National Institute for Health and Care Excellence

Final

Post-traumatic stress disorder

[A] Evidence reviews for psychological, psychosocial and other non-pharmacological interventions for the prevention of PTSD in children

NICE guideline NG116

Evidence reviews

December 2018

Final

These evidence reviews were developed by the National Guideline Alliance hosted by the Royal College of Obstetricians and Gynaecologists

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ISBN: 978-1-4731-3181-1

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This evidence report contains information on 1 review relating to the treatment of PTSD.

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Review question For children and young people at risk of PTSD, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?

Introduction

According to the diagnostic criteria, PTSD is a disorder which can develop in response to specific traumatic events. It may therefore be possible to offer an intervention after the potentially traumatic events, but before PTSD has become established with the intention of reducing the symptoms and preventing its development. This chapter reviews the evidence for interventions with children and young people that (a) are offered within the first month after an event or events, (b) are offered as prevention for ongoing exposure to trauma (e.g. in a war zone), or (c) are offered to children and young people with sub-threshold symptoms of PTSD, after at least one month, with a view to preventing PTSD developing

Summary of the protocol (PICO table)

See Table 1: Summary of the protocol (PICO table) for a summary of the Population, Intervention, Comparison and Outcome (PICO) characteristics of this review.

Table 1: Summary of the protocol (PICO table)

Population	Children and young people (under 18 years) at risk of PTSD
Intervention	• Psychological interventions such as: Trauma-focused cognitive behavioural therapies (CBT); Non-trauma-focused CBT, Psychologically-focused debriefing; Eye movement desensitisation and reprocessing (EMDR); Hypnotherapy; Psychodynamic therapies; Counselling; Human givens therapy; Combined somatic and cognitive therapies; Parent training/family interventions; Play therapy • Psychosocial interventions such as: Meditation; Mindfulness-based stress reduction; Nature-assisted therapies; Supported employment; Practical support; Psychoeducational interventions; Peer support • Other non-pharmacological interventions such as: Acupuncture; Exercise; Repetitive transcranial magnetic stimulation (rTMS); Yoga
Comparison	• Any other intervention • Prevention as usual • Waitlist • Placebo
Outcome	Critical outcomes: • Efficacy (PTSD symptoms/diagnosis) • Acceptability of the intervention (discontinuation for any reason used as a proxy) Important outcomes: • Dissociative symptoms

	• Personal/social/educational functioning (including global functioning/functional impairment) • Sleeping difficulties • Quality of life • Symptoms of a coexisting condition (including anxiety, depression and emotional and behavioural problems)

PTSD=Post-Traumatic Stress Disorder

For full details see review protocol in Appendix A.

Psychological interventions for the prevention of PTSD in children and young people

Introduction to clinical evidence

Psychological interventions will be considered as classes of intervention (trauma-focused CBT; non-trauma-focused CBT; behavioural therapies; psychologically-focused debriefing; eye movement desensitisation and reprocessing [EMDR]; interpersonal psychotherapy [IPT]; parent training/family interventions; play therapy; self-help [without support]) and form the subsections below.

Evidence for interventions in the following classes was also searched for but none was found: hypnotherapy; psychodynamic therapies; counselling; human givens therapy; combined somatic and cognitive therapies.

Analysis was subdivided by the type and timing of prevention strategies, including: early prevention of PTSD for children exposed to trauma (with the intervention initiated within 1 month of the traumatic event); prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, in a war zone); early 'treatment' (initiated 1- 3 months after trauma) of non-significant PTSD symptoms in children; and delayed 'treatment' (initiated more than 3 months after trauma) of non-significant PTSD symptoms in children.

A planned sub-analysis aimed to compare effects by diagnostic status at baseline, however, findings were not meaningful as there was either only one subgroup or subgroups had no more than 1 study in each.

Methods and processes

This evidence review was developed using the methods and processes as described in Developing NICE guidelines: the manual; see the methods chapter for further information.

Declarations of interest were recorded according to NICE's 2014 and 2018 conflicts of interest policies.

Trauma-focused cognitive behavioural therapies (CBT): clinical evidence

Included studies

Fifty-two studies of trauma-focused CBT for the prevention of PTSD in children were identified for full-text review. Of these 52 studies, 19 RCTs (N=3371) were included. There were 5 comparisons for trauma-focused CBT.

For the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children, there were no included studies.

For prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone), there was evidence for 2 relevant comparisons: 11 RCTs (N=2816) compared trauma-focused CBT group with waitlist (Barron 2013; Barron et al. 2016; Berger 2007b; Berger 2012; Jordans 2010; McMullen 2013; O'Callaghan 2011/ O'Callaghan 2013 [trial protocol and published paper]; Qouta 2012/ Punamäki 2014/ Kangaslampi 2016 [one study reported across three papers]; Tol 2008/Tol 2010 [one study reported across two papers]; Tol 2012; Tol 2014). 1 RCT (N=50) compared a trauma-focused CBT group with a psychoeducational group (O'Callaghan 2015).

For the early treatment (1-3 months) of non-significant PTSD symptoms in children, there were no included studies.

For the delayed treatment (>3 months) of non-significant PTSD symptoms in children, there was evidence for 3 relevant comparisons: 3 RCTs (N=179) compared trauma-focused CBT with waitlist or TAU (Carrion 2013; Crombach & Elbert 2015; Ooi 2010/Ooi 2016 [trial protocol and published paper]). 3 RCTs (N=274) compared trauma-focused CBT with psychoeducation and supportive intervention or attention-placebo (Celano 1996; Deblinger 2001; Overbeek 2013). 1 RCT (N=52) compared trauma-focused CBT with eye movement desensitisation and reprocessing (EMDR) (de Roos 2011).

Excluded studies

Thirty-three studies were reviewed at full text and excluded from this review. The most common reasons for exclusion were non-randomised group assignment, or the paper was a systematic review with no new useable data and any meta-analysis results were not appropriate to extract.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Summary of clinical studies included in the evidence review

Table 2 and Table 3 provide brief summaries of the included studies and evidence from these are summarised in the clinical GRADE evidence profiles below (Table 4, Table 5, Table 6, Table 7 and Table 8).

See also the study selection flow chart in Appendix C, forest plots in Appendix E and study evidence tables in Appendix D.

Table 2: Summary of included studies: Trauma-focused CBT for children and young people with ongoing exposure to trauma

Comparison	Trauma-focused CBT group versus waitlist	Trauma-focused CBT group versus psychoeducational group
Total no. of studies (N randomised)	11 (2816)	1 (50)
Study ID	Barron 2013[1] Barron 2016[2] Berger 2007b[3] Berger 2012[4]	O'Callaghan 2015

Comparison	Trauma-focused CBT group versus waitlist	Trauma-focused CBT group versus psychoeducational group
	Jordans 2010[5] McMullen 2013[6] O'Callaghan 2011/2013[7] Qouta 2012/Punamaki 2014/Kangaslampi 2016[8] Tol 2008/2010[9] Tol 2012[10] Tol 2014[11]	
Country	Palestine[1,2,8] Israel[3,4] Nepal[5] Democratic Republic of Congo (DRC)[6,7] Indonesia[9] Sri Lanka[10] Burundi[11]	Democratic Republic of Congo (DRC)
Diagnostic status	Clinically important PTSD symptoms (scoring above a threshold on validated scale)[1,2,4,5,6,7,8,9,10,11] Non-significant symptoms (below threshold and <50% maximum score on scale)[3]	Clinically important PTSD symptoms (scoring above a threshold on validated scale)
Mean age (range)	11.1 (11-14)[1] 13.6 (11-15)[2] Mean NR (7-11)[3] 12.8 (11-13)[4] 12.7 (11-14)[5] 15.8 (13-17)[6] 16 (12-17)[7] 11.3 (10-13)[8] 9.9 (7-15)[9] 11 (9-12)[10] 12.3 (8-17)[11]	14.9 (14-17)
Sex (% female)	45[1] 60[2] 46[3] 54[4] 49[5,8,9] 0[6] 100[7] 39[10] 48[11]	42
Ethnicity (% BME)	NR	NR
Coexisting conditions	NR	NR

Comparison	Trauma-focused CBT group versus waitlist	Trauma-focused CBT group versus psychoeducational group
Mean months since traumatic event	NR	NR
Type of traumatic event	War exposure (Palestine) [1,2] Children attended public elementary school in Hadera, Israel, a city that suffered five terror attacks in the past 30 months. The school is 25 meters from the intersection that was the site of two suicide bombings[3] War-affected children in Gaza, Palestine[4,8] Conflict-affected, rural Nepal[5] Former child soldiers (78%) and other war-affected boys (22%). Participants are no longer child soldiers but categorised as ongoing exposure due to continued unrest in the country[6] War-affected girls in Democratic Republic of Congo who had either witnessed or had experienced rape or sexual abuse[7] Children exposed to at least one event of political violence in Poso, Indonesia[9] The most common types of war-related trauma were: seeing murdered bodies (52%), witnessing the death of family members (35%), and being involved in round-ups (33%). In addition, children reported an average of four types of ongoing daily stressors, most commonly: having been displaced (74%); being affected by poverty (68%), having difficulty meeting basic needs (63%), and quarrels in the neighbourhood (63%)[10] Children exposed to at least one potentially traumatic event in two in two violence-affected northwestern provinces of Burundi (Bubanza and Cibitoke) [11]	Witnessing war as a civilian: Gunshots or explosions (100%); Looting (100%); Burning houses or burnt houses (96%); Seeing blood, body parts or corpses (90%); Murder or killings (68%); Abduction by armed group (62%); People being buried alive (42%); Massacres (36%)
Single or multiple incident index trauma	Multiple	Multiple
Lifetime experience of trauma	Average number of exposures: 13.2[1] Number of exposures: 9-26 events (this included 16 adolescents who	Mean number of categories of traumatic events experienced: 19.74

Comparison	Trauma-focused CBT group versus waitlist	Trauma-focused CBT group versus psychoeducational group
	each experienced 24 types of stressors) [2] NR[3,4,5,8] Mean number of traumatic events experienced: 12.4[6] Mean number of traumatic life events: 12.1[7] Mean number of violent event types: 3.9[9] Mean number of war-related exposure trauma types: 2; Mean number of types of ongoing daily stressors: 4[10] Mean number of traumatic events: 4.3[11]	
Intervention details	Teaching Recovery Techniques (TRT) group-CBT (school-based) intervention (following manual by Smith, Dyregrov, & Yule, 2008) [1,2] Overshadowing the Threat of Terrorism (OTT) group-CBT (school-based) intervention (following the manual by Berger 2003) [3] Extended Enhancing Resiliency Amongst Students Experiencing Stress (ERASE-Stress) [4] Classroom-based intervention (following manual by Macy 2003) that integrated CBT techniques with cooperative play and creative-expressive exercises (drama, dance, and music) within a structured phased programme [5,9,10,11] Trauma-focused CBT based on protocol in Cohen (2006), adapted from individual into group format and culturally modified by including culturally applicable analogies and exemplars throughout[6] Trauma-focused CBT based on the manual from Smith (2011) [7] Trauma-focused CBT group (school-based), Teaching Recovery Techniques (TRT; Smith 1999), adapted to suit a war situation, and usage of an Arabic-language manual (Smith et al., 2000) [8]	Trauma-focused CBT group based on the manual from Cohen (2006)
Intervention format	Group[1,2,3,4,5,6,8,9,10,11] Individual & group[7]	Group
Intervention intensity	5x 90min weekly sessions[1]	9x 1.5-hour sessions (13.5 hours)

Comparison	Trauma-focused CBT group versus waitlist	Trauma-focused CBT group versus psychoeducational group
	5x sessions (length of session NR)[2] 8x 90-min weekly sessions (12 hours; +2 sessions for parents)[3] 16x weekly 90-min sessions (24 hours)[4] 15x 1-hour sessions (15 hours)[5] 15x sessions (length of session NR). Mean number of sessions attended 13.4 (range 10-15)[6] 15x weekly 2-hour sessions (30 hours). Mean number of attended sessions 13.2 (range 9-15)[7] 8x 2-hour sessions (16 hours)[8] 15x thrice-weekly sessions (length of session NR)[9,10] 15x sessions (length of session NR)[11]	
Comparator	Waitlist	Child Friendly Spaces (CFS), a psychosocial intervention that improves resilience and wellbeing of youth through community based, structured activities held in a safe, child friendly environment
Intervention length (weeks)	5[1,5,7,9,10,11] NR[2] 8[3] 16[4] 9[6] 4[8]	3

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; NR=not reported; PTSD=post-traumatic stress disorder
[1]Barron 2013; [2]Barron 2016; [3]Berger 2007b; [4]Berger 2012; [5]Jordans 2010; [6]McMullen 2013; [7]O'Callaghan 2011/2013; [8]Qouta 2012/Punamaki 2014/Kangaslampi 2016; [9]Tol 2008/2010; [10]Tol 2012; [11]Tol 2014

Table 3: Summary of included studies: Trauma-focused CBT for delayed treatment (>3 months) of non-significant PTSD symptoms

Comparison	Trauma-focused CBT versus waitlist or TAU	Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo	Trauma-focused CBT versus eye movement desensitisation and reprocessing (EMDR)
Total no. of studies (N randomised)	3 (179)	3 (274)	1 (52)
Study ID	Carrion 2013[1] Crombach 2015[2] Ooi 2010/2016[3]	Celano 1996[4] Deblinger 2001[5] Overbeek 2013[6]	de Roos 2011
Country	US[1]	US[4,5]	Netherlands

Comparison	Trauma-focused CBT versus waitlist or TAU	Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo	Trauma-focused CBT versus eye movement desensitisation and reprocessing (EMDR)
	Burundi[2] Australia[3]	Netherlands[6]	
Diagnostic status	Non-significant symptoms (below threshold and <50% maximum score on scale)	Non-significant symptoms (below threshold and <50% maximum score on scale)	Non-significant symptoms (below threshold and <50% maximum score on scale)
Mean age (range)	11.6 (8-17) [1] 17 (11-23) [2] 12.6 (10-17) [3]	10.5 (8-13) [4] 5.5 (2-8) [5] 9.2 (6 [7.5 for self-report outcome measures]-12) [6]	10.1 (4 [7 for self-report outcome measures]-18)
Sex (% female)	40[1] 0[2] 35[3]	100[4] 61[5] 44[6]	44
Ethnicity (% BME)	100[1] NR[2,3]	78[4] 36[5] NR[6]	47
Coexisting conditions	NR	NR	NR
Mean months since traumatic event	NR[1] Mean NR (lived on average for 5.2 years in the residential centre) [2] NR (mean months in Australia: 28.1 [SD=21.4]) [3]	Mean NR (1-26 months prior to treatment) [4] 11.4 (based on mothers estimation of age at first sexual abuse) [5] Mean 9.7 months since violence stopped (SD = 15.8 months) [6]	Mean NR (12-48 months)
Type of traumatic event	Mixed: The most common traumas reported included separation/loss (75%), witnessing violence (62%), homicide (52%), physical abuse (25%), and bullying (25%)[1] Unclear: Male children and adolescents living in a residential centre for former street children and other vulnerable children without proper homes in Bujumbura, the capital of Burundi[2] Witnessing war as a civilian: 46% exposed	Childhood sexual abuse: Contact sexual abuse defined as sexual touching by anyone at least 5 years older than the child by a perpetrator of any age if the victim felt coerced. All reports of sexual abuse had been substantiated by the appropriate statutory child protection agency. 56% of perpetrators were family members (25% in a paternal caregiver role; 31% other family members); 31%	Fireworks factory explosion. Extent of exposure: 71% present in inner ring; 65% thought that he/she was going to die; 85% separated from one of parents; 60% home damaged or lost; 6% parent severely injured; 13% injured her/himself; 4% family member died.

Comparison	Trauma-focused CBT versus waitlist or TAU	Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo	Trauma-focused CBT versus eye movement desensitisation and reprocessing (EMDR)
	to war; 61% spent time in camps[3]	acquaintances; 13% strangers[4] Childhood sexual abuse: All child participants had made a credible disclosure of contact sexual abuse to a professional prior to their participation in group[5] Witnessing interpersonal violence: Children exposed to domestic violence. Mean length of abusive relationship 10.9 years (SD=6.1)[6]	
Single or multiple incident index trauma	Multiple	Multiple	Single
Lifetime experience of trauma	Mean 5.03 (SD = 1.88) total traumas[1] NR[2] Mean number of traumas 4.2 (SD=2.1)[3]	NR[4,6] For 34% the sexual abuse had occurred once and for 66% the sexual abuse had occurred on more than one occasion (based on the mother's estimation)[5]	Mean number of traumatic events: 2.4 (SD=1.31). 33% reported no other significant history of trauma exposure, 25% reported at least one other significant past trauma event, and 42% reported two or more prior traumatic events
Intervention details	Stanford cue-centred treatment (following unpublished manual). In cue-centred treatment, youth and caregivers learn to recognize and effectively manage maladaptive responses that occur in response to traumatic reminders (cues)[1] Forensic Offender Rehabilitation Narrative Exposure Therapy (FORNET). Originally developed as a therapy for ex-combatants (Elbert 2012), but adapted for children	Recovery from abuse psychotherapy program (RAP; following manual by Celano 1991)[4] Trauma-focused CBT (caregiver and child). Caregivers and children participated in separate groups (therapy based on individual therapy approach of Deblinger & Heflin, 1996)[5] Community-based intervention with specific factors (focused on trauma, parenting and coping), 'Ennuik. . .!' ('It's my	Trauma-focused CBT (following the manual of Eland 2002) with separate individual sessions for children and parents (with conjoint parent-child feedback)

Comparison	Trauma-focused CBT versus waitlist or TAU	Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo	Trauma-focused CBT versus eye movement desensitisation and reprocessing (EMDR)
	and adolescents in the residential centre[2] Teaching Recovery Techniques intervention (following the manual by Smith 2000)[3]	turn now!', following manual by Blijfgroep 2009) with parallel sessions for children and for their non-violent custodial parent[6]	
Intervention format	Individual/Family[1] Individual[2] Group[3]	Individual/Family[4] Group[5,6]	Individual
Intervention intensity	15x weekly 50-min sessions (12.5 hours)[1] 5x 1-2 hour sessions (5-10 hours)[2] 8x 1-hour sessions (8 hours)[3]	8x 1-hour sessions (8 hours)[4] 11x 2 hour sessions (22 hours). Mean number of sessions attended was 8.5 (SD=1.9) for completer sample across both arms[5] 9x 90-min sessions (13.5 hours). Mean number of sessions attended across both arms of study was 6.2 sessions (SD = 2.26)[6]	Up to 4x weekly 1-hour sessions for children and up to 4x weekly 1-hour sessions for parents (8 hours). Mean number of attended child sessions was 4.00 (SD=1.03, range 2-7)
Comparator	Waitlist[1,3] Usual care in the residential centre included educational advice by the educators and psychological counselling by the Burundian psychologist from the centre when specific problems emerged[2]	Supportive unstructured psychotherapy. A mean of 50% of sessions were spent with the child-only, 43% with the caregiver and 6% conjoint sessions with both child and caregiver[4] Supportive group therapy. Caregivers and children participated in separate groups. The parent peer support group followed a supportive counselling approach (based on unpublished manual), therapeutic techniques included active listening, unconditional positive regard, reflecting feelings, and empathy[5]	Eye movement desensitisation and reprocessing (EMDR; following the manual by Shapiro 2001 with age-appropriate modifications suggested by Tinker & Wilson 1999 and Greenwald 1999), with separate individual sessions for children and parents

Comparison	Trauma-focused CBT versus waitlist or TAU	Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo	Trauma-focused CBT versus eye movement desensitisation and reprocessing (EMDR)
		Control program "Jijhoorterbij" ("You belong"), based on an analysis of non-specific factors used in the intervention programme (Mohr 2009) [6]	
Intervention length (weeks)	15[1] 17[2] 8[3]	8x 1-hour sessions (8 hours) [4] 11x 1.75 hour sessions (19.25 hours). Mean number of sessions attended was 8.5 (SD=1.9) for completer sample across both arms[5] 9x 90-min sessions (13.5 hours). Mean number of sessions attended across both arms of study was 6.2 sessions (SD = 2.26) [6]	4

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; NR=not reported; PTSD=post-traumatic stress disorder; SD=standard deviation
[1]Carrion 2013; [2]Crombach 2015; [3]Ooi 2010/2016; [4]Celano 1996; [5]Deblinger 2001; [6]Overbeek 2013

See appendix D for full evidence tables.

Quality assessment of clinical studies included in the evidence review

The clinical evidence profiles for this review (trauma-focused CBT for the prevention of PTSD in children) are presented in Table 4, Table 5, Table 6, Table 7 and Table 8.

Table 4: Summary clinical evidence profile: Trauma-focused CBT group versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone)

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Waitlist	Corresponding risk Trauma-focused CBT group			
PTSD symptomatology self-rated at endpoint CRIES/CPSS/UCLA PTSD-RI change score Follow-up: 4-16 weeks		The mean PTSD symptomatology self-rated at endpoint in the intervention groups was 0.82 standard deviations lower (1.22 to 0.42 lower)		1570 (6 studies)	very low[1,2]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Waitlist	Corresponding risk Trauma-focused CBT group			
PTSD symptomatology self-rated at 2-6 month follow-up CRIES/CPSS/UCLA PTSD-RI change score Follow-up: 2-6 months		The mean PTSD symptomatology self-rated at 2-6 month follow-up in the intervention groups was 0.55 standard deviations lower (1.04 to 0.05 lower)		1677 (5 studies)	very low[1,2]
PTSD symptomatology clinician-rated UCLA PTSD-RI change score Follow-up: mean 9 weeks		The mean PTSD symptomatology clinician-rated in the intervention groups was 1.96 standard deviations lower (2.65 to 1.26 lower)		48 (1 study)	moderate[3]
PTSD at endpoint Number with diagnosis or who met criteria for PTSD Follow-up: 4-16 weeks	505 per 1000	359 per 1000 (308 to 419)	RR 0.71 (0.61 to 0.83)	836 (4 studies)	moderate[1]
PTSD at 6-month follow-up Number who met criteria for PTSD Follow-up: mean 6 months	284 per 1000	298 per 1000 (222 to 406)	RR 1.05 (0.78 to 1.43)	404 (1 study)	very low[1,4]
Anxiety symptoms at endpoint SCARED change score Follow-up: 5-16 weeks		The mean anxiety symptoms at endpoint in the intervention groups was 0.26 standard deviations lower (0.44 to 0.08 lower)		882 (3 studies)	low[1]
Anxiety symptoms at 2-6 month follow-up SCARED change score Follow-up: 2-6 months		The mean anxiety symptoms at 2-6 month follow-up in the intervention groups was 0.48 standard deviations lower (1.1 lower to 0.14 higher)		944 (3 studies)	very low[1,2,6]
Depression symptoms at endpoint Birleson Depression Inventory change score Follow-up: 4-5 weeks		The mean depression symptoms at endpoint in the intervention groups was 0.29 standard deviations lower (0.52 to 0.06 lower)		1364 (4 studies)	very low[1,7]
Depression symptoms at 3-6 month follow-up Birleson Depression Inventory change score		The mean depression symptoms at 3-6 month follow-up in the intervention groups was 0.01 standard		1535 (4 studies)	very low[1,7]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Waitlist	Corresponding risk Trauma-focused CBT group			
Follow-up: 3-6 months		deviations higher (0.16 lower to 0.17 higher)			
Dissociative symptoms A-DES change score		The mean dissociative symptoms in the intervention groups was 0.3 standard deviations lower (0.62 lower to 0.01 higher)		154 (1 study)	low[1,6]
Functional impairment at endpoint Child Diagnostic Interview Schedule Sum score; change score Follow-up: mean 16 weeks		The mean functional impairment at endpoint in the intervention groups was 0.64 standard deviations lower (0.99 to 0.29 lower)		154 (1 study)	low[1,3]
Functional impairment at 2-month follow-up Child Diagnostic Interview Schedule Sum score; change score Follow-up: mean 2 months		The mean functional impairment at 2-month follow-up in the intervention groups was 1.14 standard deviations lower (1.5 to 0.79 lower)		142 (1 study)	low[1,3]
Emotional and behavioural problems at endpoint SDQ/CAS change score Follow-up: mean 5 weeks		The mean emotional and behavioural problems at endpoint in the intervention groups was 0.25 standard deviations lower (0.56 lower to 0.05 higher)		728 (2 studies)	very low[1,6,7]
Emotional and behavioural problems at 3-6 month follow-up SDQ/CAS change score Follow-up: 3-6 months		The mean emotional and behavioural problems at 3-6 month follow-up in the intervention groups was 0.05 standard deviations lower (0.28 lower to 0.18 higher)		802 (2 studies)	very low[1,7]
Discontinuation Number of participants lost to follow-up Follow-up: 4-16 weeks	25 per 1000	37 per 1000 (9 to 144)	RR 1.49 (0.38 to 5.87)	2488 (10 studies)	very low[1,4,7]

A-DES=Adolescent Dissociative Experience Scale-II; CAS=; CBT=cognitive behavioural therapy; CI=confidence interval; CPSS=Child PTSD Symptom Scale; CRIES=Children's Revised Impact of Event Scale; PTSD=post-traumatic stress disorder; RR=risk ratio; SCARED=Screen for Child Anxiety Related Disorders; SDQ=Strength and Difficulties Questionnaires; SMD=standard mean difference; UCLA PTSD-RI=UCLA PTSD-Reaction Index

[1] *Risk of bias is high or unclear across multiple domains*
[2] *Considerable heterogeneity (I2>80%)*

[3] *OIS not met (N<400)*
[4] *95% CI crosses line of no effect and thresholds for both clinically important benefit and harm*
[5] *OIS not met (events<300)*
[6] *95% crosses both line of no effect and threshold for clinically important benefit*
[7] *Substantial heterogeneity (I2>50%)*

Table 5: Summary clinical evidence profile: Trauma-focused CBT group versus psychoeducational group for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone)

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Psychoeducational group	Corresponding risk Trauma-focused CBT group			
PTSD symptomatology clinician-rated at endpoint UCLA PTSD-RI change score Follow-up: mean 3 weeks		The mean PTSD symptomatology clinician-rated at endpoint in the intervention groups was 0.26 standard deviations lower (0.82 lower to 0.3 higher)		50 (1 study)	moderate[1]
PTSD symptomatology clinician-rated at 6-month follow-up UCLA PTSD-RI change score Follow-up: mean 6 months		The mean PTSD symptomatology clinician-rated at 6-month follow-up in the intervention groups was 0.12 standard deviations higher (0.44 lower to 0.67 higher)		50 (1 study)	moderate[2]
Discontinuation Number of participants lost to follow-up Follow-up: mean 3 weeks	See comment	See comment	Not estimable	50 (1 study)	moderate[3]

CBT=cognitive behavioural therapy; CI=confidence interval; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference; UCLA PTSD-RI= UCLA PTSD-Reaction Index
[1] *95% CI crosses both line of no effect and threshold for clinically important benefit*
[2] *95% CI crosses both line of no effect and threshold for clinically important harm*
[3] *OIS not met (events<300)*

Table 6: Summary clinical evidence profile: Trauma-focused CBT versus waitlist or TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Waitlist or TAU	Corresponding risk Trauma-focused CBT			
PTSD symptomatology self-rated		The mean PTSD symptomatology		147 (2 studies)	very low[1,2]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Waitlist or TAU	Corresponding risk Trauma-focused CBT			
UCLA PTSD-RI/CRIES change score Follow-up: 8-15 weeks		self-rated in the intervention groups was 0.7 standard deviations lower (1.04 to 0.37 lower)			
PTSD symptomatology clinician-rated UCLA PTSD-I change score Follow-up: mean 17 weeks		The mean PTSD symptomatology clinician-rated in the intervention groups was 0.55 standard deviations lower (1.26 lower to 0.16 higher)		32 (1 study)	moderate[3]
Depression symptoms CDI/Birleson Depression Inventory change score Follow-up: 8-15 weeks		The mean depression symptoms in the intervention groups was 0.56 standard deviations lower (0.9 to 0.23 lower)		147 (2 studies)	very low[1,2]
Emotional and behavioural problems: Internalising HSCL-37A Internalizing change score Follow-up: mean 8 weeks		The mean emotional and behavioural problems: internalising in the intervention groups was 0.08 standard deviations lower (0.52 lower to 0.35 higher)		82 (1 study)	very low[1,3]
Emotional and behavioural problems: Externalising HSCL-37A Externalizing change score Follow-up: mean 8 weeks		The mean emotional and behavioural problems: externalising in the intervention groups was 0.19 standard deviations higher (0.25 lower to 0.62 higher)		82 (1 study)	very low[1,4]
Discontinuation Number of participants lost to follow-up Follow-up: 8-17 weeks	138 per 1000	121 per 1000 (65 to 224)	RR 0.88 (0.47 to 1.63)	179 (3 studies)	low[5]

CBT=cognitive behavioural therapy; CDI=Children's Depression Inventory; CI=confidence interval; CRIES=Children's Revised Impact of Event Scale; HSCL-37A=Hopkins Symptom Checklist-37; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference; TAU=treatment as usual

[1] *Risk of bias is high or unclear across multiple domains*
[2] *OIS not met (N<400)*
[3] *95% CI crosses both line of no effect and threshold for clinically important benefit*
[4] *95% CI crosses both line of no effect and threshold for clinically important harm*
[5] *95% CI crosses line of no effect and thresholds for both clinically important benefit and harm*

Table 7: Summary clinical evidence profile: Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Psychoeducation and supportive intervention or attention-placebo	Corresponding risk Trauma-focused CBT			
PTSD symptomatology self-rated at endpoint TSCC/CITES-R PTSD subscale change score Follow-up: mean 8 weeks		The mean PTSD symptomatology self-rated at endpoint in the intervention groups was 0.09 standard deviations higher (0.73 lower to 0.9 higher)		125 (2 studies)	very low[1,2,3]
PTSD symptomatology self-rated at 6-month follow-up TSCC change score Follow-up: mean 6 months		The mean PTSD symptomatology self-rated at 6-month follow-up in the intervention groups was 0.18 standard deviations higher (0.27 lower to 0.63 higher)		88 (1 study)	very low[1,4]
PTSD symptomatology parent-rated at endpoint K-SADS-E: PTSD change score		The mean PTSD symptomatology parent-rated at endpoint in the intervention groups was 0.01 standard deviations higher (0.58 lower to 0.6 higher)		44 (1 study)	very low[1,3]
PTSD symptomatology parent-rated at 3-month follow-		The mean PTSD symptomatology parent-rated at 3-		44 (1 study)	very low[1,4]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Psychoeducation and supportive intervention or attention-placebo	Corresponding risk Trauma-focused CBT			
up K-SADS-E: PTSD change score Follow-up: mean 3 months		month follow-up in the intervention groups was 0.27 standard deviations higher (0.32 lower to 0.87 higher)			
PTSD at endpoint Number of participants scoring above clinical threshold on a validated scale	34 per 1000	62 per 1000 (7 to 535)	RR 1.81 (0.21 to 15.51)	93 (1 study)	very low[1,3]
PTSD at 6-month follow-up Number of participants scoring above clinical threshold on a validated scale Follow-up: mean 6 months	74 per 1000	66 per 1000 (13 to 336)	RR 0.89 (0.17 to 4.54)	88 (1 study)	very low[1,3]
Depression symptoms at endpoint CDI change score		The mean depression symptoms at endpoint in the intervention groups was 0.16 standard deviations higher (0.23 lower to 0.55 higher)		113 (1 study)	very low[1,4]
Depression symptoms at 6-month follow-up CDI change score Follow-up: mean 6 months		The mean depression symptoms at 6-month follow-up in the intervention groups was 0.32 standard deviations higher (0.09 lower to 0.73 higher)		106 (1 study)	very low[1,4]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Psychoeducation and supportive intervention or attention-placebo	Corresponding risk Trauma-focused CBT			
Emotional and behavioural problems at endpoint CBCL Total raw scores; change score		The mean emotional and behavioural problems at endpoint in the intervention groups was 0.29 standard deviations lower (0.89 lower to 0.3 higher)		44 (1 study)	low[1,5]
Emotional and behavioural problems at 3-month follow-up CBCL Total raw scores; change score Follow-up: mean 3 months		The mean emotional and behavioural problems at 3-month follow-up in the intervention groups was 0.31 standard deviations lower (0.9 lower to 0.29 higher)		44 (1 study)	low[1,5]
Emotional and behavioural problems: Internalising at endpoint CBCL Internalizing T-scores, change score Follow-up: 8-9 weeks		The mean emotional and behavioural problems: internalising at endpoint in the intervention groups was 0.51 standard deviations higher (0.05 lower to 1.08 higher)		168 (2 studies)	very low[1,2,4]
Emotional and behavioural problems: Internalising at 6-month follow-up CBCL Internalizing T-scores, change score Follow-up: mean 6 months		The mean emotional and behavioural problems: internalising at 6-month follow-up in the intervention groups was 0.39 standard deviations higher (0.03 to 0.75 higher)		135 (1 study)	very low[1,6]
Emotional and behavioural problems:		The mean emotional and behavioural		168 (2 studies)	very low[1,4]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Psychoeducation and supportive intervention or attention-placebo	Corresponding risk Trauma-focused CBT			
Externalising at endpoint CBCL Externalizing T-scores, change score Follow-up: 8-9 weeks		problems: externalising at endpoint in the intervention groups was 0.19 standard deviations higher (0.13 lower to 0.51 higher)			
Emotional and behavioural problems: Externalising at 6-month follow-up CBCL Externalizing T-scores, change score Follow-up: mean 6 months		The mean emotional and behavioural problems: externalising at 6-month follow-up in the intervention groups was 0.41 standard deviations higher (0.05 to 0.77 higher)		135 (1 study)	very low[1,6]
Global functioning CGAS change score Follow-up: mean 8 weeks Better indicated by higher values		The mean global functioning in the intervention groups was 0.4 standard deviations lower (1.19 lower to 0.38 higher)		26 (1 study)	low[1,5]
Discontinuation Number of participants lost to follow-up Follow-up: 8-9 weeks	190 per 1000	264 per 1000 (154 to 452)	RR 1.39 (0.81 to 2.38)	212 (2 studies)	low[1,4]

CBCL=child behaviour checklist; CBT=cognitive behavioural therapy; CDI= Children's Depression Inventory; CITES-R=Children's Impact of Event Scale-Revised; CI=confidence interval; CGAS=Children's Global Assessment Scale; K-SADS-E=Kiddie Schedule for Affective Disorders and Schizophrenia; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference; TSCC=Trauma Symptom Checklist for Children

[1] Risk of bias is high or unclear across multiple domains

[2] Substantial heterogeneity (I2>50%)

[3] 95% CI crosses line of no effect and thresholds for both clinically important benefit and harm

[4] 95% CI crosses both line of no effect and threshold for clinically important harm

[5] 95% CI crosses both line of no effect and threshold for clinically important benefit

[6] OIS not met (N<400)

Table 8: Summary clinical evidence profile: Trauma-focused CBT versus eye movement desensitisation and reprocessing (EMDR) for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Eye movement desensitisation and reprocessing (EMDR)	Corresponding risk Trauma-focused CBT			
PTSD symptomatology self-rated at endpoint UCLA PTSD-RI change score Follow-up: mean 4 weeks		The mean PTSD symptomatology self-rated at endpoint in the intervention groups was 0.22 standard deviations higher (0.41 lower to 0.84 higher)		40 (1 study)	very low[1,2]
PTSD symptomatology self-rated at 3-month follow-up UCLA PTSD-RI change score Follow-up: mean 3 months		The mean PTSD symptomatology self-rated at 3-month follow-up in the intervention groups was 0.44 standard deviations higher (0.19 lower to 1.06 higher)		40 (1 study)	very low[1,2]
Depression symptoms at endpoint Birleson Depression Inventory change score Follow-up: mean 4 weeks		The mean depression symptoms at endpoint in the intervention groups was 0.22 standard deviations lower (0.84 lower to 0.4 higher)		40 (1 study)	very low[1,3]
Depression symptoms at 3-month follow-up Birleson Depression Inventory change score Follow-up: mean 3 months		The mean depression symptoms at 3-month follow-up in the intervention groups was 0.34 standard deviations higher (0.29 lower to 0.96 higher)		40 (1 study)	very low[1,2]
Anxiety symptoms at endpoint MASC change score Follow-up: mean 4 weeks		The mean anxiety symptoms at endpoint in the intervention groups was 0.55 standard deviations higher (0.08 lower to 1.18 higher)		40 (1 study)	very low[1,2]
Anxiety symptoms at 3-month follow-up MASC change		The mean anxiety symptoms at 3-month follow-up		40 (1 study)	very low[1,2]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Eye movement desensitisation and reprocessing (EMDR)	Corresponding risk Trauma-focused CBT			
score Follow-up: mean 3 months		in the intervention groups was 0.35 standard deviations higher (0.27 lower to 0.98 higher)			
Emotional and behavioural problems at 3-month follow-up CBCL Total raw scores; change score Follow-up: mean 3 months		The mean emotional and behavioural problems at 3-month follow-up in the intervention groups was 0.27 standard deviations higher (0.27 lower to 0.82 higher)		52 (1 study)	very low[1,2]
Discontinuation Number of participants lost to follow-up Follow-up: mean 4 weeks	308 per 1000	231 per 1000 (92 to 572)	RR 0.75 (0.3 to 1.86)	52 (1 study)	low[1,2]

CBCL= Child Behaviour Checklist; CBT=cognitive behavioural therapy; CI=confidence interval; EMDR=eye movement desensitisation and reprocessing; MASC=Multidimensional Anxiety Scale for Children; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference; UCLA PTSD-RI=UCLA PTSD-Reaction Index

[1] Risk of bias is high or unclear across multiple domains

[2] 95% CI crosses both line of no effect and threshold for clinically important harm

[3] 95% CI crosses both line of no effect and threshold for clinically important benefit

See appendix F for full GRADE tables.

Non-trauma-focused cognitive behavioural therapies (CBT): clinical evidence

Included studies

Six studies of non-trauma-focused CBT for the prevention of PTSD in children and young people were identified for full-text review. Of these 5 studies, 1 RCT (N=112) was included (Berkowitz 2011) in a single comparison of a child and caregiver CBT intervention compared with a psychoeducation and supportive intervention.

Excluded studies

Five studies were reviewed at full text and excluded from this review because the intervention was not targeted at PTSD symptoms.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Summary of clinical studies included in the evidence review

Table 9 provides a brief summary of the included study and evidence from this study is summarised in the clinical GRADE evidence profile below (Table 10).

See also the study selection flow chart in Appendix C, forest plots in Appendix E and study evidence tables in Appendix D.

Table 9: Summary of included studies: Non-trauma-focused CBT early prevention (<1 month) of PTSD in children

Comparison	Child and caregiver CBT intervention versus psychoeducation and supportive intervention
Total no. of studies (N randomised)	1 (112)
Study ID	Berkowitz 2011
Country	US
Diagnostic status	Clinically important PTSD symptoms (scoring above a threshold on validated scale)
Mean age (range)	12 (7-17)
Sex (% female)	52
Ethnicity (% BME)	68
Coexisting conditions	NR
Mean months since traumatic event	1
Type of traumatic event	Mixed: 24% motor vehicle accident (MVA); 18% sexual abuse; 19% witnessing violence; 21% physical assaults; 8% injuries (e.g., sports, cycling); 5% animal bite; 5% threats of violence (e.g., mugging)
Single or multiple incident index trauma	Unclear
Lifetime experience of trauma	NR
Intervention details	Child and Family Traumatic Stress Intervention (CFTSI). Key content includes: sleep disturbance; depressive withdrawal; oppositionality/tantrums; intrusive thoughts; anxiety, avoidance and phobic reactions; general overview of traumatic stress symptoms and techniques to manage them. Key techniques include: psychoeducational material; behavioural and cognitive procedures such as thought replacement methods for intrusive thoughts; breathing retraining for anxiety; behavioural activation for depression and avoidance; homework assignments
Intervention format	Individual/Family
Intervention intensity	4x 1-1.5 hour sessions (4-6 hours in total)
Comparator	Psychoeducational (including relaxation training) and supportive intervention (caregiver and child)
Intervention length (weeks)	4

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; NR=not reported; PTSD=post-traumatic stress disorder

See appendix D for full evidence tables.

Quality assessment of clinical studies included in the evidence review

The clinical evidence profile for this review (non-trauma-focused CBT for the prevention of PTSD in children) is presented in Table 10.

Table 10: Summary clinical evidence profile: Child and caregiver CBT intervention versus psychoeducation and supportive intervention for early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Psychoeducation and supportive intervention	Corresponding risk Child and caregiver CBT intervention			
PTSD symptomatology self-rated at endpoint TSCC: Post-traumatic Stress change score Follow-up: mean 4 weeks		The mean PTSD symptomatology self-rated at endpoint in the intervention groups was 0.68 standard deviations lower (1.07 to 0.29 lower)		106 (1 study)	low[1,2]
PTSD symptomatology self-rated at 3-month follow-up TSCC: Post-traumatic Stress change score Follow-up: mean 3 months		The mean PTSD symptomatology self-rated at 3-month follow-up in the intervention groups was 0.58 standard deviations lower (0.97 to 0.19 lower)		106 (1 study)	low[1,2]
Anxiety symptoms at endpoint TSCC: Anxiety change score Follow-up: mean 4 weeks		The mean anxiety symptoms at endpoint in the intervention groups was 0.8 standard deviations lower (1.2 to 0.41 lower)		106 (1 study)	low[1,2]
Anxiety symptoms at 3-month follow-up TSCC: Anxiety change score Follow-up: mean 3 months		The mean anxiety symptoms at 3-month follow-up in the intervention groups was 0.44 standard deviations lower (0.83 to 0.06 lower)		106 (1 study)	low[1,2]
Dissociative symptoms at endpoint TSCC: Dissociation change score Follow-up: mean 4 weeks		The mean dissociative symptoms at endpoint in the intervention groups was 0.4 standard deviations lower (0.78 to 0.01 lower)		106 (1 study)	low[1,2]
Dissociative symptoms at 3-month follow-up TSCC: Dissociation change score Follow-up: mean 3 months		The mean dissociative symptoms at 3-month follow-up in the intervention groups was 0.34 standard deviations lower		106 (1 study)	low[1,3]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Psychoeducation and supportive intervention	Corresponding risk Child and caregiver CBT intervention			
		(0.72 lower to 0.05 higher)			

CBT=cognitive behavioural therapy; CI=confidence interval; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standard mean difference; TSCC=Trauma Symptom Checklist for Children
[1] Risk of bias is high or unclear across multiple domains
[2] OIS not met (N<400)
[3] 95% CI crosses both line of no effect and threshold for clinically important benefit

See appendix F for full GRADE tables.

Behavioural therapies: clinical evidence

Included studies

Three studies of behavioural therapies for the prevention of PTSD in children were identified for full-text review. None of these studies were included.

Excluded studies

Three studies were reviewed at full text and excluded from this review because efficacy or safety data could not be extracted, or the study was unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided).

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Psychologically-focused debriefing: clinical evidence

Included studies

Four studies of psychologically-focused debriefing for the prevention of PTSD in children were identified for full-text review. Of these 4 studies, 2 RCTs (N=259) were included. Many of these RCTs were three- or four-armed trials and as such were included in a single comparison for psychologically-focused debriefing.

For the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children, there was evidence for 1 relevant comparison: 2 RCTs (N=259) compared single session debriefing with TAU or attention-placebo (Stallard 2006a; Zehnder 2010).

For prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone), there were no included studies.

For the early treatment (1-3 months) of non-significant PTSD symptoms in children, there were no included studies.

For the delayed treatment (>3 months) of non-significant PTSD symptoms in children, there were no included studies.

Excluded studies

Two studies were reviewed at full text and excluded from this review due to non-randomised group assignment or because the paper was a systematic review with no new useable data and any meta-analysis results not appropriate to extract.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Summary of clinical studies included in the evidence review

See also the study selection flow chart in Appendix C, forest plots in Appendix E and study evidence tables in Appendix D.

Table 11 provides brief summaries of the included studies and evidence from these are summarised in the clinical GRADE evidence profile below (Table 12).

See also the study selection flow chart in Appendix C, forest plots in Appendix E and study evidence tables in Appendix D.

Table 11: Summary of included studies: Single session debriefing for early prevention (<1 month) of PTSD in children

Comparison	Single session debriefing versus TAU/attention-placebo
Total no. of studies (N randomised)	2 (259)
Study ID	Stallard 2006a[1] Zehnder 2010[2]
Country	UK[1] Switzerland[2]
Diagnostic status	Non-significant symptoms (below threshold and <50% maximum score on scale)
Mean age (range)	14.9 (range NR) [1] 11.6 (7-16) [2]
Sex (% female)	53[1] 41[2]
Ethnicity (% BME)	NR
Coexisting conditions	NR
Mean months since traumatic event	1[1] 0.3[2]
Type of traumatic event	Motor Vehicle Collision: Child road traffic accident survivors[1] Motor Vehicle Collision: Children who had received medical treatment (inpatient or outpatient) after a road traffic accident (collision) [2]
Single or multiple incident index trauma	Single
Lifetime experience of trauma	NR
Intervention details	Single session debriefing (following manual by Dyregrov, 1989) [1] Single-session early psychological intervention[2]
Intervention format	Individual
Intervention intensity	1 session[1]

Comparison	Single session debriefing versus TAU/attention-placebo
	1x 30-min session[2]
Comparator	Non-accident focused discussion. Children were asked to talk about their interests, school, past holidays, friends, favourite music and sports teams[1] Standard medical care, including clinical diagnostics and comprehensive medical treatment. Different professionals (paediatricians, surgeons, physiotherapists, occupational therapist, etc.) were available if needed. Psychological support was also available but not routinely provided. In this sample, none of the participants received psychological support or treatment during the duration of the study[2]
Intervention length (weeks)	0.1

BME=Black and Minority Ethnic; NR=not reported; TAU=treatment as usual
[1]Stallard 2006a; [2]Zehnder 2010

See appendix D for full evidence tables.

Quality assessment of clinical studies included in the evidence review

The clinical evidence profile for this review (psychologically-focused debriefing for the prevention of PTSD in children) is presented in Table 12.

Table 12: Summary clinical evidence profile: Single session debriefing versus TAU/attention-placebo for early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU/attention-placebo	Corresponding risk Single session debriefing			
PTSD symptomatology self-rated at 8-month follow-up CRIES change score Follow-up: mean 8 months		The mean ptsd symptomatology self-rated at 8-month follow-up in the intervention groups was 0.27 standard deviations higher (0.07 lower to 0.62 higher)		132 (1 study)	moderate[1]
PTSD symptomatology clinician-rated at 2-month follow-up IBS-KJ standardized clinical interview change score Follow-up: mean 2 months		The mean ptsd symptomatology clinician-rated at 2-month follow-up in the intervention groups was 0.01 standard deviations higher (0.39 lower to 0.4 higher)		99 (1 study)	low[2,3]
PTSD symptomatology clinician-rated at 6-month follow-up IBS-KJ standardized clinical interview change score		The mean ptsd symptomatology clinician-rated at 6-month follow-up in the intervention groups was 0.07 standard deviations lower		99 (1 study)	low[2,3]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU/attention-placebo	Corresponding risk Single session debriefing			
Follow-up: mean 6 months		(0.47 lower to 0.32 higher)			
PTSD diagnosis at 8-month follow-up Number of people who had a diagnosis of PTSD Follow-up: mean 8 months	113 per 1000	143 per 1000 (58 to 352)	RR 1.27 (0.51 to 3.12)	132 (1 study)	low[4]
Anxiety symptoms at 8-month follow-up RCMAS change score Follow-up: mean 8 months		The mean anxiety symptoms at 8-month follow-up in the intervention groups was 0.15 standard deviations higher (0.19 lower to 0.49 higher)		132 (1 study)	moderate[3]
Depression symptoms at 2-month follow-up CDI change score Follow-up: mean 2 months		The mean depression symptoms at 2-month follow-up in the intervention groups was 0.21 standard deviations lower (0.6 lower to 0.19 higher)		99 (1 study)	low[2,5]
Depression symptoms at 6-8 month follow-up CDI/Birleson Depression Inventory change score Follow-up: 6-8 months		The mean depression symptoms at 6-8 month follow-up in the intervention groups was 0.05 standard deviations lower (0.38 lower to 0.28 higher)		231 (2 studies)	moderate[3]
Emotional and behavioural problems at 2-month follow-up CBCL Total T-scores change score Follow-up: mean 2 months		The mean emotional and behavioural problems at 2-month follow-up in the intervention groups was 0.38 standard deviations lower (0.78 lower to 0.02 higher)		99 (1 study)	low[2,5]
Emotional and behavioural problems at 6-8 month follow-up CBCL Total T-scores/SDQ change score		The mean emotional and behavioural problems at 6-8 month follow-up in the intervention groups was 0.3 standard		231 (2 studies)	low[5,6]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU/attention-placebo	Corresponding risk Single session debriefing			
Follow-up: 6-8 months		deviations lower (0.76 lower to 0.16 higher)			
Discontinuation Number of participants lost to follow-up Follow-up: 2-8 months	111 per 1000	121 per 1000 (31 to 472)	RR 1.09 (0.28 to 4.25)	259 (2 studies)	low[4]

CBCL=Child Behaviour Checklist; CDI=Children's Depression Inventory; CI=confidence interval; CRIES=Children's Revised Impact of Event Scale; IBS-KJ=Interviews zu Belastungsstorungen bei Kindern und Jugendlichen; PTSD=post-traumatic stress disorder; RCMAS=Revised Children's Manifest Anxiety Scale; RR=risk ratio; SDQ=Strength and Difficulties Questionnaires; SMD=standard mean difference; TAU=treatment as usual

[1] 95% CI crosses both line of no effect and threshold for clinically important harm
[2] Risk of bias is high or unclear across multiple outcomes
[3] OIS not met (N<400)
[4] 95% CI crosses line of no effect and thresholds for both clinically important benefit and harm
[5] 95% CI crosses both line of no effect and threshold for clinically important benefit
[6] Substantial heterogeneity (I2>50%)

See appendix F for full GRADE tables.

Eye movement desensitisation and reprocessing (EMDR): clinical evidence

Included studies

Three studies of eye movement desensitisation and reprocessing (EMDR) for the prevention of PTSD in children and young people were identified for full-text review. Of these 3 studies, 1 RCT (N=65) was included in a single comparison for EMDR.

For the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children, there were no included studies.

For prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone), there were no included studies.

For the early treatment (1-3 months) of non-significant PTSD symptoms in children, there were no included studies.

For the delayed treatment (>3 months) of non-significant PTSD symptoms in children, there was evidence for 1 relevant comparison: 1 RCT (N=65) compared eye movement desensitisation and reprocessing (EMDR) in addition to TAU with TAU-only (Farkas et al. 2010).

Excluded studies

Two studies were reviewed at full text and excluded from this review due to non-randomised group assignment.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Summary of clinical studies included in the evidence review

See also the study selection flow chart in Appendix C, forest plots in Appendix E and study evidence tables in Appendix D.

Table 13 provides a brief summary of the included study and evidence from this study is summarised in the clinical GRADE evidence profile below (Table 14).

See also the study selection flow chart in Appendix C, forest plots in Appendix E and study evidence tables in Appendix D.

Table 13: Summary of included studies: Eye movement desensitisation and reprocessing (EMDR) for delayed treatment (>3 months) of non-significant PTSD symptoms

Comparison	Eye movement desensitisation and reprocessing (EMDR; + TAU) versus TAU
Total no. of studies (N randomised)	1 (65)
Study ID	Farkas 2010
Country	Canada
Diagnostic status	Non-significant symptoms (below threshold and <50% maximum score on scale)
Mean months since onset of PTSD	NR
Mean age (range)	14.6 (13-17)
Sex (% female)	63
Ethnicity (% BME)	NR
Coexisting conditions	NR
Mean months since traumatic event	NR
Type of traumatic event	63% Injury; 68% Witness injury; 95% Friend/family sick/died; 33% Robbery; 5% Fire; 8% Natural disaster; 63% Threat; 75% Physical abuse; 58% Sexual abuse
Single or multiple incident index trauma	Unclear
Lifetime experience of trauma	Mean number of trauma types: 4.4 (SD=1.5)
Intervention details	Motivation–adaptive skills–trauma resolution (MASTR)/eye movement desensitization and reprocessing (EMDR). This intervention combined a trauma-focused treatment (EMDR) with a treatment incorporating strategies for youth with conduct problems (MASTR) following the methods used by Greenwald (2009)
Intervention format	Individual
Intervention intensity	12x weekly 90-min sessions (18 hours in total; + 11 sessions of TAU therapy)
Comparator	Care normally received by adolescents in youth protective services. Among participants in the control group, 57% received another form of therapy. The types of therapy received were individual (43%), dyadic (14%), group (14%), family (14%), or other types of therapy (29%)
Intervention length (weeks)	12

BME=Black and minority ethnic; EMDR=Eye movement desensitisation and reprocessing; MASTR= Motivation–adaptive skills–trauma resolution; NR=not reported; SD=standard deviation; TAU=treatment as usual

See appendix D for full evidence tables.

Quality assessment of clinical studies included in the evidence review

The clinical evidence profile for this review (EMDR for the prevention of PTSD in children) is presented in Table 14.

Table 14: Summary clinical evidence profile: Eye movement desensitisation and reprocessing (EMDR; + TAU) versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU	Corresponding risk Eye movement desensitisation and reprocessing (EMDR; + TAU)			
PTSD symptomatology clinician-rated at endpoint DISC: PTSD symptoms change score Follow-up: mean 12 weeks		The mean PTSD symptomatology clinician-rated at endpoint in the intervention groups was 1.14 standard deviations lower (1.81 to 0.47 lower)		40 (1 study)	very low[1,2]
PTSD symptomatology clinician-rated at 3-month follow-up DISC: PTSD symptoms change score Follow-up: mean 3 months		The mean PTSD symptomatology clinician-rated at 3-month follow-up in the intervention groups was 1.04 standard deviations lower (1.71 to 0.38 lower)		40 (1 study)	very low[1,2]
PTSD at endpoint Number of participants who met criteria for PTSD Follow-up: mean 12 weeks	95 per 1000	21 per 1000 (1 to 410)	RR 0.22 (0.01 to 4.31)	40 (1 study)	very low[1,3]
PTSD at 3-month follow-up Number of participants who met criteria for PTSD Follow-up: mean 3 months	48 per 1000	18 per 1000 (1 to 405)	RR 0.37 (0.02 to 8.5)	40 (1 study)	very low[1,3]
Emotional and behavioural problems: Internalising at endpoint CBCL Internalizing		The mean emotional and behavioural problems: internalising at endpoint in the		40 (1 study)	very low[1,2]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU	Corresponding risk Eye movement desensitisation and reprocessing (EMDR; + TAU)			
T-scores, change score Follow-up: mean 12 weeks		intervention groups was 0.78 standard deviations lower (1.43 to 0.14 lower)			
Emotional and behavioural problems: Internalising at 3-month follow-up CBCL Internalizing T-scores, change score Follow-up: mean 3 months		The mean emotional and behavioural problems: internalising at 3-month follow-up in the intervention groups was 0.76 standard deviations lower (1.41 to 0.12 lower)		40 (1 study)	very low[1,2]
Emotional and behavioural problems: Externalising at endpoint CBCL Externalizing T-scores, change score Follow-up: mean 12 weeks		The mean emotional and behavioural problems: externalising at endpoint in the intervention groups was 1.53 standard deviations lower (2.24 to 0.81 lower)		40 (1 study)	very low[1,2]
Emotional and behavioural problems: Externalising at 3-month follow-up CBCL Externalizing T-scores, change score Follow-up: mean 3 months		The mean emotional and behavioural problems: externalising at 3-month follow-up in the intervention groups was 1.74 standard deviations lower (2.48 to 1 lower)		40 (1 study)	very low[1,2]
Oppositional defiant disorder symptoms at endpoint DISC: ODD symptoms change score Follow-up: mean 12 weeks		The mean oppositional defiant disorder symptoms at endpoint in the intervention groups was 1.16 standard deviations lower (1.84 to 0.48 lower)		40 (1 study)	very low[1,2]
Oppositional defiant disorder symptoms at 3-month follow-up DISC: ODD		The mean oppositional defiant disorder symptoms at 3-month follow-up in		40 (1 study)	very low[1,2]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU	Corresponding risk Eye movement desensitisation and reprocessing (EMDR; + TAU)			
symptoms change score Follow-up: mean 3 months		the intervention groups was 0.93 standard deviations lower (1.58 to 0.27 lower)			
Conduct disorder symptoms at endpoint DISC: CD symptoms change score Follow-up: mean 12 weeks		The mean conduct disorder symptoms at endpoint in the intervention groups was 0.39 standard deviations lower (1.02 lower to 0.24 higher)		40 (1 study)	very low[1,4]
Conduct disorder symptoms at 3-month follow-up DISC: CD symptoms change score Follow-up: mean 3 months		The mean conduct disorder symptoms at 3-month follow-up in the intervention groups was 0.45 standard deviations lower (1.08 lower to 0.18 higher)		40 (1 study)	very low[1,4]
Discontinuation Number of participants lost to follow-up Follow-up: mean 12 weeks	156 per 1000	364 per 1000 (144 to 916)	RR 2.33 (0.92 to 5.86)	65 (1 study)	moderate[5]

CBCL=Child Behaviour Checklist; CD=conduct disorder; CI=confidence interval; DISC= Diagnostic Interview for Children and Adolescents; EMDR=eye movement desensitisation and reprocessing; ODD=Oppositional Defiant Disorder; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference; TAU=treatment as usual

[1] Risk of bias is high or unclear across multiple domains

[2] OIS not met (N<400)

[3] 95% CI crosses line of no effect and thresholds for both clinically important benefit and harm

[4] 95% CI crosses both line of no effect and threshold for clinically important benefit

[5] 95% CI crosses both line of no effect and threshold for clinically important harm

See appendix F for full GRADE tables.

Interpersonal psychotherapy (IPT): clinical evidence

Included studies

One study of interpersonal psychotherapy (IPT) for the prevention of PTSD in children was identified for full-text review. This study was not included.

Excluded studies

One study was reviewed at full text and excluded from this review because the intervention was not targeted at PTSD symptoms.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Parent training/family interventions: clinical evidence

Included studies

Four studies of parent training or family interventions for the prevention of PTSD in children were identified for full-text review. Of these 4 studies, 3 RCTs (N=220) were included. There were 3 comparisons for parent training/family interventions.

For the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children, there was evidence for 1 relevant comparison: 1 RCT (N=100) compared parent training with TAU (Marsac 2013).

For prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone), there were no included studies.

For the early treatment (1-3 months) of non-significant PTSD symptoms in children, there was evidence for 1 relevant comparison: 1 RCT (N=90) compared multisystemic family therapy with enhanced TAU (Swenson 2010).

For the delayed treatment (>3 months) of non-significant PTSD symptoms in children, there was evidence for 1 relevant comparison: 1 RCT (N=30) compared multisystemic family therapy with TAU (Danielson 2012).

Excluded studies

One study was reviewed at full text and excluded from this review due to small sample size (N<10 per arm).

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Summary of clinical studies included in the evidence review

Table 15, Table 16 and Table 17 provide brief summaries of the included studies and evidence from these are summarised in the clinical GRADE evidence profiles below (Table 18, Table 19 and Table 20).

See also the study selection flow chart in Appendix C, forest plots in Appendix E and study evidence tables in Appendix D.

Table 15: Summary of included studies: Parent training for early prevention (<1 month)

Comparison	Parent training versus TAU
Total no. of studies (N randomised)	1 (100)
Study ID	Marsac 2013
Country	US
Diagnostic status	Subthreshold symptoms (below threshold but ≥50% maximum score on scale)
Mean age (range)	11.8 (6-17)
Sex (% female)	29

Comparison	Parent training versus TAU
Ethnicity (% BME)	NR
Coexisting conditions	NR
Mean months since traumatic event	0.1
Type of traumatic event	Unintentional injury: Children's injuries resulted primarily from recreation (31%), falls (31%), and motor vehicle crashes (16%). The majority of injuries were extremity fractures (51%), followed by lacerations (9%), other fractures (8%), multiple traumas (5%), organ injuries (5%), sprains or strains (4%), mild head injuries (4%), and other injuries (14%)
Single or multiple incident index trauma	Single
Lifetime experience of trauma	NR
Intervention details	AfterTheInjury.org (ATI) is a web-based intervention for parents. The intervention provides parents with evidence-based information and psychoeducation related to paediatric injury
Intervention format	Individual
Intervention intensity	20-min directed use (encouraged to re-visit the ATI website as often as they wished after the initial introduction)
Comparator	The usual psychosocial care includes a social worker who provides services to patients with injuries and their families 4 days per week with 24-hr on-call coverage
Intervention length (weeks)	NR

ATI=AfterTheInjury.org; BME=Black and minority ethnic; NR=not reported; TAU=treatment as usual

Table 16: Summary of included studies: Multi-systemic family therapy for early treatment (1-3 months) of non-significant PTSD symptoms

Comparison	Multisystemic family therapy versus enhanced TAU
Total no. of studies (N randomised)	1 (90)
Study ID	Swenson 2010
Country	US
Diagnostic status	Non-significant symptoms (below threshold and <50% maximum score on scale)
Mean age (range)	13.9 (range NR)
Sex (% female)	56
Ethnicity (% BME)	78
Coexisting conditions	NR
Mean months since traumatic event	NR (case was opened within the past 90 days)
Type of traumatic event	Childhood neglect and/or physical abuse: More than 80% of the abuse incidents included at least minor injuries, and 23.3% of families had a prior CPS report
Single or multiple incident index trauma	Multiple
Lifetime experience of trauma	NR

Comparison	Multisystemic family therapy versus enhanced TAU
Intervention details	Multisystemic Therapy for Child Abuse and Neglect (MST-CAN) adaptation (following manual by Swenson 2010)
Intervention format	Individual/Family
Intervention intensity	Planned intensity NR. Mean 88 hours (range 3-388 hours)
Comparator	Enhanced outpatient treatment included the standard services the centre provided for physically abused youths and their parents (including individual therapy or family therapy, and medication if indicated) as well as enhanced engagement strategies and parent training interventions (the Systematic Training for Effective Parenting of Teens [STEP-TEEN; Dinkmeyer 1998])
Intervention length (weeks)	33 (range 9-52)

BME=Black and minority ethnic; CPS=Crown Prosecution Service; NR=not reported; TAU=treatment as usual

Table 17: Summary of included studies: Multisystemic family therapy for delayed treatment (>3 months) of non-significant PTSD symptoms

Comparison	Multisystemic family therapy versus TAU
Total no. of studies (N randomised)	1 (30)
Study ID	Danielson 2012
Country	US
Diagnostic status	Sub-threshold symptoms (below threshold but ≥50% maximum score on scale)
Mean age (range)	14.8 (13-17)
Sex (% female)	88
Ethnicity (% BME)	62
Coexisting conditions	NR
Mean months since traumatic event	44.4
Type of traumatic event	Childhood sexual abuse: Childhood sexual abuse (defined as unwanted/forced vaginal or anal penetration by an object, finger, or penis; oral sex; or touching of one's genitalia)
Single or multiple incident index trauma	Multiple
Lifetime experience of trauma	30% reported >1 childhood sexual abuse experiences; 68% reported having experienced other traumatic events
Intervention details	Risk Reduction through Family Therapy (RRFT)
Intervention format	Individual/Family
Intervention intensity	34x weekly 60-90-min sessions (34-51 hours). Mean number of sessions attended was 23 (SD=13)
Comparator	Standard care (a variety of interventions including psychoeducation, coping, safety planning, and CBT were delivered to youth and families assigned to TAU, with no one treatment emerging as being consistently delivered)
Intervention length (weeks)	34

BME=Black and minority ethnic; CBT=cognitive behavioural therapy; NR=not reported; PTSD=post-traumatic stress disorder; TAU=treatment as usual

See appendix D for full evidence tables.

Quality assessment of clinical studies included in the evidence review

The clinical evidence profiles for this review (parent training or family interventions for the prevention of PTSD in children) are presented in Table 18, Table 19 and Table 20.

Table 18: Summary clinical evidence profile: Parent training versus TAU for early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU	Corresponding risk Parent training			
PTSD symptomatology self-rated at 6-week follow-up CPSS change score Follow-up: mean 6 weeks		The mean PTSD symptomatology self-rated at 6-week follow-up in the intervention groups was 0.09 standard deviations lower (0.48 lower to 0.3 higher)		100 (1 study)	very low[1,2]
Discontinuation Number of participants lost to follow-up Follow-up: mean 6 weeks	320 per 1000	442 per 1000 (262 to 733)	RR 1.38 (0.82 to 2.29)	100 (1 study)	low[1,3]

CI=confidence interval; CPSS=Child PTSD Symptom Scale; RR=risk ratio; SMD=standardised mean difference; TAU=treatment as usual
[1] Risk of bias is high or unclear across multiple domains
[2] OIS not met (N<400)
[3] 95% CI crosses both line of no effect and threshold for clinically important harm

Table 19: Summary clinical evidence profile: Multisystemic family therapy versus enhanced TAU for early treatment (1-3 months) of non-significant PTSD symptoms in children

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Enhanced TAU	Corresponding risk Multisystemic family therapy			
PTSD at 1-year follow-up Number of participants who met criteria for PTSD Follow-up: mean 12 months	214 per 1000	90 per 1000 (30 to 272)	RR 0.42 (0.14 to 1.27)	86 (1 study)	very low[1,2]
Discontinuation Number of participants lost to follow-up	222 per 1000	44 per 1000 (11 to 191)	RR 0.2 (0.05 to 0.86)	90 (1 study)	Moderate[3]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Enhanced TAU	Corresponding risk Multisystemic family therapy			
Follow-up: mean 12 months					

CI=confidence interval; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference; TAU=treatment as usual
[1] Risk of bias is unclear or high across multiple domains
[2] 95% CI crosses line of no effect and thresholds for both clinically important benefit and harm
[3] OIS not met (events<300)

Table 20: Summary clinical evidence profile: Multisystemic family therapy versus TAU for delayed treatment (>3 months) of non-significant PTSD symptoms in children

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU	Corresponding risk Multi-systemic family therapy			
PTSD symptomatology self-rated at endpoint UCLA PTSD-RI change score Follow-up: mean 34 weeks		The mean PTSD symptomatology self-rated at endpoint in the intervention groups was 0.82 standard deviations lower (1.57 to 0.07 lower)		30 (1 study)	very low[1,2]
PTSD symptomatology self-rated at 3-month follow-up UCLA PTSD-RI change score Follow-up: mean 3 months		The mean PTSD symptomatology self-rated at 3-month follow-up in the intervention groups was 0.15 standard deviations lower (0.86 lower to 0.57 higher)		30 (1 study)	very low[1,3]
PTSD symptomatology self-rated at 6-month follow-up UCLA PTSD-RI change score Follow-up: mean 6 months		The mean PTSD symptomatology self-rated at 6-month follow-up in the intervention groups was 0.67 standard deviations lower (1.41 lower to 0.07 higher)		30 (1 study)	very low[1,4]
Depression symptoms at endpoint CDI change score Follow-up: mean 34 weeks		The mean depression symptoms at endpoint in the intervention groups was 1 standard deviations lower (1.77 to 0.24 lower)		30 (1 study)	very low[1,2]
Depression symptoms at 3-		The mean depression		30 (1 study)	very low[1,4]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU	Corresponding risk Multi-systemic family therapy			
month follow-up CDI change score Follow-up: mean 3 months		symptoms at 3-month follow-up in the intervention groups was 0.67 standard deviations lower (1.41 lower to 0.07 higher)			
Depression symptoms at 6-month follow-up CDI change score Follow-up: mean 6 months		The mean depression symptoms at 6-month follow-up in the intervention groups was 1.14 standard deviations lower (1.92 to 0.36 lower)		30 (1 study)	very low[1,2]
Emotional and behavioural problems: Internalising at endpoint BASC-2 Internalizing change score Follow-up: mean 34 weeks		The mean emotional and behavioural problems: internalising at endpoint in the intervention groups was 1.13 standard deviations lower (1.91 to 0.35 lower)		30 (1 study)	very low[1,2]
Emotional and behavioural problems: Internalising at 3-month follow-up BASC-2 Internalizing change score Follow-up: mean 3 months		The mean emotional and behavioural problems: internalising at 3-month follow-up in the intervention groups was 1.35 standard deviations lower (2.16 to 0.55 lower)		30 (1 study)	very low[1,2]
Emotional and behavioural problems: Internalising at 6-month follow-up BASC-2 Internalizing change score Follow-up: mean 6 months		The mean emotional and behavioural problems: internalising at 6-month follow-up in the intervention groups was 1.23 standard deviations lower (2.02 to 0.44 lower)		30 (1 study)	very low[1,2]
Emotional and behavioural problems: Externalising at endpoint BASC-2 Externalizing change score Follow-up: mean 34 weeks		The mean emotional and behavioural problems: externalising at endpoint in the intervention groups was 0.36 standard deviations lower (1.08 lower to 0.36 higher)		30 (1 study)	very low[1,4]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU	Corresponding risk Multi-systemic family therapy			
Emotional and behavioural problems: Externalising at 3-month follow-up BASC-2 Externalizing change score Follow-up: mean 3 months		The mean emotional and behavioural problems: externalising at 3-month follow-up in the intervention groups was 0.59 standard deviations lower (1.33 lower to 0.14 higher)		30 (1 study)	very low[1,4]
Emotional and behavioural problems: Externalising at 6-month follow-up BASC-2 Externalizing change score Follow-up: mean 6 months		The mean emotional and behavioural problems: externalising at 6-month follow-up in the intervention groups was 0.76 standard deviations lower (1.5 to 0.01 lower)		30 (1 study)	very low[1,2]
Substance use at endpoint TLFB: Number of days with substance use over the past 90 days, change score Follow-up: mean 34 weeks		The mean substance use at endpoint in the intervention groups was 0.68 standard deviations lower (1.42 lower to 0.06 higher)		30 (1 study)	very low[1,4]
Substance use at 3-month follow-up TLFB: Number of days with substance use over the past 90 days, change score Follow-up: mean 3 months		The mean substance use at 3-month follow-up in the intervention groups was 0.74 standard deviations lower (1.48 lower to 0.01 higher)		30 (1 study)	very low[1,4]
Substance use at 6-month follow-up TLFB: Number of days with substance use over the past 90 days, change score Follow-up: mean 6 months		The mean substance use at 6-month follow-up in the intervention groups was 0.88 standard deviations lower (1.63 to 0.12 lower)		30 (1 study)	very low[1,2]
Family conflict at endpoint FES-A: Conflict, adolescent report, change score Follow-up: mean 34 weeks		The mean family conflict at endpoint in the intervention groups was 1.89 standard deviations lower (2.77 to 1.01 lower)		30 (1 study)	very low[1,2]
Family conflict at 3-month follow-up FES-A: Conflict, adolescent report,		The mean family conflict at 3-month follow-up in the intervention groups		30 (1 study)	very low[1,2]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU	Corresponding risk Multi-systemic family therapy			
change score Follow-up: mean 3 months		was 1.75 standard deviations lower (2.61 to 0.89 lower)			
Family conflict at 6-month follow-up FES-A: Conflict, adolescent report, change score Follow-up: mean 6 months		The mean family conflict at 6-month follow-up in the intervention groups was 2.1 standard deviations lower (3.02 to 1.19 lower)		30 (1 study)	very low[1,2]
Discontinuation Number of participants lost to follow-up Follow-up: mean 34 weeks	0 per 1000	0 per 1000 (0 to 0)	RR 5 (0.26 to 96.13)	30 (1 study)	very low[1,3]

BASC-2=Behaviour Assessment System for Children; CDI=Children's Depression Index; CI=confidence interval; FES-A=Future Expectation Scale for Adolescents; RR=risk ratio; SMD=standardised mean difference; UCLA PTSD-RI=UCLA PTSD-Reaction Index; TAU=treatment as usual; TLFB=timeline follow-up

[1] Risk of bias is high or unclear across multiple domains

[2] OIS not met (N<400)

[3] 95% CI crosses line of no effect and thresholds for both clinically important benefit and harm

[4] 95% CI crosses both line of no effect and threshold for clinically important benefit

See appendix F for full GRADE tables.

Play therapy: clinical evidence

Included studies

Two studies of play therapy for the prevention of PTSD in children were identified for full-text review. Neither of these studies were included.

Excluded studies

Two studies were reviewed at full text and excluded from this review the intervention was not targeted at PTSD symptoms or outcome measures were not validated.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Self-help (without support): clinical evidence

Included studies

Five studies of self-help (without support) for the prevention of PTSD in children were identified for full-text review. Of these 5 studies, 3 RCTs (N=261) were included in one comparison for self-help (without support).

For the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children, there was evidence for 1 relevant comparison: 3 RCTs (N=261)

compared self-help (without support) with waitlist or TAU (Cox 2009/ Kenardy 2015 [one study reported across two papers]; Kassam-Adams 2016; Kenardy 2008).

For prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone), there were no included studies.

For the early treatment (1-3 months) of non-significant PTSD symptoms in children, there were no included studies.

For the delayed treatment (>3 months) of non-significant PTSD symptoms in children, there were no included studies.

Excluded studies

Two studies were reviewed at full text and excluded from this review because outcomes were not of interest or outcome measures were not validated.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Summary of clinical studies included in the evidence review

See also the study selection flow chart in Appendix C, forest plots in Appendix E and study evidence tables in Appendix D.

Table 21 provides brief summaries of the included studies and evidence from these are summarised in the clinical GRADE evidence profiles below (Table 22).

See also the study selection flow chart in Appendix C, forest plots in Appendix E and study evidence tables in Appendix D.

Table 21: Summary of included studies: Self-help (without support) for early prevention (<1 month)

Comparison	Self-help (without support) versus waitlist or TAU
Total no. of studies (N randomised)	3 (261)
Study ID	Cox 2009/Kenardy 2015[1] Kassam-Adams 2016[2] Kenardy 2008[3]
Country	Australia[1,3] US[2]
Diagnostic status	Non-significant symptoms (below threshold and <50% maximum score on scale) [1,3] Clinically important PTSD symptoms (scoring above a threshold on validated scale) [2]
Mean age (range)	10.9 (7-16) [1] 9.8 (8-12) [2] 10.4 (7-15) [3]
Sex (% female)	31[1] 46[2] 38[3]
Ethnicity (% BME)	NR[1,3] 38[2]
Coexisting conditions	NR

Comparison	Self-help (without support) versus waitlist or TAU
Mean months since traumatic event	1[1] NR (intervention initiated while in hospital [mean length of stay = 3.9 days [SD=3.5]) [2] 0.1[3]
Type of traumatic event	Unintentional injury caused by: falls (48%); sport injuries (15%); motor vehicle accidents as a passenger or pedestrian (7%); burns (7%); knock or blow (1%); other types of unintentional injury (14%)[1] Acute medical event: 43% appendicitis; 8% asthma-related; 8% abdominal pain; 6% acute joint pain or arthritis; 21% other acute medical illness; 14% injury[2] Cause of accident: 35% falls; 30% sporting injuries; 28% motor vehicle accidents; 7% other types of accidents. Type of injury: 53% Fractures and dislocations; 28% Lacerations or abrasions; 18% Other[3]
Single or multiple incident index trauma	Single
Lifetime experience of trauma	NR[1,3] 72% prior trauma (14% interpersonal trauma; 71% non-interpersonal trauma) [2]
Intervention details	Self-administered computerised psychoeducational materials for children (''So you have been in an accident,'' with separate sections for children aged 10 years and under and those aged 11 years and over) and a booklet for parents (''So your child has been in an accident . . . Information for parents about dealing with accidents?'') [1] Coping Coach intervention. Interactive child-directed online intervention with game-like structure (i.e., the child user has to help the townspeople when their emotions have been "zapped," keep the airship moving upwards, fix the weather machine that has made the world cloudy) [2] Psychoeducational materials, consisted of three booklets provided to parents, young children (aged 11 or younger), and older children (aged 12 and over) [3]
Intervention format	Individual
Intervention intensity	Majority read material once[1] Mean number of logins (sessions of intervention use) was 2.6 (SD=1.8; range: 1–9); mean time spent on the intervention across all sessions was 52.2 minutes (SD=36.9; range: 0–199 min) [2] 97% of parents and 83% of children reported that they read the booklets[3]
Comparator	Waitlist[1,2] Treatment as usual[3]
Intervention length (weeks)	2-22[1] 6[2] 4[3]

BME=Black and minority ethnic; NR=not reported; PTSD=post-traumatic stress disorder; SD=standard deviation; TAU=treatment as usual
[1]Cox 2009/Kenardy 2015; [2]Kassam-Adams 2016; [3]Kenardy 2008

See appendix D for full evidence tables.

Quality assessment of clinical studies included in the evidence review

The clinical evidence profiles for this review (self-help without support for the prevention of PTSD in children) are presented in Table 22.

Table 22: Summary clinical evidence profile: Self-help (without support) versus waitlist or TAU for early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Waitlist or TAU	Corresponding risk Self-help (without support)			
PTSD symptomatology self-rated at endpoint CPSS/CRIES/TSCC Post-traumatic Stress change score Follow-up: 2-22 weeks		The mean PTSD symptomatology self-rated at endpoint in the intervention groups was 0.48 standard deviations lower (1.04 lower to 0.07 higher)		180 (3 studies)	very low[1,2,3]
PTSD symptomatology self-rated at 6-week follow-up CPSS change score Follow-up: mean 6 weeks		The mean PTSD symptomatology self-rated at 6-week follow-up in the intervention groups was 0.67 standard deviations lower (1.15 to 0.2 lower)		72 (1 study)	very low[1,4]
PTSD symptomatology self-rated at 5-month follow-up CRIES/TSCC Post-traumatic Stress change score Follow-up: mean 5 months		The mean PTSD symptomatology self-rated at 5-month follow-up in the intervention groups was 0.37 standard deviations lower (2.04 lower to 1.29 higher)		108 (2 studies)	very low[1,5,6]
Anxiety symptoms at endpoint SCAS/TSCC Anxiety change score Follow-up: 2-22 weeks		The mean anxiety symptoms at endpoint in the intervention groups was 0.13 standard deviations higher (0.4 lower to 0.66 higher)		140 (2 studies)	very low[1,2,7]
Anxiety symptoms at 5-month follow-up SCAS/TSCC Anxiety change score Follow-up: mean 5 months		The mean anxiety symptoms at 5-month follow-up in the intervention groups was 0.45 standard deviations lower (1.26 lower to 0.37 higher)		140 (2 studies)	very low[1,3,5]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Waitlist or TAU	Corresponding risk Self-help (without support)			
Depression symptoms at endpoint TSCC Depression change score Follow-up: 2-22 weeks		The mean depression symptoms at endpoint in the intervention groups was 0.01 standard deviations lower (0.54 lower to 0.51 higher)		56 (1 study)	very low[1,6]
Depression symptoms at 5-month follow-up TSCC Depression change score Follow-up: mean 5 months		The mean depression symptoms at 5-month follow-up in the intervention groups was 0.37 standard deviations lower (0.9 lower to 0.16 higher)		56 (1 study)	very low[1,3]
Dissociative symptoms at endpoint TSCC Dissociation change score Follow-up: 2-22 weeks		The mean dissociative symptoms at endpoint in the intervention groups was 0.48 standard deviations lower (1.01 lower to 0.06 higher)		56 (1 study)	very low[1,3]
Dissociative symptoms at 5-month follow-up TSCC Dissociation change score Follow-up: mean 5 months		The mean dissociative symptoms at 5-month follow-up in the intervention groups was 0.69 standard deviations lower (1.23 to 0.15 lower)		56 (1 study)	very low[1,4]
Emotional and behavioural problems: Anger at endpoint TSCC Anger change score Follow-up: 2-22 weeks		The mean emotional and behavioural problems: anger at endpoint in the intervention groups was 0.24 standard deviations lower (0.76 lower to 0.29 higher)		56 (1 study)	very low[1,3]
Emotional and behavioural problems: Anger at 5-month follow-up TSCC Anger change score		The mean emotional and behavioural problems: anger at 5-month follow-up in the intervention		56 (1 study)	very low[1,4]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Waitlist or TAU	Corresponding risk Self-help (without support)			
Follow-up: mean 5 months		groups was 0.83 standard deviations lower (1.38 to 0.28 lower)			
Quality of life at endpoint PedsQL change score Follow-up: mean 6 weeks Better indicated by higher values		The mean quality of life at endpoint in the intervention groups was 0.17 standard deviations lower (0.64 lower to 0.29 higher)		72 (1 study)	very low[1,3]
Quality of life at 6-week follow-up PedsQL change score Follow-up: mean 6 weeks Better indicated by higher values		The mean quality of life at 6-week follow-up in the intervention groups was 0.49 standard deviations higher (0.02 to 0.95 higher)		72 (1 study)	very low[1,4]
Discontinuation Number of participants lost to follow-up Follow-up: 2-22 weeks	156 per 1000	386 per 1000 (83 to 1000)	RR 2.48 (0.53 to 11.46)	157 (2 studies)	very low[1,2,6]

CI=confidence interval; CPSS=Child PTSD Symptom Scale; CRIES=Children's Revised Impact of Event Scale; PedsQL=Pediatric Quality of Life Inventory; PTSD=post-traumatic stress disorder; RR=risk ratio; SCAS=Spence Children's Anxiety Scale; SMD=standardised mean difference; TAU=treatment as usual; TSCC=Trauma Symptom Checklist for Children

[1] Risk of bias is high or unclear across multiple domains
[2] Substantial heterogeneity (I2>50%)
[3] 95% CI crosses both line of no effect and threshold for clinically important benefit
[4] OIS not met (N<400)
[5] Considerable heterogeneity (I2>80%)
[6] 95% CI crosses line of no effect and thresholds for both clinically important benefit and harm
[7] 95% CI crosses both line of no effect and threshold for clinically important harm

See appendix F for full GRADE tables.

Economic evidence

Included studies

No economic studies assessing the cost effectiveness of psychological interventions for the prevention of PTSD in children and young people were identified.

Excluded studies

No economic studies of psychological interventions for the prevention of PTSD in children and young people were reviewed at full text and excluded.

Economic model

No economic modelling on psychological interventions for the prevention of PTSD in children and young people was conducted for this question because other topics were agreed as higher priorities for economic evaluation.

Resource impact

The committee made a number of weaker ('consider') recommendations based on this review. Unlike for stronger ('offer') recommendations that interventions should be adopted, it is not possible to make a judgement about the potential resource impact to the NHS, as uptake of interventions is difficult to predict. Overall, recommendations based on this review are not expected to have a substantial impact on resources.

The committee's considerations that contributed to the resource impact assessment are included under the 'Cost effectiveness and resource use' in 'The committee's discussion of the evidence' section.

Clinical evidence statements

Trauma-focused CBT

- Very low quality evidence from 5-6 RCTs (N=1570-1677) suggests moderate-to-large and statistically significant benefits of a trauma-focused CBT group relative to waitlist on improving self-rated PTSD symptomatology (at endpoint and 2-6 month follow-up) for children and young people with ongoing exposure to trauma (for instance, living in a war zone). Low to moderate quality single-RCT (N=48-154) evidence also suggests moderate-to-large and statistically significant benefits of a trauma-focused CBT group on clinician-rated PTSD symptomatology and functional impairment (at endpoint and 2-month follow-up). Moderate quality evidence from 4 RCTs (N=836) suggests a clinically important and statistically significant benefit of a trauma-focused CBT group on the number of participants who met criteria for PTSD at endpoint, however, very low quality evidence from 1 of these RCTs (N=404) suggests effects are not maintained at 6-month follow-up. Very low to low quality evidence from 3-4 RCTs (N=882-1364) suggests small but statistically significant benefits of a trauma-focused CBT group on improving anxiety and depression symptoms at endpoint. However, low to very low quality evidence from 3-4 RCTs (N=944-1535) suggests effects on anxiety and depression symptoms are neither clinically important nor statistically significant at 2-6 month follow-up. Very low to low quality evidence from 1-2 RCTs (N=154-802) suggests non-significant effects on dissociative symptoms and emotional and behavioural problems (at endpoint and 3-6 month follow-up). Very low quality evidence from 10 RCTs (N=2488) suggests a trend for a higher rate of discontinuation associated with a trauma-focused group, however, this effect is not statistically significant.
- Moderate quality single-RCT (N=50) evidence suggests no significant difference between a trauma-focused CBT group and a psychoeducational group on clinician-rated PTSD symptomatology (at endpoint and 6-month follow-up) for children and young people with ongoing exposure to trauma (for instance, living in a war zone). No participants discontinued from this study.
- Very low quality evidence from 2 RCTs (N=147) suggests moderate benefits of trauma-focused CBT relative to waitlist or TAU on improving self-rated PTSD symptomatology and depression symptoms for children and young people who

have been exposed to a traumatic event more than 3 months ago and have non-significant PTSD symptoms at baseline. Moderate quality single-RCT (N=32) evidence also suggests a clinically important benefit of trauma-focused CBT on clinician-rated PTSD symptomatology, however this effect is not statistically significant. Very low quality single-RCT (N=82) evidence suggests non-significant effects for emotional and behavioural problems (internalising and externalising). Low quality evidence from 3 RCTs (N=179) also suggests a non-significant effect on the rate of discontinuation.

- Very low to low quality evidence from analyses including 1-2 RCTs (N=26-168) suggests no significant difference (at endpoint or 3-6 month follow-up) between trauma-focused CBT and a psychoeducation and supportive intervention or attention-placebo, on self-rated or parent-rated PTSD symptomatology, the number of participants who meet criteria for PTSD, global functioning, depression symptoms, or emotional and behavioural problems, for children and young people who have been exposed to a traumatic event more than 3 months ago and have non-significant PTSD symptoms at baseline. Low quality evidence from 2 RCTs (N=212) suggests a trend for a higher rate of discontinuation with trauma-focused CBT, however this effect is not statistically significant.
- Very low quality single-RCT (N=40-52) evidence suggests no significant difference (at endpoint or 3-month follow-up) between trauma-focused CBT and EMDR on self-rated PTSD symptomatology, depression or anxiety symptoms, or emotional and behavioural problems for children and young people who have been exposed to a traumatic event more than 3 months ago and have non-significant PTSD symptoms at baseline. Low quality evidence from this RCT suggests a higher rate of discontinuation may be associated with EMDR relative to trauma-focused CBT, however, the absolute difference is small and this effect is not statistically significant.

Non-trauma-focused CBT

- Low quality single-RCT (N=106) evidence suggests moderate and statistically significant benefits of a child and caregiver CBT intervention relative to a psychoeducation and supportive intervention on improving self-rated PTSD symptomatology and anxiety symptoms (at endpoint and 3-month follow-up) for children and young people who have been exposed to a traumatic event within the last month. Evidence from this same RCT suggests a small but statistically significant benefit of a child and caregiver CBT intervention on improving dissociative symptoms at endpoint, although effects are neither clinically important nor statistically significant at 3-month follow-up.

Psychologically-focused debriefing

- Moderate to low quality evidence from 1-2 RCTs (N=99-259) suggests no significant effect (at 2-, 6- or 8- month follow-up) of single session debriefing relative to TAU or attention-placebo on improving self-rated PTSD symptomatology, clinician-rated PTSD symptomatology, the number of participants meeting criteria for PTSD, anxiety or depression symptoms, emotional and behavioural problems or discontinuation, for children and young people who have been exposed to a traumatic event within the last month.

Eye movement desensitisation and reprocessing (EMDR)

- Very low quality single-RCT (N=40) evidence suggests large and statistically significant benefits (at endpoint and 3-month follow-up) of EMDR in addition to TAU relative to TAU-only on improving clinician-rated PTSD symptomatology,

emotional and behavioural problems (internalising and externalising) and oppositional defiant disorder (ODD) symptoms, for children and young people who have been exposed to a traumatic event more than 3 months ago and have non-significant PTSD symptoms at baseline. Evidence from this same RCT suggests a trend for a positive benefit of EMDR on the number of participants meeting criteria for PTSD at endpoint and 3-month follow-up, however these effects are not statistically significant. Evidence from this RCT suggests non-significant effects (at endpoint and 3-month follow-up) of EMDR on conduct disorder symptoms. Finally, moderate quality evidence from this RCT suggests a trend for a higher rate of discontinuation with EMDR, however this effect is not statistically significant.

Parent training/family interventions

- Very low quality single-RCT (N=100) evidence suggests a non-significant effect of parent training relative to TAU on self-rated PTSD symptomatology for children and young people who have been exposed to a traumatic event within the last month. Low quality evidence from this same RCT suggests a trend for a higher discontinuation rate associated with parent training, however this effect is not statistically significant.
- Moderate to very low quality single-RCT (N=86-90) evidence suggests a clinically important and statistically significant benefit of multi-systemic family therapy relative to enhanced TAU on discontinuation, and a clinically important but not statistically significant benefit on the number of participants who meet criteria for PTSD at 1-year follow-up, for children and young people who have been exposed to a traumatic event 1- 3 months ago and have non-significant PTSD symptoms at baseline.
- Very low quality single-RCT (N=30) evidence suggests large and statistically significant benefits of multi-systemic family therapy relative to TAU for improving self-rated PTSD symptomatology and depression symptoms at endpoint, for children and young people who have been exposed to a traumatic event more than 3 months ago and have non-significant PTSD symptoms at baseline. However, evidence from this same RCT suggests more mixed results at follow-up for PTSD symptomatology (non-significant at 3-month follow-up, and clinically important but not statistically significant at 6-month follow-up) and depression (clinically important but not statistically significant at 3-month follow-up and large and statistically significant at 6-month follow-up). Evidence the same RCT suggests large and statistically significant benefits of multi-systemic family therapy on improving internalising symptoms and family conflict at endpoint, 3-month and 6-month follow-up, and moderate-to-large but delayed benefits for externalising symptoms and substance use (only significant at 6-month follow-up). Finally, evidence from this RCT suggests a trend for a higher rate of discontinuation associated with multi-systemic family therapy, however the absolute difference is small and this effect is not statistically significant.

Self-help (without support)

- Very low quality evidence from 3 RCTs (N=180) suggests a trend for a benefit of self-help (without support) relative to waitlist or TAU on self-rated PTSD symptomatology at endpoint for children and young people who have been exposed to a traumatic event within the last month. However, this effect just misses the thresholds for both clinical importance and statistical significance. Very low quality evidence from 1 of these RCTs (N=72) suggests a benefit on self-rated PTSD symptomatology is maintained up to 6-week follow-up, however very low quality evidence from the other 2 RCTs (N=108) suggests non-significant effects at 5-month follow-up. Very low quality single-RCT (N=56-72) evidence suggests

delayed benefits of self-help on dissociative symptoms, anger and quality of life (only significant at 6-week or 5-month follow-up). Very low quality evidence from 1-2 RCTs (N=56-140) suggests non-significant effects (at endpoint or 5-month follow-up) on anxiety or depression symptoms. Finally, very low quality evidence from 2 RCTs (N=157) suggests a trend for a higher rate of discontinuation associated with self-help, however this effect is not statistically significant.

Economic evidence statements

No economic evidence on psychological interventions for the prevention of PTSD in children and young people was identified and no economic modelling was undertaken.

The committee's discussion of the evidence

Interpreting the evidence

The outcomes that matter the most

Critical outcomes were measures of PTSD symptom improvement on validated scales and prevention of PTSD (as measured by the number of children and young people with a diagnosis or scoring above clinical threshold on a validated scale at endpoint or follow-up). Attrition from treatment (for any reason) was also considered an important outcome, as a proxy for the acceptability and/or tolerability of treatment. The committee considered dissociative symptoms, personal/social/educational functioning (including global functioning/functional impairment, sleeping difficulties, and quality of life), and symptoms of a coexisting condition (including anxiety, depression and emotional and behavioural problems) as important but not critical outcomes. This distinction was based on the primacy of preventing PTSD, whilst acknowledging that broader symptom measures may be indicators of a general pattern of effect. Generally change scores were favoured over final scores as although in theory randomisation should balance out any differences at baseline, this assumption can be violated by small sample sizes. The committee also expressed a general preference for self-rated PTSD symptomatology over clinician-rated (or parent-rated) measures. However, in considering psychological interventions (relative to pharmacological interventions) a greater emphasis was placed on triangulating effects on self-rated PTSD symptomatology with clinician-rated outcome measures, given that the latter but not the former could be blinded.

The quality of the evidence

With the exception of a few outcomes of moderate quality, all the evidence reviewed was of low or very low quality, reflecting the high risk of bias associated with the studies (including for instance, high risk of bias associated with randomisation method as reflected by significant group differences at baseline, and lack of/unclear blinding of outcome assessment), the small numbers in many trials and the imprecision of many of the results (in terms of both the width of the confidence intervals and the failure to meet the optimal information size). This uncertainty of the evidence is reflected in the committee's decision to make weaker recommendations.

Consideration of clinical benefits and harms

The committee discussed the evidence showing that a trauma-focused CBT group intervention is effective relative to waitlist in improving all PTSD outcomes for children exposed to ongoing trauma (for instance, in a war zone) and benefits extend

to other important outcomes. The committee noted that the evidence for the durability of these benefits is somewhat mixed, although the benefits on PTSD symptomatology are maintained up to 6-month follow-up (longest follow-up available). The committee also considered the limited evidence suggesting non-significant differences between a trauma-focused CBT group and a psychoeducational group, and reflected that although this evidence base is not sufficiently powered to detect non-inferiority, the lack of any significant difference means it is not possible to rule out the explanation that non-specific factors (such as attention) are accounting for the efficacy observed. Based on the uncertainty surrounding the specificity of effects and durability of benefits, the committee was unable to make a strong recommendation. The committee also considered the generalisability of findings to the UK context given that the evidence comes from children exposed to ongoing trauma as a consequence of living in conflict-affected areas. The committee agreed that findings could be extrapolated to the early prevention of PTSD following other large-scale shared traumas, as they agreed that it was the shared experience that was particularly amenable to treatment in a group setting. Another potential issue with generalisability was posed by the age range of participants in the included trials. The youngest age of any of the participants was 7 years and the majority of the means were considerably older. Given the cognitive and language demands of group trauma-focused CBT in this context the committee did not consider it appropriate to extrapolate to a younger age group and based the recommendation on the age of participants providing the evidence. The committee discussed the evidence suggesting a trend for a higher rate of discontinuation associated with a trauma-focused group that could imply potential issues with the acceptability of the intervention. However, given that this effect is not statistically significant, and the strength of evidence for benefit, the committee judged that the benefits outweighed any potential harm.

Based on the interventions in the evidence base, and their clinical experience, the committee agreed what the structure and content of a trauma-focused CBT group intervention should include. The committee considered this appropriate as although the specific interventions in this class used the same broad approach the committee was concerned that psychological interventions are not always delivered in a consistent way and this recommendation should help to ensure that a minimum standard is set and reduce variation in practice.

The committee discussed the absence of evidence for individual trauma-focused CBT within 1 month of trauma. There was also insufficient evidence for any other intervention for children and young people within the first month of trauma exposure. Based on their clinical experience the committee did not believe that there would be significant risks associated with offering trauma-focused CBT to children and young people in this early phase and did not believe that there were any strong reasons why it would not work in this time period. With this in mind, the committee decided to draw on stronger evidence showing individual trauma-focused CBT to be effective for children and young people more than 1 month after a traumatic event, and the evidence from adults showing benefits within 1 month of trauma, and based on consensus opinion agreed that individual trauma-focused CBT should be considered for children and young people with clinically important PTSD symptoms or acute stress disorder. Drawing on their clinical experience, the committee were mindful that intervention within the first month would not be appropriate for all children and young people. For example, where children and young people and their caregivers are interested in managing their symptoms on their own, are unsure about whether to commence a psychological therapy like trauma-focused CBT or there are practical difficulties in commencing an active treatment (e.g. someone in the family unit is still recovering from their injuries, the family has had to be relocated). For these

individuals, a period of active monitoring may be of clinical utility in allowing a child or young person the opportunity to understand more about their symptoms. Furthermore, it was felt this recommendation conveyed an important non-stigmatising message around the normality of PTSD symptoms, which may in turn help to reduce distress.The committee was also aware of a meta-analytic review suggesting that there is an important degree of natural recovery of PTSD symptoms in the first weeks and months following a trauma in children and young people. For these reasons the committee agreed that active monitoring should be considered alongside individual trauma-focused CBT and a choice between these two options should be based on clinical judgement.

The committee considered the evidence suggesting some benefits of self-help (without support) for the early prevention of PTSD. However, they noted that effects were only significant in single-study analyses, and when evidence from 2-3 RCTs was considered, as for self-rated PTSD symptomatology at endpoint and 5-month follow-up there were neither clinically important nor statistically significant benefits. On this basis, the committee did not judge a recommendation to be warranted.

The committee discussed the limited evidence for single-session debriefing that showed non-significant effects on PTSD and other important outcomes for children exposed to trauma during the last month. The committee made a negative recommendation as they agreed that providing an ineffective intervention can be regarded as harmful as it means that children and young people are being denied access to another intervention with greater evidence of benefits.

The committee considered evidence suggesting benefit of trauma-focused CBT, EMDR, and multisystemic family therapy for improving PTSD symptomatology, symptoms of coexisting conditions, and emotional and behavioural problems in children who had been exposed to trauma more than 3 months ago and had non-significant PTSD symptoms at baseline. The committee questioned the clinical need for an intervention for children who had non-significant symptoms more than 3 months after trauma and therefore a recommendation for this group was not considered appropriate.

There was no consistent evidence for any effective intervention for preventing PTSD in those with below threshold symptoms within the first month of the traumatic event unless children and young people had been exposed to a large-scale shared trauma. The committee were mindful that for this group active monitoring may be a way of managing potential difficulties that may precede PTSD, whilst recognising that not all people exposed to a traumatic event go on to develop PTSD and thus early intervention is not necessary for all.

Cost effectiveness and resource use

No evidence on the cost effectiveness of psychological interventions for the prevention of PTSD in children and young people was identified and no economic modelling was undertaken in this area. The committee considered the benefits associated with a trauma-focused CBT group intervention in children exposed to ongoing trauma and how these may apply to children who have experienced other large-scale shared traumas. Early prevention of PTSD in this population is likely to result in better future clinical outcomes and cost-savings further down the care pathway, when children and young children have developed PTSD and more costly management is required. They noted that provision of group therapy for early prevention in children who have experienced large-scale shared traumas has modest resource implications and is easier to implement compared with individually-delivered

interventions. Overall, the committee expressed the view that the recommendation will result in a moderate change in practice, as at the moment current practice on early prevention of PTSD in children and young people who have experienced large-scale shared traumas is variable.

The committee considered the overall evidence on individual trauma-focused CBT and agreed that it should be considered as an option for children and young people with clinically important PTSD symptoms or acute stress disorder within 1 month of a traumatic event, as it is likely to result in better future clinical outcomes and cost-savings further down the care pathway, when children and young children have developed PTSD and more costly management is required. On the other hand, the committee was also mindful that there can be a lot of natural recovery in the early weeks after trauma in this population. The committee also agreed that it can be difficult to gauge a child or young person's readiness for intervention within 1 month of trauma. Based on consensus, the committee agreed that individual trauma-focused CBT and active monitoring should be considered as options for children and young people with clinically important PTSD symptoms or acute stress disorder within 1 month of trauma, and that this decision was best left to clinical judgement. The committee expressed the view that this recommendation is likely to have moderate resource implications. They thought that it will reduce current variation in practice and redirect resources from interventions of higher resource intensity and/or lesser known effectiveness.

The committee also considered the potential benefits of active monitoring in children who have been exposed to trauma and have subthreshold symptoms of PTSD within a month after the traumatic event. They acknowledged that not all people exposed to a traumatic event go on to develop PTSD and therefore early intervention is not necessary for all and expressed the view that the modest costs of active monitoring of this population are likely to be offset by clinical benefits resulting from the management of potential difficulties that may precede PTSD.

The committee anticipated that the recommendations for active monitoring will have minor resource implications given that the previous guideline recommended watchful waiting for people with mild symptoms that have been present for less than 4 weeks after the trauma.

References for included studies

Trauma-focused CBT

Barron 2013

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Barron 2016

Barron I, Abdallah G and Heltne U (2016) Randomized Control Trial of Teaching Recovery Techniques in Rural Occupied Palestine: Effect on Adolescent Dissociation. Journal of Aggression, Maltreatment & Trauma 25(9), 955-73

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Berger 2012

Berger R, Gelkopf M and Heineberg Y (2012) A teacher-delivered intervention for adolescents exposed to ongoing and intense traumatic war-related stress: A quasi-randomized controlled study. Journal of Adolescent Health 51(5), 453-61

Carrion 2013

Carrion VG, Kletter H, Weems CF, et al (2013) Cue-centered treatment for youth exposed to interpersonal violence: a randomized controlled trial. Journal of Traumatic Stress 26(6), 654-662

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Crombach A and Elbert T (2015) Controlling Offensive Behavior Using Narrative Exposure Therapy: A Randomized Controlled Trial of Former Street Children. Clinical Psychological Medicine 3, 270-282

Deblinger 2001

Deblinger E, Stauffer LB and Steer RA (2001) Comparative efficacies of supportive and cognitive behavioral group therapies for young children who have been sexually abused and their nonoffending mothers. Child Maltreatment 6(4), 332-343

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de Roos C, Greenwald R, de Hollander-Gijsman M, et al. (2011) A randomised comparison of cognitive behavioural therapy (CBT) and eye movement desensitisation and reprocessing (EMDR) in disaster-exposed children. European Journal of Psychotraumatology 2 [ID 5694 2]

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McMullen 2013

McMullen J, O'Callaghan P, Shannon C, et al. (2013) Group trauma-focused cognitive-behavioural therapy with former child soldiers and other war-affected boys in the DR Congo: a randomised controlled trial. J Child Psychol Psychiatry 54(11), 1231-41 [DOI: 10.1111/jcpp.12094]

O'Callaghan 2011/2013

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O'Callaghan P (2013) Is Trauma-Focused Cognitive Behavioral Therapy Effective in Reducing Post-traumatic Stress and Psychosocial Distress Among Sexually

Exploited, War-affected Girls in the Democratic Republic of Congo [NCT01483261]. Available from: https://clinicaltrials.gov/show/NCT01483261 [accessed 14.05.18]

O'Callaghan 2015

O'Callaghan P, McMullen J, Shannon C and Rafferty H (2015) Comparing a trauma focused and non trauma focused intervention with war affected Congolese youth: a preliminary randomised trial. Intervention 13(1), 28-44

Ooi 2010/2016

Ooi CS, Rooney RM, Roberts C, et al. (2016) The Efficacy of a Group Cognitive Behavioral Therapy for War-Affected Young Migrants Living in Australia: A Cluster Randomized Controlled Trial. Frontiers in Psychology 7

Ooi C (2010) A pretest posttest 3-month follow-up cluster randomised controlled trial of a group intervention "Teaching Recovery Techniques" to prevent worsening of early posttraumatic stress symptoms in young migrants [ACTRN12611000948998]. Available from: https://www.anzctr.org.au/Trial/Registration/TrialReview.aspx?ACTRN=12611000948998 [accessed 14.05.18]

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Overbeek MM, de Schipper JC, Lamers-Winkelman F and Schuengel C (2013) Effectiveness of specific factors in community-based intervention for child-witnesses of interparental violence: A randomized trial. Child abuse & neglect 37(12), 1202-14

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Qouta SR, Palosaari E, Diab M and Punamäki RL (2012) Intervention effectiveness among war-affected children: A cluster randomized controlled trial on improving mental health. Journal of Traumatic Stress 25(3), 288-98

Punamäki RL, Peltonen K, Diab M and Qouta SR (2014) Psychosocial interventions and emotion regulation among war-affected children: Randomized control trial effects. Traumatology 20(4), 241

Kangaslampi S, Punamäki RL, Qouta S, et al. (2016) Psychosocial Group Intervention Among War-Affected Children: An Analysis of Changes in Posttraumatic Cognitions. Journal of Traumatic Stress 29(6), 546-55

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Tol 2014

Tol W, Komproe I, Jordans M, et al. (2014) School-based mental health intervention for children in war-affected Burundi: a cluster randomized trial. BMC Medicine 12, epub

Non-trauma-focused CBT

Berkowitz 2011

Berkowitz SJ, Stover CS and Marans SR (2011) The Child and family traumatic stress intervention: Secondary prevention for youth at risk of developing PTSD. Journal of Child Psychology and Psychiatry, and Allied Disciplines 52(6), 676–685

Behavioural therapies

Stallard 2006a

Stallard P, Velleman R, Salter E, et al. (2006) A randomised controlled trial to determine the effectiveness of an early psychological intervention with children involved in road traffic accidents. Journal of Child Psychology and Psychiatry 47(2), 127-34

Zehnder 2010

Zehnder D, Meuli M, Landolt MA (2010) Effectiveness of a single-session early psychological intervention for children after road traffic accidents: a randomised controlled trial. Child Adolesc Psychiatry Ment Health 4(7) [DOI: 10.1186/1753-2000-4-7]

Eye movement desensitisation and reprocessing (EMDR)

Farkas 2010

Farkas L, Cyr M, Lebeau TM and Lemay J (2010) Effectiveness of MASTR/EMDR therapy for traumatized adolescents. Journal of Child & Adolescent Trauma 3(2), 125-42

Parent training/family interventions

Danielson 2012

Danielson CK, McCart MR, Walsh K, et al. (2012) Reducing substance use risk and mental health problems among sexually assaulted adolescents: a pilot randomized controlled trial. Journal of family psychology 26(4), 628

Marsac 2013

Marsac ML, Hildenbrand AK, Kohser KL, et al. (2013) Preventing posttraumatic stress following pediatric injury: a randomized controlled trial of a web-based psychoeducational intervention for parents. Journal of pediatric psychology jst053

Swenson 2010

Swenson CC, Schaeffer CM, Henggeler SW, et al. (2010) Multisystemic Therapy for Child Abuse and Neglect: a randomized effectiveness trial. Journal of Family Psychology 24(4), 497

Self-help without support

Cox 2009/Kenardy 2015

Cox CM, Kenardy JA and Hendrikz JK (2009) A randomized controlled trial of a web-based early intervention for children and their parents following unintentional injury. Journal of pediatric psychology 35(6), 581-92

Kenardy JA, Cox CM and Brown FL (2015) A Web-Based Early Intervention Can Prevent Long-Term PTS Reactions in Children With High Initial Distress Following Accidental Injury. Journal of traumatic stress 28(4), 366-9

Kassam-Adams 2016

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Kenardy 2008

Kenardy J, Thompson K, Le Brocque R and Olsson K (2008) Information–provision intervention for children and their parents following pediatric accidental injury. European Child & Adolescent Psychiatry 17(5), 316-25

Psychosocial interventions for the prevention of PTSD in children and young people

Introduction to clinical evidence

Psychosocial interventions will be considered as classes of intervention (meditation; mindfulness-based stress reduction [MBSR]; practical support; psychoeducational interventions; mentoring; animal-assisted therapy; art therapy; drama therapy) and form the subsections below.

Evidence for interventions in the following classes was also searched for but none was found: nature-assisted therapies; supported employment; peer support.

Analysis was subdivided by the type and timing of prevention strategies, including: early prevention of PTSD for children exposed to trauma (with the intervention initiated within 1 month of the traumatic event); prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, in a war zone); early 'treatment' (initiated 1- 3 months after trauma) of non-significant PTSD symptoms in children; and delayed 'treatment' (initiated more than 3 months after trauma) of non-significant PTSD symptoms in children.

A planned sub-analysis aimed to compare effects by diagnostic status at baseline, however, findings were not meaningful as there was either only one subgroup or subgroups had no more than 1 study in each.

Meditation: clinical evidence

Included studies

One study of meditation for the prevention of PTSD in children was identified for full-text review. This study could not be included.

Excluded studies

One study was reviewed at full text and excluded from this review because the study was unpublished (registered on clinical trials.gov and although the author was contacted a full trial report was not obtained).

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Mindfulness-based stress reduction (MBSR): clinical evidence

Included studies

One study of mindfulness-based stress reduction (MBSR) for the prevention of PTSD in children was identified for full-text review. This study could not be included.

Excluded studies

One study was reviewed at full text and excluded from this review because it was a non-systematic review.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Practical support: clinical evidence

Included studies

Two studies of practical support for the prevention of PTSD in children were identified for full-text review. Neither of these studies could be included.

Excluded studies

Two studies were reviewed at full text and excluded from this review because the intervention was not targeted at PTSD symptoms, or the paper was a systematic review with no new useable data and any meta-analysis results not appropriate to extract.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Psychoeducational interventions: clinical evidence

Included studies

Twenty-eight studies of psychoeducation for the prevention of PTSD in children were identified for full-text review. Of these 28 studies, 3 RCTs (N=274) were included. There were 2 comparisons for psychoeducation.

For the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children, there was evidence for 1 relevant comparison: 2 RCTs (N=115) compared a brief psychoeducational intervention with TAU (Kassam-Adams 2011; Prchal 2012).

For prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone), there was evidence for 1 relevant comparison: 1 RCT (N=159) compared a psychoeducational group with waitlist (O'Callaghan 2014).

For the early treatment (1-3 months) of non-significant PTSD symptoms in children, there were no included studies.

For the delayed treatment (>3 months) of non-significant PTSD symptoms in children, there were no included studies.

Excluded studies

Twenty-five studies were reviewed at full text and excluded from this review. The most common reasons for exclusion were non-randomised group assignment or the paper was a systematic review with no new useable data and any meta-analysis results not appropriate to extract.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Summary of clinical studies included in the evidence review

See also the study selection flow chart in Appendix C, forest plots in Appendix E and study evidence tables in Appendix D.

Table 23 and Table 24 provide brief summaries of the included studies and evidence from these are summarised in the clinical GRADE evidence profiles below (Table 25 and Table 26).

See also the study selection flow chart in Appendix C, forest plots in Appendix E and study evidence tables in Appendix D.

Table 23: Summary of included studies: Psychoeducation for early prevention (<1 month)

Comparison	Brief psychoeducational intervention versus TAU
Total no. of studies (N randomised)	2 (115)
Study ID	Kassam-Adams 2011[1] Prchal 2012[2]
Country	US[1] Switzerland[2]
Diagnostic status	Clinically important PTSD symptoms (scoring above a threshold on validated scale) [1] Non-significant symptoms (below threshold and <50% maximum score on scale) [2]
Mean age (range)	11.5 (range NR) [1] Mean NR (6-17) [2]
Sex (% female)	40
Ethnicity (% BME)	42[1]

Comparison	Brief psychoeducational intervention versus TAU
	NR[2]
Coexisting conditions	NR
Mean months since traumatic event	0.1[1] 1.2[2]
Type of traumatic event	Unintentional injury: 25% motor vehicle crash; 25% fall; 20% organized sport; 20% other recreation; 11% other circumstances[1] Sibling of a child with newly diagnosed cancer[2]
Single or multiple incident index trauma	Single
Lifetime experience of trauma	59% prior trauma exposure[1] NR[2]
Intervention details	Stepped Preventive Care intervention[1] Psychoeducational sessions with siblings (and parents). Three-step programme: (1) medical information; (2) coping with stressful situations; (3) information for parents[2]
Intervention format	Individual/Family
Intervention intensity	2 sessions. Mean completed 1.4 sessions (mean 0.78 hours) [1] 2x 50-min sessions (1.7 hours) [2]
Comparator	TAU: Usual psychosocial care provided at the paediatric hospital. During the period in which the study was conducted, a social worker for the trauma surgery program provided services to injured patients and their families 4 days per week, and the hospital's social work department provided 24-hour on-call coverage[1] TAU: Families in the control group received standard psychosocial care, which consisted of meetings with the psycho-oncologist on the ward, who was primarily responsible for the ill child and the parents but also met with siblings if necessary[2]
Intervention length (weeks)	6[1] 2[2]

BME=Black and minority ethnic; NR=not reported; PTSD=post-traumatic stress disorder; TAU=treatment as usual
[1]Kassam-Adams 2011; [2]Prchal 2012

Table 24: Summary of included studies: Psychoeducation for ongoing exposure to trauma

Comparison	Psychoeducational group versus waitlist
Total no. of studies (N randomised)	1 (159)
Study ID	O'Callaghan 2014
Country	Democratic Republic of Congo
Diagnostic status	Non-significant symptoms (below threshold and <50% maximum score on scale)
Mean age (range)	13.4 (7-18)
Sex (% female)	45
Ethnicity (% BME)	NR
Coexisting conditions	NR

Comparison	Psychoeducational group versus waitlist
Mean months since traumatic event	NR
Type of traumatic event	Witnessing war as a civilian: 22% of participants in the two villages had previously been abducted themselves while 77% of participants knew of a family member that had been abducted and 81% had had a family member killed in the conflict. 99% of the sample reported fear of attack by the Lord's Resistance Army in the future
Single or multiple incident index trauma	Multiple
Lifetime experience of trauma	NR
Intervention details	Psychoeducational group intervention with children and their caregiver (following unpublished manual compiled by author)
Intervention format	Group
Intervention intensity	8x 2-hour sessions (16 hours). Mean number of attended child sessions was 7.06 (SD=1.56)
Comparator	Waitlist
Intervention length (weeks)	4

BME=Black and minority ethnic; NR=not reported; SD=standard deviation

See appendix D for full evidence tables.

Quality assessment of clinical studies included in the evidence review

The clinical evidence profiles for this review (psychoeducation for the prevention of PTSD in children) are presented in Table 25 and Table 26.

Table 25: Summary clinical evidence profile: Brief psychoeducational intervention versus TAU for early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU	Corresponding risk Brief psychoeducational intervention			
PTSD symptomatology self-rated at endpoint CPSS change score Follow-up: mean 6 weeks		The mean PTSD symptomatology self-rated at endpoint in the intervention groups was 0.34 standard deviations higher (0.16 lower to 0.84 higher)		64 (1 study)	very low[1,2]
PTSD symptomatology self-rated at 5-month follow-up CPSS change score Follow-up: mean 5 months		The mean PTSD symptomatology self-rated at 5-month follow-up in the intervention groups was 0.52 standard		68 (1 study)	very low[1,3]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU	Corresponding risk Brief psychoeducational intervention			
		deviations higher (0.03 to 1 higher)			
PTSD symptomatology clinician-rated at 2-month follow-up UCLA PTSD-RI change score Follow-up: mean 2 months		The mean PTSD symptomatology clinician-rated at 2-month follow-up in the intervention groups was 0.6 standard deviations lower (1.33 lower to 0.14 higher)		30 (1 study)	moderate [4]
PTSD symptomatology clinician-rated at 5-month follow-up UCLA PTSD-RI change score Follow-up: mean 5 months		The mean PTSD symptomatology clinician-rated at 5-month follow-up in the intervention groups was 0.36 standard deviations lower (1.08 lower to 0.36 higher)		30 (1 study)	moderate [4]
PTSD at endpoint Number of people scoring above clinical threshold on validated scale Follow-up: mean 6 weeks	214 per 1000	111 per 1000 (34 to 356)	RR 0.52 (0.16 to 1.66)	64 (1 study)	very low [1,5]
PTSD at 5-month follow-up Number of people scoring above clinical threshold on validated scale Follow-up: mean 5 months	97 per 1000	108 per 1000 (26 to 447)	RR 1.12 (0.27 to 4.62)	68 (1 study)	very low [1,5]
Anxiety symptoms at 2-month follow-up SCAS change score Follow-up: mean 2 months		The mean anxiety symptoms at 2-month follow-up in the intervention groups was 0.53 standard deviations lower (1.26 lower to 0.2 higher)		30 (1 study)	moderate [4]
Anxiety symptoms at 5-month follow-up SCAS change score Follow-up: mean 5 months		The mean anxiety symptoms at 5-month follow-up in the intervention groups was 0.28 standard deviations lower (1 lower to 0.44 higher)		30 (1 study)	moderate [4]
Depression symptoms at endpoint CES-D change score Follow-up: mean 6 weeks		The mean depression symptoms at endpoint in the		64 (1 study)	very low [1,2]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU	Corresponding risk Brief psychoeducational intervention			
		intervention groups was 0.28 standard deviations higher (0.21 lower to 0.78 higher)			
Depression symptoms at 5-month follow-up CES-D change score Follow-up: mean 5 months		The mean depression symptoms at 5-month follow-up in the intervention groups was 0.58 standard deviations higher (0.09 to 1.07 higher)		68 (1 study)	very low[1,3]
Quality of life at endpoint PedsQL Physical health/Physical functioning change score Follow-up: mean 6 weeks Better indicated by higher values		The mean quality of life at endpoint in the intervention groups was 0.41 standard deviations higher (0.09 lower to 0.91 higher)		64 (1 study)	very low[1,2]
Quality of life at 2-month follow-up KIDSCREEN-27 Global HRQoL T-scores, change score Follow-up: mean 2 months Better indicated by higher values		The mean quality of life at 2-month follow-up in the intervention groups was 0.22 standard deviations higher (0.5 lower to 0.94 higher)		30 (1 study)	very low[1,5]
Quality of life at 5-month follow-up PedsQL Physical health/Physical functioning/KIDSCREEN-27 Global HRQoL T-scores change score Follow-up: mean 5 months Better indicated by higher values		The mean quality of life at 5-month follow-up in the intervention groups was 0.36 standard deviations lower (0.76 lower to 0.04 higher)		98 (2 studies)	very low[1,4]
Discontinuation Number of participants lost to follow-up Follow-up: 2-6 weeks	218 per 1000	161 per 1000 (79 to 334)	RR 0.74 (0.36 to 1.53)	115 (2 studies)	very low[1,5]

CES-D=Centre for Epidemiological Studies-Depression; CI=confidence interval; CPSS=Child PTSD Symptom Scale; KIDSCREEN-27 Global HRQoL=KIDSCREEN-27 Global Health-related Quality of life; PedsQL=Paediatric Quality of Life Inventory; PTSD=post-traumatic stress disorder; RR=risk ratio; SCAS=Spence Children's Anxiety Scale; SMD=standardised mean difference; TAU=treatment as usual; UCLA PTSD-RI=UCLA PTSD-Reaction Index

[1] *Risk of bias is high or unclear across multiple domains*

[2] *95% CI crosses both line of no effect and threshold for clinically important harm*

[3] *OIS not met (N<400)*

[4] 95% CI crosses both line of no effect and threshold for clinically important benefit
[5] 95% CI crosses line of no effect and thresholds for both clinically important benefit and harm

Table 26: Summary clinical evidence profile: Psychoeducational group versus waitlist for children and young people with ongoing exposure to trauma

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Waitlist	Corresponding risk Psychoeducational group			
PTSD symptomatology self-rated CRIES change score Follow-up: mean 4 weeks		The mean PTSD symptomatology self-rated in the intervention groups was 0.53 standard deviations lower (0.85 to 0.22 lower)		159 (1 study)	low[1,2]
Emotional and behavioural problems AYPA Conduct problems/externalizing change score Follow-up: mean 4 weeks		The mean emotional and behavioural problems in the intervention groups was 0.15 standard deviations lower (0.46 lower to 0.16 higher)		159 (1 study)	low[1,2]
Depression or anxiety symptoms AYPA Depression/anxiety change score Follow-up: mean 4 weeks		The mean depression or anxiety symptoms in the intervention groups was 0.18 standard deviations higher (0.13 lower to 0.5 higher)		159 (1 study)	low[1,3]
Discontinuation Number of participants lost to follow-up Follow-up: mean 4 weeks	38 per 1000	38 per 1000 (8 to 183)	RR 1.01 (0.21 to 4.87)	159 (1 study)	low[4]

AYPA=African youth psychological assessment; CI=confidence interval; CRIES=Children's Revised Impact of Event Scale; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference
[1] Risk of bias is high or unclear across multiple domains
[2] OIS not met (N<400)
[3] 95% CI crosses both the line of no effect and threshold for clinically important harm
[4] 95% CI crosses line of no effect and thresholds for both clinically important benefit and harm

See appendix F for full GRADE tables.

Mentoring: clinical evidence

Included studies

One study of mentoring for the prevention of PTSD in children was identified for full-text review. This study could not be included.

Excluded studies

One study was reviewed at full text and excluded from this review because efficacy or safety data could not be extracted.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Animal-assisted therapy: clinical evidence

Included studies

One study of animal-assisted therapy for the prevention of PTSD in children was identified for full-text review. This study could not be included.

Excluded studies

One study was reviewed at full text and excluded from this review due to non-randomised group assignment.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Art therapy: clinical evidence

Included studies

One study of art therapy for the prevention of PTSD in children was identified for full-text review. This study could not be included.

Excluded studies

One study was reviewed at full text and excluded from this review because efficacy or safety data could not be extracted.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Drama therapy: clinical evidence

Included studies

One study of drama therapy for the prevention of PTSD in children was identified for full-text review. This study could not be included.

Excluded studies

One study was reviewed at full text and excluded from this review because the intervention was not targeted at PTSD symptoms.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Economic evidence

Included studies

No economic studies assessing the cost effectiveness of psychosocial interventions for the prevention of PTSD in children and young people were identified.

Excluded studies

No economic studies of psychosocial interventions for the prevention of PTSD in children and young people were reviewed at full text and excluded.

Economic model

No economic modelling was conducted for this question because other topics were agreed as higher priorities for economic evaluation.

Resource impact

No recommendations on psychosocial interventions for the prevention of PTSD in children and young people were made; as psychosocial interventions are not in widespread use for this purpose in routine clinical practice, there is no impact on resources.

Clinical evidence statements

Psychoeducational interventions

- Very low quality single-RCT (N=64) evidence suggests a non-significant effect of a brief psychoeducational intervention relative to TAU on self-rated PTSD symptomatology at endpoint, for children and young people who have been exposed to a traumatic event within the last month. Furthermore, evidence from this same RCT (N=68) suggests potential harm with significantly less improvement in self-rated PTSD symptomatology and depression symptoms at 5-month follow-up observed for those receiving a brief psychoeducational intervention. Moderate quality evidence from another single RCT (N=30) suggests non-significant effects on clinician-rated PTSD symptomatology at 2- or 5-month follow-up. Very low quality single-RCT (N=64-68) evidence suggests a clinically important but not statistically significant benefit of psychoeducation on the number of participants who meet criteria for PTSD at endpoint, however, this effect is neither clinically important nor statistically significant at 5-month follow-up. Moderate quality evidence from the other RCT (N=30) suggests a similar pattern for anxiety symptoms with a clinically important but not statistically significant benefit at 2-month follow-up and a neither clinically important nor statistically significant effect at 5-month follow-up. Very low quality evidence from 1-2 RCTs (N=30-98) suggests non-significant effects on quality of life at endpoint, or 2- or 5- month follow-up. Finally, very low quality evidence suggests that there may be less discontinuation associated with a brief psychoeducational intervention relative to TAU, however the absolute difference is small and this effect is not statistically significant.
- Low quality single-RCT (N=159) evidence suggests a moderate and statistically significant benefit of a psychoeducational group relative to waitlist on improving self-rated PTSD symptomatology for children and young people

with ongoing exposure to trauma (for instance, living in a war zone). Evidence from this same RCT suggests non-significant effects on conduct problems/externalising, depression or anxiety symptoms, and discontinuation.

Economic evidence statements

No economic evidence on psychosocial interventions for the prevention of PTSD in children and young people was identified and no economic modelling was undertaken.

The committee's discussion of the evidence

Interpreting the evidence

The outcomes that matter the most

Critical outcomes were measures of PTSD symptom improvement on validated scales and prevention of PTSD (as measured by the number of children and young people with a diagnosis or scoring above clinical threshold on a validated scale at endpoint or follow-up). Attrition from treatment (for any reason) was also considered an important outcome, as a proxy for the acceptability and/or tolerability of treatment. The committee considered dissociative symptoms, personal/social/educational functioning (including global functioning/functional impairment, sleeping difficulties, and quality of life), and symptoms of a coexisting condition (including anxiety, depression and emotional and behavioural problems) as important but not critical outcomes. This distinction was based on the primacy of preventing PTSD, whilst acknowledging that broader symptom measures may be indicators of a general pattern of effect. Generally change scores were favoured over final scores as although in theory randomisation should balance out any differences at baseline, this assumption can be violated by small sample sizes. The committee also expressed a general preference for self-rated PTSD symptomatology over clinician-rated (or parent-rated) measures. However, in considering psychosocial interventions (relative to pharmacological interventions) a greater emphasis was placed on triangulating effects on self-rated PTSD symptomatology with clinician-rated outcome measures, given that the latter but not the former could be blinded.

The quality of the evidence

All the evidence reviewed was of low or very low quality, reflecting the high risk of bias associated with the studies (including for instance, high risk of bias associated with randomisation method as reflected by significant group differences at baseline, and lack of/unclear blinding of outcome assessment), the small numbers in trials and the imprecision of many of the results (in terms of both the width of the confidence intervals and the failure to meet the optimal information size). This uncertainty of the evidence is reflected in the committee's decision to not make any recommendations for psychosocial interventions for the prevention of PTSD in children.

Consideration of clinical benefits and harms

The committee discussed the limited direct evidence suggesting a non-significant difference between a trauma-focused CBT group (the intervention recommended) and a psychoeducational group for the prevention of PTSD in children and young people exposed to ongoing trauma in the context of witnessing war as a civilian. The committee also considered evidence from another RCT suggesting benefits of a psychoeducational group relative to waitlist for improving PTSD symptomatology. In

light of these findings, the committee considered recommending a psychoeducational group as an additional option, or as an alternative to a trauma-focused CBT group for children and young people exposed to a traumatic event within the last month leading to large-scale shared trauma. However, based on the greater certainty in the benefit of trauma-focused CBT group (in terms of the number of RCTs), the larger effect sizes observed for a trauma-focused CBT group, and the fact that the benefits of a psychoeducational group did not extend to other important outcomes, the committee agreed that a psychoeducational group would not be included in the recommendation.

The committee also discussed limited evidence for a brief psychoeducational intervention relative to TAU for children and young people admitted to hospital for treatment of an unintentional injury. The results of this study suggest non-significant effects across most outcomes, and a potential harm for PTSD symptomatology and depression symptoms at 5-months' follow-up with greater improvement observed in the TAU control arm. The committee considered making a negative recommendation but judged this to be inappropriate based on the uncertainty of harm given the limited number of RCTs (single-RCT analyses for PTSD outcomes) and the lack of a non-active control.

To summarise, the committee discussed the potential benefits associated with a psychoeducational group for children and young people exposed to ongoing conflict-related trauma. However, comparison with the effects of a trauma-focused CBT group, suggested less potential benefit than the recommended intervention. The committee also considered the non-significant effects observed across most outcomes for a brief psychoeducational intervention together with the potential harm found for PTSD symptomatology and depression symptoms at 5-month follow-up. The committee considered a negative recommendation for a brief psychoeducational intervention but given that the evidence base was weak (a single RCT), improvement was observed in both arms but greater improvement observed in the TAU control arm, and psychoeducational components are included in most psychological interventions, the potential for harm was not considered sufficient to warrant a 'do not do' recommendation.

Cost effectiveness and resource use

No evidence on the cost effectiveness of psychosocial interventions for the prevention of PTSD in children and young people was identified and no economic modelling was undertaken in this area. The committee did not make any recommendations. As none of these interventions are in widespread use in routine clinical practice, the committee thought that there would be no change in practice and therefore no resource implications.

References for included studies

Psychoeducational interventions

Kassam-Adams 2011

Kassam-Adams N, García-España JF, Marsac ML, et al. (2011) A pilot randomized controlled trial assessing secondary prevention of traumatic stress integrated into pediatric trauma care. J Trauma Stress 24(3), 252-9 [DOI: 10.1002/jts.20640]

O'Callaghan 2014

O'Callaghan P, Branham L, Shannon C, et al. (2014) A pilot study of a family focused, psychosocial intervention with war-exposed youth at risk of attack and abduction in north-eastern Democratic Republic of Congo. Child abuse & neglect 38(7), 1197-207

Prchal 2012

Prchal A, Graf A, Bergstraesser E and Landolt MA. (2012) A two-session psychological intervention for siblings of pediatric cancer patients: a randomized controlled pilot trial. Child Adolesc Psychiatry Ment Health 6(1), 3 [DOI: 10.1186/1753-2000-6-3]

Other non-pharmacological interventions for the prevention of PTSD in children and young people

Introduction to clinical evidence

Other non-pharmacological interventions will be considered as classes of intervention (acupuncture; massage; neurofeedback; yoga) and form the subsections below.

Evidence for interventions in the following classes was also searched for but none was found: exercise; repetitive transcranial magnetic stimulation (rTMS).

Analysis was subdivided by the type and timing of prevention strategies, including: early prevention of PTSD for children exposed to trauma (with the intervention initiated within 1 month of the traumatic event); prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, in a war zone); early 'treatment' (initiated 1- 3 months after trauma) of non-significant PTSD symptoms in children; and delayed 'treatment' (initiated more than 3 months after trauma) of non-significant PTSD symptoms in children.

A planned sub-analysis aimed to compare effects by diagnostic status at baseline, however, findings were not meaningful as there was either only one subgroup or subgroups had no more than 1 study in each.

Acupuncture: clinical evidence

Included studies

One study of acupuncture for the prevention of PTSD in children was identified for full-text review. This study could not be included.

Excluded studies

One study was reviewed at full text and excluded from this review because the paper was a systematic review with no new useable data and any meta-analysis results not appropriate to extract.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Massage: clinical evidence

Included studies

Two studies of massage for the prevention of PTSD in children were identified for full-text review. Of these 2 studies, 1 RCT (N=119) was included in 1 comparison for massage.

For the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children, there was evidence for 1 relevant comparison: 1 RCT (N=119) compared a combined massage and facilitated self-help with TAU (Phipps 2010/Phipps 2012/Lindwall 2014 [one study reported across three papers]).

For prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone), there were no included studies.

For the early treatment (1-3 months) of non-significant PTSD symptoms in children, there were no included studies.

For the delayed treatment (>3 months) of non-significant PTSD symptoms in children, there were no included studies.

Excluded studies

One study was reviewed at full text and excluded from this review as the paper was a systematic review with no new useable data and any meta-analysis results not appropriate to extract.

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Summary of clinical studies included in the evidence review

See also the study selection flow chart in Appendix C – Clinical evidence study selection, forest plots in Appendix E and study evidence tables in Appendix D.

Table 27 provides brief summaries of the included studies and evidence from these are summarised in the clinical GRADE evidence profiles below (Table 28).

See also the study selection flow chart in Appendix C – Clinical evidence study selection, forest plots in Appendix E and study evidence tables in Appendix D.

Table 27: Summary of included studies: Massage for early prevention (<1 month)

Comparison	Massage + self-help with support versus TAU
Total no. of studies (N randomised)	1 (119)
Study ID	Phipps 2010/2012/Lindwall 2014
Country	US and Canada
Diagnostic status	Non-significant symptoms (below threshold and <50% maximum score on scale)
Mean age (range)	12.8 (range NR)
Sex (% female)	38
Ethnicity (% BME)	NR
Coexisting conditions	NR
Mean months since traumatic event	NR (≤1 month)
Type of traumatic event	Children undergoing paediatric stem cell transplantation (SCT). Diagnostic group: ALL (27%); AML (25%); other leukaemia (14%); HD/NHL (11%); solid tumour (12%); nonmalignancy (11%)
Single or multiple incident index trauma	Single
Lifetime experience of trauma	NR
Intervention details	Massage + humour intervention (for child)
Intervention format	Individual

Comparison	Massage + self-help with support versus TAU
Intervention intensity	12x thrice-weekly 30-min massage sessions + 4x weekly 'humour sessions' and thrice-weekly access to the 'humour cart'. Mean number of massages per child was 8.8 (SD=3.1)
Comparator	TAU: Routine, comprehensive services that are provided for families during the SCT process at these major paediatric SCT centres
Intervention length (weeks)	4

ALL=Acute Lymphoblastic Leukaemia; AML=Acute Myeloblastic Leukaemia; BME=Black and minority ethnic; HD=Hodgkin disease; NHL=Non-Hodgkin lymphoma; NR=not reported; SCT=stem cell transplantation; SD=standard deviation; TAU=treatment as usual

See appendix D for full evidence tables.

Quality assessment of clinical studies included in the evidence review

The clinical evidence profiles for this review (massage for the prevention of PTSD in children) are presented in Table 28.

Table 28: Summary clinical evidence profile: Massage + self-help with support versus TAU for early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU	Corresponding risk Massage + self-help with support			
PTSD symptomatology self-rated at 5-month follow-up UCLA PTSD-RI change score Follow-up: mean 5 months		The mean PTSD symptomatology self-rated at 5-month follow-up in the intervention groups was 0.47 standard deviations higher (0.06 lower to 1 higher)		58 (1 study)	low[1,2]
Depression symptoms at 5-month follow-up CDI change score Follow-up: mean 5 months		The mean depression symptoms at 5-month follow-up in the intervention groups was 0.18 standard deviations lower (0.7 lower to 0.34 higher)		58 (1 study)	low[1,3]
Discontinuation Number of participants lost to follow-up Follow-up: mean 5 months	583 per 1000	443 per 1000 (309 to 630)	RR 0.76 (0.53 to 1.08)	119 (1 study)	moderate[3]

CDI=Children's Depression Inventory; CI=confidence interval; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference; TAU=treatment as usual; UCLA PTSD-RI=UCLA PTSD-Reaction Index

[1] *Risk of bias is high or unclear across multiple outcomes*

[2] *95% CI crosses both line of no effect and threshold for clinically important harm*

[3] *95% CI crosses both line of no effect and threshold for clinically important benefit*

See appendix F for full GRADE tables.

Neurofeedback: clinical evidence

Included studies

One study of neurofeedback for the prevention of PTSD in children were identified for full-text review. This study could not be included.

Excluded studies

One study was reviewed at full text and excluded from this review because the study was unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided).

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Yoga: clinical evidence

Included studies

One study of yoga for the prevention of PTSD in children was identified for full-text review. This study could not be included.

Excluded studies

One study was reviewed at full text and excluded from this review due to small sample size (N<10 per arm).

Studies not included in this review with reasons for their exclusions are provided in Appendix K.

Economic evidence

Included studies

No economic studies assessing the cost effectiveness of other non-pharmacological interventions for the prevention of PTSD in children and young people were identified.

Excluded studies

No economic studies of other non-pharmacological interventions for the prevention of PTSD in children and young people were reviewed at full text and excluded.

Economic model

No economic modelling was conducted for this question because other topics were agreed as higher priorities for economic evaluation.

Resource impact

No recommendations on other non-pharmacological interventions for the prevention of PTSD in children and young people were made; as these interventions are not in widespread use in routine clinical practice, there is no impact on resources.

Clinical evidence statements

Massage

- Moderate to low quality single-RCT (N=58-119) evidence suggests non-significant effects of a massage intervention (combined with facilitated self-help) relative to TAU on self-rated PTSD symptomatology, depression symptoms and discontinuation, for children who have been exposed to a traumatic event within the last month.

Economic evidence statements

No economic evidence on other non-pharmacological interventions for the prevention of PTSD in children and young people was identified and no economic modelling was undertaken.

The committee's discussion of the evidence

Interpreting the evidence

Outcomes that matter the most

Critical outcomes were measures of PTSD symptom improvement on validated scales and prevention of PTSD (as measured by the number of children and young people with a diagnosis or scoring above clinical threshold on a validated scale at endpoint or follow-up). Attrition from treatment (for any reason) was also considered an important outcome, as a proxy for the acceptability and/or tolerability of treatment. The committee considered dissociative symptoms, personal/social/educational functioning (including global functioning/functional impairment, sleeping difficulties, and quality of life), and symptoms of a coexisting condition (including anxiety, depression and emotional and behavioural problems) as important but not critical outcomes. This distinction was based on the primacy of preventing PTSD, whilst acknowledging that broader symptom measures may be indicators of a general pattern of effect. Generally change scores were favoured over final scores as although in theory randomisation should balance out any differences at baseline, this assumption can be violated by small sample sizes. The committee also expressed a general preference for self-rated PTSD symptomatology over clinician-rated (or parent-rated) measures. However, in considering other non-pharmacological interventions (relative to pharmacological interventions) a greater emphasis was placed on triangulating effects on self-rated PTSD symptomatology with clinician-rated outcome measures, given that the latter but not the former could be blinded.

The quality of the evidence

The evidence for efficacy outcomes was very low quality, and for discontinuation was moderate quality. The low to very low quality ratings reflect the limited evidence base, the high risk of attrition bias, the unclear risk of bias associated with non-blind self-reported outcomes, the imprecision of results (with confidence intervals crossing both the line of no effect and threshold for clinically important benefit or harm), and the risk of publication bias given that data cannot be extracted for all outcomes. This

uncertainty of the evidence is reflected in the committee's decision to not make any recommendations for other non-pharmacological interventions for the prevention of PTSD in children and young people.

Consideration of clinical benefits and harms

The committee discussed the evidence suggesting non-significant effects on PTSD symptomatology, depression symptoms and discontinuation, of a combined massage and facilitated self-help intervention for the early prevention of PTSD in children and young people undergoing stem cell or bone marrow transplantation. Given this limited evidence for neither significant benefit nor harm, the committee did not consider a recommendation to be warranted.

Cost effectiveness and resource use

No evidence on the cost effectiveness of other non-pharmacological interventions for the prevention of PTSD in children and young people was identified and no economic modelling was undertaken in this area. The committee did not make any recommendations. As none of these interventions are in widespread use in routine clinical practice, the committee thought that there would be no change in practice and therefore no resource implications.

References for included studies

Massage

Phipps 2010/2012/Lindwall 2014

Phipps S, Barrera M, Vannatta K, et al. (2010) Complementary therapies for children undergoing stem cell transplantation. Cancer 116(16), 3924-33

Phipps S, Peasant C, Barrera M, et al. (2012) Resilience in children undergoing stem cell transplantation: Results of a complementary intervention trial. Pediatrics 129(3), e762-70

Lindwall JJ, Russell K, Huang Q, et al. (2014) Adjustment in parents of children undergoing stem cell transplantation. Biology of Blood and Marrow Transplantation 20(4), 543-8

Appendices

Appendix A – Review protocols

Review protocol for "For children and young people at risk of PTSD, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?"

Topic	Psychological, psychosocial or other non-pharmacological interventions for PTSD symptoms in children and young people
Review question(s)	For children and young people at risk of PTSD, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?
Sub-question(s)	Where evidence exists, consideration will be given to the specific needs of:- women who have been exposed to sexual abuse or assault, or domestic violence lesbian, gay, bisexual, transsexual or transgender people people from black and minority ethnic groups people who are homeless or in insecure accommodation asylum seekers or refugees or other immigrants who are entitled to NHS prevention people who have been trafficked people who are socially isolated (and who are not captured by any other subgroup listed) people with complex PTSD people with neurodevelopmental disorders (including autism) people with coexisting conditions (drug and alcohol misuse, common mental health disorders, eating disorders, personality disorders, acquired brain injury, physical disabilities and sensory impairments) people who are critically ill or injured (for instance after a vehicle crash)
Objectives	To identify the most effective psychological, psychosocial or other non-pharmacological interventions for the prevention of PTSD in children and young people
Population	Children and young people (aged under 18 years) at risk of PTSD

Topic	Psychological, psychosocial or other non-pharmacological interventions for PTSD symptoms in children and young people
	At risk of PTSD is defined (in accordance with DSM) as: Exposure to actual or threatened death, serious injury or sexual violation. The exposure must result from one or more of the following scenarios, in which the individual: directly experiences the traumatic event; witnesses the traumatic event in person; learns that the traumatic event occurred to a close family member or close friend (with the actual or threatened death being either violent or accidental); or experiences first-hand repeated or extreme exposure to aversive details of the traumatic event (not through media, pictures, television or movies unless work-related) This population includes people with a diagnosis of acute stress disorder/acute stress reaction (according to DSM, ICD or similar criteria), people with clinically important PTSD symptoms within a month of the traumatic event, and people with sub-threshold symptoms. The at-risk population for this review will also include the following groups that may not be captured by the DSM criteria: family members of people with PTSD; family members or carers of people with a life-threatening illness or injury. Children and young people (aged under 18 years) with clinically important post-traumatic stress symptoms more than one month after the traumatic event will be excluded from this review question, as this question addresses prevention, this group are included in review question 1.2. For mixed adult and children populations, where possible disaggregated data will be obtained. If this is not possible then the study will be categorised according to the mean age of the population (<18 years as children and young people and ≥18 years as adult). If some, but not all, of a study's participants are eligible for the review, where possible disaggregated data will be obtained. If this is not possible then the study will be included if at least 80% of its participants are eligible for this review.
Exclude	Trials of people with adjustment disorders Trials of people with traumatic grief

Topic	Psychological, psychosocial or other non-pharmacological interventions for PTSD symptoms in children and young people
	Trials of people with psychosis as a coexisting condition Trials of people with learning disabilities Trials of women with PTSD during pregnancy or in the first year following childbirth Trials of adults in contact with the criminal justice system (not solely as a result of being a witness or victim)
Intervention	Psychological interventions (psychological interventions listed below are examples of interventions which may be included either alone or in combination and delivered to the child or young person and/or a parent or carer in an individual or group format): Trauma-focused cognitive behavioural therapies (CBT), including cognitive therapy, cognitive processing therapy, compassion focused therapy, exposure therapy/prolonged exposure (PE), virtual reality exposure therapy (VRET), imagery rehearsal therapy, mindfulness-based cognitive therapy (MBCT) and narrative exposure therapy for traumatized children and adolescents (KidNET) Non-trauma-focused CBT, including stress inoculation training (SIT) Psychologically-focused debriefing (including single session debriefing) Eye movement desensitisation and reprocessing (EMDR) Hypnotherapy Psychodynamic therapies, including traumatic incident reduction (TIR) Counselling, including non-directive/supportive/person-centred counselling Human givens therapy Combined somatic and cognitive therapies, including thought field therapy (TFT) and emotional freedom technique (EFT) Parent training/family interventions, including behavioural family therapy (such as Child and Family Traumatic Stress Intervention [CFTSI]) Play therapy Psychosocial interventions (psychosocial interventions listed below are examples of interventions which may be included either alone or in combination): Meditation Mindfulness-based stress reduction (MBSR) Nature-assisted therapies (including ecotherapy, horticultural therapy, therapeutic horticulture and nature-based therapy)

Topic	Psychological, psychosocial or other non-pharmacological interventions for PTSD symptoms in children and young people
	Supported employment (including individual placement and support [IPS] supported employment and Veterans Health Administration Vocational Rehabilitation Programme [VRP]) Practical support (including financial and housing) Psychoeducational interventions Peer support (including self-help groups and support groups) Other non-pharmacological interventions (other non-pharmacological interventions listed below are examples of interventions which may be included either alone or in combination): Acupuncture (including classical acupuncture, electroacupuncture, auricular acupuncture, laser acupuncture and acupoint stimulation [such as acupressure, moxibustion and tapping]) Exercise (including anaerobic [such as heavy weight training, sprinting, high-intensity interval training] and aerobic [such as running/jogging, swimming, cycling and walking] exercise, both supervised and unsupervised) Repetitive transcranial magnetic stimulation (rTMS) Yoga (including all types of yoga) Combination interventions, such as combined psychological plus pharmacological versus pharmacological alone, will also be considered here. A distinction will be made between early interventions (delivered within 3 months of the traumatic event) and delayed interventions (delivered more than 3 months after the traumatic event). Exclude: Inoculation interventions for people who may be at risk of experiencing but have not experienced, a traumatic event Interventions that are not targeted at PTSD symptoms
Comparison	Any other intervention Prevention as usual Waitlist Placebo
Critical outcomes	Efficacy PTSD symptomology (mean endpoint score or change in PTSD score from baseline) Diagnosis of PTSD (number of people meeting diagnostic criteria for PTSD according to DSM, ICD or similar criteria)

Topic	Psychological, psychosocial or other non-pharmacological interventions for PTSD symptoms in children and young people
	The following PTSD scales will be included: Assessor-rated PTSD symptom scales: Clinician-Administered PTSD Scale for Children and Adolescents for DSM–IV (CAPS–CA) or DSM-V (CAPS-CA-5) Anxiety Disorders Interview Schedule for Children for DSM–IV (ADIS–C) Schedule for Affective Disorders and Schizophrenia for School Age Children (K–SADS) Children's PTSD Inventory (CPTSDI) Self-report (parent-report) instruments of PTSD symptoms: Children's Impact of Event Scale/Children's Revised Impact of Event Scale (CRIES) Child Post Traumatic Stress Reaction Index (CPTS–RI)/UCLA PTSD Index for DSM-IV (UPID)/ CPTS-RI Revision 2 (also referred to as the PTSD Index for DSM-IV) Child PTSD Symptom Scale (CPSS) Trauma Screening Checklist for Children (TSCC) Children's Reaction to Traumatic Events Scale (CRTES) Angie/ Andy Cartoon Trauma Scales (ACTS)/ Angie/Andy Parent Rating Scales Pediatric Emotional Distress Scale (PEDS) Acceptability/tolerability Acceptability of the intervention Discontinuation due to adverse effects Discontinuation due to any reason (including adverse effects)
Important, but not critical outcomes	Dissociative symptoms as assessed with a validated scale including: Assessor-rated scales: Dissociation symptom cluster score on CAPS-CA Self-report (parent-report) scales: Adolescent Dissociative Experiences Scale (A-DES) Child Dissociative Checklist (CDC) Personal, social, educational and occupational functioning:

Topic	Psychological, psychosocial or other non-pharmacological interventions for PTSD symptoms in children and young people
	Emotional and behavioural problems (as assessed with a validated scale including Strengths and Difficulties Questionnaire [SDQ]) Sleeping difficulties (as assessed with a validated scale including Children's Sleep Habits Questionnaire [CSHQ], Sleep Disturbance Scale for Children [SDSC]) School attendance Employment (for instance, number in paid employment) Housing (for instance, number homeless or in insecure accommodation) Quality of life (as assessed with a validated scale including Pediatric Quality of Life Inventory [PedsQL] and Warwick-Edinburgh Mental Well-being Scale [WEMWBS]) Coexisting conditions (note that target of intervention should be PTSD symptoms): Symptoms of and recovery from a coexisting condition Self-harm Suicide
Study design	Systematic reviews of RCTs RCTs
Include unpublished data?	Clinical trial registries (ISRCTN and ClinicalTrials.gov) will be searched to identify any relevant unpublished trials and authors will be contacted to request study reports (where these are not available online). Unpublished data will only be included where a full study report is available with sufficient detail to properly assess the risk of bias. Authors of unpublished evidence will be asked for permission to use such data, and will be informed that summary data from the study and the study's characteristics will be published in the full guideline Conference abstracts and dissertations will not be included.
Restriction by date?	All relevant studies from existing reviews from the 2005 guideline will be carried forward. No restriction on date for the updated search.
Minimum sample size	N = 10 in each arm
Study setting	Primary, secondary, tertiary, social care and community settings.

Topic	Psychological, psychosocial or other non-pharmacological interventions for PTSD symptoms in children and young people
	Prevention provided to troops on operational deployment or exercise will not be covered.
The review strategy	Reviews If existing systematic reviews are found, the committee will assess their quality, completeness, and applicability to the NHS and to the scope of the guideline. If the committee agrees that a systematic review appropriately addresses a review question, a search for studies published since the review will be conducted. Data Extraction (selection and coding) Citations from each search will be downloaded into EndNote and duplicates removed. Titles and abstracts of identified studies will be screened by two reviewers for inclusion against criteria, until a good inter-rater reliability has been observed (percentage agreement =>90% or Kappa statistics, K>0.60). Initially 10% of references will be double-screened. If inter-rater agreement is good then the remaining references will be screened by one reviewer. All primary-level studies included after the first scan of citations will be acquired in full and re-evaluated for eligibility at the time they are being entered into a study database (standardised template created in Microsoft Excel). At least 10% of data extraction will be double-coded. Discrepancies or difficulties with coding will be resolved through discussion between reviewers or the opinion of a third reviewer will be sought. Non-English-language papers will be excluded (unless data can be obtained from an existing review). Data Analysis Where data is available, meta-analysis using a fixed-effects model will be used to combine results from similar studies. Heterogeneity will be considered and if a random-effects model is considered more appropriate it will be conducted. For risk of bias, outcomes will be downgraded if the randomisation and/or allocation concealment methods are unclear or inadequate. Outcomes will also be downgraded if no attempts are made to blind the assessors or participants in some way, i.e. by either not knowing the aim of the study or the result from other tests. Outcomes will also be downgraded if there is considerable missing data (see below). Handling missing data: Where possible an intention to treat approach will be used outcomes will be downgraded if there is a dropout of more than 20%, or if there was a difference of >20% between the groups.

Topic	Psychological, psychosocial or other non-pharmacological interventions for PTSD symptoms in children and young people
	For heterogeneity: outcomes will be downgraded once if I2>50%, twice if I2 >80% For imprecision: outcomes will be downgraded if: Step 1: If the 95% CI is imprecise i.e. crosses 0.8 or 1.25 (dichotomous) or -0.5 or 0.5 (for continuous). Outcomes will be downgraded one or two levels depending on how many lines it crosses. Step 2: If the clinical decision threshold is not crossed, we will consider whether the criterion for Optimal Information Size is met, if not we will downgrade one level for the following. for dichotomous outcomes: <300 events for continuous outcomes: <400 participants For clinical effectiveness, if studies report outcomes using the same scale mean differences will be considered, if not standardized mean differences (SMDs) will be considered and the following criteria will be used: SMD <0.2 too small to likely show an effect SMD 0.2 small effect SMD 0.5 moderate effect SMD 0.8 large effect RR <0.8 or >1.25 clinical benefit Anything less (RR >0.8 and <1.25), the absolute numbers will be looked at to make a decision on whether there may be a clinical effect.
Heterogeneity (sensitivity analysis and subgroups)	Where substantial heterogeneity exists, sensitivity analyses will be considered, for instance: Studies with <50% completion data (drop out of >50%) will be excluded Where possible, the influence of subgroups will be considered, including subgroup analyses giving specific consideration to the groups outlined in the sub-question section and to the following groups: Trauma type (including single incident relative to chronic exposure) Duration of intervention (for instance, short-term [≤12 weeks] relative to long-term [>12 weeks]) Intensity of intervention (for instance, low intensity [≤15 sessions] relative to high intensity [>15 sessions]) Format of intervention (individual relative to group) Mode of intervention delivery (including digital relative to face-to-face) First-line prevention relative to second-line prevention and prevention-resistant PTSD (≥2 inadequate preventions) Acute PTSD symptoms (clinically important PTSD symptoms for less than 3 months) relative to chronic PTSD symptoms (clinically important PTSD symptoms for 3 months or more)

Topic	Psychological, psychosocial or other non-pharmacological interventions for PTSD symptoms in children and young people
Notes	Practical and social support (area of scope) is covered quantitatively by interventions listed under psychosocial interventions: • Supported employment (including individual placement and support [IPS] supported employment and Veterans Health Administration Vocational Rehabilitation Programme [VRP]) • Practical support (including financial and housing) • Peer support (including self-help groups and support groups)

Appendix B – Literature search strategies

Literature search strategy for "For children and young people at risk of PTSD, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?"

Clinical evidence

Database: **Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R), Embase, PsycINFO**

Date of last search: 29 January 2018

#	Searches
1	*acute stress/ or *behavioural stress/ or *emotional stress/ or *critical incident stress/ or *mental stress/ or *posttraumatic stress disorder/ or *psychotrauma/
2	1 use emez
3	stress disorders, traumatic/ or combat disorders/ or psychological trauma/ or stress disorders, post-traumatic/ or stress disorders, traumatic, acute/ or stress, psychological/
4	3 use mesz, prem
5	exp posttraumatic stress disorder/ or acute stress disorder/ or combat experience/ or emotional trauma/ or post-traumatic stress/ or traumatic neurosis/ or trauma/ or psychological stress/ or chronic stress/
6	5 use psyh
7	(railway spine or (rape adj2 trauma*) or reexperienc* or re experienc* or torture syndrome or traumatic neuros* or traumatic stress).ti,ab.
8	(trauma* and (avoidance or grief or horror or death* or nightmare* or night mare* or emotion*)).ti,ab.
9	(posttraumatic* or post traumatic* or stress disorder* or acute stress or ptsd or asd or desnos or (combat neuros* or combat syndrome or concentration camp syndrome or extreme stress or flashback* or flash back* or hypervigilan* or hypervigilen* or psych* stress or psych* trauma* or psycho?trauma* or psychotrauma*) or (posttrauma* or traumagenic* or traumatic stress*)).ti,ab.
10	or/2,4,6-9
11	*psychotherapy/ use emez or psychotherapy/ use mesz, prem,psyh
12	(((psycholog* or psycho social* or psychosocial*) adj3 (intervention* or program* or therap* or treat*)) or psychotherap* or psycho therap* or talk* therap* or therapeutic technique* or therapist* or third wave or time limited).ti,ab,sh.
13	exp *behavior therapy/ or exp *cognitive therapy/
14	13 use emez
15	exp behavior therapy/ use mesz, prem
16	exp behavior therapy/ or exp cognitive behavior therapy/
17	16 use psyh
18	(((behaviour* or behavior*) adj2 cognitiv*) or cbt or ccbt or ((behav* or cognitive*) adj3 (intervention* or manag* or program* or restructure* or therap* or treat*)) or (stress inoculation adj2 (intervention* or program* or therap* or train* or treat*)) or (behav* adj2

#	Searches
	activat*) or ((trauma adj (based or focused or led)) or exposure based or prolonged exposure)).ti,ab.
19	*emotion/ use emez or emotions/ use mesz, prem
20	emotion focused therapy/ or sympathy/
21	20 use psyh
22	(((compassion or emotion* or emotive*) adj (based or focused or led)) or emotional processing or ((compassion or emotion* or emotive*) adj3 (coach* or intervention* or program* or therap* or treat*))).ti,ab.
23	exposure therapy/ or narrative therapy/ or virtual reality exposure therapy/
24	23 use emez
25	implosive therapy/ or narrative therapy/ or virtual reality exposure therapy/
26	25 use mesz, prem
27	exposure therapy/ or narrative therapy/ or virtual reality/
28	27 use psyh
29	(((augmented or virtual) adj2 reality) or (virtual adj (environment or restorative)) or ((exposure or implosive or virtual reality) adj2 (intervention* or program* or therap* or train*))).ti,ab.
30	((imagery adj2 (rehears* or re hears*)) or (((lower* or reduc*) adj3 (bad dream* or nightmare*)) and (intervention* or program* or therap* or treat*)) or ((intervention* or program* or therap* or treat*) adj3 nightmare*)).mp. or ((presleep or presleep) adj2 imagery).ti,ab.
31	(mindfulness or ((exposure or narrative) adj therapy)).sh.
32	(kidnet or mindful* or narrative therap*).ti,ab.
33	exp "debriefing (psychological)"/ use psyh
34	debrief*.ti,ab.
35	eye movement desensitization reprocessing/ use mesz, prem or eye movement desensitization therapy/ use psyh or (emdr or (eye movement adj2 desensiti*)).ti,ab.
36	hypnosis/ use emez or exp hypnosis/ use mesz, prem or exp hypnotherapy/ use psyh or (hypnosis or hypnotherap*).ti,ab.
37	psychodynamic psychotherapy/ use emez or psychotherapy, psychodynamic/ use mesz, prem or psychodynamic psychotherapy/ use psyh or repetitive transcranial magnetic stimulation/ use emez or Transcranial Magnetic Stimulation/ use mesz, prem, psyh
38	((psychodynamic or (dynamic adj (psychotherapy* or therap*)) or incident reduction) or ((brain or transcranial) adj2 stimulat*) or rtms).ti,ab.
39	(psychoanal* or psychosomatic*).ti,ab.
40	exp counseling/ use emez,mesz,psyh or counsel*.ti,ab.
41	(hg therap* or human givens).ti,ab.
42	psychosomatic disorder/th use emez or exp somatoform disorders/th use mesz, prem
43	(exp somatoform disorders/ or somatization/) and (intervention* or program* or therap* or treat*).ti,ab,hw. use psyh
44	(psychosomatic* or somatherap* or somatic*).ti,ab.
45	(emotional freedom or holistic or thought field).ti,ab.
46	dance therap*.ti,ab,sh.
47	couple therapy/ or family therapy/ or marital therapy/ or exp parent/ed
48	47 use emez

#	Searches
49	couples therapy/ or family therapy/ or marital therapy/ or exp parents/ed
50	49 use mesz, prem
51	couples therapy/ or family intervention/ or exp family therapy/ or exp marriage counseling/ or parent training/
52	51 use psyh
53	(((con?joint or couple* or family or families or husband* or marriage* or marital* or partner* or relations* or spous* or wife or wives* or (child* adj5 parent*)) adj6 (counsel* or intervention* or program* or support* or therap* or treat*)) or ((couples* or family* or relations*) adj (based or focused or led)) or ecological therap* or expressed emotion or family dynamics or family relationships).tw.
54	((child* adj2 family traumatic stress intervention) or cftsi).ti,ab.
55	play therapy.sh.
56	(doll therap* or ((play or playful) adj3 (intervention* or program* or therap* or treat*)) or sandplay or sand play).ti,ab.
57	meditation.sh. or meditat*.ti,ab.
58	mindfulness.sh. or (mbsr or mindful*).ti,ab.
59	exp horticulture/ or occupational therapy/ or recreational therapy/
60	59 use emez
61	horticultural therapy/ or occupational therapy/ or recreation therapy/
62	61 use mesz, prem
63	exp "nature (environment)"/ or horticulture therapy/ or recreation therapy/ or occupational therapy/
64	63 use psyh
65	((nature adj (assisted or based)) or (nature adj3 (intervention* or program* or therap* or treat*)) or ecotherap* or e cotherap* or gardening or horticult* or leisure activit* or naturopath* or occupational therap*).ti,ab. or exp animal assisted therapy/ use emez, mesz or animal assisted therapy/ use psyh or (((animal* or dog* or equine* or horse* or pet or pets) adj2 (assist* or based or facilitat*)) or ((animal* or dog* or equine* or horse* or pet or pets) adj3 (intervention* or therap* or treat* or program*))).ti,ab.
66	psychoeducation.sh. or (psychoed* or psycho ed*).ti,ab.
67	exp acupuncture/ use emez or exp alternative medicine/ use emez or biofeedback/ or massage/ use emez or meditation/ use emez or acupressure/ use mesz, prem or massage/ use mesz, prem or acupuncture/ use mesz, prem or exp complementary therapies/ use mesz, prem or exp alternative medicine/ use psyh or biofeedback/ use psyh or massage/ use psyh or mind body therapy/ use psyh
68	(chinese medicine or medicine, chinese traditional or (moxibustion or electroacupuncture)).sh,id. or ((alternative or complementary) adj2 (medicine* or therap*)).ti,ab,sh. or (acu point* or acupoint* or acupressur* or acupunctur* or (ching adj2 lo) or cizhen or dianzhen or electroacupunctur* or (jing adj2 luo) or jingluo or massag* or needle therap* or tapping or zhenjiu or zhenci).tw.
69	exp *exercise/ use emez or exp *kinesiotherapy/ use emez or exp exercise/ use mesz, prem or exercise therapy/ use mesz, prem or exp exercise/ use psyh (physiotherap* or physio therap* or rehab*).ti,ab,hw.
70	(((balance or flexibility or resistance or sitting* or strenth*) adj2 (exercise* or train*)) or aerobic* or anaerobic* or bowls or dancing or dance or cycling or cycle* or elliptical train* or jogging or low impact activit* or running or swimming or sprinting or swim*1 or walking or

#	Searches
	yoga or tai chi or weight train* or (weight and brain* and (change* or increas* or volum*))).ti,ab.
71	friendship/ or peer counseling/ or peer group/ or self help/ or self care/ or social network/ or social support/ or support group/
72	71 use emez
73	community networks/ or friends/ or exp peer group/ or self care/ or self-help groups/ or social networking/ or social support/
74	73 use mesz, prem
75	friendship/ or network therapy/ or exp social networks/ or peer relations/ or peers/ or peer counseling/ or self care skills/ or exp self help techniques/ or social support/ or exp support groups/
76	75 use psyh
77	((self adj (administer* or assess* or attribut* or care or change or directed or efficacy or help* or guide* or instruct* or manag* or medicat* or monitor* or regulat* or reinforc* or re inforc* or support* or technique* or therap* or train* or treat*)) or selfadminister* or selfassess* or selfattribut* or selfcare or selfchange or selfdirected or selfefficacy or selfhelp* or selfguide* or selfinstruct* or selfmanag* or selfmedicat* or selfmonitor* or selfregulat* or selfreinforc* or self re inforc* or selfsupport* or selftechnique* or selftherap* or selftrain* or selftreat* or (wellness adj (therap* or train* or treat*))).ti,ab,sh.
78	(befriend* or be*1 friend* or buddy or buddies or ((community or lay or paid or support) adj (person or worker*))).ti,ab.
79	(((consumer* or famil* or friend* or lay or mutual* or peer* or social* or spous* or voluntary or volunteer*) adj3 (assist* or advice* or advis* or counsel* or educat* or forum* or help* or mentor* or network* or support* or visit*)) or ((consumer* or famil* or peer* or self help or social* or support* or voluntary or volunteer*) adj2 group*) or ((consumer* or famil* or friend* or lay or mutual* or peer* or self help or social* or spous* or support* or voluntary or volunteer*) adj3 (intervention* or program* or rehab* or therap* or service* or skill* or treat*)) or (((consumer* or famil* or friend* or lay* or peer* or spous* or user* or support* or voluntary or volunteer*) adj (based or counsel* or deliver* or interact* or led or mediat* or operated or provides or provider* or run*)) or ((consumer* or famil* or friend* or lay* or peer* or relation* or spous* or support*) adj3 trust*) or voluntary work*)).ti,ab.
80	(((lay or peer*) adj3 (advis* or consultant or educator* or expert* or facilitator* or instructor* or leader* or mentor* or person* or tutor* or worker*)) or expert patient* or mutual aid).ti,ab.
81	(peer* adj3 (assist* or counsel* or educat* or program* or rehab* or service* or supervis*)).ti,ab.
82	((psychoeducat* or psycho educat*) adj3 (group or network* or service*)).ti,ab.
83	((psychosocial or social) adj work*).ti,ab.
84	((ptsd or posttrauma* or post trauma* or trauma*) adj2 support*).ti,ab.
85	recovery support.ti,ab.
86	financial management/ use emez or financial support/ use mesz, prem or finance/ use psyh
87	((financ* or money) adj2 (assist* or educat* or guidance or intervention* or program* or support* or train*)).ti,ab.
88	assisted living facility/ or emergency shelter/ or halfway house/ or housing/ or independent living/ or residential home/ or residential home/
89	88 use emez
90	assisted living facilities/ or emergency shelter/ or group homes/ or halfway houses/ or housing/ or independent living/ or residential facilities/

#	Searches
91	90 use mesz, prem
92	assisted living / use psyh or shelters/ use psyh or group homes/ use psyh or halfway houses/ use psyh or housing/ use psyh or residential care institutions/ use psyh or ((resident* or hous* or accommod* or commun* or comu* or home*) adj5 (support* or support* or shelter* or outreach* or visit* or appointment*)).ti,ab.
93	(residential treatm* or residential facility* or supported hous* or public hous*).ti,ab.
94	(accomod* or assertive community treatment* or home* or housing* or outreach* or residential*).ti,ab.
95	absenteeism/ or daily life activity/ or employment/ or medical leave/ or mentoring/ or occupational health/ or occupational therapy/ or return to work/ or supported employment/ or unemployment/ or vocational guidance/ or vocational rehabilitation/ or work capacity/ or work/
96	95 use emez
97	absenteeism/ or "activities of daily living"/ or employment, supported/ or employment/ or mentoring/ or occupational health/ or occupational therapy/ or rehabilitation, vocational/ or return to work/ or sick leave/ or unemployment/ or vocational guidance/ or work/
98	97 use mesz, prem
99	"activities of daily living"/ or exp coaching/ or employee absenteeism/ or employment status/ or occupational guidance/ or occupational health/ or occupational therapy/ or reemployment/ or unemployment/ or vocational counselors/ or exp vocational rehabilitation/
100	99 use psyh
101	(((supp* or transitional*) adj5 (employ* or work*)) or individual placement or (placement* adj3 (employ* or work*))).ti,ab.
102	((employ* or placement* or psychosocial* or psycho-social* or occupation* or soc* or vocation* or work* or job* or counsel*) adj5 rehab*).ti,ab.
103	(sheltered work* or vocatio* or fountain house* or fountainhouse* or clubhouse* or club house* or work therap*).ti,ab.
104	(transitional employment or rehabilitation counsel* or (occupational adj (health or medicine)) or work* adjustment).ti,ab.
105	((performance adj (activit* or coach* or management or occupation*)) or coaching).ti,ab.
106	(((sheltered or permitted or voluntary or vocational or return* or rehabilitat*) adj3 work*) or work capacity or reemploy* or re employ* or job retention or work capacity).ti,ab.
107	((employ* or job or occupation* or vocation* or work*) adj5 (counsel* or educat* or guidance* or intervention* or program* or rehab* or reintegrat* or re integrat* or support* or therap* or train*)).ti,ab.
108	placement.ti,ab.
109	or/11-12,14-15,17-19,21-22,24,26,28-46,48,50,52-58,60,62,64-70,72,74,76-87,89,91-94,96,98,100-108
110	meta analysis/ or "meta analysis (topic)"/ or systematic review/
111	110 use emez
112	meta analysis.sh,pt. or "meta-analysis as topic"/ or "review literature as topic"/
113	112 use mesz, prem
114	(literature review or meta analysis).sh,id,md. or systematic review.id,md.
115	114 use psyh
116	(exp bibliographic database/ or (((electronic or computer* or online) adj database*) or bids or cochrane or embase or index medicus or isi citation or medline or psyclit or psychlit or

#	Searches
	scisearch or science citation or (web adj2 science)).ti,ab.) and (review*.ti,ab,sh,pt. or systematic*.ti,ab.)
117	116 use emez
118	(exp databases, bibliographic/ or (((electronic or computer* or online) adj database*) or bids or cochrane or embase or index medicus or isi citation or medline or psyclit or psychlit or scisearch or science citation or (web adj2 science)).ti,ab.) and (review*.ti,ab,sh,pt. or systematic*.ti,ab.)
119	118 use mesz, prem
120	(computer searching.sh,id. or (((electronic or computer* or online) adj database*) or bids or cochrane or embase or index medicus or isi citation or medline or psyclit or psychlit or scisearch or science citation or (web adj2 science)).ti,ab.) and (review*.ti,ab,pt. or systematic*.ti,ab.)
121	120 use psyh
122	((analy* or assessment* or evidence* or methodol* or quantativ* or systematic*) adj2 (overview* or review*)).tw. or ((analy* or assessment* or evidence* or methodol* or quantativ* or systematic*).ti. and review*.ti,pt.) or (systematic* adj2 search*).ti,ab.
123	(metaanal* or meta anal*).ti,ab.
124	(research adj (review* or integration)).ti,ab.
125	reference list*.ab.
126	bibliograph*.ab.
127	published studies.ab.
128	relevant journals.ab.
129	selection criteria.ab.
130	(data adj (extraction or synthesis)).ab.
131	(handsearch* or ((hand or manual) adj search*)).ti,ab.
132	(mantel haenszel or peto or dersimonian or der simonian).ti,ab.
133	(fixed effect* or random effect*).ti,ab.
134	((pool* or combined or combining) adj2 (data or trials or studies or results)).ti,ab.
135	or/111,113,115,117,119,121-134
136	exp "clinical trial (topic)"/ or exp clinical trial/ or crossover procedure/ or double blind procedure/ or placebo/ or randomization/ or random sample/ or single blind procedure/
137	136 use emez
138	exp clinical trial/ or exp "clinical trials as topic"/ or cross-over studies/ or double-blind method/ or placebos/ or random allocation/ or single-blind method/
139	138 use mesz, prem
140	(clinical trials or placebo or random sampling).sh,id.
141	140 use psyh
142	(clinical adj2 trial*).ti,ab.
143	(crossover or cross over).ti,ab.
144	(((single* or doubl* or trebl* or tripl*) adj2 blind*) or mask* or dummy or doubleblind* or singleblind* or trebleblind* or tripleblind*).ti,ab.
145	(placebo* or random*).ti,ab.
146	treatment outcome*.md. use psyh
147	animals/ not human*.mp. use emez

#	Searches
148	animal*/ not human*/ use mesz, prem
149	(animal not human).po. use psyh
150	or/137,139,141-146
151	150 not (or/147-149)
152	or/135,151
153	10 and 109 and 152

Database: **CDSR, DARE, HTA, CENTRAL**

Date of last search: 29 January 2018

#	Searches
#1	MeSH descriptor: Stress Disorders, Traumatic this term only
#2	MeSH descriptor: Combat Disorders this term only
#3	MeSH descriptor: Psychological Trauma this term only
#4	MeSH descriptor: Stress Disorders, Post-Traumatic this term only
#5	MeSH descriptor: Stress Disorders, Traumatic, Acute this term only
#6	MeSH descriptor: Stress, Psychological this term only
#7	("railway spine" or (rape near/2 trauma*) or reexperienc* or "re experienc*" or "torture syndrome" or "traumatic neuros*" or "traumatic stress"):ti (Word variations have been searched)
#8	("railway spine" or (rape near/2 trauma*) or reexperienc* or "re experienc*" or "torture syndrome" or "traumatic neuros*" or "traumatic stress"):ab (Word variations have been searched)
#9	(trauma* and (avoidance or grief or horror or death* or nightmare* or "night mare*" or emotion*)):ti (Word variations have been searched)
#10	(trauma* and (avoidance or grief or horror or death* or nightmare* or "night mare*" or emotion*)):ab (Word variations have been searched)
#11	(posttraumatic* or "post traumatic*" or "stress disorder*" or "acute stress" or ptsd or asd or desnos or ("combat neuros*" or "combat syndrome" or "concentration camp syndrome" or "extreme stress" or flashback* or "flash back*" or hypervigilan* or hypervigilen* or "psych* stress" or "psych* trauma*" or psychotrauma* or psychotrauma*) or (posttrauma* or traumagenic* or "traumatic stress*")):ti (Word variations have been searched)
#12	(posttraumatic* or "post traumatic*" or "stress disorder*" or "acute stress" or ptsd or asd or desnos or ("combat neuros*" or "combat syndrome" or "concentration camp syndrome" or "extreme stress" or flashback* or "flash back*" or hypervigilan* or hypervigilen* or "psych* stress" or "psych* trauma*" or psychotrauma* or psychotrauma*) or (posttrauma* or traumagenic* or "traumatic stress*")):ab (Word variations have been searched)
#13	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12

Database: **CINAHL PLUS**

Date of last search: 29 January 2018

#	Searches
s52	s6 and s51
s51	s40 or s50

#	Searches
s50	s48 not s49
s49	(mh "animals") not (mh "human")
s48	s41 or s42 or s43 or s44 or s45 or s46 or s47
s47	ti (placebo* or random*) or ab (placebo* or random*)
s46	ti (single blind* or double blind* or treble blind* or mask* or dummy* or singleblind* or doubleblind* or trebleblind* or tripleblind*) or ab (single blind* or double blind* or treble blind* or mask* or dummy* or singleblind* or doubleblind* or trebleblind* or tripleblind*)
s45	ti (crossover or cross over) or ab (crossover or cross over)
s44	ti clinical n2 trial* or ab clinical n2 trial*
s43	(mh "crossover design") or (mh "placebos") or (mh "random assignment") or (mh "random sample")
s42	mw double blind* or single blind* or triple blind*
s41	(mh "clinical trials+")
s40	s7 or s8 or s9 or s10 or s11 or s12 or s13 or s14 or s15 or s16 or s17 or s18 or s19 or s20 or s21 or s22 or s23 or s29 or s30 or s31 or s34 or s35 or s36 or s37 or s38 or s39
s39	ti (analy* n5 review* or evidence* n5 review* or methodol* n5 review* or quantativ* n5 review* or systematic* n5 review*) or ab (analy* n5 review* or assessment* n5 review* or evidence* n5 review* or methodol* n5 review* or qualitativ* n5 review* or quantativ* n5 review* or systematic* n5 review*)
s38	ti (pool* n2 results or combined n2 results or combining n2 results) or ab (pool* n2 results or combined n2 results or combining n2 results)
s37	ti (pool* n2 studies or combined n2 studies or combining n2 studies) or ab (pool* n2 studies or combined n2 studies or combining n2 studies)
s36	ti (pool* n2 trials or combined n2 trials or combining n2 trials) or ab (pool* n2 trials or combined n2 trials or combining n2 trials)
s35	ti (pool* n2 data or combined n2 data or combining n2 data) or ab (pool* n2 data or combined n2 data or combining n2 data)
s34	s32 and s33
s33	ti review* or pt review*
s32	ti analy* or assessment* or evidence* or methodol* or quantativ* or qualitativ* or systematic*
s31	ti “systematic* n5 search*” or ab “systematic* n5 search*”
s30	ti “systematic* n5 review*” or ab “systematic* n5 review*”
s29	(s24 or s25 or s26) and (s27 or s28)
s28	ti systematic* or ab systematic*
s27	tx review* or mw review* or pt review*
s26	(mh "cochrane library")
s25	ti (bids or cochrane or embase or “index medicus” or “isi citation” or medline or psyclit or psychlit or scisearch or “science citation” or web n2 science) or ab (bids or cochrane or “index medicus” or “isi citation” or psyclit or psychlit or scisearch or “science citation” or web n2 science)
s24	ti (“electronic database*” or “bibliographic database*” or “computeri?ed database*” or “online database*”) or ab (“electronic database*” or “bibliographic database*” or “computeri?ed database*” or “online database*”)
s23	(mh "literature review")

#	Searches
s22	pt systematic* or pt meta*
s21	ti (“fixed effect*” or “random effect*”) or ab (“fixed effect*” or “random effect*”)
s20	ti (“mantel haenszel” or peto or dersimonian or “der simonian”) or ab (“mantel haenszel” or peto or dersimonian or “der simonian”)
s19	ti (handsearch* or "hand search*" or "manual search*") or ab (handsearch* or "hand search*" or "manual search*")
s18	ab "data extraction" or "data synthesis"
s17	ab "selection criteria"
s16	ab "relevant journals"
s15	ab "published studies"
s14	ab bibliograph*
s13	ti "reference list*"
s12	ab "reference list*"
s11	ti (“research review*” or “research integration”) or ab (“research review*” or “research integration”)
s10	ti (metaanal* or “meta anal*” or metasynthes* or “meta synethes*”) or ab (metaanal* or “meta anal*” or metasynthes* or “meta synethes*”)
s9	(mh "meta analysis")
s8	(mh "systematic review")
s7	(mh "literature searching+")
s6	s1 or s2 or s3 or s4 or s5
s5	ti ((posttraumatic* or "post traumatic*" or "stress disorder*" or "acute stress" or ptsd or asd or desnos or ("combat neuros*" or "combat syndrome" or "concentration camp syndrome" or "extreme stress" or flashback* or "flash back*" or hypervigilan* or hypervigilen* or "psych* stress" or "psych* trauma*" or psychotrauma* or psychotrauma*) or (posttrauma* or traumagenic* or "traumatic stress*"))) or ab ((posttraumatic* or "post traumatic*" or "stress disorder*" or "acute stress" or ptsd or asd or desnos or ("combat neuros*" or "combat syndrome" or "concentration camp syndrome" or "extreme stress" or flashback* or "flash back*" or hypervigilan* or hypervigilen* or "psych* stress" or "psych* trauma*" or psychotrauma* or psychotrauma*) or (posttrauma* or traumagenic* or "traumatic stress*")))
s4	ti ((trauma* and (avoidance or grief or horror or death* or nightmare* or "night mare*" or emotion*))) or ab ((trauma* and (avoidance or grief or horror or death* or nightmare* or "night mare*" or emotion*)))
s3	ti (("railway spine" or (rape near/2 trauma*) or reexperienc* or "re experienc*" or "torture syndrome" or "traumatic neuros*" or "traumatic stress")) or ab (("railway spine" or (rape near/2 trauma*) or reexperienc* or "re experienc*" or "torture syndrome" or "traumatic neuros*" or "traumatic stress"))
s2	(mh "stress, psychological")
s1	(mh "stress disorders, post-traumatic")

Health economic evidence

Note: evidence resulting from the health economic search update was screened to reflect the final dates of the searches that were undertaken for the clinical reviews (see review protocols).

Database: **Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R), Embase, PsycINFO**

Date of last search: 1 March 2018

#	Searches
1	*acute stress/ or *behavioural stress/ or *emotional stress/ or *critical incident stress/ or *mental stress/ or *posttraumatic stress disorder/ or *psychotrauma/
1	*acute stress/ or *behavioural stress/ or *emotional stress/ or *critical incident stress/ or *mental stress/ or *posttraumatic stress disorder/ or *psychotrauma/
2	1 use emez
3	stress disorders, traumatic/ or combat disorders/ or psychological trauma/ or stress disorders, post-traumatic/ or stress disorders, traumatic, acute/ or stress, psychological/
4	3 use mesz, prem
5	exp posttraumatic stress disorder/ or acute stress disorder/ or combat experience/ or "debriefing (psychological)"/ or emotional trauma/ or post-traumatic stress/ or traumatic neurosis/ or "trauma"/ or stress reactions/ or psychological stress/ or chronic stress/
6	5 use psyh
7	(railway spine or (rape adj2 trauma*) or reexperienc* or re experienc* or torture syndrome or traumatic neuros* or traumatic stress).ti,ab.
8	(trauma* and (avoidance or grief or horror or death* or nightmare* or night mare* or emotion*)).ti,ab.
9	(posttraumatic* or post traumatic* or stress disorder* or acute stress or ptsd or asd or desnos or (combat neuros* or combat syndrome or concentration camp syndrome or extreme stress or flashback* or flash back* or hypervigilan* or hypervigilen* or psych* stress or psych* trauma* or psycho?trauma* or psychotrauma*)).ti,ab.
10	or/2,4,6-9
11	budget/ or exp economic evaluation/ or exp fee/ or funding/ or exp health care cost/ or health economics/ or exp pharmacoeconomics/ or resource allocation/
12	151 use emez
13	exp budgets/ or exp "costs and cost analysis"/ or economics/ or exp economics, hospital/ or exp economics, medical/ or economics, nursing/ or economics, pharmaceutical/ or exp "fees and charges"/ or value of life/
14	153 use mesz, prem
15	exp "costs and cost analysis"/ or cost containment/ or economics/ or finance/ or funding/ or "health care economics"/ or pharmacoeconomics/ or exp professional fees/ or resource allocation/
16	155 use psyh
17	(cost* or economic* or pharmacoeconomic* or pharmaco economic*).ti. or (cost* adj2 (effective* or utilit* or benefit* or minimi*)).ab. or (budget* or fee or fees or financ* or price or prices or pricing or resource* allocat* or (value adj2 (monetary or money))).ti,ab.
18	or/12,14,16-17
19	decision theory/ or decision tree/ or monte carlo method/ or nonbiological model/ or (statistical model/ and exp economic aspect/) or stochastic model/ or theoretical model/
20	159 use emez
21	exp decision theory/ or markov chains/ or exp models, economic/ or models, organizational/ or models, theoretical/ or monte carlo method/
22	161 use mesz, prem

#	Searches
23	exp decision theory/ or exp stochastic modeling/
24	163 use psyh
25	((decision adj (analy* or model* or tree*)) or economic model* or markov).ti,ab.
26	or/20,22,24-25
27	quality adjusted life year/ or "quality of life index"/ or short form 12/ or short form 20/ or short form 36/ or short form 8/ or sickness impact profile/
28	167 use emez
29	quality-adjusted life years/ or sickness impact profile/
30	169 use mesz, prem
31	(((disability or quality) adj adjusted) or (adjusted adj2 life)).ti,ab.
32	(disutili* or dis utili* or (utilit* adj1 (health or score* or value* or weigh*))).ti,ab.
33	(health year equivalent* or hye or hyes).ti,ab.
34	(daly or qal or qald or qale or qaly or qtime* or qwb*).ti,ab.
35	discrete choice.ti,ab.
36	(euroqol* or euro qol* or eq5d* or eq 5d*).ti,ab.
37	(hui or hui1 or hui2 or hui3).ti,ab.
38	(((general or quality) adj2 (wellbeing or well being)) or quality adjusted life or qwb or (value adj2 (money or monetary))).ti,ab.
39	(qol or hql* or hqol* or hrqol or hr ql or hrql).ti,ab.
40	rosser.ti,ab.
41	sickness impact profile.ti,ab.
42	(standard gamble or time trade* or tto or willingness to pay or wtp).ti,ab.
43	(sf36 or sf 36 or short form 36 or shortform 36 or shortform36).ti,ab.
44	(sf6 or sf 6 or short form 6 or shortform 6 or shortform6).ti,ab.
45	(sf12 or sf 12 or short form 12 or shortform 12 or shortform12).ti,ab.
46	(sf16 or sf 16 or short form 16 or shortform 16 or shortform16).ti,ab.
47	(sf20 or sf 20 or short form 20 or shortform 20 or shortform20).ti,ab.
48	(sf8 or sf 8 or short form 8 or shortform 8 or shortform8).ti,ab.
49	or/28,30-48
50	or/18,26,49

Database: **HTA, NHS EED**

Date of last search: 1 March 2018

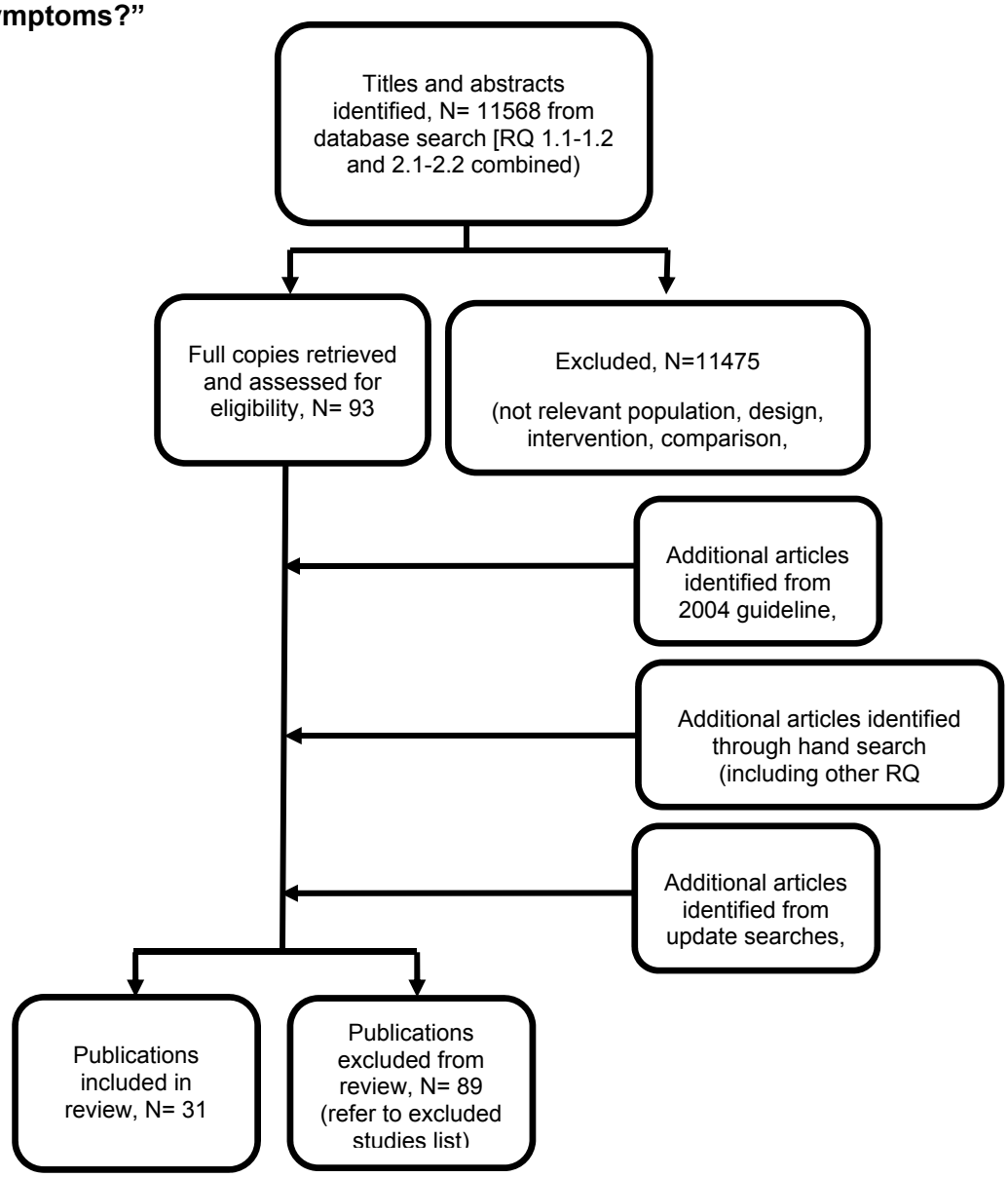
#	Searches
#1	MeSH descriptor: Stress Disorders, Traumatic this term only
#2	MeSH descriptor: Combat Disorders this term only
#3	MeSH descriptor: Psychological Trauma this term only
#4	MeSH descriptor: Stress Disorders, Post-Traumatic this term only
#5	MeSH descriptor: Stress Disorders, Traumatic, Acute this term only
#6	MeSH descriptor: Stress, Psychological this term only

#	Searches
#7	("railway spine" or (rape near/2 trauma*) or reexperienc* or "re experienc*" or "torture syndrome" or "traumatic neuros*" or "traumatic stress"):ti (Word variations have been searched)
#8	("railway spine" or (rape near/2 trauma*) or reexperienc* or "re experienc*" or "torture syndrome" or "traumatic neuros*" or "traumatic stress"):ab (Word variations have been searched)
#9	(trauma* and (avoidance or grief or horror or death* or nightmare* or "night mare*" or emotion*)):ti (Word variations have been searched)
#10	(trauma* and (avoidance or grief or horror or death* or nightmare* or "night mare*" or emotion*)):ab (Word variations have been searched)
#11	(posttraumatic* or "post traumatic*" or "stress disorder*" or "acute stress" or ptsd or asd or desnos or ("combat neuros*" or "combat syndrome" or "concentration camp syndrome" or "extreme stress" or flashback* or "flash back*" or hypervigilan* or hypervigilen* or "psych* stress" or "psych* trauma*" or psychotrauma* or psychotrauma*) or (posttrauma* or traumagenic* or "traumatic stress*")):ti (Word variations have been searched)
#12	(posttraumatic* or "post traumatic*" or "stress disorder*" or "acute stress" or ptsd or asd or desnos or ("combat neuros*" or "combat syndrome" or "concentration camp syndrome" or "extreme stress" or flashback* or "flash back*" or hypervigilan* or hypervigilen* or "psych* stress" or "psych* trauma*" or psychotrauma* or psychotrauma*) or (posttrauma* or traumagenic* or "traumatic stress*")):ab (Word variations have been searched)
#13	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12

Appendix C – Clinical evidence study selection

Clinical evidence study selection for "For children and young people at risk of PTSD, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?"

Figure 1: Flow diagram of clinical article selection for "For children and young people at risk of PTSD, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?"



Appendix D – Clinical evidence tables

Clinical evidence tables for "For children and young people at risk of PTSD, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?"

Psychological: Trauma-focused CBT

Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone)

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Barron 2013	Trauma-focused CBT: CBT (group)	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Witnessing war as a civilian - War exposure (Palestine). In the intervention group, the most frequently reported events were experiencing close shelling (79%), seeing a dead body (78.3%), family member injured (77.1%), and seeing someone killed (74%). In the waitlist the most frequently reported evens were seeing someone sexually assaulted (100%), seeing someone tortured (92%), in	140	Age range (mean): 11-14 (11.1) Gender (% female): 45 BME (% non-white): NR Country: Palestine Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Average number of exposures: 13.2 Single or multiple incident index trauma: Multiple	Children living in Nabulus, Palestine. The 10 children in each randomly selected class who had the highest CRIES scores were selected.

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
			basement for long time (84%), and seeing a dead body (84%)			
Barron 2016	Trauma-focused CBT: CBT (group)	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Witnessing war as a civilian - War exposure (Palestine). The most frequently reported stressors were parents separated from each other (97%); used as a human shield (96%); separated from family (95.6%); shot at by snipers (94%); a member of the family killed (94%).	154	Age range (mean): 11-15 (13.6) Gender (% female): 60 BME (% non-white): NR Country: Palestine Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Number of exposures 9-26 events (this included 16 adolescents who each experienced 24 types of stressors) Single or multiple incident index trauma: Multiple	Inclusion criterion was based on students fulfilling criteria indicative of PTSD on the CRIES–8, that is, a score of 17 or over on intrusion and avoidance subscales
Berger 2007b	Trauma-focused CBT: CBT group	Non-significant symptoms (below threshold and <50% maximum score on scale)	Witnessing war as a civilian - Level of exposure to terrorism: 51% personal exposure	328	Age range (mean): 7-11 (NR) Gender (% female): 46 BME (% non-	Inclusion criteria: attended the public elementary school in Hadera, Israel where the

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
			(being present at a terrorist attack with or without being physically injured, or knowing someone close that was injured or killed in such an attack); 24% near miss (having been near the site of a terrorist attack, or just before or after an attack, or having planned to be at the site of an attack shortly after an attack); 25% no exposure (no exposure except for media coverage)		white):NR Country: Israel Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	intervention took place; parents provided infomred consent (if parents did not provide informed consent children were still exposed to intervention but were not assessed or included in analysis)
Berger 2012	Trauma-focused CBT: CBT group	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Witnessing war as a civilian - Exposure to war in Gaza as civilian - 44% had been in the close vicinity of a Qassam rocket fall, 96% had a near-miss experience, and 63% knew someone either physically wounded or deceased (or both)	154	Age range (mean): 11-13(12.8) Gender (% female): 54 BME (% non-white): NR Country: Israel Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with	Participants were included if they were in the 7th or 8th grade of the participating school and their parents signed the consent form

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
			after a Qassam attack.		previous trauma): NR Single or multiple incident index trauma: Multiple	
Jordans 2010	Trauma-focused CBT: CBT group	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Witnessing war as a civilian (Conflict-affected, rural Nepal)	325	Age range (mean): 11-14 (12.7) Gender (% female): 49 BME (% non-white): NR Country: Nepal Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	Aged 11-14 and attending one of the schools randomised. Exclusion criterion were psychiatric problems (mutism, mental retardation, dissociative disorders, epilepsy without medication, panic or phobic disorders, and child psychosis), which were expected to obstruct participation in the group intervention.
McMullen 2013	Trauma-focused CBT: CBT group	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Child soldiers - Former child soldiers (78%) and other war-affected boys (22%). Participants are no longer child soldiers but categorised as ongoing exposure due to continued	50	Age range (mean): 13-17 (15.8) Gender (% female): 0 BME (% non-white): NR Country: Democratic Republic of Congo (DRC)	Inclusion criteria for this intervention were: (a) male, (b) under 18 and (c) either a former child soldier (abducted or recruited by an armed group) or a witness to a violent event involving a

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
			unrest in the country. The most common event reported was severe punishment or revenge (88%). Over 70% also reported experience of lack of food/water, being forced to carry heavy loads, bad beating, abduction and mutilation. When asked what was the worst thing that happened during the war, the most common responses were death of a parent (35%) and personally killing or torturing other people (33%). Some of the boys had watched their family members or friends being killed		Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Mean number of traumatic events experienced: 12.4 Single or multiple incident index trauma: Multiple	real or perceived direct threat to life. To keep the trial naturalistic, adolescents with suicidal ideation, substance abuse or other mental health difficulties were not excluded.
O'Callaghan 2011/2013	Trauma-focused CBT: CBT (group)	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Exposure to sexual abuse or assault (War-affected girls in Democratic Republic of Congo	52	Age range (mean): 12-17 (16) Gender (% female): 100 BME (% non-white):	Inclusion criteria: having witnessed or personally experienced rape or inappropriate sexual

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
			who had either witnessed or had experienced rape or sexual abuse. Inappropriate sexual touch was the most common traumatic event experienced (92%), and lack of food or water, severe punishments, seeing blood or corpses, threats, and rape were witnessed or experienced by 71% or more participants in the study. When asked to select their most traumatic life event, 65% selected parental abandonment, sexual exploitation, or parental death)		NR Country: Democratic Republic of Congo (DRC) Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Mean number of traumatic life events: 12.1 Single or multiple incident index trauma: Multiple	touch. Exclusion criteria: intellectual disability; psychosis; severe emotional and behavioural problems (e.g., physical violence towards staff) that prevented group participation
Qouta 2012/Punamaki 2014/Kangaslampi 2016	Trauma-focused CBT: CBT (group)	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Witnessing war as a civilian (War-affected children in Gaza, Palestine)	482	Age range (mean): 10-13 (11.3) Gender (% female): 49 BME (% non-white): NR Country: Palestine	Inclusion criteria: Palestinian students from the Gaza Strip, Palestine. No further details about inclusion/exclusion criteria reported

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
					Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	
Tol 2008/2010	Trauma-focused CBT: CBT group	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Witnessing war as a civilian (Children exposed to at least one event of political violence in Poso, Indonesia)	403	Age range (mean): 7-15 (9.9) Gender (% female): 49 BME (% non-white): NR Country: Indonesia Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Mean number of violent event types: 3.9 Single or multiple incident index trauma: Multiple	Inclusion criteria: Children aged 7-15 years; attended selected schools in political violence–affected communities in Poso, Indonesia; identified as having at least one exposure to violent events; Child Posttraumatic Stress Scale score ≥11; SCARED score ≥5. Exclusion criteria: inability to function in a group setting (eg, violent behaviour, could not follow instructions, would harm others);

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
						psychiatric problems (mutism, mental retardation, substance abuse, dissociative disorders, epilepsy without medication, panic or phobic disorders, and child psychosis)
Tol 2012	Trauma-focused CBT: CBT group	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Witnessing war as a civilian - The most common types of war-related trauma were: seeing murdered bodies (52%), witnessing the death of family members (35%), and being involved in round-ups (33%). In addition, children reported an average of four types of ongoing daily stressors, most commonly: having been displaced (74%); being affected by poverty (68%), having difficulty meeting basic needs (63%), and quarrels in the	399	Age range (mean): 9-12 (11) Gender (% female): 39 BME (% non-white): NR Country: Sri Lanka Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Mean number of war-related exposure trauma types: 2; Mean number of types of ongoing daily stressors: 4	Inclusion criteria: children attending randomly selected schools in the Tellippalai and Uduvil divisions of the Jaffna district in northern Sri Lanka; who met the inclusion criteria using the Child Psychological Distress Screener (i.e., reporting exposure to war-related events, distress during such exposure, current psychological symptoms, affected school functioning, reporting a lack of social support and coping capacity).

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
			neighborhood (63%).		Single or multiple incident index trauma: Multiple	Exclusion criteria: None
Tol 2014	Trauma-focused CBT: CBT group	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Witnessing war as a civilian - Children exposed to at least one potentially traumatic event in two in two violence-affected northwestern provinces of Burundi (Bubanza and Cibitoke)	329	Age range (mean): 8-17 (12.3) Gender (% female): 48 BME (% non-white): NR Country: Burundi Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Mean number of traumatic events: 4.3 Single or multiple incident index trauma: Multiple	Inclusion criteria: children attending randomly selected schools in two violence-affected northwestern provinces of Burundi (Bubanza and Cibitoke); children who had been exposed to at least one potentially traumatic event; scored above the standard cut-off on symptom checklists for either PTSD (≥11), depression (≥15), or anxiety (≥5). Exclusion criteria: serious psychopathology and psychiatric disorders (mutism, retardation, psychotic symptoms); unable to function in a group (conduct disorders, harming others), as judged

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
						by local psychosocial counsellors

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; CRIES=Children's Revised Impact of Event Scale; N=Number being randomised; NR=not reported; PTSD=post-traumatic stress disorder; SCARED=Screen for Child Anxiety Related Disorders

Trauma-focused CBT group versus psychoeducational group for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone)

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
O'Callaghan 2015	Trauma-focused CBT: CBT (group)	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Witnessing war as a civilian - Gunshots or explosions (100%); Looting (100%); Burning houses or burnt houses (96%); Seeing blood, body parts or corpses (90%); Murder or killings (68%); Abduction by armed group (62%); People being buried alive (42%); Massacres (36%)	50	Age range (mean): 14-17 (14.9) Gender (% female): 42 BME (% non-white): NR Country: Demographic Republic of Congo (DRC) Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Mean number of categories of traumatic events experienced: 19.74	Inclusion criteria: aged over 7 years; prior exposure to traumatic, war-related violence; ability to attend a 9-session intervention. Exclusion criteria: Not reported

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
					Single or multiple incident index trauma: Multiple	

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; N=Number being randomised; NR=not reported; PTSD=post-traumatic stress disorder

Trauma-focused CBT versus waitlist or TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Carrion 2013	Trauma-focused CBT: CBT (caregiver and child)	Non-significant symptoms (below threshold and <50% maximum score on scale)	Mixed - The most common traumas reported included separation/loss (75%), witnessing violence (62%), homicide (52%), physical abuse (25%), and bullying (25%)	65	Age range (mean): 8-17 (11.6) Gender (% female): 40 BME (% non-white): 100 Country: US Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): M Mean 5.03 (SD = 1.88) total traumas Single or multiple incident index trauma: Multiple	Participants were included if they: (1) were aged 8–17 years old; (2) had a history of exposure to violence; (3) had a non-abusing caretaker willing to participate in the study; (4) had no current exposure to perpetrators of violence. Participants were excluded if they: (1) had significant medical illness; (2) had documentation of a diagnosis of autism or schizophrenia; (3) had a history of mental retardation

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
						or an intelligence quotient (IQ) less than 70; (4) had substance dependency; (5) lacked proficiency in English
Crombach 2015	Trauma-focused CBT: Narrative exposure therapy (NET)	Non-significant symptoms (below threshold and <50% maximum score on scale)	Unclear (Male children and adolescents living in a residential center for former street children and other vulnerable children without proper homes in Bujumbura, the capital of Burundi)	32	Age range (mean): 11-23 (17) Gender (% female): 0 BME (% non-white): NR Country: Burundi Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	Inclusion criteria: male children and adolescents who were former street children, residing in a residential centre for former street children and other vulnerable children without proper homes in Bujumbura, the capital of Burundi; had the highest scores, of the children living in the residential centre, on a measure of appetitive aggression. Exclusion criteria: not reported
Ooi 2010/2016	Trauma-focused CBT: CBT group	Non-significant symptoms (below threshold and <50%	Witnessing war as a civilian (46% exposed to war;	82	Age range (mean): 10-17 (12.6) Gender (% female): 35	Inclusion criteria: self-reported exposure to war or violence; had been

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
		maximum score on scale)	61% spent time in camps)		BME (% non-white): NR Country: Australia Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Mean number of traumas 4.2 (SD=2.1) Single or multiple incident index trauma: Multiple	living in Australia for less than 7 years; had a score =4-38 on the UCLA PTSD Reaction Index for DSM-IV. Exclusion criteria: had a clinical level of PTSD indicated by a score ≥ 38 on the UCLA PTSD-RI; had limited English proficiency as determined by participants' teachers and assessors; were an unaccompanied humanitarian entrant; currently receiving psychological treatment

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; DSM=Diagnostic and Statistical Manual of Mental disorders; N=Number being randomised; NR=not reported; PTSD=post-traumatic stress disorder: SD=standard deviation; TAU=treatment as usual

Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Celano 1996	Trauma-focused CBT: CBT (caregiver and child)	Non-significant symptoms (below threshold and <50% maximum score on scale)	Childhood sexual abuse - Contact sexual abuse defined as sexual touching by anyone at least 5 years older than the child by a perpetrator of any age if the victim felt coerced. All reports of sexual abuse had been substantiated by the appropriate statutory child protection agency. 56% of perpetrators were family members (25% in a paternal caregiver role; 31% other family members); 31% acquaintances; 13% strangers	47	Age range (mean): 8-13 (10.5) Gender (% female): 100 BME (% non-white): 78 Country: US Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	Inclusion criteria: girls aged 8-13 years; had experienced contact sexual abuse within the past 3-year period; could disclose the abuse to the clinician during the evaluation. Exclusion criteria (for child or parent): mentally retarded; psychotic; drug-addicted
Deblinger 2001	Trauma-focused CBT: CBT (caregiver and child)	Non-significant symptoms (below threshold and <50% maximum score on scale)	Childhood sexual abuse (All child participants had made a credible disclosure of contact sexual abuse to a professional prior to	63	Age range (mean): 2-8 (5.5) Gender (% female):61 BME (% non-white): 36 Country: US	Inclusion criteria: non-offending mothers and children aged 2-8 years who were referred to the Regional Child

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
			their participation in group)		Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): For 34% the sexual abuse had occurred once and for 66% the sexual abuse had occurred on more than one occasion (based on the mother's estimation) Single or multiple incident index trauma: Multiple	Avuse Diagnostic and Treatment Center for a forensic medical examination as part of a child sexual abuse investigation; had made a credible disclosure of contact sexual abuse to a professional (for child participants). Exclusion criteria: had psychotic disorders; severe developmental delays; presented with behaviours that were dangerous to themselves or others
Overbeek 2013	Trauma-focused CBT: CBT group	Non-significant symptoms (below threshold and <50% maximum score on scale)	Witnessing interpersonal violence - Children exposed to domestic violence. Mean length of abusive relationship 10.9 years (SD=6.1)	164	Age range (mean): 6 (7.5 for self-report outcome measures)-12 (9.2) Gender (% female): 44 BME (% non-white): NR Country: Netherlands Coexisting conditions: NR	Inclusion criteria (for parent-child dyads): experienced psychological and/or physical interpersonal violence (IPV); indicated the violence had stopped at entry into the study. Exclusion criteria: the parent and/or child had

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
					Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	intellectual, behavioural, or psychiatric problems that would impede functioning in the treatment group and/or would create an unsafe environment for other participants in the group

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; N=Number being randomised; NR=not reported; PTSD=post-traumatic stress disorder; SD=standard deviation

Trauma-focused CBT versus eye movement desensitisation and reprocessing (EMDR) for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
de Roos 2011	Trauma-focused CBT: CBT (caregiver and child)	Non-significant symptoms (below threshold and <50% maximum score on scale)	Other disaster (such as fire) - Fireworks factory explosion (occurred in Enschede, in the Netherlands on May 13, 2000 killing 22 people, injuring many, destroying more than 500 houses, and damaging 1,500 more, in total about	52	Age range (mean): 4 (7 for self-report outcome measures)-18 Gender (% female): 44 BME (% non-white): 47 Country: Netherlands Coexisting conditions: NR	Inclusion criteria: aged 4-18 years; had firework disaster-related symptoms; willing to participate voluntarily. Exclusion criteria: had problems that were not disaster-related; severe psychiatric conditions that

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
			10,000 people were affected). Extent of exposure: 71% present in inner ring; 65% thought that he/she was going to die; 85% separated from one of parents; 60% home damaged or lost; 6% parent severely injured; 13% injured her/himself; 4% family member died.		Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Mean number of traumatic events: 2.4 (SD=1.31). 33% reported no other significant history of trauma exposure, 25% reported at least one other significant past trauma event, and 42% reported two or more prior traumatic events Single or multiple incident index trauma: Single	required an emergency response (suicidal intent, psychosis); already receiving psychotherapy elsewhere

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; N=Number being randomised; NR=not reported; PTSD=post-traumatic stress disorder; SD=standard deviation

Psychological: Non-trauma-focused CBT

Child and caregiver CBT intervention versus psychoeducation and supportive intervention for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Berkowitz 2011	Trauma-focused CBT: CBT (caregiver and child)	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Mixed - 24% motor vehicle accident (MVA); 18% sexual abuse; 19% witnessing violence; 21% physical assaults; 8% injuries (e.g., sports, cycling); 5% animal bite; 5% threats of violence (e.g., mugging).	112	Age range (mean): 7-17 (12) Gender (% female):52 BME (% non-white): 68 Country: US Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma:Unclear	Participants were included if they: (1) were agreed 7–17 years; (2) had been exposed to a potentially traumatic event; (3) endorsed at least one new and distressing symptom of PTSD on the Posttraumatic Checklist–Civilian (PCL) within 30 days of the traumatic event. Participants were excluded if they: (1) were receiving counselling or mental health treatment; (2) had a developmental delay (e.g., autism) or diagnosed psychotic or bipolar disorder (3) were non-English speaking or their

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
						caregiver did not speak English; (4) refused to participate in the research study

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; N=Number being randomised; NR=not reported; PTSD=post-traumatic stress disorder

Psychological: Psychologically-focused debriefing

Single session debriefing versus TAU/attention-placebo for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Stallard 2006a	Psychologically-focused debriefing: Single session debriefing	Non-significant symptoms (below threshold and <50% maximum score on scale)	Motor Vehicle Collisions (Child road traffic accident survivors)	158	Age range (mean): NR (14.9) Gender (% female): 53 BME (% non-white): NR Country: UK Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Single	Inclusion criteria: aged 7–18 years; attended the accident and emergency department (A&E) at the Royal United Hospital, Bath after a road traffic accident. Exclusion criteria: Not reported

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Zehnder 2010	Psychologically-focused debriefing: Single session debriefing	Non-significant symptoms (below threshold and <50% maximum score on scale)	Motor Vehicle Collisions - Children who had received medical treatment (inpatient or outpatient) after a road traffic accident (collision)	101	Age range (mean): 7-16 (11.6) Gender (% female): 41 BME (% non-white): NR Country: Switzerland Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Single	Inclusion criteria: had received medical treatment (inpatient or outpatient) after a road traffic accident (collision); aged 7-16 years; fluent in German. Exclusion criteria: severe head injury (Glasgow Coma Scale <11); previous evidence of intellectual impairment (according to medical records)

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; N=Number being randomised; NR=not reported; PTSD=post-traumatic stress disorder

Psychological: Eye movement desensitisation and reprocessing

Eye movement desensitisation and reprocessing (EMDR; + TAU) versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Farkas 2010	EMDR: EMDR	Non-significant symptoms (below threshold and <50%	Mixed (63% Injury; 68% Witness injury; 95% Friend/family	65	Age range (mean): 13-17 (14.6)	Inclusion criteria: adolescents admitted to youth

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
		maximum score on scale)	sick/died; 33% Robbery; 5% Fire; 8% Natural disaster; 63% Threat; 75% Physical abuse; 58% Sexual abuse)		Gender (% female): 63 BME (% non-white): NR Country: Canada Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Mean number of trauma types: 4.4 (SD=1.5) Single or multiple incident index trauma: Unclear	protective services in Québec. No further detail on inclusion/exclusion criteria reported

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; EMDR=Eye movement desensitisation and reprocessing; N=Number being randomised; NR=not reported; PTSD=post-traumatic stress disorder; SD=standard deviation; TAU=treatment as usual

Psychological: Parent training/family interventions

Parent training versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Marsac 2013	Self-help (without support): Computerised	Sub-threshold symptoms (below threshold but ≥50%	Unintentional injury/illness/medical emergency (Children's injuries	100	Age range (mean): 6-17 (11.8) Gender (% female): 29	Inclusion criteria: aged 6-17 years; had incurred an injury within the past

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
	psychoeducational intervention	maximum score on scale)	resulted primarily from recreation (31%), falls (31%), and motor vehicle crashes (16%). The majority of injuries were extremity fractures (51%), followed by lacerations (9%), other fractures (8%), multiple traumas (5%), organ injuries (5%), sprains or strains (4%), mild head injuries (4%), and other injuries (14%))		BME (% non-white): NR Country: Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: single	60 days and received medical treatment at a large urban Level I paediatric trauma centre. Exclusion criteria: parent or child was unable to read or understand English; child had sustained a traumatic brain injury preventing comprehension of surveys (i.e., Glasgow Coma Score<13); the child's injury resulted from suspected abuse or family violence; the child had sustained injuries as a result of an organized sport

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; N=Number being randomised; NR=not reported; PTSD=post-traumatic stress disorder; TAU=treatment as usual

Multi-systemic family therapy versus enhanced TAU for the early treatment (1-3 months) of non-significant PTSD symptoms in children

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Swenson 2010	Family therapy: Multisystemic therapy (MST)	Non-significant symptoms (below threshold and <50% maximum score on scale)	Childhood neglect and/or physical abuse (More than 80% of the abuse incidents included at least minor injuries, and 23.3% of families had a prior CPS report)	90	Age range (mean): NR (13.9) Gender (% female): 56 BME (% non-white): 78 Country: US Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	Inclusion criteria: determined by child protective services (CPS) that physical abuse had occurred; aged 10-17 years; the family resided within Charleston County; the case was opened within the past 90 days. Exclusion criteria: currently or previously enrolled in an multisystemic therapy project; child had been removed from the family home and reunification was deemed inappropriate or unsafe by CPS (i.e., ever returning home was not a CPS goal); the child or their parents had active psychosis

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; CPS=child protective services; N=Number being randomised; NR=not reported; PTSD=post-traumatic stress disorder; TAU=treatment as usual

Multisystemic family therapy versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Danielson 2012	Family therapy: Multi-systemic therapy (MST)	Sub threshold symptoms (below threshold but ≥50% maximum score on scale)	Childhood sexual abuse (defined as unwanted/forced vaginal or anal penetration by an object, finger, or penis; oral sex; or touching of one's genitalia)	30	Age range (mean): 13-17 (14.8) Gender (% female): 88 BME (% non-white): 62 Country: US Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): 30% reported >1 childhood sexual abuse experiences; 68% reported having experienced other traumatic events Single or multiple incident index trauma: Multiple	Inclusion criteria: aged 12-17 years; had experienced at least one lifetime childhood sexual abuse that could be recollected by the youth (defined as unwanted/forced vaginal or anal penetration by an object, finger, or penis; oral sex; or touching of one's genitalia). Exclusion criteria: mental retardation.

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; N=Number being randomised; NR=not reported; PTSD=post-traumatic stress disorder; TAU=treatment as usual

Psychological: Self-help (without support)

Self-help (without support) versus waitlist or TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Cox 2010/Kenardy 2015	Self-help (without support): Computerised psychoeducational intervention	Non-significant symptoms (below threshold and <50% maximum score on scale)	Unintentional injury/illness/medical emergency - Unintentional injury caused by: falls (48%); sport injuries (15%); motor vehicle accidents as a passenger or pedestrian (7%); burns (7%); knock or blow (1%); other types of unintentional injury (14%)	85	Age range (mean): 7-16 (10.9) Gender (% female): 31 BME (% non-white): NR Country: Australia Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Single	Inclusion criteria: aged 7-16 years; consented (if aged ≥ 11 years) and their parent/s consented (for all ages); hospitalized overnight; had acquired an accidental or unintentional injury including mild traumatic brain injury (as defined by the American Congress of Rehabilitation Medicine, 1993); had internet access. Exclusion criteria: had, or their parent had, insufficient English for completion of the questionnaires; acquired a moderate to severe

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
						head injury; injury that was a result of suspected intentional trauma (e.g., child abuse, assault, self-harm).
Kassam-Adams 2016	Self-help (without support): Computerised trauma-focused CBT	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Unintentional injury/illness/medical emergency (Acute medical event: 43% appendicitis; 8% asthma-related; 8% abdominal pain; 6% acute joint pain or arthritis; 21% other acute medical illness; 14% injury)	72	Age range (mean): 8-12 (9.8) Gender (% female): 46 BME (% non-white): 38 Country: US Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): 72% prior trauma (14% interpersonal trauma; 71% non-interpersonal trauma) Single or multiple incident index trauma: Single	Participants were included if they: (1) were aged 8–12 years; (2) had an acute medical event within the past 2 weeks which the child perceived as potentially traumatic (defined an acute medical event as a sudden, unexpected, and new medical event for the child, i.e., new injury or illness diagnosis, or a sudden exacerbation of a chronic condition and assessed potentially traumatic nature using a validated four-item screen derived from the Acute Stress Checklist for Children); (3) had a

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
						current Glasgow Coma Scale score greater than 12, i.e., they were awake and aware (as indicated by the child's medical record); (4) spoke English well enough to complete measures and understand the intervention; (5) had access to the Internet at home. Participants were excluded if: (1) their current medical condition or apparent cognitive limitations precluded participation in an interview; (2) the acute medical event was due to family violence or suspected child abuse; (3) either the child or parent was arrested or subject to legal proceedings related to the medical event

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Kenardy 2008	Self-help (without support): Psychoeducational materials	Non-significant symptoms (below threshold and <50% maximum score on scale)	Unintentional injury/illness/medical emergency (Cause of accident: 35% falls; 30% sporting injuries; 28% motor vehicle accidents; 7% other types of accidents. Type of injury: 53% Fractures and dislocations; 28% Lacerations or abrasions; 18% Other)	104	Age range (mean): 7-15 (10.4) Gender (% female): 38 BME (% non-white): NR Country: Australia Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Single	Inclusion criteria: admitted to a paediatric unit following accidental traumatic injury; spoke fluent English (equivalent to Grade 6 or above; both child and parent). Exclusion criteria: physical or sexual abuse was suspected; sustained head injuries

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; N=Number being randomised; NR=not reported; PTSD=post-traumatic stress disorder; TAU=treatment as usual

Psychosocial: Psychoeducation

Brief psychoeducational intervention versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Kassam-Adams 2011	Psychoeducation: Psychoeducation sessions (caregiver and child)	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Unintentional injury/illness/medical emergency (25% motor vehicle crash; 25% fall; 20% organized sport; 20% other recreation; 11% other circumstances)	85	Age range (mean): NR (11.5) Gender (% female): 40 BME (% non-white): 42 Country: US Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): 59% prior trauma exposure Single or multiple incident index trauma: Single	Inclusion criteria: aged 8-17 years; admitted for treatment of an unintentional injury; had telephone access; spoke English (and their parents did); screened positive on one or more of the following measures: current traumatic stress symptoms (Child PTSD Symptom Scale), current depression symptoms (CES-D), and/or risk of persistent PTSD (STEPP). Exclusion criteria: current medical status precluded interview participation; moderate to severe

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
						head injury (Glasgow Coma Score ≤ 12).
O'Callaghan 2014	Psychoeducation and supportive intervention: Psychoeducation and supportive sessions (caregiver and child)	Non-significant symptoms (below threshold and <50% maximum score on scale)	Witnessing war as a civilian (22% of participants in the two villages had previously been abducted themselves while 77% of participants knew of a family member that had been abducted and 81% had had a family member killed in the conflict. 99% of the sample reported fear of attack by the Lord's Resistance Army in the future)	159	Age range (mean): 7-18 (13.4) Gender (% female): 45 BME (% non-white): NR Country: Demographic Republic of Congo (DRC) Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	Inclusion criteria: aged 7–18 years; living in a war-affected community facing current risks of attack/abduction by armed groups. Exclusion criteria: Not reported
Prchal 2012	Psychoeducation: Psychoeducation sessions (caregiver and child)	Non-significant symptoms (below threshold and <50% maximum score on scale)	Family member or carer of person with life-threatening illness or injury (Sibling of a child with newly diagnosed cancer)	30	Age range (mean): 6-17 (NR) Gender (% female): 40 BME (% non-white): NR Country: Switzerland	International Classification of Diseases (ICD-10) criteria for

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
					Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Single	

BME=Black and Minority Ethnic; CES-D=Centre for epidemiological studies-depression; N=Number being randomised; NR=not reported; PTSD=post-traumatic stress disorder; STEPP=Screening Tool for Early Predictors of PTSD

Psychoeducational group versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone)

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
O'Callaghan 2014	Psychoeducation and supportive intervention: Psychoeducation and supportive sessions (caregiver and child)	Non-significant symptoms (below threshold and <50% maximum score on scale)	Witnessing war as a civilian (22% of participants in the two villages had previously been abducted themselves while 77% of participants knew of a family member that had been abducted and 81% had had a	159	Age range (mean): 7-18 (13.4) Gender (% female): 45 BME (% non-white): NR Country: Demographic Republic of Congo (DRC) Coexisting conditions: NR	Inclusion criteria: aged 7–18 years; living in a war-affected community facing current risks of attack/abduction by armed groups. Exclusion criteria: Not reported

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
			family member killed in the conflict. 99% of the sample reported fear of attack by the Lord's Resistance Army in the future)		Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	

BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; N=Number being randomised; NR=not reported; PTSD=post-traumatic stress disorder

Other non-pharmacological: Massage

Massage + self-help with support versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Phipps 2010/2012/Lindwall 2014	Massage + self-help (with support): Massage + humour intervention (for child)	Non-significant symptoms (below threshold and <50% maximum score on scale)	Diagnosis of life-threatening condition- Children undergoing paediatric stem cell transplantation (SCT). Diagnostic group: ALL (27%); AML (25%); other leukemia (14%); HD/NHL (11%); solid tumour (12%);	119	Age range (mean): 6-17 (NR) Gender (% female): 38 BME (% non-white): NR Country: US and Canada Coexisting conditions: NR Lifetime experience of trauma (mean	Inclusion criteria: child undergoing stem cell or bone marrow transplantation (allogeneic or autologous); expected hospital stay of 3 weeks; aged 6-18 years; English-speaking; approval by the

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
			nonmalignancy (11%)		number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Single	patient's SCT attending physician

AML=Acute Myeloblastic Leukaemia; ALL=Acute Lymphoblastic Leukaemia; BME=Black and Minority Ethnic; CBT=cognitive behavioural therapy; HD=Hodgkin disease; NHL=No-Hodgkin Lymphoma; N=Number being randomised; NR=not reported; PTSD=post-traumatic stress disorder; SCT=stem cell transplantation

Appendix E – Forest plots

Forest plots for "For children and young people at risk of PTSD, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?"

Psychological: Trauma-focused CBT

Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone)

Figure 2: Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): PTSD symptomatology self-rated at endpoint (CRIES/CPSS/UCLA PTSD-RI change score)

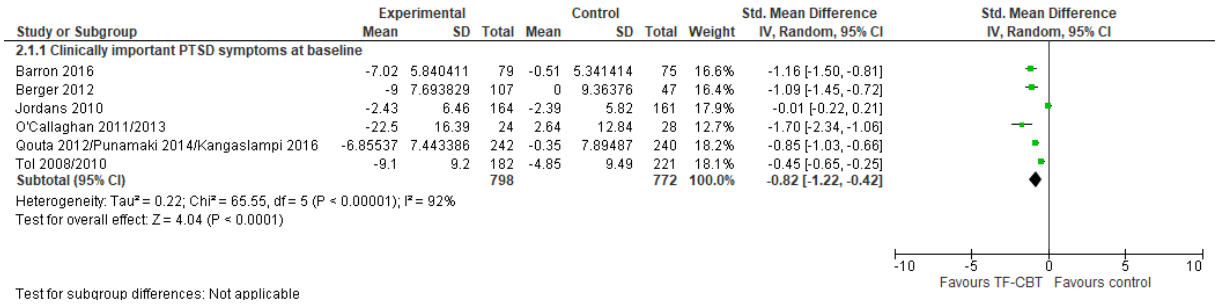


Figure 3: Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): PTSD symptomatology self-rated at 2-6 month follow-up (CRIES/CPSS/UCLA PTSD-RI change score)

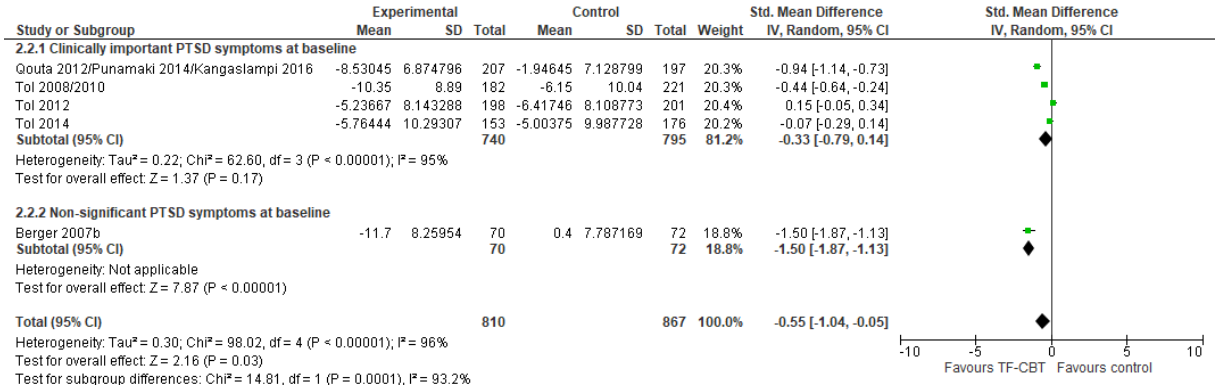


Figure 4: Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): PTSD symptomatology clinician-rated (UCLA PTSD-RI change score)

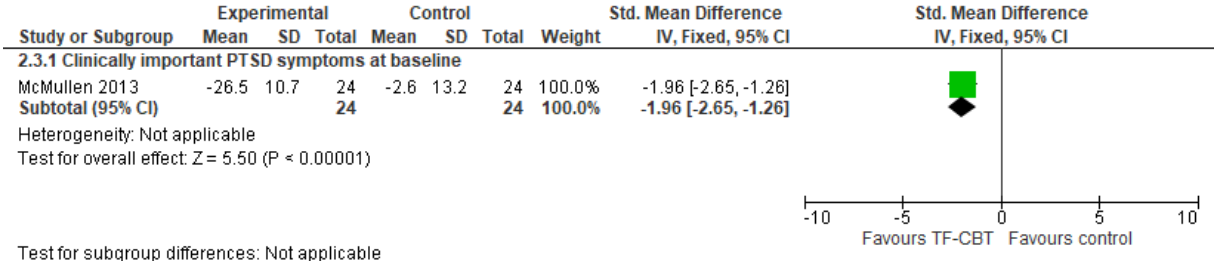


Figure 5: Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): PTSD (number with diagnosis or who met criteria for PTSD); Clinically important PTSD symptoms at baseline

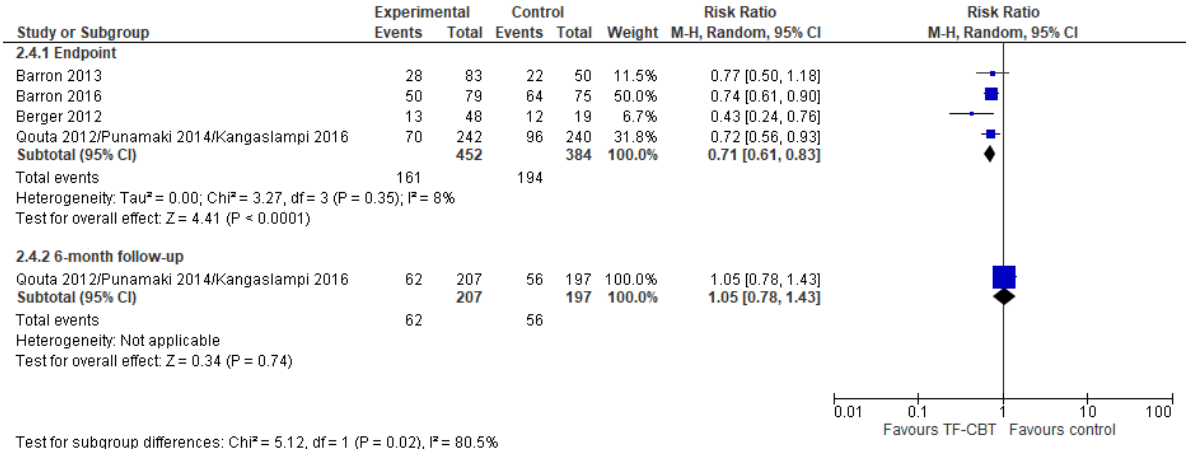


Figure 6: Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): Anxiety symptoms at endpoint (SCARED change score)

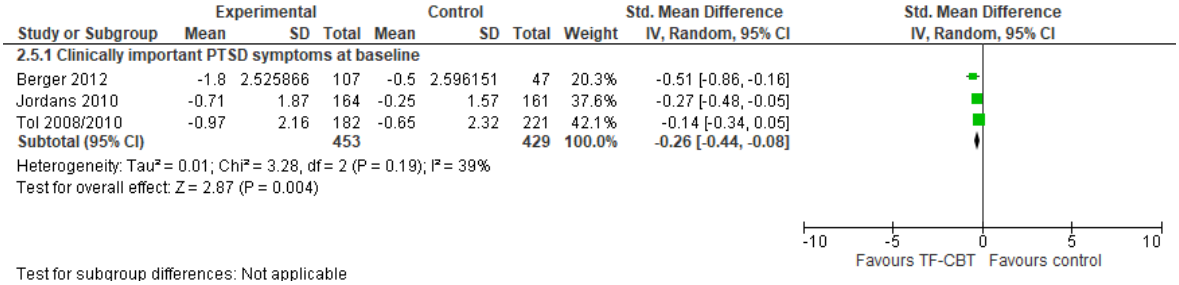


Figure 7: Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): Anxiety symptoms at 2-6 month follow-up (SCARED change score)

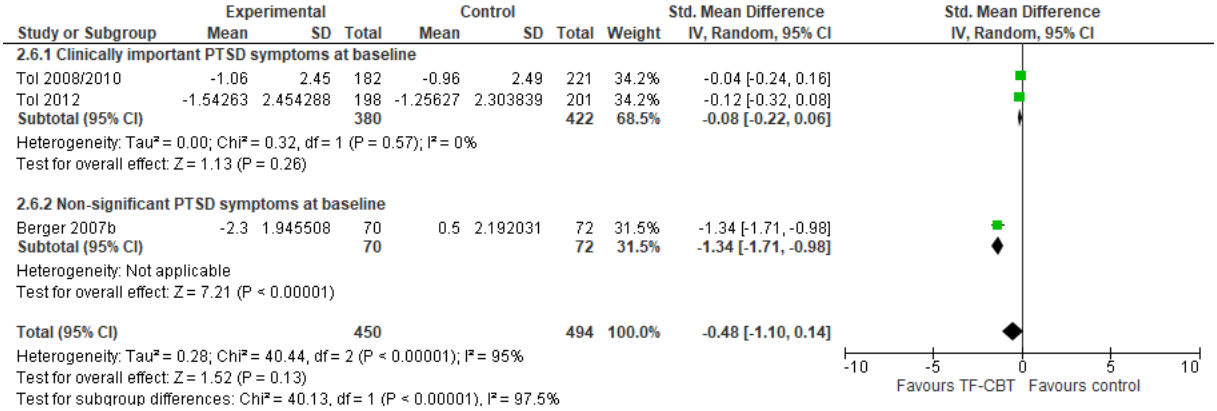


Figure 8: Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): Depression symptoms at endpoint (Birleson Depression Inventory change score)

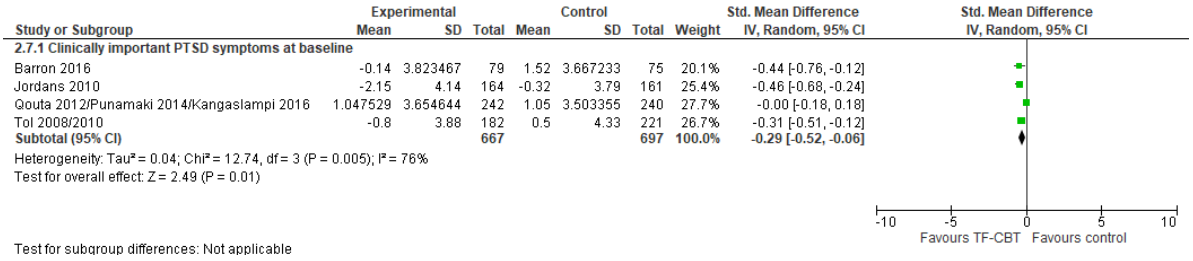


Figure 9: Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): Depression symptoms at 3-6 month follow-up (Birleson Depression Inventory change score)

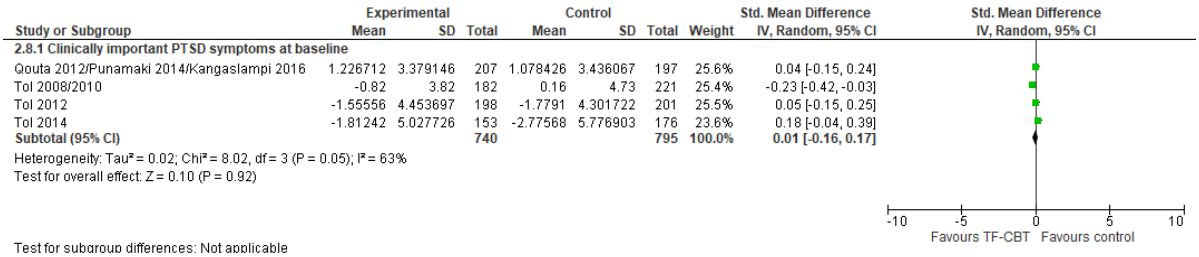


Figure 10: Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): Dissociative symptoms (A-DES change score)

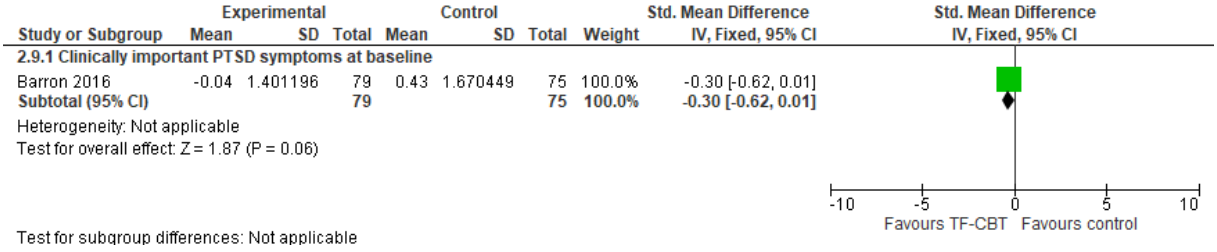


Figure 11: Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): Functional impairment at endpoint (Child Diagnostic Interview Schedule Sum score; change score)

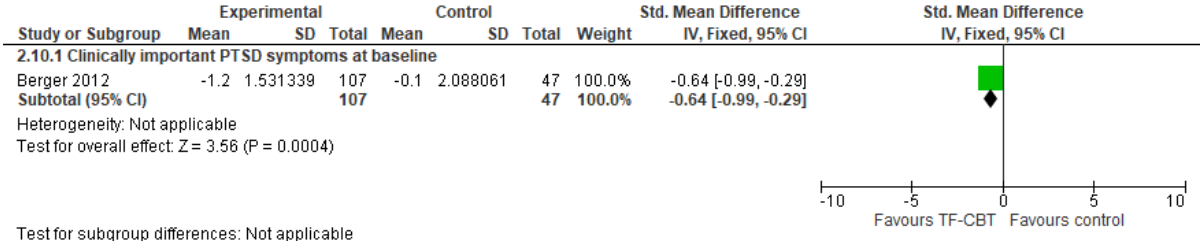


Figure 12: Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): Functional impairment at 2-month follow-up (Child Diagnostic Interview Schedule Sum score; change score)

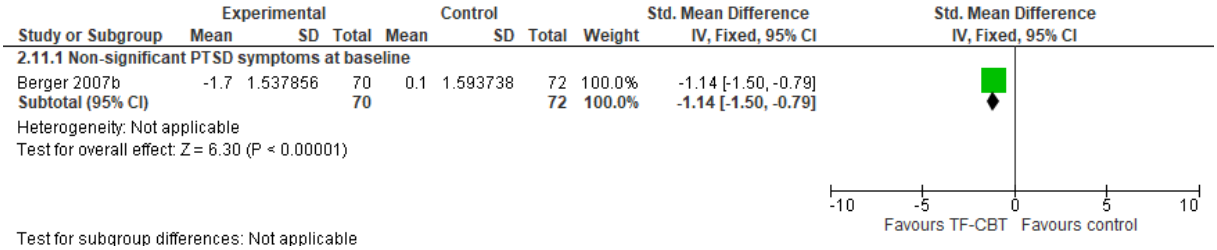


Figure 13: Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone):

Emotional and behavioural problems (SDQ/CAS change score); Clinically important PTSD symptoms at baseline

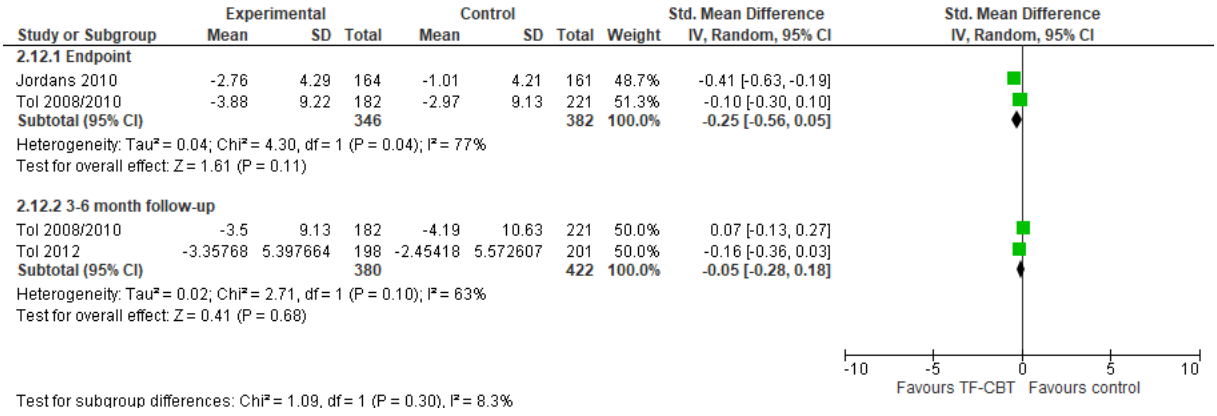
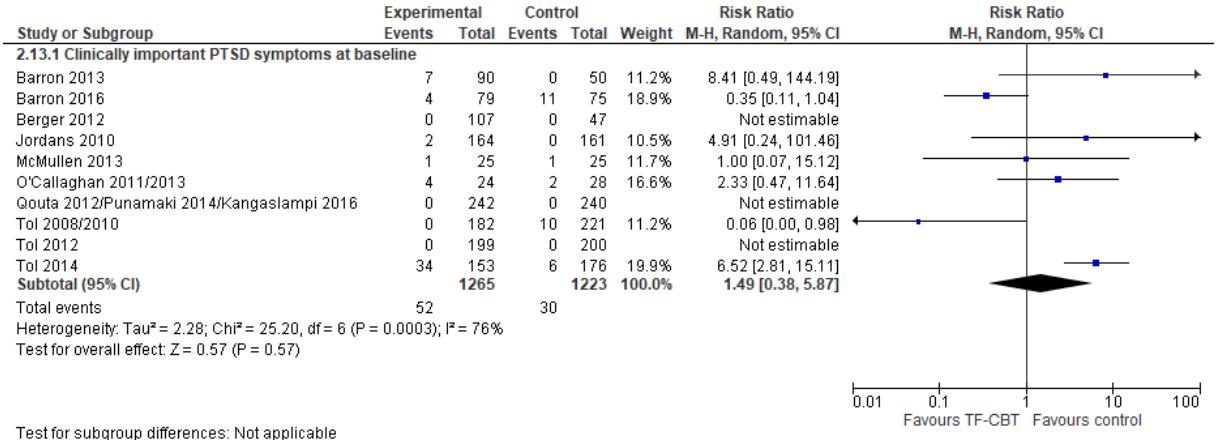


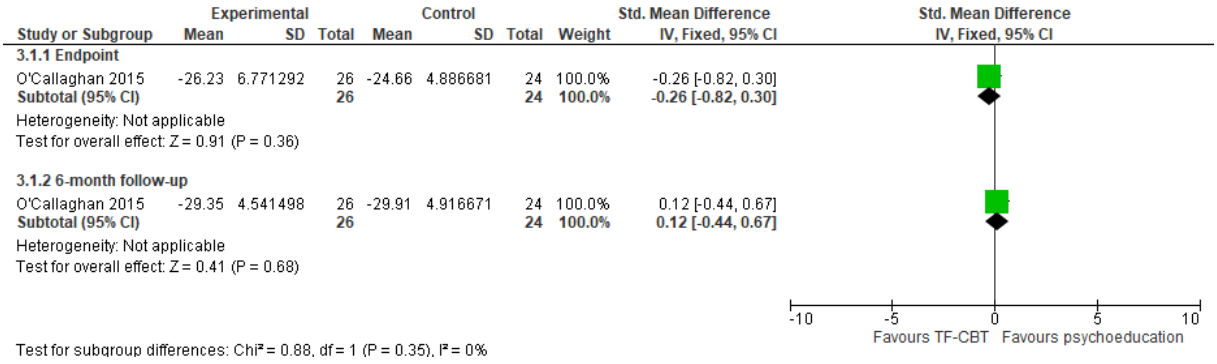
Figure 14: Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): Discontinuation (loss to follow-up)



Trauma-focused CBT group versus psychoeducational group for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone)

Figure 15: Trauma-focused CBT group versus psychoeducational group for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): PTSD symptomatology clinician-rated

(UCLA PTSD-RI change score); clinically important PTSD symptoms at baseline



Trauma-focused CBT versus waitlist or TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Figure 16: Trauma-focused CBT versus waitlist or TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: PTSD symptomatology self-rated (UCLA PTSD-RI/CRIES change score)

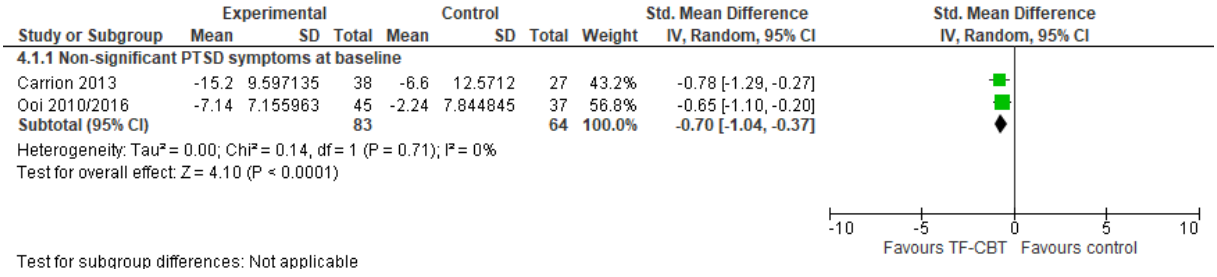


Figure 17: Trauma-focused CBT versus waitlist or TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: PTSD symptomatology clinician-rated (UCLA PTSD-I change score)

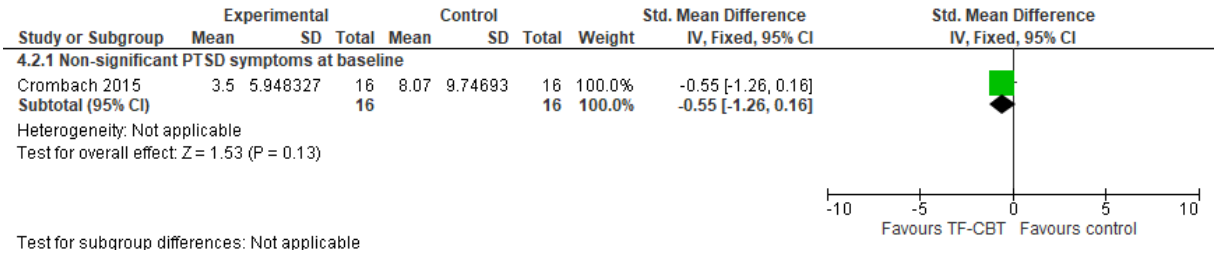


Figure 18: Trauma-focused CBT versus waitlist or TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Depression symptoms (CDI/Birleson Depression Inventory change score)

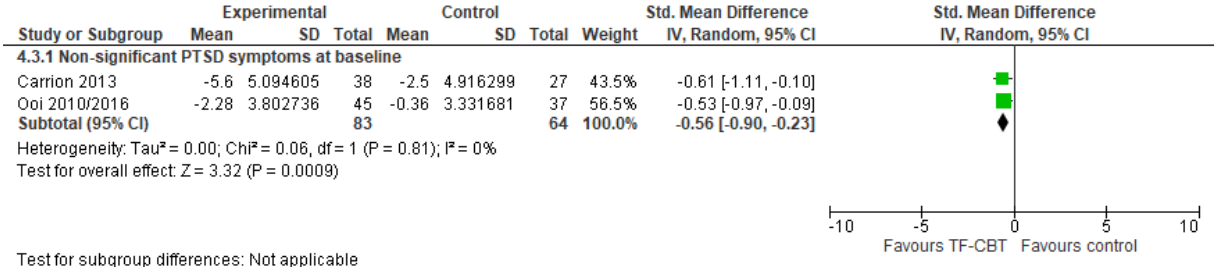


Figure 19: Trauma-focused CBT versus waitlist or TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Emotional and behavioural problems: Internalising (HSCL-37A Internalizing change score)

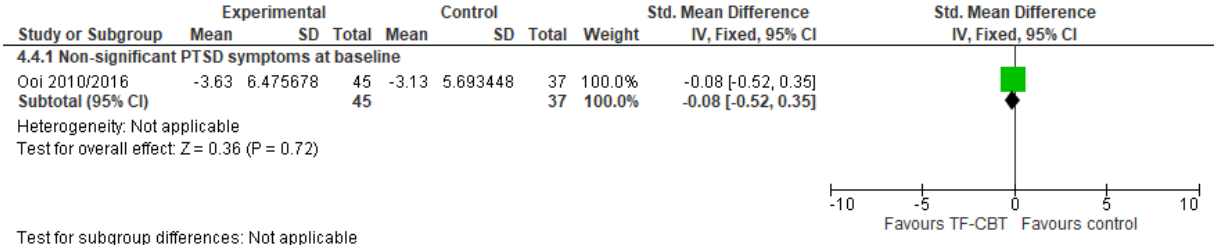


Figure 20: Trauma-focused CBT versus waitlist or TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Emotional and behavioural problems: Externalising (HSCL-37A Externalizing change score)

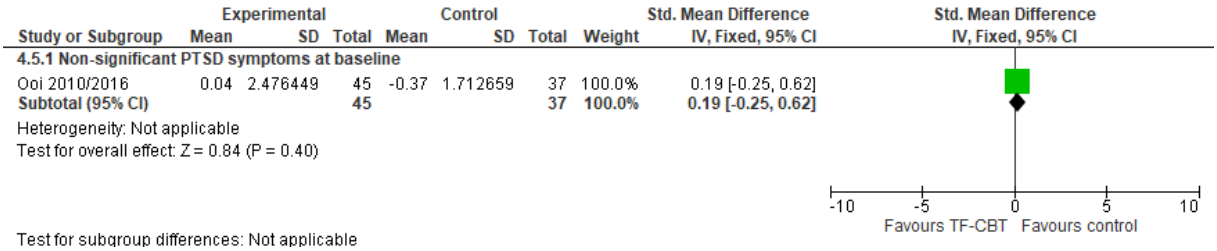
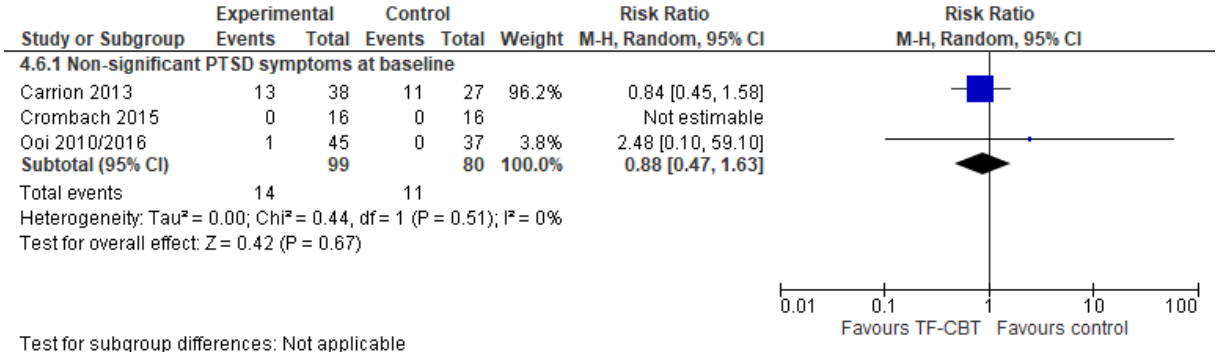


Figure 21: Trauma-focused CBT versus waitlist or TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Discontinuation (loss to follow-up)



Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Figure 22: Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: PTSD symptomatology self-rated (TSCC/CITES-R PTSD subscale change score); Non-significant PTSD symptoms at baseline

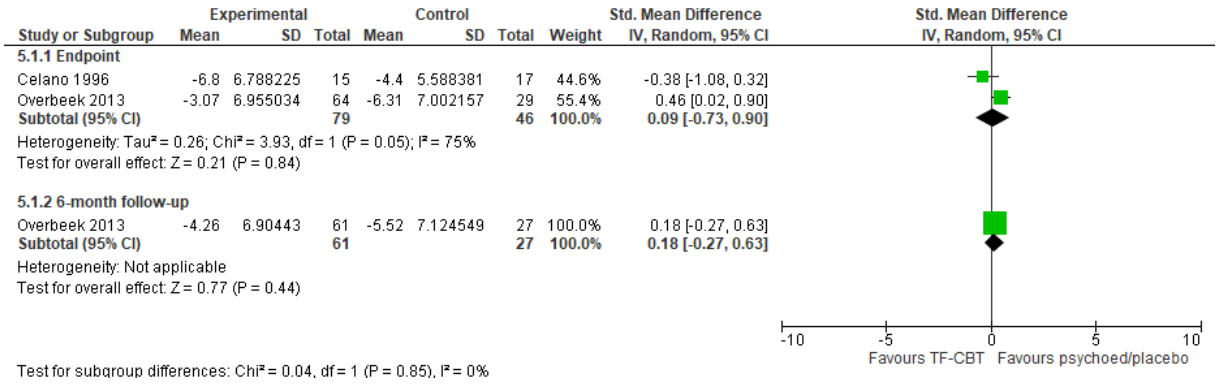


Figure 23: Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo for the delayed treatment (>3 months) of non-significant

PTSD symptoms in children: PTSD symptomatology parent-rated (K-SADS-E: PTSD change score); Non-significant PTSD symptoms at baseline

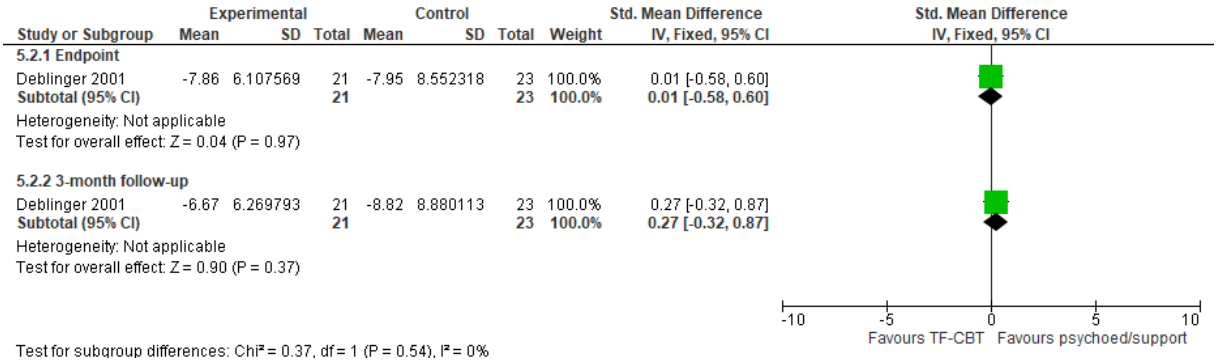


Figure 24: Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: PTSD (number of participants scoring above clinical threshold on a validated scale); Non-significant PTSD symptoms at baseline

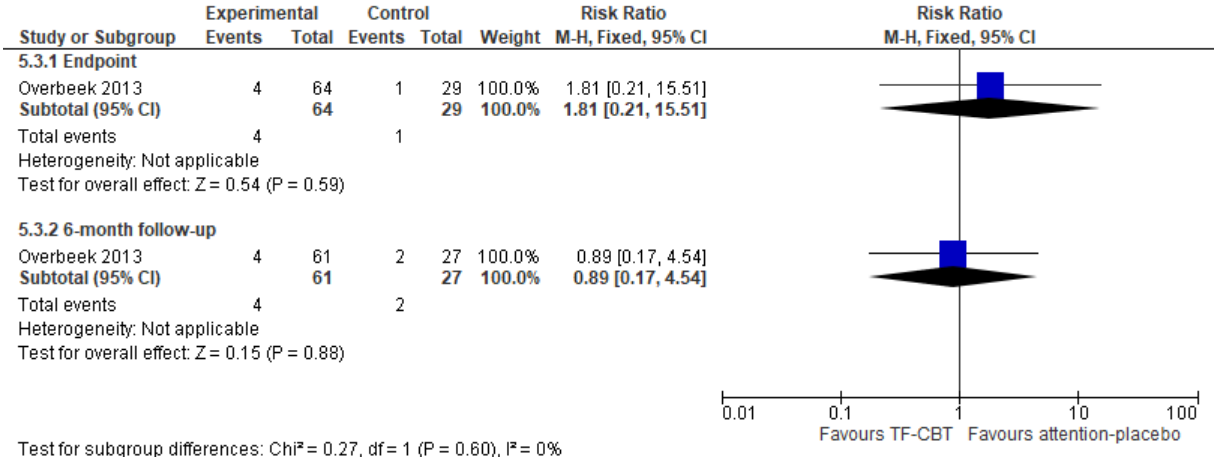


Figure 25: Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Depression symptoms (CDI change score); Non-significant PTSD symptoms at baseline

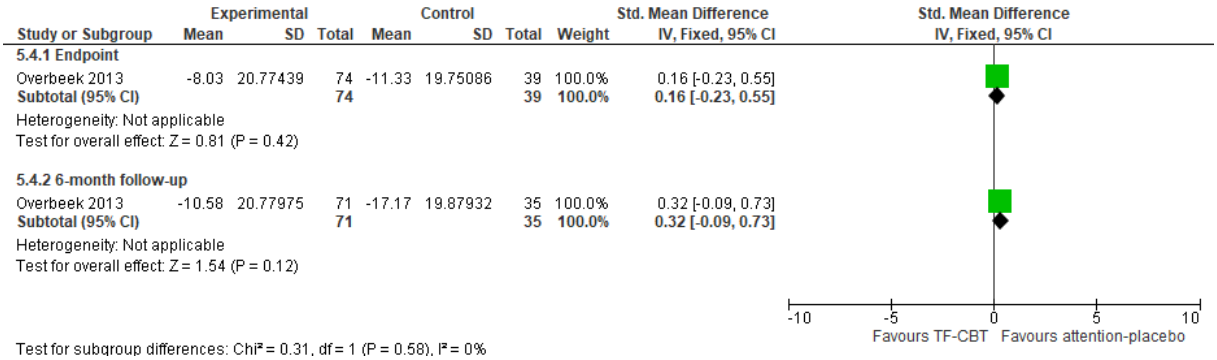


Figure 26: Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Emotional and behavioural problems (CBCL Total raw scores; change score); Non-significant PTSD symptoms at baseline

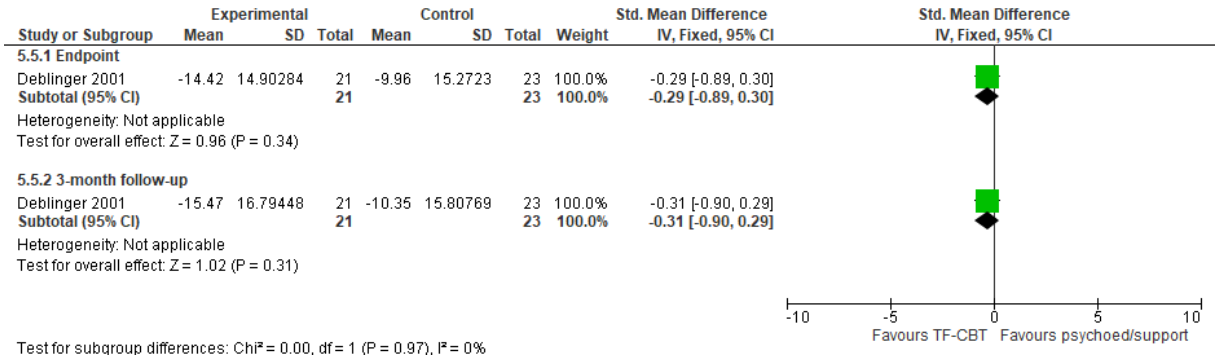


Figure 27: Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Emotional and behavioural problems: Internalising (CBCL Internalizing T-scores, change score); Non-significant PTSD symptoms at baseline

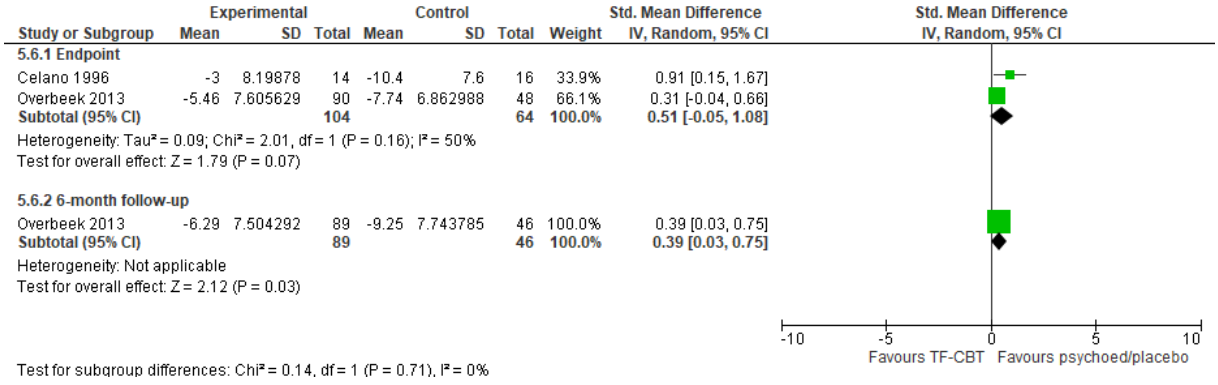


Figure 28: Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Emotional and behavioural problems:

Externalising (CBCL Externalizing T-scores, change score); Non-significant PTSD symptoms at baseline

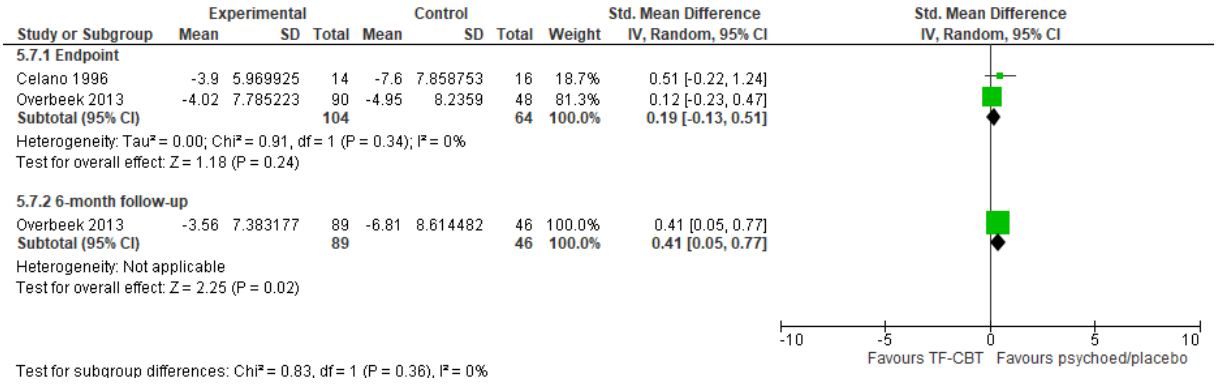


Figure 29: Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Global functioning (CGAS change score)

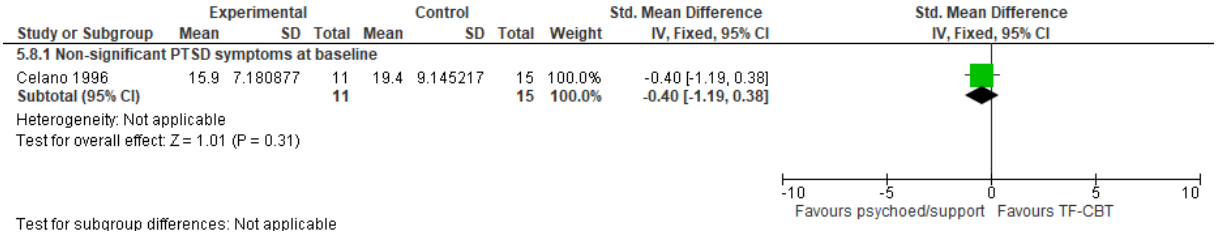
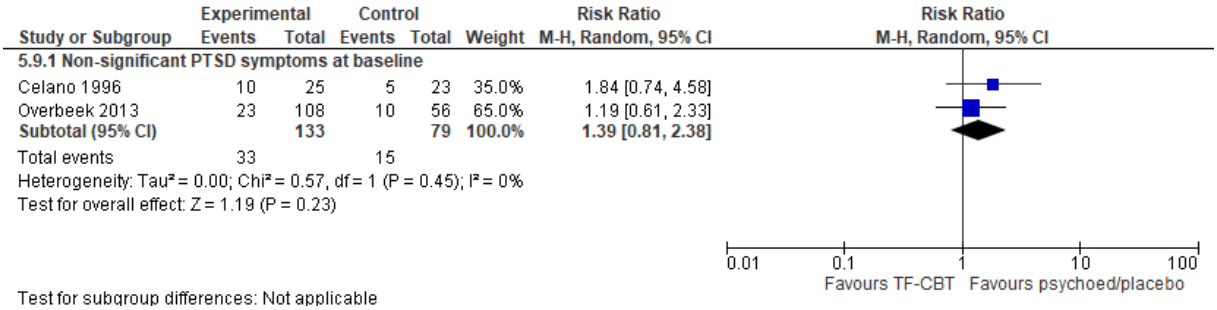


Figure 30: Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Discontinuation (loss to follow-up)



Trauma-focused CBT versus eye movement desensitisation and reprocessing (EMDR) for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Figure 31: Trauma-focused CBT versus eye movement desensitisation and reprocessing (EMDR) for the delayed treatment (>3 months) of non-

significant PTSD symptoms in children: PTSD symptomatology self-rated (UCLA PTSD-RI change score); Non-significant PTSD symptoms at baseline

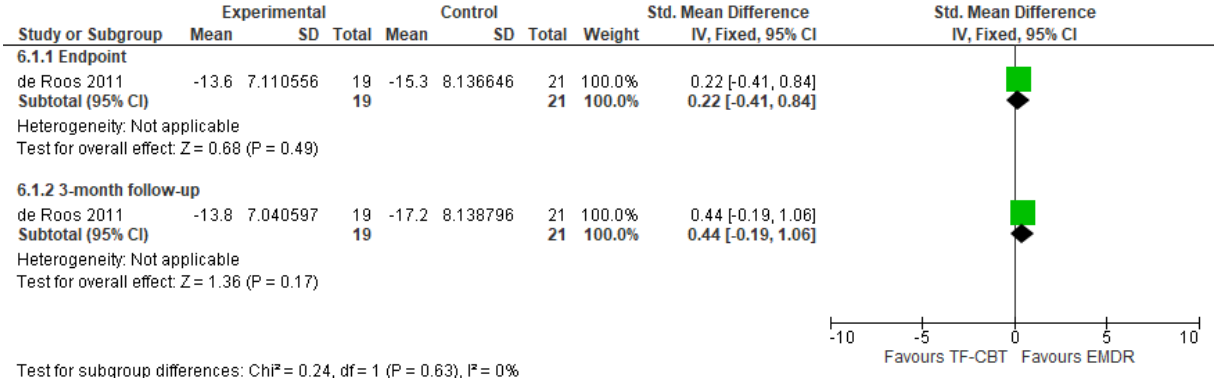


Figure 32: Trauma-focused CBT versus eye movement desensitisation and reprocessing (EMDR) for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Depression symptoms (Birleson Depression Inventory change score); Non-significant PTSD symptoms at baseline

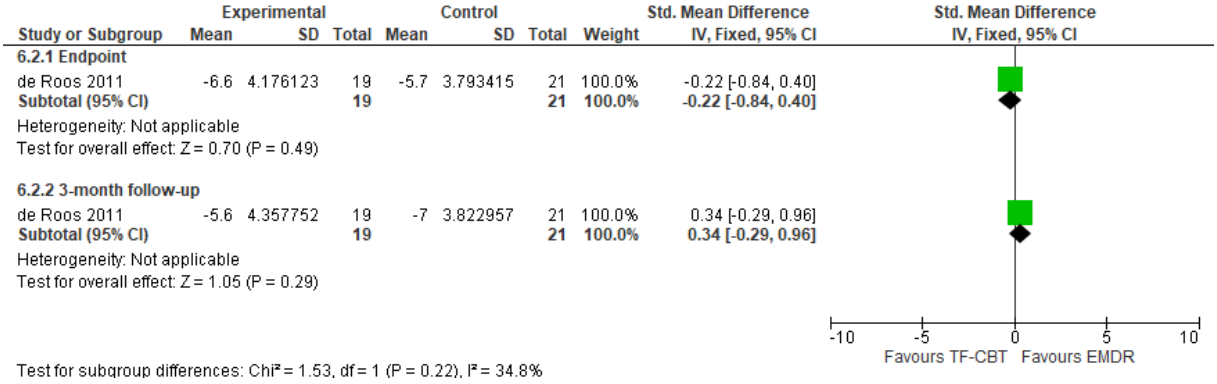


Figure 33: Trauma-focused CBT versus eye movement desensitisation and reprocessing (EMDR) for the delayed treatment (>3 months) of non-

significant PTSD symptoms in children: Anxiety symptoms (MASC change score); Non-significant PTSD symptoms at baseline

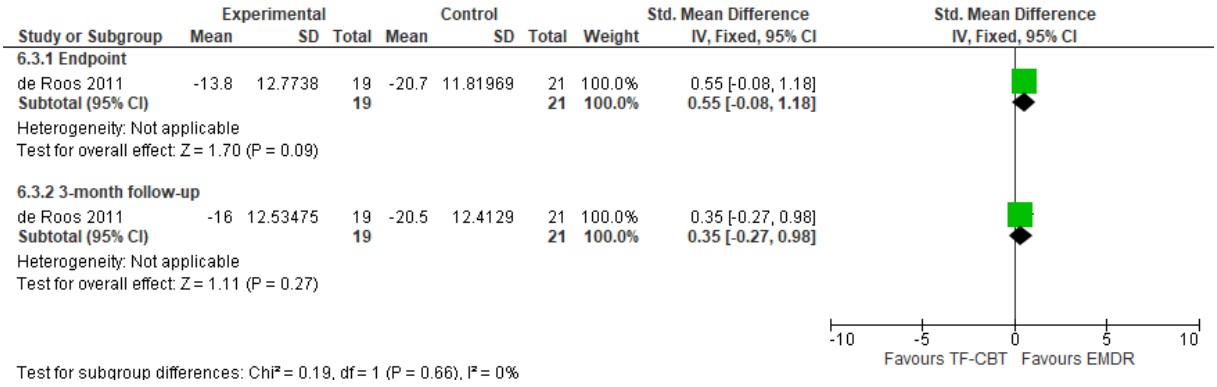


Figure 34: Trauma-focused CBT versus eye movement desensitisation and reprocessing (EMDR) for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Emotional and behavioural problems at 3-month follow-up (CBCL Total raw scores; change score)

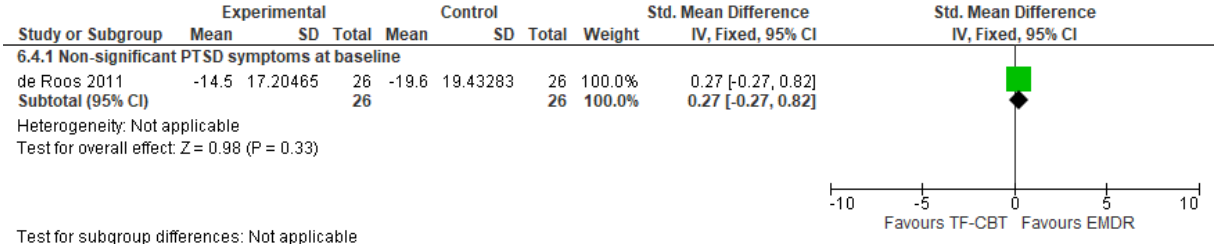
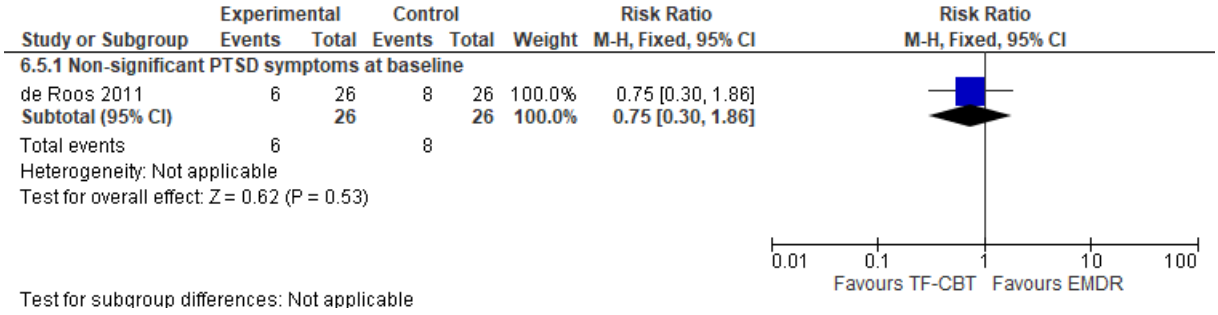


Figure 35: Trauma-focused CBT versus eye movement desensitisation and reprocessing (EMDR) for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Discontinuation (loss to follow-up)



Psychological: Non-trauma-focused CBT

Child and caregiver CBT intervention versus psychoeducation and supportive intervention for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Figure 36: Child and caregiver CBT intervention versus psychoeducation and supportive intervention for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: PTSD symptomatology self-rated (TSCC: Post-traumatic Stress change score); Clinically important PTSD symptoms at baseline

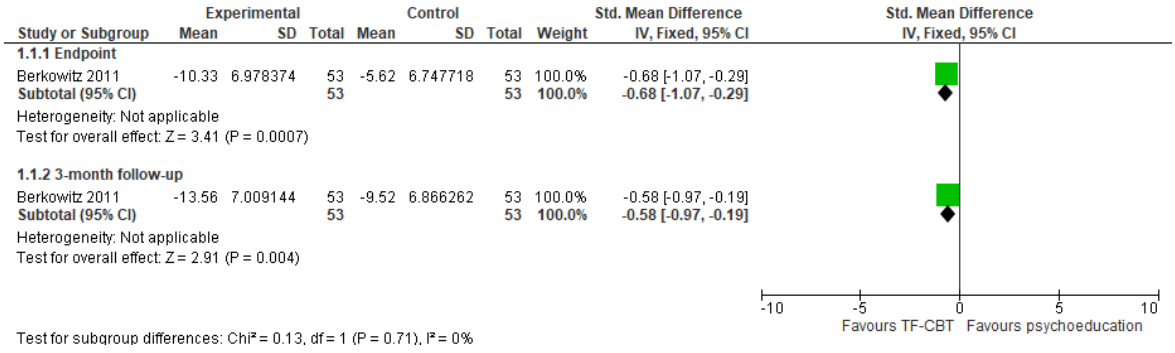


Figure 37: Child and caregiver CBT intervention versus psychoeducation and supportive intervention for the early prevention (intervention initiated within

1 month of traumatic event) of PTSD in children: Anxiety symptoms (TSCC: Anxiety change score); Clinically important PTSD symptoms at baseline

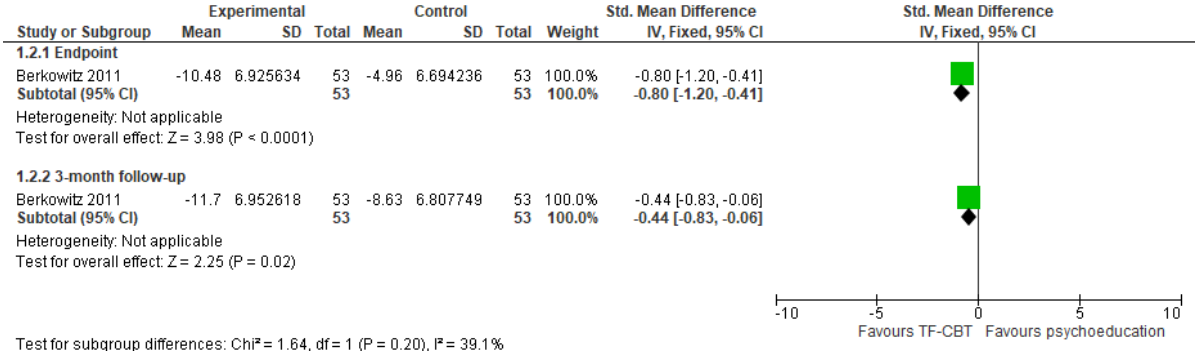
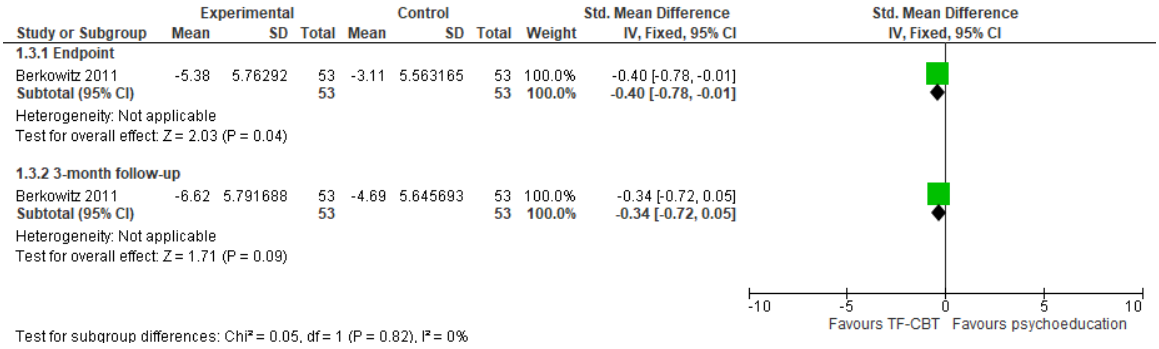


Figure 38: Child and caregiver CBT intervention versus psychoeducation and supportive intervention for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Dissociative symptoms (TSCC: Dissociation change score); Clinically important PTSD symptoms at baseline



Psychological: Psychologically-focused debriefing

Single session debriefing versus TAU/attention-placebo for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Figure 39: Single session debriefing versus TAU/attention-placebo for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: PTSD symptomatology self-rated at 8-month follow-up (CRIES change score)

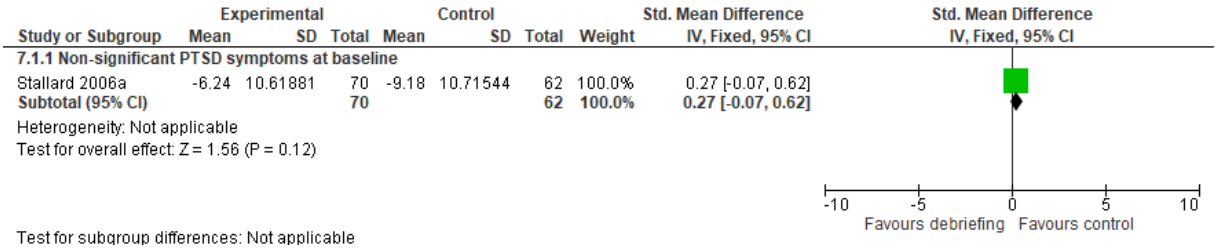


Figure 40: Single session debriefing versus TAU/attention-placebo for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: PTSD symptomatology clinician-rated (IBS-KJ standardized clinical interview change score); Non-significant PTSD symptoms at baseline

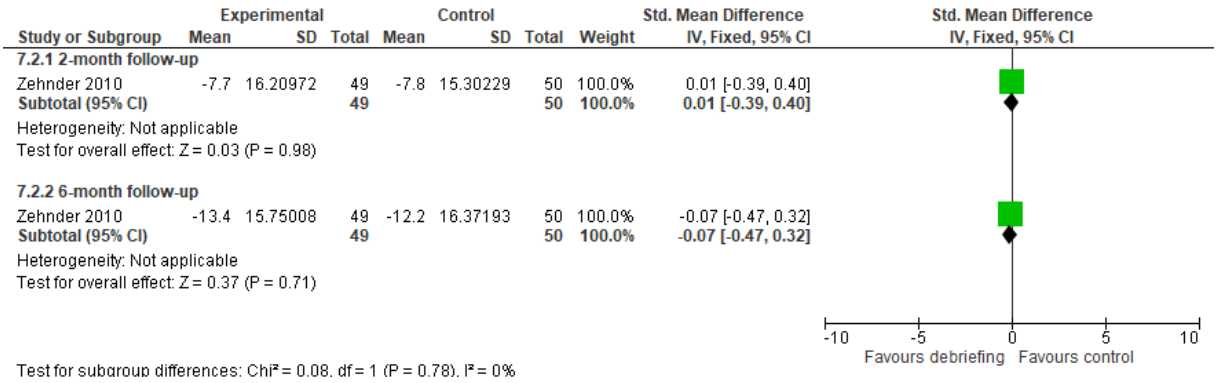


Figure 41: Single session debriefing versus TAU/attention-placebo for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: PTSD diagnosis at 8-month follow-up

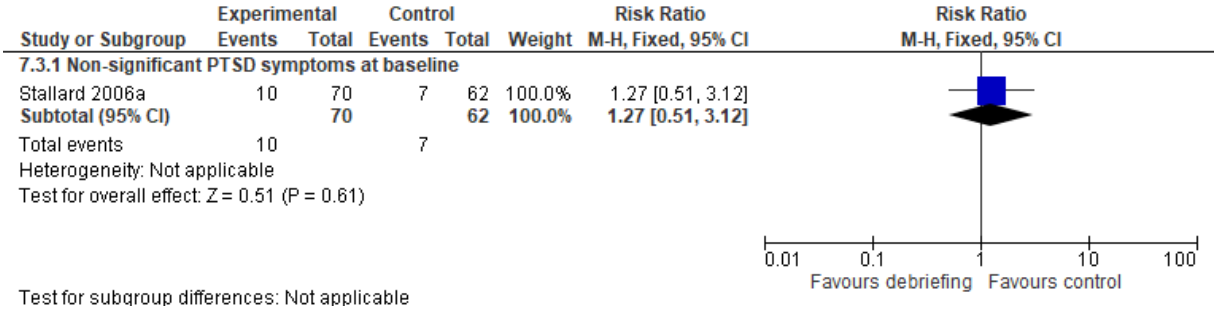


Figure 42: Single session debriefing versus TAU/attention-placebo for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Anxiety symptoms at 8-month follow-up (RCMAS change score)

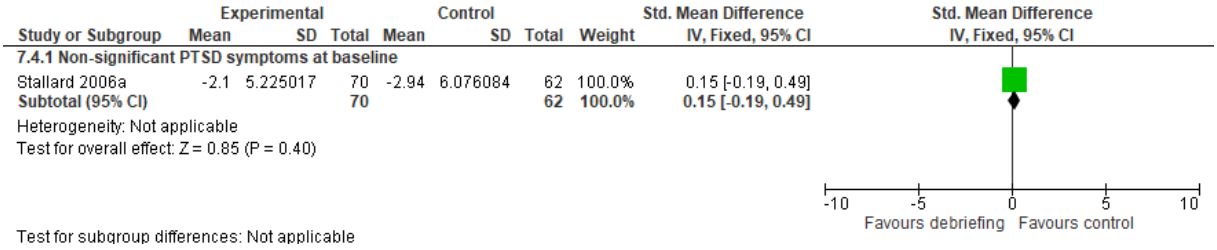


Figure 43: Single session debriefing versus TAU/attention-placebo for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD

in children: Depression symptoms (CDI/Birleson Depression Inventory change score); Non-significant PTSD symptoms at baseline

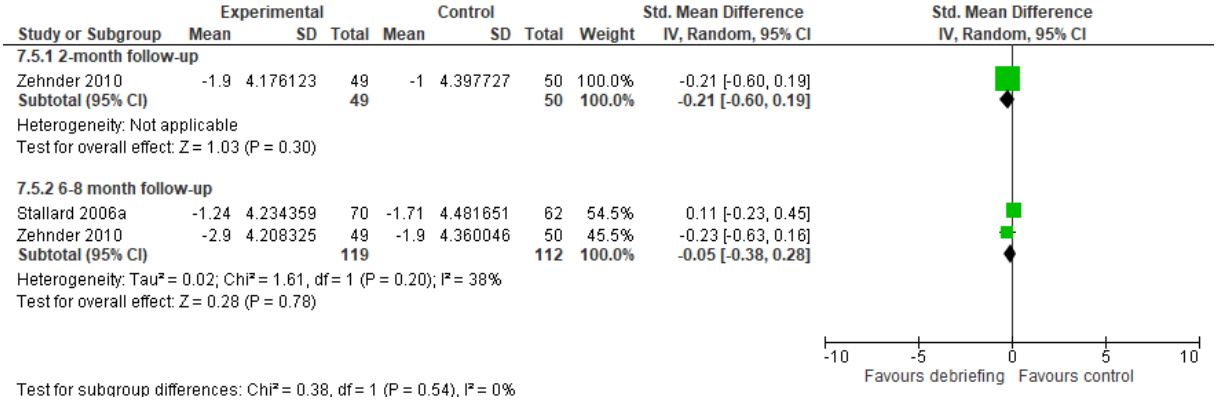


Figure 44: Single session debriefing versus TAU/attention-placebo for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Emotional and behavioural problems (CBCL Total T-scores/SDQ change score); Non-significant PTSD symptoms at baseline

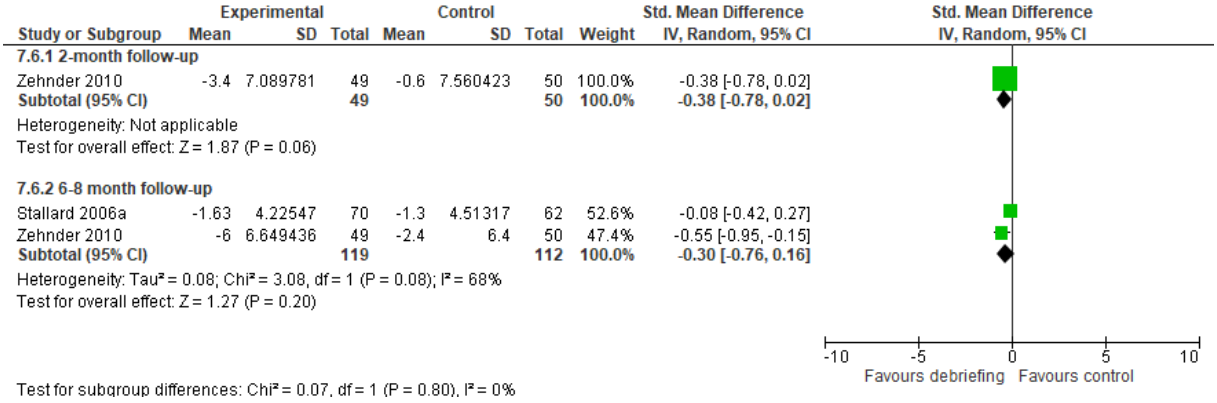
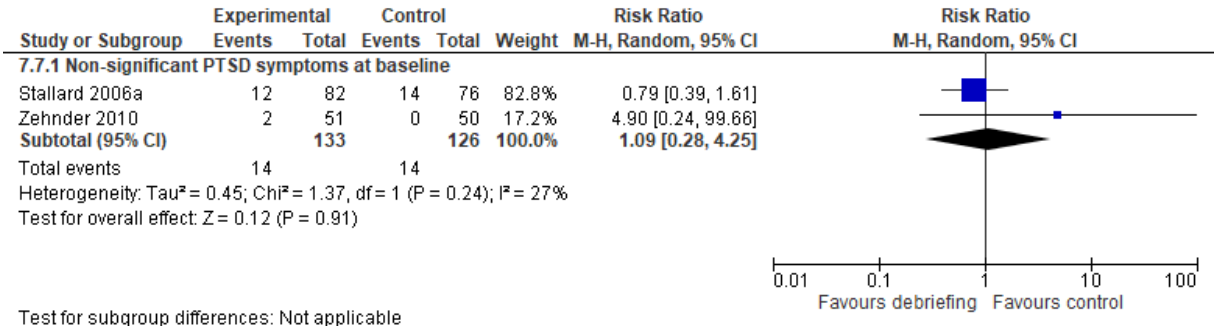


Figure 45: Single session debriefing versus TAU/attention-placebo for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Discontinuation (loss to follow-up)



Psychological: Eye movement desensitisation and reprocessing (EMDR)

Eye movement desensitisation and reprocessing (EMDR; + TAU) versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Figure 46: Eye movement desensitisation and reprocessing (EMDR; + TAU) versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: PTSD symptomatology clinician-rated (DISC: PTSD symptoms change score); Non-significant PTSD symptoms at baseline

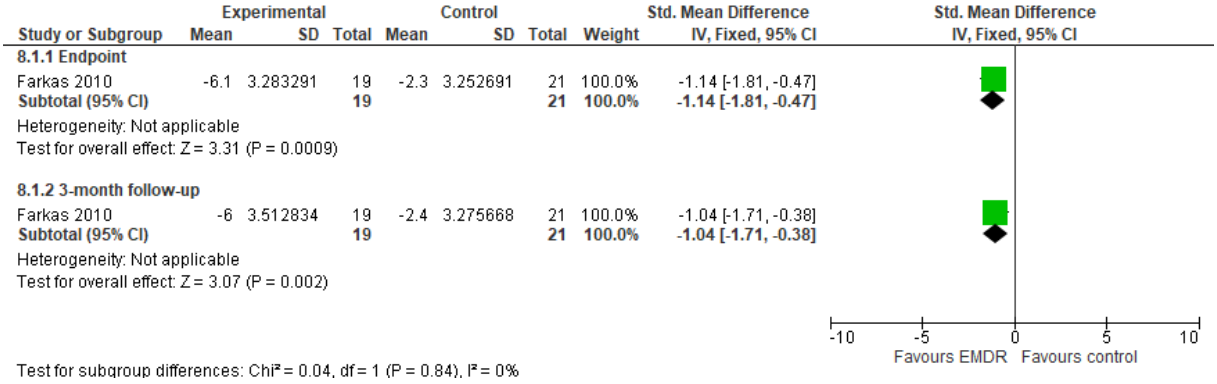


Figure 47: Eye movement desensitisation and reprocessing (EMDR; + TAU) versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: PTSD (number of participants who met criteria for PTSD); Non-significant PTSD symptoms at baseline

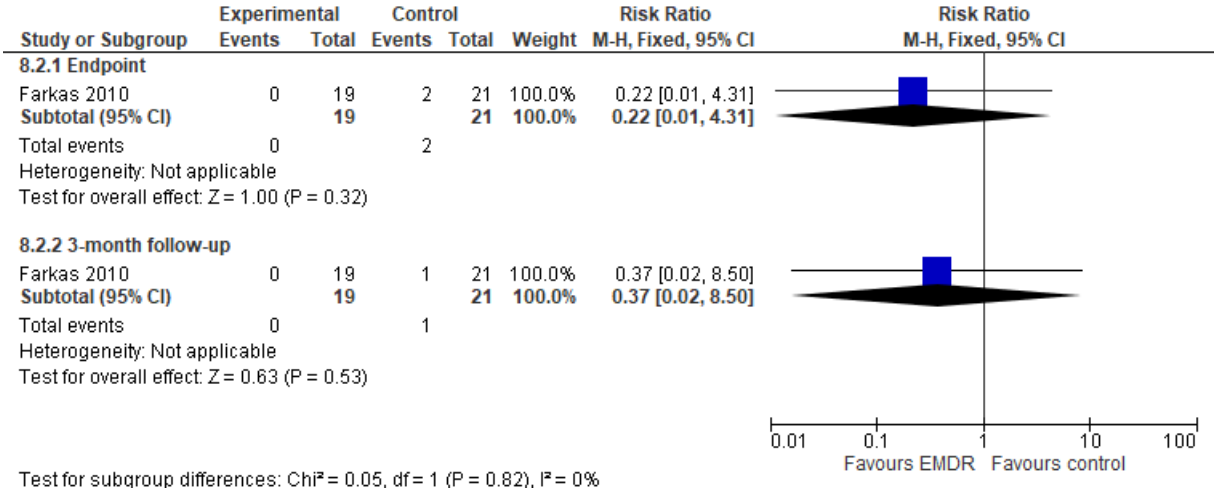


Figure 48: Eye movement desensitisation and reprocessing (EMDR; + TAU) versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Emotional and behavioural problems: Internalising

(CBCL Internalizing T-scores, change score); Non-significant PTSD symptoms at baseline

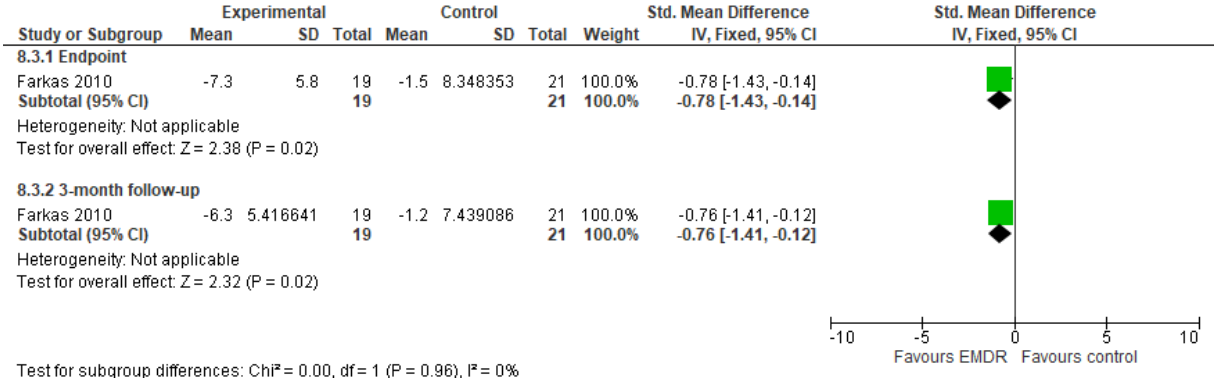


Figure 49: Eye movement desensitisation and reprocessing (EMDR; + TAU) versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Emotional and behavioural problems: Externalising (CBCL Externalizing T-scores, change score); Non-significant PTSD symptoms at baseline

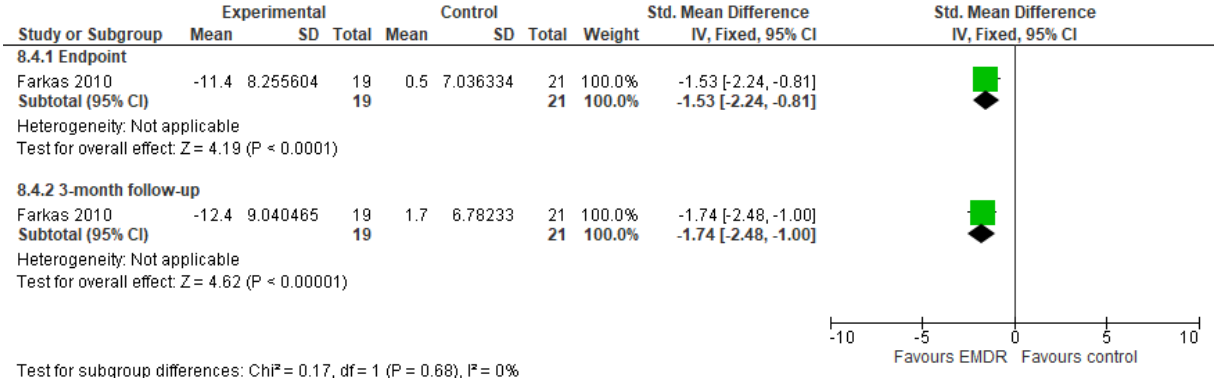


Figure 50: Eye movement desensitisation and reprocessing (EMDR; + TAU) versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Oppositional defiant disorder symptoms (DISC: ODD symptoms change score); Non-significant PTSD symptoms at baseline

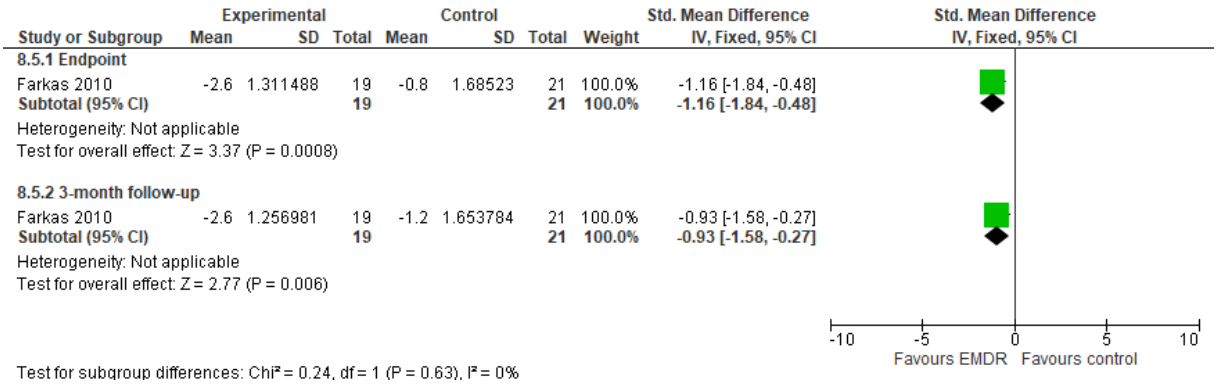


Figure 51: Eye movement desensitisation and reprocessing (EMDR; + TAU) versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Conduct disorder symptoms (DISC: CD symptoms change score); Non-significant PTSD symptoms at baseline

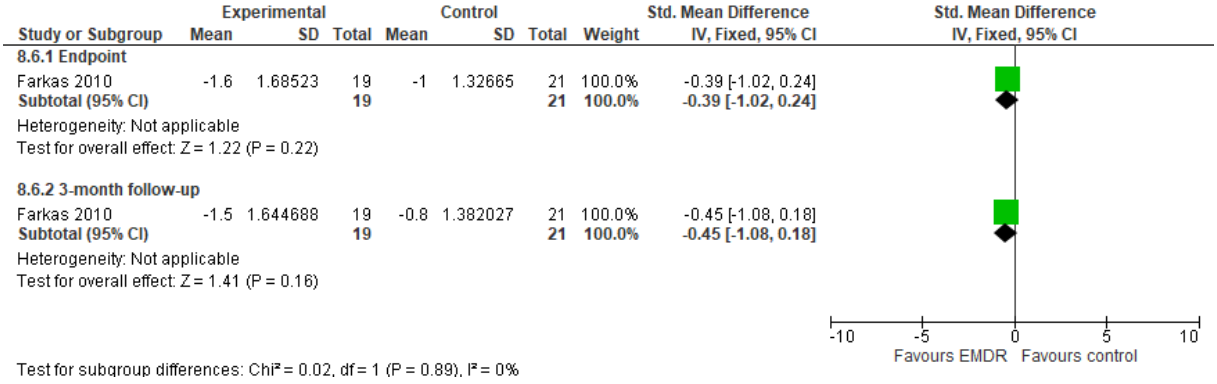
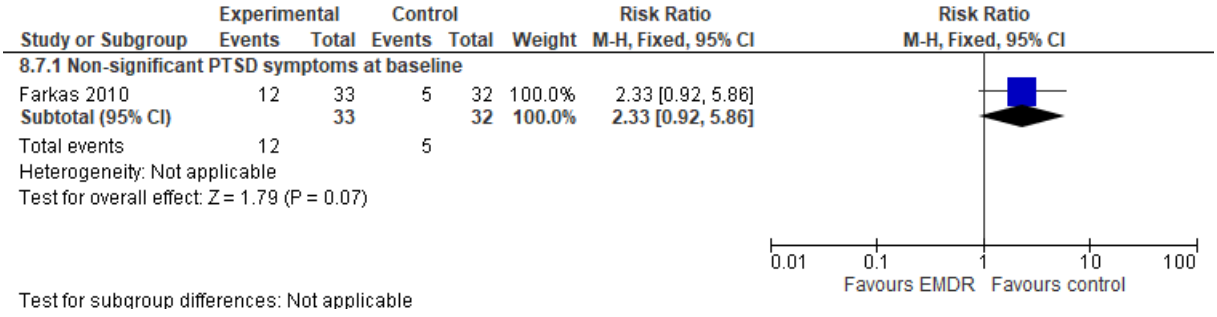


Figure 52: Eye movement desensitisation and reprocessing (EMDR; + TAU) versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Discontinuation (loss to follow-up)



Psychological: Parent training/family interventions

Parent training versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Figure 53: Parent training versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: PTSD symptomatology self-rated at 6-week follow-up (CPSS change score)

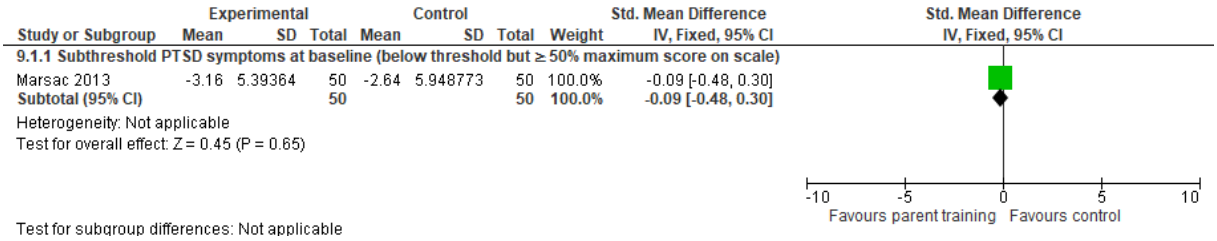
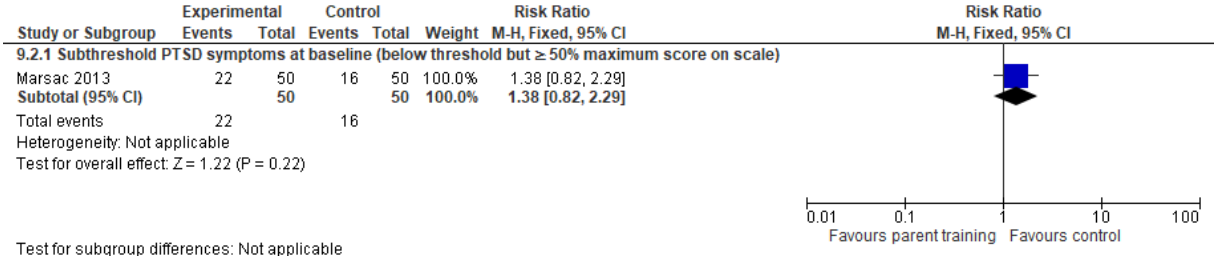


Figure 54: Parent training versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Discontinuation (loss to follow-up)



Multisystemic family therapy versus enhanced TAU for the early treatment (1-3 months) of non-significant PTSD symptoms in children

Figure 55: Multisystemic family therapy versus enhanced TAU for the early treatment (1-3 months) of non-significant PTSD symptoms in children: PTSD at 1-year follow-up (number of participants who met criteria for PTSD)

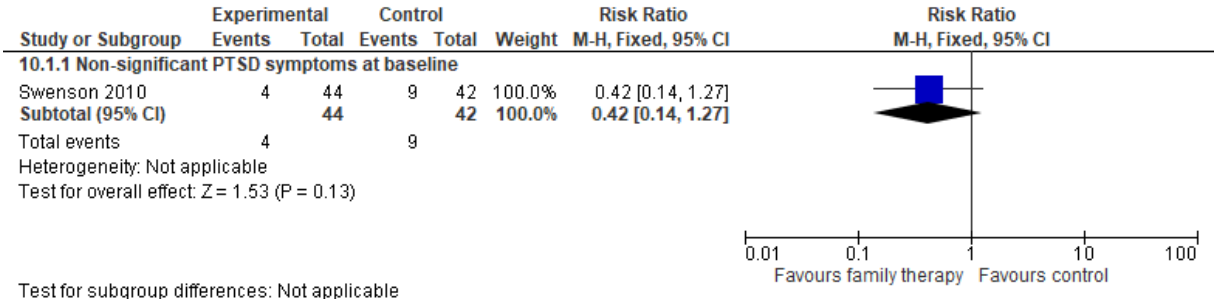
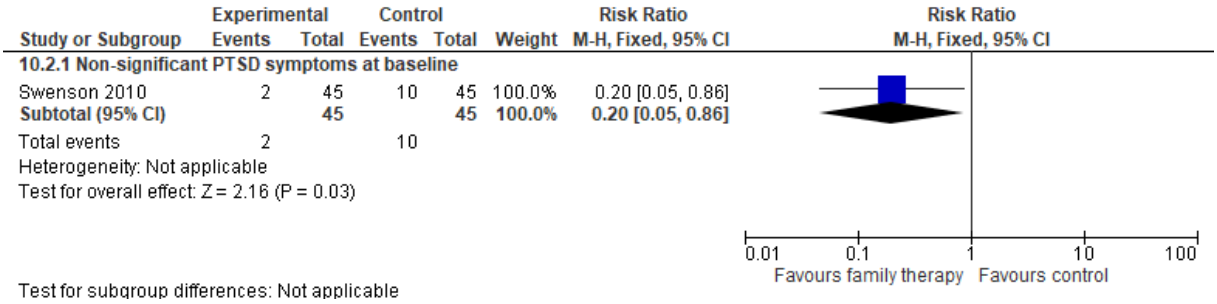


Figure 56: Multisystemic family therapy versus enhanced TAU for the early treatment (1-3 months) of non-significant PTSD symptoms in children: Discontinuation (loss to follow-up)



Multisystemic family therapy versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Figure 57: Multisystemic family therapy versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: PTSD

symptomatology self-rated (UCLA PTSD-RI change score); Subthreshold PTSD symptoms (below threshold but ≥50% maximum score on scale)

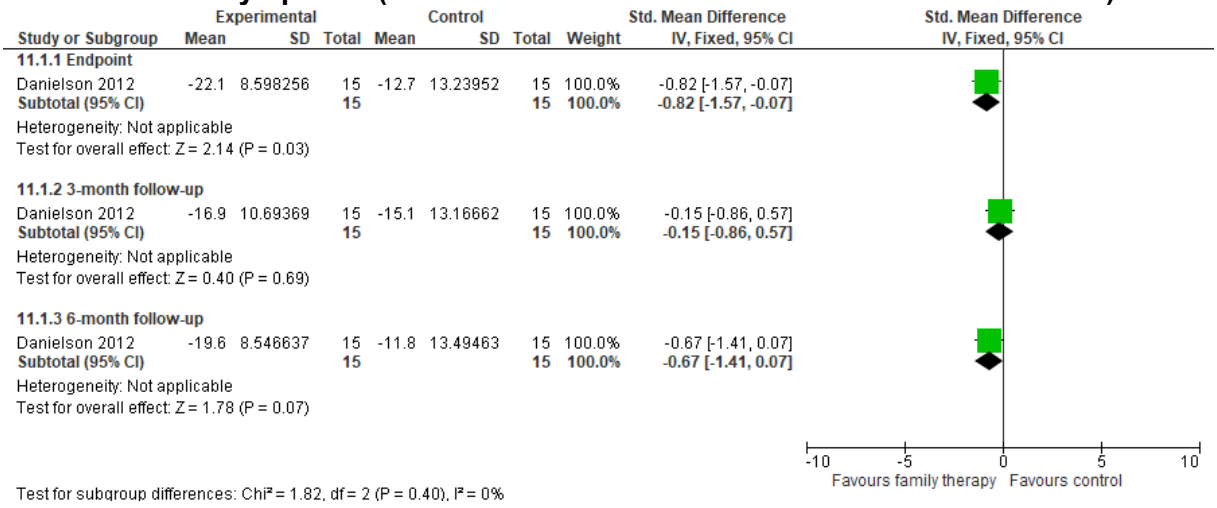


Figure 58: Multisystemic family therapy versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Depression symptoms (CDI change score); Subthreshold PTSD symptoms (below threshold but ≥50% maximum score on scale)

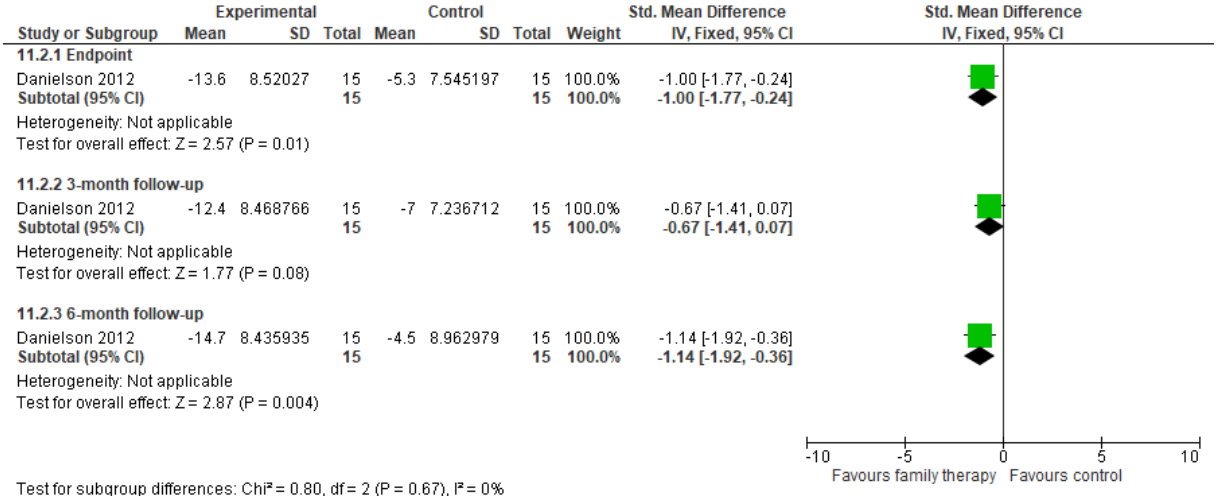


Figure 59: Multisystemic family therapy versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Emotional and behavioural problems: Internalising (BASC-2 Internalizing change score);

Subthreshold PTSD symptoms (below threshold but ≥50% maximum score on scale)

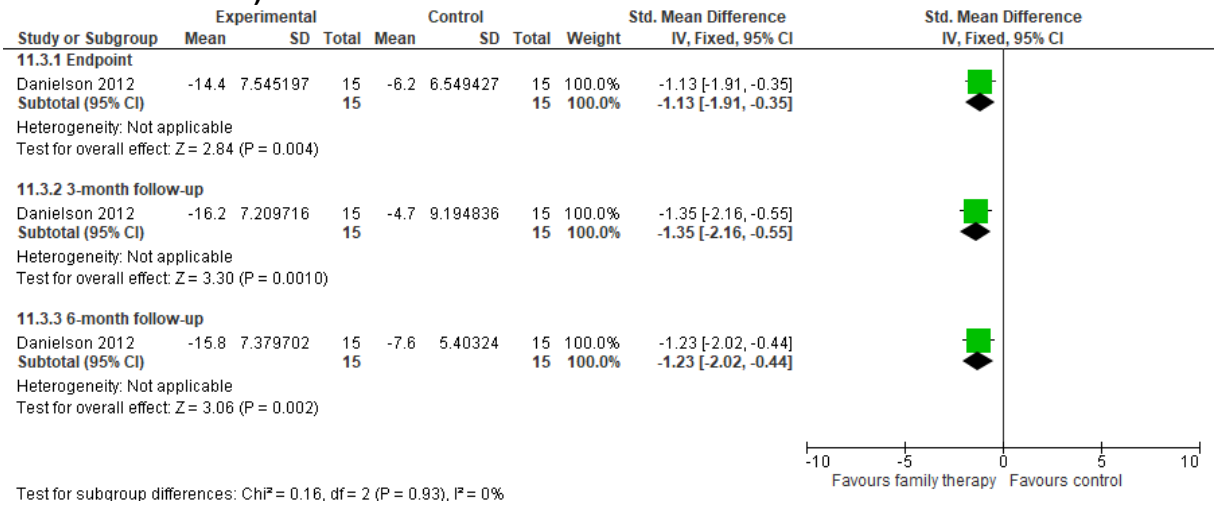


Figure 60: Multisystemic family therapy versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Emotional and behavioural problems: Externalising (BASC-2 Externalizing change score); Subthreshold PTSD symptoms (below threshold but ≥50% maximum score on scale)

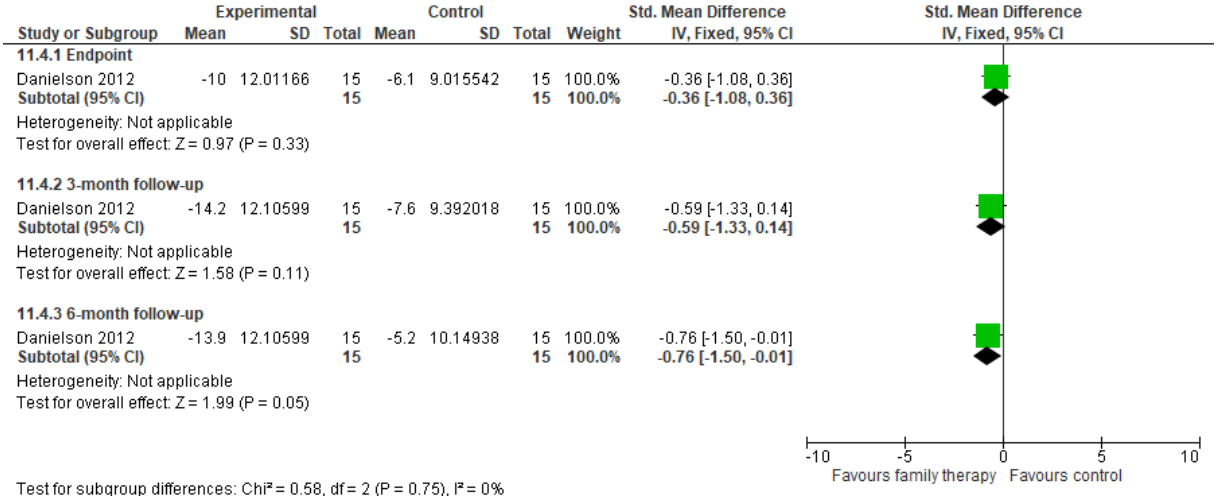


Figure 61: Multisystemic family therapy versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Substance use (TLFB: Number of days with substance use over the past 90 days, change

score); Subthreshold PTSD symptoms (below threshold but ≥50% maximum score on scale)

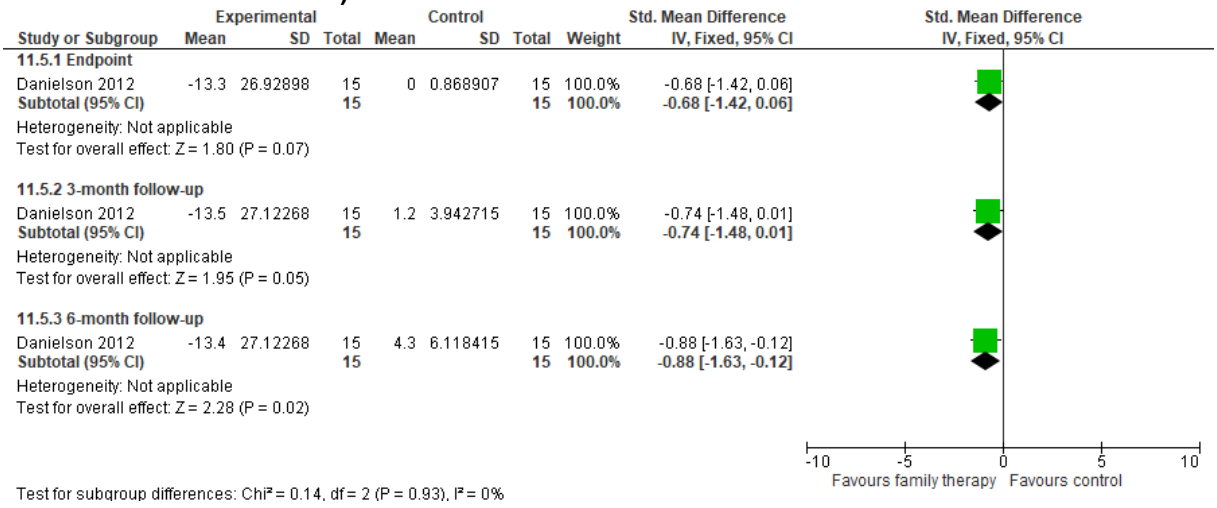


Figure 62: Multisystemic family therapy versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Family conflict (FES-A: Conflict, adolescent report, change score); Subthreshold PTSD symptoms (below threshold but ≥50% maximum score on scale)

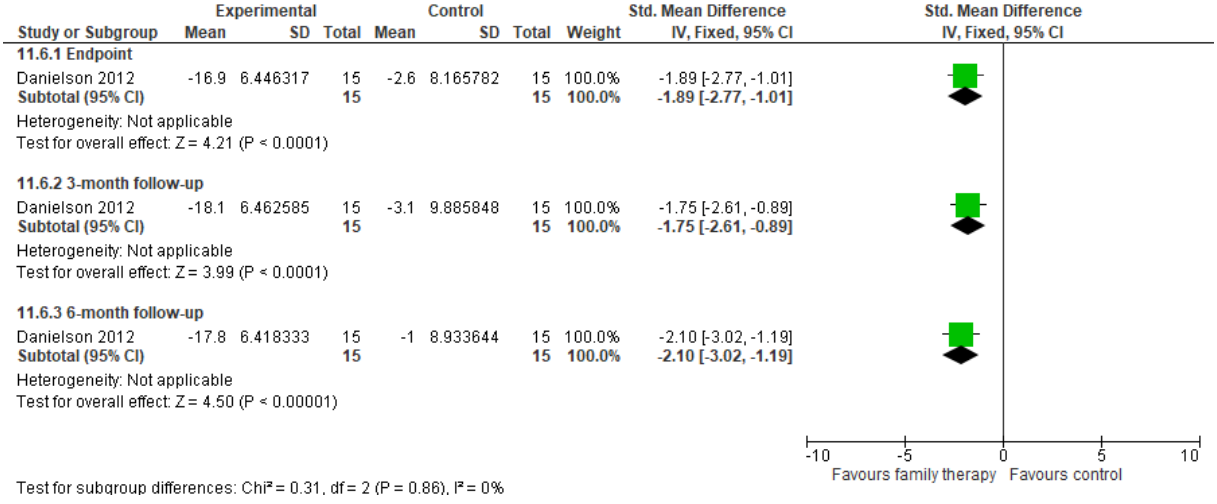
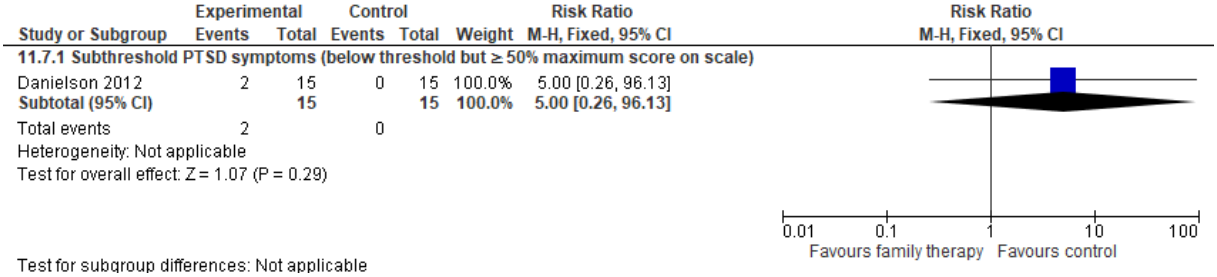


Figure 63: Multisystemic family therapy versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children: Discontinuation (loss to follow-up)



Psychological: Self-help (without support)

Self-help (without support) versus waitlist or TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Figure 64: Self-help (without support) versus waitlist or TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: PTSD symptomatology self-rated at endpoint (CPSS/CRIES/TSCC Post-traumatic Stress change score)

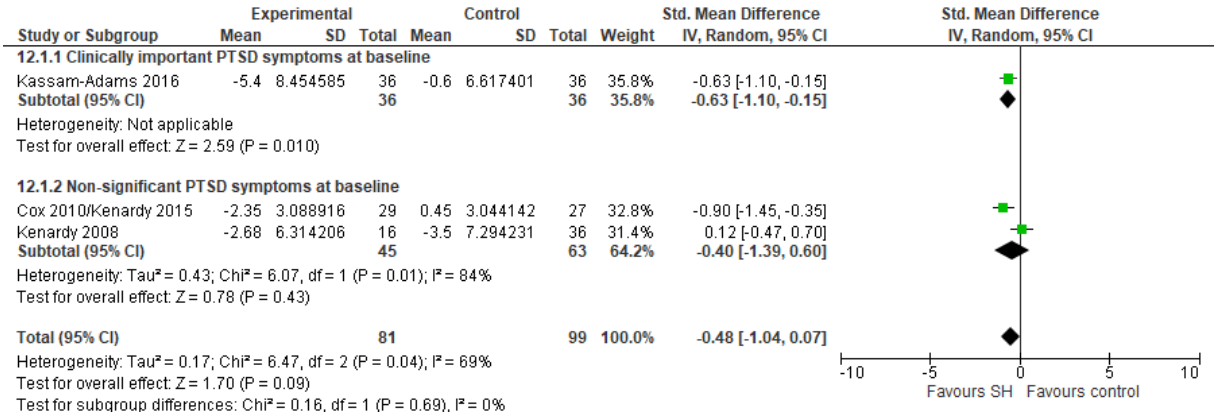


Figure 65: Self-help (without support) versus waitlist or TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: PTSD symptomatology self-rated at 6-week follow-up (CPSS change score)

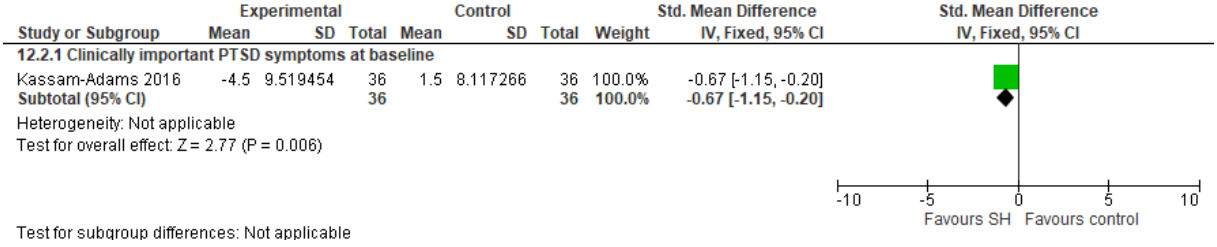


Figure 66: Self-help (without support) versus waitlist or TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: PTSD symptomatology self-rated at 5-month follow-up (CRIES/TSCC Post-traumatic Stress change score)

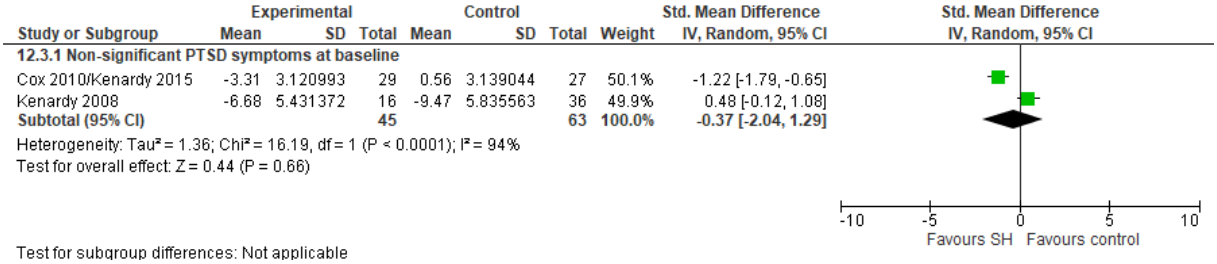


Figure 67: Self-help (without support) versus waitlist or TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Anxiety symptoms (SCAS/TSCC Anxiety change score); Non-significant PTSD symptoms at baseline

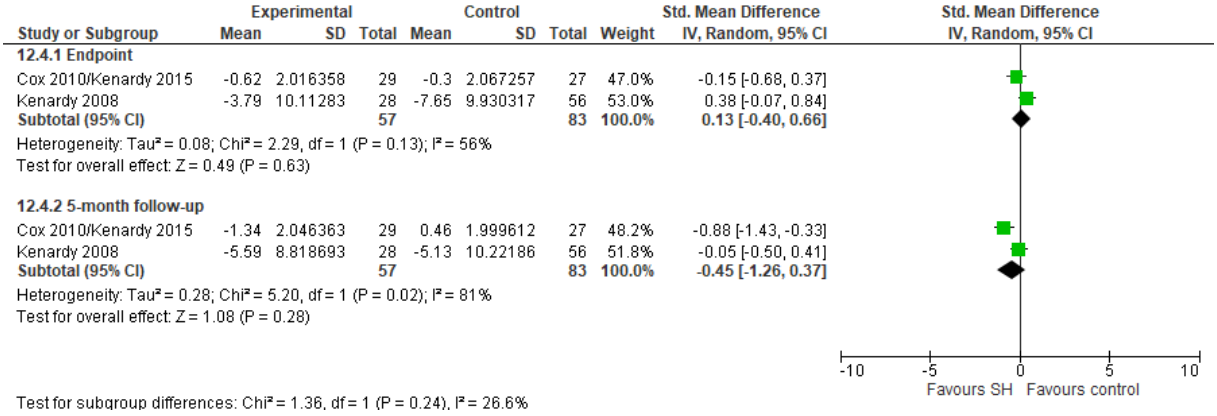


Figure 68: Self-help (without support) versus waitlist or TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Depression symptoms (TSCC Depression change score); Non-significant PTSD symptoms at baseline

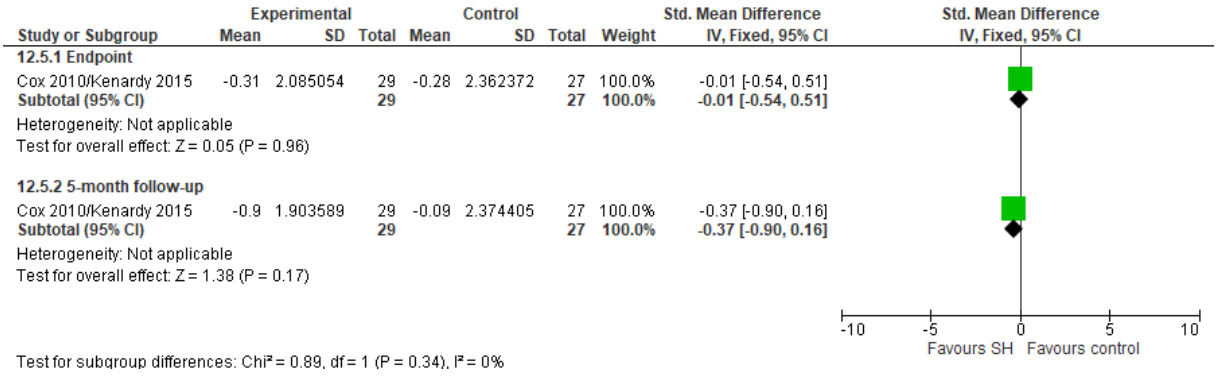


Figure 69: Self-help (without support) versus waitlist or TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Dissociative symptoms (TSCC Dissociation change score); Non-significant PTSD symptoms at baseline

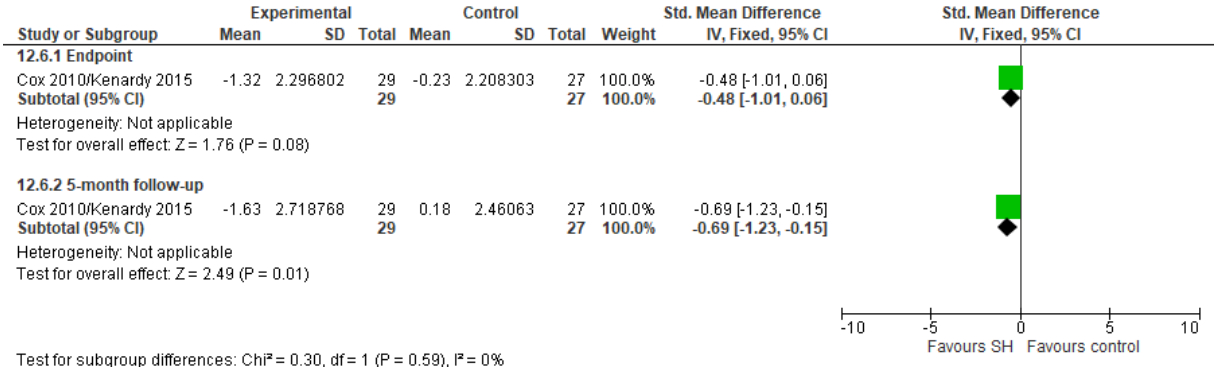


Figure 70: Self-help (without support) versus waitlist or TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Emotional and behavioural problems: Anger (TSCC Anger change score); Non-significant PTSD symptoms at baseline

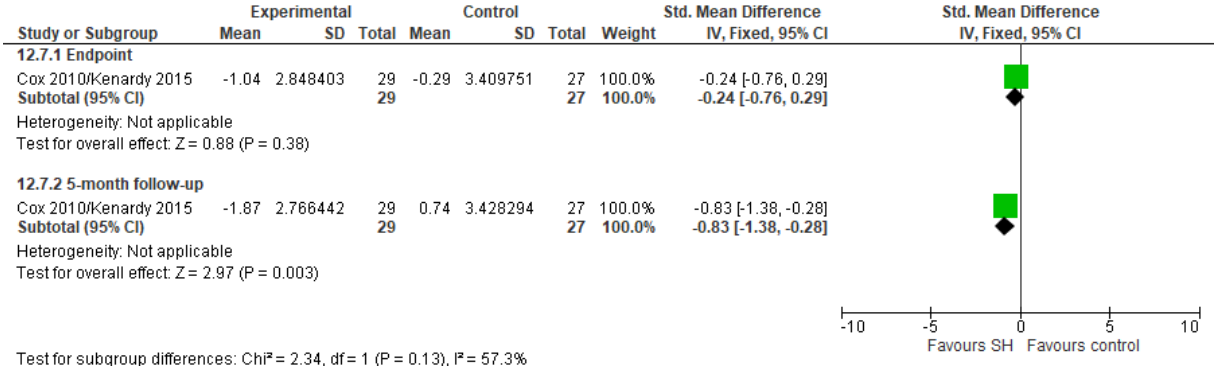


Figure 71: Self-help (without support) versus waitlist or TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Quality of life (PedsQL change score); Clinically important PTSD symptoms at baseline

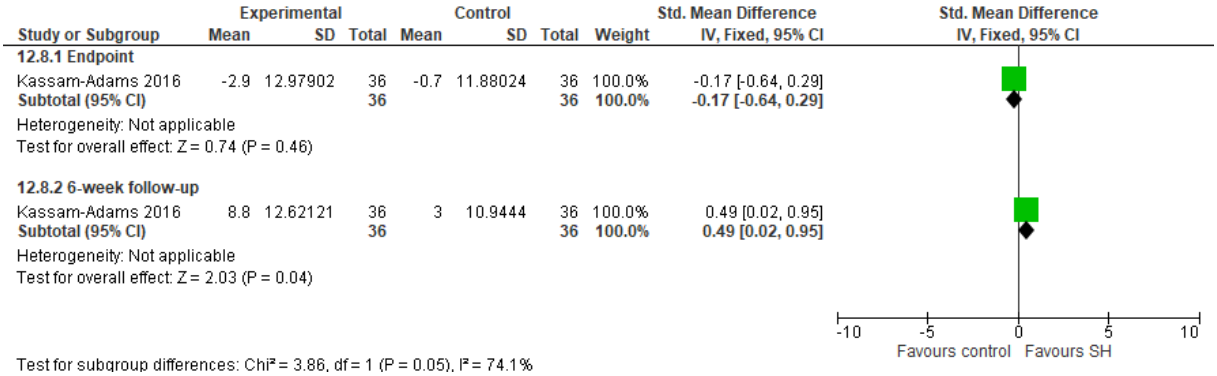
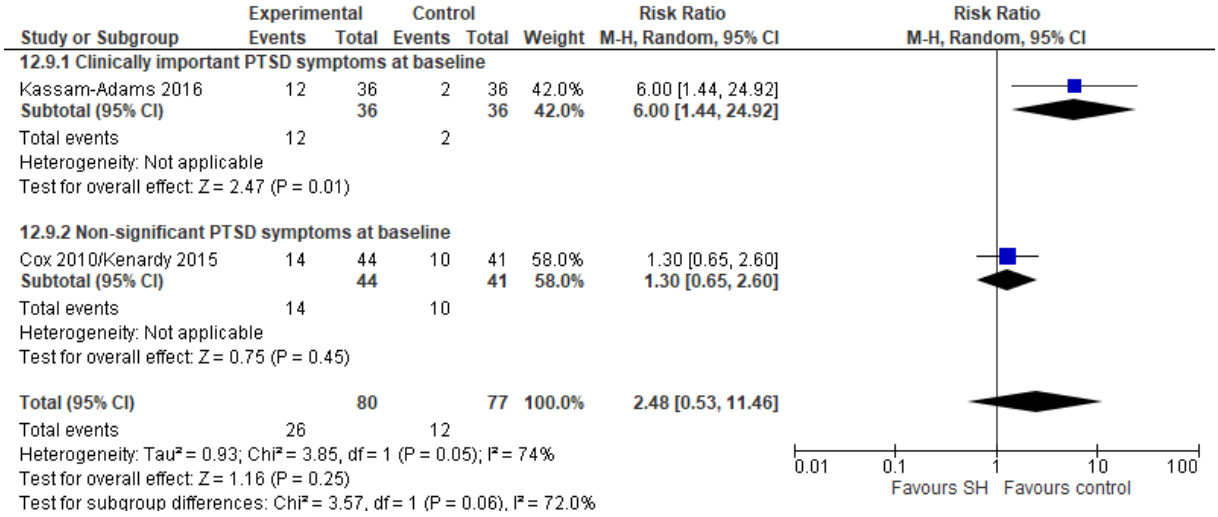


Figure 72: Self-help (without support) versus waitlist or TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Discontinuation (loss to follow-up)



Psychosocial: Psychoeducation

Brief psychoeducational intervention versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Figure 73: Brief psychoeducational intervention versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: PTSD symptomatology self-rated (CPSS change score); Clinically important PTSD symptoms at baseline

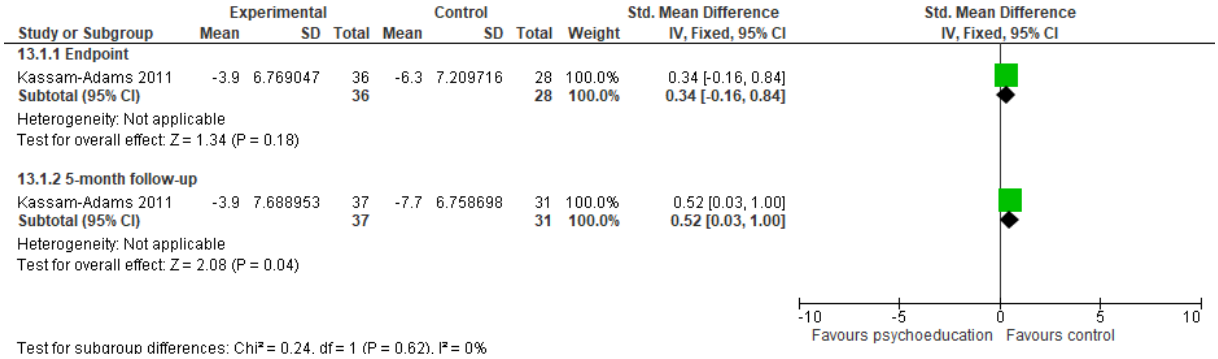


Figure 74: Brief psychoeducational intervention versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children:

PTSD symptomatology clinician-rated (UCLA PTSD-RI change score); Non-significant PTSD symptoms at baseline

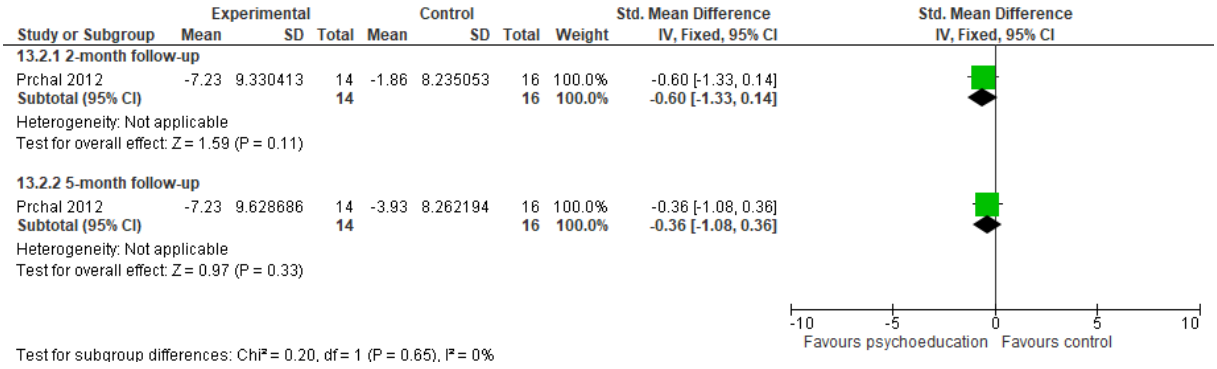


Figure 75: Brief psychoeducational intervention versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: PTSD (number of people scoring above clinical threshold on validated scale); Clinically important PTSD symptoms at baseline

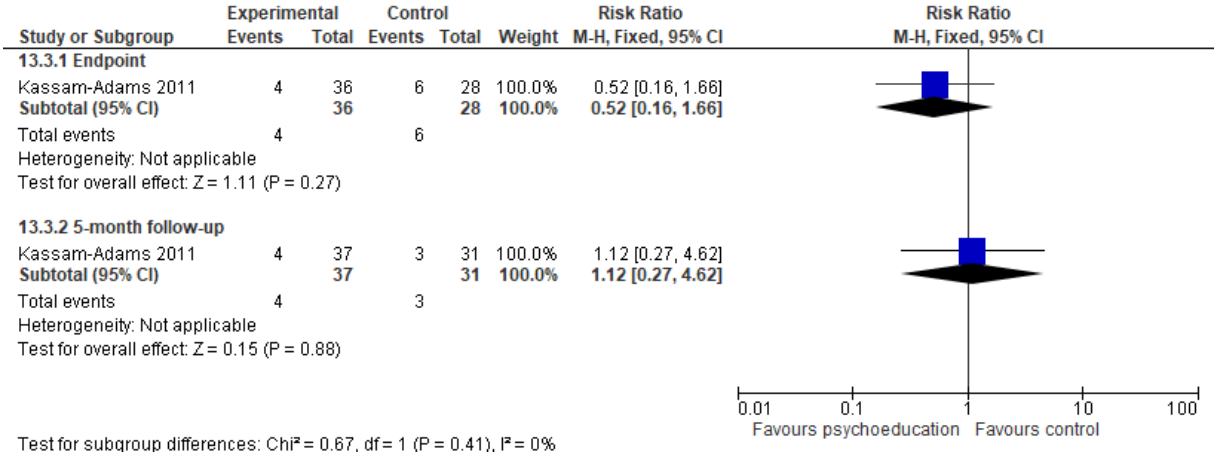


Figure 76: Brief psychoeducational intervention versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Anxiety symptoms (SCAS change score); Non-significant PTSD symptoms at baseline

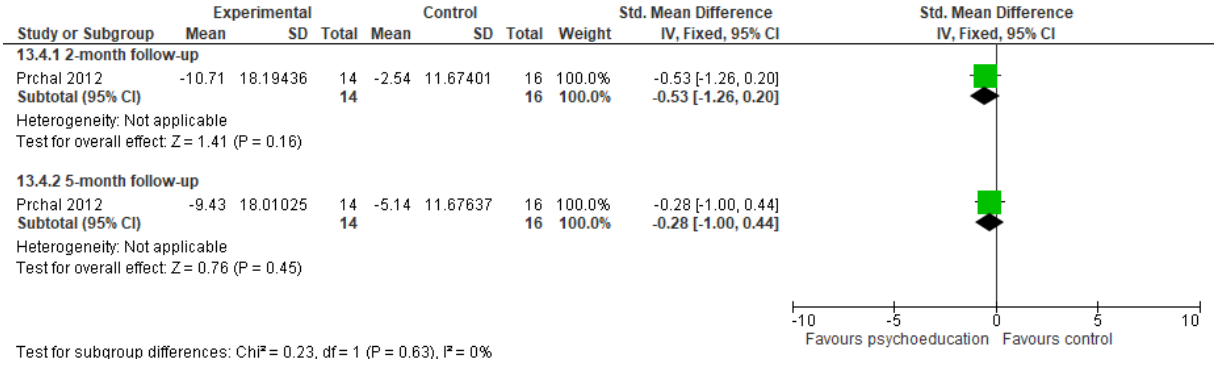


Figure 77: Brief psychoeducational intervention versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Depression symptoms (CES-D change score); Clinically important PTSD symptoms at baseline

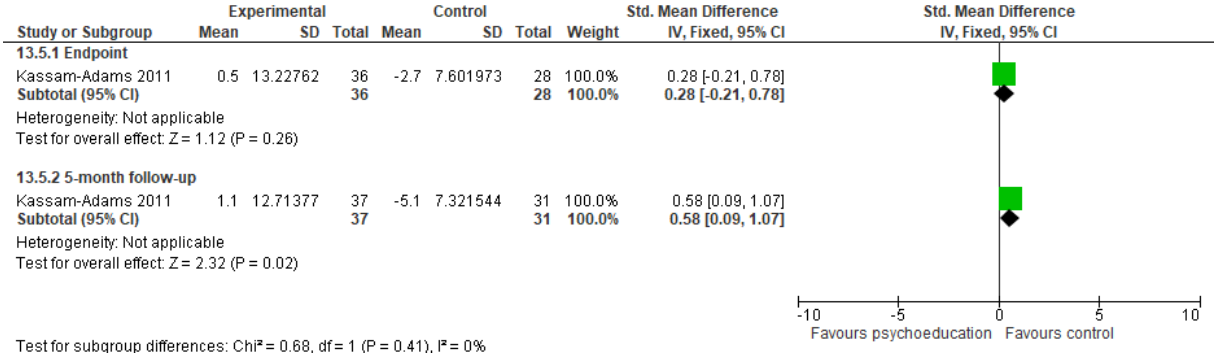


Figure 78: Brief psychoeducational intervention versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Quality of life at endpoint (PedsQL Physical health/Physical functioning change score)

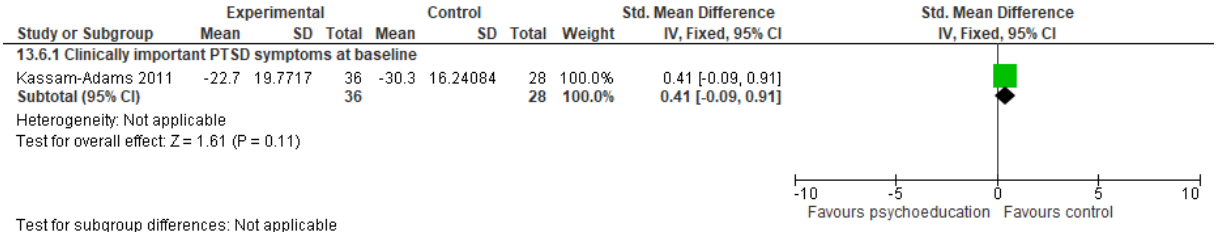


Figure 79: Brief psychoeducational intervention versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Quality of life at 2-month follow-up (KIDSCREEN-27 Global HRQoL T-scores, change score)

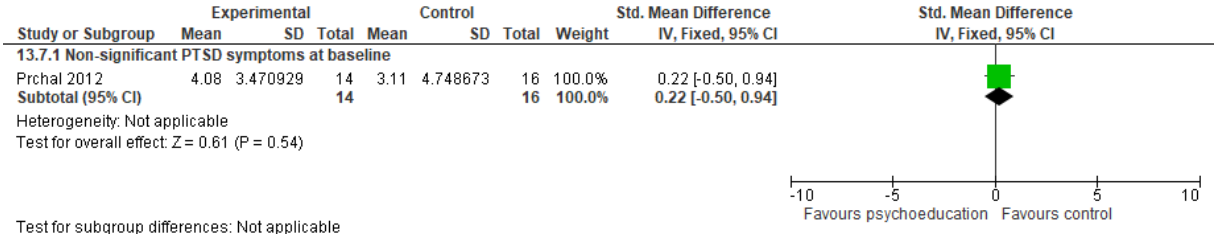


Figure 80: Brief psychoeducational intervention versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children:

Quality of life at 5-month follow-up (PedsQL Physical health/Physical functioning/KIDSCREEN-27 Global HRQoL T-scores change score)

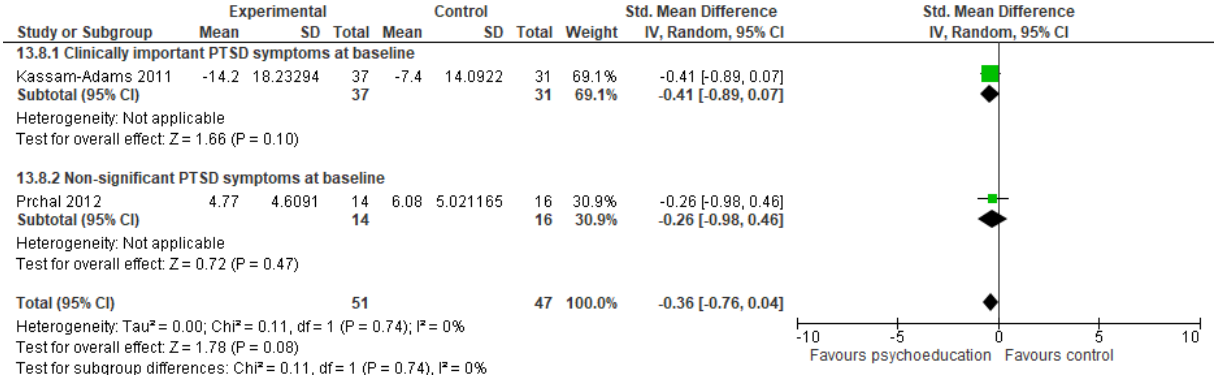
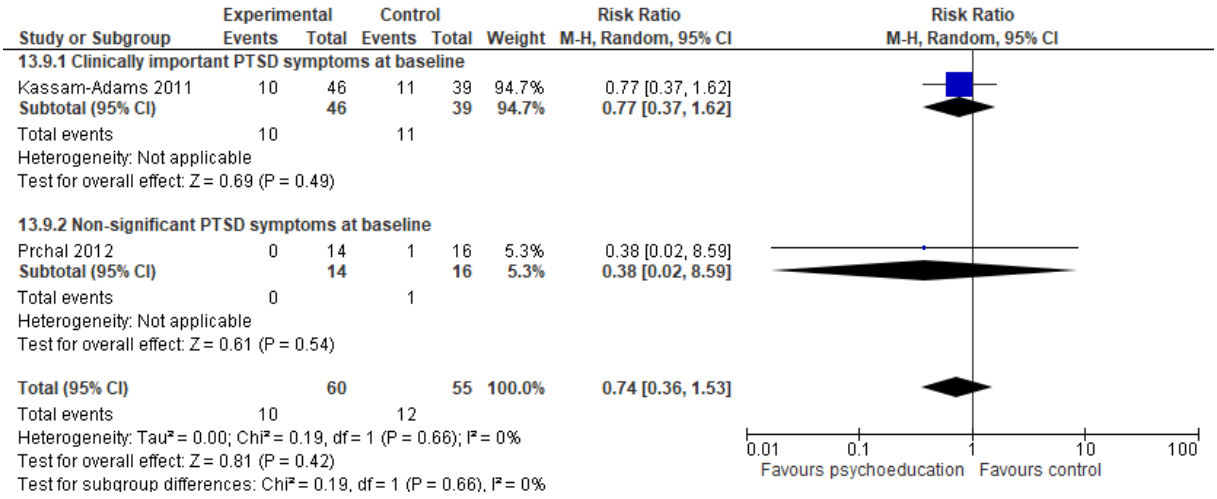


Figure 81: Brief psychoeducational intervention versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Discontinuation (loss to follow-up)



Psychoeducational group versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone)

Figure 82: Psychoeducational group versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): PTSD symptomatology self-rated (CRIES change score)

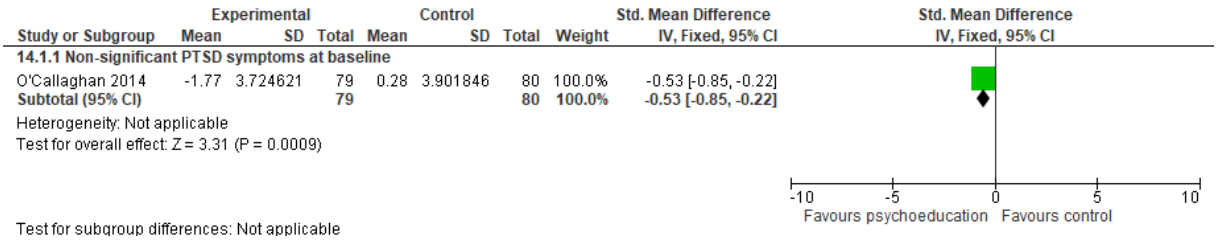


Figure 83: Psychoeducational group versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): Emotional and behavioural problems (AYPA Conduct problems/externalizing change score)

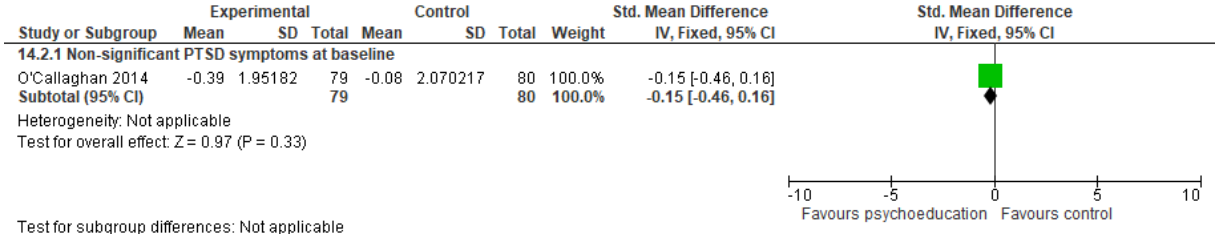


Figure 84: Psychoeducational group versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): Depression or anxiety symptoms (AYPA Depression/anxiety change score)

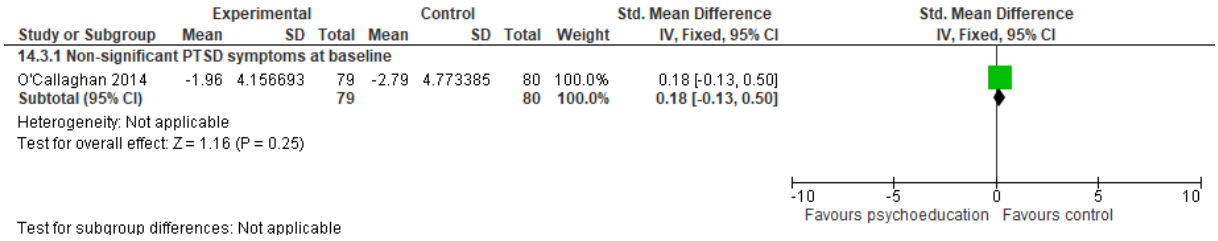
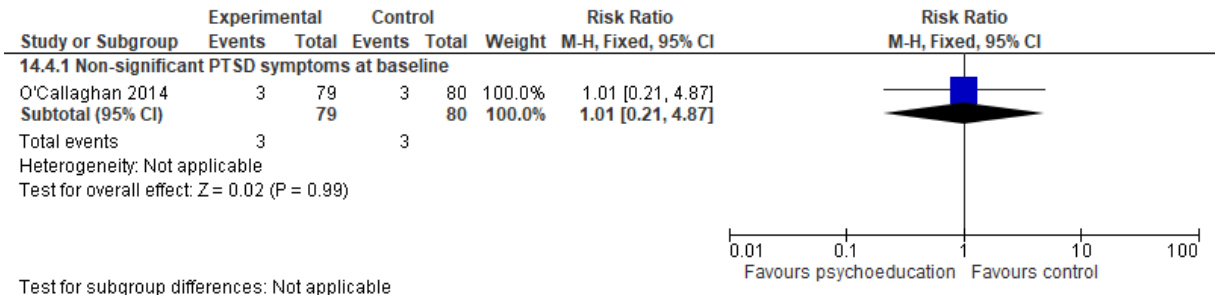


Figure 85: Psychoeducational group versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone): Discontinuation (loss to follow-up)



Other non-pharmacological: Massage

Massage + self-help with support versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Figure 86: Massage + self-help with support versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children:

PTSD symptomatology self-rated at 5-month follow-up (UCLA PTSD-RI change score)

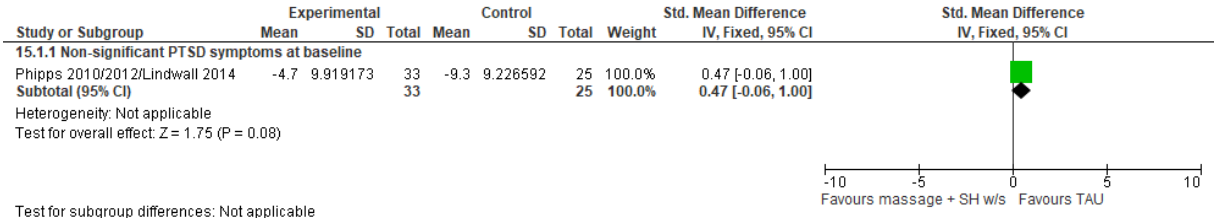


Figure 87: Massage + self-help with support versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Depression symptoms at 5-month follow-up (CDI change score)

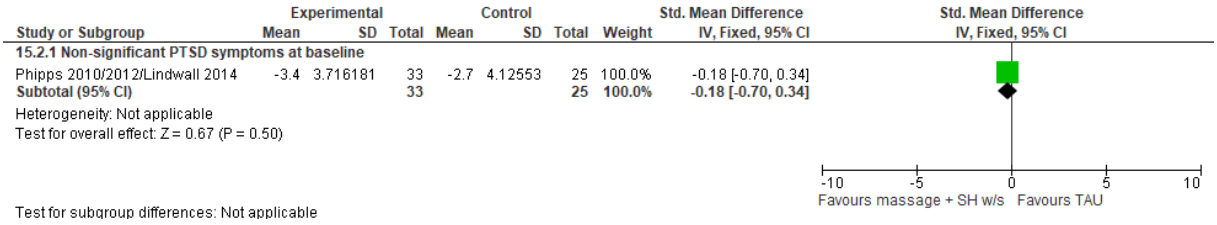
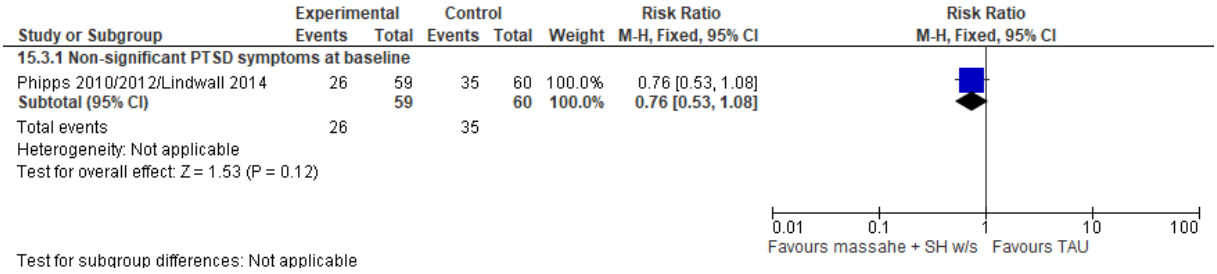


Figure 88: Massage + self-help with support versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children: Discontinuation (loss to follow-up)



Appendix F – GRADE tables

GRADE tables for "For children and young people at risk of PTSD, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?"

Psychological: Trauma-focused CBT

Trauma-focused CBT versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone)

Quality assessment							No of patients		Effect			
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Trauma-focused CBT group**	**Waitlist**	**Relative (95% CI)**	**Absolute**	**Quality**	**Importance**
PTSD symptomatology self-rated at endpoint (follow-up 4-16 weeks; measured with: CRIES/CPSS/UCLA PTSD-RI change score; Better indicated by lower values)												
6	randomised trials	very serious[1]	very serious[2]	no serious indirectness	no serious imprecision	none	798	772	-	SMD 0.82 lower (1.22 to 0.42 lower)	VERY LOW	CRITICAL
PTSD symptomatology self-rated at 2-6 month follow-up (follow-up 2-6 months; measured with: CRIES/CPSS/UCLA PTSD-RI change score; Better indicated by lower values)												
5	randomised trials	very serious[1]	very serious[2]	no serious indirectness	no serious imprecision	none	810	867	-	SMD 0.55 lower (1.04 to 0.05 lower)	VERY LOW	CRITICAL
PTSD symptomatology clinician-rated (follow-up mean 9 weeks; measured with: UCLA PTSD-RI change score; Better indicated by lower values)												
1	randomised trials	no serious risk	no serious inconsistency	no serious indirectness	serious[3]	none	24	24	-	SMD 1.96 lower (2.65 to 1.26 lower)	MODERATE	CRITICAL

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trauma-focused CBT group	Waitlist	Relative (95% CI)	Absolute	Quality	Importance
		of bias										
PTSD at endpoint (follow-up 4-16 weeks; assessed with: Number with diagnosis or who met criteria for PTSD)												
4	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	161/452 (35.6%)	194/384 (50.5%)	RR 0.71 (0.61 to 0.83)	147 fewer per 1000 (from 86 fewer to 197 fewer)	MODERATE	CRITICAL
PTSD at 6-month follow-up (follow-up mean 6 months; assessed with: Number who met criteria for PTSD)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	62/207 (30%)	56/197 (28.4%)	RR 1.05 (0.78 to 1.43)	14 more per 1000 (from 63 fewer to 122 more)	VERY LOW	CRITICAL
Anxiety symptoms at endpoint (follow-up 5-16 weeks; measured with: SCARED change score; Better indicated by lower values)												
3	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	453	429	-	SMD 0.26 lower (0.44 to 0.08 lower)	LOW	IMPORTANT
Anxiety symptoms at 2-6 month follow-up (follow-up 2-6 months; measured with: SCARED change score; Better indicated by lower values)												
3	randomised trials	serious[1]	very serious[2]	no serious indirectness	serious[6]	none	450	494	-	SMD 0.48 lower (1.1 lower to 0.14 higher)	VERY LOW	IMPORTANT
Depression symptoms at endpoint (follow-up 4-5 weeks; measured with: Birleson Depression Inventory change score; Better indicated by lower values)												
4	randomised trials	very serious[1]	serious[7]	no serious indirectness	no serious imprecision	none	667	697	-	SMD 0.29 lower (0.52 to 0.06 lower)	VERY LOW	IMPORTANT
Depression symptoms at 3-6 month follow-up (follow-up 3-6 months; measured with: Birleson Depression Inventory change score; Better indicated by lower values)												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trauma-focused CBT group	Waitlist	Relative (95% CI)	Absolute		
4	randomised trials	very serious[1]	serious[7]	no serious indirectness	no serious imprecision	none	740	795	-	SMD 0.01 higher (0.16 lower to 0.17 higher)	VERY LOW	IMPORTANT
Dissociative symptoms (measured with: A-DES change score; Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[6]	none	79	75	-	SMD 0.3 lower (0.62 lower to 0.01 higher)	LOW	IMPORTANT
Functional impairment at endpoint (follow-up mean 16 weeks; measured with: Child Diagnostic Interview Schedule Sum score; change score; Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	107	47	-	SMD 0.64 lower (0.99 to 0.29 lower)	LOW	IMPORTANT
Functional impairment at 2-month follow-up (follow-up mean 2 months; measured with: Child Diagnostic Interview Schedule Sum score; change score; Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	70	72	-	SMD 1.14 lower (1.5 to 0.79 lower)	LOW	IMPORTANT
Emotional and behavioural problems at endpoint (follow-up mean 5 weeks; measured with: SDQ/CAS change score; Better indicated by lower values)												
2	randomised trials	very serious[1]	serious[7]	no serious indirectness	serious[6]	none	346	382	-	SMD 0.25 lower (0.56 lower to 0.05 higher)	VERY LOW	IMPORTANT
Emotional and behavioural problems at 3-6 month follow-up (follow-up 3-6 months; measured with: SDQ/CAS change score; Better indicated by lower values)												
2	randomised trials	very serious[1]	serious[7]	no serious indirectness	no serious imprecision	none	380	422	-	SMD 0.05 lower (0.28 lower to 0.18 higher)	VERY LOW	IMPORTANT

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trauma-focused CBT group	Waitlist	Relative (95% CI)	Absolute	Quality	Importance
Discontinuation (follow-up 4-16 weeks; assessed with: Number of participants lost to follow-up)												
10	randomised trials	serious[1]	serious[7]	no serious indirectness	very serious[4]	none	52/1265 (4.1%)	30/1223 (2.5%)	RR 1.49 (0.38 to 5.87)	12 more per 1000 (from 15 fewer to 119 more)	VERY LOW	CRITICAL

A-DES=Adolescent Dissociative Experience Scale-II; CAS=Children's Aggression Scale; CBT=cognitive behavioural therapy; CI=confidence interval; CPSS=Child PTSD Symptom Scale; CRIES=Children's Revised Impact of Event Scale; PTSD=post-traumatic stress disorder; RR=risk ratio; SCARED=Screen for Child Anxiety Related Disorders; SDQ=Strength and Difficulties Questionnaires; SMD=standard mean difference; UCLA PTSD-RI=UCLA PTSD-Reaction Index

[1] Risk of bias is high or unclear across multiple domains

[2] Considerable heterogeneity (I2>80%)

[3] OIS not met (N<400)

[4] 95% CI crosses line of no effect and thresholds for both clinically important benefit and harm

[5] OIS not met (events<300)

[6] 95% crosses both line of no effect and threshold for clinically important benefit

[7] Substantial heterogeneity (I2>50%)

Trauma-focused CBT group versus psychoeducational group for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone)

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trauma-focused CBT group	Psychoeducational group	Relative (95% CI)	Absolute	Quality	Importance
PTSD symptomatology clinician-rated at endpoint (follow-up mean 3 weeks; measured with: UCLA PTSD-RI change score; Better indicated by lower values)												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Trauma-focused CBT group**	**Psychoeducational group**	**Relative (95% CI)**	**Absolute**		
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	26	24	-	SMD 0.26 lower (0.82 lower to 0.3 higher)	MODERATE	CRITICAL
PTSD symptomatology clinician-rated at 6-month follow-up (follow-up mean 6 months; measured with: UCLA PTSD-RI change score; Better indicated by lower values)												
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	26	24	-	SMD 0.12 higher (0.44 lower to 0.67 higher)	MODERATE	CRITICAL
Discontinuation (follow-up mean 3 weeks; assessed with: Number of participants lost to follow-up)												
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[3]	none	0/26 (0%)	0/24 (0%)	not pooled	not pooled	MODERATE	CRITICAL

CBT=cognitive behavioural therapy; CI=confidence interval; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference; UCLA PTSD-RI= UCLA PTSD-Reaction Index

[1] 95% CI crosses both line of no effect and threshold for clinically important benefit

[2] 95% CI crosses both line of no effect and threshold for clinically important harm

[3] OIS not met (events<300)

Trauma-focused CBT versus waitlist or TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trauma-focused CBT	Waitlist or TAU	Relative (95% CI)	Absolute		
PTSD symptomatology self-rated (follow-up 8-15 weeks; measured with: UCLA PTSD-RI/CRIES change score; Better indicated by lower values)												
2	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	83	64	-	SMD 0.7 lower (1.04 to 0.37 lower)	VERY LOW	CRITICAL
PTSD symptomatology clinician-rated (follow-up mean 17 weeks; measured with: UCLA PTSD-I change score; Better indicated by lower values)												
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[3]	none	16	16	-	SMD 0.55 lower (1.26 lower to 0.16 higher)	MODERATE	CRITICAL
Depression symptoms (follow-up 8-15 weeks; measured with: CDI/Birleson Depression Inventory change score; Better indicated by lower values)												
2	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	83	64	-	SMD 0.56 lower (0.9 to 0.23 lower)	VERY LOW	IMPORTANT
Emotional and behavioural problems: Internalising (follow-up mean 8 weeks; measured with: HSCL-37A Internalizing change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	45	37	-	SMD 0.08 lower (0.52 lower to 0.35 higher)	VERY LOW	IMPORTANT
Emotional and behavioural problems: Externalising (follow-up mean 8 weeks; measured with: HSCL-37A Externalizing change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[4]	none	45	37	-	SMD 0.19 higher (0.25 lower to 0.62 higher)	VERY LOW	IMPORTANT
Discontinuation (follow-up 8-17 weeks; assessed with: Number of participants lost to follow-up)												
3	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[5]	none	14/99 (14.1%)	11/80 (13.8%)	RR 0.88	17 fewer per 1000 (from 73	LOW	CRITICAL

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trauma-focused CBT	Waitlist or TAU	Relative (95% CI)	Absolute	Quality	Importance
									(0.47 to 1.63)	fewer to 87 more)		

CBT=cognitive behavioural therapy; CDI=Children's Depression Inventory; CI=confidence interval; CRIES=Children's Revised Impact of Event Scale; HSCL-37A=Hopkins Symptom Checklist-37; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference; TAU=treatment as usual

[1] Risk of bias is high or unclear across multiple domains

[2] OIS not met (N<400)

[3] 95% CI crosses both line of no effect and threshold for clinically important benefit

[4] 95% CI crosses both line of no effect and threshold for clinically important harm

[5] 95% CI crosses line of no effect and thresholds for both clinically important benefit and harm

Trauma-focused CBT versus psychoeducation and supportive intervention or attention-placebo for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trauma-focused CBT	Psychoeducation and supportive intervention or attention-placebo	Relative (95% CI)	Absolute	Quality	Importance
PTSD symptomatology self-rated at endpoint (follow-up mean 8 weeks; measured with: TSCC/CITES-R PTSD subscale change score; Better indicated by lower values)												
2	randomised trials	very serious [1]	serious[2]	no serious indirectness	very serious[3]	none	79	46	-	SMD 0.09 higher (0.73 lower to 0.9 higher)	VERY LOW	CRITICAL
PTSD symptomatology self-rated at 6-month follow-up (follow-up mean 6 months; measured with: TSCC change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[4]	none	61	27	-	SMD 0.18 higher (0.27 lower to 0.63 higher)	VERY LOW	CRITICAL
PTSD symptomatology parent-rated at endpoint (measured with: K-SADS-E: PTSD change score; Better indicated by lower values)												
1	randomised trials	serious [1]	no serious inconsistency	no serious indirectness	very serious[3]	none	21	23	-	SMD 0.01 higher (0.58 lower to 0.6 higher)	VERY LOW	CRITICAL
PTSD symptomatology parent-rated at 3-month follow-up (follow-up mean 3 months; measured with: K-SADS-E: PTSD change score; Better indicated by lower values)												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trauma-focused CBT	Psychoeducation and supportive intervention or attention-placebo	Relative (95% CI)	Absolute		
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[4]	none	21	23	-	SMD 0.27 higher (0.32 lower to 0.87 higher)	VERY LOW	CRITICAL
PTSD at endpoint (assessed with: Number of participants scoring above clinical threshold on a validated scale)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	very serious[3]	none	4/64 (6.3%)	1/29 (3.4%)	RR 1.81 (0.21 to 15.51)	28 more per 1000 (from 27 fewer to 500 more)	VERY LOW	CRITICAL
PTSD at 6-month follow-up (follow-up mean 6 months; assessed with: Number of participants scoring above clinical threshold on a validated scale)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	very serious[3]	none	4/61 (6.6%)	2/27 (7.4%)	RR 0.89 (0.17 to 4.54)	8 fewer per 1000 (from 61 fewer to 262 more)	VERY LOW	CRITICAL
Depression symptoms at endpoint (measured with: CDI change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[4]	none	74	39	-	SMD 0.16 higher (0.23 lower to 0.55 higher)	VERY LOW	IMPORTANT
Depression symptoms at 6-month follow-up (follow-up mean 6 months; measured with: CDI change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[4]	none	71	35	-	SMD 0.32 higher (0.09 lower	VERY LOW	IMPORTANT

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trauma-focused CBT	Psychoeducation and supportive intervention or attention-placebo	Relative (95% CI)	Absolute	Quality	Importance
										to 0.73 higher)		
Emotional and behavioural problems at endpoint (measured with: CBCL Total raw scores; change score; Better indicated by lower values)												
1	randomised trials	serious [1]	no serious inconsistency	no serious indirectness	serious[5]	none	21	23	-	SMD 0.29 lower (0.89 lower to 0.3 higher)	LOW	IMPORTANT
Emotional and behavioural problems at 3-month follow-up (follow-up mean 3 months; measured with: CBCL Total raw scores; change score; Better indicated by lower values)												
1	randomised trials	serious [1]	no serious inconsistency	no serious indirectness	serious[5]	none	21	23	-	SMD 0.31 lower (0.9 lower to 0.29 higher)	LOW	IMPORTANT
Emotional and behavioural problems: Internalising at endpoint (follow-up 8-9 weeks; measured with: CBCL Internalizing T-scores, change score; Better indicated by lower values)												
2	randomised trials	very serious [1]	serious[2]	no serious indirectness	serious[4]	none	104	64	-	SMD 0.51 higher (0.05 lower to 1.08 higher)	VERY LOW	IMPORTANT
Emotional and behavioural problems: Internalising at 6-month follow-up (follow-up mean 6 months; measured with: CBCL Internalizing T-scores, change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[6]	none	89	46	-	SMD 0.39 higher (0.03 to	VERY LOW	IMPORTANT

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trauma-focused CBT	Psychoeducation and supportive intervention or attention-placebo	Relative (95% CI)	Absolute	Quality	Importance
										0.75 higher)		
Emotional and behavioural problems: Externalising at endpoint (follow-up 8-9 weeks; measured with: CBCL Externalizing T-scores, change score; Better indicated by lower values)												
2	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[4]	none	104	64	-	SMD 0.19 higher (0.13 lower to 0.51 higher)	VERY LOW	IMPORTANT
Emotional and behavioural problems: Externalising at 6-month follow-up (follow-up mean 6 months; measured with: CBCL Externalizing T-scores, change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[6]	none	89	46	-	SMD 0.41 higher (0.05 to 0.77 higher)	VERY LOW	IMPORTANT
Global functioning (follow-up mean 8 weeks; measured with: CGAS change score; Better indicated by higher values)												
1	randomised trials	serious [1]	no serious inconsistency	no serious indirectness	serious[5]	none	11	15	-	SMD 0.4 lower (1.19 lower to 0.38 higher)	LOW	IMPORTANT
Discontinuation (follow-up 8-9 weeks; assessed with: Number of participants lost to follow-up)												
2	randomised trials	serious [1]	no serious inconsistency	no serious indirectness	serious[4]	none	33/133 (24.8%)	15/79 (19%)	RR 1.39 (0.81 to 2.38)	74 more per 1000 (from 36	LOW	CRITICAL

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trauma-focused CBT	Psychoeducation and supportive intervention or attention-placebo	Relative (95% CI)	Absolute	Quality	Importance
										fewer to 262 more)		

CBCL=child behaviour checklist; CBT=cognitive behavioural therapy; CDI= Children's Depression Inventory; CITES-R=Children's Impact of Event Scale-Revised; CI=confidence interval; CGAS=Children's Global Assessment Scale; K-SADS-E=Kiddie Schedule for Affective Disorders and Schizophrenia; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference; TSCC=Trauma Symptom Checklist for Children

[1] *Risk of bias is high or unclear across multiple domains*

[2] *Substantiall heterogeneity (I2>50%)*

[3] *95% CI crosses line of no effect and thresholds for both clinically important benefit and harm*

[4] *95% CI crosses both line of no effect and threshold for clinically important harm*

[5] *95% CI crosses both line of no effect and threshold for clinically important benefit*

[6] *OIS not met (N<400)*

Trauma-focused CBT versus eye movement desensitisation and reprocessing (EMDR) for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trauma-focused CBT	Eye movement desensitisation and reprocessing (EMDR)	Relative (95% CI)	Absolute	Quality	Importance
PTSD symptomatology self-rated at endpoint (follow-up mean 4 weeks; measured with: UCLA PTSD-RI change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[2]	none	19	21	-	SMD 0.22 higher (0.41 lower to 0.84 higher)	VERY LOW	CRITICAL
PTSD symptomatology self-rated at 3-month follow-up (follow-up mean 3 months; measured with: UCLA PTSD-RI change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[2]	none	19	21	-	SMD 0.44 higher (0.19 lower to 1.06 higher)	VERY LOW	CRITICAL
Depression symptoms at endpoint (follow-up mean 4 weeks; measured with: Birleson Depression Inventory change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[3]	none	19	21	-	SMD 0.22 lower (0.84 lower to 0.4 higher)	VERY LOW	IMPORTANT

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trauma-focused CBT	Eye movement desensitisation and reprocessing (EMDR)	Relative (95% CI)	Absolute	Quality	Importance
Depression symptoms at 3-month follow-up (follow-up mean 3 months; measured with: Birleson Depression Inventory change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[2]	none	19	21	-	SMD 0.34 higher (0.29 lower to 0.96 higher)	VERY LOW	IMPORTANT
Anxiety symptoms at endpoint (follow-up mean 4 weeks; measured with: MASC change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[2]	none	19	21	-	SMD 0.55 higher (0.08 lower to 1.18 higher)	VERY LOW	IMPORTANT
Anxiety symptoms at 3-month follow-up (follow-up mean 3 months; measured with: MASC change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[2]	none	19	21	-	SMD 0.35 higher (0.27 lower to 0.98 higher)	VERY LOW	IMPORTANT

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Trauma-focused CBT	Eye movement desensitisation and reprocessing (EMDR)	Relative (95% CI)	Absolute	Quality	Importance
Emotional and behavioural problems at 3-month follow-up (follow-up mean 3 months; measured with: CBCL Total raw scores; change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[2]	none	26	26	-	SMD 0.27 higher (0.27 lower to 0.82 higher)	VERY LOW	IMPORTANT
Discontinuation (follow-up mean 4 weeks; assessed with: Number of participants lost to follow-up)												
1	randomised trials	serious [1]	no serious inconsistency	no serious indirectness	serious[2]	none	6/26 (23.1%)	8/26 (30.8%)	RR 0.75 (0.3 to 1.86)	77 fewer per 1000 (from 215 fewer to 265 more)	LOW	CRITICAL

CBCL= Child Behaviour Checklist; CBT=cognitive behavioural therapy; CI=confidence interval; EMDR=eye movement desensitisation and reprocessing; MASC=Multidimensional Anxiety Scale for Children; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference; UCLA PTSD-RI=UCLA PTSD-Reaction Index

[1] Risk of bias is high or unclear across multiple domains

[2] 95% CI crosses both line of no effect and threshold for clinically important harm

[3] 95% CI crosses both line of no effect and threshold for clinically important benefit

Psychological: Non-trauma-focused CBT

Child and caregiver CBT intervention versus psychoeducation and supportive intervention for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Child and caregiver CBT intervention	Psychoeducation and supportive intervention	Relative (95% CI)	Absolute	Quality	Importance
PTSD symptomatology self-rated at endpoint (follow-up mean 4 weeks; measured with: TSCC: Post-traumatic Stress change score; Better indicated by lower values)												
1	randomised trials	serious [1]	no serious inconsistency	no serious indirectness	serious [2]	none	53	53	-	SMD 0.68 lower (1.07 to 0.29 lower)	LOW	CRITICAL
PTSD symptomatology self-rated at 3-month follow-up (follow-up mean 3 months; measured with: TSCC: Post-traumatic Stress change score; Better indicated by lower values)												
1	randomised trials	serious [1]	no serious inconsistency	no serious indirectness	serious [2]	none	53	53	-	SMD 0.58 lower (0.97 to 0.19 lower)	LOW	CRITICAL
Anxiety symptoms at endpoint (follow-up mean 4 weeks; measured with: TSCC: Anxiety change score; Better indicated by lower values)												
1	randomised trials	serious [1]	no serious inconsistency	no serious indirectness	serious [2]	none	53	53	-	SMD 0.8 lower (1.2 to 0.41 lower)	LOW	IMPORTANT
Anxiety symptoms at 3-month follow-up (follow-up mean 3 months; measured with: TSCC: Anxiety change score; Better indicated by lower values)												
1	randomised trials	serious [1]	no serious inconsistency	no serious	serious [2]	none	53	53	-	SMD 0.44 lower (0.83	LOW	IMPORTANT

Quality assessment							No of patients		Effect			
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Child and caregiver CBT intervention**	**Psychoeducation and supportive intervention**	**Relative (95% CI)**	**Absolute**	**Quality**	**Importance**
				indirectness						to 0.06 lower)		
Dissociative symptoms at endpoint (follow-up mean 4 weeks; measured with: TSCC: Dissociation change score; Better indicated by lower values)												
1	randomised trials	serious [1]	no serious inconsistency	no serious indirectness	serious [2]	none	53	53	-	SMD 0.4 lower (0.78 to 0.01 lower)	LOW	IMPORTANT
Dissociative symptoms at 3-month follow-up (follow-up mean 3 months; measured with: TSCC: Dissociation change score; Better indicated by lower values)												
1	randomised trials	serious [1]	no serious inconsistency	no serious indirectness	serious [3]	none	53	53	-	SMD 0.34 lower (0.72 lower to 0.05 higher)	LOW	IMPORTANT

CBT=cognitive behavioural therapy; CI=confidence interval; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standard mean difference; TSCC=Trauma Symptom Checklist for Children

[1] Risk of bias is high or unclear across multiple domains

[2] OIS not met (N<400)

[3] 95% CI crosses both line of no effect and threshold for clinically important benefit

Psychological: Psychologically-focused debriefing

Single session debriefing versus TAU/attention-placebo for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Single session debriefing	TAU/attention-placebo	Relative (95% CI)	Absolute	Quality	Importance
PTSD symptomatology self-rated at 8-month follow-up (follow-up mean 8 months; measured with: CRIES change score; Better indicated by lower values)												
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	70	62	-	SMD 0.27 higher (0.07 lower to 0.62 higher)	MODERATE	CRITICAL
PTSD symptomatology clinician-rated at 2-month follow-up (follow-up mean 2 months; measured with: IBS-KJ standardized clinical interview change score; Better indicated by lower values)												
1	randomised trials	serious[2]	no serious inconsistency	no serious indirectness	serious[3]	none	49	50	-	SMD 0.01 higher (0.39 lower to 0.4 higher)	LOW	CRITICAL
PTSD symptomatology clinician-rated at 6-month follow-up (follow-up mean 6 months; measured with: IBS-KJ standardized clinical interview change score; Better indicated by lower values)												
1	randomised trials	serious[2]	no serious inconsistency	no serious indirectness	serious[3]	none	49	50	-	SMD 0.07 lower (0.47 lower to 0.32 higher)	LOW	CRITICAL
PTSD diagnosis at 8-month follow-up (follow-up mean 8 months; assessed with: Number of people who had a diagnosis of PTSD)												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Single session debriefing	TAU/attention-placebo	Relative (95% CI)	Absolute		
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[4]	none	10/70 (14.3%)	7/62 (11.3%)	RR 1.27 (0.51 to 3.12)	30 more per 1000 (from 55 fewer to 239 more)	LOW	CRITICAL
Anxiety symptoms at 8-month follow-up (follow-up mean 8 months; measured with: RCMAS change score; Better indicated by lower values)												
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[3]	none	70	62	-	SMD 0.15 higher (0.19 lower to 0.49 higher)	MODERATE	IMPORTANT
Depression symptoms at 2-month follow-up (follow-up mean 2 months; measured with: CDI change score; Better indicated by lower values)												
1	randomised trials	serious[2]	no serious inconsistency	no serious indirectness	serious[5]	none	49	50	-	SMD 0.21 lower (0.6 lower to 0.19 higher)	LOW	IMPORTANT
Depression symptoms at 6-8 month follow-up (follow-up 6-8 months; measured with: CDI/Birleson Depression Inventory change score; Better indicated by lower values)												
2	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[3]	none	119	112	-	SMD 0.05 lower (0.38 lower to 0.28 higher)	MODERATE	IMPORTANT
Emotional and behavioural problems at 2-month follow-up (follow-up mean 2 months; measured with: CBCL Total T-scores change score; Better indicated by lower values)												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Single session debriefing	TAU/attention-placebo	Relative (95% CI)	Absolute		
1	randomised trials	serious[2]	no serious inconsistency	no serious indirectness	serious[5]	none	49	50	-	SMD 0.38 lower (0.78 lower to 0.02 higher)	LOW	IMPORTANT
Emotional and behavioural problems at 6-8 month follow-up (follow-up 6-8 months; measured with: CBCL Total T-scores/SDQ change score; Better indicated by lower values)												
2	randomised trials	no serious risk of bias	serious[6]	no serious indirectness	serious[5]	none	119	112	-	SMD 0.3 lower (0.76 lower to 0.16 higher)	LOW	IMPORTANT
Discontinuation (follow-up 2-8 months; assessed with: Number of participants lost to follow-up)												
2	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[4]	none	14/133 (10.5%)	14/126 (11.1%)	RR 1.09 (0.28 to 4.25)	10 more per 1000 (from 80 fewer to 361 more)	LOW	CRITICAL

CBCL=Child Behaviour Checklist; CDI=Children's Depression Inventory; CI=confidence interval; CRIES=Children's Revised Impact of Event Scale; IBS-KJ=Interviews zu Belastungsstorungen bei Kindern und Jugendlichen; PTSD=post-traumatic stress disorder; RCMAS=Revised Children's Manifest Anxiety Scale; RR=risk ratio; SDQ=Strength and Difficulties Questionnaires; SMD=standard mean difference; TAU=treatment as usual

[1] 95% CI crosses both line of no effect and threshold for clinically important harm

[2] Risk of bias is high or unclear across multiple outcomes

[3] OIS not met (N<400)

[4] 95% CI crosses line of no effect and thresholds for both clinically important benefit and harm

[5] 95% CI crosses both line of no effect and threshold for clinically important benefit

[6] Substantial heterogeneity (I2>50%)

Psychological: Eye movement desensitisation and reprocessing (EMDR)

Eye movement desensitisation and reprocessing (EMDR; + TAU) versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Eye movement desensitisation and reprocessing (EMDR; + TAU)	TAU	Relative (95% CI)	Absolute	Quality	Importance
PTSD symptomatology clinician-rated at endpoint (follow-up mean 12 weeks; measured with: DISC: PTSD symptoms change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	19	21	-	SMD 1.14 lower (1.81 to 0.47 lower)	VERY LOW	CRITICAL
PTSD symptomatology clinician-rated at 3-month follow-up (follow-up mean 3 months; measured with: DISC: PTSD symptoms change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	19	21	-	SMD 1.04 lower (1.71 to 0.38 lower)	VERY LOW	CRITICAL
PTSD at endpoint (follow-up mean 12 weeks; assessed with: Number of participants who met criteria for PTSD)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	0/19 (0%)	2/21 (9.5%)	RR 0.22 (0.01 to 4.31)	74 fewer per 1000 (from 94 fewer to 315 more)	VERY LOW	CRITICAL
PTSD at 3-month follow-up (follow-up mean 3 months; assessed with: Number of participants who met criteria for PTSD)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	0/19 (0%)	1/21 (4.8%)	RR 0.37 (0.02 to 8.5)	30 fewer per 1000 (from 47 fewer to 357 more)	VERY LOW	CRITICAL

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Eye movement desensitisation and reprocessing (EMDR; + TAU)	TAU	Relative (95% CI)	Absolute	Quality	Importance
Emotional and behavioural problems: Internalising at endpoint (follow-up mean 12 weeks; measured with: CBCL Internalizing T-scores, change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	19	21	-	SMD 0.78 lower (1.43 to 0.14 lower)	VERY LOW	IMPORTANT
Emotional and behavioural problems: Internalising at 3-month follow-up (follow-up mean 3 months; measured with: CBCL Internalizing T-scores, change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	19	21	-	SMD 0.76 lower (1.41 to 0.12 lower)	VERY LOW	IMPORTANT
Emotional and behavioural problems: Externalising at endpoint (follow-up mean 12 weeks; measured with: CBCL Externalizing T-scores, change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	19	21	-	SMD 1.53 lower (2.24 to 0.81 lower)	VERY LOW	IMPORTANT
Emotional and behavioural problems: Externalising at 3-month follow-up (follow-up mean 3 months; measured with: CBCL Externalizing T-scores, change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	19	21	-	SMD 1.74 lower (2.48 to 1 lower)	VERY LOW	IMPORTANT
Oppositional defiant disorder symptoms at endpoint (follow-up mean 12 weeks; measured with: DISC: ODD symptoms change score; Better indicated by lower values)												

Quality assessment							No of patients		Effect			
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Eye movement desensitisation and reprocessing (EMDR; + TAU)**	**TAU**	**Relative (95% CI)**	**Absolute**	**Quality**	**Importance**
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	19	21	-	SMD 1.16 lower (1.84 to 0.48 lower)	VERY LOW	IMPORTANT
Oppositional defiant disorder symptoms at 3-month follow-up (follow-up mean 3 months; measured with: DISC: ODD symptoms change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	19	21	-	SMD 0.93 lower (1.58 to 0.27 lower)	VERY LOW	IMPORTANT
Conduct disorder symptoms at endpoint (follow-up mean 12 weeks; measured with: DISC: CD symptoms change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[4]	none	19	21	-	SMD 0.39 lower (1.02 lower to 0.24 higher)	VERY LOW	IMPORTANT
Conduct disorder symptoms at 3-month follow-up (follow-up mean 3 months; measured with: DISC: CD symptoms change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[4]	none	19	21	-	SMD 0.45 lower (1.08 lower to 0.18 higher)	VERY LOW	IMPORTANT
Discontinuation (follow-up mean 12 weeks; assessed with: Number of participants lost to follow-up)												
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[5]	none	12/33 (36.4%)	5/32 (15.6%)	RR 2.33 (0.92 to 5.86)	208 more per 1000 (from 12 fewer to 759 more)	MODERATE	CRITICAL

CBCL=Child Behaviour Checklist; CD=conduct disorder; CI=confidence interval; DISC= Diagnostic Interview for Children and Adolescents; EMDR=eye movement desensitisation and reprocessing; ODD=Oppositional Defiant Disorder; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference; TAU=treatment as usual
[1] Risk of bias is high or unclear across multiple domains
[2] OIS not met (N<400)
[3] 95% CI crosses line of no effect and thresholds for both clinically important benefit and harm
[4] 95% CI crosses both line of no effect and threshold for clinically important benefit
[5] 95% CI crosses both line of no effect and threshold for clinically important harm

Psychological: Parent training/family interventions

Parent training versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Quality assessment							No of patients		Effect			
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Parent training**	**TAU**	**Relative (95% CI)**	**Absolute**	**Quality**	**Importance**
PTSD symptomatology self-rated at 6-week follow-up (follow-up mean 6 weeks; measured with: CPSS change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	50	50	-	SMD 0.09 lower (0.48 lower to 0.3 higher)	VERY LOW	CRITICAL
Discontinuation (follow-up mean 6 weeks; assessed with: Number of participants lost to follow-up)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	22/50 (44%)	16/50 (32%)	RR 1.38 (0.82 to 2.29)	122 more per 1000 (from 58 fewer to 413 more)	LOW	CRITICAL

CI=confidence interval; CPSS=Child PTSD Symptom Scale; RR=risk ratio; SMD=standardised mean difference; TAU=treatment as usual
[1] Risk of bias is high or unclear across multiple domains
[2] OIS not met (N<400)
[3] 95% CI crosses both line of no effect and threshold for clinically important harm

Multisystemic family therapy versus enhanced TAU for the early treatment (1-3 months) of non-significant PTSD symptoms in children

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Multisystemic family therapy**	**Enhanced TAU**	**Relative (95% CI)**	**Absolute**		
PTSD at 1-year follow-up (follow-up mean 12 months; assessed with: Number of participants who met criteria for PTSD)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	4/44 (9.1%)	9/42 (21.4%)	RR 0.42 (0.14 to 1.27)	124 fewer per 1000 (from 184 fewer to 58 more)	VERY LOW	CRITICAL
Discontinuation (follow-up mean 12 months; assessed with: Number of participants lost to follow-up)												
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[3]	none	2/45 (4.4%)	10/45 (22.2%)	RR 0.2 (0.05 to 0.86)	178 fewer per 1000 (from 31 fewer to 211 fewer)	MODERATE	CRITICAL

CI=confidence interval; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference; TAU=treatment as usual

[1] Risk of bias is unclear or high across multiple domains

[2] 95% CI crosses line of no effect and thresholds for both clinically important benefit and harm

[3] OIS not met (events<300)

Multisystemic family therapy versus TAU for the delayed treatment (>3 months) of non-significant PTSD symptoms in children

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Multisystemic family therapy	TAU	Relative (95% CI)	Absolute		
PTSD symptomatology self-rated at endpoint (follow-up mean 34 weeks; measured with: UCLA PTSD-RI change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	15	15	-	SMD 0.82 lower (1.57 to 0.07 lower)	VERY LOW	CRITICAL
PTSD symptomatology self-rated at 3-month follow-up (follow-up mean 3 months; measured with: UCLA PTSD-RI change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	15	15	-	SMD 0.15 lower (0.86 lower to 0.57 higher)	VERY LOW	CRITICAL
PTSD symptomatology self-rated at 6-month follow-up (follow-up mean 6 months; measured with: UCLA PTSD-RI change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[4]	none	15	15	-	SMD 0.67 lower (1.41 lower to 0.07 higher)	VERY LOW	CRITICAL
Depression symptoms at endpoint (follow-up mean 34 weeks; measured with: CDI change score; Better indicated by lower values)												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Multisystemic family therapy	TAU	Relative (95% CI)	Absolute		
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	15	15	-	SMD 1 lower (1.77 to 0.24 lower)	VERY LOW	IMPORTANT
Depression symptoms at 3-month follow-up (follow-up mean 3 months; measured with: CDI change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[4]	none	15	15	-	SMD 0.67 lower (1.41 lower to 0.07 higher)	VERY LOW	IMPORTANT
Depression symptoms at 6-month follow-up (follow-up mean 6 months; measured with: CDI change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	15	15	-	SMD 1.14 lower (1.92 to 0.36 lower)	VERY LOW	IMPORTANT
Emotional and behavioural problems: Internalising at endpoint (follow-up mean 34 weeks; measured with: BASC-2 Internalizing change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	15	15	-	SMD 1.13 lower (1.91 to 0.35 lower)	VERY LOW	IMPORTANT

Quality assessment							No of patients		Effect			
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Multisystemic family therapy**	**TAU**	**Relative (95% CI)**	**Absolute**	**Quality**	**Importance**
Emotional and behavioural problems: Internalising at 3-month follow-up (follow-up mean 3 months; measured with: BASC-2 Internalizing change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	15	15	-	SMD 1.35 lower (2.16 to 0.55 lower)	VERY LOW	IMPORTANT
Emotional and behavioural problems: Internalising at 6-month follow-up (follow-up mean 6 months; measured with: BASC-2 Internalizing change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	15	15	-	SMD 1.23 lower (2.02 to 0.44 lower)	VERY LOW	IMPORTANT
Emotional and behavioural problems: Externalising at endpoint (follow-up mean 34 weeks; measured with: BASC-2 Externalizing change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[4]	none	15	15	-	SMD 0.36 lower (1.08 lower to 0.36 higher)	VERY LOW	IMPORTANT
Emotional and behavioural problems: Externalising at 3-month follow-up (follow-up mean 3 months; measured with: BASC-2 Externalizing change score; Better indicated by lower values)												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Multisystemic family therapy	TAU	Relative (95% CI)	Absolute		
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[4]	none	15	15	-	SMD 0.59 lower (1.33 lower to 0.14 higher)	VERY LOW	IMPORTANT
Emotional and behavioural problems: Externalising at 6-month follow-up (follow-up mean 6 months; measured with: BASC-2 Externalizing change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	15	15	-	SMD 0.76 lower (1.5 to 0.01 lower)	VERY LOW	IMPORTANT
Substance use at endpoint (follow-up mean 34 weeks; measured with: TLFB: Number of days with substance use over the past 90 days, change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[4]	none	15	15	-	SMD 0.68 lower (1.42 lower to 0.06 higher)	VERY LOW	IMPORTANT
Substance use at 3-month follow-up (follow-up mean 3 months; measured with: TLFB: Number of days with substance use over the past 90 days, change score; Better indicated by lower values)												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Multisystemic family therapy	TAU	Relative (95% CI)	Absolute		
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[4]	none	15	15	-	SMD 0.74 lower (1.48 lower to 0.01 higher)	VERY LOW	IMPORTANT
Substance use at 6-month follow-up (follow-up mean 6 months; measured with: TLFB: Number of days with substance use over the past 90 days, change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	15	15	-	SMD 0.88 lower (1.63 to 0.12 lower)	VERY LOW	IMPORTANT
Family conflict at endpoint (follow-up mean 34 weeks; measured with: FES-A: Conflict, adolescent report, change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	15	15	-	SMD 1.89 lower (2.77 to 1.01 lower)	VERY LOW	IMPORTANT
Family conflict at 3-month follow-up (follow-up mean 3 months; measured with: FES-A: Conflict, adolescent report, change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	15	15	-	SMD 1.75 lower (2.61 to	VERY LOW	IMPORTANT

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Multisystemic family therapy	TAU	Relative (95% CI)	Absolute	Quality	Importance
										0.89 lower)		
Family conflict at 6-month follow-up (follow-up mean 6 months; measured with: FES-A: Conflict, adolescent report, change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	15	15	-	SMD 2.1 lower (3.02 to 1.19 lower)	VERY LOW	IMPORTANT
Discontinuation (follow-up mean 34 weeks; assessed with: Number of participants lost to follow-up)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	2/15 (13.3%)	0/15 (0%)	RR 5 (0.26 to 96.13)	-	VERY LOW	CRITICAL

BASC-2=Behaviour Assessment System for Children; CDI=Children's Depression Index; CI=confidence interval; FES-A=Future Expectation Scale for Adolescents; RR=risk ratio; SMD=standardised mean difference; UCLA PTSD-RI=UCLA PTSD-Reaction Index; TAU=treatment as usual; TLFB=timeline follow-up

[1] Risk of bias is high or unclear across multiple domains

[2] OIS not met (N<400)

[3] 95% CI crosses line of no effect and thresholds for both clinically important benefit and harm

[4] 95% CI crosses both line of no effect and threshold for clinically important benefit

Psychological: Self-help (without support)

Self-help (without support) versus waitlist or TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Self-help (without support)	Waitlist or TAU	Relative (95% CI)	Absolute	Quality	Importance
PTSD symptomatology self-rated at endpoint (follow-up 2-22 weeks; measured with: CPSS/CRIES/TSCC Post-traumatic Stress change score; Better indicated by lower values)												
3	randomised trials	very serious [1]	serious[2]	no serious indirectness	serious[3]	none	81	99	-	SMD 0.48 lower (1.04 lower to 0.07 higher)	VERY LOW	CRITICAL
PTSD symptomatology self-rated at 6-week follow-up (follow-up mean 6 weeks; measured with: CPSS change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[4]	none	36	36	-	SMD 0.67 lower (1.15 to 0.2 lower)	VERY LOW	CRITICAL
PTSD symptomatology self-rated at 5-month follow-up (follow-up mean 5 months; measured with: CRIES/TSCC Post-traumatic Stress change score; Better indicated by lower values)												
2	randomised trials	very serious [1]	very serious[5]	no serious indirectness	very serious[6]	none	45	63	-	SMD 0.37 lower (2.04 lower to 1.29 higher)	VERY LOW	CRITICAL
Anxiety symptoms at endpoint (follow-up 2-22 weeks; measured with: SCAS/TSCC Anxiety change score; Better indicated by lower values)												
2	randomised trials	serious [1]	serious[2]	no serious indirectness	serious[7]	none	57	83	-	SMD 0.13 higher (0.4 lower to 0.66 higher)	VERY LOW	IMPORTANT
Anxiety symptoms at 5-month follow-up (follow-up mean 5 months; measured with: SCAS/TSCC Anxiety change score; Better indicated by lower values)												

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Self-help (without support)	Waitlist or TAU	Relative (95% CI)	Absolute	Quality	Importance
2	randomised trials	serious [1]	very serious[5]	no serious indirectness	serious[3]	none	57	83	-	SMD 0.45 lower (1.26 lower to 0.37 higher)	VERY LOW	IMPORTANT
Depression symptoms at endpoint (follow-up 2-22 weeks; measured with: TSCC Depression change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	very serious[6]	none	29	27	-	SMD 0.01 lower (0.54 lower to 0.51 higher)	VERY LOW	IMPORTANT
Depression symptoms at 5-month follow-up (follow-up mean 5 months; measured with: TSCC Depression change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[3]	none	29	27	-	SMD 0.37 lower (0.9 lower to 0.16 higher)	VERY LOW	IMPORTANT
Dissociative symptoms at endpoint (follow-up 2-22 weeks; measured with: TSCC Dissociation change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[3]	none	29	27	-	SMD 0.48 lower (1.01 lower to 0.06 higher)	VERY LOW	IMPORTANT
Dissociative symptoms at 5-month follow-up (follow-up mean 5 months; measured with: TSCC Dissociation change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[4]	none	29	27	-	SMD 0.69 lower (1.23 to 0.15 lower)	VERY LOW	IMPORTANT
Emotional and behavioural problems: Anger at endpoint (follow-up 2-22 weeks; measured with: TSCC Anger change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[3]	none	29	27	-	SMD 0.24 lower (0.76	VERY LOW	IMPORTANT

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Self-help (without support)	Waitlist or TAU	Relative (95% CI)	Absolute	Quality	Importance
										lower to 0.29 higher)		
Emotional and behavioural problems: Anger at 5-month follow-up (follow-up mean 5 months; measured with: TSCC Anger change score; Better indicated by lower values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[4]	none	29	27	-	SMD 0.83 lower (1.38 to 0.28 lower)	VERY LOW	IMPORTANT
Quality of life at endpoint (follow-up mean 6 weeks; measured with: PedsQL change score; Better indicated by higher values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[3]	none	36	36	-	SMD 0.17 lower (0.64 lower to 0.29 higher)	VERY LOW	IMPORTANT
Quality of life at 6-week follow-up (follow-up mean 6 weeks; measured with: PedsQL change score; Better indicated by higher values)												
1	randomised trials	very serious [1]	no serious inconsistency	no serious indirectness	serious[4]	none	36	36	-	SMD 0.49 higher (0.02 to 0.95 higher)	VERY LOW	IMPORTANT
Discontinuation (follow-up 2-22 weeks; assessed with: Number of participants lost to follow-up)												
2	randomised trials	serious [1]	serious[2]	no serious indirectness	very serious[6]	none	26/80 (32.5%)	12/77 (15.6%)	RR 2.48 (0.53 to 11.46)	231 more per 1000 (from 73 fewer to 1000 more)	VERY LOW	CRITICAL

CI=confidence interval; CPSS=Child PTSD Symptom Scale; CRIES=Children's Revised Impact of Event Scale; PedsQL=Pediatric Quality of Life Inventory; PTSD=post-traumatic stress disorder; RR=risk ratio; SCAS=Spence Children's Anxiety Scale; SMD=standardised mean difference; TAU=treatment as usual; TSCC=Trauma Symptom Checklist for Children

[1] *Risk of bias is high or unclear across multiple domains*
[2] *Substantial heterogeneity (I2>50%)*
[3] *95% CI crosses both line of no effect and threshold for clinically important benefit*
[4] *OIS not met (N<400)*
[5] *Considerable heterogeneity (I2>80%)*
[6] *95% CI crosses line of no effect and thresholds for both clinically important benefit and harm*
[7] *95% CI crosses both line of no effect and threshold for clinically important harm*

Psychosocial: Psychoeducation

Brief psychoeducational intervention versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Quality assessment							No of patients		Effect			
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Brief psychoeducational intervention**	**TAU**	**Relative (95% CI)**	**Absolute**	**Quality**	**Importance**
PTSD symptomatology self-rated at endpoint (follow-up mean 6 weeks; measured with: CPSS change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	36	28	-	SMD 0.34 higher (0.16 lower to 0.84 higher)	VERY LOW	CRITICAL
PTSD symptomatology self-rated at 5-month follow-up (follow-up mean 5 months; measured with: CPSS change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	37	31	-	SMD 0.52 higher (0.03 to 1 higher)	VERY LOW	CRITICAL
PTSD symptomatology clinician-rated at 2-month follow-up (follow-up mean 2 months; measured with: UCLA PTSD-RI change score; Better indicated by lower values)												

Quality assessment							No of patients		Effect			
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Brief psychoeducational intervention**	**TAU**	**Relative (95% CI)**	**Absolute**	**Quality**	**Importance**
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[4]	none	14	16	-	SMD 0.6 lower (1.33 lower to 0.14 higher)	MODERATE	CRITICAL
PTSD symptomatology clinician-rated at 5-month follow-up (follow-up mean 5 months; measured with: UCLA PTSD-RI change score; Better indicated by lower values)												
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[4]	none	14	16	-	**SMD 0.36 lower (1.08 lower to 0.36 higher)**	MODERATE	CRITICAL
PTSD at endpoint (follow-up mean 6 weeks; assessed with: Number of people scoring above clinical threshold on validated scale)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	very serious[5]	none	4/36 (11.1%)	6/28 (21.4%)	RR 0.52 (0.16 to 1.66)	103 fewer per 1000 (from 180 fewer to 141 more)	VERY LOW	CRITICAL
PTSD at 5-month follow-up (follow-up mean 5 months; assessed with: Number of people scoring above clinical threshold on validated scale)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	very serious[5]	none	4/37 (10.8%)	3/31 (9.7%)	RR 1.12 (0.27 to 4.62)	12 more per 1000 (from 71 fewer to 350 more)	VERY LOW	CRITICAL
Anxiety symptoms at 2-month follow-up (follow-up mean 2 months; measured with: SCAS change score; Better indicated by lower values)												

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Brief psychoeducational intervention	TAU	Relative (95% CI)	Absolute	Quality	Importance
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[4]	none	14	16	-	SMD 0.53 lower (1.26 lower to 0.2 higher)	MODERATE	IMPORTANT
Anxiety symptoms at 5-month follow-up (follow-up mean 5 months; measured with: SCAS change score; Better indicated by lower values)												
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[4]	none	14	16	-	SMD 0.28 lower (1 lower to 0.44 higher)	MODERATE	IMPORTANT
Depression symptoms at endpoint (follow-up mean 6 weeks; measured with: CES-D change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	36	28	-	SMD 0.28 higher (0.21 lower to 0.78 higher)	VERY LOW	IMPORTANT
Depression symptoms at 5-month follow-up (follow-up mean 5 months; measured with: CES-D change score; Better indicated by lower values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	37	31	-	SMD 0.58 higher (0.09 to 1.07 higher)	VERY LOW	IMPORTANT
Quality of life at endpoint (follow-up mean 6 weeks; measured with: PedsQL Physical health/Physical functioning change score; Better indicated by higher values)												
1	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	36	28	-	SMD 0.41 higher (0.09 lower	VERY LOW	IMPORTANT

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Brief psychoeducational intervention	TAU	Relative (95% CI)	Absolute	Quality	Importance
										to 0.91 higher)		
Quality of life at 2-month follow-up (follow-up mean 2 months; measured with: KIDSCREEN-27 Global HRQoL T-scores, change score; Better indicated by higher values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[5]	none	14	16	-	SMD 0.22 higher (0.5 lower to 0.94 higher)	VERY LOW	IMPORTANT
Quality of life at 5-month follow-up (follow-up mean 5 months; measured with: PedsQL Physical health/Physical functioning/KIDSCREEN-27 Global HRQoL T-scores change score; Better indicated by higher values)												
2	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[4]	none	51	47	-	SMD 0.36 lower (0.76 lower to 0.04 higher)	VERY LOW	IMPORTANT
Discontinuation (follow-up 2-6 weeks; assessed with: Number of participants lost to follow-up)												
2	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[5]	none	10/60 (16.7%)	12/55 (21.8%)	RR 0.74 (0.36 to 1.53)	57 fewer per 1000 (from 140 fewer to 116 more)	VERY LOW	CRITICAL

CES-D=Centre for Epidemiological Studies-Depression; CI=confidence interval; CPSS=Child PTSD Symptom Scale; KIDSCREEN-27 Global HRQoL=KIDSCREEN-27 Global Health-related Quality of life; PedsQL=Paediatric Quality of Life Inventory; PTSD=post-traumatic stress disorder; RR=risk ratio; SCAS=Spence Children's Anxiety Scale; SMD=standardised mean difference; TAU=treatment as usual; UCLA PTSD-RI=UCLA PTSD-Reaction Index

[1] Risk of bias is high or unclear across multiple domains

[2] 95% CI crosses both line of no effect and threshold for clinically important harm

[3] *OIS not met (N<400)*
[4] *95% CI crosses both line of no effect and threshold for clinically important benefit*
[5] *95% CI crosses line of no effect and thresholds for both clinically important benefit and harm*

Psychoeducational group versus waitlist for prevention of PTSD in children and young people with ongoing exposure to trauma (for instance, war zone)

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Psychoeducational group	Waitlist	Relative (95% CI)	Absolute	Quality	Importance
PTSD symptomatology self-rated (follow-up mean 4 weeks; measured with: CRIES change score; Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	79	80	-	SMD 0.53 lower (0.85 to 0.22 lower)	LOW	CRITICAL
Emotional and behavioural problems (follow-up mean 4 weeks; measured with: AYPA Conduct problems/externalizing change score; Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	79	80	-	SMD 0.15 lower (0.46 lower to 0.16 higher)	LOW	IMPORTANT
Depression or anxiety symptoms (follow-up mean 4 weeks; measured with: AYPA Depression/anxiety change score; Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	79	80	-	SMD 0.18 higher (0.13 lower to 0.5 higher)	LOW	IMPORTANT
Discontinuation (follow-up mean 4 weeks; assessed with: Number of participants lost to follow-up)												
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[4]	none	3/79 (3.8%)	3/80 (3.8%)	RR 1.01	0 more per 1000 (from	LOW	CRITICAL

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Psychoeducational group	Waitlist	Relative (95% CI)	Absolute	Quality	Importance
									(0.21 to 4.87)	30 fewer to 145 more)		

AYPA=African youth psychological assessment; CI=confidence interval; CRIES=Children's Revised Impact of Event Scale; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference

[1] Risk of bias is high or unclear across multiple domains

[2] OIS not met (N<400)

[3] 95% CI crosses both the line of no effect and threshold for clinically important harm

[4] 95% CI crosses line of no effect and thresholds for both clinically important benefit and harm

Other non-pharmacological: Massage

Massage + self-help with support versus TAU for the early prevention (intervention initiated within 1 month of traumatic event) of PTSD in children

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Massage + self-help with support	TAU	Relative (95% CI)	Absolute	Quality	Importance
PTSD symptomatology self-rated at 5-month follow-up (follow-up mean 5 months; measured with: UCLA PTSD-RI change score; Better indicated by lower values)												

Quality assessment							No of patients		Effect			
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Massage + self-help with support**	**TAU**	**Relative (95% CI)**	**Absolute**	**Quality**	**Importance**
1	randomised trials	serious [1]	no serious inconsistency	no serious indirectness	serious[2]	none	33	25	-	SMD 0.47 higher (0.06 lower to 1 higher)	LOW	CRITICAL
Depression symptoms at 5-month follow-up (follow-up mean 5 months; measured with: CDI change score; Better indicated by lower values)												
1	randomised trials	serious [1]	no serious inconsistency	no serious indirectness	serious[3]	none	33	25	-	SMD 0.18 lower (0.7 lower to 0.34 higher)	LOW	IMPORTANT
Discontinuation (follow-up mean 5 months; assessed with: Number of participants lost to follow-up)												
1	randomised trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[3]	none	26/59 (44.1%)	35/60 (58.3%)	RR 0.76 (0.53 to 1.08)	140 fewer per 1000 (from 274 fewer to 47 more)	MODERATE	CRITICAL

CDI=Children's Depression Inventory; CI=confidence interval; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standardised mean difference; TAU=treatment as usual; UCLA PTSD-RI=UCLA PTSD-Reaction Index

[1] Risk of bias is high or unclear across multiple outcomes

[2] 95% CI crosses both line of no effect and threshold for clinically important harm

[3] 95% CI crosses both line of no effect and threshold for clinically important benefit

Appendix G – Health economic evidence study selection

Health economic evidence study selection for "For children and young people at risk of PTSD, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?"

A global health economics search was undertaken for all areas covered in the guideline. The flow diagram of economic article selection across all reviews is provided in Appendix A of Supplement 1– Methods Chapter'.

Appendix H – Health economic evidence tables

Health economic evidence tables for "For children and young people at risk of PTSD, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?"

No health economic evidence was identified for this review.

Appendix I – Health economic evidence profiles

Health economic evidence profiles for "For children and young people at risk of PTSD, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?"

No health economic evidence was identified for this review and no economic analysis was undertaken.

Appendix J – Health economic analysis

Health economic analysis for "For children and young people at risk of PTSD, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?"

No health economic analysis was conducted for this review.

Appendix K – Excluded studies

Excluded studies for "For children and young people at risk of PTSD, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?"

Clinical studies

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Betancourt 2012	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Betancourt TS, Newnham EA, Brennan RT, Verdeli H, Borisova I, Neugebauer R, Bass J, Bolton P. Moderators of treatment effectiveness for war-affected youth with depression in northern Uganda. Journal of Adolescent Health. 2012 Dec 31;51(6):544-50.	
Betancourt 2014	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Efficacy or safety data cannot be extracted	Betancourt TS, McBain R, Newnham EA, Akinsulure-Smith AM, Brennan RT, Weisz JR, Hansen NB. A behavioral intervention for war-affected youth in Sierra Leone: a randomized controlled trial. Journal of the American Academy of Child & Adolescent Psychiatry. 2014 Dec 31;53(12):1288-97.	
Bjornstad 2009	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Protocol	Bjornstad GJ, Ramchandani P, Montgomery P, Gardner F.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			Child-focused cognitive behavioural therapy for children who have been physically abused. The Cochrane Library. 2009.	
Borwn 2006	Handsearch	Non-randomised group assignment	Brown EJ, McQuaid J, Farina L, Ali R, Winnick-Gelles A. Matching interventions to children's mental health needs: Feasibility and acceptability of a pilot school-based trauma intervention program. Education and Treatment of Children. 2006 May 1:257-86	
Braga 2005	Handsearch	Intervention not targeted at PTSD symptoms	Braga LW, Da Paz Junior AC, Ylvisaker M. Direct clinician-delivered versus indirect family-supported rehabilitation of children with traumatic brain injury: a randomized controlled trial. Brain Injury. 2005 Sep 1;19(10):819-31.	
Brier 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Brier MJ, Schwartz LA, Kazak AE. Psychosocial, health-promotion, and neurocognitive interventions for survivors of childhood cancer: A systematic review. Health Psychology. 2015 Feb;34(2):130.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Brown 2017	RQ 5.1_5.2_adhoc AND RQ 1.1-1.2 & 2.1-2.2 update	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Brown, R., Witt, A., Fegert, J., Keller, F., Rassenhofer, M., Plener, P. (2017) Psychosocial interventions for children and adolescents after man-made and natural disasters: A meta-analysis and systematic review, Psychological Medicine,	
Bryant 2011a	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Unpublished (registered on ANZCTR and author contacted for full trial report but not provided)	Bryant R. Randomised controlled trial of cognitive behavior therapy and supportive counselling for reduction in posttraumatic stress disorder (PTSD) symptoms in Acehnese children [ACTRN12611000080921]. Available from: https://www.anzctr.org.au/Trial/Registration/TrialReview.aspx?id=336336 [accessed 23.02.17]	
Cain 2010	Handsearch	Non-RCT (no control group)	Cain DS, Plummer CA, Fisher RM, Bankston TQ. Weathering the storm: persistent effects and psychological first aid with children displaced by Hurricane Katrina. Journal of Child & Adolescent Trauma. 2010 Nov 16;3(4):330-43.	
Carbonell 1999	Handsearch	Intervention not targeted at PTSD symptoms	Carbonell DM, Parteleno-Barehmi C. Psychodrama	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			groups for girls coping with trauma. International journal of group psychotherapy. 1999 Jul 1;49(3):285-306.	
CATS Consortium 2010	Handsearch	Non-randomised group assignment	Weaver CM, Olin S, Wisdom J. Implementation of CBT for youth affected by the World Trade Center disaster: Matching need to treatment intensity and reducing trauma symptoms. J Trauma Stress. 2010 Dec;23(6):699e707.	
Chapman 2001	Handsearch	Efficacy or safety data cannot be extracted	Chapman L, Morabito D, Ladakakos C, Schreier H, Knudson MM. The effectiveness of art therapy interventions in reducing post traumatic stress disorder (PTSD) symptoms in pediatric trauma patients. Art Therapy. 2001 Jan 1;18(2):100-4.	
Chemtob 2002	2004 GL (excluded)	Comparison outside protocol	Chemtob, C. M., Nakashima, J. P., & Hamada, R. S. (2002). Psychosocial intervention for postdisaster trauma symptoms in elementary school children: A controlled community field study. Archives of Pediatrics & Adolescent Medicine, 156, 211-216.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Cohen 1996/1997	2004 GL (included)	Intervention not targeted at PTSD symptoms	Cohen JA, Mannarino AP, A treatment outcome study for sexually abused preschool children: initial findings. J Am Acad Child Adolesc Psychiatry. 1996 Jan;35(1):42-50.	Cohen JA, Mannarino AP. A treatment study for sexually abused preschool children: outcome during a one-year follow-up. J Am Acad Child Adolesc Psychiatry. 1997 Sep;36(9):1228-35.
Cohen 1998a	2004 GL (included)	Intervention not targeted at PTSD symptoms	Cohen JA, Mannarino AP. Interventions for sexually abused children: Initial treatment outcome findings. Child Maltreatment, Vol 3, No 1, February 1998.	
Cohen 2006	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Cohen JA, Mannarino AP, Murray LK, Igelman R. Psychosocial Interventions for Maltreated and Violence-Exposed Children. Journal of Social Issues. 2006 Dec 1;62(4):737-66.	
Culver 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Sample size (N<10/arm)	Culver KA, Whetten K, Boyd DL, O'Donnell K. Yoga to reduce trauma-related distress and emotional and behavioral difficulties among children living in orphanages in Haiti: A pilot study. The Journal of Alternative and Complementary Medicine. 2015 Sep 1;21(9):539-45.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
De Silva 2009	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	De Silva M, MacLachlan M, Devane D, Desmond D, Gallagher P, Schnyder U, Brennan M, Patel V. Psychosocial interventions for the prevention of disability following traumatic physical injury. The Cochrane Library. 2009 Jan 1.	
Diab 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Diab M, Peltonen K, Qouta SR, Palosaari E, Punamäki RL. Effectiveness of psychosocial intervention enhancing resilience among war-affected children and the moderating role of family factors. Child abuse & neglect. 2015 Feb 28;40:24-35.	
Dietz 2012	Handsearch	Non-randomised group assignment	Dietz TJ, Davis D, Pennings J. Evaluating animal-assisted therapy in group treatment for child sexual abuse. Journal of child sexual abuse. 2012 Nov 1;21(6):665-83.	
Ehntholt 2005	Handsearch	Non-randomised group assignment	Ehntholt KA, Smith PA, Yule W. School-based cognitive-behavioural therapy group intervention for refugee children who have experienced war-related trauma. Clinical Child	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			Psychology and Psychiatry. 2005 Apr;10(2):235-50.	
Fernandez 2004	2004 GL (excluded)	Non-randomised group assignment	Fernandez, I., Gallinari, E., Lorenzetti, A. (2004) A school-based EMDR intervention for children who witnessed the Pirelli building airplane crash in Milan, Italy. Journal of Brief Therapy, 2, 129- 136.	
Flynn 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Flynn AB, Fothergill KE, Wilcox HC, Coleclough E, Horwitz R, Ruble A, Burkey MD, Wissow LS. Primary care interventions to prevent or treat traumatic stress in childhood: a systematic review. Academic pediatrics. 2015 Oct 31;15(5):480-92.	
Forman-Hoffman 2013a	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Forman-Hoffman VL, Zolotor AJ, McKeeman JL, Blanco R, Knauer SR, Lloyd SW, Fraser JG, Viswanathan M. Comparative effectiveness of interventions for children exposed to nonrelational traumatic events. Pediatrics. 2013 Feb 1:peds-2012.	
Fraser 2013	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Fraser JG, Lloyd S, Murphy R, Crowson M, Zolotor AJ, Coker-Schwimmer E, Viswanathan M. A comparative effectiveness	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			review of parenting and trauma-focused interventions for children exposed to maltreatment. Journal of Developmental & Behavioral Pediatrics. 2013 Jun 1;34(5):353-68.	
Fu 2013	Handsearch	Non-randomised group assignment	Fu C, Leoutsakos JM, Underwood C. Moderating effects of a postdisaster intervention on risk and resilience factors associated with posttraumatic stress disorder in Chinese children. Journal of traumatic stress. 2013 Dec 1;26(6):663-70.	
Fu 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Fu C, Underwood C. A meta-review of school-based disaster interventions for child and adolescent survivors. Journal of Child & Adolescent Mental Health. 2015 Sep 2;27(3):161-71.	
Gardner 2009	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Protocol	Gardner F, Bjornstad GJ, Ramchandani P, Tao X, Montgomery P. Family therapy for children who have been physically abused. The Cochrane Library. 2009.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Gelkopf 2009	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Population outside scope: Inoculation interventions for people who may be at risk of experiencing but have not experienced, a traumatic event	Gelkopf, M. and R. Berger (2009). A school-based, teacher-mediated prevention program (ERASE-Stress) for reducing terror-related traumatic reactions in Israeli youth: a quasi-randomized controlled trial. Journal of child psychology and psychiatry, and allied disciplines 50(8): 962-971.	
Gillies 2007	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Protocol	Gillies D, O'Brien L, Rogers P, Meekings C. Psychological therapies for the prevention and treatment of post-traumatic stress disorder in children and adolescents. Cochrane Database of Systematic Reviews. 2007;(3) (no pagination)(CD006726).	
Gillies 2016	RQ 1.1-1.2 & 2.1-2.2 (searches combined) AND RQ 1.1-1.2 & 2.1-2.2 update	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Gillies D, Maiocchi L, Bhandari AP,Taylor F,Gray C,O'Brien L. Psychological therapies for children and adolescents exposed to trauma. Cochrane Database of Systematic Reviews 2016, Issue 10. Art. No.: CD012371. DOI: 10.1002/14651858.CD012371.	
Goenjian 2005	Handsearch	Non-randomised group assignment	Goenjian AK, Walling D, Steinberg AM, Karayan I,	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			Najarian LM, Pynoos R. A prospective study of posttraumatic stress and depressive reactions among treated and untreated adolescents 5 years after a catastrophic disaster. American Journal of Psychiatry. 2005 Dec 1;162(12):2302-8.	
Greenbaum 2017	RQ 1.1-1.2 & 2.1-2.2 update	Outcomes are not of interest	Greenbaum CA, Javdani S. Expressive writing intervention promotes resilience among juvenile justice-involved youth. Children and Youth Services Review. 2017 Feb 1;73:220-9.	
Gupta 2008	Handsearch	Non-RCT (no control group)	Gupta L, Zimmer C. Psychosocial intervention for war-affected children in Sierra Leone. The British Journal of Psychiatry. 2008 Mar 1;192(3):212-6.	
Gutermann 2016	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Gutermann J, Schreiber F, Matulis S, Schwartzkopff L, Deppe J, Steil R. Psychological treatments for symptoms of posttraumatic stress disorder in children, adolescents, and young adults: a meta-analysis. Clinical child and family	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			psychology review. 2016 Jun 1;19(2):77-93.	
ISRCTN66249480	Handsearch	Unpublished (registered on clinical trials registry and author contacted for full trial report but not provided)	ISRCTN66249480. Efficacy of a school-based psychosocial intervention to deal with the psychosocial impact of armed conflict on school-aged children in Sri Lanka. 2006. Available from: http://www.isrctn.com/ISRCTN66249480 [accessed 11.05.2017]	
Jones 2013	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Non-systematic review	Jones P, Blunda M, Biegel G, Carlson LE, Biel M, Wiener L. Can mindfulness-based interventions help adolescents with cancer?. Psycho-Oncology. 2013 Sep 1;22(9):2148-51.	
Jordans 2016	RQ 1.1-1.2 & 2.1-2.2 update	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Jordans MJ, Pigott H, Tol WA. Interventions for children affected by armed conflict: a systematic review of mental health and psychosocial support in low-and middle-income countries. Current psychiatry reports. 2016 Jan 1;18(1):9.	
Jouriles 2009	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Jouriles EN, McDonald R, Rosenfield D, Stephens N, Corbitt-Shindler D, Miller PC. Reducing conduct problems among children exposed to	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			intimate partner violence: a randomized clinical trial examining effects of Project Support. Journal of consulting and clinical psychology. 2009 Aug;77(4):705.	
Karam 2008	Handsearch	Non-randomised group assignment	Karam EG, Fayyad J, Karam AN, Tabet CC, Melhem N, Mneimneh Z, Dimassi H. Effectiveness and specificity of a classroom-based group intervention in children and adolescents exposed to war in Lebanon. World Psychiatry. 2008 Jun 1;7(2):103-9.	
Kataoka 2003	Handsearch	Non-randomised group assignment	Kataoka SH, Stein BD, Jaycox LH, Wong M, Escudero P, Tu W, Zaragoza C, Fink A. A school-based mental health program for traumatized Latino immigrant children. Journal of the American Academy of Child & Adolescent Psychiatry. 2003 Mar 31;42(3):311-8.	
Khamis 2004	Handsearch	Insufficient detail in trial report to judge risk of bias	Khamis V, Macy R, Coignez V. The impact of the classroom/community/camp-based intervention (CBI) program on Palestinian children.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			Save the Children, USA. 2004 Jun.	
Kolko 1996a/1996b	Handsearch	Intervention not targeted at PTSD symptoms	Kolko DJ. Clinical monitoring of treatment course in child physical abuse: Psychometric characteristics and treatment comparisons. Child abuse & neglect. 1996 Jan 31;20(1):23-43.	Kolko DJ. Individual cognitive behavioral treatment and family therapy for physically abused children and their offending parents: A comparison of clinical outcomes. Child Maltreatment. 1996 Nov 1;1(4):322-42.
Kramer 2011	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Kramer DN, Landolt MA. Characteristics and efficacy of early psychological interventions in children and adolescents after single trauma: A meta-analysis. European journal of psychotraumatology. 2011 Dec 15;2.	
Lange-Nielsen 2012	Handsearch	Non-randomised group assignment	Lange-Nielsen II, Kolltveit S, Thabet AA, Dyregrov A, Pallesen S, Johnsen TB, Laberg JC. Short-term effects of a writing intervention among adolescents in Gaza. Journal of Loss and Trauma. 2012 Sep 1;17(5):403-22.	
Layne 2001	Handsearch	Non-RCT (no control group)	Layne CM, Pynoos RS, Saltzman WR, Arslanagić B, Black M, Savjak N, Popović T, Duraković E, Mušić M, Ćampara	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			N, Djapo N. Trauma/grief-focused group psychotherapy: School-based postwar intervention with traumatized Bosnian adolescents. Group Dynamics: Theory, Research, and Practice. 2001 Dec;5(4):277.	
Lewis 2010	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Lewis CC, Simons AD, Nguyen LJ, Murakami JL, Reid MW, Silva SG, March JS. Impact of childhood trauma on treatment outcome in the Treatment for Adolescents with Depression Study (TADS). Journal of the American Academy of Child & Adolescent Psychiatry. 2010 Feb 28;49(2):132-40.	
Lopes-Júnior 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Lopes-Júnior LC, Bomfim EO, Nascimento LC, Nunes MD, Pereira-da-Silva G, Lima RA. Non-pharmacological interventions to manage fatigue and psychological stress in children and adolescents with cancer: an integrative review. European journal of cancer care. 2015 Sep 1.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Macdonald 2012	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Macdonald G, Higgins JPT, Ramchandani P, Valentine JC, Bronger LP, Klein P, O'Daniel R, Pickering M, Rademaker B, Richardson G, Taylor M. Cognitive-behavioural interventions for children who have been sexually abused. Cochrane Database of Systematic Reviews 2012, Issue 5. Art. No.: CD001930. DOI: 10.1002/14651858.CD001930.pub3.	
Macdonald 2016a	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Macdonald G, Livingstone N, Hanratty J, McCartan C, Cotmore R, Cary M,. The effectiveness, acceptability and cost-effectiveness of psychosocial interventions for maltreated children and adolescents: an evidence synthesis. Health Technol Assess 2016;20(69).	
McBain 2015a	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	McBain RK, Salhi C, Hann K, Kellie J, Kamara A, Salomon JA, Kim JJ, Betancourt TS. Improving outcomes for caregivers through treatment of young people affected by war: a randomized controlled trial in Sierra Leone. Bulletin of the	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			World Health Organization. 2015 Dec;93(12):834-41.	
McBain 2015b	RQ 1.1-1.2 & 2.1-2.2 update	Intervention not targeted at PTSD symptoms	McBain RK, Salhi C, Hann K, Salomon JA, Kim JJ, Betancourt TS. Costs and cost-effectiveness of a mental health intervention for war-affected young persons: decision analysis based on a randomized controlled trial. Health policy and planning. 2015 Sep 7;31(4):415-24.	
Melnyk 2004	Handsearch	Intervention not targeted at PTSD symptoms	Melnyk BM, Alpert-Gillis L, Feinstein NF, Crean HF, Johnson J, Fairbanks E, Small L, Rubenstein J, Slota M, Corbo-Richert B. Creating opportunities for parent empowerment: program effects on the mental health/coping outcomes of critically ill young children and their mothers. Pediatrics. 2004 Jun;113(6):e597-607.	
Muglia-Wechsler 2014	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Muglia-Wechsler A, Bragado-Álvarez C, Hernández-Lloreda MJ. Effectiveness of psychological interventions intended to promote adjustment of children with cancer and their parents: an overview. Anales de	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			Psicología/Annals of Psychology. 2013 Dec 21;30(1):93-103.	
Naderi 2009	Handsearch	Paper unavailable	Naderi F, Alirezaie N, Yasami MT, Mohammadi MR, Mahmoudi-Gharaei JM, Moftakhari O. The effects of a short-term cognitive behavioral group intervention on Bam earthquake related PTSD symptoms in adolescents. Iranian Journal of Psychiatry. 2009;4(2):79-84.	
NCT02004743	Handsearch	Unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided)	NCT02004743. Program Development in Guideline Development, Early Recognition and Specialized Treatment of Post Traumatic Stress Disorder (PTSD) at Sunnybrook Health Sciences Center, Canada's Largest Trauma Center. 2013. Available from: https://clinicaltrials.gov/ct2/show/NCT02004743 [accessed 11.05.2017]	
NCT02477722	Handsearch	Unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided)	NCT02477722. Neurofeedback Preventive Intervention for PTSD: a Method to Strengthen Mental and Emotional Resilience. Available from:	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			https://clinicaltrials.gov/ct2/show/NCT02477722 [accessed 11.05.2017]	
NCT02671487	Handsearch	Unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided)	NCT02671487. Mind-Body Skills Groups for Behavioral and Emotional Problems in War-Traumatized Male Adolescents in Gaza. 2016. Available from: https://clinicaltrials.gov/ct2/show/NCT02671487 [accessed 11.05.2017]	
Newman 2014	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Newman E, Pfefferbaum B, Kirlic N, Tett R, Nelson S, Liles B. Meta-analytic review of psychological interventions for children survivors of natural and man-made disasters. Current psychiatry reports. 2014 Sep 1;16(9):1-0.	
O'Sullivan 2016	RQ 1.1-1.2 & 2.1-2.2 update	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	O'sullivan C, Bosqui T, Shannon C. Psychological interventions for children and young people affected by armed conflict or political violence: a systematic literature review. Intervention. 2016 Jul 1;14(2):142-64.	
Overbeek 2017	RQ 1.1-1.2 & 2.1-2.2 update	Subgroup/secondary analysis of RCT already included	Overbeek MM, De Schipper JC, Willemen AM, Lamers-Winkelman F, Schuengel C. Mediators and treatment factors	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			in intervention for children exposed to interparental violence. Journal of Clinical Child & Adolescent Psychology. 2017 May 4;46(3):411-27.	
Pfefferbaum 2014	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Pfefferbaum B, Newman E, Nelson SD. Mental health interventions for children exposed to disasters and terrorism. Journal of child and adolescent psychopharmacology. 2014 Feb 1;24(1):24-31.	
Pfefferbaum 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Pfefferbaum B, Jacobs AK, Nitiéma P, Everly GS. Child debriefing: a review of the evidence base. Prehospital and disaster medicine. 2015 Jun 1;30(03):306-15.	
Prchal 2009	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Prchal A, Landolt MA. Psychological interventions with siblings of pediatric cancer patients: a systematic review. Psycho-Oncology. 2009 Dec 1;18(12):1241-51.	
Reddy 2013	Handsearch	Intervention not targeted at PTSD symptoms	Reddy SD, Negi LT, Dodson-Lavelle B, Ozawa-de Silva B, Pace TW, Cole SP, Raison CL, Craighead LW. Cognitive-Based Compassion Training: a	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			promising prevention strategy for at-risk adolescents. Journal of Child and Family Studies. 2013 Feb 1;22(2):219-30.	
Ronan 1999	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Efficacy or safety data cannot be extracted	Ronan, K. and Johnson, D. (1999) Behaviourally-based interventions for children following volcanic eruptions: an evaluation of effectiveness, Disaster prevention and management, 8, 169-176	
Ronan 2003	Handsearch	Population outside scope: Inoculation interventions for people who may be at risk of experiencing but have not experienced, a traumatic event	Ronan KR, Johnston DM. Hazards education for youth: A quasi-experimental investigation. Risk analysis. 2003 Oct 1;23(5):1009-20.	
Ruggiero 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Outcome measures are not validated	Ruggiero KJ, Price M, Adams Z, Stauffacher K, McCauley J, Danielson CK, Knapp R, Hanson RF, Davidson TM, Amstadter AB, Carpenter MJ. Web intervention for adolescents affected by disaster: Population-based randomized controlled trial. Journal of the American Academy of Child & Adolescent Psychiatry. 2015 Sep 30;54(9):709-17.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Runyon 2010	Handsearch	Comparison outside protocol	Runyon MK, Deblinger E, Steer RA. Group cognitive behavioral treatment for parents and children at-risk for physical abuse: An initial study. Child & Family Behavior Therapy. 2010 Aug 6;32(3):196-218.	
Sadeh 2008	Handsearch	Outcome measures are not validated	Sadeh A, Hen-Gal S, Tikotzky L. Young children's reactions to war-related stress: A survey and assessment of an innovative intervention. Pediatrics. 2008 Jan 1;121(1):46-53.	
Sahin 2011	Handsearch	Non-randomised group assignment	Sahin NH, Yilmaz B, Batigun A. Psychoeducation for children and adults after the Marmara earthquake: an evaluation study. Traumatology. 2011 Mar 10:1534765610395624.	
Shen 2002	Handsearch	Intervention not targeted at PTSD symptoms	Shen YJ. Short-term group play therapy with Chinese earthquake victims: Effects on anxiety, depression and adjustment. International Journal of Play Therapy. 2002;11(1):43.	
Shirk 2014	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Shirk SR, DePrince AP, Crisostomo PS, Labus J. Cognitive behavioral therapy for depressed adolescents exposed to interpersonal trauma: An	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			initial effectiveness trial. Psychotherapy. 2014 Mar;51(1):167.	
Shooshtary 2008	Handsearch	Non-randomised group assignment	Shooshtary MH, Panaghi L, Moghadam JA. Outcome of cognitive behavioral therapy in adolescents after natural disaster. Journal of Adolescent Health. 2008 May 31;42(5):466-72.	
Slobodin 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Slobodin O, de Jong JT. Family interventions in traumatized immigrants and refugees: A systematic review. Transcultural psychiatry. 2015 Dec;52(6):723-42.	
Stallard 1993	Handsearch	Non-randomised group assignment	Stallard P, Law F. Screening and psychological debriefing of adolescent survivors of life-threatening events. The British Journal of Psychiatry. 1993 Nov 1;163(5):660-5.	
Stallard 2006c	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Stallard P. Psychological interventions for post-traumatic reactions in children and young people: A review of randomised controlled trials. Clinical Psychology Review. 2006 Nov 30;26(7):895-911.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Stoddard 2014	Handsearch	Sample size (N<10/arm)	Stoddard FJ. RCT Intervention to Reduce Stress in 0-5 Year Olds With Burns. 2014 [results published; protocol published in 2009]. Available from: https://clinicaltrials.gov/ct2/show/study/NCT00844896 [accessed 10.05.17]	
Sullivan 2008	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Sullivan AL, Simonson GR. A systematic review of school-based social-emotional interventions for refugee and war-traumatized youth. Review of Educational Research. 2016 Jun 1;86(2):503-30.	
Tal 2013	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Tal G, Tirosh E. Rehabilitation of children with traumatic brain injury: a critical review. Pediatric neurology. 2013 Jun 30;48(6):424-31.	
Tang 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Non-randomised group assignment	Tang TC, Yang P, Yen CF, Liu TL. Eye movement desensitization and reprocessing for treating psychological disturbances in Taiwanese adolescents who experienced Typhoon Morakot. The Kaohsiung journal of medical sciences. 2015 Jul 31;31(7):363-9.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Taussig 2010	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Efficacy or safety data cannot be extracted	Taussig HN, Culhane SE. Impact of a mentoring and skills group program on mental health outcomes for maltreated children in foster care. Archives of pediatrics & adolescent medicine. 2010 Aug 1;164(8):739-46.	
Tlustos 2016	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Tlustos SJ, Kirkwood MW, Taylor HG, Stancin T, Brown TM, Wade SL. A randomized problem-solving trial for adolescent brain injury: Changes in social competence. Rehabilitation psychology. 2016 Nov;61(4):347.	
Vinken 2006	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Unpublished (registered on clinical trials registry and author contacted for full trial report but not provided)	Vinken, M. J. B. Prevention of post-traumatic stress disorder in children and adolescents [ISRCTN07286192]. Available from: http://www.isrctn.com/ISRCTN07286192 [accessed 28.04.17]	
Wethington 2008	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Wethington HR, Hahn RA, Fuqua-Whitley DS, Sipe TA, Crosby AE, Johnson RL, Liberman AM, Mościcki E, Price LN, Tuma FK, Kalra G. The effectiveness of interventions to reduce psychological harm from	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			traumatic events among children and adolescents: a systematic review. American journal of preventive medicine. 2008 Sep 30;35(3):287-313.	
Wolmer 2005	Handsearch	Non-randomised group assignment	Wolmer L, Laor N, Dedeoglu C, Siev J, Yazgan Y. Teacher-mediated intervention after disaster: a controlled three-year follow-up of children's functioning. Journal of Child Psychology and Psychiatry. 2005 Nov 1;46(11):1161-8.	
Wolmer 2011	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Non-randomised group assignment	Wolmer L, Hamiel D, Laor N. Preventing children's posttraumatic stress after disaster with teacher-based intervention: A controlled study. Journal of the American Academy of Child & Adolescent Psychiatry. 2011 Apr 30;50(4):340-8.	
Wong 2013	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Wong V, Cheuk DKL, Lee S, Chu V. Acupuncture for acute management and rehabilitation of traumatic brain injury. Cochrane Database of Systematic Reviews 2013, Issue 3. Art. No.: CD007700. DOI:	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			10.1002/14651858.CD007700.pub3.	
Zhu 2014	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention outside protocol	Zhu Z, Wang R, Kao HS, Zong Y, Liu Z, Tang S, Xu M, Liu IC, Lam SP. Effect of calligraphy training on hyperarousal symptoms for childhood survivors of the 2008 China earthquakes. Neuropsychiatric disease and treatment. 2014;10:977.	
Betancourt 2012	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Betancourt TS, Newnham EA, Brennan RT, Verdeli H, Borisova I, Neugebauer R, Bass J, Bolton P. Moderators of treatment effectiveness for war-affected youth with depression in northern Uganda. Journal of Adolescent Health. 2012 Dec 31;51(6):544-50.	
Betancourt 2014	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Efficacy or safety data cannot be extracted	Betancourt TS, McBain R, Newnham EA, Akinsulure-Smith AM, Brennan RT, Weisz JR, Hansen NB. A behavioral intervention for war-affected youth in Sierra Leone: a randomized controlled trial. Journal of the American Academy of Child & Adolescent	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			Psychiatry. 2014 Dec 31;53(12):1288-97.	
Bjornstad 2009	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Protocol	Bjornstad GJ, Ramchandani P, Montgomery P, Gardner F. Child-focused cognitive behavioural therapy for children who have been physically abused. The Cochrane Library. 2009.	
Borwn 2006	Handsearch	Non-randomised group assignment	Brown EJ, McQuaid J, Farina L, Ali R, Winnick-Gelles A. Matching interventions to children's mental health needs: Feasibility and acceptability of a pilot school-based trauma intervention program. Education and Treatment of Children. 2006 May 1:257-86	
Braga 2005	Handsearch	Intervention not targeted at PTSD symptoms	Braga LW, Da Paz Junior AC, Ylvisaker M. Direct clinician-delivered versus indirect family-supported rehabilitation of children with traumatic brain injury: a randomized controlled trial. Brain Injury. 2005 Sep 1;19(10):819-31.	
Brier 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Brier MJ, Schwartz LA, Kazak AE. Psychosocial, health-promotion, and neurocognitive interventions for survivors of	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			childhood cancer: A systematic review. Health Psychology. 2015 Feb;34(2):130.	
Brown 2017	RQ 5.1_5.2_adhoc AND RQ 1.1-1.2 & 2.1-2.2 update	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Brown, R., Witt, A., Fegert, J., Keller, F., Rassenhofer, M., Plener, P. (2017) Psychosocial interventions for children and adolescents after man-made and natural disasters: A meta-analysis and systematic review, Psychological Medicine,	
Bryant 2011a	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Unpublished (registered on ANZCTR and author contacted for full trial report but not provided)	Bryant R. Randomised controlled trial of cognitive behavior therapy and supportive counselling for reduction in posttraumatic stress disorder (PTSD) symptoms in Acehnese children [ACTRN12611000080921]. Available from: https://www.anzctr.org.au/Trial/Registration/TrialReview.aspx?id=336336 [accessed 23.02.17]	
Cain 2010	Handsearch	Non-RCT (no control group)	Cain DS, Plummer CA, Fisher RM, Bankston TQ. Weathering the storm: persistent effects and psychological first aid with children displaced by Hurricane Katrina. Journal of Child &	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			Adolescent Trauma. 2010 Nov 16;3(4):330-43.	
Carbonell 1999	Handsearch	Intervention not targeted at PTSD symptoms	Carbonell DM, Parteleno-Barehmi C. Psychodrama groups for girls coping with trauma. International journal of group psychotherapy. 1999 Jul 1;49(3):285-306.	
CATS Consortium 2010	Handsearch	Non-randomised group assignment	Weaver CM, Olin S, Wisdom J. Implementation of CBT for youth affected by the World Trade Center disaster: Matching need to treatment intensity and reducing trauma symptoms. J Trauma Stress. 2010 Dec;23(6):699e707.	
Chapman 2001	Handsearch	Efficacy or safety data cannot be extracted	Chapman L, Morabito D, Ladakakos C, Schreier H, Knudson MM. The effectiveness of art therapy interventions in reducing post traumatic stress disorder (PTSD) symptoms in pediatric trauma patients. Art Therapy. 2001 Jan 1;18(2):100-4.	
Chemtob 2002	2004 GL (excluded)	Comparison outside protocol	Chemtob, C. M., Nakashima, J. P., & Hamada, R. S. (2002). Psychosocial intervention for postdisaster trauma symptoms in elementary school children: A	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			controlled community field study. Archives of Pediatrics & Adolescent Medicine, 156, 211-216.	
Cohen 1996/1997	2004 GL (included)	Intervention not targeted at PTSD symptoms	Cohen JA, Mannarino AP, A treatment outcome study for sexually abused preschool children: initial findings. J Am Acad Child Adolesc Psychiatry. 1996 Jan;35(1):42-50.	Cohen JA, Mannarino AP. A treatment study for sexually abused preschool children: outcome during a one-year follow-up. J Am Acad Child Adolesc Psychiatry. 1997 Sep;36(9):1228-35.
Cohen 1998a	2004 GL (included)	Intervention not targeted at PTSD symptoms	Cohen JA, Mannarino AP. Interventions for sexually abused children: Initial treatment outcome findings. Child Maltreatment, Vol 3, No 1, February 1998.	
Cohen 2006	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Cohen JA, Mannarino AP, Murray LK, Igelman R. Psychosocial Interventions for Maltreated and Violence-Exposed Children. Journal of Social Issues. 2006 Dec 1;62(4):737-66.	
Culver 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Sample size (N<10/arm)	Culver KA, Whetten K, Boyd DL, O'Donnell K. Yoga to reduce trauma-related distress and emotional and behavioral difficulties among children living in orphanages in Haiti: A pilot	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			study. The Journal of Alternative and Complementary Medicine. 2015 Sep 1;21(9):539-45.	
De Silva 2009	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	De Silva M, MacLachlan M, Devane D, Desmond D, Gallagher P, Schnyder U, Brennan M, Patel V. Psychosocial interventions for the prevention of disability following traumatic physical injury. The Cochrane Library. 2009 Jan 1.	
Diab 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Diab M, Peltonen K, Qouta SR, Palosaari E, Punamäki RL. Effectiveness of psychosocial intervention enhancing resilience among war-affected children and the moderating role of family factors. Child abuse & neglect. 2015 Feb 28;40:24-35.	
Dietz 2012	Handsearch	Non-randomised group assignment	Dietz TJ, Davis D, Pennings J. Evaluating animal-assisted therapy in group treatment for child sexual abuse. Journal of child sexual abuse. 2012 Nov 1;21(6):665-83.	
Ehntholt 2005	Handsearch	Non-randomised group assignment	Ehntholt KA, Smith PA, Yule W. School-based cognitive-behavioural therapy group intervention for refugee children	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			who have experienced war-related trauma. Clinical Child Psychology and Psychiatry. 2005 Apr;10(2):235-50.	
Fernandez 2004	2004 GL (excluded)	Non-randomised group assignment	Fernandez, I., Gallinari, E., Lorenzetti, A. (2004) A school-based EMDR intervention for children who witnessed the Pirelli building airplane crash in Milan, Italy. Journal of Brief Therapy, 2, 129- 136.	
Flynn 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Flynn AB, Fothergill KE, Wilcox HC, Coleclough E, Horwitz R, Ruble A, Burkey MD, Wissow LS. Primary care interventions to prevent or treat traumatic stress in childhood: a systematic review. Academic pediatrics. 2015 Oct 31;15(5):480-92.	
Forman-Hoffman 2013a	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Forman-Hoffman VL, Zolotor AJ, McKeeman JL, Blanco R, Knauer SR, Lloyd SW, Fraser JG, Viswanathan M. Comparative effectiveness of interventions for children exposed to nonrelational traumatic events. Pediatrics. 2013 Feb 1:peds-2012.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Fraser 2013	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Fraser JG, Lloyd S, Murphy R, Crowson M, Zolotor AJ, Coker-Schwimmer E, Viswanathan M. A comparative effectiveness review of parenting and trauma-focused interventions for children exposed to maltreatment. Journal of Developmental & Behavioral Pediatrics. 2013 Jun 1;34(5):353-68.	
Fu 2013	Handsearch	Non-randomised group assignment	Fu C, Leoutsakos JM, Underwood C. Moderating effects of a postdisaster intervention on risk and resilience factors associated with posttraumatic stress disorder in Chinese children. Journal of traumatic stress. 2013 Dec 1;26(6):663-70.	
Fu 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Fu C, Underwood C. A meta-review of school-based disaster interventions for child and adolescent survivors. Journal of Child & Adolescent Mental Health. 2015 Sep 2;27(3):161-71.	
Gardner 2009	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Protocol	Gardner F, Bjornstad GJ, Ramchandani P, Tao X, Montgomery P. Family therapy	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			for children who have been physically abused. The Cochrane Library. 2009.	
Gelkopf 2009	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Population outside scope: Inoculation interventions for people who may be at risk of experiencing but have not experienced, a traumatic event	Gelkopf, M. and R. Berger (2009). A school-based, teacher-mediated prevention program (ERASE-Stress) for reducing terror-related traumatic reactions in Israeli youth: a quasi-randomized controlled trial. Journal of child psychology and psychiatry, and allied disciplines 50(8): 962-971.	
Gillies 2007	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Protocol	Gillies D, O'Brien L, Rogers P, Meekings C. Psychological therapies for the prevention and treatment of post-traumatic stress disorder in children and adolescents. Cochrane Database of Systematic Reviews. 2007;(3) (no pagination)(CD006726).	
Gillies 2016	RQ 1.1-1.2 & 2.1-2.2 (searches combined) AND RQ 1.1-1.2 & 2.1-2.2 update	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Gillies D, Maiocchi L, Bhandari AP,Taylor F,Gray C,O'Brien L. Psychological therapies for children and adolescents exposed to trauma. Cochrane Database of Systematic Reviews 2016, Issue 10. Art.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			No.: CD012371. DOI: 10.1002/14651858.CD012371.	
Goenjian 2005	Handsearch	Non-randomised group assignment	Goenjian AK, Walling D, Steinberg AM, Karayan I, Najarian LM, Pynoos R. A prospective study of posttraumatic stress and depressive reactions among treated and untreated adolescents 5 years after a catastrophic disaster. American Journal of Psychiatry. 2005 Dec 1;162(12):2302-8.	
Greenbaum 2017	RQ 1.1-1.2 & 2.1-2.2 update	Outcomes are not of interest	Greenbaum CA, Javdani S. Expressive writing intervention promotes resilience among juvenile justice-involved youth. Children and Youth Services Review. 2017 Feb 1;73:220-9.	
Gupta 2008	Handsearch	Non-RCT (no control group)	Gupta L, Zimmer C. Psychosocial intervention for war-affected children in Sierra Leone. The British Journal of Psychiatry. 2008 Mar 1;192(3):212-6.	
Gutermann 2016	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Gutermann J, Schreiber F, Matulis S, Schwartzkopff L, Deppe J, Steil R. Psychological treatments for symptoms of posttraumatic stress disorder in	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			children, adolescents, and young adults: a meta-analysis. Clinical child and family psychology review. 2016 Jun 1;19(2):77-93.	
ISRCTN66249480	Handsearch	Unpublished (registered on clinical trials registry and author contacted for full trial report but not provided)	ISRCTN66249480. Efficacy of a school-based psychosocial intervention to deal with the psychosocial impact of armed conflict on school-aged children in Sri Lanka. 2006. Available from: http://www.isrctn.com/ISRCTN66249480 [accessed 11.05.2017]	
Jones 2013	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Non-systematic review	Jones P, Blunda M, Biegel G, Carlson LE, Biel M, Wiener L. Can mindfulness-based interventions help adolescents with cancer?. Psycho-Oncology. 2013 Sep 1;22(9):2148-51.	
Jordans 2016	RQ 1.1-1.2 & 2.1-2.2 update	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Jordans MJ, Pigott H, Tol WA. Interventions for children affected by armed conflict: a systematic review of mental health and psychosocial support in low-and middle-income countries. Current psychiatry reports. 2016 Jan 1;18(1):9.	
Jouriles 2009	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Jouriles EN, McDonald R, Rosenfield D, Stephens N,	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			Corbitt-Shindler D, Miller PC. Reducing conduct problems among children exposed to intimate partner violence: a randomized clinical trial examining effects of Project Support. Journal of consulting and clinical psychology. 2009 Aug;77(4):705.	
Karam 2008	Handsearch	Non-randomised group assignment	Karam EG, Fayyad J, Karam AN, Tabet CC, Melhem N, Mneimneh Z, Dimassi H. Effectiveness and specificity of a classroom-based group intervention in children and adolescents exposed to war in Lebanon. World Psychiatry. 2008 Jun 1;7(2):103-9.	
Kataoka 2003	Handsearch	Non-randomised group assignment	Kataoka SH, Stein BD, Jaycox LH, Wong M, Escudero P, Tu W, Zaragoza C, Fink A. A school-based mental health program for traumatized Latino immigrant children. Journal of the American Academy of Child & Adolescent Psychiatry. 2003 Mar 31;42(3):311-8.	
Khamis 2004	Handsearch	Insufficient detail in trial report to judge risk of bias	Khamis V, Macy R, Coignez V. The impact of the classroom/community/camp-	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			based intervention (CBI) program on Palestinian children. Save the Children, USA. 2004 Jun.	
Kolko 1996a/1996b	Handsearch	Intervention not targeted at PTSD symptoms	Kolko DJ. Clinical monitoring of treatment course in child physical abuse: Psychometric characteristics and treatment comparisons. Child abuse & neglect. 1996 Jan 31;20(1):23-43.	Kolko DJ. Individual cognitive behavioral treatment and family therapy for physically abused children and their offending parents: A comparison of clinical outcomes. Child Maltreatment. 1996 Nov 1;1(4):322-42.
Kramer 2011	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Kramer DN, Landolt MA. Characteristics and efficacy of early psychological interventions in children and adolescents after single trauma: A meta-analysis. European journal of psychotraumatology. 2011 Dec 15;2.	
Lange-Nielsen 2012	Handsearch	Non-randomised group assignment	Lange-Nielsen II, Kolltveit S, Thabet AA, Dyregrov A, Pallesen S, Johnsen TB, Laberg JC. Short-term effects of a writing intervention among adolescents in Gaza. Journal of Loss and Trauma. 2012 Sep 1;17(5):403-22.	
Layne 2001	Handsearch	Non-RCT (no control group)	Layne CM, Pynoos RS, Saltzman WR, Arslanagić B,	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			Black M, Savjak N, Popović T, Duraković E, Mušić M, Ćampara N, Djapo N. Trauma/grief-focused group psychotherapy: School-based postwar intervention with traumatized Bosnian adolescents. Group Dynamics: Theory, Research, and Practice. 2001 Dec;5(4):277.	
Lewis 2010	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Lewis CC, Simons AD, Nguyen LJ, Murakami JL, Reid MW, Silva SG, March JS. Impact of childhood trauma on treatment outcome in the Treatment for Adolescents with Depression Study (TADS). Journal of the American Academy of Child & Adolescent Psychiatry. 2010 Feb 28;49(2):132-40.	
Lopes-Júnior 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Lopes-Júnior LC, Bomfim EO, Nascimento LC, Nunes MD, Pereira-da-Silva G, Lima RA. Non-pharmacological interventions to manage fatigue and psychological stress in children and adolescents with cancer: an integrative review. European journal of cancer care. 2015 Sep 1.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Macdonald 2012	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Macdonald G, Higgins JPT, Ramchandani P, Valentine JC, Bronger LP, Klein P, O'Daniel R, Pickering M, Rademaker B, Richardson G, Taylor M. Cognitive-behavioural interventions for children who have been sexually abused. Cochrane Database of Systematic Reviews 2012, Issue 5. Art. No.: CD001930. DOI: 10.1002/14651858.CD001930.pub3.	
Macdonald 2016a	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	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. Health Technol Assess 2016;20(69).	
McBain 2015a	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	McBain RK, Salhi C, Hann K, Kellie J, Kamara A, Salomon JA, Kim JJ, Betancourt TS. Improving outcomes for caregivers through treatment of young people affected by war: a randomized controlled trial in Sierra Leone. Bulletin of the	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			World Health Organization. 2015 Dec;93(12):834-41.	
McBain 2015b	RQ 1.1-1.2 & 2.1-2.2 update	Intervention not targeted at PTSD symptoms	McBain RK, Salhi C, Hann K, Salomon JA, Kim JJ, Betancourt TS. Costs and cost-effectiveness of a mental health intervention for war-affected young persons: decision analysis based on a randomized controlled trial. Health policy and planning. 2015 Sep 7;31(4):415-24.	
Melnyk 2004	Handsearch	Intervention not targeted at PTSD symptoms	Melnyk BM, Alpert-Gillis L, Feinstein NF, Crean HF, Johnson J, Fairbanks E, Small L, Rubenstein J, Slota M, Corbo-Richert B. Creating opportunities for parent empowerment: program effects on the mental health/coping outcomes of critically ill young children and their mothers. Pediatrics. 2004 Jun;113(6):e597-607.	
Muglia-Wechsler 2014	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Muglia-Wechsler A, Bragado-Álvarez C, Hernández-Lloreda MJ. Effectiveness of psychological interventions intended to promote adjustment of children with cancer and their parents: an overview. Anales de	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			Psicología/Annals of Psychology. 2013 Dec 21;30(1):93-103.	
Naderi 2009	Handsearch	Paper unavailable	Naderi F, Alirezaie N, Yasami MT, Mohammadi MR, Mahmoudi-Gharaei JM, Moftakhari O. The effects of a short-term cognitive behavioral group intervention on Bam earthquake related PTSD symptoms in adolescents. Iranian Journal of Psychiatry. 2009;4(2):79-84.	
NCT02004743	Handsearch	Unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided)	NCT02004743. Program Development in Guideline Development, Early Recognition and Specialized Treatment of Post Traumatic Stress Disorder (PTSD) at Sunnybrook Health Sciences Center, Canada's Largest Trauma Center. 2013. Available from: https://clinicaltrials.gov/ct2/show/NCT02004743 [accessed 11.05.2017]	
NCT02477722	Handsearch	Unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided)	NCT02477722. Neurofeedback Preventive Intervention for PTSD: a Method to Strengthen Mental and Emotional Resilience. Available from:	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			https://clinicaltrials.gov/ct2/show/NCT02477722 [accessed 11.05.2017]	
NCT02671487	Handsearch	Unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided)	NCT02671487. Mind-Body Skills Groups for Behavioral and Emotional Problems in War-Traumatized Male Adolescents in Gaza. 2016. Available from: https://clinicaltrials.gov/ct2/show/NCT02671487 [accessed 11.05.2017]	
Newman 2014	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Newman E, Pfefferbaum B, Kirlic N, Tett R, Nelson S, Liles B. Meta-analytic review of psychological interventions for children survivors of natural and man-made disasters. Current psychiatry reports. 2014 Sep 1;16(9):1-0.	
O'Sullivan 2016	RQ 1.1-1.2 & 2.1-2.2 update	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	O'sullivan C, Bosqui T, Shannon C. Psychological interventions for children and young people affected by armed conflict or political violence: a systematic literature review. Intervention. 2016 Jul 1;14(2):142-64.	
Overbeek 2017	RQ 1.1-1.2 & 2.1-2.2 update	Subgroup/secondary analysis of RCT already included	Overbeek MM, De Schipper JC, Willemen AM, Lamers-Winkelman F, Schuengel C. Mediators and treatment factors	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			in intervention for children exposed to interparental violence. Journal of Clinical Child & Adolescent Psychology. 2017 May 4;46(3):411-27.	
Pfefferbaum 2014	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Pfefferbaum B, Newman E, Nelson SD. Mental health interventions for children exposed to disasters and terrorism. Journal of child and adolescent psychopharmacology. 2014 Feb 1;24(1):24-31.	
Pfefferbaum 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Pfefferbaum B, Jacobs AK, Nitiéma P, Everly GS. Child debriefing: a review of the evidence base. Prehospital and disaster medicine. 2015 Jun 1;30(03):306-15.	
Prchal 2009	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Prchal A, Landolt MA. Psychological interventions with siblings of pediatric cancer patients: a systematic review. Psycho-Oncology. 2009 Dec 1;18(12):1241-51.	
Reddy 2013	Handsearch	Intervention not targeted at PTSD symptoms	Reddy SD, Negi LT, Dodson-Lavelle B, Ozawa-de Silva B, Pace TW, Cole SP, Raison CL, Craighead LW. Cognitive-Based Compassion Training: a	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			promising prevention strategy for at-risk adolescents. Journal of Child and Family Studies. 2013 Feb 1;22(2):219-30.	
Ronan 1999	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Efficacy or safety data cannot be extracted	Ronan, K. and Johnson, D. (1999) Behaviourally-based interventions for children following volcanic eruptions: an evaluation of effectiveness, Disaster prevention and management, 8, 169-176	
Ronan 2003	Handsearch	Population outside scope: Inoculation interventions for people who may be at risk of experiencing but have not experienced, a traumatic event	Ronan KR, Johnston DM. Hazards education for youth: A quasi-experimental investigation. Risk analysis. 2003 Oct 1;23(5):1009-20.	
Ruggiero 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Outcome measures are not validated	Ruggiero KJ, Price M, Adams Z, Stauffacher K, McCauley J, Danielson CK, Knapp R, Hanson RF, Davidson TM, Amstadter AB, Carpenter MJ. Web intervention for adolescents affected by disaster: Population-based randomized controlled trial. Journal of the American Academy of Child & Adolescent Psychiatry. 2015 Sep 30;54(9):709-17.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Runyon 2010	Handsearch	Comparison outside protocol	Runyon MK, Deblinger E, Steer RA. Group cognitive behavioral treatment for parents and children at-risk for physical abuse: An initial study. Child & Family Behavior Therapy. 2010 Aug 6;32(3):196-218.	
Sadeh 2008	Handsearch	Outcome measures are not validated	Sadeh A, Hen-Gal S, Tikotzky L. Young children's reactions to war-related stress: A survey and assessment of an innovative intervention. Pediatrics. 2008 Jan 1;121(1):46-53.	
Sahin 2011	Handsearch	Non-randomised group assignment	Sahin NH, Yilmaz B, Batigun A. Psychoeducation for children and adults after the Marmara earthquake: an evaluation study. Traumatology. 2011 Mar 10:1534765610395624.	
Shen 2002	Handsearch	Intervention not targeted at PTSD symptoms	Shen YJ. Short-term group play therapy with Chinese earthquake victims: Effects on anxiety, depression and adjustment. International Journal of Play Therapy. 2002;11(1):43.	
Shirk 2014	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Shirk SR, DePrince AP, Crisostomo PS, Labus J. Cognitive behavioral therapy for depressed adolescents exposed to interpersonal trauma: An	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			initial effectiveness trial. Psychotherapy. 2014 Mar;51(1):167.	
Shooshtary 2008	Handsearch	Non-randomised group assignment	Shooshtary MH, Panaghi L, Moghadam JA. Outcome of cognitive behavioral therapy in adolescents after natural disaster. Journal of Adolescent Health. 2008 May 31;42(5):466-72.	
Slobodin 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Slobodin O, de Jong JT. Family interventions in traumatized immigrants and refugees: A systematic review. Transcultural psychiatry. 2015 Dec;52(6):723-42.	
Stallard 1993	Handsearch	Non-randomised group assignment	Stallard P, Law F. Screening and psychological debriefing of adolescent survivors of life-threatening events. The British Journal of Psychiatry. 1993 Nov 1;163(5):660-5.	
Stallard 2006c	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Stallard P. Psychological interventions for post-traumatic reactions in children and young people: A review of randomised controlled trials. Clinical Psychology Review. 2006 Nov 30;26(7):895-911.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Stoddard 2014	Handsearch	Sample size (N<10/arm)	Stoddard FJ. RCT Intervention to Reduce Stress in 0-5 Year Olds With Burns. 2014 [results published; protocol published in 2009]. Available from: https://clinicaltrials.gov/ct2/show/study/NCT00844896 [accessed 10.05.17]	
Sullivan 2008	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Sullivan AL, Simonson GR. A systematic review of school-based social-emotional interventions for refugee and war-traumatized youth. Review of Educational Research. 2016 Jun 1;86(2):503-30.	
Tal 2013	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Tal G, Tirosh E. Rehabilitation of children with traumatic brain injury: a critical review. Pediatric neurology. 2013 Jun 30;48(6):424-31.	
Tang 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Non-randomised group assignment	Tang TC, Yang P, Yen CF, Liu TL. Eye movement desensitization and reprocessing for treating psychological disturbances in Taiwanese adolescents who experienced Typhoon Morakot. The Kaohsiung journal of medical sciences. 2015 Jul 31;31(7):363-9.	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Taussig 2010	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Efficacy or safety data cannot be extracted	Taussig HN, Culhane SE. Impact of a mentoring and skills group program on mental health outcomes for maltreated children in foster care. Archives of pediatrics & adolescent medicine. 2010 Aug 1;164(8):739-46.	
Tlustos 2016	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Tlustos SJ, Kirkwood MW, Taylor HG, Stancin T, Brown TM, Wade SL. A randomized problem-solving trial for adolescent brain injury: Changes in social competence. Rehabilitation psychology. 2016 Nov;61(4):347.	
Vinken 2006	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Unpublished (registered on clinical trials registry and author contacted for full trial report but not provided)	Vinken, M. J. B. Prevention of post-traumatic stress disorder in children and adolescents [ISRCTN07286192]. Available from: http://www.isrctn.com/ISRCTN07286192 [accessed 28.04.17]	
Wethington 2008	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Wethington HR, Hahn RA, Fuqua-Whitley DS, Sipe TA, Crosby AE, Johnson RL, Liberman AM, Mościcki E, Price LN, Tuma FK, Kalra G. The effectiveness of interventions to reduce psychological harm from	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			traumatic events among children and adolescents: a systematic review. American journal of preventive medicine. 2008 Sep 30;35(3):287-313.	
Wolmer 2005	Handsearch	Non-randomised group assignment	Wolmer L, Laor N, Dedeoglu C, Siev J, Yazgan Y. Teacher-mediated intervention after disaster: a controlled three-year follow-up of children's functioning. Journal of Child Psychology and Psychiatry. 2005 Nov 1;46(11):1161-8.	
Wolmer 2011	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Non-randomised group assignment	Wolmer L, Hamiel D, Laor N. Preventing children's posttraumatic stress after disaster with teacher-based intervention: A controlled study. Journal of the American Academy of Child & Adolescent Psychiatry. 2011 Apr 30;50(4):340-8.	
Wong 2013	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Systematic review with no new useable data and any meta-analysis results not appropriate to extract	Wong V, Cheuk DKL, Lee S, Chu V. Acupuncture for acute management and rehabilitation of traumatic brain injury. Cochrane Database of Systematic Reviews 2013, Issue 3. Art. No.: CD007700. DOI:	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			10.1002/14651858.CD007700.pub3.	
Zhu 2014	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention outside protocol	Zhu Z, Wang R, Kao HS, Zong Y, Liu Z, Tang S, Xu M, Liu IC, Lam SP. Effect of calligraphy training on hyperarousal symptoms for childhood survivors of the 2008 China earthquakes. Neuropsychiatric disease and treatment. 2014;10:977.	

Economic studies

No economic studies were reviewed at full text and excluded from this review.

Appendix L – Research recommendations

Research recommendations for "For children and young people at risk of PTSD, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?"

No research recommendations were drafted for this review.