicity • The economic subgroup was not	**Source of funding:** The Public Health Research programme of the National Institute for Health Research. Trial registered as ISRCTN23563048. **Further research:** Further research should assess the cost-effectiveness over a longer time frame and should

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Stallard (2015)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
1362 children total (41 schools) [a]

Intervention:
The FRIENDS [b] programme, either school-led or health-led, is a cognitive-behavioural programme to reduce anxiety and improve mood. The programme was led by either a trained member of the school or an external health leader and was delivered over 9 consecutive weeks

Comparator(s):
Usual school PSHE (Personal, Social, Health | based on complete cases of an interview subsample at 6-months

Data sources Costs:
Department of Health's NHS reference costs (for primary care trust and NHS trusts); Personal Social Services Research Unit's unit costs of health and social care; other costs from RCT

Effects:
From RCT

Utilities:
From RCT (CHU-9D used to calculate QALYs) | **Intervention cost per person; £:**
Health-led FRIENDS 52.25 (£57 GBP 2020 [e])

School-led FRIENDS 55.92 (£61 GBP 2020[e])

Usual school provision 0

Currency & cost year:
GBP (£); 2013 | Health-led FRIENDS 0.388 (0.057)

School-led FRIENDS 0.401 (0.051)

Usual school provision 0.390 (0.056) | (undefined)

QALYs:
Health-led FRIENDS was dominated [d] by usual school provision (3,407 to dominated)

Health-led FRIENDS was dominated [d] by school-led FRIENDS (undefined)

Uncertainty:
Cost-effectiveness acceptability curves and cost-effectiveness planes were constructed for health-led FRIENDS vs. usual school provision, and for health-led vs. school-led FRIENDS concluding that the interventions were | representative of the whole cohort on factors such as the anxiety (RCADS) and utility (CHU-9D) outcomes potentially limiting the generalisability of the cost-effectiveness analyses

Reviewer identified:
● The reviewer notes that the intervention demonstrated an improvement in RCADS score compared with usual school provision but a decrease in QALYs when comparing the intervention | capture a wide range of resources including health, social care and educational resources and impacts on parental productivity. |

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Stallard (2015)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
and Economic education)				not likely to be cost-effective. The health-led FRIENDS never reaches more than a 35% probability of being cost-effective at any willingness to pay per QALY. Combining the cost data from the economic subsample with the effectiveness data from the whole sample did not alter the conclusions.	with usual school provision	

Overall applicability: Directly applicable   Overall quality: Potentially serious limitations

Abbreviations: CHU-9D: Child Health Utility Nine-Dimension; ICER: incremental cost-effectiveness ratio; PSHE: Personal, Social, Health and Economic education; QALY: quality-adjusted life year; RCADS: Revised Child Anxiety and Depression Scale; RCT: randomised controlled trial

   a. The economic evaluation was based on a subsample who had valid cost and outcome data at 6-months. The subsample size was not reported.

   b. The FRIENDS programme is based on the principles of CBT and develops skills to counter the cognitive, emotional and behavioural aspects of anxiety. The programme aims to teach children skills to identify and manage their anxious feelings, develop more helpful ways of thinking and overcome fears and challenges.

   c. RCADS is a 30-item, youth self-report questionnaire. The scale used for the RCADS is not made clear. However, a reduction in score indicates a reduction in anxiety and an improvement in mood.

   d. This is defined as the intervention having higher costs and worse outcomes.

   e. Converted by the reviewer using historical exchange rates and PSSRU inflation indices.

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Turner (2019)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
Study type: Cluster-randomised controlled trial (RCT) and cost-effectiveness analysis **Country:** UK **Population:** Children aged 4-11 years **Population size:** 5218 children total (45 schools); 2745 (2676 study participants and 69 opt-outs) children in intervention arm (23 schools) **Intervention:** Promoting Alternative Thinking Strategies (PATHS)[a] • Implemented and delivered by	**Perspective:** UK health sector perspective **Time horizon:** 2-year **Discounting:** 3.5% costs 3.5% QALYs **Data sources Costs:** Standard micro-costing from RCT, Birmingham City Council, research budget account, University of Manchester, National Union of Teachers **Effects:** From RCT **Utilities:** From RCT; CHU-9D utility values used to calculate QALYs	**Incremental intervention cost per person** [b, c]**; £:** PATHS 32.01 (£33GBP 2020[d]) **Currency & cost year:** GBP (£); 2018/19 Costs were inflated to 2018/19 values using the retail price index Converted to EUR (€) using 1 EUR 2013 = SEK 8.65	**Incremental QALYs per person (95% confidence interval); adjusted mean:** PATHS vs. usual practice 0.0019 (0.0009 to 0.0029)	**Incremental net benefit (INB); £:** 5.56 per child (£6 GBP 2020[d]) **Uncertainty:** The probability of PATHS resulting in a positive INB, and therefore being cost-effective, is 84%. Using the best-worst scaling algorithm, the probability of PATHS producing a positive INB at a threshold of £20,000 per QALY was 99.4%. In complete case analysis, where observations with missing data were removed, the probability of cost-effectiveness at the £20,000 per QALY threshold was 40% Assuming a 10-year rather than 5-year expected intervention life led	**Author identified:** • No data on use of school-based health services or external health services were collected alongside the trial. • The analysis was conducted using a health sector perspective, which does not capture benefits in sectors other than health. • The short time horizon led to the evaluation being constrained.	**Source of funding:** The National Institute for Health Research (grant ref: 10/3006/01) **Further research:** Further research could use parameters estimated in the study to conduct a model-based evaluation of PATHS' longer-term cost effectiveness.

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Turner (2019)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
class teachers as part of the general classroom timetable • Lessons lasted 30-40 minutes and were designed to be delivered twice weekly throughout the school year • Teachers received a full day of group training prior to the school year led by certified trainers and PATHS coaches **Comparator(s):** Usual practice (non-PATHS social and				to a small reduction in incremental costs of £3.50 per child, increasing the probability of PATHS being cost-effective at a threshold of £20,000 per QALY to 91.0%. Inclusion of teacher salary costs had a substantial impact on INB resulting in a 0% probability of PATHS being cost-effective at a £20,000 threshold per QALY. In a national roll-out scenario, where costs of the intervention would likely differ to those in the trial, the probability of PATHS being cost effective was 98.7% for a threshold of £20,000 per QALY.	• The author identified risks to the study's external validity including a higher teacher turnover rate in the trial which was not generalisable to the national rate. Additionally, trial participants were not blinded to treatment which could have impacted the QALYs and INB. Finally, if the quality of teacher training differed in	

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Turner (2019)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
emotional learning-related activities)					the scenario analysis to the trial, this could have an impact on the effectiveness of the intervention. **Reviewer identified:** None	

Overall applicability: Directly applicable   Overall quality: Minor limitations

Abbreviations: CHU-9D: Child Health Utility Nine-Dimension; ICER: incremental cost-effectiveness ratio; INB: incremental net benefit; PATHS: Promoting Alternative Thinking Strategies; QALY: quality-adjusted life year; RCT: randomised controlled trial

   a. The aim of PATHS is to promote self-control, emotional understanding, positive self-esteem, relationships and interpersonal problem-solving skills among children in pre-school and primary education settings through the provision of a taught curriculum.

   b. The cost analysis was based on only the costs of the PATHS intervention itself, as resource use data were not collected alongside the trial.

   c. Micro-costing was used to calculate the incremental costs of the intervention, compared with usual practice. Incremental costs comprised costs of materials, training for teachers and PATHS coaches and ongoing support.

   d. Converted by the reviewer using historical exchange rates and PSSRU inflation indices.

Wellander (2016)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
Study type: Cost-offset analysis **Country:**	**Perspective:** Payers perspective (e.g. local government)	**Total intervention cost; €:** SET 6 – 11 481,215	**Reduction in prevalence of anxiety/depression** [c]**; %:** 12	**Cost-offset analysis:** Cost-offset analysis was conducted but combined the costs	**Author identified:** • Results may not be generalisable to all students	**Source of funding:** Swedish Research Council

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Wellander (2016)

Study	Method of Analysis	Costs	Outcomes	Results	Limitations	Comments
Sweden **Population:** Children aged between 6 and 16 years **Population size:** 6,256 6 students received additional support for anxiety or stress **Intervention [a]:** A social and emotional training (SET) program aimed to promote mental health and positive development. It involved 1 to 2 45-minute structured sessions per week and continued throughout the whole school	**Time horizon:** 5-years for the effectiveness study (Kimber, 2008) Assumed 2-year for economic analysis [b] **Discounting:** 3% for costs **Data sources Costs:** Published literature, official websites, and personal contact with researchers and coordinators **Effects:** Quasi-experimental longitudinal study (Kimber, 2008)	(£447,580 GBP 2020[d]) SET 12 - 16 318,132 (£295,644 GBP 2020[d]) **Intervention cost per person; €:** SET 6 – 11 146 (£136 GBP 2020[d]) SET 12 - 16 102 (£95 GBP 2020[d]) **Cost of additional support in school per person; €:** Students with anxiety or stress 5,150 per month (£4786 GBP 2020[d]) **Currency & cost year:** SEK (Kr); 2013 Converted to EUR (€) using 1 EUR 2013 = SEK 8.65		and effects of 2 interventions, 1 of which was not relevant to the research question. Hence, it was not possible to extract cost-offset analyses for the SET intervention alone. **Uncertainty:** Sensitivity analysis was conducted but combined the costs and effects of 2 interventions, 1 of which was not relevant to the research question. Hence, it was not possible to extract sensitivity analyses for the SET intervention alone.	with mental health problems • Overall costs may be underestimated as administration costs were not calculated • The reduction in the number of students needing additional support was estimated based on assumption **Reviewer identified:** • Data extraction from this study is limited due to the combination of 2 different intervention in their analysis; 1 of which was not relevant to	and Foundation Ideas for Life, Sweden **Further research:** Future research should further explore the true costs of providing students with additional school-based services and compare those results with different preventive interventions' benefits and costs. Local governments can further aid future economic evaluations if they collect more detailed data on how their budget is spent.

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Wellander (2016)						
Study	**Method of Analysis**	**Costs**	**Outcomes**	**Results**	**Limitations**	**Comments**
year. Teacher received 16 hours of training **Comparator:** No-SET					the research question	

Overall applicability: Partly applicable   Overall quality: Minor limitations

Abbreviations: SET: social and emotional training

    a. The study considered two interventions – Comet for teachers and SET. Results for the Comet for Teachers intervention is not reported in this extract as it is focuses on externalizing behaviour and hyperactivities which are not relevant to the research questions.

    b. A 2-year time horizon was assumed as the cost-offset per 2 school years was reported.

    c. To calculate the reduction in clinical cases of internalizing mental health problems, the study assumed that 5% of the target population was considered clinical, and the distributions of internalizing mental health problems were normal. The 5-year effectiveness estimate of the SET program were adjusted to a 1-year estimate assuming that the reduction observed during a five-year period was proportionally distributed.

    d. Converted by the reviewer using historical exchange rates and PSSRU inflation indices.

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Appendix I – Health economic model

A bespoke model was developed to capture the costs and consequences of an intervention, or combination of interventions, that promote social, emotional and mental wellbeing in children and young people in primary and secondary education. It covers more than 1 evidence review in the guideline so the full write up is contained in a separate document rather than in appendix I (see Evidence review J).

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Appendix J – Excluded studies

Effectiveness studies

Study	Code [Reason]
(2014) Targeting high-risk, socially influential middle school students to reduce aggression: Universal versus selective preventive intervention effects. Journal of Research on Adolescence 24(2): 364-382	- Study conducted before 2007
(2008) The multisite violence prevention project: impact of a universal school-based violence prevention program on social-cognitive outcomes. Prevention science 9(4): 231-244	- Study conducted before 2007
(2013) WWC Review of the Report ?Assessing the Effectiveness of First Step to Success: Are Short-Term Results the First Step to Long-Term Behavioral Improvements.? What Works Clearinghouse Single Study Review.: 1-8	- Non systematic review
Ab Ghaffar, Siti Fatimah, Mohd Sidik, Sherina, Ibrahim, Normala et al. (2019) Effect of a School-Based Anxiety Prevention Program among Primary School Children. International journal of environmental research and public health 16(24)	- Study conducted in a non-OECD country
Adibsereshki, N.; Shaydaei, M.; Movallali, G. (2016) The effectiveness of emotional intelligence training on the adaptive behaviors of students with intellectual disability. International Journal of Developmental Disabilities 62(4): 245-252	- Study conducted in a non-OECD country
Agley, J., Jun, M., Eldridge, L. et al. (2021) Effects of ACT out! social issue theater on social-emotional competence and bullying in youth and adolescents: cluster randomized controlled trial. JMIR Mental Health 8(1): e25860	- Outcome data not presented/unusable
Agley, Jon, Jun, Mikyoung, Eldridge, Lori et al. (2021) Effects of ACT out! social issue theater on social-emotional competence and bullying in youth and adolescents: cluster randomized controlled trial. JMIR Mental Health 8(1): e25860	- Duplicate
Ahlen J; Lenhard F; Ghaderi A (2015) Universal Prevention for Anxiety and Depressive Symptoms in Children: A Meta-analysis of Randomized and Cluster-Randomized Trials. The journal of primary prevention 36(6): 387-403	- Systematic review and references checked
Albright, Abby, Michael, Kurt, Massey, Cameron et al. (2013) An evaluation of an interdisciplinary rural school mental health programme in Appalachia. Advances in School Mental Health Promotion 6(3): 189-202	- Non-randomised study
Allen, Kate, Hansford, Lorraine, Hayes, Rachel et al. (2019) Teachers' perceptions of the impact	- Study intervention is teacher training for classroom management

Study	Code [Reason]
of the Incredible Years Teacher Classroom Management programme on their practice and on the social and emotional development of their pupils. The British journal of educational psychology	
Andermo, S., Hallgren, M., Nguyen, T.-T.-D. et al. (2020) School-related physical activity interventions and mental health among children: a systematic review and meta-analysis. Sports Medicine - Open 6(1): 25	- Systematic review
Anthony, Hayley and McLean, Louise A (2015) Promoting mental health at school: Short-term effectiveness of a popular school-based resiliency programme. Advances in School Mental Health Promotion 8(4): 199-215	- Non-randomised study
Anticich, Sarah A. J., Barrett, Paula M., Silverman, Wendy et al. (2013) The Prevention of Childhood Anxiety and Promotion of Resilience among Preschool-Aged Children: A Universal School Based Trial. Advances in School Mental Health Promotion 6(2): 93-121	- Outcome data not presented/unusable
Antonson, Carl, Thorsen, Frida, Sundquist, Jan et al. (2018) Upper secondary school students' compliance with two Internet-based self-help programmes: a randomised controlled trial. European child & adolescent psychiatry 27(2): 191-200	- Study does not provde data for the control group
Appelqvist-Schmidlechner, Kaija, Liski, Antti, Pankakoski, Maiju et al. (2016) Together at school intervention programme. A pilot study on the feasibility and perceived benefits of a programme focusing on improving socio-emotional skills among schoolchildren in Finland. International Journal of Mental Health Promotion 18(3): 127-143	- Not universal curriculum - Whole-school approach - Study design: No control group
Arora, Prerna G, Collins, Tai A, Dart, Evan H et al. (2019) Multi-tiered systems of support for school-based mental health: A systematic review of depression interventions. School Mental Health: A Multidisciplinary Research and Practice Journal 11(2): 240-264	- Systematic review
Aune, Tore and Stiles, Tore C (2009) Universal-based prevention of syndromal and subsyndromal social anxiety: A randomized controlled study. Journal of consulting and clinical psychology 77(5): 867-79	- Study intevention is a whole comunity approach with a universal classroom component
Averdijk, Margit, Zirk-Sadowski, Jan, Ribeaud, Denis et al. (2016) Long-term effects of two childhood psychosocial interventions on adolescent delinquency, substance use, and antisocial behavior: A cluster randomized	- Study not concerned with social, emotional and metal wellbeing

Study	Code [Reason]
controlled trial. Journal of Experimental Criminology 12(1): 21-47	
Bambara, Linda M., Goh, Ailsa, Kern, Lee et al. (2012) Perceived Barriers and Enablers to Implementing Individualized Positive Behavior Interventions and Supports in School Settings. Journal of Positive Behavior Interventions 14(4): 228-240	- Non UK based qualitative study
Bannirchelvam, Bavani; Bell, Karen L; Costello, Shane (2017) A qualitative exploration of primary school students' experience and utilisation of mindfulness. Contemporary School Psychology 21(4): 304-316	- Non UK based qualitative study
Barkoukis, V, Lazuras, L, Ourda, D et al. (2016) Tackling psychosocial risk factors for adolescent cyberbullying: evidence from a school-based intervention. Aggressive behavior 42(2): 114-122	- Not universal curriculum - Whole-school approach
Bastounis, Anastasios, Callaghan, Patrick, Lykomitrou, Foteini et al. (2017) Exploring students' participation in universal, depression and anxiety, prevention programmes at school: A meta-aggregation. School Mental Health: A Multidisciplinary Research and Practice Journal 9(4): 372-385	- Systematic review
Bearman, Sarah K., Bailin, Abby, Rodriguez, Erin et al. (2020) Partnering with School Providers to Codesign Mental Health Interventions: An Open Trial of Act & Adapt in Urban Public Middle Schools. Psychology in the Schools 57(11): 1689-1709	- Study design: No control group
Beaudry, MB, Swartz, K, Miller, L et al. (2019) Effectiveness of the Adolescent Depression Awareness Program (ADAP) on Depression Literacy and Mental Health Treatment. Journal of school health 89(3): 165-172	- Study not concerned with social, emotional and metal wellbeing
Beelmann, Andreas and Raabe, Tobias (2009) The effects of preventing antisocial behavior and crime in childhood and adolescence: Results and implications of research reviews and meta-analyses. European Journal of Developmental Science 3(3): 260-281	- Non systematic review JJ
Beggs, Allison and Olson, Sara (2020) The Effects of Social-Emotional Learning and Teacher Relationships on Middle School Student Well-Being.	- Dissertation
Benner, Gregory J., Nelson, J. Ron, Sanders, Elizabeth A. et al. (2012) Behavior Intervention for Students with Externalizing Behavior Problems: Primary-Level Standard Protocol. Exceptional Children 78(2): 181-198	- Study population is selected

Study	Code [Reason]
Benner, Gregory J., Sanders, Elizabeth A., Nelson, J. Ron et al. (2013) How Individual and School Aggregate Baseline Behavior Levels Moderate Response to a Primary Level Behavior Intervention. Behavioral Disorders 38(2): 73-87	- Study population is selected
Bermejo-Martins, E, Mujika, A, Iriarte, A et al. (2019) Social and emotional competence as key element to improve healthy lifestyles in children: results from a randomized controlled trial. Journal of advanced nursing	- Duplicate
Bermejo-Martins, Elena, Mujika, Agurtzane, Iriarte, Andrea et al. (2019) Social and emotional competence as key element to improve healthy lifestyles in children: A randomized controlled trial. Journal of advanced nursing 75(8): 1764-1781	- Study intervention delivered outside of school hours
Bernal-Manrique, Koryn N; Garcia-Martin, Maria B; Ruiz, Francisco J (2020) Effect of acceptance and commitment therapy in improving interpersonal skills in adolescents: A randomized waitlist control trial. Journal of Contextual Behavioral Science 17: 86-94	- Study population is selected
Binfet, John-Tyler and Whitehead, Jenna (2019) The Effect of Engagement in a Kindness Intervention on Adolescents' Well-Being: A Randomized Controlled Trial. International Journal of Emotional Education 11(2): 33-49	- Intervention not a formal programme
Biskner, Jessica and Biskner, Jessica Ariana (2019) Mindfulness-based interventions within middle and high school settings: teachers' perspectives.	- Article unavailable
Bleasdale, Jane E; Peterson, Margaret C; Nidich, Sanford (2020) Effect of Meditation on Social/Emotional Well-Being in a High-Performing High School. Professional School Counseling 23(1): 2156759x20940639	- Study had an active control group
Bluth, Karen, Gaylord, Susan A, Campo, Rebecca A et al. (2016) Making friends with yourself: A mixed methods pilot study of a mindful self-compassion program for adolescents. Mindfulness 7(2): 479-492	- Study intervention not delivered in school
Bogue, Heidi E. (2011) Impact of a violence prevention curriculum on kindergarteners' behavior. Dissertation Abstracts International Section A: Humanities and Social Sciences 72(10a): 3610	- Dissertation
Bokoch, Rebecca and Hass-Cohen, Noah (2020) Effectiveness of a School-Based Mindfulness and Art Therapy Group Program. Art Therapy: 1-10	- Non-randomised study

Study	Code [Reason]
Boldt, Katharina, Coenen, Michaela, Movsisyan, Ani et al. (2021) Interventions to Ameliorate the Psychosocial Effects of the COVID-19 Pandemic on Children-A Systematic Review. International journal of environmental research and public health 18(5)	- Systematic review
Bottini, Cheryl L. (2017) The Effects of the Student Success Skills Classroom Program on Self-Regulation, School Attendance, and Test Anxiety on Hispanic Fifth-Grade Students.: 1-117	- PhD thesis - Dissertation
Brackett, Marc A. (2016) The Emotion Revolution: Enhancing Social and Emotional Learning in School: Enhancing Social and Emotional Learning in School. Independent School 75(4)	- Ordered but not received
Bradshaw, Catherine P., Zmuda, Jessika H., Kellam, Sheppard G. et al. (2009) Longitudinal Impact of Two Universal Preventive Interventions in First Grade on Educational Outcomes in High School. Journal of Educational Psychology 101(4): 926-937	- Outcome data not presented/unusable
Breeman, Linda D, van Lier, Pol A. C, Wubbels, Theo et al. (2016) Effects of the good behavior game on the behavioral, emotional, and social problems of children with psychiatric disorders in special education settings. Journal of Positive Behavior Interventions 18(3): 156-167	- Study intervention is teacher training for classroom management
Brigman, Greg A.; Webb, Linda D.; Campbell, Chari (2007) Building Skills for School Success: Improving the Academic and Social Competence of Students. Professional School Counseling 10(3): 279-288	- Study intervention is not a universal intervention
Broderick, Patricia C and Metz, Stacie (2009) Learning to BREATHE: A pilot trial of a mindfulness curriculum for adolescents. Advances in School Mental Health Promotion 2(1): 35-46	- Non-randomised study JJ
Brown, Joshua L.; Jones, Stephanie M.; Aber, J. Lawrence (2010) The Longitudinal Impact of a Universal School-Based Social-Emotional and Literacy Intervention on Classroom Climate and Teacher Processes and Practices.: 1-8	- Outcome data not presented/unusable
Brunwasser, Steven M; Freres, Derek R; Gillham, Jane E (2018) Youth Cognitive-Behavioral Depression Prevention: Testing Theory in a Randomized Controlled Trial. Cognitive therapy and research 42(4): 468-482	- Study conducted before 2007
Brunwasser, Steven M and Gillham, Jane E (2018) Identifying Moderators of Response to the Penn Resiliency Program: A Synthesis	- Study conducted before 2007

Study	Code [Reason]
Study. Prevention science : the official journal of the Society for Prevention Research 19(suppl1): 38-48	
Bunketorp Kall, Lina, Malmgren, Helge, Olsson, Erik et al. (2015) Effects of a Curricular Physical Activity Intervention on Children's School Performance, Wellness, and Brain Development. The Journal of school health 85(10): 704-13	- Study intervention is physical activity training
Burckhardt, Rowan, Manicavasagar, Vijaya, Batterham, Philip J et al. (2015) A Web-Based Adolescent Positive Psychology Program in Schools: Randomized Controlled Trial. Journal of medical Internet research 17(7): e187	- Outcome data not presented/unusable
Burn, Michele, Knight, Tess, Taylor, Lisa et al. (2019) Parents' perceptions of changes in family functioning after participation in a strengthening families intervention: A qualitative analysis. Children and Youth Services Review 100: 428-436	- Non UK based qualitative study
Buttigieg, Jason P, Shortt, Alison L, Slaviero, Tania M et al. (2015) A longitudinal evaluation of the Resilient Families randomized trial to prevent early adolescent depressive symptoms. Journal of adolescence 44: 204-13	- Study intervention not delivered as part of the lesson plan
Butzer, Bethany, LoRusso, Amanda Marie, Windsor, Regina et al. (2017) A Qualitative Examination of Yoga for Middle School Adolescents. Advances in school mental health promotion 10(3): 195-219	- Non UK based qualitative study
Caldarella, Paul, Larsen, Ross A., Williams, Leslie et al. (2018) Effects of CW-FIT on Teachers' Ratings of Elementary School Students at Risk for Emotional and Behavioral Disorders. Journal of Positive Behavior Interventions 20(2): 78-89	- Non UK based qualitative study
Caldwell, Deborah (2019) Effectiveness of school-based interventions to prevent anxiety & depression in young people. European Journal of Public Health 29(supplement4): ckz185-021	- Systematic review
Caldwell, Deborah M, Davies, Sarah R, Hetrick, Sarah E et al. (2019) School-based interventions to prevent anxiety and depression in children and young people: a systematic review and network meta-analysis. The lancet. Psychiatry 6(12): 1011-1020	- Systematic review
Caldwell, Deborah M, Davies, Sarah R, Thorn, Joanna et al. (2020) School-based interventions to prevent anxiety, depression and conduct disorders in children and young people: a	- Systematic review - Article unavailable

Study	Code [Reason]
systematic review, network meta-analysis and economic evaluation. Public Health Research	
Calear, A.L., Christensen, H., Mackinnon, A. et al. (2009) The YouthMood Project: A Cluster Randomized Controlled Trial of an Online Cognitive Behavioral Program With Adolescents. Journal of Consulting and Clinical Psychology 77(6): 1021-1032	- Study conducted before 2007
Calvarese, Giovanni (2020) A Mixed Methods Exploration of Academic Literacy Engagement and Social Emotional Learning with High School Students.	- Dissertation
Calvete, E, Fernandez-Gonzalez, L, Orue, I et al. (2019) The Effect of an Intervention Teaching Adolescents that People can Change on Depressive Symptoms, Cognitive Schemas, and Hypothalamic-Pituitary-Adrenal Axis Hormones. Journal of abnormal child psychology	- Outcome data not presented/unusable
Campion, Jonathan and Rocco, Sharn (2009) Minding the mind: The effects and potential of a school-based meditation programme for mental health promotion. Advances in School Mental Health Promotion 2(1): 47-55	- Non UK based qualitative study
Cappella, Elise, Hamre, Bridget K, Kim, Ha Yeon et al. (2012) Teacher consultation and coaching within mental health practice: classroom and child effects in urban elementary schools. Journal of consulting and clinical psychology 80(4): 597-610	- Study intervention is teacher training for classroom management
Caprara, Gian Vittorio, Kanacri, Bernadette Paula Luengo, Gerbino, Maria et al. (2014) Positive Effects of Promoting Prosocial Behavior in Early Adolescence: Evidence from a School-Based Intervention. International Journal of Behavioral Development 38(4): 386-396	- Non-randomised study
Cardemil, E.V., Reivich, K.J., Beevers, C.G. et al. (2007) The prevention of depressive symptoms in low-income, minority children: Two-year follow-up. Behaviour Research and Therapy 45(2): 313-327	- Study conducted before 2007
Carsley, Dana; Khoury, Bassam; Heath, Nancy L. (2018) Effectiveness of mindfulness interventions for mental health in schools: A comprehensive meta-analysis. Mindfulness 9(3): 693-707	- Systematic review
Cataldi, S., Francavilla, V.C., Bonavolonta, V. et al. (2021) Proposal for a fitness program in the school setting during the covid 19 pandemic: Effects of an 8-week crossfit program on psychophysical well-being in healthy adolescents. International Journal of	- Study intervention is physical activity training

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Study	Code [Reason]
Environmental Research and Public Health 18(6): 1-12	
Cavanagh, Kate, Strauss, Clara, Cicconi, Francesca et al. (2013) A randomised controlled trial of a brief online mindfulness-based intervention. Behaviour research and therapy 51(9): 573-8	- Study population outside scope of review
Cecchini, Jose A, Montero, Javier, Alonso, Alicia et al. (2007) Effects of personal and social responsibility on fair play in sports and self-control in school-aged youths. European Journal of Sport Science 7(4): 203-211	- Study intervention is not a universal intervention
Cefai, Carmel, Ferrario, Erika, Cavioni, Valeria et al. (2014) Circle Time for Social and Emotional Learning in Primary School. Pastoral Care in Education 32(2): 116-130	- Study conducted in a non-OECD country
Challen, Amy, Noden, Philip, West, Anne et al. (2009) UK resilience programme evaluation: interim report. DCSF Research Brief: 4	- Non-randomised study
Cheng, Yi-Ju and Ray, Dee C (2016) Child-centered group play therapy: Impact on social-emotional assets of kindergarten children. Journal for Specialists in Group Work 41(3): 209-237	- Population - subset
Chester, K.L., Klemera, E., Magnusson, J. et al. (2019) The role of school-based health education in adolescent spiritual moral, social and cultural development. Health Education Journal 78(5): 582-594	- Non-randomised study
Cilar, Leona, Stiglic, Gregor, Kmetec, Sergej et al. (2020) Effectiveness of school-based mental well-being interventions among adolescents: A systematic review. Journal of advanced nursing	- Systematic review
Cipriano, Christina, Barnes, Tia N., Rivers, Susan E. et al. (2019) Exploring Changes in Student Engagement through the Ruler Approach: An Examination of Students at Risk of Academic Failure. Journal of Education for Students Placed at Risk 24(1): 1-19	- Population - subset
Coker, Ann L, Bush, Heather M, Brancato, Candace J et al. (2019) Bystander Program Effectiveness to Reduce Violence Acceptance: RCT in High Schools. Journal of family violence 34(3): 153-164	- Study intervention is not a universal intervention
Coker, Ann L, Bush, Heather M, Cook-Craig, Patricia G et al. (2017) RCT Testing Bystander Effectiveness to Reduce Violence. American journal of preventive medicine 52(5): 566-578	- Study intervention is not a universal intervention
Cole, Rachel L., Treadwell, Susanne, Dosani, Sima et al. (2013) Evaluation of a Short-term, Cognitive-Behavioral Intervention for Primary	- Non-randomised study JJ

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Study	Code [Reason]
Age Children with Anger-Related Difficulties. School Psychology International 34(1): 82-100	
Conboy, LA, Noggle, JJ, Frey, JL et al. (2013) Qualitative evaluation of a high school yoga program: feasibility and perceived benefits. Explore (new york, N.Y.) 9(3): 171-180	- Non UK based qualitative study
Conduct Problems Prevention Research, Group (2010) The Difficulty of Maintaining Positive Intervention Effects: A Look at Disruptive Behavior, Deviant Peer Relations, and Social Skills During the Middle School Years. The Journal of early adolescence 30(4)	- Study conducted before 2007
Conroy, Maureen A., Sutherland, Kevin S., Algina, James et al. (2018) Prevention and Treatment of Problem Behaviors in Young Children: Clinical Implications from a Randomized Controlled Trial of BEST in CLASS. AERA Open 4(1): 1-16	- Study population outside scope of review
Cook, Clayton R., Fiat, Aria, Larson, Madeline et al. (2018) Positive Greetings at the Door: Evaluation of a Low-Cost, High-Yield Proactive Classroom Management Strategy. Journal of Positive Behavior Interventions 20(3): 149-159	- Study not concerned with social, emotional and metal wellbeing - Study intervention is teacher training for classroom management
Cook, CR, Frye, M, Slemrod, T et al. (2015) An integrated approach to universal prevention: independent and combined effects of PBIS and SEL on youths' mental health. School psychology quarterly 30(2): 166-183	- Outcome data not presented/unusable
Coombes, Lindsey, Chan, Gail, Allen, Debby et al. (2016) Mixed-methods evaluation of the good behaviour game in English primary schools. Journal of Community & Applied Social Psychology 26(5): 369-387	- Study intervention is teacher training for classroom management
Cooper, Mick, Stafford, Megan R, Saxon, David et al. (2021) Humanistic counselling plus pastoral care as usual versus pastoral care as usual for the treatment of psychological distress in adolescents in UK state schools (ETHOS): a randomised controlled trial. The Lancet. Child & adolescent health 5(3): 178-189	- Study population is selected
Corcoran, R. P., Cheung, A. C. K., Kim, E. et al. (2018) Effective universal school-based social and emotional learning programs for improving academic achievement: A systematic review and meta-analysis of 50 years of research. Educational Research Review 25: 56-72	- Systematic review
Cordier, Reinie, Speyer, Renee, Mahoney, Natasha et al. (2021) Effects of interventions for social anxiety and shyness in school-aged children: A systematic review and meta-analysis. PloS one 16(7): e0254117	- Systematic review

Study	Code [Reason]
Corepal, R., Best, P., O'Neill, R. et al. (2019) A feasibility study of 'The StepSmart Challenge' to promote physical activity in adolescents. Pilot and Feasibility Studies 5(1): 132	- Study intervention is physical activity training
Corrieri, Sandro, Heider, Dirk, Conrad, Ines et al. (2014) School-based prevention programs for depression and anxiety in adolescence: a systematic review. Health promotion international 29(3): 427-41	- Systematic review
Corsello, Maryann; Sharma, Anu; Jerabek, Angela (2015) Building Assets Reducing Risks: Academic Success for All Students through Positive Relationships and Use of Real-Time Data.: 1-10	- Outcome data not presented/unusable
Corteselli, K.A., Hollinsaid, N.L., Harmon, S.L. et al. (2020) School Counselor Perspectives on Implementing a Modular Treatment for Youth. Evidence-Based Practice in Child and Adolescent Mental Health: 1-17	- Non UK based qualitative study
Costigan, Sarah A, Eather, Narelle, Plotnikoff, Ronald C et al. (2016) High-Intensity Interval Training for Cognitive and Mental Health in Adolescents. Medicine and science in sports and exercise 48(10): 1985-93	- Study intervention is physical activity training
Crean, Hugh F and Johnson, Deborah B (2013) Promoting Alternative Thinking Strategies (PATHS) and elementary school aged children's aggression: results from a cluster randomized trial. American journal of community psychology 52(12): 56-72	- Study conducted before 2007
Curtis, Cheryl and Norgate, Roger (2007) An evaluation of the promoting alternative thinking strategies curriculum at key stage 1. Educational Psychology in Practice 23(1): 33-44	- Non-randomised study
Cutuli, J J, Gillham, Jane E, Chaplin, Tara M et al. (2013) Preventing adolescents' externalizing and internalizing symptoms: Effects of the Penn Resiliency Program. The international journal of emotional education 5(2): 67-79	- Study conducted before 2007
Daly, L.A., Haden, S.C., Hagins, M. et al. (2015) Yoga and emotion regulation in high school students: A randomized controlled trial. Evidence-based Complementary and Alternative Medicine 2015: 794928	- Study population is selected Not currculum based - focused on a subset of children meeting inclusion criteria
Dariotis, Jacinda K, Mirabal-Beltran, Roxanne, Cluxton-Keller, Fallon et al. (2017) A Qualitative Exploration of Implementation Factors in a School-Based Mindfulness and Yoga Program: Lessons Learned from Students and Teachers. Psychology in the schools 54(1): 53-69	- Non UK based qualitative study

Study	Code [Reason]
Dariotis, Jacinda K, Mirabal-Beltran, Roxanne, Cluxton-Keller, Fallon et al. (2016) A qualitative evaluation of student learning and skills use in a school-based mindfulness and yoga program. Mindfulness 7(1): 76-89	- Non UK based qualitative study JJ
David Oana, Alexandra, Costescu, Cristina, Cardos, Roxana et al. (2020) How Effective are Serious Games for Promoting Mental Health and Health Behavioral Change in Children and Adolescents? A Systematic Review and Meta-analysis. Child & Youth Care Forum 49(6): 817-838	- Systematic review
Davidson, B.C., Davis, E., Cadenas, H. et al. (2020) Universal Teacher-Child Interaction Training in Early Special Education: A Pilot Cluster-Randomized Control Trial. Behavior Therapy	- Study intervention is teacher training for classroom management
De La Rue, Lisa, Polanin, Joshua R, Espelage, Dorothy L et al. (2017) A meta-analysis of school-based interventions aimed to prevent or reduce violence in teen dating relationships. Review of Educational Research 87(1): 7-34	- Systematic review
Dean, Michelle and Chang, Ya-Chih (2021) A systematic review of school-based social skills interventions and observed social outcomes for students with autism spectrum disorder in inclusive settings. Autism: 13623613211012886	- Article unavailable
DeLay, D, Ha, T, Van Ryzin, M et al. (2016) Changing Friend Selection in Middle School: a Social Network Analysis of a Randomized Intervention Study Designed to Prevent Adolescent Problem Behavior. Prevention science 17(3): 285-294	- Study not concerned with social, emotional and metal wellbeing
DeRosier, Melissa E and Mercer, Sterett H (2007) Improving student social behavior: The effectiveness of a story telling-based character education program. Journal of Research in Character Education 5(2): 131-148	- Study conducted before 2007
Dijkman, Marieke A M, Harting, Janneke, van Tol, Lenneke et al. (2017) Sustainability of the good behaviour game in Dutch primary schools. Health promotion international 32(1): 79-90	- Non-randomised study
Direktor, Cemaliye (2019) A trial of a school-based cognitive behaviour program for anxiety on 4th generation immigrants. Anales de Psicologia 35(3): 417-423	- Study conducted in a non-OECD country
Domitrovich, C. E.; Cortes, R. C.; Greenberg, M. T. (2007) Improving young children's social and emotional competence: a randomized trial of the preschool "PATHS" curriculum. Journal of primary prevention 28(2): 67-91	- Study population outside scope of review

Study	Code [Reason]
Doucet, M.-H.; Farella Guzzo, M.; Groleau, D. (2018) Brief report: A qualitative evidence synthesis of the psychological processes of school-based expressive writing interventions with adolescents. Journal of Adolescence 69: 113-117	- Non UK based qualitative study
Dowling, K. and Barry, M.M. (2020) Evaluating the implementation quality of a social and emotional learning program: A mixed methods approach. International Journal of Environmental Research and Public Health 17(9): 3249	- Outcome data not presented/unusable
Dray, Julia, Bowman, Jenny, Campbell, Elizabeth et al. (2017) Effectiveness of a pragmatic school-based universal intervention targeting student resilience protective factors in reducing mental health problems in adolescents. Journal of adolescence 57: 74-89	- Not universal curriculum - Whole-school approach
Duncan, Robert, Washburn, Isaac J., Lewis, Kendra M. et al. (2017) Can Universal SEL Programs Benefit Universally? Effects of the Positive Action Program on Multiple Trajectories of Social-Emotional and Misconduct Behaviors. Prevention science : the official journal of the Society for Prevention Research 18(2): 214-224	- Not universal curriculum - Whole-school approach
Dymnicki, Allison B.; Weissberg, Roger P.; Henry, David B. (2011) Understanding How Programs Work to Prevent Overt Aggressive Behaviors: A Meta-Analysis of Mediators of Elementary School-Based Programs. Journal of School Violence 10(4): 315-337	- Non systematic review JJ - Exclusion criteria doesn't refer to RCTs only. On review of the include list their appears to be non-RCTs
Eacott, Chelsea and Frydenberg, Erica (2008) At-risk students in a rural context: Benefits and gains from a coping skills program. Australian Journal of Guidance and Counselling 18(2): 160-181	- Non-randomised study
Eames, Vicky; Shippen, Catherine; Sharp, Helen (2016) The Team of Life: A narrative approach to building resilience in UK school children. Educational and Child Psychology 33(2): 57-68	- Study population is selected JJ - targeted approach focused on transition into secondary; doesn't appear to be aprt of a curriculum per se
Eather, Narelle; Morgan, Philip J; Lubans, David R (2016) Effects of exercise on mental health outcomes in adolescents: Findings from the CrossFitTM teens randomized controlled trial. Psychology of Sport and Exercise 26: 14-23	- Study intervention is physical activity training
Eden, Sigal; Heiman, Tali; Olenik-Shemesh, Dorit (2013) Teachers' perceptions, beliefs and concerns about cyberbullying. British Journal of Educational Technology 44(6): 1036-1052	- Non UK based qualitative study
Edwards, Carolyn Pope, Hart, Tara, Rasmussen, Kelly et al. (2009) Promoting parent partnership in Head Start: A qualitative case	- Non UK based qualitative study

Study	Code [Reason]
study of teacher documents from a school readiness intervention project. Early Childhood Services: An Interdisciplinary Journal of Effectiveness 3(4): 301-322	
Einfeld, Stewart L, Beaumont, Renae, Clark, Trevor et al. (2018) School-based social skills training for young people with autism spectrum disorders. Journal of Intellectual and Developmental Disability 43(1): 29-39	- Non-randomised study
Elder, Charles, Nidich, Sanford, Colbert, Robert et al. (2011) Reduced Psychological Distress in Racial and Ethnic Minority Students Practicing the Transcendental Meditation Program. Journal of Instructional Psychology 38(2): 109-116	- Non-randomised study
Eppelmann, L, Parzer, P, Lenzen, C et al. (2018) Cluster-randomized, controlled evaluation of stress management training for high school students. Zeitschrift fur Kinder- und Jugendpsychiatrie und Psychotherapie 46(6): 497-504	- Non-English language publication
Essau, Cecilia A, Conradt, Judith, Sasagawa, Satoko et al. (2012) Prevention of anxiety symptoms in children: results from a universal school-based trial. Behavior therapy 43(2): 450-64	- Ordered but not received
Etherington, V Costello, S (2019) Comparing Universal and Targeted Delivery of a Mindfulness-Based Program for Anxiety in Children. JOURNAL OF PSYCHOLOGISTS AND COUNSELLORS IN SCHOOLS 29(1): 22-38	- Study design: No control group
Evers, Kerry E., Prochaska, James O., Van Marter, Deborah F. et al. (2007) Transtheoretical-Based Bullying Prevention Effectiveness Trials in Middle Schools and High Schools. Educational Research 49(4): 397-414	- Non-randomised study
Fadus, Matthew C and Harrison, Joseph D (2019) A Missed Opportunity: Universal School-Based Mental Health Literacy Programs. Academic psychiatry : the journal of the American Association of Directors of Psychiatric Residency Training and the Association for Academic Psychiatry 43(4): 457-460	- Non systematic review
Farahmand, Farahnaz K., Grant, Kathryn E., Polo, Antonio J. et al. (2011) School-Based Mental Health and Behavioral Programs for Low-Income, Urban Youth: A Systematic and Meta-Analytic Review. Clinical Psychology: Science and Practice 18(4): 372-390	- Systematic review
Fawson, Peter R, Broce, Robert, Bonner, Brittany et al. (2016) Adolescents' experiences: Programming implications for in-school violence	- Non UK based qualitative study

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Study	Code [Reason]
prevention programs. School Social Work Journal 41(1): 1-16	
Fenwick-Smith, Amanda; Dahlberg, Emma E.; Thompson, Sandra C. (2018) Systematic review of resilience-enhancing, universal, primary school-based mental health promotion programs. BMC psychology 6(1): 30	- Non systematic review Includes non-RCT
Fernandez-Rio, Javier, Sanz, Naira, Fernandez-Cando, Judith et al. (2017) Impact of a Sustained Cooperative Learning Intervention on Student Motivation. Physical Education and Sport Pedagogy 22(1): 89-105	- Non-randomised study
Finning, Katie, Melendez-Torres, G.J., White, Jemma et al. (2021) Longer-term effects of school-based counselling in UK primary schools. European Child and Adolescent Psychiatry	- Non-randomised study
Flook, Lisa, Smalley, Susan L, Kitil, M. Jennifer et al. (2010) Effects of mindful awareness practices on executive functions in elementary school children. Journal of Applied School Psychology 26(1): 70-95	- Outcome data not presented/unusable
Ford, T, Hayes, R, Byford, S et al. (2019) The effectiveness and cost-effectiveness of the Incredible Years? Teacher Classroom Management programme in primary school children: results of the STARS cluster randomised controlled trial. Psychological medicine 49(5): 828-842	- Study intervention is teacher training for classroom management
Ford, Tamsin, Hayes, Rachel, Byford, Sarah et al. (2019) Training teachers in classroom management to improve mental health in primary school children: the STARS cluster RCT. Public Health Research 7(6)	- Study intervention is teacher training for classroom management
Formby, Eleanor and Wolstenholme, Claire (2012) "If There's Going to Be a Subject that You Don't Have to Do..." Findings from a Mapping Study of PSHE Education in English Secondary Schools. Pastoral Care in Education 30(1): 5-18	- Study intervention is usual practice
Fosco, Gregory M, Van Ryzin, Mark J, Connell, Arin M et al. (2016) Preventing adolescent depression with the family check-up: Examining family conflict as a mechanism of change. Journal of family psychology : JFP : journal of the Division of Family Psychology of the American Psychological Association (Division 43) 30(1): 82-92	- Not universal curriculum - Whole-school approach JJ
Frank, Jennifer L., Kohler, Kimberly, Peal, Adam et al. (2017) Effectiveness of a school-based yoga program on adolescent mental health and school performance: Findings from a	- Outcome data not presented/unusable

Study	Code [Reason]
randomized controlled trial. Mindfulness 8(3): 544-553	
Freire, Teresa, Lima, Isabel, Teixeira, Ana et al. (2018) Challenge: To be+. A group intervention program to promote the positive development of adolescents. Children and Youth Services Review 87: 173-185	- Non-randomised study
Frey, Karin S., Hirschstein, Miriam K., Edstrom, Leihua V. et al. (2009) Observed Reductions in School Bullying, Nonbullying Aggression, and Destructive Bystander Behavior: A Longitudinal Evaluation. Journal of Educational Psychology 101(2): 466-481	- Study conducted before 2007
Fridrici, Mirko and Lohaus, Arnold (2009) Stress-prevention in secondary schools: Online-versus face-to-face-training. Health Education 109(4): 299-313	- Study conducted before 2007
Furlong, Mairead and McGilloway, Sinead (2012) The Incredible Years parenting program in Ireland: a qualitative analysis of the experience of disadvantaged parents. Clinical child psychology and psychiatry 17(4): 616-30	- Study population outside scope of review
Gallegos-Guajardo, Julia, Ruvalcaba-Romero, Norma Alicia, Garza-Tamez, Martha et al. (2013) Social Validity Evaluation of the FRIENDS for Life Program with Mexican Children. Journal of Education and Training Studies 1(1): 158-169	- Non-randomised study
Garaigordobil, Maite and Martinez-Valderrey, Vanesa (2016) Impact of Cyberprogram 2.0 on Different Types of School Violence and Aggressiveness. Frontiers in psychology 7: 428	- Study intervention is not a universal intervention
Garaigordobil, Maite and Martinez-Valderrey, Vanesa (2018) Technological Resources to Prevent Cyberbullying During Adolescence: The Cyberprogram 2.0 Program and the Cooperative Cybereduca 2.0 Videogame. Frontiers in psychology 9: 745	- Non UK based qualitative study
Garbacz, SA, McIntyre, LL, Stormshak, EA et al. (2020) The Efficacy of the Family Check-Up on Children's Emotional and Behavior Problems in Early Elementary School. Journal of emotional and behavioral disorders 28(2): 67-79	- Outcome data not presented/unusable
Garcia, C, Pintor, Jessie, Vazquez, Gabriela et al. (2013) Project Wings, a coping intervention for Latina adolescents: a pilot study. Western journal of nursing research 35(4): 434-58	- Study intervention is not a universal intervention
Garmy, Pernilla; Berg, Agneta; Clausson, Eva K (2015) A qualitative study exploring adolescents' experiences with a school-based mental health program. BMC public health 15: 1074	- Non UK based qualitative study

Study	Code [Reason]
Gillham, JE, Reivich, KJ, Brunwasser, SM et al. (2012) Evaluation of a group cognitive-behavioral depression prevention program for young adolescents: a randomized effectiveness trial. Journal of clinical child and adolescent psychology 41(5): 621-639	- Study population is selected
Gillham, JE, Reivich, KJ, Freres, DR et al. (2007) School-based prevention of depressive symptoms: a randomized controlled study of the effectiveness and specificity of the Penn Resiliency Program. Journal of consulting and clinical psychology 75(1): 9-19	- Study conducted before 2007
Gokkaya, F. and Sutcu, S. T. (2018) Developing A Cognitive Behavioral Intervention Program to Reduce Bully Tendencies in Primary School Children and The Program Effectiveness. Egitim Ve Bilim-Education and Science 43(193): 91-108	- Non-randomised study
Gollwitzer, Mario, Banse, Rainer, Eisenbach, Katrin et al. (2007) Effectiveness of the Vienna Social Competence Training on explicit and implicit aggression: Evidence from an Aggressiveness-IAT. European Journal of Psychological Assessment 23(3): 150-156	- Study conducted before 2007
Gomes, A. Rui and Marques, Brazelina (2013) Life skills in educational contexts: Testing the effects of an intervention programme. Educational Studies 39(2): 156-166	- Study intervention is not a universal intervention
Goncalves, M.; Moleiro, C.; Cook, B. (2015) The use of a video to reduce mental health stigma among adolescents. Adolescent Psychiatry 5(3): 204-211	- Outcome data not presented/unusable
Goncy, Elizabeth A, Sutherland, Kevin S, Farrell, Albert D et al. (2015) Measuring teacher implementation in delivery of a bullying prevention program: the impact of instructional and procedural adherence and competence on student responsiveness. Prevention science : the official journal of the Society for Prevention Research 16(3): 440-50	- Study conducted before 2007
Gordon, Janet; Downey, Jayne; Bangert, Art (2013) Effects of a school-based mentoring program on school behavior and measures of adolescent connectedness. The School Community Journal 23(2): 227-248	- Non-randomised study
Gould, Laura Feagans, Dariotis, Jacinda K, Mendelson, Tamar et al. (2012) A school-based mindfulness intervention for urban youth: Exploring moderators of intervention effects. Journal of Community Psychology 40(8): 968-982	- Outcome data not presented/unusable

Study	Code [Reason]
Gradinger, Petra, Yanagida, Takuya, Strohmeier, Dagmar et al. (2016) Effectiveness and sustainability of the ViSC Social Competence Program to prevent cyberbullying and cyber-victimization: Class and individual level moderators. Aggressive behavior 42(2): 181-93	- Not universal curriculum - Whole-school approach
Grazzani, Ilaria; Ornaghi, Veronica; Crugnola, Cristina Riva (2015) Emotion comprehension and attachment: A conversational intervention with school-aged children. European Review of Applied Psychology / Revue Europeenne de Psychologie Appliquee 65(6): 267-274	- Study intervention is not a universal intervention
Green, Vanessa A, Johnston, Michael, Mattioni, Loreto et al. (2017) Who is responsible for addressing cyberbullying? Perspectives from teachers and senior managers. International Journal of School & Educational Psychology 5(2): 100-114	- Non UK based qualitative study
Haden, S. C.; Daly, L.; Hagins, M. (2014) A randomised controlled trial comparing the impact of yoga and physical education on the emotional and behavioural functioning of middle school children. Focus on alternative and complementary therapies 19(3): 148-155	- Study intervention is not a universal intervention
Haraldsson, Katarina S, Lindgren, Eva-Carin M, Fridlund, Bengt G A et al. (2008) Evaluation of a school-based health promotion programme for adolescents aged 12-15 years with focus on well-being related to stress. Public health 122(1): 25-33	- Non-randomised study
Hart, Shelley R., Domitrovich, Celene, Embry, Dennis D. et al. (2021) The Effects of Two Elementary School-Based Universal Preventive Interventions on Special Education Students' Socioemotional Outcomes. Remedial and Special Education 42(1): 31-43	- Study design: secondary analysis
Hatamizadeh, Nikta, Adibsereshki, Narges, Kazemnejad, Anoshirvan et al. (2020) Randomized trial of a resilience intervention on resilience, behavioral strengths and difficulties of mainstreamed adolescent students with hearing loss. International journal of pediatric otorhinolaryngology 128: 109722	- Study conducted in a non-OECD country
Healy, S.R., Valente, J.Y., Caetano, S.C. et al. (2020) Worldwide school-based psychosocial interventions and their effect on aggression among elementary school children: A systematic review 2010-2019. Aggression and Violent Behavior 55: 101486	- Study not concerned with social, emotional and metal wellbeing
Hennessey, Alexandra and Humphrey, Neil (2020) Can Social and Emotional Learning	- Outcome data not presented/unusable

Study	Code [Reason]
Improve Children's Academic Progress? Findings from a Randomised Controlled Trial of the Promoting Alternative Thinking Strategies (PATHS) Curriculum. European Journal of Psychology of Education 35(4): 751-774	
Hickey, Grainne, McGilloway, Sinead, Hyland, Lynda et al. (2017) Exploring the Effects of a Universal Classroom Management Training Programme on Teacher and Child Behaviour: A Group Randomised Controlled Trial and Cost Analysis. Journal of Early Childhood Research 15(2): 174-194	- Study intervention is teacher training for classroom management
Hinojosa, T., Bos, J., O'Brien, B. et al. (2016) Starting Strong: A Randomized Controlled Trial of the Building Assets Reducing Risks (BARR) Model in 9th Grade.: 1-8	- Ordered but not received
Hodder, R. K., Freund, M., Bowman, J. et al. (2018) Differential intervention effectiveness of a universal school-based resilience intervention in reducing adolescent substance use within student subgroups: exploratory assessment within a cluster-randomised controlled trial. BMJ open 8(8)	- Study not concerned with social, emotional and metal wellbeing
Holsen, Ingrid; Smith, Brian H; Frey, Karin S (2008) Outcomes of the social competence program Second Step in Norwegian elementary schools. School Psychology International 29(1): 71-88	- Non-randomised study
Horowitz, Jason L, Garber, Judy, Ciesla, Jeffrey A et al. (2007) Prevention of depressive symptoms in adolescents: a randomized trial of cognitive-behavioral and interpersonal prevention programs. Journal of consulting and clinical psychology 75(5): 693-706	- Study conducted before 2007
Houlston, Catherine and Smith, Peter K (2009) The impact of a peer counselling scheme to address bullying in an all-girl London secondary school: a short-term longitudinal study. The British journal of educational psychology 79(pt1): 69-86	- Study intervention is not a universal intervention
Humphries, Marisha L; Williams, Brittney V; May, Tanginia (2018) Early childhood teachers' perspectives on social-emotional competence and learning in urban classrooms. Journal of Applied School Psychology 34(2): 157-179	- Non UK based qualitative study
Hunter, Leah J, DiPerna, James C, Cheng, Weiyi et al. (2020) Twice as Nice? Sustained Exposure to a Universal Social?Emotional Learning Program Across Multiple Grades. School Mental Health: 1-17	- Study design: secondary analysis

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Study	Code [Reason]
Hutchings, Judy, Bywater, Tracey, Gridley, Nicole et al. (2012) The Incredible Years Therapeutic Social and Emotional Skills Programme: A Pilot Study. School Psychology International 33(3): 285-293	- Study intervention is teacher training for classroom management
Ingram, K.M., Espelage, D.L., Merrin, G.J. et al. (2019) Evaluation of a virtual reality enhanced bullying prevention curriculum pilot trial. Journal of Adolescence 71: 72-83	- Outcome data not presented/unusable
Jagers, Robert J, Morgan-Lopez, Antonio A, Howard, Terry-Lee et al. (2007) Mediators of the development and prevention of violent behavior. Prevention science : the official journal of the Society for Prevention Research 8(3): 171-9	- Study conducted before 2007
James, Karen (2020) Remote mental health interventions for young people: A rapid review of the evidence.: 21	- Article unavailable
Jayman, Michelle, Ohl, Maddie, Hughes, Bronach et al. (2019) Improving socio-emotional health for pupils in early secondary education with Pyramid: A school-based, early intervention model. The British journal of educational psychology 89(1): 111-130	- Study intervention not included in effectiveness review
Jenson, Jeffrey M., Dieterich, William A., Brisson, Daniel et al. (2010) Preventing Childhood Bullying: Findings and Lessons from the Denver Public Schools Trial. Research on Social Work Practice 20(5): 509-517	- Study conducted before 2007
Jenson, JM and Dieterich, WA (2007) Effects of a skills-based prevention program on bullying and bully victimization among elementary school children. Prevention science 8(4): 285-296	- Study conducted before 2007
Johnstone, Kristy M; Kemps, Eva; Chen, Junwen (2018) A Meta-Analysis of Universal School-Based Prevention Programs for Anxiety and Depression in Children. Clinical child and family psychology review 21(4): 466-481	- Systematic review
Jones SM, Brown JL, Hoglund WL et al. (2010) A school-randomized clinical trial of an integrated social-emotional learning and literacy intervention: impacts after 1 school year. Journal of consulting and clinical psychology 78(6): 829-842	- Study conducted before 2007
Jones, Stephanie M; Brown, Joshua L; Lawrence Aber, J (2011) Two-year impacts of a universal school-based social-emotional and literacy intervention: an experiment in translational developmental research. Child development 82(2): 533-54	- Study conducted before 2007
Jorm, Anthony F, Kitchener, Betty A, Sawyer, Michael G et al. (2010) Mental health first aid	- Study intervention is teacher training for classroom management

Study	Code [Reason]
training for high school teachers: a cluster randomized trial. BMC psychiatry 10: 51	
Jurecska, Diomaris E; Hamilton, Elizabeth B; Peterson, Mary A (2011) Effectiveness of the coping power program in middle-school children with disruptive behaviours and hyperactivity difficulties. Support for Learning 26(4): 168-172	- Study not concerned with social, emotional and metal wellbeing
Kamps, Debra, Wills, Howard, Dawson-Bannister, Harriett et al. (2015) Class-wide function-related intervention teams "CW-FIT" efficacy trial outcomes. Journal of Positive Behavior Interventions 17(3): 134-145	- Study intervention is teacher training for classroom management
Kanagy-Borofka, Lori (2014) Integrating mindfulness practices into the elementary curriculum to improve attention-to-task behaviors and social relations. Dissertation Abstracts International: Section B: The Sciences and Engineering 74(10be): no-specified	- Dissertation
Kato, Sumie and Shimizu, Eiji (2017) A pilot study on the effectiveness of a school-based cognitive-behavioral anxiety intervention for 8- and 9-year-old children: A controlled trial in Japan. Mental Health and Prevention 8: 32-38	- Non-randomised study
Kellam, S.G., Brown, C.H., Poduska, J.M. et al. (2008) Effects of a universal classroom behavior management program in first and second grades on young adult behavioral, psychiatric, and social outcomes. Drug and Alcohol Dependence 95(suppl1): 5-s28	- Study conducted before 2007
Kellam, Sheppard G.; Reid, John; Balster, Robert L. (2008) Effects of a universal classroom behavior program in first and second grades on young adult problem outcomes. Drug and alcohol dependence 95suppl1: 1-4	- Overview
Kelly, Stephanie A, Oswalt, Krista, Melnyk, Bernadette Mazurek et al. (2015) Comparison of intervention fidelity between COPE TEEN and an attention-control program in a randomized controlled trial. Health education research 30(2): 233-47	- Study had an active control group
Kennedy, Elizabeth Anne (2020) The Perceptions of Educators and Students Towards a Program in Social Emotional Learning.	- Article unavailable
Kenny, Rachel, Fitzgerald, Amanda, Segurado, Ricardo et al. (2020) Is there an app for that? A cluster randomised controlled trial of a mobile app-based mental health intervention. Health informatics journal 26(3): 1538-1559	- Intervention not a formal programme
Kenwright, Debbie; McLaughlin, Tara; Hansen, Sally (2021) Teachers? perspectives about mindfulness programmes in primary schools to	- Non UK based qualitative study

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Study	Code [Reason]
support wellbeing and positive behaviour. International Journal of Inclusive Education: 1-16	
King, J.A., Cabarkapa, S., Leow, F.H.P. et al. (2020) Addressing international student mental health during COVID-19: an imperative overdue. Australasian Psychiatry 28(4): 469	- Overview
King, Thomas and Fazel, Mina (2021) Examining the mental health outcomes of school-based peer-led interventions on young people: A scoping review of range and a systematic review of effectiveness. PLoS ONE 16(4april): e0249553	- Systematic review
Klein, Gudrun; Gasteiger-Klicpera, Barbara; Schillinger, Marcia (2009) Prevention of aggressive behavior in elementary schools: Gender-related effects of a peer mediation program. European Journal of Developmental Science 3(3): 304-311	- Study not concerned with social, emotional and metal wellbeing
Kliewer, Wendy, Lepore, Stephen J, Farrell, Albert D et al. (2011) A school-based expressive writing intervention for at-risk urban adolescents' aggressive behavior and emotional lability. Journal of clinical child and adolescent psychology : the official journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53 40(5): 693-705	- Outcome data not presented/unusable
Klim-Conforti, P., Zaheer, R., Levitt, A.J. et al. (2021) The Impact of a Harry Potter-Based Cognitive-Behavioral Therapy Skills Curriculum on Suicidality and Well-being in Middle Schoolers: A Randomized Controlled Trial. Journal of Affective Disorders 286: 134-141	- Study design – teachers expressed intervention preference before randomisation
Knowles, Catherine and Parsons, Carl (2009) Evaluating a Formalised Peer Mentoring Programme: Student Voice and Impact Audit. Pastoral Care in Education 27(3): 205-218	- Non-randomised study
Kosters, Mia P, Chinapaw, Mai J M, Zwaanswijk, Marieke et al. (2015) Indicated Prevention of Childhood Anxiety and Depression: Results From a Practice-Based Study up to 12 Months After Intervention. American journal of public health 105(10): 2005-13	- Non-randomised study
Kozina, Ana (2018) Can the "My FRIENDS" anxiety prevention programme also be used to prevent aggression? A six-month follow-up in a school. School Mental Health: A Multidisciplinary Research and Practice Journal 10(4): 500-509	- Ordered but not received
Kozina, Ana (2020) Can FRIENDS for Life social-emotional learning programme be used for preventing anxiety and aggression in a	- Outcome data not presented/unusable

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Social, emotional, and mental wellbeing in primary and secondary education:
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Study	Code [Reason]
school environment: 6 months, 1-year and 1-and-a-half-year follow-up. European Journal of Developmental Psychology: 1-16	
Kraag, Gerda, Van Breukelen, Gerard J P, Kok, Gerjo et al. (2009) 'Learn Young, Learn Fair', a stress management program for fifth and sixth graders: longitudinal results from an experimental study. Journal of child psychology and psychiatry, and allied disciplines 50(9): 1185-95	- Study conducted before 2007
Krahe, Barbara and Busching, Robert (2015) Breaking the vicious cycle of media violence use and aggression: A test of intervention effects over 30 months. Psychology of Violence 5(2): 217-226	- Study intervention is to reduce media violence use
Krause, Natasha; Blackwell, Laura; Claridge, Simon (2020) An Exploration of the Impact of the Emotional Literacy Support Assistant (ELSA) Programme on Wellbeing from the Perspective of Pupils. Educational Psychology in Practice 36(1): 17-31	- Qualitative study not addressing acceptibility, barriers or facilitators
Kuosmanen T; Fleming TM; Barry MM (2018) Using Computerized Mental Health Programs in Alternative Education: Understanding the Requirements of Students and Staff. Health communication 33(6): 753-761	- Non-randomised study
KUOSMANEN, Tuuli; CLARKE Aleisha, M.; BARRY Margaret, M. (2019) Promoting adolescents' mental health and wellbeing: evidence synthesis. Journal of Public Mental Health 18(1): 73-83	- Non systematic review JJ
Kurki, Anja, Wang, Wei, Li, Yibing et al. (2013) Measurement of Child Behavior via Classroom Observations in the Good Behavior Game Professional Development Models Randomized Control Trial.: 1-10	- Outcome data not presented/unusable
Kvalo, SE and Natlandsmyr, IK (2020) The effect of physical-activity intervention on children's health-related quality of life. Scandinavian journal of public health: 1403494820971493	- Study not concerned with social, emotional and metal wellbeing
Lam, Ching-Man (2009) Key successful features of Tier 1 program of project P.A.T.H.S: A case study of a school admitting students with low academic achievement. International Journal of Child and Adolescent Health 2(4): 487-496	- Non-randomised study
Lappalainen, R, Lappalainen, P, Puolakanaho, A et al. (2021) The Youth Compass - the effectiveness of an online acceptance and commitment therapy program to promote adolescent mental health: A randomized	- Study intervention not delivered as part of the lesson plan

Study	Code [Reason]
controlled trial. Journal of Contextual Behavioral Science 20: 1-12	
Law, Ben M. F and Shek, Daniel T. L (2011) Process evaluation of a positive youth development program: Project P.A.T.H.S. Research on Social Work Practice 21(5): 539-548	- Study conducted in a non-OECD country
Leadbeater, Bonnie J, Gladstone, Emilie, Yeung Thompson, Rachel S et al. (2012) Getting started: Assimilatory processes of uptake of mental health promotion and primary prevention programmes in elementary schools. Advances in School Mental Health Promotion 5(4): 258-276	- Non UK based qualitative study
Leahy, D. and McNicholas, F. (2021) Systematic review of effectiveness and satisfaction evaluation in child and adolescent mental health services in Ireland. Irish Journal of Psychological Medicine	- Systematic review
Lee R L., T, Lane, S, Brown, G et al. (2020) Systematic review of the impact of unstructured play interventions to improve young children's physical, social, and emotional wellbeing. Nursing & Health Sciences 22: 184-196	- Systematic review
Lee, Meng-Jung, Wu, Wen-Chi, Chang, Hung-Chieh et al. (2020) Effectiveness of a school-based life skills program on emotional regulation and depression among elementary school students: A randomized study. Children and Youth Services Review: 105464	- Study conducted in a non-OECD country
Leflot, Geertje, van Lier, Pol A. C., Onghena, Patrick et al. (2013) The role of children's on-task behavior in the prevention of aggressive behavior development and peer rejection: a randomized controlled study of the Good Behavior Game in Belgian elementary classrooms. Journal of school psychology 51(2): 187-99	- Study intervention is teacher training for classroom management
Lewis-Smith, Iona, Pass, Laura, Jones, Dan J W et al. (2021) "... if I care about stuff, then other people care about me". Adolescents' experiences of helpful and unhelpful aspects of brief behavioural activation therapy for depression. Psychotherapy research : journal of the Society for Psychotherapy Research: 1-12	- Study population is selected
Li, Kin-Kit, Washburn, Isaac, DuBois, David L et al. (2011) Effects of the Positive Action programme on problem behaviours in elementary school students: a matched-pair randomised control trial in Chicago. Psychology & health 26(2): 187-204	- Study conducted before 2007

Study	Code [Reason]
Lillevoll, Kjersti R, Vangberg, Hans Christian B, Griffiths, Kathleen M et al. (2014) Uptake and adherence of a self-directed internet-based mental health intervention with tailored e-mail reminders in senior high schools in Norway. BMC psychiatry 14: 14	- Study intervention not delivered as part of the lesson plan
Lin, Mei-Ling, Nasser, Alyse, Molina, Cayla et al. (2020) Mental-Health Benefits of a Mindfulness-Based Prevention Program on Elementary Schoolchildren. American Journal of Occupational Therapy 74(4supplement1): 7411515385p1-7411515385p1	- Study design: No control group
Lindblad, F.; Hogmark, A.; Theorell, T. (2007) Music intervention for 5th and 6th grader - Effects on development and cortisol secretion. Stress and Health 23(1): 9-14	- Study conducted before 2007
Lindo, Natalya A, Taylor, Dalena Dillman, Meany-Walen, Kristin K et al. (2014) Teachers as therapeutic agents: Perceptions of a school-based mental health initiative. British Journal of Guidance & Counselling 42(3): 284-296	- Non UK based qualitative study
Loevaas, M.E.S., Lydersen, S., Sund, A.M. et al. (2020) A 12-month follow-up of a transdiagnostic indicated prevention of internalizing symptoms in school-aged children: The results from the EMOTION study. Child and Adolescent Psychiatry and Mental Health 14(1): 15	- Study population is selected
Long, Anna C. J.; Renshaw, Tyler L.; Camarota, Devon (2018) Classroom Management in an Urban, Alternative School: A Comparison of Mindfulness and Behavioral Approaches. Contemporary School Psychology 22(3): 233-248	- Not universal curriculum - Whole-school approach
Lopata, Christopher, Thomeer, Marcus L, Rodgers, Jonathan D et al. (2018) Cluster Randomized Trial of a School Intervention for Children with Autism Spectrum Disorder. Journal of clinical child and adolescent psychology : the official journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53: 1-12	- Study intervention is not a universal intervention
Lord P, Dirie A, Kettlewell K SB (2021) Evaluation of philosophy for children: An effectiveness trial.	- Not universal curriculum - Whole-school approach
Low, S, Van Ryzin, MJ, Brown, EC et al. (2014) Engagement matters: lessons from assessing classroom implementation of steps to respect: a bullying prevention program over a one-year period. Prevention science 15(2): 165-176	- Not universal curriculum - Whole-school approach
Lowe, Catherine and Wuthrich, Viviana M (2021) Randomised Controlled Trial of Study Without	- Outcome data not presented/unusable

Study	Code [Reason]
Stress: A Cognitive Behavioural Therapy Program to Reduce Stress in Students in the Final Year of High School. Child psychiatry and human development 52(2): 205-216	
Lubans, David R, Smith, Jordan J, Morgan, Philip J et al. (2016) Mediators of Psychological Well-being in Adolescent Boys. The Journal of adolescent health : official publication of the Society for Adolescent Medicine 58(2): 230-6	- Study not concerned with social, emotional and metal wellbeing
Lum, John D. K., Radley, Keith C., Tingstrom, Daniel H. et al. (2019) Tootling with a Randomized Independent Group Contingency to Improve High School Classwide Behavior. Journal of Positive Behavior Interventions 21(2): 93-105	- Non-randomised study
Ma, L., Zhang, Y., Huang, C. et al. (2020) Resilience-oriented cognitive behavioral interventions for depressive symptoms in children and adolescents: A meta-analytic review. Journal of Affective Disorders 270: 150-164	- Systematic review
Mackenzie, Karen and Williams, Christopher (2018) Universal, school-based interventions to promote mental and emotional well-being: what is being done in the UK and does it work? A systematic review. BMJ open 8(9): e022560	- Systematic review
Madden, Wendy; Green, Suzy; Grant, Anthony M (2011) A pilot study evaluating strengths-based coaching for primary school students: Enhancing engagement and hope. International Coaching Psychology Review 6(1): 71-83	- Non-randomised study
Madsen, Mads, Elbe, Anne-Marie, Madsen, Esben Elholm et al. (2020) The "11 for Health in Denmark" intervention in 10- to 12-year-old Danish girls and boys and its effects on well-being-A large-scale cluster RCT. Scandinavian journal of medicine & science in sports 30(9): 1787-1795	- Study intervention is physical activity training
Magalhaes, C. and Carraca, B. (2020) An online school-based prevention programme targeting substance use, depression, and anxiety in adolescence: improving impact and accessibility. The Lancet Digital Health 2(2): e52-e53	- Study had an active control group
Malboeuf-Hurtubise, C., Leger-Goodes, T., Mageau, G.A. et al. (2021) Online art therapy in elementary schools during COVID-19: results from a randomized cluster pilot and feasibility study and impact on mental health. Child and Adolescent Psychiatry and Mental Health 15(1): 15	- Study had an active control group
Malboeuf-Hurtubise, Catherine, Leger-Goodes, Terra, Mageau, Genevieve A et al. (2021)	- Study design: No control group

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Study	Code [Reason]
Philosophy for children and mindfulness during COVID-19: Results from a randomized cluster trial and impact on mental health in elementary school students. Progress in neuro-psychopharmacology & biological psychiatry 107: 110260	
Malboeuf-Hurtubise, Catherine; Taylor, Genevieve; Mageau, Genevieve A (2019) Impact of a Mindfulness-Based Intervention on Basic Psychological Need Satisfaction and Internalized Symptoms in Elementary School Students With Severe Learning Disabilities: Results From a Randomized Cluster Trial. Frontiers in psychology 10: 2715	- Study had an active control group
Marquez, Brion, Marquez, Jessie, Vincent, Claudia G. et al. (2014) The Iterative Development and Initial Evaluation of "We Have Skills!", An Innovative Approach to Teaching Social Skills to Elementary Students. Education and Treatment of Children 37(1): 137-161	- Outcome data not presented/unusable
Matsumoto, Yuki; Ishimoto, Yuma; Takizawa, Yu (2020) Examination of the effectiveness of Neuroscience-Informed Child Education (NICE) within Japanese school settings. Children and Youth Services Review 118	- Non-randomised study
Matsumoto, Yuki and Shimizu, Eiji (2016) The FRIENDS cognitive behavioral program in Japanese schools: An examination of the treatment effects. School Psychology International 37(4): 397-409	- Non-randomised study
Mazerolle, L, Antrobus, E, Bennett, S et al. (2017) Reducing Truancy and Fostering a Willingness to Attend School: results from a Randomized Trial of a Police-School Partnership Program. Prevention science 18(4): 469-480	- Study not concerned with social, emotional and metal wellbeing JJ - Truency is a proxy for SEWB but in this study its not clear that SEWB is measured as a consequence of truency
McCarthy, A. E., Young, J. F., Benas, J. S. et al. (2018) School-Related Outcomes From a Randomized Controlled Trial of Adolescent Depression Prevention Programs. Journal of Emotional and Behavioral Disorders 26(3): 170-181	- Study design: No control group
McCormick, MP Neuhaus, R O'Connor, EE White, HI Horn, EP Harding, S Cappella, E McClowry, S (2021) Long-Term Effects of Social-Emotional Learning on Academic Skills: Evidence from a Randomized Trial of INSIGHTS. JOURNAL OF RESEARCH ON EDUCATIONAL EFFECTIVENESS 14(1): 1-27	- Study had an active control group
McCree, M.; Cutting, R.; Sherwin, D. (2018) The Hare and the Tortoise go to Forest School: taking the scenic route to academic attainment	- Study intervention not delivered as part of the lesson plan

Study	Code [Reason]
via emotional wellbeing outdoors. Early Child Development and Care 188(7): 980-996	
McDonald, Alex; Holttum, Sue; Drey, Nicholas St J (2019) Primary-school-based art therapy: Exploratory study of changes in children's social, emotional and mental health. International Journal of Art Therapy 24(3): 125-138	- Study intervention is not a universal intervention
McRae, Jenna (2020) The Effects of Social Emotional Learning on Behavioral Disruptions.	- Article unavailable
Mendelson, T, Greenberg, MT, Dariotis, JK et al. (2010) Feasibility and preliminary outcomes of a school-based mindfulness intervention for urban youth. Journal of abnormal child psychology 38(7): 985-994	- Study intervention is not a universal intervention
Michel, G., Meyer, E., Grabe, M. et al. (2019) Mindfulness effects on anxiety, well-being, and mindfulness abilities among students in 3rd Grade to 5th Grade. Annales Medico-Psychologiques 177(10): 981-986	- Non-English language publication
Midgett, Aida and Doumas, Diana M (2019) The impact of a brief bullying bystander intervention on depressive symptoms. Journal of Counseling & Development 97(3): 270-280	- Study intervention is not a universal intervention
Midgett, Aida, Doumas, Diana M, Trull, Rhiannon et al. (2017) Training students who occasionally bully to be peer advocates: Is a bystander intervention effective in reducing bullying behavior?. Journal of Child and Adolescent Counseling 3(1): 1-13	- Study intervention is not a universal intervention
Midgett, Aida, Doumas, Diana, Trull, Rhiannon et al. (2017) A Randomized Controlled Study Evaluating a Brief, Bystander Bullying Intervention with Junior High School Students. Journal of School Counseling 15(9): 1-34	- Study intervention is not a universal intervention
Milin, Robert, Kutcher, Stanley, Lewis, Stephen P et al. (2016) Impact of a Mental Health Curriculum on Knowledge and Stigma Among High School Students: A Randomized Controlled Trial. Journal of the American Academy of Child and Adolescent Psychiatry 55(5): 383-391e1	- Conference abstract.
Miller, D. J. and Robertson, D. P. (2011) Educational benefits of using game consoles in a primary classroom: A randomised controlled trial. British Journal of Educational Technology 42(5): 850-864	- Study not concerned with social, emotional and metal wellbeing
Miller, Thomas W.; Kraus, Robert F.; Veltkamp, Lane J. (2008) Character education as a prevention strategy for school-related violence. School violence and primary prevention.: 377-390	- Outcome data not presented/unusable

Study	Code [Reason]
Mira-Galvan, Maria-Jose and Gilar-Corbi, Raquel (2020) Design, Implementation and Evaluation of an Emotional Education Program: Effects on Academic Performance. Frontiers in psychology 11: 1100	- Non-randomised study
Morales-Urrutia, EK Ocana, JM Perez-Marin, D Pizarro, C (2021) Can Mindfulness Help Primary Education Students to Learn How to Program With an Emotional Learning Companion?. IEEE ACCESS 9: 6642-6660	- Study not concerned with social, emotional and metal wellbeing
Moula, Zoe (2020) A systematic review of the effectiveness of art therapy delivered in school-based settings to children aged 5-12 years. International Journal of Art Therapy 25(2): 88-99	- Systematic review
Moula, Zoe, Aithal, Supritha, Karkou, Vicky et al. (2020) A systematic review of child-focused outcomes and assessments of arts therapies delivered in primary mainstream schools. Children and Youth Services Review 112	- Systematic review
Moulier, Virginie, Guinet, Helene, Kovacevic, Zorica et al. (2019) Effects of a life-skills-based prevention program on self-esteem and risk behaviors in adolescents: a pilot study. BMC psychology 7(1): 82	- Non-randomised study
Mouratidou, Katerina; Goutza, Stavroula; Chatzopoulos, Dimitrios (2007) Physical Education and Moral Development: An Intervention Programme to Promote Moral Reasoning through Physical Education in High School Students. European Physical Education Review 13(1): 41-56	- Study not concerned with social, emotional and metal wellbeing
Moy, Gregory E and Hazen, Amy (2018) A systematic review of the Second Step program. Journal of school psychology 71: 18-41	- Systematic review
Munoz-Fernandez, Noelia, Ortega-Rivera, Javier, Nocentini, Annalaura et al. (2019) The Efficacy of the "Dat-e Adolescence" Prevention Program in the Reduction of Dating Violence and Bullying. International journal of environmental research and public health 16(3)	- Study intervention is not a universal intervention
Muratori, P., Bertacchi, I., Catone, G. et al. (2020) Coping Power Universal for middle school students: The first efficacy study. Journal of Adolescence 79: 49-58	- Outcome data not presented/unusable
Muratori, P, Bertacchi, I, Giuli, C et al. (2015) First adaptation of coping power program as a classroom-based prevention intervention on aggressive behaviors among elementary school children. Prevention science 16(3): 432-439	- Study not concerned with social, emotional and metal wellbeing
Muratori, Pietro, Bertacchi, Iacopo, Giuli, Consuelo et al. (2016) Coping Power Adapted	- Study not concerned with social, emotional and metal wellbeing

Study	Code [Reason]
as Universal Prevention Program: Mid Term Effects on Children's Behavioral Difficulties and Academic Grades. The journal of primary prevention 37(4): 389-401	
Murray, Desiree W., Rabiner, David L., Kuhn, Laura et al. (2018) Investigating teacher and student effects of the Incredible Years Classroom Management Program in early elementary school. Journal of school psychology 67: 119-133	- Study intervention is teacher training for classroom management
Nadler, Ruby, Cordy, Michelle, Stengel, Jessica et al. (2017) A brief mindfulness practice increases self-reported calmness in young children: A pilot study. Mindfulness 8(4): 1088-1095	- Non-randomised study
Neace, William P. and Munoz, Marco A. (2012) Pushing the Boundaries of Education: Evaluating the "Impact of Second Step[R]--A Violence Prevention Curriculum" with Psychosocial and Non-Cognitive Measures. Child & Youth Services 33(1): 46-69	- Study design: No control group JJ
Nebbergall, Allison Joan (2010) An experimental evaluation of the effects of a school-based, universal prevention program on parent and teacher ratings of student behavior. Dissertation Abstracts International: Section B: The Sciences and Engineering 70(9b): 5428	- Dissertation
Nehmy, Thomas J and Wade, Tracey D (2015) Reducing the onset of negative affect in adolescents: evaluation of a perfectionism program in a universal prevention setting. Behaviour research and therapy 67: 55-63	- Non-randomised study
Neil Humphrey, Alexandra Hennessey, Ann Lendrum, Michael Wigelsworth, Alexander Turner, Margarita Panayiotou, Craig Joyce, Kirsty Pert, Emma Stephens, Lawrence Wo, Garry Squires, Kevin Woods, Mark Harrison ARC (2018) The PATHS curriculum for promoting social and emotional well-being among children aged 7–9 years: a cluster RCT.	- Duplicate
Neil, Alison L, Batterham, Philip, Christensen, Helen et al. (2009) Predictors of adherence by adolescents to a cognitive behavior therapy website in school and community-based settings. Journal of medical Internet research 11(1): e6	- Study conducted before 2007
Newby, Katie V. and Mathieu-Chartier, Sara (2018) Spring Fever: Process Evaluation of a Sex and Relationships Education Programme for Primary School Pupils. Sex Education: Sexuality, Society and Learning 18(1): 90-106	- Study intervention not included in effectiveness review

Study	Code [Reason]
Niolon, P.H., Vivolo-Kantor, A.M., Tracy, A.J. et al. (2019) An RCT of Dating Matters: Effects on Teen Dating Violence and Relationship Behaviors. American Journal of Preventive Medicine 57(1): 13-23	- Study intervention is not a universal intervention
Niolon, Phyllis Holditch, Taylor, Bruce G, Latzman, Natasha E et al. (2016) Lessons Learned in Evaluating a Multisite, Comprehensive Teen Dating Violence Prevention Strategy: Design and Challenges of the Evaluation of Dating Matters: Strategies to Promote Healthy Teen Relationships. Psychology of violence 6(3): 452-458	- Study intervention is not a universal intervention
Noggle, Jessica J, Steiner, Naomi J, Minami, Takuya et al. (2012) Benefits of yoga for psychosocial well-being in a US high school curriculum: a preliminary randomized controlled trial. Journal of developmental and behavioral pediatrics : JDBP 33(3): 193-201	- Study intervention is physical activity training
O'Connor, Clare A, Dyson, Judith, Cowdell, Fiona et al. (2018) Do universal school-based mental health promotion programmes improve the mental health and emotional wellbeing of young people? A literature review. Journal of clinical nursing 27(34): e412-e426	- Systematic review
O'Donnell, Patrick S. and Dunlap, Linda L. (2019) Teacher Acceptability of Progressive Muscle Relaxation in the Classroom for the Treatment of Test Anxiety. Journal of Psychologists and Counsellors in Schools 29(2): 151-165	- Study design: No control group
O'Haire, Marguerite E, McKenzie, Samantha J, McCune, Sandra et al. (2013) Effects of Animal-Assisted Activities with Guinea Pigs in the Primary School Classroom. Anthrozoos 26(3)	- Non-randomised study
O'Kearney, Richard, Kang, Kanwal, Christensen, Helen et al. (2009) A controlled trial of a school-based Internet program for reducing depressive symptoms in adolescent girls. Depression and anxiety 26(1): 65-72	- Non-randomised study
O'neill, JM; Clark, JK; Jones, JA (2011) Promoting mental health and preventing substance abuse and violence in elementary students: a randomized control study of the Michigan Model for Health. Journal of school health 81(6): 320-330	- Outcome data not presented/unusable
O'Reilly, Michelle, Svirydzenka, Nadzeya, Adams, Sarah et al. (2018) Review of mental health promotion interventions in schools. Social psychiatry and psychiatric epidemiology 53(7): 647-662	- Systematic review

Study	Code [Reason]
Okeke-Adeyanju, Ndidi, Taylor, Lorraine C, Craig, Ashley B et al. (2014) Celebrating the strengths of black youth: increasing self-esteem and implications for prevention. The journal of primary prevention 35(5): 357-69	- Study intervention is not a universal intervention
Orgiles, Mireia; Espada, Jose P; Morales, Alexandra (2020) How Super Skills for Life may help children to cope with the COVID-19: Psychological impact and coping styles after the program. Revista de Psicologia Clinica con Ninos y Adolescentes 7(3): 88-93	- Non-randomised study
Ostrov, Jamie M, Massetti, Greta M, Stauffacher, Kirstin et al. (2009) An intervention for relational and physical aggression in early childhood: A preliminary study. Early Childhood Research Quarterly 24(1): 15-28	- Study population outside scope of review
Owens, Rhea L. and Patterson, Meagan M. (2013) Positive Psychological Interventions for Children: A Comparison of Gratitude and Best Possible Selves Approaches. Journal of Genetic Psychology 174(4): 403-428	- Study intervention not delivered in school
Pandey, A., Hale, D., Das, S. et al. (2018) Effectiveness of universal self-regulation-based interventions in children and adolescents a systematic review and meta-analysis. JAMA Pediatrics 172(6): 566-575	- Systematic review
Pandher, Michael (2021) An Investigation into Effective Mindfulness-based Practices in K-12 Schools.	- Article unavailable
Pannebakker, Fieke D, van Genugten, Lenneke, Diekstra, Rene F W et al. (2019) A Social Gradient in the Effects of the Skills for Life Program on Self-Efficacy and Mental Wellbeing of Adolescent Students. The Journal of school health 89(7): 587-595	- Outcome data not presented/unusable
Pannebakker, Fieke D, van Genugten, Lenneke, Diekstra, Rene F W et al. (2019) A Social Gradient in the Effects of the Skills for Life Program on Self-Efficacy and Mental Wellbeing of Adolescent Students. The Journal of school health 89(7): 587-595	- Outcome data not presented/unusable
Papieska, Joanna, Spilt, Jantine L, Roorda, Debora L et al. (2019) Promoting socioemotional competence in primary school classrooms: Intervention effects of the EMOscope. European Journal of Developmental Psychology 16(1): 97-112	- Non-randomised study
Park-Higgerson, Hyoun-Kyoung, Perumean-Chaney, Suzanne E, Bartolucci, Alfred A et al. (2008) The evaluation of school-based violence	- Systematic review

Study	Code [Reason]
prevention programs: a meta-analysis. The Journal of school health 78(9): 465-20	
PARKER, Andrew and et, al (2018) Marginalised youth, criminal justice and performing arts: young people's experiences of music-making. Journal of Youth Studies 21(8): 1061-1076	- Study intervention is not a universal intervention
Parris, Leandra N; Varjas, Kris; Meyers, Joel (2014) "The internet is a mask": High School students' suggestions for preventing cyberbullying. The western journal of emergency medicine 15(5): 587-92	- Non UK based qualitative study
PATHS (2019) Promoting Alternative Thinking Strategies: effectiveness trial.	- Overview
Paul, Cooper and David, Whitebread (2007) The effectiveness of nurture groups on student progress: evidence from a national research study. Emotional and Behavioural Difficulties 12(3): 171-190	- Non-randomised study
Pfiffner, Linda J., Rooney, Mary E., Jiang, Yuanyuan et al. (2018) Sustained Effects of Collaborative School-Home Intervention for ADHD Symptoms and Impairment.: 1-26	- Study not concerned with social, emotional and metal wellbeing
Pfiffner, Linda J, Rooney, Mary E, Jiang, Yuanyuan et al. (2018) Sustained Effects of Collaborative School-Home Intervention for Attention-Deficit/Hyperactivity Disorder Symptoms and Impairment. Journal of the American Academy of Child and Adolescent Psychiatry 57(4): 245-251	- Study population is selected
Pinto-Foltz, Melissa D; Logsdon, M Cynthia; Myers, John A (2011) Feasibility, acceptability, and initial efficacy of a knowledge-contact program to reduce mental illness stigma and improve mental health literacy in adolescents. Social science & medicine (1982) 72(12): 2011-9	- Study not concerned with social, emotional and metal wellbeing
Pluess, Michael and Boniwell, Ilona (2015) Sensory-Processing Sensitivity predicts treatment response to a school-based depression prevention program: Evidence of Vantage Sensitivity. Personality and Individual Differences 82: 40-45	- Non-randomised study JJ - non-randomized; no barriers and facilitators
Poduska, JM, Kellam, SG, Wang, W et al. (2008) Impact of the Good Behavior Game, a universal classroom-based behavior intervention, on young adult service use for problems with emotions, behavior, or drugs or alcohol. Drug and alcohol dependence 95suppl1: 29-44	- Study conducted before 2007
Polanin, Megan K. (2015) Effects of cultural awareness training in conjunction with an	- Dissertation

Study	Code [Reason]
established bullying prevention program. Dissertation Abstracts International: Section B: The Sciences and Engineering 75(10be): no-specified	
Potek, Rachel (2012) Mindfulness as a school-based prevention program and its effect on adolescent stress, anxiety and emotion regulation. Dissertation Abstracts International: Section B: The Sciences and Engineering 73(5b): 3272	- Dissertation
Puolakanaho, Anne, Lappalainen, Raimo, Lappalainen, Paivi et al. (2019) Reducing Stress and Enhancing Academic Buoyancy among Adolescents Using a Brief Web-based Program Based on Acceptance and Commitment Therapy: A Randomized Controlled Trial. Journal of youth and adolescence 48(2): 287-305	- Study population is selected
Puskar, Kathryn Rose; Ren, Dianxu; McFadden, Tricia (2015) Testing the 'Teaching Kids to Cope with Anger' Youth Anger Intervention Program in a Rural School-based Sample. Issues in mental health nursing 36(3): 200-8	- Study intervention is not a universal intervention
Rashedi, Roxanne N. (2019) An early childhood education in embodiment: Willful forms of self-regulation in a classroom-based yoga intervention. Dissertation Abstracts International Section A: Humanities and Social Sciences 80(1ae): no-specified	- Ordered but not received
Rawlett, K.E.; Friedmann, E.; Thomas, S.A. (2019) Mindfulness based intervention with an attentional comparison group in at risk young adolescents: a pilot randomized controlled trial. Integrative Medicine Research 8(2): 101-106	- Study population is selected
Redfern, A., Jolley, S., Bracegirdle, K. et al. (2019) Innovations in Practice: CUES-Ed: an in-service evaluation of a new universal cognitive behavioural early mental health intervention programme for primary school children. Child and Adolescent Mental Health 24(2): 187-191	- Non-randomised study
Reid, MJ; Webster-Stratton, C; Hammond, M (2007) Enhancing a classroom social competence and problem-solving curriculum by offering parent training to families of moderate-to high-risk elementary school children. Journal of clinical child and adolescent psychology 36(4): 605-620	- Study intervention was parent training
Reinke, Wendy M.; Herman, Keith C.; Dong, Nianbo (2014) The Incredible Year Teacher Classroom Management Program: Initial Findings from a Group Randomized Control Trial.: 1-7	- Study intervention is teacher training for classroom management

Study	Code [Reason]
Reller, Evan (2019) The Effects of Mindfulness-Based Programming on Social-Emotional Learning.	- Dissertation
Resaland, G.K., Aadland, E., Moe, V.F. et al. (2019) Effects of a physical activity intervention on schoolchildren's health-related quality of life: The active smarter kids (ASK) cluster-randomized controlled trial. Preventive Medicine Reports 13: 1-4	- Study not concerned with social, emotional and metal wellbeing
Ricarte, J. J, Ros, L, Latorre, J. M et al. (2015) Mindfulness-based intervention in a rural primary school: Effects on attention, concentration and mood. International Journal of Cognitive Therapy 8(3): 258-270	- Study intervention is not a universal intervention
Rickard, Nikki S, Appelman, Peter, James, Richard et al. (2013) Orchestrating life skills: The effect of increased school-based music classes on children's social competence and self-esteem. International Journal of Music Education 31(3): 292-309	- Non-randomised study
Rimm-Kaufman, Sara E, Larsen, Ross A. A, Baroody, Alison E et al. (2014) Efficacy of the responsive classroom approach: Results from a 3-year, longitudinal randomized controlled trial. American Educational Research Journal 51(3): 567-603	- Outcome data not presented/unusable
Rivers, Susan E, Brackett, Marc A, Reyes, Maria R et al. (2013) Improving the social and emotional climate of classrooms: a clustered randomized controlled trial testing the RULER Approach. Prevention science : the official journal of the Society for Prevention Research 14(1): 77-87	- Outcome data not presented/unusable
Rodriguez, Karen Ann (2021) Examining the efficacy of a school-based mental health program in Iowa. Dissertation Abstracts International: Section B: The Sciences and Engineering 82(6b): no-specified	- Article unavailable
Rose, Heather; Miller, Lynn; Martinez, Yvonne (2009) FRIENDS for life: The results of a resilience-building, anxiety-prevention program in a Canadian elementary school. Professional School Counseling 12(6): 400-407	- Non-randomised study
Roth, Rachel A.; Suldo, Shannon M.; Ferron, John M. (2017) Improving Middle School Students' Subjective Well-Being: Efficacy of a Multicomponent Positive Psychology Intervention Targeting Small Groups of Youth. School Psychology Review 46(1): 21-41	- Study population is selected
Ruiz-Ariza, Alberto, Su?rez-Manzano, Sara, L?pez-Serrano, Sebasti?n et al. (2019) The	- Study intervention is physical activity training

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Study	Code [Reason]
Effect of Cooperative High-Intensity Interval Training on Creativity and Emotional Intelligence in Secondary School: A Randomised Controlled Trial. European Physical Education Review 25(2): 355-373	
Ruocco, Sylvia; Gordon, Jocelynne; McLean, Louise A (2016) Effectiveness of a school-based early intervention CBT group programme for children with anxiety aged 5-7 years. Advances in School Mental Health Promotion 9(1): 29-49	- Non-randomised study JJ
Russell-Mayhew, Shelly; Arthur, Nancy; Ewashen, Carol (2007) Targeting students, teachers and parents in a wellness-based prevention program in schools. Eating disorders 15(2): 159-81	- Non-randomised study
Rygaard, Niels Peter (2020) Improving the mental health of abandoned children: Experiences from a global online intervention. The American psychologist 75(9): 1376-1388	- Non systematic review
Sagkal, Ali Serdar; Turnuklu, Abbas; Totan, Tarik (2016) Peace Education's Effects on Aggression: A Mixed Method Study. Eurasian Journal of Educational Research: 45-68	- Non-randomised study
Salerno, John P (2016) Effectiveness of Universal School-Based Mental Health Awareness Programs Among Youth in the United States: A Systematic Review. The Journal of school health 86(12): 922-931	- Systematic review
Sanchez-Sansegundo, M., Ferrer-Cascales, R., Albaladejo-Blazquez, N. et al. (2020) Effectiveness of the reasoning and rehabilitation v2 programme for improving personal and social skills in spanish adolescent students. International Journal of Environmental Research and Public Health 17(9): 3040	- Study population is selected
SANDERS, Robert (2020) Care experienced children and young people's mental health: ESSS Outline.: 37	- Article unavailable
Santilhano, Michele (2019) Online intervention to reduce pediatric anxiety: An evidence-based review. Journal of child and adolescent psychiatric nursing : official publication of the Association of Child and Adolescent Psychiatric Nurses, Inc 32(4): 197-209	- Systematic review
Santos, RG, Chartier, MJ, Whalen, JC et al. (2011) Effectiveness of school-based violence prevention for children and youth: a research report. Healthcare quarterly (toronto, ont.) 14specno2: 80-91	- Study conducted before 2007
Santos, Robert G, Chartier, Mariette J, Whalen, Jeanne C et al. (2011) Effectiveness of School-	- Study conducted before 2007

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Study	Code [Reason]
Based Violence Prevention for Children and Youth Cluster randomized controlled field trial of the Roots of Empathy program with replication and three-year follow-up. Healthcare Quarterly	
Sapouna, Maria, Wolke, Dieter, Vannini, Natalie et al. (2010) Virtual learning intervention to reduce bullying victimization in primary school: a controlled trial. Journal of child psychology and psychiatry, and allied disciplines 51(1): 104-12	- Non-randomised study JJ
Sara, Valdebenito and et, al. (2018) School-based interventions for reducing disciplinary school exclusion: a systematic review.: 219	- Systematic review
Sawyer MG, Harchak TF, Spence SH et al. (2010) School-based prevention of depression: a 2-year follow-up of a randomized controlled trial of the beyondblue schools research initiative. The Journal of adolescent health : official publication of the Society for Adolescent Medicine 47(3): 297-304	- Study conducted before 2007
Sawyer, MG, Pfeiffer, S, Spence, SH et al. (2010) School-based prevention of depression: a randomised controlled study of the beyondblue schools research initiative. Journal of child psychology and psychiatry, and allied disciplines 51(2): 199-209	- Study conducted before 2007
Saxena, Kirti, Verrico, Christopher D, Saxena, Johanna et al. (2020) An Evaluation of Yoga and Meditation to Improve Attention, Hyperactivity, and Stress in High-School Students. Journal of alternative and complementary medicine (New York, N.Y.) 26(8): 701-707	- Non-randomised study
Scheithauer, H, Schultze-Krumbholz, A, W?lfer, R et al. (2014) Promotion of media competence and prevention of cyberbullying using the Medienhelden program: results from an evaluation study. Praxis der kinderpsychologie und kinderpsychiatrie 63(5): 379-394	- Non-English language publication
Schoeps, Konstanze, Villanueva, Lidon, Prado-Gasco, Vicente Javier et al. (2018) Development of Emotional Skills in Adolescents to Prevent Cyberbullying and Improve Subjective Well-Being. Frontiers in psychology 9: 2050	- Study intervention is not a universal intervention
Schonfeld, David J, Adams, Ryan E, Fredstrom, Bridget K et al. (2015) Cluster-randomized trial demonstrating impact on academic achievement of elementary social-emotional learning. School psychology quarterly : the official journal of the Division of School Psychology, American Psychological Association 30(3): 406-420	- Study not concerned with social, emotional and metal wellbeing
See, B. H.; Gorard, S.; Siddiqui, N. (2017) Does participation in uniformed group activities in school improve young people's non-cognitive	- Study not concerned with social, emotional and metal wellbeing

Study	Code [Reason]
outcomes?. International Journal of Educational Research 85: 109-120	
Shechtman, Z. and Ifargan, M. (2009) School-based integrated and segregated interventions to reduce aggression. Aggressive behavior 35(4): 342-356	- Outcome data not presented/unusable
Shochet, I., Montague, R., Smith, C. et al. (2014) A qualitative investigation of adolescents' perceived mechanisms of change from a universal school-based depression prevention program. International Journal of Environmental Research and Public Health 11(5): 5541-5554	- Non UK based qualitative study
Shreve, Marilou, Scott, Allison, McNeill, Charleen et al. (2020) Using Yoga to Reduce Anxiety in Children: Exploring School-Based Yoga Among Rural Third-and Fourth-Grade Students. Journal of Pediatric Health Care	- Non-randomised study
Sibinga, EM, Perry-Parrish, C, Chung, SE et al. (2013) School-based mindfulness instruction for urban male youth: a small randomized controlled trial. Preventive medicine 57(6): 799-801	- Outcome data not presented/unusable
Singh, Nikita, Minaie, Matin G, Skvarc, David R et al. (2019) Impact of a Secondary School Depression Prevention Curriculum on Adolescent Social-Emotional Skills: Evaluation of the Resilient Families Program. Journal of youth and adolescence 48(6): 1100-1115	- Study intevention is a whole comunity approach with a universal classroom component
Smith, J.J., Beauchamp, M.R., Faulkner, G. et al. (2018) Intervention effects and mediators of well-being in a school-based physical activity program for adolescents: The 'Resistance Training for Teens' cluster RCT. Mental Health and Physical Activity 15: 88-94	- Study intervention is physical activity training
Smith, Stephen W., Daunic, Ann P., Aydin, Burak et al. (2016) Effect of Tools for Getting along on Student Risk for Emotional and Behavioral Problems in Upper Elementary Classrooms: A Replication Study. School Psychology Review 45(1): 73-92	- Outcome data not presented/unusable
Solar, Ernest L., II (2014) The effects of mindfulness meditation on adolescents with high-incidence disabilities. Dissertation Abstracts International Section A: Humanities and Social Sciences 75(4ae): no-specified	- Dissertation
Soulakova, Barbora, Kasal, Alexandr, Butzer, Bethany et al. (2019) Meta-Review on the Effectiveness of Classroom-Based Psychological Interventions Aimed at Improving Student Mental Health and Well-Being, and Preventing Mental Illness. The journal of primary prevention 40(3): 255-278	- Systematic review

Study	Code [Reason]
Spence, S.H., Sawyer, M.G., Sheffield, J. et al. (2014) Does the absence of a supportive family environment influence the outcome of a universal intervention for the prevention of depression?. International Journal of Environmental Research and Public Health 11(5): 5113-5132	- Study conducted before 2007
Spence, Susan H and Shortt, Alison L (2007) Research Review: Can we justify the widespread dissemination of universal, school-based interventions for the prevention of depression among children and adolescents?. Journal of child psychology and psychiatry, and allied disciplines 48(6): 526-42	- Systematic review
Spilt, J. L.; Koot, J. M.; van Lier, P. A. C. (2013) For Whom Does It Work? Subgroup Differences in the Effects of a School-Based Universal Prevention Program. Prevention science 14(5): 479-488	- Study conducted before 2007
Stauffer, Sterling, Heath, Melissa Allen, Coyne, Sarah Marie et al. (2012) High School Teachers' Perceptions of Cyberbullying Prevention and Intervention Strategies. Psychology in the Schools 49(4): 352-367	- Dissertation
Stormshak, Elizabeth A; Fosco, Gregory M; Dishion, Thomas J (2010) Implementing Interventions with Families in Schools to Increase Youth School Engagement: The Family Check-Up Model. School mental health 2(2): 82-92	- Study intervention is not a universal intervention
Stormshak, Elizabeth, DeGarmo, David, Chronister, Krista et al. (2018) The Impact of Family-Centered Prevention on Self-Regulation and Subsequent Long-Term Risk in Emerging Adults. Prevention science : the official journal of the Society for Prevention Research 19(4): 549-558	- Study population is selected
Streimann, Karin; Selart, Anne; Trummal, Aire (2019) Effectiveness of a Universal, Classroom-Based Preventive Intervention (PAX GBG) in Estonia: a Cluster-Randomized Controlled Trial. Prevention science : the official journal of the Society for Prevention Research	- Outcome data not presented/unusable
Sutherland, Kevin S., Conroy, Maureen A., Algina, James et al. (2018) Reducing Child Problem Behaviors and Improving Teacher-Child Interactions and Relationships: A Randomized Controlled Trial of Best in Class. Grantee Submission 42: 31-43	- Study population outside scope of review
Swank, Jacqueline M; Cheung, Christopher; Williams, Sydney A (2018) Play therapy and psychoeducational school-based group	- Single case research design

Study	Code [Reason]
interventions: A comparison of treatment effectiveness. Journal for Specialists in Group Work 43(3): 230-249	
Swartz KL, Kastelic EA, Hess SG et al. (2010) The effectiveness of a school-based adolescent depression education program. Health education & behavior : the official publication of the Society for Public Health Education 37(1): 11-22	- Study conducted before 2007
Takahashi, Fumito, Ishizu, Kenichiro, Matsubara, Kohei et al. (2020) Acceptance and commitment therapy as a school-based group intervention for adolescents: An open-label trial. Journal of Contextual Behavioral Science 16: 71-79	- Non-randomised study
Takeda, S.; Matsuo, R.; Ohtsuka, M. (2020) Effects of a classroom-based stress management program by cognitive reconstruction for elementary school students. Yonago Acta Medica 63(3): 198-204	- Outcome data not presented/unusable
Tanner-Smith, Emily E; Durlak, Joseph A; Marx, Robert A (2018) Empirically Based Mean Effect Size Distributions for Universal Prevention Programs Targeting School-Aged Youth: A Review of Meta-Analyses. Prevention science : the official journal of the Society for Prevention Research 19(8): 1091-1101	- Non systematic review JJ - SR of MA
Taylor, B.; Stein, N.; Burden, F. (2010) The effects of gender violence/ harassment prevention programming in middle schools: a randomized experimental evaluation. Violence and victims 25(2): 202-223	- Outcome data not presented/unusable
Taylor, BG, Stein, ND, Mumford, EA et al. (2013) Shifting Boundaries: an experimental evaluation of a dating violence prevention program in middle schools. Prevention science 14(1): 64-76	- Study intervention is not a universal intervention
Taylor, Bruce G; Mumford, Elizabeth A; Stein, Nan D (2015) Effectiveness of "shifting boundaries" teen dating violence prevention program for subgroups of middle school students. The Journal of adolescent health : official publication of the Society for Adolescent Medicine 56(2suppl2): 20-6	- Study intervention is not a universal intervention
Taylor, Bruce G; Stein, Nan; Burden, Frances F (2010) Exploring gender differences in dating violence/harassment prevention programming in middle schools: Results from a randomized experiment. Journal of Experimental Criminology 6(4): 419-445	- Outcome data not presented/unusable
Taylor, Mark; Gillies, Robyn M.; Ashman, Adrian F. (2009) Cognitive Training, Conflict Resolution and Exercise: Effects on Young Adolescents'	- Population - subset

Study	Code [Reason]
Wellbeing. Australian Journal of Guidance and Counselling 19(2): 131-149	
Taylor, Sara B, Kennedy, Lindsay A, Lee, Caroline E et al. (2020) Common humanity in the classroom: Increasing self-compassion and coping self-efficacy through a mindfulness-based intervention. Journal of American college health : J of ACH: 1-8	- Study population outside scope of review
Telles, Shirley, Singh, Nilkamal, Bhardwaj, Abhishek Kumar et al. (2013) Effect of yoga or physical exercise on physical, cognitive and emotional measures in children: A randomized controlled trial. Child and Adolescent Psychiatry and Mental Health 7	- Study conducted in a non-OECD country
Terjestam, Yvonne (2011) Stillness at school: Well-being after eight weeks of meditation-based practice in secondary school. Psyke & Logos 32(1): 105-116	- Non-randomised study
Terry, JD, Weist, MD, Strait, GG et al. (2020) Motivational Interviewing to Promote the Effectiveness of Selective Prevention: an Integrated School-Based Approach. Prevention science	- Outcome data not presented/unusable
Terry, John (2017) Preliminary evaluation of "Footprints:" Motivational interviewing to promote cognitive-behavioral skills, academic outcomes, and academic protective factors in middle school students. Dissertation Abstracts International: Section B: The Sciences and Engineering 78(4be): no-specified	- Dissertation
Thompson, Aaron M. (2014) A Randomized Trial of the "Self-Management Training and Regulation Strategy" for Disruptive Students. Research on Social Work Practice 24(4): 414-427	- Study population is selected
Tijms, J.; Stoop, M. A.; Polleck, J. N. (2018) Bibliotherapeutic book club intervention to promote reading skills and social-emotional competencies in low SES community-based high schools: A randomised controlled trial. Journal of Research in Reading 41(3): 525-545	- Study is concerned with transition
Tissen, Isabelle; Hergovich, Andreas; Spiel, Christiane (2007) School-based social training with and without dogs: Evaluation of their effectiveness. Anthrozoos 20(4): 365-373	- Outcome data not presented/unusable
Tomyn, Justin D, Fuller-Tyszkiewicz, Matthew, Richardson, Ben et al. (2016) A Comprehensive Evaluation of a Universal School-Based Depression Prevention Program for Adolescents. Journal of abnormal child psychology 44(8): 1621-1633	- Non-randomised study

Study	Code [Reason]
Torrente, Catalina, Nathanson, Lori, Rivers, Susan et al. (2015) Testing Causal Impacts of a School-Based SEL Intervention Using Instrumental Variable Techniques.: 1-6	- Outcome data not presented/unusable
Townsend, L., Musci, R., Stuart, E. et al. (2017) The Association of School Climate, Depression Literacy, and Mental Health Stigma Among High School Students. Journal of School Health 87(8): 567-574	- Study not concerned with social, emotional and metal wellbeing
Tripa, Laura, Sava, Florin Alin, Palo?, Ramona et al. (2021) Evaluating the outcomes of ?Resilient left behind children??A social-emotional learning and mindfulness group counseling program. Cognition, Brain, Behavior 25(1): 33-53	- Study conducted in a non-OECD country
Tucker, Emma and Maunder, Rachel (2015) Helping children to get along: Teachers' strategies for dealing with bullying in primary schools. Educational Studies 41(4): 466-470	- Not an intervention study
Turner, A.J., Sutton, M., Harrison, M. et al. (2019) Cost-Effectiveness of a School-Based Social and Emotional Learning Intervention: Evidence from a Cluster-Randomised Controlled Trial of the Promoting Alternative Thinking Strategies Curriculum. Applied Health Economics and Health Policy	- Cost-effectiveness study
Valosek, Laurent, Nidich, Sanford, Wendt, Staci et al. (2019) Effect of meditation on social-emotional learning in middle school students. Education 139(3): 111-119	- Non-randomised study
van de Weijer-Bergsma, Eva, Langenberg, George, Brandsma, Rob et al. (2014) The effectiveness of a school-based mindfulness training as a program to prevent stress in elementary school children. Mindfulness 5(3): 238-248	- Outcome data not presented/unusable
Van Ryzin, Mark J and Roseth, Cary J (2019) Effects of cooperative learning on peer relations, empathy, and bullying in middle school. Aggressive behavior	- Outcome data not presented/unusable
Varjas, Kris, Talley, Jasmaine, Meyers, Joel et al. (2010) High school students' perceptions of motivations for cyberbullying: an exploratory study. The western journal of emergency medicine 11(3): 269-73	- Non UK based qualitative study
Vassilopoulos, Stephanos P; Brouzos, Andreas; Rentzios, Christos (2014) Evaluation of a universal social information-processing group program aimed at preventing anger and aggressive behaviour in primary school children. Hellenic Journal of Psychology 11(3): 208-222	- Non-randomised study

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Study	Code [Reason]
Veenman, B.; Luman, M.; Oosterlaan, J. (2018) Efficacy of behavioral classroom programs in primary school. A meta-analysis focusing on randomized controlled trials. PLoS ONE 13(10): e0201779	- Systematic review
Vickery, Charlotte E and Dorjee, Dusana (2015) Mindfulness Training in Primary Schools Decreases Negative Affect and Increases Meta-Cognition in Children. Frontiers in psychology 6: 2025	- Non-randomised study
Vila-Badia, Regina, Martinez-Zambrano, Francisco, Arenas, Otilia et al. (2016) Effectiveness of an intervention for reducing social stigma towards mental illness in adolescents. World journal of psychiatry 6(2): 239-47	- Study not concerned with social, emotional and metal wellbeing
Volanen, S.-M., Lassander, M., Hankonen, N. et al. (2020) Healthy learning mind - Effectiveness of a mindfulness program on mental health compared to a relaxation program and teaching as usual in schools: A cluster-randomised controlled trial. Journal of Affective Disorders 260: 660-669	- Study design: secondary analysis
Vuijk, P., van Lier, P. A. C., Crijnen, A. A. M. et al. (2007) Testing sex-specific pathways from peer victimization to anxiety and depression in early adolescents through a randomized intervention trial. Journal of Affective Disorders 100(13): 221-226	- Study conducted before 2007
Waldron, Samuel M, Stallard, Paul, Grist, Rebecca et al. (2018) The 'long-term' effects of universal school-based anxiety prevention trials: A systematic review. Mental Health and Prevention 11: 8-15	- Systematic review
Wallace, Laura B; Hai, Audrey Hang; Franklin, Cynthia (2020) An Evaluation of Working on What Works (WOWW): A Solution-Focused Intervention for Schools. Journal of marital and family therapy	- Study not concerned with social, emotional and metal wellbeing
Waters, Allison M, Candy, Steven G, Zimmer-Gembeck, Melanie J et al. (2019) A School-Based Comparison of Positive Search Training to Enhance Adaptive Attention Regulation with a Cognitive-Behavioural Intervention for Reducing Anxiety Symptoms in Children. Journal of abnormal child psychology 47(11): 1821-1840	- Outcome data not presented/unusable
Watson, Scott E. J, Vannini, Natalie, Woods, Sarah et al. (2010) Inter-cultural differences in response to a computer-based anti-bullying intervention. Educational Research 52(1): 61-80	- Non-randomised study

Study	Code [Reason]
Webb, Linda, Carey, John, Villares, Elizabeth et al. (2014) Results of a Randomized Controlled Trial of Student Success Skills.: 1-24	- Outcome data not presented/unusable
Weis, Robert; Osborne, Karen J; Dean, Emily L (2015) Effectiveness of a universal, interdependent group contingency program on children's academic achievement: A countywide evaluation. Journal of Applied School Psychology 31(3): 199-218	- Ordered but not received
Wendt, Staci, Hipps, Jerry, Abrams, Allan et al. (2015) Practicing Transcendental Meditation in High Schools: Relationship to Well-Being and Academic Achievement among Students. Contemporary School Psychology 19(4): 312-319	- Non-randomised study
White, Laura Santangelo (2012) Reducing stress in school-age girls through mindful yoga. Journal of pediatric health care : official publication of National Association of Pediatric Nurse Associates & Practitioners 26(1): 45-56	- Study intervention is not a universal intervention
Whittaker, R, Stasiak, K, McDowell, H et al. (2017) MEMO: an mHealth intervention to prevent the onset of depression in adolescents: a double-blind, randomised, placebo-controlled trial. Journal of child psychology and psychiatry, and allied disciplines 58(9): 1014-1022	- Study intervention not delivered as part of the lesson plan
Wills, Howard, Kamps, Debra, Abbott, Mary et al. (2010) Classroom Observations and Effects of Reading Interventions for Students at Risk for Emotional and Behavioral Disorders. Behavioral Disorders 35(2): 103-119	- Study conducted before 2007
Wills, Howard, Kamps, Debra, Caldarella, Paul et al. (2018) Class-Wide Function-Related Intervention Teams (CW-FIT): Student and Teacher Outcomes from a Multisite Randomized Replication Trial. Elementary School Journal 119(1): 29-51	- Study intervention is teacher training for classroom management
Wills, Howard, Kamps, Debra, Fleming, Kandace et al. (2016) Student and Teacher Outcomes of the Class-Wide Function-Related Intervention Team Efficacy Trial. Exceptional Children 83(1): 58-76	- Study intervention is teacher training for classroom management
Wirth, Jacqueline Lee-Russell (2013) The effect of a classroom intervention on adolescent wellness, success skills, and academic performance. Dissertation Abstracts International Section A: Humanities and Social Sciences 74(2ae): no-specified	- Dissertation
Witvliet M, van Lier PA, Cuijpers P et al. (2009) Testing links between childhood positive peer relations and externalizing outcomes through a	- Study conducted before 2007

Study	Code [Reason]
randomized controlled intervention study. Journal of consulting and clinical psychology 77(5): 905-915	
Wohlgamuth, Taylor Lynn (2020) The Social Emotional Learning Language Arts (SELLA) Curriculum: a Qualitative Evaluation of Implementation.	- Dissertation
Wong, Martin C S; Lau, Tony C M; Lee, Albert (2012) The impact of leadership programme on self-esteem and self-efficacy in school: a randomized controlled trial. PloS one 7(12): e52023	- Study conducted in a non-OECD country
Yamamoto, Toshie; Matsumoto, Yuki; Bernard, Michael E. (2017) Effects of the cognitive-behavioral you can do it! Education program on the resilience of Japanese elementary school students: A preliminary investigation. International Journal of Educational Research	- Non-randomised study
Yeager, David Scott; Trzesniewski, Kali H.; Dweck, Carol S. (2013) An Implicit Theories of Personality Intervention Reduces Adolescent Aggression in Response to Victimization and Exclusion. Child Development 84(3): 970-988	- Outcome data not presented/unusable
Yoo, Hee-Jeong, Bahn, Geonho, Cho, In-Hee et al. (2014) A randomized controlled trial of the Korean version of the PEERS() parent-assisted social skills training program for teens with ASD. Autism research : official journal of the International Society for Autism Research 7(1): 145-61	- Study intervention is not school-based
Zhai, Fuhua; Raver, C. Cybele; Jones, Stephanie M. (2015) Social and emotional learning services and child outcomes in third grade: Evidence from a cohort of Head Start participants. Children and Youth Services Review 56: 42-51	- Study conducted before 2007
Zych, Izabela, Viejo, Carmen, Vila, Elena et al. (2019) School Bullying and Dating Violence in Adolescents: A Systematic Review and Meta-Analysis. Trauma, violence & abuse: 1524838019854460	- Systematic review

Excluded economic studies (guideline wide search)

Reference	Reason for exclusion
Anttila S, Clausson E, Eckerlund I, Helgesson G, Hjern A, Hakansson PA, et al. Methods of preventing mental ill-health among schoolchildren. The Swedish Council on Health Technology A; 05 May 2010 2010. Available from:	Paper not found

Reference	Reason for exclusion
http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?ID=32010000471.	
Bak PL, Midgley N, Zhu JL, Wistoft K, Obel C. The Resilience Program: preliminary evaluation of a mentalization-based education program. Frontiers in psychology. 2015;6:753.	No economic evaluation
Bannink R, Joosten-van Zwanenburg E, van de Looij-Jansen P, van As E, Raat H. Evaluation of computer-tailored health education ('E-health4Uth') combined with personal counselling ('E-health4Uth + counselling') on adolescents' behaviours and mental health status: design of a three-armed cluster randomised controlled trial. BMC public health. 2012;12:1083.	No economic evaluation
Beckman L, Svensson M. The cost-effectiveness of the Olweus Bullying Prevention Program: Results from a modelling study. Journal of Adolescence. 2015;45:127-37.	NA
Belfield C, Bowden AB, Klapp A, Levin H, Shand R, Zander S. The Economic Value of Social and Emotional Learning. Journal of Benefit-Cost Analysis. 2015;6(3):508-44.	Wrong outcomes
Borman GD, Rozek CS, Pyne J, Hanselman P. Reappraising academic and social adversity improves middle school students' academic achievement, behavior, and well-being. Proceedings of the National Academy of Sciences of the United States of America. 2019;116(33):16286-91.	No economic evaluation
Bowden AB, Shand R, Levin HM, Muroga A, Wang A. An Economic Evaluation of the Costs and Benefits of Providing Comprehensive Supports to Students in Elementary School. Prevention science : the official journal of the Society for Prevention Research. 2020;21(8):1126-35	NA
Bungay H, Vella-Burrows T. The effects of participating in creative activities on the health and well-being of children and young people: A rapid review of the literature. Perspectives in Public Health. 2013;133(1):44-52.	Systematic review
Cook PJ, Dodge K, Farkas G, Fryer RG, Jr., Guryan J, Ludwig J, et al. The (Surprising) Efficacy of Academic and Behavioral Intervention with Disadvantaged Youth: Results from a Randomized Experiment in Chicago. 2014	No economic evaluation
Das JK, Salam RA, Arshad A, Finkelstein Y, Bhutta ZA. Interventions for Adolescent Substance Abuse: An Overview of Systematic Reviews. Journal of Adolescent Health. 2016;59(2 Supplement):S61-S75.	Systematic review
Domitrovich CE, Durlak JA, Staley KC, Weissberg RP. Social-Emotional Competence: An Essential Factor for Promoting Positive Adjustment and Reducing Risk in School Children. Child development. 2017;88(2):408-16.	Systematic review
Ekwaru JP, Ohinmaa A, Tran BX, Setayeshgar S, Johnson JA, Veugelers PJ. Cost-effectiveness of a school-based health promotion program in Canada: A life-course modeling approach. PLoS ONE. 2017;12(5):e0177848.	Wrong outcomes
Foster EM, Johnson-Shelton D, Taylor TK. Measuring time costs in interventions designed to reduce behavior problems among children and youth. American journal of community psychology. 2007;40(1-2):64-81.	Wrong study design

Reference	Reason for exclusion
Foster EM. Costs and Effectiveness of the Fast Track Intervention for Antisocial Behavior. Journal of Mental Health Policy and Economics. 2010;13(3):101-19.	Wrong outcomes
Frick KD, Carlson MC, Glass TA, McGill S, Rebok GW, Simpson C, et al. Modeled cost-effectiveness of the Experience Corps Baltimore based on a pilot randomized trial. Journal of Urban Health. 2004;81(1):106-17.	Wrong patient population
Garmy P, Jakobsson U, Carlsson KS, Berg A, Clausson EK. Evaluation of a school-based program aimed at preventing depressive symptoms in adolescents. The Journal of school nursing : the official publication of the National Association of School Nurses. 2015;31(2):117-25.	No economic evaluation
George M, Taylor L, Schmidt SC, Weist MD. A review of school mental health programs in SAMHSA's national registry of evidence-based programs and practices. Psychiatric services (Washington, D.C.). 2013;64(5):483-6.	Systematic review
Grimes KE, Schulz MF, Cohen SA, Mullin BO, Lehar SE, Tien S. Pursuing cost-effectiveness in mental health service delivery for youth with complex needs. Journal of Mental Health Policy and Economics. 2011;14(2):73-86.	Wrong setting
Guo JJ, Wade TJ, Keller KN. Impact of school-based health centers on students with mental health problems. Public Health Reports. 2008;123(6):768-80.	No economic evaluation
Haynes NM. Addressing students' social and emotional needs: The role of mental health teams in schools. Journal of Health and Social Policy. 2002;16(1-2):109-23.	No economic evaluation
Herman PM, Chinman M, Cannon J, Ebener P, Malone PS, Acosta J, et al. Cost Analysis of a Randomized Trial of Getting to Outcomes Implementation Support of CHOICE in Boys and Girls Clubs in Southern California. Prevention science : the official journal of the Society for Prevention Research. 2020;21(2):245-55.	Wrong setting
Houri AK, Thayer AJ, Cook CR. Targeting parent trust to enhance engagement in a school-home communication system: A double-blind experiment of a parental wise feedback intervention. School psychology (Washington, D.C.). 2019;34(4):421-32.	No economic evaluation
Hoven CW, Doan T, Musa GJ, Jaliashvili T, Duarte CS, Ovuga E, et al. Worldwide child and adolescent mental health begins with awareness: a preliminary assessment in nine countries. International review of psychiatry (Abingdon, England). 2008;20(3):261-70.	No economic evaluation
Iemmi V, Knapp M, Brown FJ. Positive behavioural support in schools for children and adolescents with intellectual disabilities whose behaviour challenges: An exploration of the economic case. Journal of Intellectual Disabilities. 2016;20(3):281-95.	Wrong outcomes
Jones DE, Karoly LA, Crowley DM, Greenberg MT. Considering Valuation of Noncognitive Skills in Benefit-Cost Analysis of Programs for Children. Journal of Benefit-Cost Analysis. 2015;6(3):471-507.	Systematic review
Kautz T, Heckman JJ, Diris R, ter Weel B, Borghans L. Fostering and Measuring Skills: Improving Cognitive and Non-Cognitive Skills to Promote Lifetime Success. 2014	Systematic review
Kolbe LJ. School Health as a Strategy to Improve Both Public Health and Education. Annual Review of Public Health. 2019;40:443-63.	Systematic review
Kuklinski MR, Briney JS, Hawkins JD, Catalano RF. Cost-benefit analysis of communities that care outcomes at eighth grade.	Wrong setting

Reference	Reason for exclusion
Prevention science : the official journal of the Society for Prevention Research. 2012;13(2):150-61.	
Kuo E, Vander Stoep A, McCauley E, Kernic MA. Cost-effectiveness of a school-based emotional health screening program. Journal of School Health. 2009;79(6):277-85.	Wrong outcomes
Kutcher S, Wei Y. Mental health and the school environment: Secondary schools, promotion and pathways to care. Current Opinion in Psychiatry. 2012;25(4):311-16.	Systematic review
Le LK-D, Esturas AC, Mihalopoulos C, Chiotelis O, Bucholc J, Chatterton ML, et al. Cost-effectiveness evidence of mental health prevention and promotion interventions: A systematic review of economic evaluationsAU. PLoS Medicine. 2021;18(5):e1003606.	Systematic review
Lee S, Kim C-J, Kim DH. A meta-analysis of the effect of school-based anti-bullying programs. Journal of child health care : for professionals working with children in the hospital and community. 2015;19(2):136-53.	No economic evaluation
Legood R, Opondo C, Warren E, Jamal F, Bonell C, Viner R, et al. Cost-Utility Analysis of a Complex Intervention to Reduce School-Based Bullying and Aggression: An Analysis of the Inclusive RCT. Value in health : the journal of the International Society for Pharmacoeconomics and Outcomes Research. 2021;24(1):129-35.	NA
Long K, Brown JL, Jones SM, Aber JL, Yates BT. Cost Analysis of a School-Based Social and Emotional Learning and Literacy Intervention. Journal of Benefit-Cost Analysis. 2015;6(3):545-71.	No economic evaluation
Macdonald G, Livingstone N, Hanratty J, McCartan C, Cotmore R, Cary M, et al. The effectiveness, acceptability and cost-effectiveness of psychosocial interventions for maltreated children and adolescents: an evidence synthesis. programme NHTA; 17 Dec 2013 2016. Available from: http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?ID=32013000983.	Systematic review
Mackenzie K, Williams C. Universal, school-based interventions to promote mental and emotional well-being: what is being done in the UK and does it work? A systematic review. BMJ open. 2018;8(9):e022560.	Systematic review
May J, Osmond K, Billick S. Juvenile delinquency treatment and prevention: A literature review. Psychiatric Quarterly. 2014;85(3):295-301.	Systematic review
McCabe C. A systematic review of the cost effectiveness of universal mental health promotion interventions in primary schools. June 2007 2007.	Systematic review
McDaid D, Park AL. Investing in mental health and well-being: findings from the DataPrev project. Health promotion international. 2011;26 Suppl 1:i108-39.	Systematic review
Merry SN. Prevention and early intervention for depression in young people - A practical possibility? Current Opinion in Psychiatry. 2007;20(4):325-29.	Systematic review
Mihalopoulos C, Vos T, Pirkis J, Carter R. The population cost-effectiveness of interventions designed to prevent childhood depression. Pediatrics. 2012;129(3):e723-e30.	Wrong setting
Modi S, Joshi U, Narayanakurup D. To what extent is mindfulness training effective in enhancing self-esteem, self-regulation and psychological well-being of school going early adolescents? Journal	No economic evaluation

Reference	Reason for exclusion
of Indian Association for Child and Adolescent Mental Health. 2018;14(4):89-108.	
Moodie ML, Fisher J. Are youth mentoring programs good value-for-money? An evaluation of the Big Brothers Big Sisters Melbourne Program. BMC public health. 2009;9:41.	Wrong setting
Muratori P, Bertacchi I, Giuli C, Nocentini A, Lochman JE. Implementing Coping Power Adapted as a Universal Prevention Program in Italian Primary Schools: a Randomized Control Trial. Prevention science : the official journal of the Society for Prevention Research. 2017;18(7):754-61.	No economic evaluation
Murray NG, Low BJ, Hollis C, Cross AW, Davis SM. Coordinated school health programs and academic achievement: a systematic review of the literature. The Journal of school health. 2007;77(9):589-600.	Systematic review
O'Connor K, Wozney L, Fitzpatrick E, Bagnell A, McGrath P, Radomski A, et al. An internet-based cognitive behavioral program for adolescents with anxiety: Pilot randomized controlled trial. JMIR Mental Health. 2020;7(7):e13356.	Wrong study design
Organisation for Economic C-o, Development. PISA 2009 at a Glance. 2011:97.	No economic evaluation
Persson M, Wennberg L, Beckman L, Salmivalli C, Svensson M. The Cost-Effectiveness of the Kiva Antibullying Program: Results from a Decision-Analytic Model. Prevention science : the official journal of the Society for Prevention Research. 2018;19(6):728-37.	NA
Philipsson A, Duberg A, Moller M, Hagberg L. Cost-utility analysis of a dance intervention for adolescent girls with internalizing problems. Cost Effectiveness and Resource Allocation. 2013;11(1):4.	Wrong setting
Poitras VJ, Gray CE, Borghese MM, Carson V, Chaput J-P, Janssen I, et al. Systematic review of the relationships between objectively measured physical activity and health indicators in school-aged children and youth. Applied physiology, nutrition, and metabolism = Physiologie appliquee, nutrition et metabolisme. 2016;41(6 Suppl 3):S197-239.	Systematic review
Schmidt M, Werbrouck A, Verhaeghe N, Putman K, Simoens S, Annemans L. Universal Mental Health Interventions for Children and Adolescents: A Systematic Review of Health Economic Evaluations. Applied health economics and health policy. 2020;18(2):155-75.	Systematic review
Shackleton N, Jamal F, Viner RM, Dickson K, Patton G, Bonell C. School-Based Interventions Going beyond Health Education to Promote Adolescent Health: Systematic Review of Reviews. Journal of Adolescent Health. 2016;58(4):382-96.	Systematic review
Shoemaker EZ, Tully LM, Niendam TA, Peterson BS. The Next Big Thing in Child and Adolescent Psychiatry: Interventions to Prevent and Intervene Early in Psychiatric Illnesses. The Psychiatric clinics of North America. 2015;38(3):475-94.	Systematic review
Simon E, Dirksen C, Bogels S, Bodden D. Cost-effectiveness of child-focused and parent-focused interventions in a child anxiety prevention program. Journal of Anxiety Disorders. 2012;26(2):287-96.	Wrong setting
Simon E, Dirksen CD, Bogels SM. An explorative cost-effectiveness analysis of school-based screening for child anxiety using a decision	Wrong setting

Reference	Reason for exclusion
analytic model. European Child and Adolescent Psychiatry. 2013;22(10):619-30.	
Skre I, Friborg O, Breivik C, Johnsen LI, Arnesen Y, Wang CEA. A school intervention for mental health literacy in adolescents: effects of a non-randomized cluster controlled trial. BMC public health. 2013;13:873.	No economic evaluation
Spence SH, Sawyer MG, Sheffield J, Patton G, Bond L, Graetz B, et al. Does the absence of a supportive family environment influence the outcome of a universal intervention for the prevention of depression? International Journal of Environmental Research and Public Health. 2014;11(5):5113-32.	No economic evaluation
Waddell C, Hua JM, Garland OM, Peters RD, McEwan K. Preventing mental disorders in children: a systematic review to inform policy-making. Canadian journal of public health = Revue canadienne de sante publique. 2007;98(3):166-73.	Systematic review
Wei Y, Kutcher S. International school mental health: global approaches, global challenges, and global opportunities. Child and adolescent psychiatric clinics of North America. 2012;21(1):11-vii.	Systematic review
Wright B, Marshall D, Adamson J, Ainsworth H, Ali S, Allgar V, et al. Social Stories to alleviate challenging behaviour and social difficulties exhibited by children with autism spectrum disorder in mainstream schools: design of a manualised training toolkit and feasibility study for a cluster randomised controlled trial with nested qualitative and cost-effectiveness components. programme NHTA; 11 May 2012 2016. Available from: http://www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?ID=32011001 660.	Wrong study design

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