National Institute for Health and Care Excellence

Final

Post-traumatic stress disorder

[l] Evidence reviews for organisation and delivery of care for people with PTSD

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

Disclaimer

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Organisation and delivery or care for people with PTSD

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

- Review question 7.1 Which service delivery models are effective at meeting the needs of adults, children and young people with clinically important post-traumatic stress symptoms?

Review question 7.1 Which service delivery models are effective at meeting the needs of adults, children and young people with clinically important post-traumatic stress symptoms?

Introduction

The committee agreed that by conducting an evidence review on the clinical and cost effectiveness of service delivery models for people with PTSD, that the recommendations should improve the care that people with PTSD currently receive, reinforce current best practice and help to reduce variation in clinical practice as provision is variable or non-existent in some cases.

Summary of the protocol (PICO table)

Please see Table 1 for a summary of the population, intervention, comparison and outcomes (PICO) characteristics of this review.

Table 1: Summary of the protocol (PICO table)

Population	People with clinically important post-traumatic stress symptoms
Intervention	Service delivery models (Including case management and co-ordination, collaborative care, community-based outreach clinics, clinics or services in non-health settings and trauma informed care)
Comparison	Standard management strategy
Outcomes	Critical outcomes: • Efficacy (PTSD symptoms/diagnosis) • Quality of life • Access to treatment • Uptake of treatment Important outcomes: • Healthcare utilization • Satisfaction, preference • Anxiety about treatment • Symptoms of a coexisting condition (including anxiety and depression)

For full protocol, see Appendix A – Review protocols

Methods and process

This evidence review was developed using the methods and process described in Developing NICE guidelines: the manual; see the methods chapter for further information. Methods specific to this review question are described in Appendix A – Review protocols.

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

Clinical evidence

Included studies

Out of 73 articles for full assessment, 31 randomised controlled trials (RCTs) were identified and included in this review. For details of article selection, please refer to Appendix C. Interventions included Technology based therapies, Collaborative Care, Engagement strategies, Information and support, Stepped care, School based therapies and Motivational enhancement strategies; these interventions are presented in separate sections below. Please refer to Appendix D for characteristics of included studies.

Excluded studies

Five RCTs were identified and excluded from this review. Excluded studies and reasons for their exclusion can be found in

Appendix K.

Technology based therapies: Clinical evidence

Included studies

Eight RCTs were included; seven RCTs compared delivery of Trauma-Focused Cognitive Behavioural Therapy (TF-CBT) via telehealth versus in-person TF-CBT (Acierno 2016; Acierno 2017; Frueh 2007; Maieritsch 2015; Morland 2014; Morland 2015; Strachen 2012). One RCT compared electronically assisted TF-CBT to standard TF-CBT (Ruggiero 2016).

Excluded studies

No RCTs were identified and excluded from this review.

Summary of clinical studies included

Table 2 and *BME=Black and Minority Ethnic; CBT=Cognitive Behavioural Therapy; CPT=Cognitive Processing Therapy; DSM=Diagnostic and Statistical manual of Mental disorders; ICD= International statistical Classification of Diseases and related health problems; N=Number of participants; NR=Not reported; PTSD=Post-Traumatic Stress Disorder; RCT=randomised controlled trial; TF-CBT =Trauma-Focused Cognitive Behavioural Therapy; TMH=Tele-Mental Health; VTC=Video Teleconferencing*

[1]Acierno 2016; [2]Acierno 2017; [3]Frueh 2007; [4]Maieritsch 2015; [5]Morland 2014; [6]Morland 2015; [7]Strachen 2012;

Table 3 provide a brief summary of the included studies, and evidence from these are summarised in the clinical GRADE evidence profiles below (Table 4 and Table 5).

See also the literature search strategy in appendix B, study selection flow chart in appendix C, clinical evidence tables in appendix D, forest plots in appendix E and full GRADE tables in appendix F.

Table 2: Summary of included studies: Telehealth versus in-person TF-CBT

Comparison	Telehealth versus in-person TF-CBT
Total no. of studies (N randomised)	7 (857)
Study ID	Acierno 2016,[1] Acierno 2017,[2] Frueh 2007,[3] Maieritsch 2015,[4] Morland 2014,[5] Morland 2015,[6] Strachen 2012[7]
Country	USA[1,2,3,4,5,6,7,]
Diagnostic status	PTSD diagnosis according to ICD/DSM criteria (including self-report of diagnosis) [1,2,3,4,5,6,,7]
Mean age (range)	46,[1] 42,[2] 56,[3] 31,[4] 55,[5] 46,[6] 30[7]
Sex (% female)	5.6,[1] 3.8,[2] 0,[3] 6.7,[4] 0,[5] 100,[6] 7.5[7]
Ethnicity (% BME)	49.6,[1] 39.4,[2] 66,[3] NR,[4] 44.8,[5] 53,[6] 55[7]
Type of traumatic event	Military combat[1,2,3,4,5,6,7,]
Coexisting conditions (% present)	Depression (85%,[3] 28.8%[5], 29.2%,[6] 22.5%[7] NR[1,2,4]), Anxiety (74%,[3] 19.2%,[5] 26.8%,[6] NR[1,2,4,7])
Intervention details	• Following the Behavioural Activation and Therapeutic exposure manual (based on situational and imaginal exposure), weekly sessions were delivered using participants own digital equipment.[1] • Home based tele-health using Prolonged exposure treatment manual.[2] • Tele-psychiatry: sessions conducted with a computer-based videoconferencing equipment. Patients received cognitive-

Comparison	Telehealth versus in-person TF-CBT
	behavioural groups therapy for veterans, (social skills, assertion, social communication, anger management).[3] • Tele-Mental health (TMH): The provision of mental health treatment over video conference.[4] • VTC-Video teleconferencing CPT. The CPT was a manual based protocol, a variant of CPT, which excludes the written trauma narrative.[5] • Video teleconferencing delivered CPT. Manualized evidence based treatment for PTSD (psycho-education, cognitive theory and emotions, rehearsing strategies to restructure thoughts, problematic beliefs and cognitions identified and challenged, safety, trust, control, esteem and intimacy).[6] • In-home video-conferencing technology. Behavioural Activation and Therapeutic Exposure (psycho-education, treatment rationale, life values, In vivo and imaginal exposure exercises, patients engage in prolonged imaginal exposure exercises). Homework task are also included.[7] Group[3,5], Individual[1,2,4,6,7]
Comparator	In-person CBT, following the Behavioural Activation and Therapeutic exposure manual.[1] In-person prolonged exposure.[2] In-person group therapy.[3] In-Person CBT.[4] In-person CBT (same variant as intervention, excludes written trauma narrative).[5] In-person CBT[6] In-person CBT (based on Behavioural Activation and Therapeutic Exposure).[7]
Intervention length (weeks)	6 weeks,[5] 8 weeks,[1] 14 weeks[3], NR[2,4,6,7,8]

BME=Black and Minority Ethnic; CBT=Cognitive Behavioural Therapy; CPT=Cognitive Processing Therapy; DSM=Diagnostic and Statistical manual of Mental disorders; ICD= International statistical Classification of Diseases and related health problems; N=Number of participants; NR=Not reported; PTSD=Post-Traumatic Stress Disorder; RCT=randomised controlled trial; TF-CBT =Trauma-Focused Cognitive Behavioural Therapy; TMH=Tele-Mental Health; VTC=Video Teleconferencing

[1]Acierno 2016; [2]Acierno 2017; [3]Frueh 2007; [4]Maieritsch 2015; [5]Morland 2014; [6]Morland 2015; [7]Strachen 2012;

Table 3: Summary of included studies: Technology based TF-CBT versus standard TF-CBT

Comparison	Technology-based TF-CBT versus standard TF-CBT
Total no. of studies (N randomised)	1 (131)
Study ID	Ruggiero 2016,[1]
Country	USA
Diagnostic status	Clinically important PTSD symptoms (scoring above a threshold on validated scale)
Mean age (range)	NR
Sex (% female)	22.9
Ethnicity (% BME)	40.5
Type of traumatic event	Unclear

Comparison	Technology-based TF-CBT versus standard TF-CBT
Coexisting conditions (% present)	NR
Intervention details	eTF-CBT: Tablet based resources. Content for providers, to assist in preparing sessions and creating checklists. Tools to use in session by providers with the child or caregiver; interactive tools included videos, quizzes, drag and drop activities, and drawing tools. Interactive versions of text, videos, these are intended to provide additional information. Sessions were based on PPRACTICE: Psychoeducation and Parenting, Relaxation, Affective Regulation, Cognitive Coping, Trauma Narrative and Processing, In vivo exposure, Conjoint Sessions, Enhancing Safely.
Comparator	The Sessions were based on PPRACTICE
Intervention length (weeks)	NR

BME=Black and Minority Ethnic; eTF-CBT=electronically assisted Trauma Focused-Cognitive Behavioural Therapy; N=number of participants; NR=Not Reported; PPRACTICE= Psycho-education and Parenting, Relaxation, Affective Regulation, Cognitive Coping, Trauma narrative and processing, In vivo exposure, Conjoint Sessions, Enhancing Safely; PTSD=Post-Traumatic Stress Disorder
[1]Ruggiero 2016; Final progress report, (grant R34MH096907), data provided by author

See appendix D for full evidence tables.

Quality assessment of clinical studies included in the evidence review

The clinical evidence profiles for this review (tele-health TF-CBT versus In-person TF-CBT and Technology supported TF-CBT versus standard TF-CBT) are presented in Table 4 and Table 5.

Table 4: Summary clinical evidence profile: Telehealth TF-CBT versus In-person TF-CBT

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk In-person TF-CBT	Corresponding risk Telehealth TF-CBT			
PTSD symptoms (self-report) – post-treatment		The mean PTSD symptoms (all tools combined) – post-treatment in the intervention groups was 0.15 standard deviations lower (0.32 lower to 0.03 higher)		569 (7 studies)	very low[1,2,3,4]
PTSD symptoms (self-report) - 12-13 week follow up Follow-up: mean 12.5 weeks		The mean PTSD symptoms (all tools combined) - 12-13 week follow up in the intervention groups was 0.22 standard deviations lower (0.4 to 0.04 lower)		524 (6 studies)	very low[1,2,4]
PTSD symptoms (self-report) -		The mean PTSD symptoms (all tools combined) - 26 week		681 (4 studies)	very low[1,2,3,4]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk In-person TF-CBT	Corresponding risk Telehealth TF-CBT			
26 week follow up Follow-up: mean 26 weeks		follow up in the intervention groups was 0.21 standard deviations lower (0.37 to 0.06 lower)			
PTSD symptoms (self-report) - 52 week follow up Follow-up: mean 52 weeks		The mean PTSD symptoms (all tools combined) - 52 week follow up in the intervention groups was 0.31 standard deviations higher (0.14 to 0.49 higher)		492 (2 studies)	very low[1,2,4]
PTSD (CAPS) – Post-treatment		The mean PTSD (CAPS) – post-treatment in the intervention groups was 0.33 standard deviations lower (0.56 to 0.1 lower)		300 (3 studies)	very low[1,2,4]
PTSD (CAPS) - 12-13 week follow up Follow-up: mean 12.5 weeks		The mean PTSD (CAPS) - 12-13 week follow up in the intervention groups was 0.34 standard deviations lower (0.57 to 0.11 lower)		300 (3 studies)	very low[1,2,4]
PTSD (CAPS) - 26 week follow up Follow-up: mean 26 weeks		The mean PTSD (CAPS) - 26 week follow up in the intervention groups was 0.35 standard deviations lower (0.6 to 0.1 lower)		249 (2 studies)	very low[1,2,4]
Beck Depression Inventory – Post-treatment		The mean beck depression inventory – post-treatment in the intervention groups was 0.1 standard deviations lower (0.34 lower to 0.15 higher)		324 (5 studies)	low[1,2]
Beck Depression Inventory - 12-13 week follow up Follow-up: mean 12.5 weeks		The mean beck depression inventory - 12-13 week follow up in the intervention groups was 0.09 standard deviations higher (0.17 lower to 0.34 higher)		270 (4 studies)	very low[1,2,4]
Beck Depression Inventory - 26 week follow		The mean beck depression inventory - 26 week follow up in the intervention groups		77 (1 study)	very low[1,2,4]

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk In-person TF-CBT	Corresponding risk Telehealth TF-CBT			
up Follow-up: mean 26 weeks		was 0.69 standard deviations higher (0.08 to 1.29 higher)			
Beck Depression Inventory - 52 week follow up Follow-up: mean 52 weeks		The mean beck depression inventory - 52 week follow up in the intervention groups was 0.1 standard deviations higher (0.23 lower to 0.43 higher)		140 (1 study)	very low[1,2,4]
Number completed set amount of session (defined by each author)	754 per 1000	716 per 1000 (656 to 784)	RR 0.95 (0.87 to 1.04)	673 (5 studies)	very low[1,2,4,5]
Satisfaction		The mean satisfaction in the intervention groups was 0.3 standard deviations lower (1.17 lower to 0.57 higher)		21 (1 study)	very low[1,2,4]
Beck Anxiety Inventory (post-treatment)		The mean beck anxiety inventory in the intervention groups was 0.22 standard deviations lower (1.04 lower to 0.6 higher)		23 (1 study)	very low[1,2,4,5]

CAPS= Clinician-Administered PTSD Scale; 95%CI= 95% confidence interval; PTSD=Post-Traumatic Stress Disorder; RR=Risk ratio; SMD=Standard Mean Difference; TF-CBT=Trauma-Focused Cognitive Behavioural Therapy
[1]Unclear randomisation/allocation methods
[2]Assessors and participants not blinded
[3]Heterogeneity; I2 > 50%
[4]Number of participants less than 400
[5]95% confidence interval crosses a line of imprecision (either -0.5 or 0.5)

Table 5: Summary clinical evidence profile: Technology based TF-CBT versus standard TF-CBT

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Standard TF-CBT	Corresponding risk Technology based TF-CBT			
PTSD symptomology (UCLA Post-traumatic stress disorder index)		The mean PTSD symptomatology in the intervention groups was 0.92 standard deviations lower (1.8 lower to 0.05 lower)		26 (1 study)	very low[1,2,3]

Symptoms of depression (Centre for epidemiological studies depression scale)	-	The mean symptoms of depression in the intervention groups was 0.55 standard deviations higher (0.3 lower to 1.4 higher)		26 (1 study)	very low[1,2,3]

95%CI= 95% Confidence interval; PTSD=Post-Traumatic Stress Disorder; TF-CBT=Trauma-Focused Cognitive Behavioural Therapy
[1]Assessors and participants not blinded
[2]Unclear randomisation/allocation methods
[3]Number of total participants less than 400

See appendix F for full GRADE tables.

Collaborative Care: Clinical evidence

Included studies

Seven RCTs were included, these studies compared collaborative care programs to treatment as usual (TAU) (Battersby 2013; Browne 2013; Fortney 2015; Meredith 2016; Schnurr 2013; Zatzick 2013; Zatzick 2017).

Excluded studies

One RCT was identified and excluded from this review, details of this study are presented in

Appendix K.

Summary of clinical studies included

See also the literature search strategy in appendix B, study selection flow chart in appendix C, clinical evidence tables in appendix D, forest plots in appendix E and full GRADE tables in appendix F.

Table 6 provides a brief summary of the included studies, and evidence from these are summarised in the clinical GRADE profile below (Table 7).

See also the literature search strategy in appendix B, study selection flow chart in appendix C, clinical evidence tables in appendix D, forest plots in appendix E and full GRADE tables in appendix F.

Table 6: Summary of included studies: Collaborative Care

Comparison	Collaborative care versus TAU
Total no. of studies (N randomised)	7(1,466)
Study ID	Battersby 2013[1] Browne 2013,[2] Fortney 2015,[3] Meredith 2016,[4] Schnurr 2013,[5] Zatzick 2013,[6] Zatzick 2017,[7]
Country	Australia,[1,2] USA[3,4,5,6,7]
Diagnostic status	PTSD diagnosis according to ICD/DSM criteria (including self-report of diagnosis)[3,4,5] Clinically important PTSD symptoms (scoring above a threshold on validated scale)[1,6,7] Unclear[2]
Mean age (range)	60,[1] 37,[2] 52,[3] 42,[4] 45,[5] 39,[6] 42,[7]
Sex (% female)	3.0,[1] 25,[2] 13.8,[3] 80.6,[4] 8.7,[5] 47.8,[6] 56.7,[7]
Ethnicity (% BME)	NR,[1] 15.8,[2] 36.2,[3] 94,[4] 43.5,[5] 37.2,[6] 43.9,[7]
Type of traumatic event	Unintentional injury/illness/medical emergency[2,6,7,] Military Combat[1,3,5] Unclear (participants recruited from Federally Qualified Health Centres)[4]
Coexisting conditions (% present)	Depression (79%,[1] 78.9%,[3] 51.6%,[4] 70.2%,[5]), Alcohol/drug abuse (53%,[1] 27.6%,[4]), Anxiety (10%,[1] 67.2%,[3] 45.2%,[4]), NR[2,6,7]
Intervention details	• Four part intervention, 1) Flinders Program (FP): Aims to engage the person in their own care, provides a structured clinical process for the health care provider to use, to motivate behaviour change for medical and psychosocial benefit. Follow up visits use motivational and problem solving skills to navigate the health care system. 2) Alcohol Practice Guidelines and other self-help material on alcohol consumption and use. 3) Stanford Chronic Disease Management Group Program (SCDSMP), an optional, 6 week group program to improve self-efficacy, 4) Usual care. • A multidisciplinary screening and co-ordinated care intervention. Participants attended a review appointment assessing pain, psychological function and functional capacity. Treatment was individually tailored, (physiotherapy, occupational therapy, and psychological treatment). Participants received both verbal and written materials. Clinical diagnoses and treatment plans were discussed and a summary sent to the participants GP.[2] • TOP- Telemedicine outreach for PTSD. The care teams supported those on-site and included multi-disciplinary team. The telephone nurse managed care activates and was supported by a website. The tele-psychologists delivered CPT to those who wanted it. Care manager and pharmacist activates were

Comparison	Collaborative care versus TAU
	delivered by phone, psychotherapy and psychiatric consultations were delivered by interactive video.[3] • PTSD Care Management. The care managers provided active patient education and engagement using NIMH brochures and motivational interviewing techniques, provided a link to community resources, provided structured communication with primary care clinician, and mental health providers, plus weekly case management meetings (supervised by the study psychiatrist).[4] • Three-component model of Collaborative Care (3CM): Participants received phone calls from care managers to identify barriers to adherence, and to help the patient overcome these barriers. Care managers contacted centrally located psychiatrists to discuss the participant's progress, entered the information onto the medical records.[5] • A multi-disciplinary team. Care managers engaged with participants in hospital, attempting to problem solve any post-injury concerns. PTSD treatment preferences were discussed. Study nurse and psychiatrist prescribed medication for PTSD and insomnia. CBT was delivered. Symptoms were regularly monitored and care managers remained in touch with participants to assess symptoms and care.[6] • Care management transition. Included 24 hour mobile phone availability of the research team. The strategies were flexible to target medical/surgical and psychiatric disorders, to target each patient's needs. A social worker enquired about treatment preferences and ongoing meetings were scheduled during their stay. The social worker coordinated care across surgical inpatient community and service delivery settings and reviewed care plans, aiming to enhance care coordination.[7]
Comparator	TAU; Services available from public and private medical and mental health services, hospitals, GP's Drug and alcohol services[1] TAU; care was managed by their GP, attended outpatient reviews as related to injuries[2] TAU; Community based outpatient clinic[3] Enhanced TAU; participants in both arms had an education session about trauma and PTSD[4] TAU; at the care providers discretion[5] TAU; routine outpatient surgical, primary care and mental health services as required[6] Enhanced TAU; Participants assessed for emotional distress and the information passed to the nurse[7]
Intervention length (weeks)	13 weeks,[2] 39weeks,[1] 52 weeks,[3,4,6] NR[5,7]

BME=Black and Minority Ethnic; CBT=Cognitive Behavioural Therapy; CPT=Cognitive Processing Therapy; DSM=Diagnostic and Statistical manual of Mental disorders; GP=General Practitioners; ICD= International statistical Classification of Diseases and related health problem; N=Number of participants; NR=Not reported; PTSD=Post-Traumatic Stress Disorder; TAU=Treatment as usual;

[1]Battersby 2013; [2]Browne 2013; [3]Fortney 2015; [4]Meredith 2016; [5]Schurr 2013; [6]Zatzick 2013; [7]Zatzick 2017; Psychiatry: 00; 1-16

Quality assessment of clinical studies included in the evidence review

The clinical evidence profiles for this review (collaborative care versus TAU) are presented in Table 7.

Table 7: Summary clinical evidence profile: Collaborative care verse TAU

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Treatment as usual	Corresponding risk Collaborative care			
PTSD Symptomology (self-report) - Post-treatment		The mean PTSD symptomology (self-report) - post-treatment in the intervention groups was 0.13 standard deviations higher (0.34 lower to 0.61 higher)		72 (1 study)	very low[1,2,3]
PTSD Symptomology (self-report) - 4.3 week follow up Follow-up: mean 4.3 weeks		The mean PTSD symptomology (self-report) - 4.3 week follow up in the intervention groups was 0.1 standard deviations higher (0.1 lower to 0.3 higher)		378 (2 studies)	very low[1,2,3]
PTSD Symptomology (self-report) - 13 week follow up Follow-up: mean 13 weeks		The mean PTSD symptomology (self-report) - 13 week follow up in the intervention groups was 0.14 standard deviations lower (0.31 lower to 0.02 higher)		573 (3 studies)	very low[1,2,3,4]
PTSD Symptomology (self-report) - 26 week follow up Follow-up: mean 26 weeks		The mean PTSD symptomology (self-report) - 26 week follow up in the intervention groups was 0.45 standard deviations lower (0.6 to 0.31 lower)		803 (4 studies)	very low[1,2,5]
PTSD Symptomology (self-report) - 39 week follow up Follow-up: mean 39 weeks		The mean PTSD symptomology (self-report) - 39 week follow up in the intervention groups was 0.79 standard deviations lower (1.07 to 0.51 lower)		207 (1 study)	very low[1,2,3]
PTSD Symptomology (self-report) - 52 week follow up Follow-up: mean 52 weeks		The mean PTSD symptomology (self-report) - 52 week follow up in the intervention groups was		432 (2 studies)	very low[1,2,3,4]

		0.51 standard deviations lower (0.7 to 0.32 lower)			
PTSD symptomology (CAPS) - 26 week follow up Follow-up: mean 26 weeks		The mean PTSD symptomology (caps) - 26 week follow up in the intervention groups was 0.23 standard deviations lower (0.44 to 0.02 lower)		355 (1 study)	very low[1,2,3]
PTSD symptomology (CAPS) - 52 week follow up Follow-up: mean 52 weeks		The mean PTSD symptomology (caps) - 52 week follow up in the intervention groups was 0.31 standard deviations higher (0.1 to 0.52 higher)		355 (1 study)	very low[3]
Alcohol misuse (Alcohol use disorders identification test) - Post-treatment		The mean alcohol miss-use (alcohol use disorders identification test) - post-treatment in the intervention groups was 0.57 standard deviations lower (1.05 to 0.08 lower)		72 (1 study)	very low[1,2,3]
Alcohol misuse (Alcohol use disorders identification test) - 4.3 week follow up Follow-up: mean 4.3 weeks		The mean alcohol miss-use (alcohol use disorders identification test) - 4.3 week follow up in the intervention groups was 0.08 standard deviations higher (0.13 lower to 0.28 higher)		378 (2 studies)	very low[1,2,3,4]
Alcohol misuse (Alcohol use disorders identification test) - 13 week follow up Follow-up: mean 13 weeks		The mean alcohol miss-use (alcohol use disorders identification test) - 13 week follow up in the intervention groups was 0.06 standard deviations lower (0.26 lower to 0.14 higher)		378 (2 studies)	very low[1,2,3]
Alcohol misuse (Alcohol use disorders identification test) - 26 week follow up Follow-up: mean 26 weeks		The mean alcohol miss-use (alcohol use disorders identification test) - 26 week follow up in the intervention groups was 0.03 standard deviations lower (0.22 lower to 0.16 higher)		444 (3 studies)	very low[1,2,3]
Alcohol misuse (Alcohol use disorders		The mean alcohol miss-use (alcohol use disorders identification		207 (1 study)	very low[1,2,3]

identification test) - 39 week follow up Follow-up: mean 39 weeks		test) - 39 week follow up in the intervention groups was 0.5 standard deviations higher (0.22 to 0.77 higher)			
Alcohol misuse (Alcohol use disorders identification test) - 52 week follow up Follow-up: mean 52 weeks		The mean alcohol miss-use (alcohol use disorders identification test) - 52 week follow up in the intervention groups was 0.34 standard deviations higher (0.06 to 0.61 higher)		207 (1 study)	very low[1,2,3]
Symptoms of depression (Center for Epidemiological Studies Depression Scale [CES-D])) - post-treatment		The mean symptoms of depression (self-report) - post-treatment in the intervention groups was 0.75 higher (3.18 lower to 4.68 higher)		66 (1 study)	very low[1,2,3,6]
Symptoms of depression (Patient health questionnaire-9 item [PHQ-9]) - 4.3 week follow up Follow-up: mean 4.3 weeks		The mean symptoms of depression (self-report) - 4.3 week follow up in the intervention groups was 0.39 higher (0.16 lower to 0.94 higher)		378 (2 studies)	very low[1,2,3,4]
Symptoms of depression (Hopkins Symptom Checklist-25 [HSCL-25]: Depression/ Patient health questionnaire-9 item [PHQ-9]) - 13 week follow up Follow-up: mean 13 weeks		The mean symptoms of depression (self-report) - 13 week follow up in the intervention groups was 0.01 higher (0.14 lower to 0.16 higher)		573 (3 studies)	very low[1,2,3,5]
Symptoms of depression (Hopkins Symptom Checklist-25 [HSCL-25]: Depression/ Patient health questionnaire-9 item [PHQ-9]) - 26 week follow up Follow-up: mean 26 weeks		The mean symptoms of depression (self-report) - 26 week follow up in the intervention groups was 0.01 lower (0.12 lower to 0.1 higher)		803 (4 studies)	very low[1,2,3,5]
Symptoms of depression (Patient health questionnaire-9 item [PHQ-9]) - 39 week follow up		The mean symptoms of depression (self-report) - 39 week follow up in the intervention groups was		207 (1 study)	very low[1,2,3]

Follow-up: mean 39 weeks		0.9 lower (1.59 to 0.21 lower)			
Symptoms of depression (Hopkins Symptom Checklist-25 [HSCL-25]: Depression/ Patient health questionnaire-9 item [PHQ-9]) - 52 week follow up Follow-up: mean 52 weeks		The mean symptoms of depression (self-report) - 52 week follow up in the intervention groups was 0.24 lower (0.41 to 0.07 lower)		432 (2 studies)	very low[1,2,3,4]
Mean number of psychotherapy sessions attended Better indicated by higher values		The mean number of psychotherapy sessions attended in the intervention groups was 0.45 standard deviations higher (0.26 to 0.63 higher)		460 (2 studies)	very low[1,2,5]
Number completing set number of sessions (defined by author)	56 per 1000	191 per 1000 (106 to 347)	RR 3.4 (1.88 to 6.16)	460 (2 studies)	very low[1,2,4,7]
Medication adherence	584 per 1000	567 per 1000 (485 to 660)	RR 0.97 (0.83 to 1.13)	460 (2 studies)	very low[1,2,4]

CAPS=Clinician-Administered PTSD Scale; 95%CI=95% Confidence Interval; PTSD=Post-Traumatic Stress Disorder; RR=Risk ratio; SMD=Standard Mean Difference;
[1]Assessors and participants not blinded
[2]Unclear randomisation/allocation methods
[3]Number of participants less than 400
[4]Heterogeneity; I2 > 50%
[5]Very high heterogeneity, I2 >80%
[6]95% confidence interval crosses a line of imprecision (either -0.5 or 0.5)
[7]95% confidence intervals cross both lines of impression (-0.5 and 0.5)

Engagement strategies: Clinical evidence

Included studies

Seven RCTs were included; six RCTs compared Engagement strategies to TAU (Dorsey 2014; Rosen 2013; Stecker 2014; Watts 2015; Zatzick 2015; Rosen 2017) and one RCT compared Engagement strategies to Trauma informed care (TIC) (Tecic 2011)

Excluded studies

No RCTs were identified and excluded from this review.

Summary of clinical studies included

Table 8 and *BME=Black and Minority Ethnic; CBT=Cognitive Behavioural Therapy; N=Number of participants; DSM=Diagnostic and Statistical manual of Mental disorders; ICD= International statistical Classification of Diseases and related health problem; NR=Not Reported; PTSD=Post-Traumatic Stress Disorder; TAU=Treatment as usual*

[1]Dorsey 2014; [2]Rosen 2013; [3]Stecker 2014; [4]Watts 2015; [5]Zatzick 2015; [6]Rosen 2017;

Table 9 provide a brief summary of the included studies, and evidence from these are summarised in the clinical GRADE profiles below (Table 10 and Table 11).

See also the literature search strategy in appendix B, study selection flow chart in appendix C, clinical evidence tables in appendix D, forest plots in appendix E and full GRADE tables in appendix F.

Table 8: Summary of included studies: Engagement strategies versus TAU

Comparison	Engagement strategies versus TAU
Total no. of studies (N randomised)	6 (1,793)
Study ID	Dorsey 2014,[1] Rosen 2013,[2] Stecker 2014,[3] Watts 2015,[4] Zatzick 2015[5] Rosen 2017[6]
Country	USA[1,2,3,4,5,6]
Diagnostic status	PTSD diagnosis according to ICD/DSM criteria (including self-report of diagnosis) [3,4] Clinically important PTSD symptoms (scoring above a threshold on validated scale)[1,2,5] NR[6]
Mean age (range)	10/46,[1] 51,[2] 29,[3] 49,[4] 43[5] 48[6]
Sex (% female)	55.3%/85.2%,[1] 13,[4] 12.7,[5] 7.8,[6] 36[7] 14.9[6]
Ethnicity (% BME)	23.3%/31.1%,[1] 59.4,[2] 60,[3] 12,[4] 46[5] 51.3[6]
Type of traumatic event	Witnessing interpersonal violence,[1] Military combat,[2,3,4,6] Unintentional injury/illness/medical emergency[5]
Coexisting conditions (% present)	Depression: 80.8%,[2] 55%[6] Anxiety: 30.8%,[2] 25.9%[6] Bipolar: 12.8%,[2]0.28%[6] Substance abuse disorder: 10.5%[6], schizophrenia: 4.5%[2] NR[1,3,4,5]
Intervention details	• Evidence based engagement strategy based on McKay's engagement manualized intervention, "Training Intervention for the Engagement of Families." Discussion of barriers, prior negative experiences with mental health services, identification of caregivers concern for the child.[1] • Following discharge from the PTSD treatment, standard referrals plus telephone monitoring and support every two weeks is provided. A scripted protocol assesses treatment attendance, medication compliance, and severity of symptoms, coping abilities, depression, anger, substance use, suicidality and risk of violence, problem areas addressed.[2] • A phone call intervention, a brief cognitive-behavioural intervention, designed to modify beliefs about treatment seeking to improve PTSD symptoms.[3] • Participants provided with a 26 page graphically rich booklet which describes PTSD and the different effective treatments. The booklet contains information about comparative risk, treatment burdens, and effectiveness of PTSD treatments.[4] • Participants provided with a laptop with a web browser with a bookmark to "afterdeployment.org", a website which offers self-assessments, self-management strategies. They were also give LifeArmor, an accompanying smartphone app. The study care manager assisted participants in use of the website and app after screening. These care managers were also training in delivery of stepped CBT, these were delivered flexibly during inpatient stay and to outpatients.[5] • Participants received usual care plus telephone calls. Telephone care managers followed a scripted protocol to assess treatment attendance, medication compliance, side effects, symptom severity, self-efficacy for coping with symptoms, substance use, suicidality and risk of violence. Positive behaviours were

Comparison	Engagement strategies versus TAU
	reinforced, problem solving support and motivation were provided. [6]
Comparator	TAU[1,3,4,6] TAU; standard referral to outpatient counsellors, psychiatrists or both.[2] TAU; participants provided with a laptop whilst in hospital and offered usual post injury care[5]
Intervention length (weeks)	NR,[1,3,5] 15minutes,[4] 13 weeks,[2,6]

BME=Black and Minority Ethnic; CBT=Cognitive Behavioural Therapy; N=Number of participants; DSM=Diagnostic and Statistical manual of Mental disorders; ICD= International statistical Classification of Diseases and related health problem; NR=Not Reported; PTSD=Post-Traumatic Stress Disorder; TAU=Treatment as usual

[1]Dorsey 2014; [2]Rosen 2013; [3]Stecker 2014; [4]Watts 2015; [5]Zatzick 2015; [6]Rosen 2017;

Table 9: Summary of included studies: Engagement strategies versus TIC

Comparison	Engagement strategies versus TIC
Total no. of studies (N randomised)	1 (113)
Study ID	Tecic 2011[1]
Country	Germany
Diagnostic status	Clinically important PTSD symptoms (scoring above a threshold on validated scale)
Mean age (range)	35 (18-64)
Sex (% female)	23
Ethnicity (% BME)	NR
Type of traumatic event	Unintentional injury/illness/medical emergency
Coexisting conditions (% present)	NR
Intervention details	Those in the intervention arm received both inpatient and outpatient psychotherapy. The inpatient, short-term psychotherapy consisted of up to eight sessions. The out-patient consisted six sessions of 50 minutes. Psychotherapy was manual based, tailored to the needs of severely injured accident victims, and follows the evidence based clinical practice for PTSD.
Comparator	Those in the control arm received the same inpatient therapy sessions as the intervention arm
Intervention length (weeks)	26 weeks

BME=Black and Minority Ethnic; N=Number of participants; DSM=Diagnostic and Statistical manual of Mental disorders; ICD= International statistical Classification of Diseases and related health problem; NR=Not Reported; PTSD=Post-Traumatic Stress Disorder; TIC=Trauma Informed Care

[1]Tecic 2011;

Quality assessment of clinical studies included in the evidence review

The clinical evidence profiles for this review (Engagement strategies versus TAU and Engagement strategies versus TIC) are presented in Table 10 and Table 11.

Table 10: Summary clinical evidence profile: Engagement strategies versus TAU

Outcomes	Illustrative comparative risks* (95% CI)			Quality of the

	Assumed risk Treatment as usual	Corresponding risk Engagement strategies	Relative effect (95% CI)	No of Participants (studies)	evidence (GRADE)
PTSD symptomology (self-report) - 4.3 weeks follow up Follow-up: mean 4.3 weeks		The mean PTSD symptomology (self-report) - 4.3 weeks follow up in the intervention groups was 0.23 standard deviations lower (0.42 to 0.03 lower)		395 (2 studies)	very low[1,2,3,4]
PTSD symptomology (self-report) - 13 week follow up Follow-up: mean 13 weeks		The mean PTSD symptomology (self-report) - 13 week follow up in the intervention groups was 0.36 standard deviations lower (0.56 to 0.16 lower)		395 (2 studies)	very low[1,2,4]
PTSD symptomology (self-report) - 26 week follow up Follow-up: mean 26 weeks		The mean PTSD symptomology (self-report) - 26 week follow up in the intervention groups was 0.14 standard deviations lower (0.31 lower to 0.04 higher)		523 (3 studies)	very low[1,2,5]
PTSD symptomology (self-report) - 17 week follow up Follow-up: mean 17 weeks		The mean PTSD symptomology (self-report) - 17 week follow up in the intervention groups was 0.06 standard deviations lower (0.17 lower to 0.06 higher)		1193 (2 studies)	low[1,2]
PTSD symptomology (self-report) - 52 week follow up Follow-up: mean 52 weeks		The mean PTSD symptomology (self-report) - 52 week follow up in the intervention groups was 0.09 standard deviations lower (0.21 lower to 0.02 higher)		1193 (2 studies)	very low[1,2,3]
Symptoms of depression (self-report) - 4.3 week follow up Follow-up: mean 4.3 weeks		The mean symptoms of depression (self-report) - 4.3 week follow up in the intervention groups was 0.15 standard deviations lower		395 (2 studies)	very low[1,2,3,4]

		(0.34 lower to 0.05 higher)			
Symptoms of depression (self-report) - 13 week follow up Follow-up: mean 13 weeks		The mean symptoms of depression (self-report) - 13 week follow up in the intervention groups was 0.36 standard deviations lower (0.56 to 0.16 lower)		395 (2 studies)	very low[1,2,4]
Symptoms of depression (self-report) - 17 week follow up Follow-up: mean 17 weeks		The mean symptoms of depression (self-report) - 17 week follow up in the intervention groups was 0.1 standard deviations lower (0.22 lower to 0.01 higher)		1193 (2 studies)	low[1,2]
Symptoms of depression (self-report) - 26 week follow up Follow-up: mean 26 weeks		The mean symptoms of depression (self-report) - 26 week follow up in the intervention groups was 0.08 standard deviations higher (0.11 lower to 0.28 higher)		395 (2 studies)	low[1,2]
Symptoms of depression (self-report) - 52 week follow up Follow-up: mean 52 weeks		The mean symptoms of depression (self-report) - 52 week follow up in the intervention groups was 0.18 standard deviations lower (0.29 to 0.06 lower)		1193 (2 studies)	low[1,2]
Mean number of psychotherapy sessions attended - post-treatment Better indicated by higher values		The mean number of psychotherapy sessions attended - post-treatment in the intervention groups was 1.14 higher (0.26 to 2.02 higher)		378 (1 study)	very low[1,2,4]
Mean number of psychotherapy sessions attended - 4.3 week follow up Follow-up: mean 4.3 weeks Better indicated by higher values		The mean number of psychotherapy sessions attended - 4.3 week follow up in the intervention groups was 0.18 higher (0.01 lower to 0.37 higher)		274 (1 study)	very low[1,2,4]
Mean number of psychotherapy sessions attended - 13 week follow up		The mean number of psychotherapy sessions attended - 13 week follow up in		274 (1 study)	very low[1,2,4]

Follow-up: mean 26 weeks Better indicated by higher values		the intervention groups was 0.41 higher (0.04 lower to 0.86 higher)			
Mean number of psychotherapy sessions attended - 26 week follow up Follow-up: mean 26 weeks Better indicated by higher values		The mean number of psychotherapy sessions attended - 26 week follow up in the intervention groups was 1.59 higher (0.56 lower to 3.74 higher)		274 (1 study)	very low[1,2,4]
Mean number of psychotherapy sessions attended - 39 week follow up Follow-up: mean 39 weeks Better indicated by higher values		The mean number of psychotherapy sessions attended - 39 week follow up in the intervention groups was 0.56 higher (1.52 lower to 2.64 higher)		354 (1 study)	very low[1,2,4]
Number of participants who arrived at a treatment choice Better indicated by higher values	-	-	RR 2.48 (1.81 to 3.38)	128 (1 study)	very low[1,2,4]
Number of participants seeking PTSD treatment - 4.3 weeks follow up Follow-up: mean 4.3 weeks	116 per 1000	214 per 1000 (116 to 396)	RR 1.85 (1 to 3.42)	224 (1 study)	very low[1,2,4,6]
Number of participants seeking PTSD treatment - 13 weeks follow up Follow-up: mean 13 weeks	309 per 1000	383 per 1000 (263 to 559)	RR 1.24 (0.85 to 1.81)	209 (1 study)	very low[1,2,4]
Number of participants seeking PTSD treatment - 26 weeks follow up Follow-up: mean 26 weeks	466 per 1000	587 per 1000 (461 to 745)	RR 1.26 (0.99 to 1.6)	242 (1 study)	very low[1,2,4]
Number of participants who completed set number of psychotherapy sessions	171 per 1000	246 per 1000 (178 to 342)	RR 1.44 (1.04 to 2)	403 (2 studies)	very low[1,2,4,6]
Number of people using the website Better indicated by higher values	-	-	RR 2.76 (1.25 to 6.08)	121 (1 study)	very low[1,2,4,6]
Mean time using the website during hospital stay		The mean time using the website during hospital stay in the intervention groups		121 (1 study)	very low[1,2,4]

Better indicated by higher values		was 0.24 higher (0.11 lower to 0.6 higher)			

95%CI=95% Confidence Interval; PTSD=Post-Traumatic Stress Disorder; RR=Risk Ratio; SMD=Standard Mean Difference;
[1]Assessors and participants not blinded
[2]Unclear randomisation/allocation methods
[3]High heterogeneity; I2 >50%
[4]Number of total participants less than 400
[5]Very high heterogeneity, I2 >80%
[6]95% confidence interval crosses a line of imprecision (either 0.5 or 5.0)

Table 11: Summary clinical evidence profile: Engagement strategies versus TIC

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TIC	Corresponding risk Engagement Strategies			
PTSD symptomology - 26 week follow up Follow-up: mean 26 weeks		The mean PTSD symptomology - 26 week follow up in the intervention groups was 0.15 standard deviations lower (0.65 lower to 0.35 higher)		62 (1 study)	low[1,2]
PTSD symptomology - 52 week follow up Follow-up: mean 52 weeks		The mean PTSD symptomology - 52 week follow up in the intervention groups was 0.21 standard deviations lower (0.71 lower to 0.28 higher)		65 (1 study)	low[1,2]
PTSD symptomology - 78 week follow up Follow-up: mean 78 weeks		The mean PTSD symptomology - 78 week follow up in the intervention groups was 0 standard deviations higher (0.51 lower to 0.51 higher)		62 (1 study)	low[1,2]
Symptoms of depression (BDI) - 26 week follow up Follow-up: mean 26 weeks		The mean symptoms of depression - 26 week follow up in the intervention groups was 0.05 standard deviations higher (0.45 lower to 0.55 higher)		61 (1 study)	low[1,2]
Symptoms of depression (BDI) - 52 week follow up Follow-up: mean 52 weeks		The mean symptoms of depression - 52 week follow up in the intervention groups was 0.2 standard deviations lower		66 (1 study)	low[1,2]

		(0.69 lower to 0.29 higher)			
Symptoms of depression (BDI) - 78 week follow up Follow-up: mean 78 weeks		The mean symptoms of depression - 78 week follow up in the intervention groups was 0.32 standard deviations lower (0.85 lower to 0.2 higher)		60 (1 study)	low[1,2]
Symptoms of anxiety (STAI) - 26 week follow up Follow-up: mean 26 weeks		The mean symptoms of anxiety - 26 week follow up in the intervention groups was 0.83 standard deviations lower (1.36 to 0.31 lower)		61 (1 study)	low[1,2]
Symptoms of anxiety (STAI) - 52 week follow up Follow-up: mean 52 weeks		The mean symptoms of anxiety - 52 week follow up in the intervention groups was 0.5 standard deviations lower (1 lower to 0.01 higher)		63 (1 study)	low[1,2]
Symptoms of anxiety (STAI) - 78 week follow up Follow-up: mean 78 weeks		The mean symptoms of anxiety - 78 week follow up in the intervention groups was 0.34 standard deviations lower (0.86 lower to 0.18 higher)		61 (1 study)	low[1,2]

BDI=Beck's Depression Inventory; 95%CI=95% Confidence Interval; PTSD=Post-Traumatic Stress Disorder; STAI=State-Trait Anxiety Inventory; SMD=Standard Mean Difference; TIC=Trauma Informed Care
[1] Assessors and participants not blinded
[2] Number of total participants less than 400

Information and support: Clinical evidence

Included studies

Six RCTs were included; four RCTs compared information and support to TAU (Carson 2016; Colville 2010; Jabre 2014; Samuel 2015), one RCT compared family conference with a nurse to family conference without a nurse (Garrouste-Orgeas 2016), and one RCT compared using decision aids to placebo (Mott 2014).

Excluded studies

No RCTs were identified and excluded from this review.

Summary of clinical studies included

See also the literature search strategy in appendix B, study selection flow chart in appendix C, clinical evidence tables in appendix D, forest plots in appendix E and full GRADE tables in appendix F.

Table 12, Table 13 and Table 14 and provide a brief summary of the included studies. Evidence from these are summarised in the clinical GRADE profiles below (Table 15, Table 16 and Table 17).

See also the literature search strategy in appendix B, study selection flow chart in appendix C, clinical evidence tables in appendix D, forest plots in appendix E and full GRADE tables in appendix F.

Table 12: Summary of included studies: Information and support versus TAU

Comparison	Information and support versus TAU
Total no. of studies (N randomised)	4 (1,095)
Study ID	Carson 2016,[1] Colville 2010,[2] Jabre 2014,[3] Samuel 2015[4]
Country	USA,[1] UK,[2,4] France[3]
Diagnostic status	Clinically important PTSD symptoms (scoring above a threshold on validated scale)[1,3,4] Unclear[2]
Mean age (range)	51,[1] NR,[2,3,4]
Sex (% female)	71,[1] 81,[2] NR,[3,4]
Ethnicity (% BME)	24,[1] 25,[2],NR[3,4]
Type of traumatic event	Family member or carer of person with life-threatening illness or injury[1,4] Family member of child with unintentional injury/illness/medical emergency[2] Unexpected severe injury or death of close family member or friend[3]
Coexisting conditions (% present)	NR[1,2,3,4]
Intervention details	• A brochure describing chronic critical illness was provide to the family surrogate decision makers and two meetings were scheduled with the support and information team (palliative care physician and a nurse, they potentially also included social workers, chaplains). Topics included patient's condition, patient's prognosis, alternatives to continued intensive care, care settings for critically ill patients, discharge options, likely care needs, family discussion, and family understanding of the patient's values, goals and preferences.[1] • Parents were invited to an optional PICU follow up clinic. During the session the child was not examined, but the medical records were available. A PICU consultant, a senior PICU nurse and a psychologist were available to discuss the child's care during admission. Parents were encouraged to provide feedback on the admission, to ask questions and to reflect on how they had been affected emotionally.[2] • Participants in the intervention arm were asked if they would like to be present during their family member's resuscitation. They were accompanied by a supporting emergency staff member who provided technical information on the resuscitation. A communication guide was available to help introduce the resuscitation scene, and to help with the announcement of death (if it occurred).[3] • Families were offered a follow up clinic appointment (PICU clinical psychologist plus a PICU consultant and PICU nurse) two months after PICU discharge. Parents were given the opportunity to ask questions about their child's admission and could raise any concerns about their child's current health. Parents were also asked how their child's admission had

Comparison	Information and support versus TAU
	impacted them. Families were given advice about accessing further support.[4]
Comparator	TAU: Family decision makers also received the brouchure[1] TAU[2,4] TAU: Family members are not routinely given the opportunity to witness the resuscitation; however 43% did so (these were not given the support provided to those in the intervention arm).[3]
Intervention length (weeks)	Two sessions 10 days apart,[1] one session[2,3,4]

BME=Black and Minority Ethnic; N=Number of participants; DSM=Diagnostic and Statistical manual of Mental disorders; ICD= International statistical Classification of Diseases and related health problem; NR=Not Reported; PICU=Paediatric Intensive Care Unit; PTSD=Post-Traumatic Stress Disorder; TAU=Treatment as usual;
[1]Carson 2016; [2]Colville 2010; [3]Jabre 2014; [4]Samuel 2015;

Table 13: Summary of included studies: Family conference with a nurse versus family conference without a nurse

Comparison	Family conference with a nurse versus without a nurse
Total no. of studies (N randomised)	1 (100)
Study ID	Garrouste-Orgeas 2016,[1]
Country	France
Diagnostic status	Clinically important PTSD symptoms (scoring above a threshold on validated scale)
Mean age (range)	58
Sex (% female)	60
Ethnicity (% BME)	NR
Type of traumatic event	Family member had been admitted to ICU and ventilated for over 48 hours
Coexisting conditions (% present)	NR
Intervention details	Family conference, with a physician and nurse present. The physician explained diagnosis, planned care, possible changes and prognosis. The nurse described the patients' condition as perceived at the bedside and explained how measures were taken to relief pain and stress. The nurse also explained the organisation of the ICU. The nurse used "ask-to-tell" to verify comprehension. Standard conference guides were used. Open questions were used. Bad news was communicated according to the NURSE method: Naming emotions, expressing, understanding, showing respect, articulating support and exploring family's emotional state. The end of life conference followed the VALUE method: Value what the family members say, acknowledge their emotions, listen, understand the patient as a person, and Elicit questions. All family members who wanted to attend, could do so.
Comparator	The control family conference followed the same structure as that to the intervention, but was conducted by a physician only.
Intervention length (weeks)	Conference was held on the day of admission, then on days 3 and 7, and weekly until discharge. Additional conferences could be held if the patients' condition worsened, or was expected to die.

BME=Black and Minority Ethnic; N=Number of participants; DSM=Diagnostic and Statistical manual of Mental disorders; ICD= International statistical Classification of Diseases and related health problem; ICU=Intensive Care Unit; NR=Not Reported; PTSD=Post-Traumatic Stress Disorder;

[1]*Garrouste-Orgeas 2016;*

Table 14: Summary of included studies: Decision aids versus placebo session

Comparison	Decision aids versus placebo
Total no. of studies (N randomised)	1 (27)
Study ID	Mott 2014,[1]
Country	USA
Diagnostic status	PTSD diagnosis according to ICD/DSM criteria (including self-report of diagnosis)
Mean age (range)	29 (22-47)
Sex (% female)	15
Ethnicity (% BME)	30
Type of traumatic event	Military Combat
Coexisting conditions (% present)	Depression: 37% Anxiety: 19%
Intervention details	Participants provided accurate information about their diagnosis, treatment options, outcomes and side effects. The provider helps the participant explore their treatment goals, benefits and risks of treatments, with a goal to select the preferred treatment. There is a 12 page decision aid which highlights CPT, PE, anxiety managements and PTSD education. Following the session the provider communicates the participants preferred treatment option to the PTSD clinic.
Comparator	Placebo session: The participant completed neutral, clinician administered tasks assessing cognitive abilities. The participants had all usual treatment options available to them.
Intervention length (weeks)	One 30 minute session

BME=Black and Minority Ethnic; CPT=Cognitive Processing Therapy; N=Number of participants; DSM=Diagnostic and Statistical manual of Mental disorders; ICD= International statistical Classification of Diseases and related health problem; NR=Not Reported; PE=Prolonged Exposure; PTSD=Post-Traumatic Stress Disorder;

[1] *Mott 2014; Military medicine 179, 143-149*

Quality assessment of clinical studies included in the evidence review

The clinical evidence profiles for this review (Information and support versus TAU, family conference with a nurse versus family conference without a nurse and Decision aids versus placebo session) are presented in Table 15, Table 16, and Table 17.

Table 15: Summary clinical evidence profile: Information and support versus TAU

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU	Corresponding risk Information and support			
Number meeting >30 on IES Follow-up: 0-52 weeks	319 per 1000	201 per 1000 (150 to 271)	RR 0.63 (0.47 to 0.85)	513 (2 studies)	very low[1,2,3]
Number scoring greater or above 8 on HADS-A Follow-up: 0-52 weeks	242 per 1000	199 per 1000 (145 to 269)	RR 0.82 (0.6 to 1.11)	513 (2 studies)	very low[1,2,3]

Number scoring 8 or above on HADS-D scale Follow-up: 0-52 weeks	181 per 1000	108 per 1000 (70 to 168)	RR 0.6 (0.39 to 0.93)	513 (2 studies)	very low[1,2,3]
PTSD symptomology IES-R		The mean PTSD symptomology in the intervention groups was 3.45 higher (5.2 lower to 12.1 higher)		71 (1 study)	very low[1,2,4]
Depression self-report Follow-up: 0-32 weeks		The mean depression in the intervention groups was 0.06 standard deviations higher (0.14 lower to 0.26 higher)		383 (2 studies)	very low[1,2,5]
Anxiety self-report Follow-up: 0-32 weeks		The mean anxiety in the intervention groups was 0.21 standard deviations higher (0.01 to 0.41 higher)		383 (2 studies)	low[1,2]

95%CI=95% Confidence Interval; HADS(-A/D)=Hospital Anxiety and Depression Scale(-Anxiety/Depression); IES/IES-R=Impact of Events Scale-Revised; PTSD=Post-Traumatic Stress Disorder; RR=Risk Ratio; SMD=Standard Mean Difference; TAU=Treatment as usual

[1] Assessors and participants not blinded

[2] Unclear randomisation/allocation methods

[3] 95% confidence interval crosses a line of imprecision (either 0.8 or 1.25)

[4] Number of total participants less than 400

[5] High heterogeneity; I2 >50%

Table 16: Summary clinical evidence profile: family conference with a nurse versus family conference without a nurse

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Family conference without a nurse	Corresponding risk Family conference with a nurse			
Number scoring equal or above 22 on (IES-R) at 13 week follow up Follow-up: mean 13 weeks	-	-	RR 0.96 (0.63 to 1.45)	86 (1 study)	low[1,2]
Number scoring 8 or above on HADS-D at 13 week follow up Follow-up: mean 13 weeks	-	-	RR 0.62 (0.32 to 1.19)	86 (1 study)	very low[1,2,3]
Number scoring above 8 on Symptoms HADS-A at 13 weeks	-	-	RR 0.64 (0.38 to 1.06)	86 (1 study)	very low[1,2,3]

Follow-up: mean 13 weeks					

95%CI=95% Confidence Interval; HADS(-A/D)=Hospital Anxiety and Depression Scale(-Anxiety/Depression); IES-R=Impact of Events Scale-Revised; PTSD=Post-Traumatic Stress Disorder
[1] Assessors and participants not blinded
[2] Number of total participants less than 400
[3] 95% confidence interval crosses a line of imprecision (either 0.8 or 1.25)

Table 17: Summary clinical evidence profile: Decision aids versus placebo session

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk Placebo	Corresponding risk Decision aids			
Number completing >9 sessions	-	-	RR 4.89 (0.66 to 36.36)	20 (1 study)	very low[1,2,3,4]

95%CI=95% Confidence Interval;
1 Unclear randomisation/allocation methods
2 Assessors and participants not blinded
3 95% confidence interval crosses a line of imprecision (either 0.8 or 1.25)
4 Number of total participants less than 400

Stepped Care: Clinical evidence

Included studies

One RCT was included comparing stepped care of TF-CBT to standard delivery of TF-CBT (Salloum 2016).

Excluded studies

No RCTs were identified and excluded from this review.

Summary of clinical studies included

Table 18 provides a brief summary of the included study, and evidence from this study is summarised in the clinical GRADE profile below (Table 19).

See also the literature search strategy in appendix B, study selection flow chart in appendix C, clinical evidence tables in appendix D, forest plots in appendix E and full GRADE tables in appendix F.

Table 18: Summary of included studies: Stepped care versus standard TF-CBT

Comparison	Stepped care versus standard TF-CBT
Total no. of studies (N randomised)	1 (53)
Study ID	Salloum 2016[1]
Country	USA
Diagnostic status	Clinically important PTSD symptoms (scoring above a threshold on validated scale)
Mean age (range)	5 (3-7)
Sex (% female)	49
Ethnicity (% BME)	35.8

Comparison	Stepped care versus standard TF-CBT
Type of traumatic event	Mixed (sexual abuse (33.9%), domestic violence (33.9%), death (11.3%), physical abuse (3.8%), accidents (5.7%), removal from parent/home (3.8%), community violence (1.9%), crime (1.9%), illness/medical (1.9%))
Coexisting conditions (% present)	NR
Intervention details	Step one: 3 initial in-office therapist led sessions followed by 11 parent-child sessions at home over 6 weeks. Use an empirically informed workbook based on preschool PTSD treatment manual. Weekly phone support and Web-based psychoeducation, and videos demonstrating imaginal and in vivo exposure and relaxation exercises are provided. If the child responds, they proceed to the maintenance phase to practice skills. If the child does not respond, they proceed to Step Two: 9, weekly TF-CBT sessions, these are therapist led sessions.
Comparator	Standard TF-CBT: Provided to the child with active parent involvement.
Intervention length (weeks)	12 weeks

BME=Black and Minority Ethnic; N=Number of participants; DSM=Diagnostic and Statistical manual of Mental disorders; ICD= International statistical Classification of Diseases and related health problem; NR=Not Reported; PTSD=Post-Traumatic Stress Disorder; TF-CBT=Trauma-Focused Cognitive Behavioural Therapy
[1]Salloum 2016;

Quality assessment of clinical studies included in the evidence review

The clinical evidence profile for this review (Stepped Care versus standard delivery of TF-CBT) is presented in Table 19.

Table 19: Summary clinical evidence profile: Stepped Care versus standard delivery of TF-CBT

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU	Corresponding risk Stepped care			
PTSD symptomology (TSCYC) Follow-up: 0-13 weeks		The mean PTSD symptomology in the intervention groups was 0.37 standard deviations lower (0.77 lower to 0.04 higher)		106 (1 study)	very low[1,2,3]
PTSD symptomology (CGI) Follow-up: 0-13 weeks		The mean PTSD symptomology in the intervention groups was 0.59 lower (0.91 to 0.27 lower)		106 (1 study)	very low[1,2,3]

CGI=Clinical Global Impression; 95%CI=95% Confidence Interval; PTSD=Post-Traumatic Stress Disorder; SMD=Standard Mean Difference; TSCYC=Trauma Symptom Checklist for Young Children
[1] Assessors and participants not blinded
[2] Unclear randomisation/allocation methods
[3] Number of total participants less than 400

School based therapies: Clinical evidence

Included studies

One RCT was included comparing TF-CBT delivered in school to standard, in-clinic delivery of TF-CBT (Jaycox 2010).

Excluded studies

No RCTs were identified and excluded from this review.

Summary of clinical studies included

Table 20 provides a brief summary of the included study, and evidence from this study is summarised in the clinical GRADE profile below (Table 21).

See also the literature search strategy in appendix B, study selection flow chart in appendix C, clinical evidence tables in appendix D, forest plots in appendix E and full GRADE tables in appendix F.

Table 20: Summary of included studies: School based TF-CBT versus in-clinic TF-CBT

Comparison	School based TF-CBT versus in-clinic TF-CBT
Total no. of studies (N randomised)	1 (118)
Study ID	Jaycox 2010[1]
Country	USA
Diagnostic status	Clinically important PTSD symptoms (scoring above a threshold on validated scale)
Mean age (range)	12
Sex (% female)	55.9
Ethnicity (% BME)	53
Type of traumatic event	Participants had been exposed to Hurricane Katrina (74.6% had witnessed something upsetting such as seeing a dead body)
Coexisting conditions (% present)	Clinical symptoms of depression: 52.5%
Intervention details	CBITS: Cognitive-Behavioural Intervention for Trauma in Schools. Incorporates cognitive-behavioural skills which include: psycho-education, relaxation, affective modulation, cognitive coping, trauma narrative, in vivo mastery of trauma reminders and enhancing safety. Included group and individual sessions.
Comparator	The programme covered the same topics as CBITS, but were conducted in clinic. The sessions were tailored to the child, and were conjoint sessions between the parent and child.
Intervention length (weeks)	NR

BME=Black and Minority Ethnic; CBITS= Cognitive-Behavioural Intervention for Trauma in Schools; CPT=Cognitive Processing Therapy; N=Number of participants; NR=Not Reported; PTSD=Post-Traumatic Stress Disorder; TF-CBT=Trauma-Focused Cognitive Behavioural Therapy

[1]Jaycox 2010;

Quality assessment of clinical studies included in the evidence review

The clinical evidence profile for this review (School based TF-CBT versus In-Clinic TF-CBT) is presented in Table 21

Table 21: Summary clinical evidence profile: School based TF-CBT versus In-clinic TF-CBT

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk In-clinic TF-CBT	Corresponding risk School-based TF-CBT			
PTSD symptomology (CPSS) Follow-up: mean 43 weeks		The mean PTSD symptomology in the intervention groups was 0.73 standard deviations higher (0.13 higher to 1.33 higher)		71 (1 study)	very low[1,2,3]
Symptoms of depression (CDI) Follow-up: mean 43 weeks		The mean symptoms of depression in the intervention groups was 0.09 standard deviations higher (0.49 lower to 0.68 higher)		71 (1 study)	very low[1,2,3]
Number completing intervention Follow-up: mean 43 weeks	-	-	RR 6.55 (3.58 to 11.98)	118 (1 study)	very low[1,2,3]

95%CI=95% Confidence Interval; CDI=Children's Depression Inventory; CPSS=Child PTSD Symptom Scale; PTSD=Post-Traumatic Stress Disorder; TF-CBT=Trauma-Focused Cognitive Behavioural Therapy

[1] *Assessors and participants not blinded*

[2] *Unclear randomisation/allocation methods*

[3] *Number of total participants less than 400*

Motivational enhancement strategies: Clinical evidence

Included studies

One RCT was included comparing Motivational enhancement tools to TAU (Murphy 2009).

Excluded studies

No RCTs were identified and excluded from this review.

Summary of clinical studies included

Table 22 provides a brief summary of the included study, and evidence from this study is summarised in the clinical GRADE profile below (Table 23).

See also the literature search strategy in appendix B, study selection flow chart in appendix C, clinical evidence tables in appendix D, forest plots in appendix E and full GRADE tables in appendix F.

Table 22: Summary of included studies: Motivational enhancement versus TAU

Comparison	Motivational Enhancement versus TAU
Total no. of studies (N randomised)	1 (115)
Study ID	Murphy 2009,[1]
Country	USA
Diagnostic status	PTSD diagnosis according to ICD/DSM criteria (including self-report of diagnosis)
Mean age (range)	56 (34-80)
Sex (% female)	NR
Ethnicity (% BME)	63.2
Type of traumatic event	Military Combat
Coexisting conditions (% present)	NR
Intervention details	PTSD Motivation Enhancement, a manual based group protocol. 1) Rational and Review, 2) Pros and cons, 3) Comparison to the average guy, 4) Roadblocks. The sessions use decision making skills to help patients recognise the need to change any unacknowledged PTSD related problems. The main focus is to help patients generate a list of behaviours and beliefs, and use decision making tools to decide which of these need changing. The sessions form the second part of an ongoing PTSD treatment programme that the participants are enrolled in.
Comparator	TAU: Sessions were partly based on the Seeking Safety Manual: 1) Social Support, Communicating about PTSD, 2) Adopting Healthy Attitudes, 3) Meanings that Harm and 4) Moving forward. As with the intervention arm, these sessions made up part of the treatment of a 12 month PTSD Treatment Program
Intervention length (weeks)	NR (both arms included were 4 sessions)

BME=Black and Minority Ethnic; DSM=Diagnostic and Statistical manual of Mental disorders; ICD= International statistical Classification of Diseases and related health problem; N=Number of participants; NR=Not Reported; PTSD=Post-Traumatic Stress Disorder; TIC=trauma informed care

[1]Murphy 2009

Quality assessment of clinical studies included in the evidence review

The clinical evidence profile for this review (Motivational enhancement versus TAU) is presented in Table 23.

Table 23: Summary clinical evidence profile: Motivational enhancement versus TAU

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)
	Assumed risk TAU	Corresponding risk Motivational enhancement			
Number completing sessions Follow-up: mean 52 weeks	-	-	RR 1.26 (0.94 to 1.68)	114 (1 study)	very low[1,2,3]

95%CI=95%Confidence Interval; TAU=Treatment as usual

[1] *Assessors and participants not blinded*
[2] *Unclear randomisation/allocation methods*
[3] *Number of total participants less than 400*

Economic evidence

Included studies

The systematic search of economic literature identified 1 study that assessed the cost effectiveness of collaborative care versus standard care for adults with clinically important post-traumatic stress symptoms (Schnurr 2013) and 1 study that assessed the cost effectiveness of stepped care versus standard care for children and young people with clinically important post-traumatic stress symptoms (Salloum 2016).

Excluded studies

Three economic studies were reviewed at full text and excluded from this review. Two of the studies were excluded as they were non-comparative and one study because the intervention was not targeted at PTSD symptoms. Studies not included in this review with reasons for their exclusion are listed in Appendix K.

Summary of studies included in the economic evidence review

Schnurr and colleagues (2013) performed a cost consequence analysis alongside a RCT (Schnurr 2013) that compared collaborative care with standard care for veterans with PTSD in the US (N=195, n=146 at 6-month follow-up). The perspective of the analysis was that of the health service. Costs consisted of outpatient visits including intervention, outpatient pharmacy, inpatient care (including pharmacy), and fee-for-service care. National unit costs were used. The primary outcome measure of the analysis was the PTSD symptom severity, measured using the Posttraumatic Diagnostic Scale (PDS). Other outcomes included depression measured using the Hopkins Symptom Checklist-20); functioning using the SF-12; and perceived quality of PTSD care and overall care. The time horizon of the analysis was 6 months.

Collaborative care was found to result in higher total costs, although the difference in costs between the two groups was not statistically significant. In terms of outcomes, there were no significant differences between collaborative and standard care, except in perceived quality of PTSD care, where results were less favourable for collaborative care. The study is partially applicable to the UK and the NICE context as it was conducted in the US and QALY was not used as the outcome measure. The study is characterised by potentially serious limitations, including the relatively small study sample and the rather short time horizon of the analysis.

Salloum and colleagues (2016) performed a cost consequence analysis alongside a RCT (Salloum 2016) that compared stepped care with standard care for children with PTSD in the US (N=53; at 3-month follow up: n=47). The perspective of the analysis was reported to be societal and included provider, payer and parent payments including productivity losses. Costs included intervention-related costs only. National unit costs were used. The primary outcome measure of the analysis was the severity of trauma symptoms, rated using the Trauma Symptom Checklist for Young Children (TSCYC, posttraumatic stress (PTS) subscale). Secondary outcomes included the Clinical Global Impression-Severity (CGI-S), the Child Behavior Checklist (CBCL), the Diagnostic Infant and Preschool Assessment (DIPA), the Clinical Global Impression-Improvement (CGI-I), the treatment credibility and satisfaction using the ERF and the Client Satisfaction Questionnaire (CSQ), and the parents' assessment of PTSD diagnosis. The time horizon of the analysis was 3 months.

Stepped care was found to result in significantly lower total costs. In terms of outcomes, stepped care was not inferior to standard care on all variables, except for CBCL externalizing T-scores where stepped care was found to have a lower effect (p =0.09). The study is

partially applicable to the UK and the NICE context as it was conducted in the US and QALY was not used as the outcome measure. The study is characterised by potentially serious limitations, including the small study sample, the short time horizon of the analysis and the fact that only intervention-related costs were considered.

The references of included studies and the economic evidence tables are provided in Appendix H. The economic evidence profiles are shown in Appendix I.

Economic model

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

Resource impact

The recommendations made by the committee based on this review are not expected to have a substantial impact on resources

Clinical evidence statements

Technology based intervention

Telehealth versus in-person TF-CBT

- Data from very low quality evidence (7 RCTs; N=569) showed lower self-reported PTSD symptoms with Telehealth as compared to in-person care post-treatment, this was statistically significant, but not clinically important at 12 and 26 week time-points. At 52 weeks follow up, in-person therapy showed significantly lower self-reported PTSD symptoms.
- Data from very low quality evidence (3 RCTs; N=300) showed a statistically significant improvement (but not clinically important), improvement in clinician rated PTSD symptomology with Telehealth as compared to in-person therapy post-treatment, at 12 and 26 week follow-up.
- Data from very low quality evidence (5 RCTs; N=324) showed no significant difference in symptoms of depression with telehealth as compared to in-person therapy at post-treatment, at 12, 26 and 52 week follow-up.
- Data from very low quality evidence (1 RCT; N=23) showed no significant difference in symptoms of anxiety with telehealth as compared to in-person therapy at post-treatment.
- Data from very low quality (5 RCTs; N=673) evidence showed no significant difference in the number of participants who completed a set number of therapy sessions between Telehealth and in-person TF-CBT.
- Data from very low quality evidence (1 RCT; N=21) showed no significant difference in the levels of patient satisfaction between those who received telehealth and those who received in-person TF-CBT.

Technology supported TF-CBT versus standard TF-CBT

- Data from very low quality evidence (1 RCT; N=26) showed those who received technology supported TF-CBT had clinically importantly reduced PTSD symptomology post-treatment as compared to those who received standard TF-CBT, which was statistically significant.
- Data from very low quality evidence (1 RCT; N=26) showed no difference in symptoms of depression post treatment between those who received technology supported TF-CBT and those who received standard TF-CBT.

Collaborative Care

Collaborative care versus Treatment as usual

- Data from very low quality evidence (5 RCTs; N=72-803) showed significantly lower self-reported symptoms of PTSD with collaborative care as compared to TAU at 26, 39 and 52 week follow up. The difference was clinically important at 39 and 52 weeks.
- Data from very low quality evidence (1 RCT; N=355) showed no significant difference in clinician rated PTSD symptomology with collaborative care as compared to TAU.
- Data from very low quality evidence (5 RCTs; N=66-803) showed no difference in self-reported symptoms of depression between collaborative care and TAU post-treatment, at 4.3, 13 or 26-week follow up. Data from one study showed a significant difference at 39 and 52-week follow up.
- Data from very low quality evidence (2 RCTs; N=460) showed the mean number of psychotherapy sessions attended by those in the collaborative care intervention was significantly higher than those in TAU.
- Data from very low quality evidence (2 RCTs; N=460) showed the number of participants completing a set number of psychotherapy sessions was significantly higher in those receiving collaborative care as compared to those receiving TAU.
- Data from very low quality evidence (2 RCTs; N=460) showed no difference in adherence to medication with collaborative care as compared to TAU.

Engagement strategies

Engagement strategies versus Treatment as usual

- Data from low quality evidence (2 RCTs; N=395) showed significantly lower self-reported PTSD symptoms with engagement strategies as compared to TAU at 13-week follow up; however, this was not considered clinically important. There was no difference at all other time-points.
- Data from low quality evidence (2 RCTs; N=651) showed the mean number of psychotherapy sessions was generally higher in those receiving engagement strategies as compared to TAU, but this was not statistically significant.
- Data from very low quality evidence (1 RCT; N=128) showed the number of participants who arrived at a treatment choice was significantly higher in those who received engagement strategies as compared to TAU.
- Data from very low quality evidence (1 RCT) showed the number of participants seeking PTSD treatment was significantly higher in those who received engagement strategies as compared to TAU.
- Data from very low quality evidence (single-RCT analyses; N=209-273) showed the number of participants who completed a set number of psychotherapy sessions was significantly higher in those who received engagement strategies as compared to TAU.
- Data from very low quality evidence (1 RCT; N=121) showed the number of people using the website (afterdeployment.org) was significantly higher in those who received engagement strategies as compared to TAU; however, there was no significant difference in the mean time spent using the website.

Engagement strategies versus Trauma informed care

- Data from low quality evidence (1 RCT; N=62-65) showed no significant difference in symptoms of PTSD with engagement strategies as compared to TIC (at 26-, 52- and 78-week follow-up).
- Data from low quality evidence (1 RCT; N=60-66) showed no significant difference in symptoms of depression or anxiety with engagement strategies as compared to TIC (at 26-, 52- and 78- week follow-up).

Information and Support

Information and support versus Treatment as usual

- Data from very low quality evidence (2 RCTs; N=513) showed the number of people scoring >30 on IES was significantly lower with information and support as compared to TAU at 22-52 week follow-up.
- Data from very low quality evidence (1 RCT; N=71) showed no difference in levels of PTSD symptoms with information and support as compared to TAU at 32-week follow-up.
- Data from very low quality evidence (2 RCTs; N=513) showed the number of people scoring 8 or above on the HADS-D questionnaire was significantly lower with information and support as compared to TAU at 22-52 week follow-up.
- Data from very low quality evidence (2 RCTs; N=383) showed no difference in symptoms of depression (HADS) with information and support as compared to TAU at 13-32 week follow-up.
- Data from very low quality evidence (2 RCTs; N=513) showed no significant difference in the number of people scoring 8 or above on the HADS-A questionnaire with information and support as compared to TAU at 22-52 week follow-up.
- Data from low quality evidence (2 RCTs; N=383) showed a significant difference in reported levels of anxiety with information and support as compared to TAU; however, this was not considered clinically important at 13-32 week follow-up.
- Data from low quality evidence (1 RCT; N=570) showed no difference in discontinuation (for any reason) at study/treatment endpoint with information and support as compared to TAU.

Family conference with a nurse versus family conference without a nurse

- Data from low quality evidence (1 RCT; N=86) showed no significant difference in the number of participants scoring 22 or above on IES-R at 13 week follow up with a family conference with a nurse or a family conference without a nurse.
- Data from very low quality evidence (1 RCT; N=86) showed no significant difference in the number of participants scoring 8 or above on HADS-D questionnaire at 13 week follow up with a family conference with a nurse or a family conference without a nurse.
- Data from very low quality evidence (1 RCT; N=86) showed no significant difference in the number of participants scoring 8 or above on HADS-A questionnaire at 13 week follow up with a family conference with a nurse or a family conference without a nurse.

Decision aid session versus placebo session

- Data from very low quality evidence (1 RCT; N=20) showed no significant difference in the number of participants completing over 9 psychotherapy sessions between those who received a decision aids session as compared to those receiving a placebo session.

Stepped Care

Stepped care TF-CBT versus standard delivery of TF-CBT

- Data from very low quality evidence (1 RCT; N=53) showed no significant difference in symptoms of PTSD as measured by TSCYCC with stepped care as compared to TAU at endpoint or 13-week follow-up.
- Data from very low quality evidence (1 RCT; N=53) showed significantly fewer symptoms of PTSD as measured by CGI with stepped care as compared to TAU at endpoint and 13-week follow-up.

School based Therapies

School based therapy versus in-clinic therapy

- Data from very low quality evidence (1 RCT; N=71) showed significantly fewer symptoms of PTSD with clinic based TF-CBT as compared to school based therapy at 43-week follow-up.
- Data from very low quality evidence (1 RCT; N=71) showed no significant difference in reported levels of depression between school based therapy as clinic based therapy at 43-week follow-up.
- Data from very low quality evidence (1 RCT; N=118) showed the number of children completing therapy sessions was significantly higher in the school based therapy sessions as compared to clinic-based sessions; this data should be regarded with caution due to the methodology discrepancies between interventions.

Motivational enhancement strategies

Motivational enhancement strategies versus Trauma informed care

- Data from very low quality evidence (1 RCT; N=114) showed the number of participants who completed therapy sessions was not significantly different between those who received motivational enhancement or TIC.

Economic evidence statements

Collaborative care

- Evidence from 1 US economic evaluation conducted alongside a RCT (N=195, n=146 at 6-month follow-up) suggests that collaborative care is unlikely to be a cost-effective model of delivery of care for adults with clinically important post-traumatic stress symptoms. This evidence is partially applicable to the UK context and is characterised by potentially serious methodological limitations.

Stepped care

- Evidence from 1 US economic evaluation conducted alongside a RCT (N=53; at 3-month follow up: n=47) suggests that stepped care is likely to be a cost-effective model of delivery of care for children with clinically important post-traumatic stress symptoms. This evidence is partially applicable to the UK context and is characterised by potentially serious methodological limitations.

The committee's discussion of the evidence

Interpreting the evidence

The outcomes that matter most

Critical outcomes were measures of PTSD symptom improvement on validated scales and prevention of PTSD (as measured by the number of people with a diagnosis or scoring above clinical threshold on a validated scale at endpoint or follow-up). Quality of life, access to treatment and uptake of treatment were also critical outcomes, although data for these outcomes was limited. The committee considered healthcare utilization, satisfaction/preference, anxiety about treatment, and symptoms of a coexisting condition (including anxiety and depression) as important but not critical outcomes. This distinction was based on the primacy of preventing PTSD and of improving access to effective treatment, whilst acknowledging that broader 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 measures, however, in considering service delivery 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

Technology based therapies

All interventions included in the review were assessed for risk of bias using the Cochrane Risk of Bias tool. In addition, the evidence in the pairwise comparisons was assessed using the GRADE methodology. The quality of the evidence was all considered either low or very low quality. The committee agreed that evidence was generally downgraded due to a lack of blinding of participants, in many cases assessors were also not blinded, or outcomes were based on self-report. There was a high loss to follow up throughout and often studies were small in size, and data imprecise. The committee also wished to highlight the high level of heterogeneity observed across some of the outcomes. The quality for individual comparisons are outlined below.

Telehealth

The data were considered very low quality due to lack of blinding of personnel and participants. Although the included studies were generally small in size, seven studies were included in total on PTSD symptomology, and results suggest a non-significant difference between telehealth and in person delivery, at least at endpoint and shorter-term follow-ups (up to 6 months). Therefore the evidence was considered convincing, and recommendations to be considered.

There was some discussion over the fact that the studies on Telehealth were all on US Military veterans, however the committee agreed that the findings were nevertheless relevant to a general UK PTSD population

Technology supported TF-CBT versus standard TF-CBT

No recommendation was made as data was provided from one very low quality study. The study included 26 participants, the type of trauma was unclear, randomisation methods were unclear, and both assessors and participants were aware of treatment allocation.

Collaborative Care

The data was considered very low quality, assessors and participants were not blinded to treatment allocation, randomisation methods were often unclear and heterogeneity was high or very high across different outcomes. Data for PTSD symptomology was consistent across studies and time-points; however large degrees of inconsistency were observed for the number of participants completing therapy sessions.

Engagement Strategies

Data was considered either low or very low quality due to lack of blinding of assessors and participants, unclear randomisation methods and high heterogeneity. Six studies reported data on PTSD and depression symptomology, and data were consistent across studies and across time-points. The data on mean number of sessions attended and on the number of participants completing the intervention were less consistent.

Stepped Care

The evidence presented was seen to be encouraging by the committee; however, only one study was identified for this section and the outcomes were considered as very low quality due to small sample size, lack of blinding and unclear randomisation and allocation methods.

School based therapies

The committee agreed not to recommend school based therapies, as the evidence related to one small, very low quality study. The outcomes were considered very low quality due to small sample size, lack of blinding and unclear randomisation. The study was conducted on children who had a shared trauma, and may not be relevant in other non-shared trauma environments. In addition, the data was considered to be at high risk of bias due to large differences in follow up.

Motivational enhancement strategies

The committee agreed not to recommend motivational enhancement, as it was from evidence relating to one small, low quality study. The evidence was considered very low quality due to lack of blinding of participants, randomisation and allocation methods were unclear. In addition the committee discussed the risk of reporting bias due to the way data were presented in the article.

Benefits and harms

Technology based therapies

Telehealth

The committee concluded that there were a reasonable number of studies with a significant sample size and that the studies consistently showed non-inferiority for trauma focused CBT delivered by video consultation.

The committee agreed that offering video consultation would facilitate uptake of services. People with PTSD can be quite avoidant of treatment and therefore offering treatment remotely may make therapy more accessible to those who are not comfortable being in a clinical setting. They pointed out that it could also improve access to people who are house bound and those living in remote communities or where there are challenges in travelling to services.

However, the committee was moderately concerned that telehealth might become the preferred choice to reduce cost if it were to be offered on a routine basis. They agreed that telehealth should then be considered where clinically appropriate, and where it is preferred by the person with PTSD. They also revised recommendations in the access to care section to highlight how video consultation can be considered as a modification to the method and mode of delivery of treatment interventions. Based on their clinical expertise, the committee pointed out that in some situations it may be important that the person with PTSD and therapist develop a working relationship face to face first, and then go onto use telehealth as an option of care, taking into consideration the person's preferences.

The committee also discussed that video consultation may be clinically inappropriate in some situations: when there are language barriers; where the person has no access to IT equipment; and when people have co-morbidities (for example, in people with a substance misuse problem which may not be picked up via video conferencing facilities). They also noted that in cases where the location of the trauma is the home, video consultation from there would also not be clinically appropriate, and so there was some level of clinical judgment required to establish when face-to-face intervention would be more appropriate, and always taking into account the person's preferences.

Whilst there was some discussion over the fact that studies on telehealth were all on US Military veterans, the committee believed that the findings were nevertheless relevant to a general UK PTSD population

Technology supported trauma focused CBT versus standard trauma focused CBT

No recommendation was made as evidence related to one very low quality study.

Collaborative Care

The committee discussed how although the data was supportive of collaborative care, this should really be regarded as a principle of good clinical practice. Co-ordinated care where there is collaboration across health care professionals should be carried out whenever required. Nonetheless, the committee also pointed out that although this should be at the core of good clinical practice, they were aware of inconsistent co-ordinated care in mental health departments across the UK. Therefore, although a specific recommendation was not developed, the committee reinforced the principles of collaboration of care in the recommendations contained under planning treatment (section 1.6 of the short guideline).

Engagement Strategies

The committee did not recommend specific engagement strategies, although the evidence comparing engagement strategies to TAU highlighted the importance of encouraging people to engage with services. Therefore, the committee agreed it was important to have systems and strategies in place to help people engage with care. It was discussed that people with PTSD as a group often avoid seeking help, and therefore this was of particular importance. The committee agreed that these engagement strategies were to be reinforced in the recommendations contained under access to care (section 1.3 of the short guideline).

Stepped Care

The committee noted that the evidence presented was encouraging. However, only one study was identified and so they agreed not to recommend stepped care. The committee agreed that this was an area for further research as stepped care approaches might address the challenges inherent to providing individual psychotherapies, by making less intensive forms of treatment more easily available to people who might benefit from them (see Appendix L).

School based therapies

The committee agreed that school based therapies should not be recommended as the evidence related to one small, very low quality study, and the data were at high risk of bias. They also noted that this was a collective trauma event and therefore may not be appropriate in single traumatic event. However, based on their clinical expertise and by consensus it was decided that although school based therapies could not be recommended on their own, they would be included within the delivery options, when discussing therapy provision as a whole. The evidence presented was from a study that looked at PTSD from a collective trauma event, and it was deemed that this may be the most appropriate time for school based therapies. The evidence supported school therapy as a viable option which can be considered in some circumstance.

Motivational enhancement strategies

Motivational enhancement was not recommended as the evidence related to only one small, low quality study.

Cost effectiveness and resource use

The committee considered the existing economic evidence, which was exclusively derived from studies conducted in the US. One US study conducted alongside a RCT indicated that collaborative care was unlikely to be a cost-effective model of delivery of care for adults with clinically important post-traumatic stress symptoms. On the other hand, another US study conducted alongside a RCT suggested that stepped care was likely to be a cost-effective model of delivery of care for children and young people with clinically important post-traumatic stress symptoms. The committee noted that both studies were characterised by potentially serious limitations, comprising a small study size and a short time horizon. Moreover, the committee noted that both studies were conducted in the US, where resource use, organisation of services and unit costs are different from those in the UK. Therefore, they considered all available economic evidence to be only partially applicable to the UK.

The committee expressed the view that modifying the delivery of trauma focused CBT using remote video consultation, text messages, emails or telephone contacts where it is preferred by the patient and is clinically appropriate may save resources without compromising the therapeutic outcome, in particular in remote areas where therapists need to travel longer distances to deliver trauma focused CBT in person.

The committee were concerned that video consultation might be introduced purely as a cost saving measure and not take into account the potential for additional therapeutic and engagement benefit in some situations of face to face consultation for this reason the recommendation was worded to require both patient preference and clinical appropriateness.

It was highlighted that in some situations, telehealth was provided in specialised clinics, not in the person's home, and these situations are unlikely to provide any benefit to those who have accessibility issues. It may be easier for a patient to access a local specialised telehealth clinic than a regional specialist PTSD clinic.

Other factors the committee took into account

The committee considered the person's preference to be an important factor when developing recommendations.

The committee also discussed how little high-quality evidence there is to support trauma-informed care and agreed that it should be prioritised as an areas for further research (see Appendix L).

References for included studies

Technology based interventions

Acierno 2016

Acierno R, Gros DF, Ruggiero KJ, et al. (2016) Behavioral activation and therapeutic exposure for posttraumatic stress disorder: A noninferiority trial of treatment delivered in person versus home-based telehealth. Depression and anxiety 33(5), 415-23

Acierno 2017

Acierno R, Knapp R, Tuerk P, et al. (2017) A non-inferiority trial of Prolonged Exposure for posttraumatic stress disorder: In person versus home-based telehealth. Behaviour Research and Therapy 89, 57-65

Frueh 2007

Frueh BC, Monnier J, Yim E, et al. (2007) A randomized trial of telepsychiatry for post-traumatic stress disorder. Journal of telemedicine and telecare 13, 142-147

Maieritsch 2015

Maieritsch KP, Smith TL, Hessinger JD, et al. (2016) Randomized controlled equivalence trial comparing videoconference and in person delivery of cognitive processing therapy for PTSD. Journal of telemedicine and telecare 22(4), 238-43

Morland 2014

Morland L, Mackintosh M-A, Greene C, et al. (2014) Cognitive processing therapy for posttraumatic stress disorder delivered to rural veterans via telemental health: a randomised noninferiority clinical trial. Journal of Clinical Psychiatry 75, 470-476

Morland 2015

Morland LA, Mackintosh MA, Rosen CS, et al. (2015) telemedicine versus in-person delivery of cognitive processing therapy for women with posttraumatic stress disorder: A randomized non-inferiority trial. Depression and Anxiety 32, 811-820

Ruggiero 2016

Ruggiero K, Adams Z, Danielson C, et al. (2016) Technology-based tools to enhance quality of care in mental health treatment. (Final progress report)

Strachen 2012

Strachan M, Gros DF, Ruggiero KJ, et al. (2012) An Integrated Approach to Delivering Exposure-Based Treatment for Symptoms of PTSD and Depression in OIF/OEF Veterans: Preliminary Findings. Behavior Therapy 43, 560-569

Collaborative Care

Battersby 2013

Battersby MW, Beattie J, Pols RG, et al. (2013) A randomised controlled trial of the Flinders Program™ of chronic condition management in Vietnam veterans with co-morbid alcohol misuse, and psychiatric and medical conditions. Australian & New Zealand Journal of Psychiatry 47(5), 451-62

Browne 2013

Browne AL, Appleton S, Fong K, et al. (2013) A pilot randomized controlled trial of an early multidisciplinary model to prevent disability following traumatic injury. Disability and rehabilitation 35(14), 1149-63

Fortney 2015

Fortney JC, Pyne JM, Kimbrell TA, et al. (2015) Telemedicine-based collaborative care for posttraumatic stress disorder: A randomized clinical trial. JAMA Psychiatry 72, 58-67

Meredith 2016

Meredith LS, Eisenman DP, Han B, et al. (2016) Impact of Collaborative Care for Underserved Patients with PTSD in Primary Care: a Randomized Controlled Trial. Journal of General Internal Medicine 31, 509-517

Schnurr 2013

Schnurr PP, Friedman MJ, Oxman TE, et al. (2013) RESPECT-PTSD: re-engineering systems for the primary care treatment of PTSD, a randomized controlled trial. Journal of general internal medicine 28, 32-40

Zatzick 2013

Zatzick D and McFadden C (2013) Integrating Information Technology Advancements Into Early PTSD Interventions. Available at https://clinicaltrials.gov (In progress)

Zatzick 2017

Zatzick D, Russo J, Thomas P, et al. (2017) Patient-Centred Care Transiotions after Injury Hospitalization: A comparative effectiveness Trial. Psychiatry, 1-16

Engagement Strategies

Dorsey 2014

Dorsey S, Pullmann MD, Berliner L, et al. (2014) Engaging foster parents in treatment: A randomized trial of supplementing Trauma-focused Cognitive Behavioral Therapy with evidence-based engagement strategies. Child abuse & neglect 38(9), 1508-20

Rosen 2013

Rosen CS, Tiet QQ, Harris AH, et al. (2013) Telephone monitoring and support after discharge from residential PTSD treatment: a randomized controlled trial. Psychiatric services (Washington, D.C.), 64, 13-20

Rosen 2017

Rosen CS, Azevedo KJ, Tiet QQ, et al. (2017) An RCT of Effects of Telephone Care Management on Treatment Adherence and Clinical Outcomes Among Veterans With PTSD. Psychiatric Services 68(2), 151-8

Stecker 2014

Stecker T, McHugo G, Xie H, et al. (2014) RCT of a brief phone-based CBT intervention to improve PTSD treatment utilization by returning service members. Psychiatric Services 65, 1232-1237

Tecic 2011

Tecic T, Schneider A, Althaus A, et al. (2011) Early short-term inpatient psychotherapeutic treatment versus continued outpatient psychotherapy on psychosocial outcome: a randomized controlled trial in trauma patients. J Trauma 70(2), 433-41[PMID: 21057336]

Watts 2015

Watts BV, Schnurr PP, Zayed M, et al. (2015) A randomized controlled clinical trial of a patient decision aid for posttraumatic stress disorder. Psychiatric services (Washington, D.C.) 66, 149-154

Zatzick 2015

Zatzick D, O'Connor SS, Russo J, et al. (2015) Technology-Enhanced Stepped Collaborative Care Targeting Posttraumatic Stress Disorder and Comorbidity After Injury: A Randomized Controlled Trial. J Traumatic Stress 28, 391-400

Information and support

Carson 2016

Carson SS, Cox CE, Wallenstein S, et al. (2016) Effect of Palliative Care-Led Meetings for Families of Patients With Chronic Critical Illness: A Randomized Clinical Trial. JAMA 316, 51-62

Colvielle 2010

Colville GA, Cream PR, Kerry SM (2010) Do parents benefit from the offer of a follow-up appointment after their child's admission to intensive care?: An exploratory randomised controlled trial. Intensive and Critical Care Nursing 26, 146-153

Garrouste-Orgeas 2016

Garrouste-Orgeas M, Max A, Lerin T, et al. (2016) Impact of proactive nurse participation in ICU family conferences: A mixed-method study. Critical care medicine 44, 1116-1128

Jabre 2014

Jabre P, Tazarourte K, Azoulay E, et al. (2014) Offering the opportunity for family to be present during cardiopulmonary resuscitation: 1-Year assessment. Intensive Care Medicine 40, 981-987

Mott 2014

Mott JM, Stanley MA, Street RL, et al. (2014) Increasing engagement in evidence-based PTSD treatment through shared decision-making: a pilot study. Military medicine 179, 143-149

Samuel 2015

Samuel V, Colville G, Goodwin S, et al. (2015) The Value of Screening Parents for Their Risk of Developing Psychological Symptoms After PICU: A Feasibility Study Evaluating a Pediatric Intensive Care Follow-Up Clinic. Pedaitric Critical Care Medicine 16, 808-813

Stepped Care

Salloum 2016

Salloum A, Wang W, Robst J, et al. (2016) Stepped care versus standard trauma-focused cognitive behavioral therapy for young children. Journal of Child Psychology and Psychiatry 57(5), 614-22

Salloum A, Swaidan V, Torres A, et al. (2016) Parents' perception of stepped care and standard care trauma-focused cognitive behavioral therapy for young children. Journal of Child and Family Studies 25, 262-274

School based therapies

Jaycox 2010

Jaycox LH, Cohen JA, Mannarino AP, et al. (2010) Children's mental health care following Hurricane Katrina: A field trial of trauma-focused psychotherapies. Journal of Traumatic Stress 23(2), 223-31

Motivational enhancement strategies

Murphy 2009

Murphy RT, Thompson KE, Murray M, et al. (2009) Effect of a motivation enhancement intervention on veterans' engagement in PTSD treatment. Psychological Services 6(4), 264

Appendices

Appendix A – Review protocols

Review protocol for "Which service delivery models are effective at meeting the needs of adults, children and young people with clinically important post-traumatic stress syndrome?"

Topic	Organisation and delivery of care for people with PTSD
Review question(s)	Review Question 7.1 Which service delivery models are effective at meeting the needs of adults, children and young people with clinically important post-traumatic stress 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 treatment • 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 learning disabilities and 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 service delivery models and care pathways for people with clinically important post-traumatic stress symptoms
Population	People with clinically important post-traumatic stress symptoms

Topic	Organisation and delivery of care for people with PTSD
	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 • 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	Service delivery models (including case management and coordination, collaborative care, community-based outreach clinics, clinics or services in non-health settings and trauma-informed care [TIC])
Comparison	Standard management strategy
Critical outcomes	Efficacy PTSD symptomology (mean endpoint score or change in PTSD score from baseline on a validated scale) Diagnosis of PTSD (number of people meeting diagnostic criteria for PTSD according to DSM, ICD or similar criteria) Quality of life (as assessed with a validated scale including the 36-item Short-Form Survey [SF-36], Health Status Questionnaire-12 and Warwick-Edinburgh Mental Well-being Scale [WEMWBS]) Access to treatment Uptake of treatment
Important, but not critical outcomes	Healthcare utilization Satisfaction, preference Anxiety about treatment

Topic	Organisation and delivery of care for people with PTSD
	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?	Publication limit 2000-current
Minimum sample size	N = 10 in each arm
Study setting	Primary, secondary, tertiary, social care and community settings. Treatment 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

Topic	Organisation and delivery of care for people with PTSD
	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. 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

Topic	Organisation and delivery of care for people with PTSD
	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])First-line treatment relative to second-line treatment and treatment-resistant PTSD (≥2 inadequate treatments) • 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)
Notes	

1

2

3

Appendix B – Literature search strategies

Search strategies for "Which service delivery models are effective at meeting the needs of adults, children and young people with clinically important post-traumatic stress 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: 31 January 2017

#	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
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	*case management/ or *cooperation/ or *patient care/ or *health care delivery/ or *integrated health care system/ or *multihospital system/ or *patient care/ or *health care planning/ or *health care policy/ or *hospital management/ or *health care planning/ or *patient care planning/ or *program development/ or *resource allocation/
12	11 use emez
13	case management/ or cooperative behavior/ or "continuity of patient care"/ or delivery of health care/ or delivery of health care, integrated/ or interprofessional relations/ or interinstitutional relations/ or multi-institutional systems/ or models, organizational/ or patient care team/ or patient centered care/ or community health planning/ or decision making, organizational/ or health care reform/ or health facility administration/ or health facility planning/ or health planning/ or health planning guidelines/ or health plan implementation/ or health resources/ or health services administration/ or exp health planning organizations/ or health systems plans/ or institutional management teams/ or national health programs/ or organizational innovation/ or patient care planning/ or planning techniques/ or program development/ or public health administration/ or regional health planning/ or regional medical programs/ or resource allocation/ or state health plans/

#	Searches
14	13 use mesz
15	exp case management/ or exp cooperation/ or exp "continuum of care"/ or exp health care delivery/ or exp integrated services/ or exp interdisciplinary treatment approach/ or exp teams/ or exp health care reform/ or exp treatment planning/ or exp resource allocation/
16	15 use psyh
17	(algorithm* or careplan* or care plan* or pathway* or ((care or treatment) adj3 (delivery or guideline* or program* or protocol*))).ti,ab.
18	(((assertive or proassertive) adj2 (communit* or outreach or treatment*)) or act model*).ti,ab.
19	((augment* or collaborat* or coordinat* or co ordinat* or enhanc* or holistic* or 69 integrat* or interdisciplin* or inter disciplin* or interagenc* or inter agenc* or interorganis* or inter organis* or interprofessional* or inter professional* or intraprofessional* or intra professional* or multiagenc* or multi agenc* or multidimension* or multi dimension* or multidisciplin* or multi disciplin* or multifacet* or multi facet* or multiprofessional* or multi professional* or multiple or shared or stepped or tiered or transdisciplin* or trans discliplin*) adj3 (approach* or care or healthcare or intervention* or manag* or model* or program* or psychotherap* or service* or system* or team* or therap* or treatment* or work*)).ti,ab.
20	(((care or case*) adj manag*) or managed care program* or (patient care adj (plan* or team*))).ti,ab.
21	(cluster adj3 health* adj3 social*).ti,ab.
22	((complex or organi?ational) adj intervention*).ti,ab.
23	((comprehensive adj2 (care or management or service or treatment)) or (managed adj (behavioral or behavioural) adj health) or (model* adj2 (approach* or care or consultation or integrated or service* or team* or treatment*))).ti,ab.
24	(co located team or co location or (joint service adj3 development) or linkwork* or multidisciplinary assessment or one stop shop or (pool* adj3 budget) or single assessment or strategic collaboration).ti,ab.
25	consultation liaison.ti,ab.
26	((contin* or coordinated or co ordinated or joint* or joined up or progression or seamless* or structured or uninterrupted) adj3 (care or healthcare or service*)).ti,ab.
27	(((continuous or integrated or joint or overlapping) adj commission*) or provider partnership*).ti,ab.
28	(continuity adj2 (care or healthcare)).ti,ab.
29	(((cooperative or co operative) adj behav*) or ((interpersonal or inter personal or interprofession* or inter profession* or interinstitution* or inter institution*) adj (work* or relation*))).ti,ab.
30	(flexible partnership* or (joint* adj3 working) or joined up partnership* or (partnership* adj3 working) or partnership project*).ti,ab.
31	(((horizontal or vertical) adj integrat*) or horizontal communication*).ti,ab.
32	(imhc or integrated psychiatry).ti,ab.
33	(integrat* adj3 health*).ti,ab.
34	((model* or pathway*) adj3 (approach* or care or healthcare or program* or psychotherap* or service* or specialit* or therap* or treatment*)).ti,ab.
35	((parallel or serial) adj2 (care or healthcare or model* or service* or therap* or treatment*)).ti,ab.
36	((premobile or pre mobile) adj3 (approach* or care or communit* or healthcare or program* or service* or therap* or treatment or work*)).ti,ab.

#	Searches
37	(system* adj2 care).ti,ab.
38	((deliver* or implement* or needs or organi* or plan* or utili*) adj3 (care or healthcare or model* or program* or service* or system*)).ti,ab.
39	or/12,14,16-38
40	meta analysis/ or "meta analysis (topic)"/ or systematic review/
41	40 use emez
42	meta analysis.sh,pt. or "meta-analysis as topic"/ or "review literature as topic"/
43	42 use mesz
44	(literature review or meta analysis).sh,id,md. or systematic review.id,md.
45	44 use psyh
46	(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 scisearch or science citation or (web adj2 science)).ti,ab.) and (review*.ti,ab,sh,pt. or systematic*.ti,ab.)
47	46 use emez
48	(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.)
49	48 use mesz
50	(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.)
51	50 use psyh
52	((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.
53	(metaanal* or meta anal*).ti,ab.
54	(research adj (review* or integration)).ti,ab.
55	reference list*.ab.
56	bibliograph*.ab.
57	published studies.ab.
58	relevant journals.ab.
59	selection criteria.ab.
60	(data adj (extraction or synthesis)).ab.
61	(handsearch* or ((hand or manual) adj search*)).ti,ab.
62	(mantel haenszel or peto or dersimonian or der simonian).ti,ab.
63	(fixed effect* or random effect*).ti,ab.
64	((pool* or combined or combining) adj2 (data or trials or studies or results)).ti,ab.
65	or/41,43,45,47,49,51-64
66	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/
67	66 use emez

#	Searches
68	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/
69	68 use mesz
70	(clinical trials or placebo or random sampling).sh,id.
71	70 use psyh
72	(clinical adj2 trial*).ti,ab.
73	(crossover or cross over).ti,ab.
74	(((single* or doubl* or trebl* or tripl*) adj2 blind*) or mask* or dummy or doubleblind* or singleblind* or trebleblind* or tripleblind*).ti,ab.
75	(placebo* or random*).ti,ab.
76	treatment outcome*.md. use psyh
77	animals/ not human*.mp. use emez
78	animal*/ not human*/ use mesz
79	(animal not human).po. use psyh
80	or/67,69,71-76
81	80 not (or/77-79)
82	or/65,81
83	10 and 39 and 82

Database: CDSR, DARE, HTA, CENTRAL

Date of last search: 31 January 2017

#	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)

#	Searches
#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: 31 January 2017

#	Searches
s52	s6 and s51
s51	s40 or s50
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*

#	Searches
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")
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*")))

#	Searches
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

#	Searches
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
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.

#	Searches
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

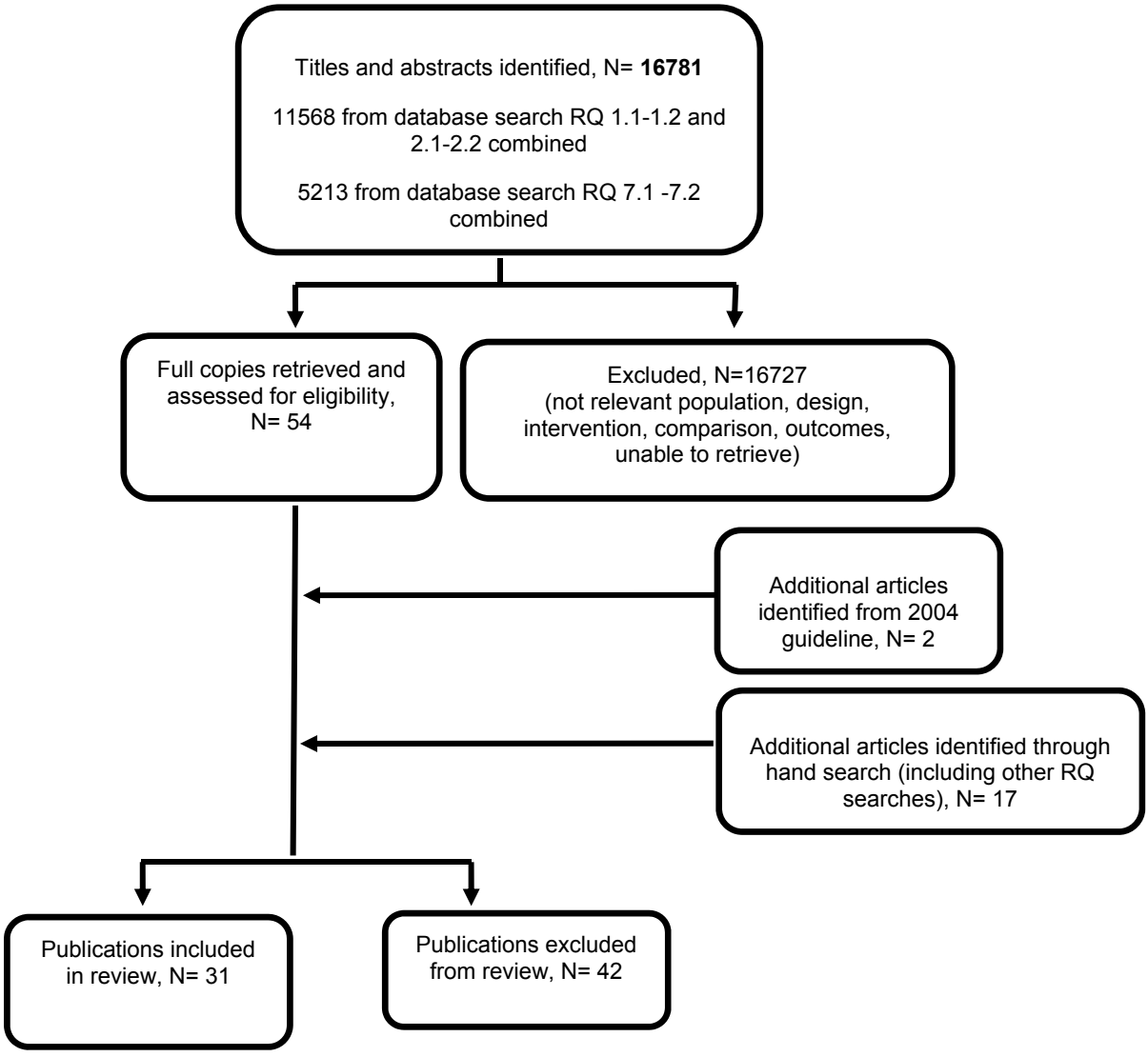
Date of last search: 1 March 2018

#	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
#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 "Which service delivery models are effective at meeting the needs of adults, children and young people with clinically important post-traumatic stress symptoms?"

Figure 1: Flow diagram of clinical article selection for review



Appendix D – Clinical evidence tables

Clinical evidence tables for "Which service delivery models are effective at meeting the needs of adults, children and young people with clinically important post-traumatic stress symptoms?"

Table 24: Clinical evidence table: Telehealth versus in-person TF-CBT

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Acierno 2016	Following the Behavioural Activation and Therapeutic exposure manual (based on situational and imaginal exposure), weekly sessions were delivered using participants own digital equipment.	NR	Military Combat (Veterans of OEF/OIF/OND/Persian Gulf/Vietnam	265	Mean age: 46 years Gender (% female): 5.6 Ethnicity (% BME): 49.6 Country: USA Coexisting Conditions: NR	Inclusion: Diagnosis of PTSD (CAPS), or subthreshold PTSD, those receiving psychotropic drugs, those receiving mental health treatment (other than psychiatric disorders), and those meeting the criteria for substance abuse were included only if they had a period of stabilization. Exclusion: actively psychotic or acutely suicidal.
Acierno 2017	Home based telehealth using Prolonged exposure treatment manual	NR	Military Combat (Veterans of OEF/OIF/OND/Persian Gulf/Vietnam	150	Mean age: 42 years Gender (% female): 3.8 Ethnicity (% BME): 39.4 Country: USA Coexisting Conditions: NR	Inclusion: Criterion A event on the CAPS tool, and the traumatic event must be combat related, those receiving psychotropic medication, mental health treatment for psychiatric disorders, receiving case management for PTSD, or met the criteria for substance abuse were included as long as they kept their dosage stable, and had been on a stable dose for 4 weeks.

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Frueh 2007	Telepsychiatry: Sessions conducted with PC-based videoconferencing equipment. Patients received cognitive-behavioural group therapy for veterans, (social skills, assertion, social communication, anger management).	NR	Military combat	38	Mean age: 56 years Gender (% female): 0 Ethnicity (% BME): 66 Country: USA Coexisting Conditions: 85% depression, 74% anxiety	Exclusion: Those who were actively psychotic, acutely suicidal, or currently abusing substances. Inclusion: Treatment seeking male veterans with combat related PTSD (participants must meet the CAPS diagnostic criteria for PTSD). Exclusion: Psychotic, substance abuse.
Maieritsch 2015	Telemental health (TMH): The provision of mental health treatment over video conference	NR	Military Combat (Veterans had served in Iraq (75.6%), Afghanistan (13.3%) or in both)	90	Mean age: 31 years Gender (% female): 6.7 Ethnicity (% BME): NR Country: USA Coexisting Conditions: NR	Inclusion: English speaking OEF/OIF/OND veterans, with a current PTSD diagnosis (CAPS), had a military related traumatic event, on stable psychotropic medication for at least one month prior to the baseline assessment, and willing to maintain that regime. Exclusion: Completed a CPT trial, active diagnosis of bipolar, psychotic or substance

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
						dependent disorders, acute suicidal or homicidal ideation, or significantly cognitively impaired
Morland 2014	VTC-Video teleconferencing CPT. The CPT was a manual based protocol, a variant of CPT, which excludes the written trauma narrative	NR	Military combat	125	Mean age: 55 years Gender (% female): 0 Ethnicity (% BME): 44.8 Country: USA Coexisting Conditions: 28.8% depression, 19.2% anxiety	Inclusion: Male veterans with PTSD (CAPS), if taking psychotropic medication, participant had been on a stable regimen for 45 days. Exclusion: Significant cognitive impairment, history of mental disorder, active psychotic symptoms/disorder, active homicidal or suicidal ideation, current substance dependence, unwilling to refrain from substance abuse.
Morland 2015	Video teleconferencing delivered CPT. Manualised evidence based treatment for PTSD (psychoeducation, cognitive theory and emotions, rehearsing strategies to restructure thoughts, problematic beliefs and cognitions identified and	NR	Veterans and civilian women with PTSD.	149	Mean age: 46 years Gender (% female): 100 Ethnicity (% BME): 53 Country: USA Coexisting Conditions: 29.2% depression, 26.8% anxiety	Inclusion: Current diagnosis of PTSD (CAPS scale), if taking psychotropic medication, regimen must have been stable for a minimum of 45 days prior to study entry. Exclusion: Significant cognitive impairment, history of mental disorder, active psychotic symptoms/disorder, active homicidal or suicidal ideation, current substance dependence, unwilling to refrain from substance abuse

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Strachan 2012	challenged, safety, trust, control, esteem and intimacy). In-home video-conferencing technology. Behavioural Activation and Therapeutic Exposure (psychoeducation, treatment rationale, life values, In vivo and imaginal exposure exercises, patients engage in prolonged imaginal exposure exercises).	NR	Military combat (OIF/OEF veterans)	40	Mean age: 30 years Gender (% female): 7.5 Ethnicity (% BME): 55 Country: USA Coexisting Conditions: 22.5% depression	Inclusion: Veterans of OIF/OEF who met PTSD criteria, or subthreshold PTSD (CAPS). Those on psychotropic medication, in case management services, receiving mental health treatment for other psychiatric disorders and those with alcohol or substance abuse were also included. Exclusion: Actively psychotic, suicidal or met the criteria for alcohol and/or substance dependence.

Table 25: Clinical evidence table: Technology supported TF-CBT versus standard TF-CBT

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Ruggiero 2016	eTF-CBT: Tablet based resources: Content for providers, to assist in preparing sessions and creating checklists. Tools to use in session by providers with the child or caregiver; interactive tools included videos, quizzes, drag and drop activities, and drawing tools. Interactive versions of text, videos, these are intended to provide additional information.	NR	Unclear	131	Mean age: NR Gender (% female): 22.9 Ethnicity (% BME): 40.5 Country: USA Coexisting Conditions: NR	Unclear: Families recruited from clinics with participating providers.

Table 26: Clinical evidence table: Collaborative care versus treatment as usual

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Battersby 2013	Four part intervention 1) Flinders Program, to engage the person in their own care, provides a structured clinical process for the health care provider to use, to	NR	Military Combat (Australian Vietnam veterans)	82	Mean age: 60 years Gender (% female): 3.0 Ethnicity (% BME): NR	Inclusion: Vietnam veterans living in either Southern, Eastern, Western or Central Adelaide division of general practice, alcohol Use Disorders Identification test (AUDIT) score of 8 or above, having a chronic condition, eligible for Veteran medical benefits.

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
	motivate behaviour change for medical and psychosocial benefit. Follow up visits use motivational and problem solving skills to navigate the health care system. 2) Alcohol Practice Guidelines and other self-help material on alcohol consumption and use. 3) Stanford Chronic Disease Management Group Program (SCDSMP), an optional, 6 week group program to improve self-efficacy, plus 4) Usual care.				Country: Australia Coexisting Conditions: 79% depression, 10% anxiety, 53% alcohol/drug abuse	Exclusion: presence of a debilitating physical or mental condition, which would prevent participation in the study
Browne 2013	A multidisciplinary screening and co-ordinated care intervention. Participants attended a review appointment assessing pain, psychological function and functional capacity. Treatment was individually tailored, (physiotherapy, occupational therapy, and psychological	Acute	Unintentional injury/illness/medical emergency (participants had sustained a traumatic injury as defined by mechanism of injury, which included falls, motor vehicle accidents, assault, work-related and sport related injuries.	142	Mean age: 37 years Gender (% female): 25 Ethnicity (% BME): 15.8 Country: Australia Coexisting Conditions: NR	Inclusion: Adults (18-80 years), within four weeks of injury, admitted for over 24hours. Exclusion: Moderate to severe head injury, experienced post traumatic amnesia for over 24 hours, Glasgow Coma Scale 8 or below at the scene of the incident, Glasgow Coma Scale of less than 13 at admission

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
	treatment). Participants received both verbal and written materials. Clinical diagnoses and treatment plans were discussed and a summary sent to the participants GP					
Fortney 2015	TOP- Telemedicine outreach for PTSD. The care teams supported those on-site and included multi-disciplinary team. The telephone nurse managed care activities, and was supported by a website. The telepsychologists delivered CPT to those who wanted it. Care manager and pharmacist activities were delivered by phone, psychotherapy and psychiatric consultations were delivered by interactive video	NR	Military combat (limited details, participants were recruited from Department of Veterans Affairs outpatient clinic. Over 50% reported that their worst trauma was combat related).	265	Mean age: 52 years Gender (% female): 13.8 Ethnicity (% BME): 36.2 Country: USA Coexisting Conditions: 78.9% depression, 67.2% anxiety	Inclusion: Meeting diagnostic criteria for PTSD. Exclusion: receiving speciality PTSD treatment at a Veterans Affairs Medical Centre, diagnosed with schizophrenia, bipolar disorder, substance dependence or hearing impairment, not having access to a telephone, having a life-threating illness, unable to consent

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Meredith 2016	PTSD Care Management. The care managers provided active patient education and engagement using NIMH brochures and motivational interviewing techniques, provided a link to community resources, provided structured communication with primary care clinician, and mental health providers, plus weekly case management meetings (supervised by the study psychiatrist	NR	Unclear. Participants were low income, minority and uninsured or underinsured persons from Federally Qualified Health Centres.	404	Mean age: 42 years Gender (% female): 80.6 Ethnicity (% BME): 94 Country: USA Coexisting Conditions: 51.6% depression, 45.2% anxiety.	Inclusion: Aged 18 - 65 years, Positive diagnosis for PTSD (CAPS, followed by DSM-IV), planning to continue care at the centre for 1 year. Exclusion: physical or cognitive obstacles to assessment
Schnurr 2013	Three-component model of Collaborative Care (3CM): Participants received phone calls from care managers to identify barriers to adherence, and to help the patient overcome these barriers. Care managers contacted centrally located psychiatrists to discuss the participant's progress, entered the	NR	Military combat (41.5% Vietnam veterans, 16.4% Gulf war veterans, and 40% Iraq or Afghanistan veterans)	195	Mean age: 45 years Gender (% female): 8.	Inclusion: English-speaking veterans, who met the diagnostic criteria for PTSD, and have regular access to a telephone.

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Zatzick 2013	information onto the medical records. A multi-disciplinary team. Care managers engaged with participants in hospital, attempting to problem solve any post-injury concerns. PTSD treatment preferences were discussed. Study nurse and psychiatrist prescribed medication for PTSD and insomnia. CBT was delivered. Symptoms regularly monitored, and care managers remained in touch with participants to assess symptoms and care. Care management transition. Included 24-hour mobile phone availability of the research team. The strategies were flexible to target	Acute	Unintentional injury/illness/medical emergency (Participants were trauma survivors admitted to the University of Washington's Harbour view level 1 trauma centre)	207	Ethnicity (% BME): 43.5 Country: USA Coexisting Conditions: 70.2% depression Mean age: 39 years Gender (% female): 47.8 Ethnicity (% BME): 37.2 Country: USA Coexisting Conditions: NR	Exclusion: Cognitive impairment, a history of psychosis or mania, current suicidal ideation, current substance dependence, current engagement with mental health treatment (had a mental health visit in the past 3 months, or have one scheduled within the next month). Inclusion: English speaking men and women aged 18 or above. Injuries must be severe enough to require inpatient surgical admission. Exclusion: People who required immediate psychiatric intervention, lived more than 100miles from the trauma centre, had a recent history of severe violence, those likely to face criminal charges and those who were currently incarcerated

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Zatzick 2017	medical/surgical and psychiatric disorders, to target each patient's needs. A social worker enquired about treatment preferences and ongoing meetings scheduled during their stay. The social worker coordinated care across surgical inpatient community and service delivery settings and reviewed care plans, aiming to enhance care coordination	Acute	Unintentional injury/illness/medical emergency (Patients admitted to inpatient surgical ward or emergency department for at least 24 hours, with at least three or more traumatic concerns. 87.1% had unintentional injury and 12.9% intentional.	171	Mean age: 42years Gender (% female): 56.7 Ethnicity (% BME): 43.9 Country: USA Coexisting Conditions: NR	Inclusion: Male and female survivors of intentional and unintentional injury. Participants were in the surgical ward or ED for at least 24 hours, were aged 14 or older, and had three or more posttraumatic concerns, and substantial post-injury emotional distress (score of ≥35 on PTSD checklist, score of ≥10 on PHQ-9 or of 1 or above on PHQ-9 item suicide assessment). Exclusion: Those who required immediate psychiatric intervention, (for example self-inflicted injury, active psychosis), those who were not Washington State residents, and those who did not speak English.

Table 27: Clinical evidence table: Engagement strategies versus treatment as usual

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Dorsey 2014	Evidence based engagement strategy based on McKay's engagement manualized intervention, "Training Intervention for the Engagement of Families." Discussion of barriers, prior negative experiences with mental health services, identification of caregivers concern for the child Following discharge from the PTSD treatment, standard referrals plus telephone monitoring and support every two weeks.	NR	Witnessing interpersonal violence	47	Mean age: 10/46years Gender (% female): 55.3/85.2 Ethnicity (% BME): 23.3/31.1 Country: USA Coexisting Conditions: NR	Inclusion: Children must have been resident in their current placement for one month or more, experienced one or more traumatic events, have one symptom from each of the DSM-IV symptom criteria for PTSD plus one symptom from any additional area. Exclusion: Not specified.
Rosen 2013	A scripted protocol assesses treatment attendance, medication compliance, and severity of symptoms, coping abilities, depression, anger, substance use, suicidality and risk of violence, problem areas addressed	NR	Military combat (Veterans (27% OEF/OIF)	837	Mean age: 51 years Gender (% female): 13 Ethnicity (% BME): 59.4 Country: USA Coexisting Conditions: 80.8%	Inclusion: Veterans attending a PTSD residential treatment program. Exclusion: If cognitive impairment hindered consent, if veterans were discharged from treatment after fewer than 15 days, if veterans were transferred directly to another inpatient treatment program. And active duty military personnel

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
					depression, 30.8% anxiety, 4.5% schizophrenia	
Stecker 2014	A phone call intervention, a brief cognitive-behavioural intervention, designed to modify beliefs about treatment seeking to improve PTSD symptoms	NR	Military combat (Service members who had been in Iraq and/or Afghanistan. Unclear if participants are still serving or veterans	300	Mean age: 29 years Gender (% female): 12.7 Ethnicity (% BME): 60 Country: USA Coexisting Conditions: NR	Inclusion: Service members who screened positive for PTSD after deployment to Iraq and/or Afghanistan. Exclusion: Already initiated PTSD treatment
Watts 2015	Participants provided with a 26 page graphically rich booklet, which describes PTSD and the different effective treatments. The booklet contains information about comparative risk, treatment burdens, and effectiveness of PTSD treatments.	NR	Military combat (Military veterans: 30% form the Vietnam era, 34% from Iraq and Afghanistan wars, and 5% from the Gulf war)	132	Mean age: 49 years Gender (% female): 7.8 Ethnicity (% BME): 12 Country: USA Coexisting Conditions: NR	Inclusion: Diagnosed with PTSD (using PCL-M), seeking referral for PTSD treatment. Exclusion: Current substance abuse or dependence, active suicidal ideation, receipt of any mental health treatment in the past 12 months.
	Participants provided with a laptop, with a web browser with a bookmark to "afterdeployment.org", a website that offers self-				Mean age: 43 years	Inclusion: male and female survivors of intentional or unintentional injuries, aged 14

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Zatzick 2015	assessments, self-management strategies. They were also give LifeArmor, an accompanying smartphone app. The study care manager assisted participants in use of the website and app after screening. These care managers were also training in delivery of stepped CBT, these were delivered flexibly during inpatient stay and to outpatients	Acute	Unintentional injury/illness/medical emergency (Participants were survivors of intentional or unintentional injuries)	121	Gender (% female): 36 Ethnicity (% BME): 46 Country: USA Coexisting Conditions: NR	or over. Participants must screen ≥ 3 on their electronic medical record PTSD screen, and then ≥35 on PTSD checklist, civilian version. Exclusion: Required immediate psychiatric intervention, were currently incarcerated, or were not Washington State residents
Rosen 2017	Participants received usual care plus telephone calls. Telephone care managers followed a scripted protocol to assess treatment attendance, medication compliance, side effects, symptom severity, self-efficacy for coping with symptoms, substance use, suicidality and risk of violence. Positive behaviours were reinforced, problem solving support and motivation were provided	NR	Military combat (Veterans recruited from VA medical centres, 52.9% were veterans OEF or OIF)	358	Mean age: 48 years Gender (% female): 14.9 Ethnicity (% BME): 51.3 Country: USA Coexisting Conditions:25.9% depression, 25.9% anxiety, 0.28% bipolar, 10.5% substance abuse disorder	Inclusion: Veterans who were newly entering outpatient PTSD treatment or beginning a new phase of treatment. Exclusion: Continuing patients, dropped out of care before completing enrolment, were starting residential or inpatient treatment, were active duty military personnel, were cognitively impaired and could not provide consent.

Table 28: Clinical evidence table: Engagement strategies versus trauma informed care

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Tecic 2011	Those in the intervention arm received both inpatient and outpatient psychotherapy. The inpatient intervention included short-term psychotherapy, consisted of up to eight sessions. The out-patient intervention consisted six sessions of 50 minutes. Psychotherapy was manual based, tailored to the needs of severely injured accident victims, and follows the evidence based clinical practice for PTSD	NR	Unintentional injury/illness/medical emergency (Participants had at least two injuries with a combined Abbreviated Injury Scale Severity Index score of ≥5)	113	Mean age: 35 years Gender (% female): 23 Ethnicity (% BME): NR Country: Germany Coexisting Conditions: NR	Aged 18 to 65 years, with at least two injuries, with combined AIS Severity Score of ≥5. Exclusion: AIS score ≥3 for head trauma, with an initial Glasgow Coma Scale of ≤8, non-German speaking, refused to take part, mental disorientation

Table 29: Clinical evidence table: information and support versus treatment as usual

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Carson 2016	A brochure describing chronic critical illness was provide to the family surrogate	NR	Family member or carer of person with life-threatening illness or injury	356 (plus 256 patients)	Mean age: 51 years Gender (% female): 71	Inclusion: Aged 21 or above, treated in medical ICUs and received at least 7 days of mechanical ventilation (for the first year of the study this was a 10 day requirement), ventilation should have

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
	decision makers and two meetings were scheduled with the support and information team (palliative care physician and a nurse, they potentially also included social workers, chaplains). Topics included patient's condition, patient's prognosis, alternatives to continued intensive care, care settings for critically ill patients, discharge options, likely care needs, family discussion, and family understanding of the patient's values, goals and preferences.		(Participants had been admitted to an Intensive Care Unit and received 7 days of mechanical ventilation. Family members were also recruited and data is for family members)		Ethnicity (% BME): 24 Country: USA Coexisting Conditions: NR	been uninterrupted for 96 hours or longer and were not expected to be weaned or die within 72 hours. Exclusion: Mechanically ventilated outside of the hospital for longer than 7 days, chronic neuromuscular disease, trauma or burns, family not available between day 7-21, previous palliative care consultation, previous admission to study in ICU, investigator caring for patient, physician refused permission to approach patient or family, no family or surrogate decision maker, surrogate with a lack of English, previous tracheotomy or a prisoner.
Colville 2010	Parents were invited to an optional PICU follow up clinic. During the session the child was not examined, but the medical records were available. A PICU consultant, a senior PICU nurse and a psychologist were available to discuss the	Acute	Family member of child with unintentional injury/illness/ medical emergency Participants were parents of children	154	Mean age: NR Gender (% female): 81	Inclusion: Parents of children admitted to PICU, available to give consent within 48 hours of child's discharge. Exclusion: If the child had been admitted for over 12 hours, if staff it was inappropriate to approach

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Jabre 2014	child's care during admission. Parents were encouraged to provide feedback on the admission, to ask questions and to reflect on how they had been affected emotionally Participants in the intervention arm were asked if they would like to be present during their family member's resuscitation. They were accompanied by a supporting emergency staff member who provided technical information on the resuscitation. A communication guide was available to help introduce the resuscitation scene, and to help with the announcement of death (if it occurred)	Acute	admitted to a Paediatric Intensive Care Unit Unexpected severe injury or death of close family member or friend (Family member of adult patients in cardiac arrest) Family member or carer of person with life-threatening illness or injury (Participants were parents of children admitted to the PICU for a duration of at least 12 hours)	507	Ethnicity (% BME): 25 Country: UK Coexisting Conditions: NR Mean age: NR Gender (% female): NR Ethnicity (% BME): NR Country: France Coexisting Conditions: NR	the parents (for example in cases of non-accidental injury), or if the child had died. Inclusion: Adult family member. Exclusion: not stated

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Samuel 2015	Families were offered a follow up clinic appointment (PICU clinical psychologist plus a PICU consultant and PICU nurse) two months after PICU discharge. Parents were given the opportunity to ask questions about their child's admission and could raise any concerns about their child's current health. Parents were also asked how their child's admission had impacted them. Families were given advice about accessing further support	NR		78	Mean age: NR Gender (% female): NR Ethnicity (% BME): NR Country: UK Coexisting Conditions: NR	Inclusion: Parents of children admitted to PICU, for a duration of at least 12 hours. Only those parents considered "high risk of PTSD" were randomised, assessed by PAS. Exclusion: Death of child, admission for non-accidental injury, readmission during the study period, child discharged for palliative care, or if the health professional deemed inclusion inappropriate.

Table 30: Clinical evidence table: family conference with a nurse versus family conference without a nurse

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Garrouste-Orgeas 2013	The physician explained diagnosis, planned care, possible changes and prognosis. The nurse described the patient's condition as perceived at the bedside and explained how measures were taken to relief pain and stress. The nurse also explained the organisation of the ICU. The nurse used "ask-to-tell" to verify comprehension. Standard conference guides were used. Open questions were used. Bad news was communicated according to the NURSE method: The end of life conference followed the VALUE method.	NR	Unexpected severe injury or death of close family member or friend (Family member had been admitted to ICU and ventilated for over 48 hours)	100	Mean age: 58 years Gender (% female): 60 Ethnicity (% BME): NR Country: France Coexisting Conditions: NR	Inclusion: A close relative who visited the patient who had been ventilated in ICU for over 48 hours, the patient was the highest rank from: spouse, grown child, sibling, other. Exclusion: Were not fluent in French, had a conflict with ICU team at admission, refused to participate, refused recording of the semi-structured interview. Family members of organ donors were not included.

Table 31: Clinical evidence table: Decision aids versus placebo session

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Mott 2014	Participants provided accurate information about their diagnosis, treatment options, outcomes and side effects. The provider helps the participant explore their treatment goals, benefits and risks of treatments, with a goal to select the preferred treatment. A 12 page decision aid which highlights CPT, PE, anxiety managements and PTD education. Following the session the provider communicates the participants preferred treatment option to the PTSD clinic	NR	Military combat (Iraq and Afghanistan Veterans)	27	Mean age: 29 years Gender (% female): 15 Ethnicity (% BME): 30 Country: USA Coexisting Conditions: 37% depression, 19% anxiety,	Inclusion: Veterans who had served at least one tour in Iraq or Afghanistan, diagnosed with PTSD (or at least probable PTSD) Exclusion: Those who had received prior VHA psychotherapy for their PTSD symptoms, or were previously enrolled in the PTSD clinic, as noted in their medical records.

Table 32: Clinical evidence table: School based TF-CBT versus in-clinic TF-CBT

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Jaycox 2010	CBITS: Cognitive-Behavioral Intervention for Trauma in Schools. Incorporates cognitive-behavioural skills: psychoeducation, relaxation, affective modulation, cognitive coping, trauma narrative, in vivo mastery of trauma reminders and enhancing safety. Included group and individual sessions.	NR	Participants had been exposed to Hurricane Katrina.	118	Mean age: 12 years Gender (% female): 55.9 Ethnicity (% BME): 53 Country: USA Coexisting Conditions: 52.5% depression	Inclusion: Children who had a score of above 11 on the Child PTSD Symptom Scale. Exclusion: No details provided

Table 33: Clinical evidence table: Motivational enhancement versus Trauma informed care

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
Murphy 2009	PTSD Motivation Enhancement, a manual based group protocol. 1) Rational and Review, 2) Pros and cons, 3)	NR	Military combat (Veterans from Vietnam, Persian Gulf, WW II, Post-Korean	115	Mean age: 56 years Gender (% female): NR	Inclusion: Veterans with a combat related diagnosis of PTSD, ability to participate in a group psychotherapy, substance misuse, or psychosis (or other comorbid disorder), in remission.

Study ID	Intervention	PTSD details	Trauma type	N	Demographics	Inclusion/Exclusion criteria
	Comparison to the average guy, 4) Roadblocks. The sessions used decision making skills to help patients recognise the need to change any unacknowledged PTSD related problems. The main focus is to help patients generate a list of behaviours and beliefs, and use decision making tools to decide which of these need changing. The sessions form the second part of an ongoing PTSD treatment programme that the participants are enrolled in		war and Post-Vietnam war		Ethnicity (% BME): 63.2 Country: USA Coexisting Conditions: NR	Exclusion: active psychotic symptoms, severely impaired cognitive ability, other medical or psychological problems that would prevent participation in study related tasks.

Appendix E – Forest plots

Forest plots for "Which service delivery models are effective at meeting the needs of adults, children and young people with clinically important post-traumatic stress symptoms?"

Technology based Therapies

Telehealth versus in-person trauma-focused cognitive behavioural therapy (TF CBT) for the treatment of clinically important symptoms/PTSD

Figure 2: Telehealth versus in-person trauma-focused cognitive behavioural therapy (TF CBT) for the treatment of clinically important symptoms/PTSD: PTSD symptoms (self-report)

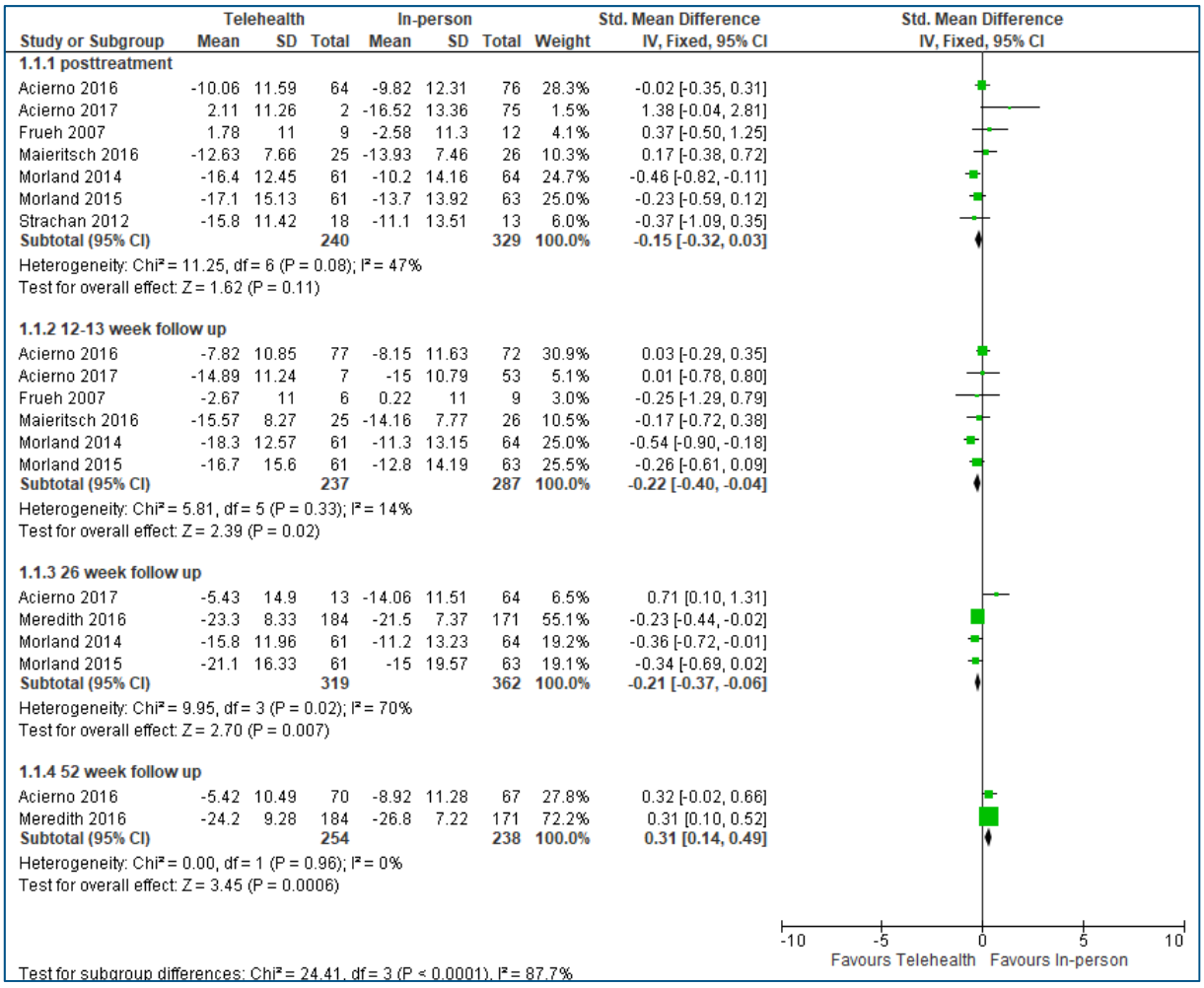


Figure 3: Telehealth versus in-person trauma-focused cognitive behavioural therapy (TF CBT) for the treatment of clinically important symptoms/PTSD: PTSD symptoms (CAPS)

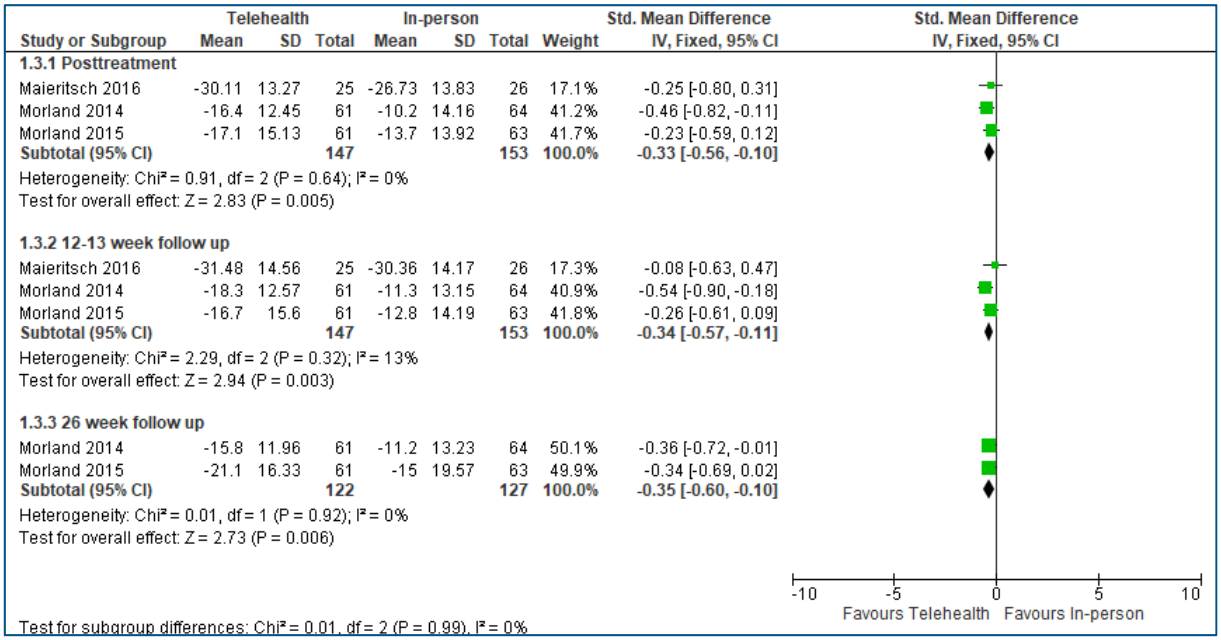


Figure 4: Telehealth versus in-person trauma-focused cognitive behavioural therapy (TF CBT) for the treatment of clinically important symptoms/PTSD: Symptoms of Depression (BDI)

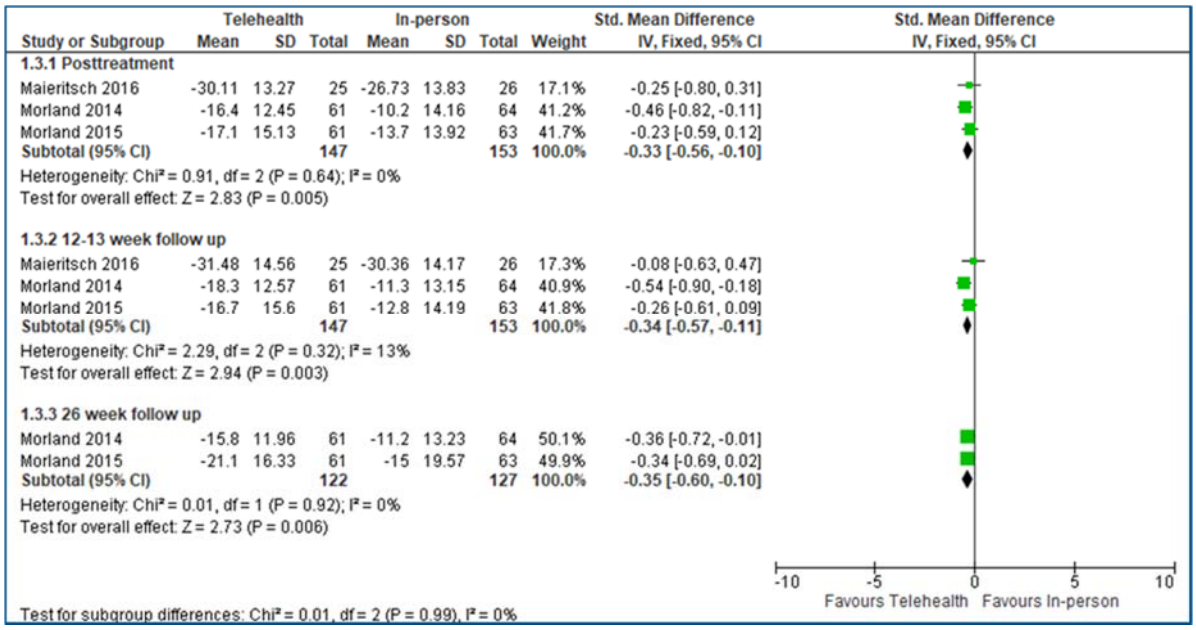


Figure 5: Telehealth versus in-person trauma-focused cognitive behavioural therapy (TF CBT) for the treatment of clinically important symptoms/PTSD at post-treatment: Symptoms of Anxiety (BAI)

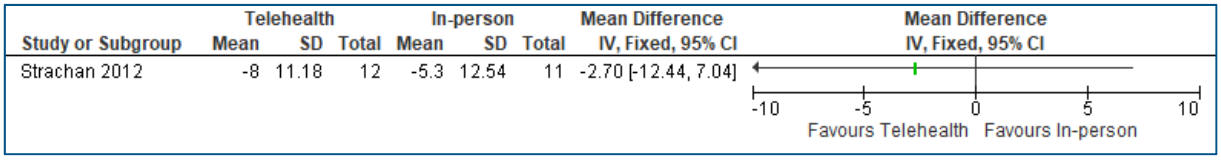


Figure 6: Telehealth versus in-person trauma-focused cognitive behavioural therapy (TF CBT) for the treatment of clinically important symptoms/PTSD: Number who completed set amount of session (defined by each author)

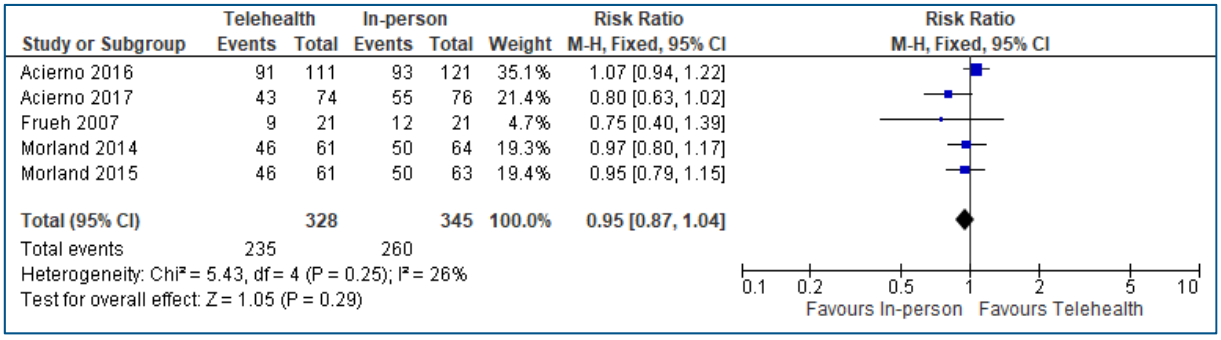
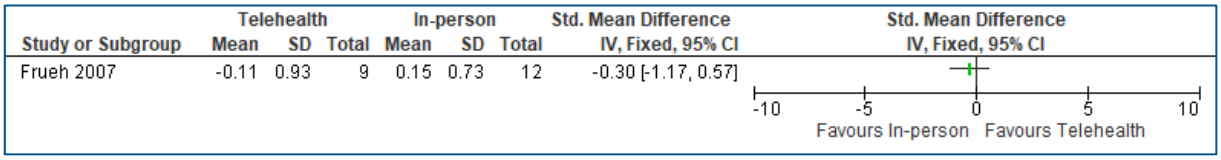


Figure 7: Telehealth versus in-person trauma-focused cognitive behavioural therapy (TF CBT) for the treatment of clinically important symptoms/PTSD: Satisfaction



Technology supported TF-CBT versus standard TF-CBT for the treatment of clinically important symptoms/PTSD

Figure 8: Technology supported TF-CBT versus standard TF-CBT for the treatment of clinically important symptoms/PTSD: PTSD symptomology (UCLA Post-traumatic stress disorder index)

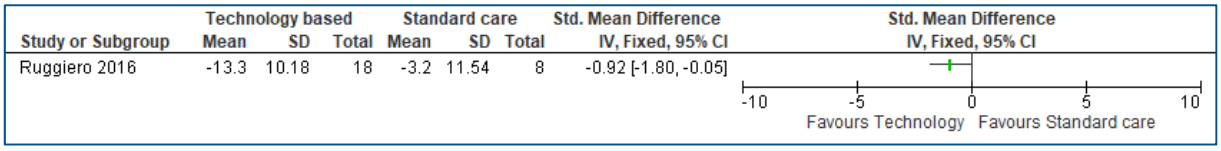
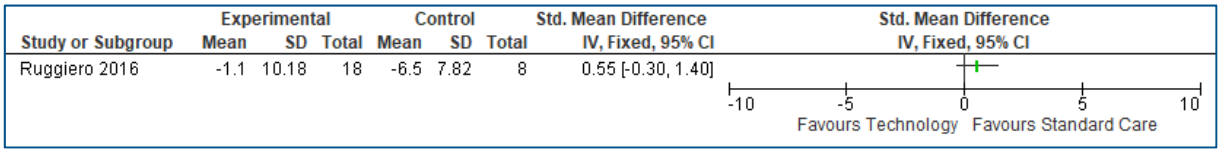


Figure 9: Technology supported TF-CBT versus standard TF-CBT for the treatment of clinically important symptoms/PTSD: Symptoms of depression (Centre for epidemiological studies depression scale)



Collaborative Care

Collaborative care versus treatment as usual for the treatment of clinically important symptoms/PTSD

Figure 10: Collaborative care versus treatment as usual for the treatment of clinically important symptoms/PTSD: PTSD symptomology (self-report)

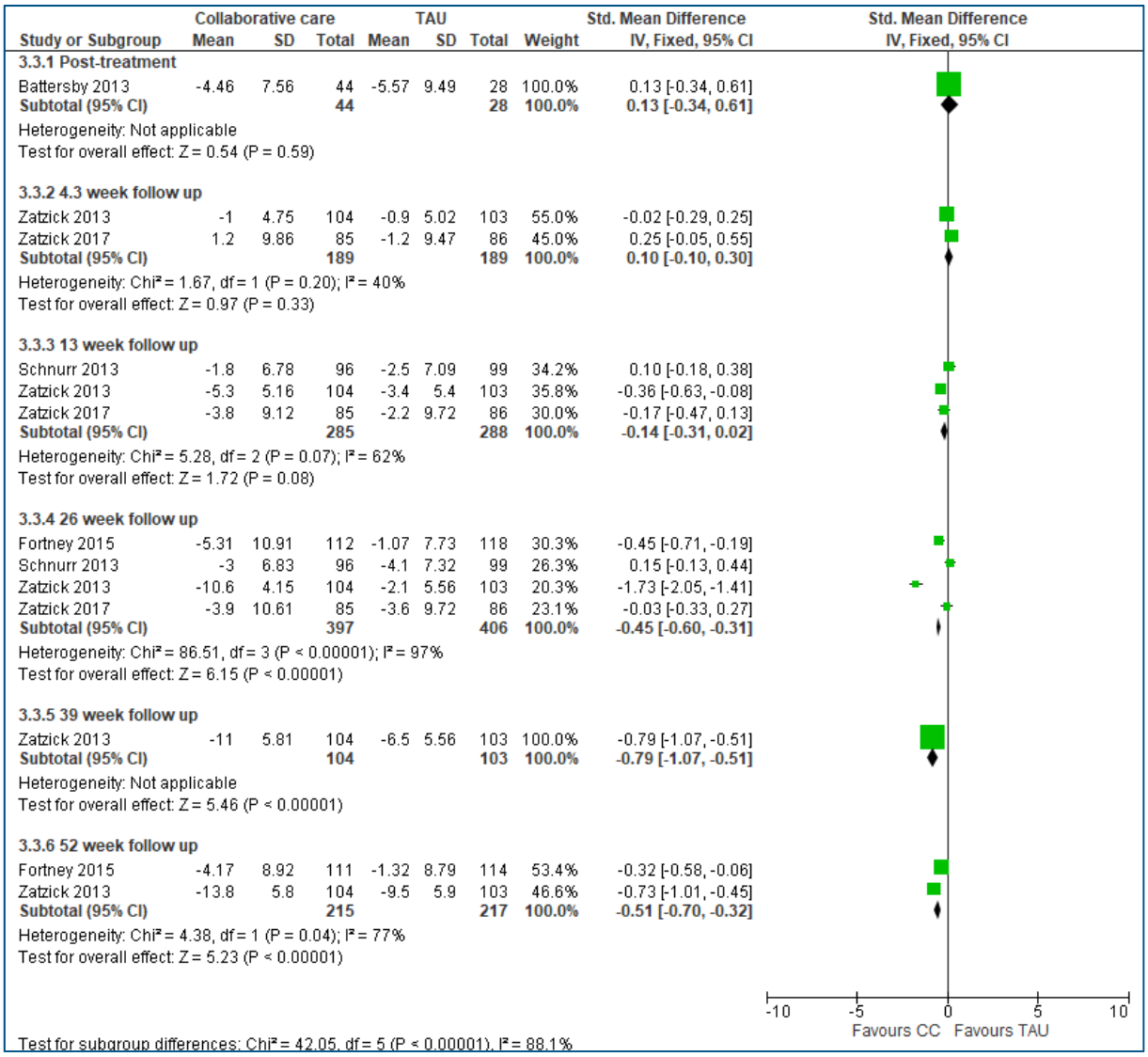


Figure 11: Collaborative care versus treatment as usual for the treatment of clinically important symptoms/PTSD: PTSD symptomology (CAPS)

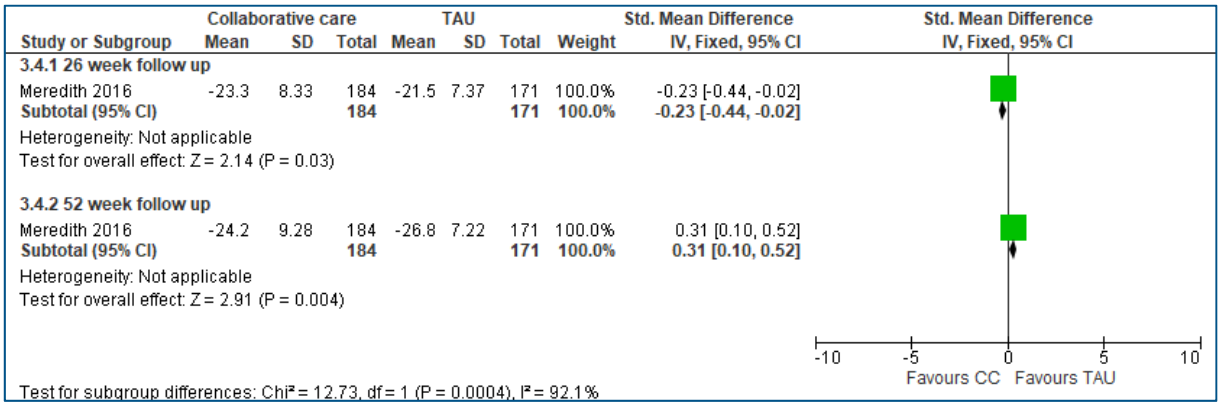


Figure 12: Collaborative care versus treatment as usual for the treatment of clinically important symptoms/PTSD: Alcohol misuse (alcohol use disorders identification test)

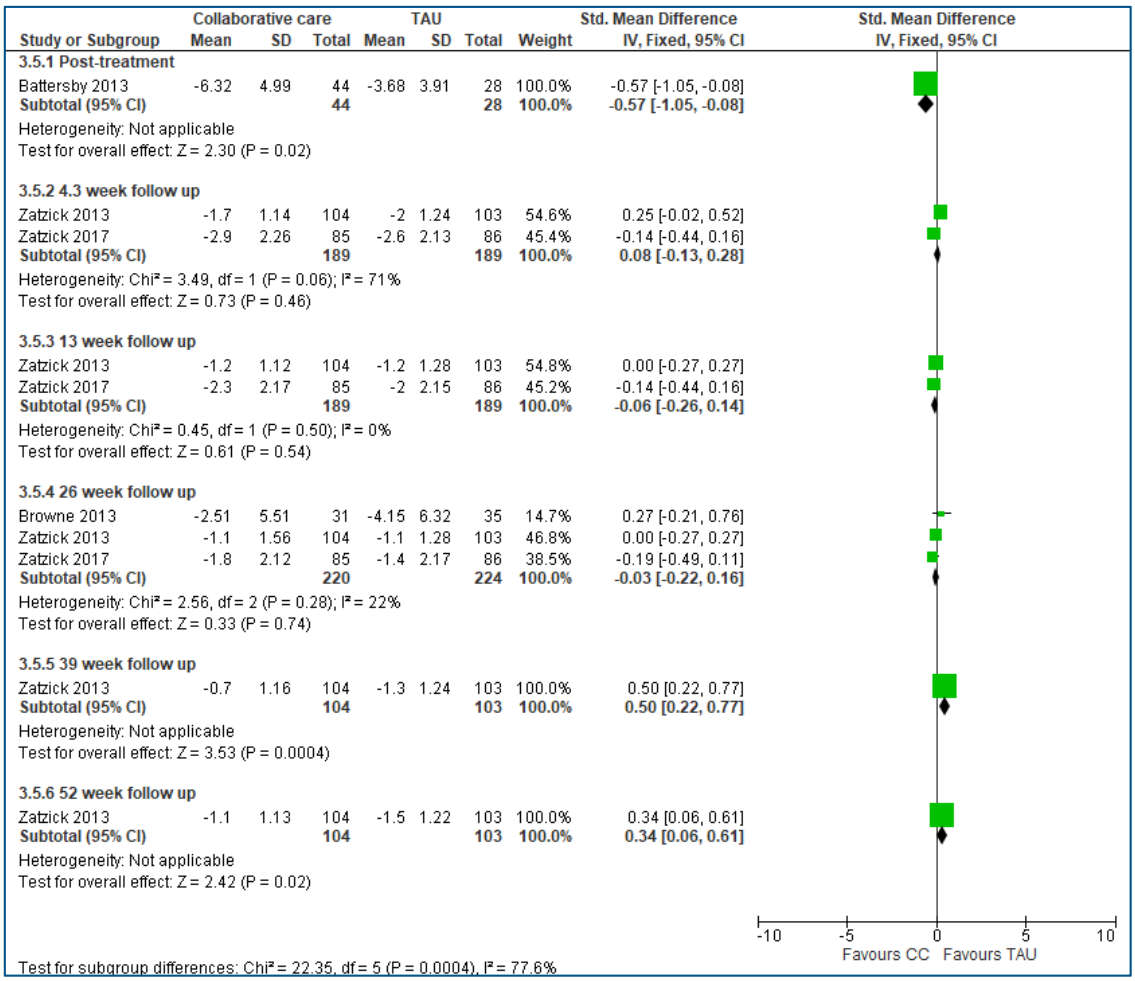


Figure 13: Collaborative care versus treatment as usual for the treatment of clinically important symptoms/PTSD: Symptoms of depression (self-report)

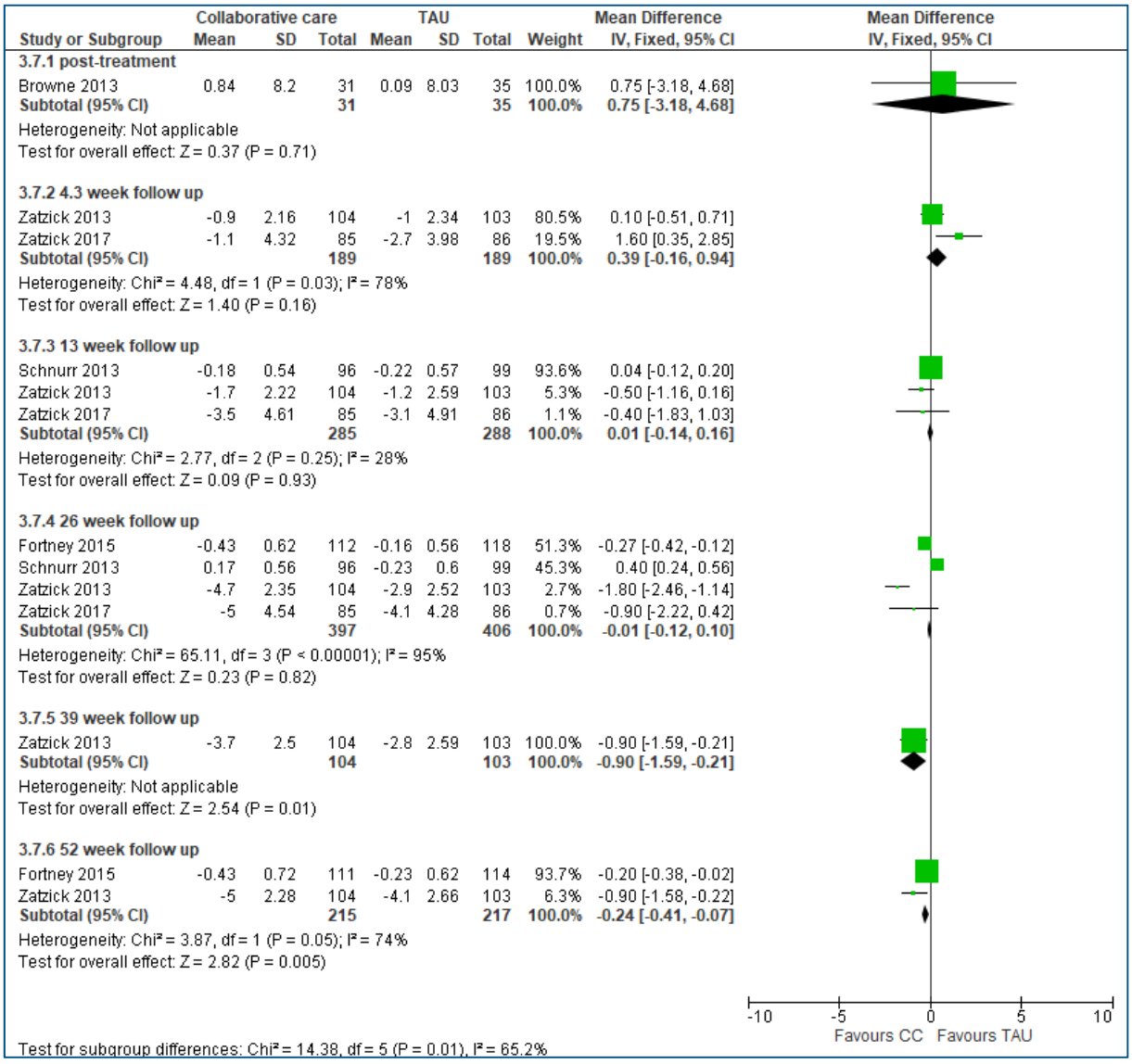


Figure 14: Collaborative care versus treatment as usual for the treatment of clinically important symptoms/PTSD: Mean number of psychotherapy sessions attended

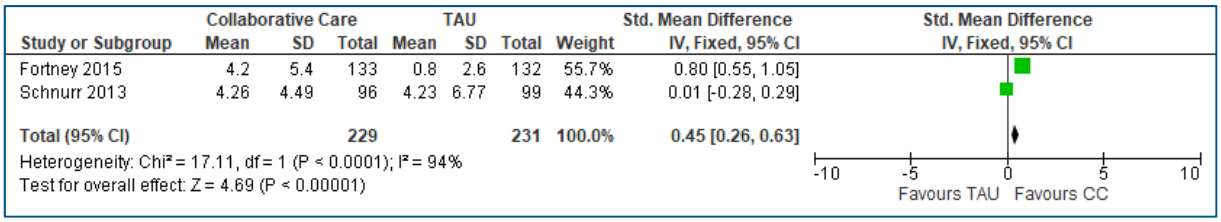


Figure 15: Collaborative care versus treatment as usual for the treatment of clinically important symptoms/PTSD: Number completing set number of sessions (defined by author)

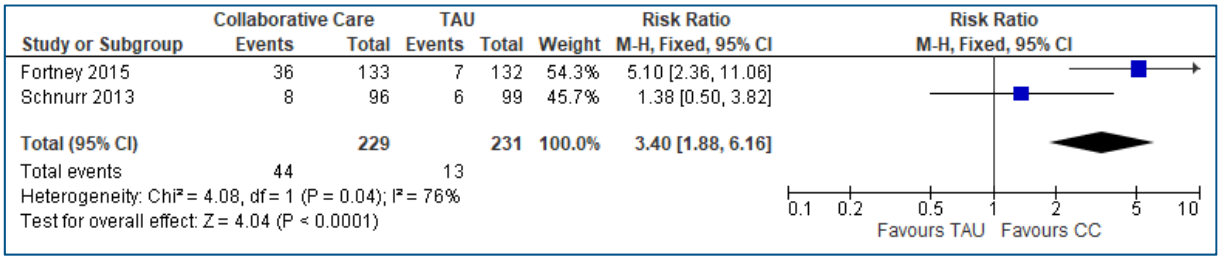
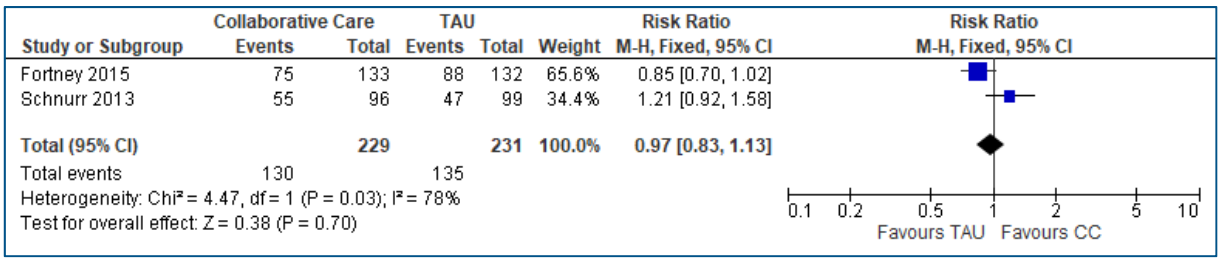


Figure 16: Collaborative care versus treatment as usual for the treatment of clinically important symptoms/PTSD: Medication adherence



Engagement Strategies

Engagement strategies versus Treatment as usual for the treatment of clinically important symptoms/PTSD

Figure 17: Engagement strategies versus Treatment as usual for the treatment of clinically important symptoms/PTSD: PTSD symptomology (self-report)

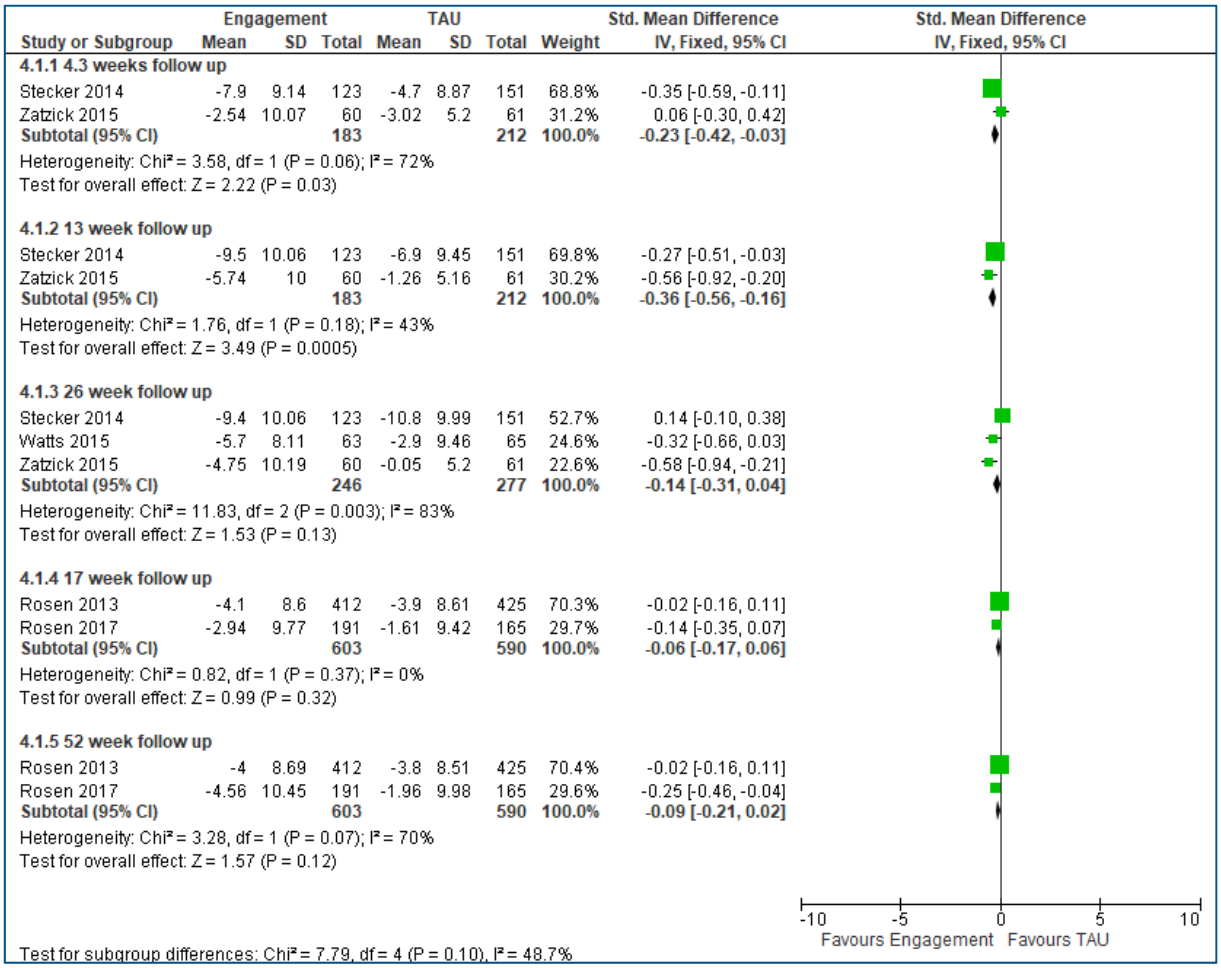


Figure 18: Engagement strategies versus Treatment as usual for the treatment of clinically important symptoms/PTSD: Mental health (SF-12, mental component) at 26 week follow up

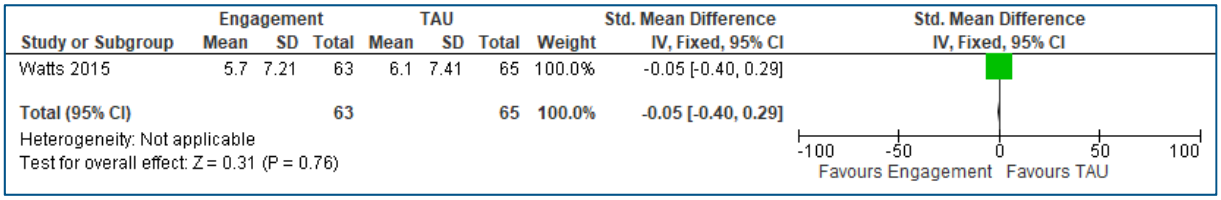


Figure 19: Engagement strategies versus Treatment as usual for the treatment of clinically important symptoms/PTSD: Symptoms of depression (self-report)

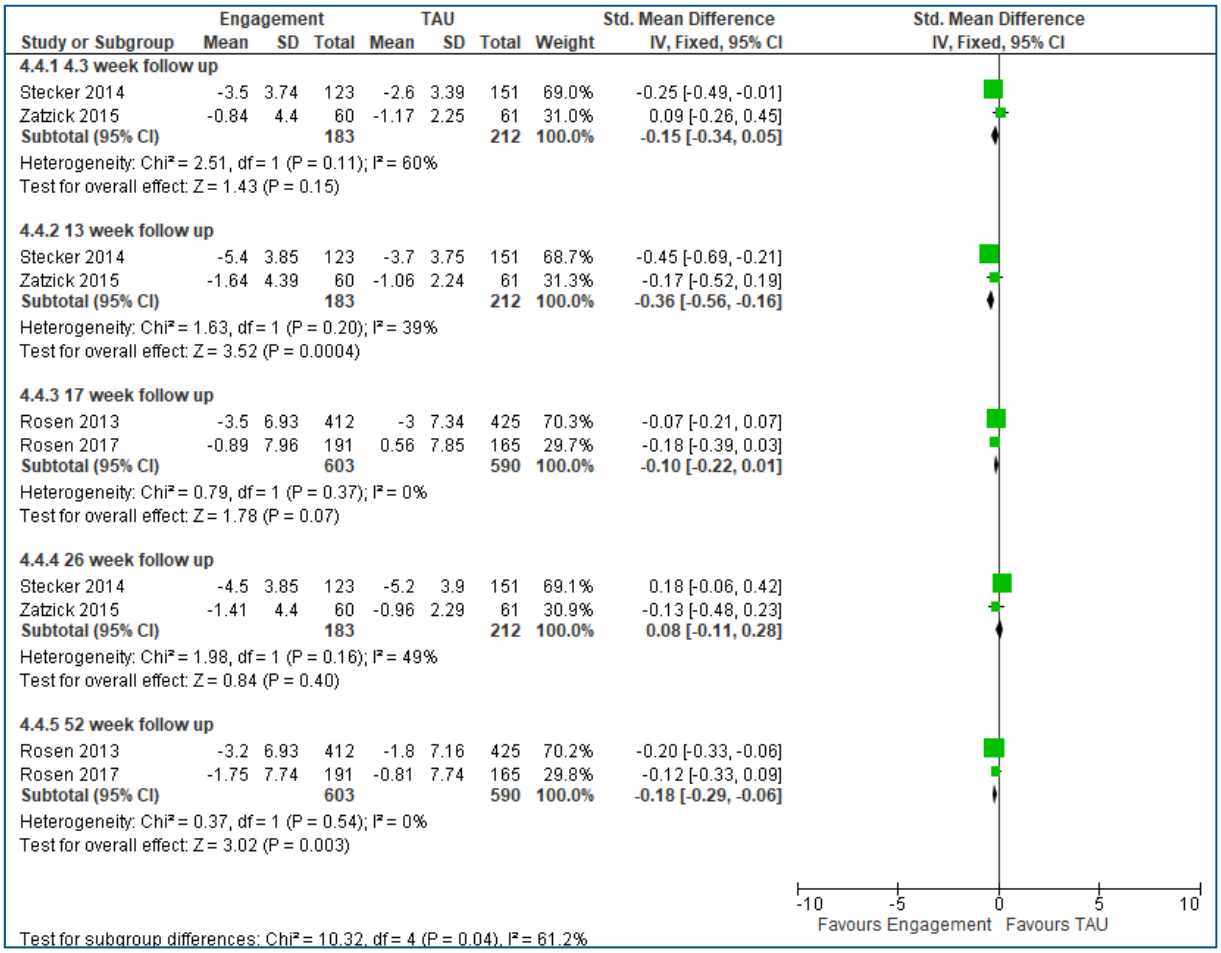


Figure 20: Engagement strategies versus Treatment as usual for the treatment of clinically important symptoms/PTSD: Mean number of psychotherapy sessions attended

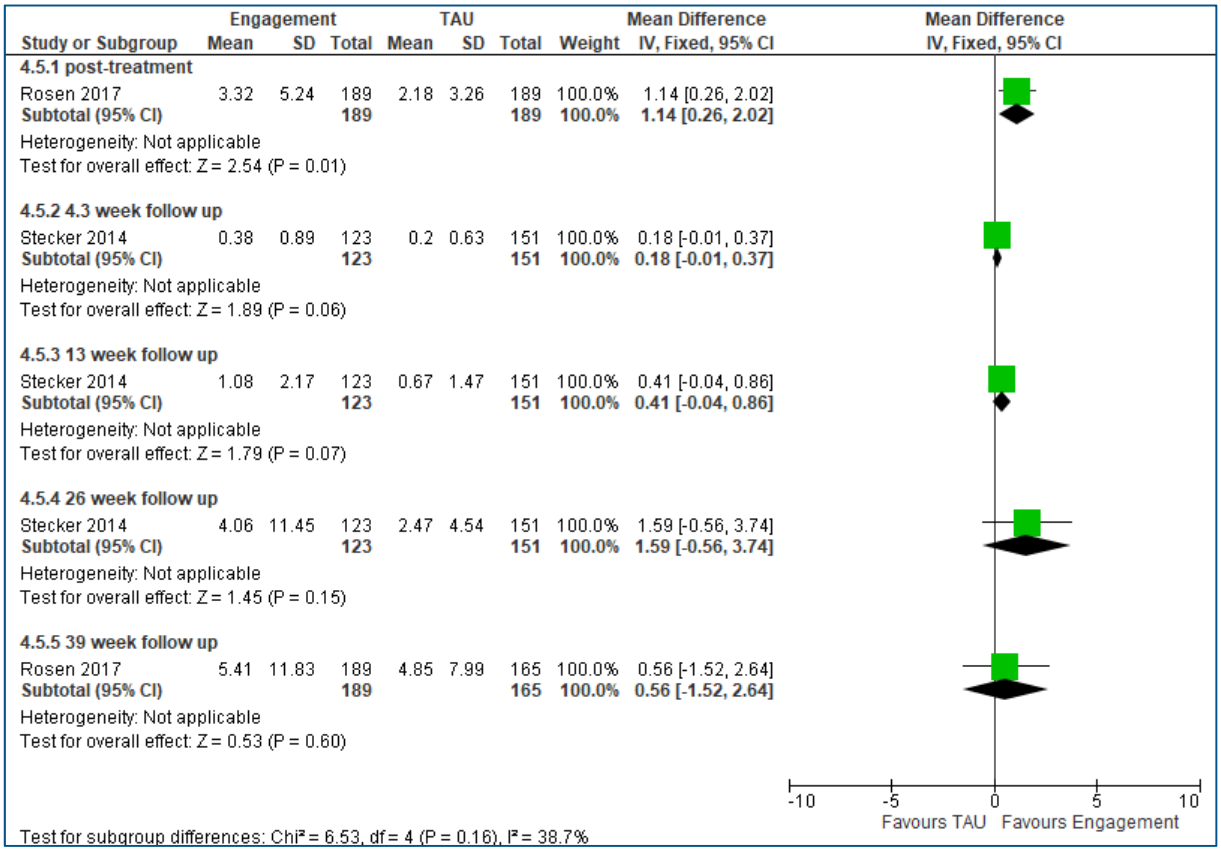


Figure 21: Engagement strategies versus Treatment as usual for the treatment of clinically important symptoms/PTSD: Number of participants who arrived at a treatment choice

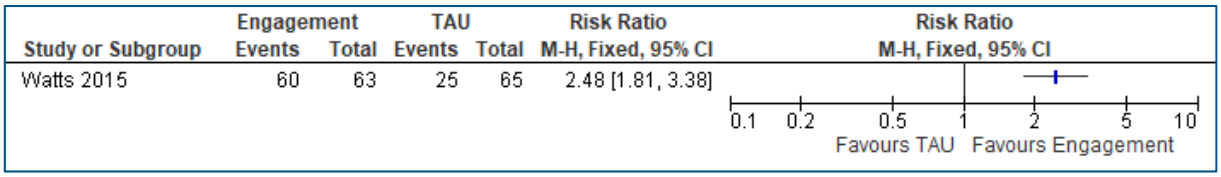


Figure 22: Engagement strategies versus Treatment as usual for the treatment of clinically important symptoms/PTSD: Number of participants seeking PTSD treatment

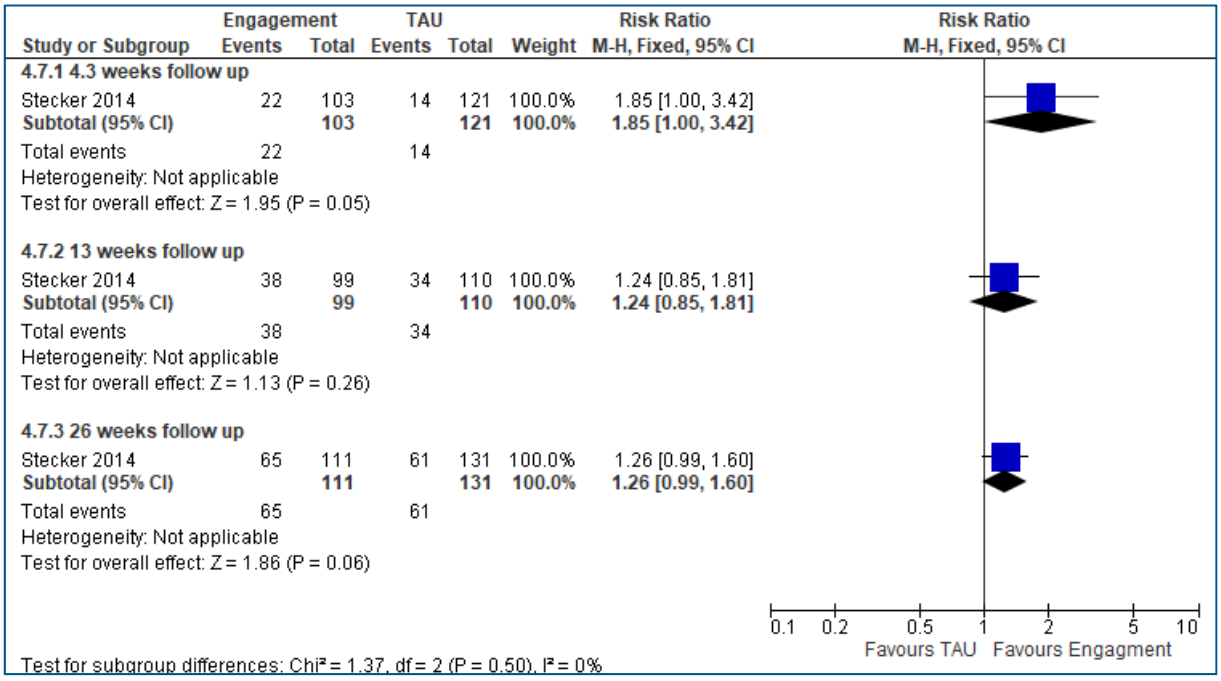


Figure 23: Engagement strategies versus Treatment as usual for the treatment of clinically important symptoms/PTSD: Number of participants who completed set number of psychotherapy sessions

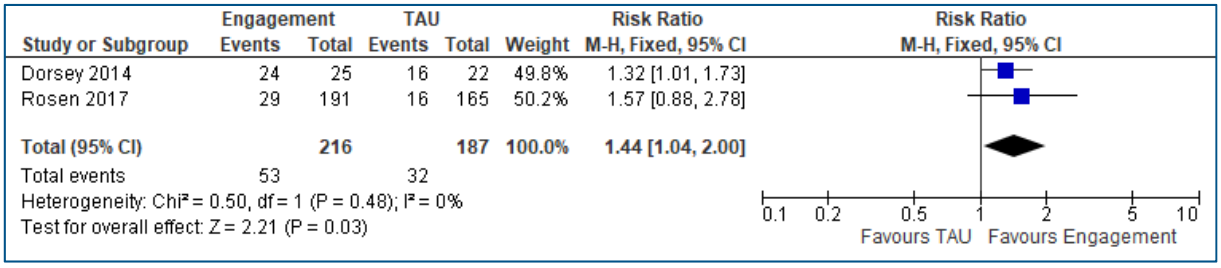


Figure 24: Engagement strategies versus Treatment as usual for the treatment of clinically important symptoms/PTSD: Number of people using the website

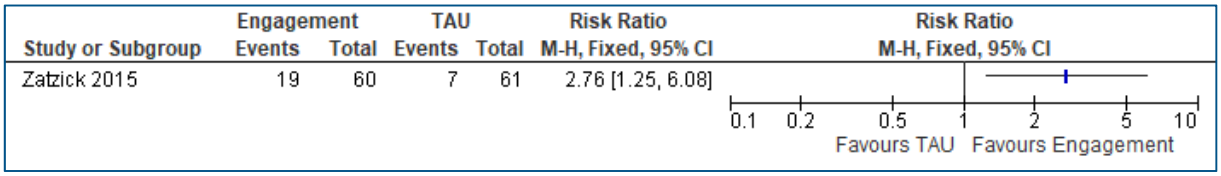
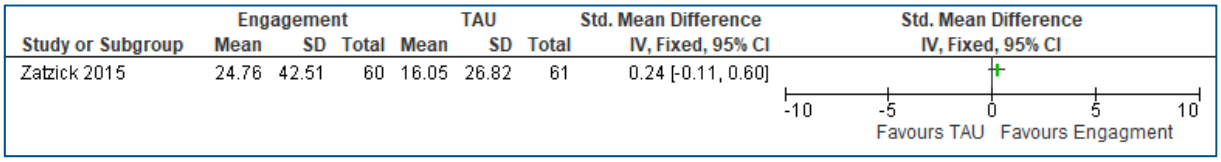


Figure 25: Engagement strategies versus Treatment as usual for the treatment of clinically important symptoms/PTSD: Mean time using the website during hospital stay



Engagement strategies versus trauma-informed care for the treatment of clinically important symptoms/PTSD

Figure 26: Engagement strategies versus trauma-informed care for the treatment of clinically important symptoms/PTSD: PTSD symptomology (IES-R)

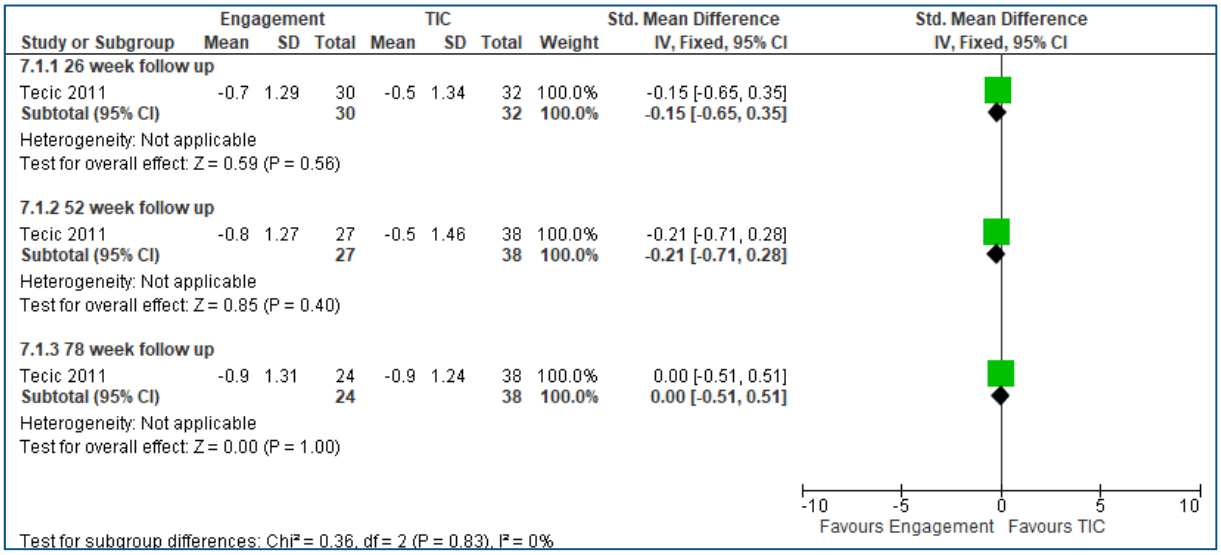


Figure 27: Engagement strategies versus trauma-informed care for the treatment of clinically important symptoms/PTSD: Symptom of depression (BDI)

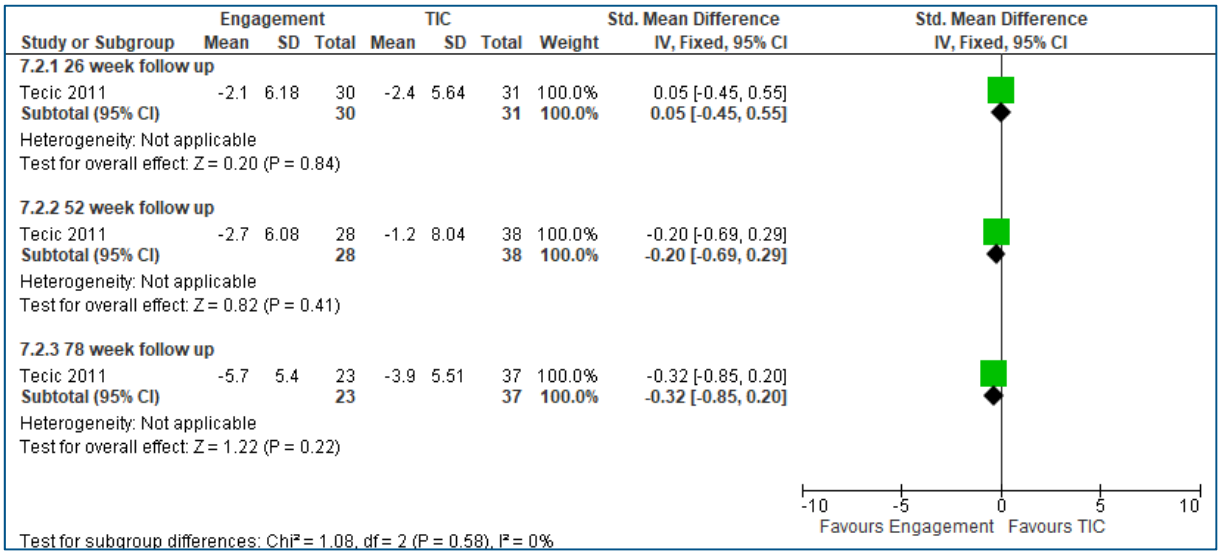
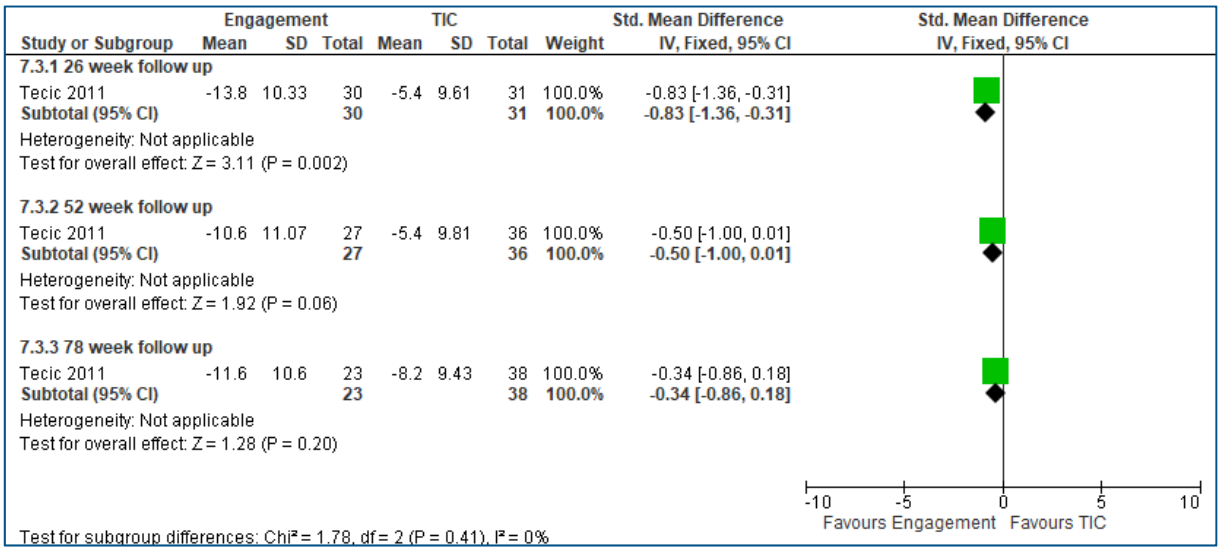


Figure 28: Engagement strategies versus trauma-informed care for the treatment of clinically important symptoms/PTSD: Symptoms of anxiety (STAI)



Information and support

Information and support versus treatment as usual for the treatment of clinically important symptoms/PTSD

Figure 29: Information and support versus treatment as usual for the treatment of clinically important symptoms/PTSD: Number meeting >30 on IES

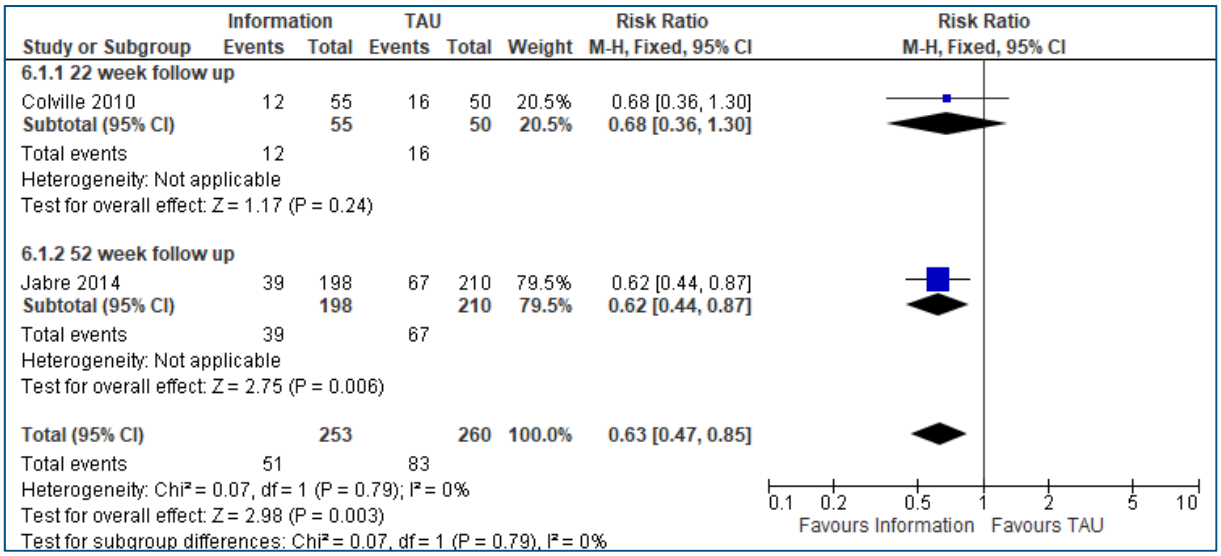


Figure 30: Information and support versus treatment as usual for the treatment of clinically important symptoms/PTSD: PTSD symptomology (IES-R)

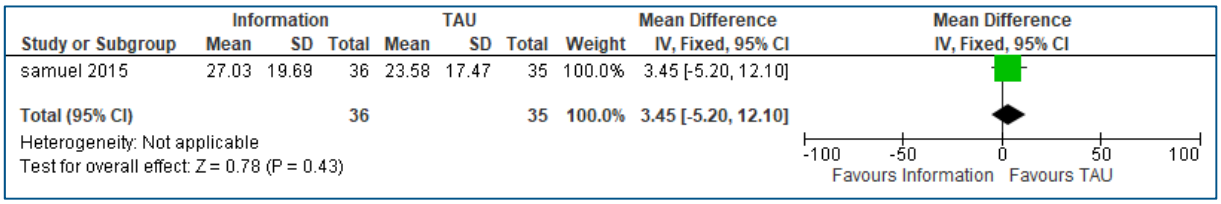


Figure 31: Information and support versus treatment as usual for the treatment of clinically important symptoms/PTSD: Number scoring greater or above 8 on HADS-A

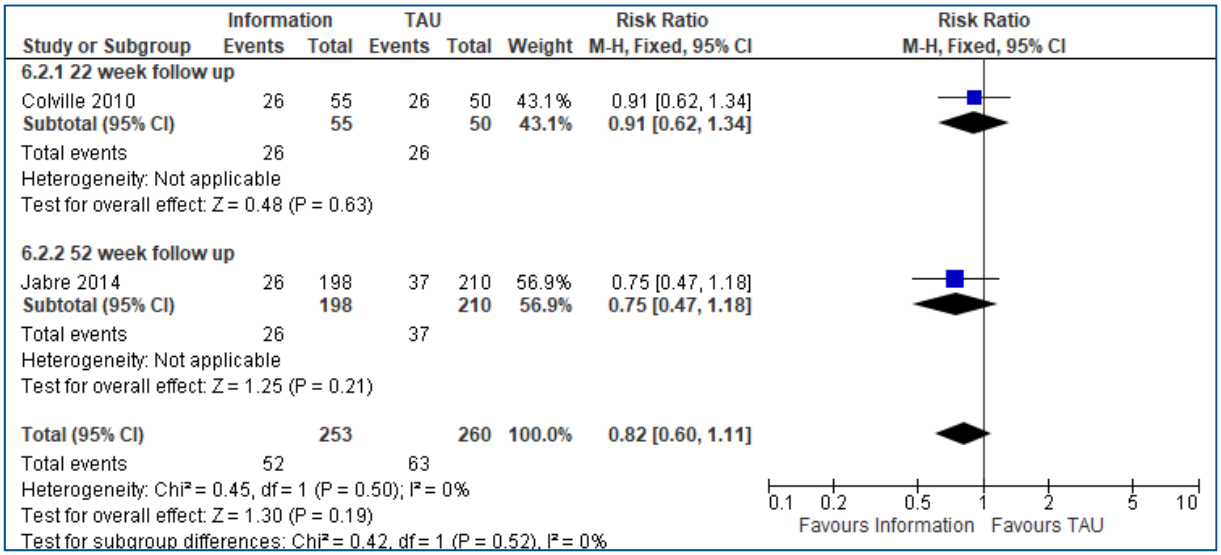


Figure 32: Information and support versus treatment as usual for the treatment of clinically important symptoms/PTSD: Number scoring 8 or above on HADS-D scale

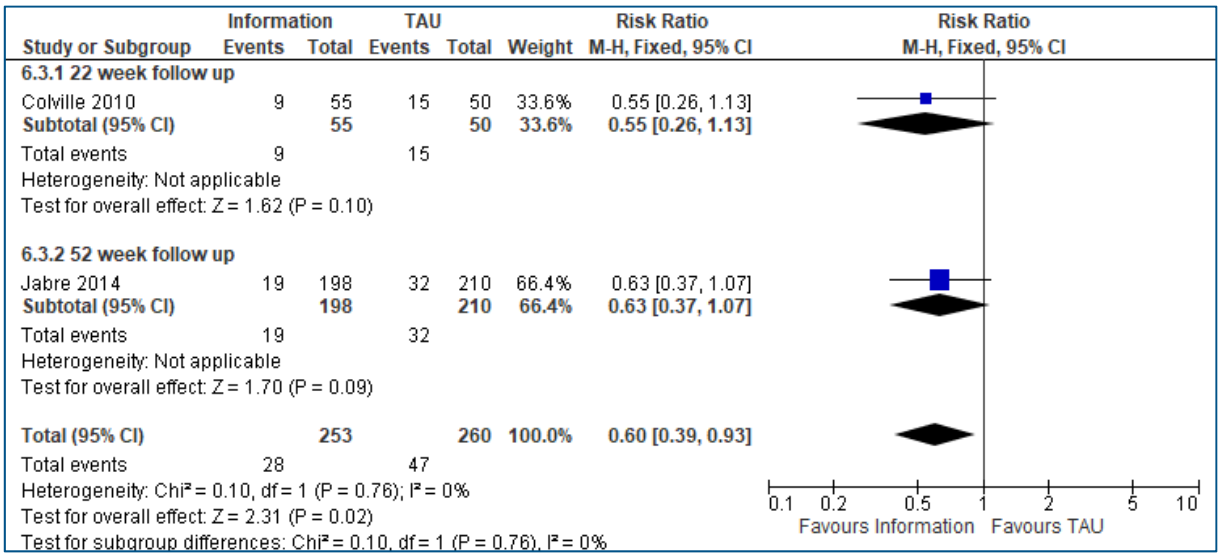


Figure 33: Information and support versus treatment as usual for the treatment of clinically important symptoms/PTSD: Discontinuation (for any reason)

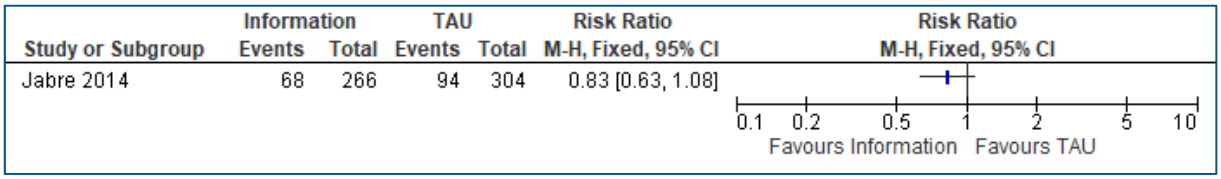


Figure 34: Information and support versus treatment as usual for the treatment of clinically important symptoms/PTSD: Depression (HADS)

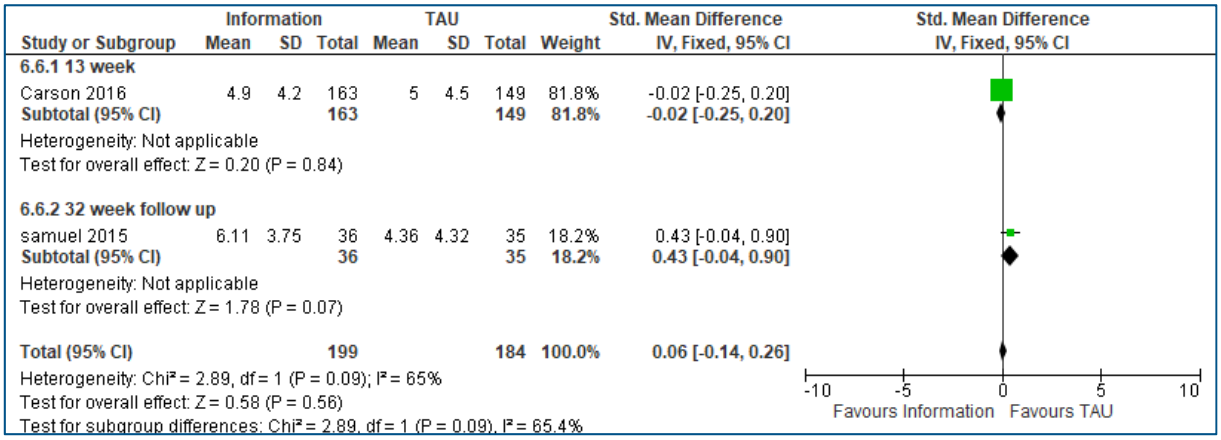
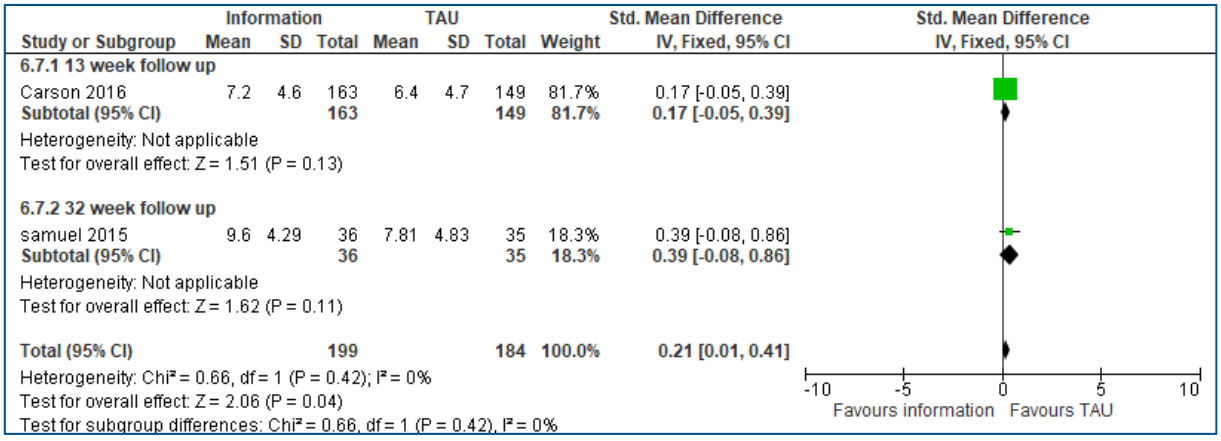


Figure 35: Information and support versus treatment as usual for the treatment of clinically important symptoms/PTSD: Anxiety (HADS-A)



Family conference with a nurse versus family conference without a nurse for the treatment of clinically important symptoms/PTSD

Figure 36: Family conference with a nurse versus family conference without a nurse for the treatment of clinically important symptoms/PTSD: Number scoring equal or above 22 on (IES-R) at 13 week follow up

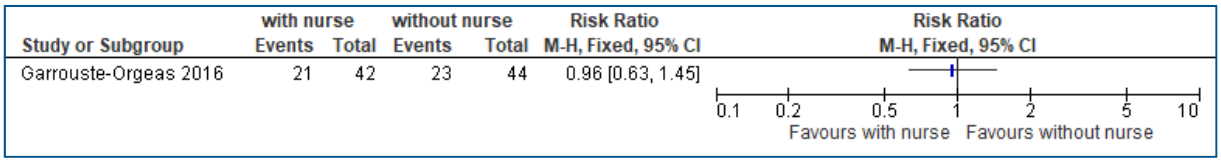


Figure 37: Family conference with a nurse versus family conference without a nurse for the treatment of clinically important symptoms/PTSD: Number scoring 8 or above on HADS-D at 13 weeks follow-up

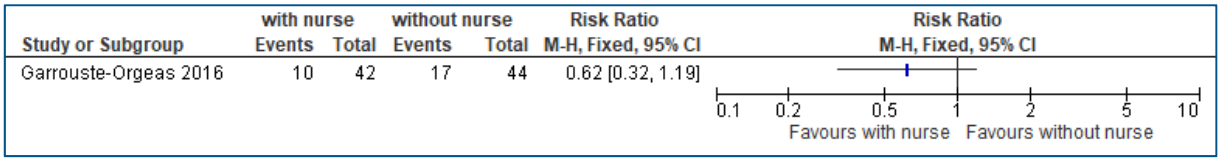
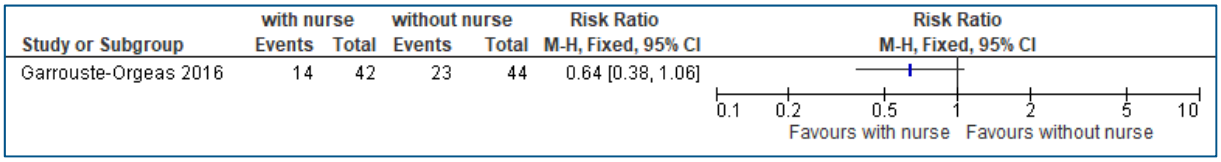
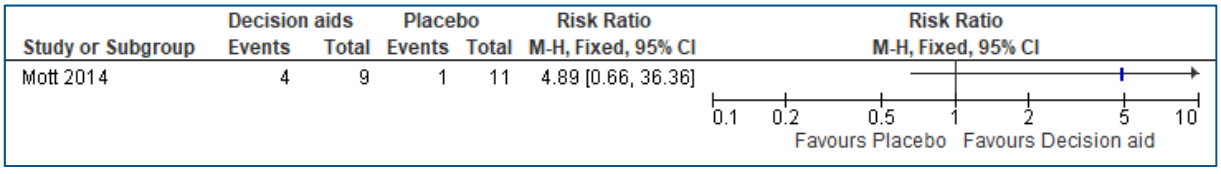


Figure 38: Family conference with a nurse versus family conference without a nurse for the treatment of clinically important symptoms/PTSD: Number scoring above 8 on symptoms HADS-A at 13 weeks follow-up



Decision aids versus placebo session for the treatment of clinically important symptoms/PTSD

Figure 39: Decision aids versus placebo session for the treatment of clinically important symptoms/PTSD: Number completing >9 sessions



Stepped Care

Stepped care versus treatment as usual for the treatment of clinically important symptoms/PTSD

Figure 40: Stepped care versus treatment as usual for the treatment of clinically important symptoms/PTSD: PTSD symptomology (TSCYC)

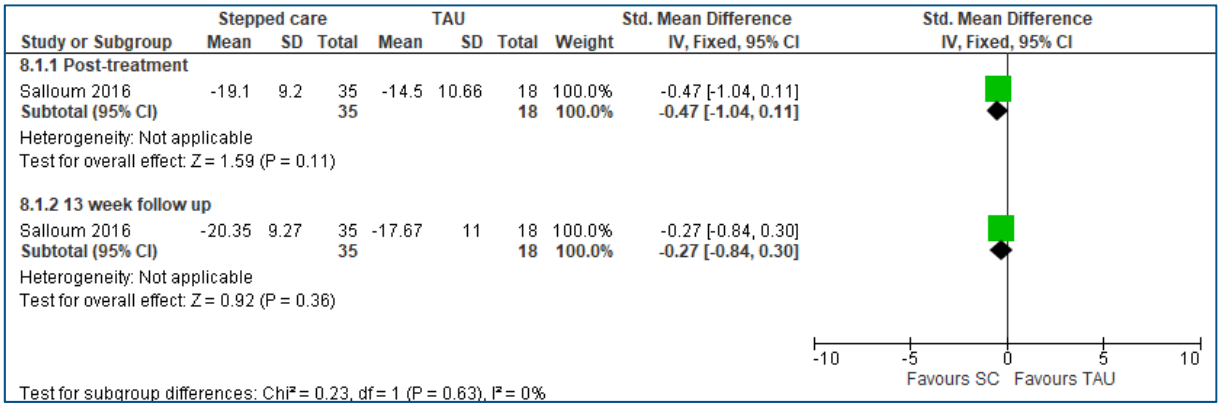
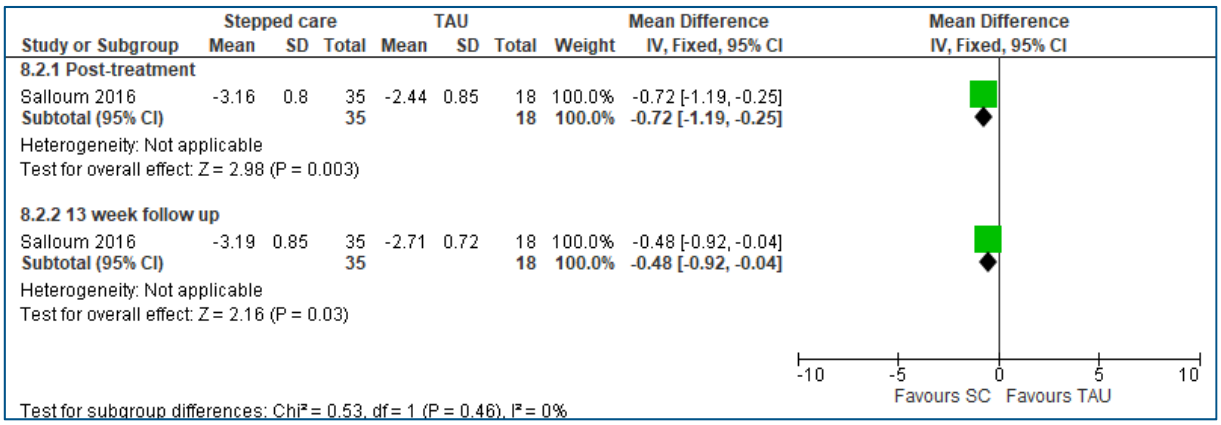


Figure 41: Stepped care versus treatment as usual for the treatment of clinically important symptoms/PTSD: PTSD symptomology (CGI)



School based therapies

School based TF-CBT versus in-clinic TF-CBT for the treatment of clinically important symptoms/PTSD

Figure 42: School based TF-CBT versus in-clinic TF-CBT for the treatment of clinically important symptoms/PTSD: PTSD symptomology (CPSS)

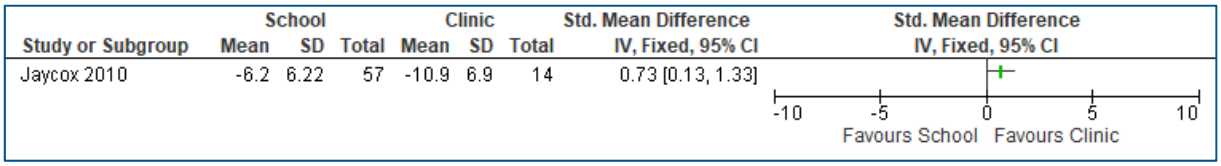


Figure 43: School based TF-CBT versus in-clinic TF-CBT for the treatment of clinically important symptoms/PTSD: Symptoms of depression (CDI)

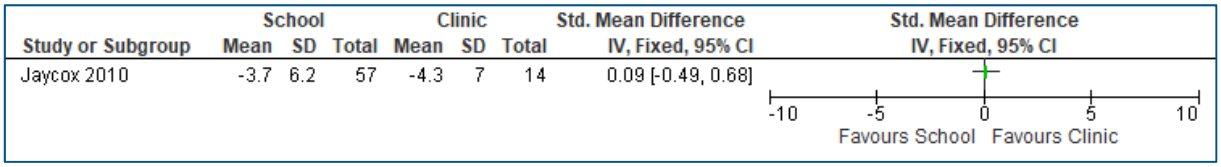
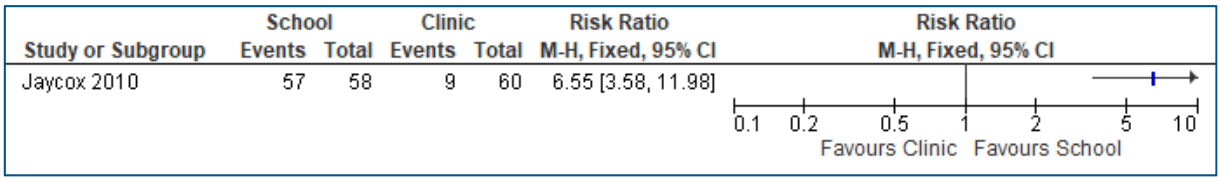


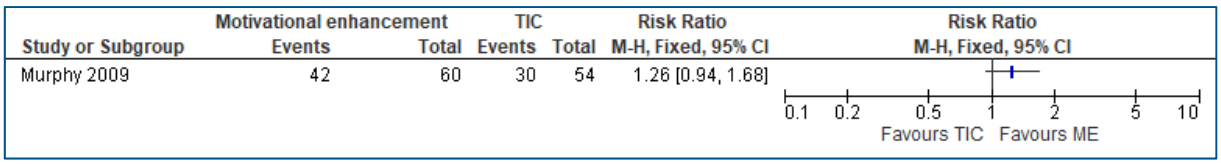
Figure 44: School based TF-CBT versus in-clinic TF-CBT for the treatment of clinically important symptoms/PTSD: Number completing intervention



Motivational Enhancement strategies

Motivational enhancement versus trauma informed care for the treatment of clinically important symptoms/PTSD

Figure 45: Motivational enhancement versus trauma informed care for the treatment of clinically important symptoms/PTSD: Number completing sessions



Appendix F – GRADE tables

GRADE tables for "Which service delivery models are effective at meeting the needs of adults, children and young people with clinically important post-traumatic stress symptoms?"

Technology based therapies

Telehealth versus in-person TF-CBT for the treatment of clinically important symptoms/PTSD

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Telehealth	in-person	Relative (95% CI)	Absolute		
PTSD symptoms (self-report) – post-treatment (Better indicated by lower values)												
7	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	240	329	-	SMD 0.15 lower (0.32 lower to 0.03 higher)	VERY LOW	CRITICAL
PTSD symptoms (self-report) - 12-13 week follow up (follow-up mean 12.5 weeks; Better indicated by lower values)												
6	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	237	287	-	SMD 0.22 lower (0.4 to 0.04 lower)	VERY LOW	CRITICAL
PTSD symptoms (self-report) - 26 week follow up (follow-up mean 26 weeks; Better indicated by lower values)												
4	randomised trials	very serious[1,2]	serious[3]	no serious indirectness	serious[4]	none	319	362	-	SMD 0.21 lower (0.37 to 0.06 lower)	VERY LOW	CRITICAL
PTSD symptoms (all tools combined) - 52 week follow up (follow-up mean 52 weeks; 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	Telehealth	in-person	Relative (95% CI)	Absolute		
2	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	254	238	-	SMD 0.31 higher (0.14 to 0.49 higher)	VERY LOW	CRITICAL
PTSD (CAPS) – Post-treatment (Better indicated by lower values)												
3	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	147	153	-	SMD 0.33 lower (0.56 to 0.1 lower)	VERY LOW	CRITICAL
PTSD (CAPS) - 12-13 week follow up (follow-up mean 12.5 weeks; Better indicated by lower values)												
3	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	147	153	-	SMD 0.34 lower (0.57 to 0.11 lower)	VERY LOW	CRITICAL
PTSD (CAPS) - 26 week follow up (follow-up mean 26 weeks; Better indicated by lower values)												
2	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	122	127	-	SMD 0.35 lower (0.6 to 0.1 lower)	VERY LOW	CRITICAL
Beck Depression Inventory – Post-treatment (Better indicated by lower values)												
5	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	no serious imprecision	none	123	201	-	SMD 0.1 lower (0.34 lower to 0.15 higher)	LOW	IMPORTANT
Beck Depression Inventory - 12-13 week follow up (follow-up mean 12.5 weeks; Better indicated by lower values)												
4	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	113	157	-	SMD 0.09 higher (0.17 lower to 0.34 higher)	VERY LOW	IMPORTANT
Beck Depression Inventory - 26 week follow up (follow-up mean 26 weeks; 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**	**Telehealth**	**in-person**	**Relative (95% CI)**	**Absolute**		
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	13	64	-	SMD 0.69 higher (0.08 to 1.29 higher)	VERY LOW	IMPORTANT
Beck Depression Inventory - 52 week follow up (follow-up mean 52 weeks; Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	69	71	-	SMD 0.1 higher (0.23 lower to 0.43 higher)	VERY LOW	IMPORTANT
Number completed set amount of session (defined by each author)												
5	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	very serious[4,5]	none	235/328 (71.6%)	260/345 (75.4%)	RR 0.95 (0.87 to 1.04)	38 fewer per 1000 (from 98 fewer to 30 more)	VERY LOW	CRITICAL
Satisfaction (Better indicated by higher values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	9	12	-	not pooled	VERY LOW	IMPORTANT
Beck Anxiety Inventory (post-treatment) (Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	very serious[4,5]	none	12	11	-	not pooled	VERY LOW	IMPORTANT

CAPS=Clinician-administered PTSD scale; CI= confidence interval; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standard mean difference
[1] Unclear randomisation/allocation methods
[2] Assessors and participants not blinded
[3] Heterogeneity; I2 > 50%
[4] Number of participants less than 400
[5] 95% confidence interval crosses a line of imprecision (either -0.5 or 0.5)

Technology supported TF-CBT versus standard TF-CBT for the treatment of clinically important symptoms/PTSD

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Technology supported TF-CBT	Standard TF-CBT	Relative (95% CI)	Absolute		
PTSD symptomology (UCLA Post-traumatic stress disorder index) (Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	18	8	-	not pooled	VERY LOW	CRITICAL
Symptoms of depression (Centre for epidemiological studies depression scale) (Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	18	8	-	not pooled	VERY LOW	IMPORTANT

CI=confidence interval; PTSD=post-traumatic stress disorder; TF-CBT=Trauma-focused cognitive behavioural therapy
[1] Assessors and participants not blinded
[2] Unclear randomisation/allocation methods
[3] Number of total participants less than 400
[4] No explanation was provided

Collaborative Care

Collaborative care versus treatment as usual for the treatment of clinically important symptoms/PTSD

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Collaborative care	Treatment as usual	Relative (95% CI)	Absolute		
PTSD Symptomology (self-report) - Post-treatment (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	Collaborative care	Treatment as usual	Relative (95% CI)	Absolute		
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	44	28	-	SMD 0.13 higher (0.34 lower to 0.61 higher)	VERY LOW	CRITICAL
PTSD Symptomology (self-report) - 4.3 week follow up (follow-up mean 4.3 weeks; Better indicated by lower values)												
2	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	189	189	-	SMD 0.1 higher (0.1 lower to 0.3 higher)	VERY LOW	CRITICAL
PTSD Symptomology (self-report) - 13 week follow up (follow-up mean 13 weeks; Better indicated by lower values)												
3	randomised trials	very serious[1,2]	serious[4]	no serious indirectness	very serious[3]	none	285	288	-	SMD 0.14 lower (0.31 lower to 0.02 higher)	VERY LOW	CRITICAL
PTSD Symptomology (self-report) - 26 week follow up (follow-up mean 26 weeks; Better indicated by lower values)												
4	randomised trials	very serious[1,2]	very serious[5]	no serious indirectness	no serious imprecision	none	397	406	-	SMD 0.45 lower (0.6 to 0.31 lower)	VERY LOW	CRITICAL
PTSD Symptomology (self-report) - 39 week follow up (follow-up mean 39 weeks; Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	104	103	-	SMD 0.79 lower (1.07 to 0.51 lower)	VERY LOW	CRITICAL
PTSD Symptomology (self-report) - 52 week follow up (follow-up mean 52 weeks; 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	Collaborative care	Treatment as usual	Relative (95% CI)	Absolute		
2	randomised trials	very serious[1,2]	serious[4]	no serious indirectness	serious[3]	none	215	217	-	SMD 0.51 lower (0.7 to 0.32 lower)	VERY LOW	CRITICAL
PTSD symptomology (CAPS) - 26 week follow up (follow-up mean 26 weeks; Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	184	171	-	SMD 0.23 lower (0.44 to 0.02 lower)	VERY LOW	CRITICAL
PTSD symptomology (CAPS) - 52 week follow up (follow-up mean 52 weeks; Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	184	171	-	SMD 0.31 higher (0.1 to 0.52 higher)	VERY LOW	CRITICAL
Alcohol misuse (Alcohol use disorders identification test) - Post-treatment (Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	44	28	-	SMD 0.57 lower (1.05 to 0.08 lower)	VERY LOW	IMPORTANT
Alcohol misuse (Alcohol use disorders identification test) - 4.3 week follow up (follow-up mean 4.3 weeks; Better indicated by lower values)												
2	randomised trials	very serious[1,2]	serious[4]	no serious indirectness	serious[3]	none	189	189	-	SMD 0.08 higher (0.13 lower to 0.28 higher)	VERY LOW	IMPORTANT
Alcohol misuse (Alcohol use disorders identification test) - 13 week follow up (follow-up mean 13 weeks; 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	Collaborative care	Treatment as usual	Relative (95% CI)	Absolute		
2	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	189	189	-	SMD 0.06 lower (0.26 lower to 0.14 higher)	VERY LOW	IMPORTANT
Alcohol misuse (Alcohol use disorders identification test) - 26 week follow up (follow-up mean 26 weeks; Better indicated by lower values)												
3	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	220	224	-	SMD 0.03 lower (0.22 lower to 0.16 higher)	VERY LOW	IMPORTANT
Alcohol misuse (Alcohol use disorders identification test) - 39 week follow up (follow-up mean 39 weeks; Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	104	103	-	SMD 0.5 higher (0.22 to 0.77 higher)	VERY LOW	IMPORTANT
Alcohol misuse (Alcohol use disorders identification test) - 52 week follow up (follow-up mean 52 weeks; Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	104	103	-	SMD 0.34 higher (0.06 to 0.61 higher)	VERY LOW	IMPORTANT
Symptoms of depression (self-report) - post-treatment (Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	very serious[3,6]	none	31	35	-	MD 0.75 higher (3.18 lower to 4.68 higher)	VERY LOW	IMPORTANT
Symptoms of depression (self-report) - 4.3 week follow up (follow-up mean 4.3 weeks; 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	Collaborative care	Treatment as usual	Relative (95% CI)	Absolute		
2	randomised trials	very serious[1,2]	serious[4]	no serious indirectness	serious[3]	none	189	189	-	MD 0.39 higher (0.16 lower to 0.94 higher)	VERY LOW	IMPORTANT
Symptoms of depression (self-report) - 13 week follow up (follow-up mean 13 weeks; Better indicated by lower values)												
3	randomised trials	very serious[1,2]	very serious inconsistency[5]	no serious indirectness	serious[3]	none	285	288	-	MD 0.01 higher (0.14 lower to 0.16 higher)	VERY LOW	IMPORTANT
Symptoms of depression (self-report) - 26 week follow up (follow-up mean 26 weeks; Better indicated by lower values)												
4	randomised trials	very serious[1,2]	very serious[5]	no serious indirectness	serious[3]	none	397	406	-	MD 0.01 lower (0.12 lower to 0.1 higher)	VERY LOW	IMPORTANT
Symptoms of depression (self-report) - 39 week follow up (follow-up mean 39 weeks; Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	104	103	-	MD 0.9 lower (1.59 to 0.21 lower)	VERY LOW	IMPORTANT
Symptoms of depression (self-report) - 52 week follow up (follow-up mean 52 weeks; Better indicated by lower values)												
2	randomised trials	very serious[1,2]	serious[4]	no serious indirectness	serious[3]	none	215	217	-	MD 0.24 lower (0.41 to 0.07 lower)	VERY LOW	IMPORTANT
Mean number of psychotherapy sessions attended (Better indicated by higher values)												
2	randomised trials	very serious[1,2]	very serious[5]	no serious indirectness	no serious imprecision	none	229	231	-	SMD 0.45 higher (0.26 to	VERY LOW	CRITICAL

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Collaborative care	Treatment as usual	Relative (95% CI)	Absolute		
										0.63 higher)		
Number completing set number of sessions (defined by author)												
2	randomised trials	very serious[1,2]	serious[4]	no serious indirectness	very serious[7]	none	44/229 (19.2%)	13/231 (5.6%)	RR 3.4 (1.88 to 6.16)	135 more per 1000 (from 50 more to 290 more)	VERY LOW	CRITICAL
Medication adherence												
2	randomised trials	very serious[1,2]	serious[4]	no serious indirectness	no serious imprecision	none	130/229 (56.8%)	135/231 (58.4%)	RR 0.97 (0.83 to 1.13)	18 fewer per 1000 (from 99 fewer to 76 more)	VERY LOW	CRITICAL

CAPS=clinician-administered PTSD scale; CI=confidence interval; MD=mean difference; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standard mean difference
[1] Assessors and participants not blinded
[2] Unclear randomisation/allocation methods
[3] Number of participants less than 400
[4] Heterogeneity; I^2 > 50%
[5] Very high heterogeneity, I^2 >80%
[6] 95% confidence interval crosses a line of imprecision (either -0.5 or 0.5)
[7] 95% confidence intervals cross both lines of impression (-0.5 and 0.5)

Engagement Strategies

Engagement strategies versus treatment as usual for the treatment of clinically important symptoms/PTSD

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Engagement strategies	Treatment as usual	Relative (95% CI)	Absolute		
PTSD symptomology (self-report) - 4.3 weeks follow up (follow-up mean 4.3 weeks; Better indicated by lower values)												
2	randomised trials	very serious[1,2]	serious[3]	no serious indirectness	serious[4]	none	183	212	-	SMD 0.23 lower (0.42 to 0.03 lower)	VERY LOW	CRITICAL
PTSD symptomology (self-report) - 13 week follow up (follow-up mean 13 weeks; Better indicated by lower values)												
2	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	183	212	-	SMD 0.36 lower (0.56 to 0.16 lower)	VERY LOW	CRITICAL
PTSD symptomology (self-report) - 26 week follow up (follow-up mean 26 weeks; Better indicated by lower values)												
3	randomised trials	very serious[1,2]	very serious[5]	no serious indirectness	no serious imprecision	none	246	277	-	SMD 0.14 lower (0.31 lower to 0.04 higher)	VERY LOW	CRITICAL
PTSD symptomology (self-report) - 17 week follow up (follow-up mean 17 weeks; Better indicated by lower values)												
2	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	no serious imprecision	none	603	590	-	SMD 0.06 lower (0.17 lower to 0.06 higher)	LOW	CRITICAL
PTSD symptomology (self-report) - 52 week follow up (follow-up mean 52 weeks; Better indicated by lower values)												
2	randomised trials	very serious[1,2]	serious[3]	no serious indirectness	no serious imprecision	none	603	590	-	SMD 0.09 lower (0.21 lower to 0.02 higher)	VERY LOW	CRITICAL
Symptoms of depression (self-report) - 4.3 week follow up (follow-up mean 4.3 weeks; Better indicated by lower values)												
2	randomised trials	very serious[1,2]	serious[3]	no serious indirectness	serious[4]	none	183	212	-	SMD 0.15 lower (0.34 lower to	VERY LOW	IMPORTANT

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Engagement strategies	Treatment as usual	Relative (95% CI)	Absolute		
										0.05 higher)		
Symptoms of depression (self-report) - 13 week follow up (follow-up mean 13 weeks; Better indicated by lower values)												
2	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	183	212	-	SMD 0.36 lower (0.56 to 0.16 lower)	VERY LOW	IMPORTANT
Symptoms of depression (self-report) - 17 week follow up (follow-up mean 17 weeks; Better indicated by lower values)												
2	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	no serious imprecision	none	603	590	-	SMD 0.1 lower (0.22 lower to 0.01 higher)	LOW	IMPORTANT
Symptoms of depression (self-report) - 26 week follow up (follow-up mean 26 weeks; Better indicated by lower values)												
2	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	no serious imprecision	none	183	212	-	SMD 0.08 higher (0.11 lower to 0.28 higher)	LOW	IMPORTANT
Symptoms of depression (self-report) - 52 week follow up (follow-up mean 52 weeks; Better indicated by lower values)												
2	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	no serious imprecision	none	603	590	-	SMD 0.18 lower (0.29 to 0.06 lower)	LOW	IMPORTANT
Mean number of psychotherapy sessions attended - post-treatment (Better indicated by higher values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	189	189	-	MD 1.14 higher (0.26 to 2.02 higher)	VERY LOW	CRITICAL
Mean number of psychotherapy sessions attended - 4.3 week follow up (follow-up mean 4.3 weeks; Better indicated by higher values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	123	151	-	MD 0.18 higher (0.01	VERY LOW	CRITICAL

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Engagement strategies	Treatment as usual	Relative (95% CI)	Absolute		
										lower to 0.37 higher)		
Mean number of psychotherapy sessions attended - 13 week follow up (follow-up mean 26 weeks; Better indicated by higher values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	123	151	-	MD 0.41 higher (0.04 lower to 0.86 higher)	VERY LOW	CRITICAL
Mean number of psychotherapy sessions attended - 26 week follow up (follow-up mean 26 weeks; Better indicated by higher values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	123	151	-	MD 1.59 higher (0.56 lower to 3.74 higher)	VERY LOW	CRITICAL
Mean number of psychotherapy sessions attended - 39 week follow up (follow-up mean 39 weeks; Better indicated by higher values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	189	165	-	MD 0.56 higher (1.52 lower to 2.64 higher)	VERY LOW	CRITICAL
Number of participants who arrived at a treatment choice												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	60/63 (95.2%)	25/65 (38.5%)	not pooled	not pooled	VERY LOW	CRITICAL
Number of participants seeking PTSD treatment - 4.3 weeks follow up (follow-up mean 4.3 weeks)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	very serious[4,6]	none	22/103 (21.4%)	14/121 (11.6%)	RR 1.85 (1 to 3.42)	98 more per 1000 (from 0 more to 280 more)	VERY LOW	CRITICAL
Number of participants seeking PTSD treatment - 13 weeks follow up (follow-up mean 13 weeks)												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Engagement strategies	Treatment as usual	Relative (95% CI)	Absolute		
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	38/99 (38.4%)	34/110 (30.9%)	RR 1.24 (0.85 to 1.81)	74 more per 1000 (from 46 fewer to 250 more)	VERY LOW	CRITICAL
Number of participants seeking PTSD treatment - 26 weeks follow up (follow-up mean 26 weeks)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	65/111 (58.6%)	61/131 (46.6%)	RR 1.26 (0.99 to 1.6)	121 more per 1000 (from 5 fewer to 279 more)	VERY LOW	CRITICAL
Number of participants who completed set number of psychotherapy sessions												
2	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	very serious[4,6]	none	53/216 (24.5%)	32/187 (17.1%)	RR 1.44 (1.04 to 2)	75 more per 1000 (from 7 more to 171 more)	VERY LOW	CRITICAL
Number of people using the website												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	very serious[4,6]	none	19/60 (31.7%)	7/61 (11.5%)	not pooled	not pooled	VERY LOW	IMPORTANT
Mean time using the website during hospital stay (Better indicated by higher values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	60	61	-	not pooled	VERY LOW	IMPORTANT

CI=confidence interval; MD=mean difference; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standard mean difference
[1] Assessors and participants not blinded
[2] Unclear randomisation/allocation methods
[3] High heterogeneity; I2 >50%
[4] Number of total participants less than 400
[5] Very high heterogeneity, I2 >80%
[6] 95% confidence interval crosses a line of imprecision (either 0.5 or 5.0)

Engagement strategies versus trauma-informed care for the treatment of clinically important symptoms/PTSD

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Engagement strategies	TIC	Relative (95% CI)	Absolute		
PTSD symptomology - 26 week follow up (follow-up mean 26 weeks; Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	30	32	-	SMD 0.15 lower (0.65 lower to 0.35 higher)	LOW	CRITICAL
PTSD symptomology - 52 week follow up (follow-up mean 52 weeks; Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	27	38	-	SMD 0.21 lower (0.71 lower to 0.28 higher)	LOW	CRITICAL
PTSD symptomology - 78 week follow up (follow-up mean 78 weeks; Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	24	38	-	SMD 0 higher (0.51 lower to 0.51 higher)	LOW	CRITICAL
Symptoms of depression (BDI) - 26 week follow up (follow-up mean 26 weeks; Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	30	31	-	SMD 0.05 higher (0.45 lower to 0.55 higher)	LOW	IMPORTANT
Symptoms of depression (BDI) - 52 week follow up (follow-up mean 52 weeks; Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	28	38	-	SMD 0.2 lower (0.69 lower to 0.29 higher)	LOW	IMPORTANT
Symptoms of depression (BDI) - 78 week follow up (follow-up mean 78 weeks; Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	23	37	-	SMD 0.32 lower (0.85 lower to 0.2 higher)	LOW	IMPORTANT
Symptoms of anxiety (STAI) - 26 week follow up (follow-up mean 26 weeks; Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	30	31	-	SMD 0.83 lower (1.36	LOW	IMPORTANT

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Engagement strategies	TIC	Relative (95% CI)	Absolute		
										to 0.31 lower)		
Symptoms of anxiety (STAI) - 52 week follow up (follow-up mean 52 weeks; Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	27	36	-	SMD 0.5 lower (1 lower to 0.01 higher)	LOW	IMPORTANT
Symptoms of anxiety (STAI) - 78 week follow up (follow-up mean 78 weeks; Better indicated by lower values)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	23	38	-	SMD 0.34 lower (0.86 lower to 0.18 higher)	LOW	IMPORTANT

CI=confidence interval; PTSD=post-traumatic stress disorder; SMD=standard mean difference; STAI=State-Trait Anxiety Inventory; TIC=trauma informed care
[1] Assessors and participants not blinded
[2] Number of total participants less than 400

Information and Support

Information and support versus Treatment as usual for the treatment of clinically important symptoms/PTSD

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Information and support	TAU	Relative (95% CI)	Absolute		
Number meeting >30 on IES (follow-up 0-52 weeks)												
2	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	51/253 (20.2%)	83/260 (31.9%)	RR 0.63 (0.47 to 0.85)	118 fewer per 1000 (from 48 fewer to 169 fewer)	VERY LOW	CRITICAL

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Information and support	TAU	Relative (95% CI)	Absolute		
Number scoring greater or above 8 on HADS-A (follow-up 0-52 weeks)												
2	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	52/253 (20.6%)	63/260 (24.2%)	RR 0.82 (0.6 to 1.11)	44 fewer per 1000 (from 97 fewer to 27 more)	VERY LOW	IMPORTANT
Number scoring 8 or above on HADS-D scale (follow-up 0-52 weeks)												
2	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	28/253 (11.1%)	47/260 (18.1%)	RR 0.6 (0.39 to 0.93)	72 fewer per 1000 (from 13 fewer to 110 fewer)	VERY LOW	IMPORTANT
PTSD symptomology (measured with: IES-R; Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[4]	none	36	35	-	MD 3.45 higher (5.2 lower to 12.1 higher)	VERY LOW	CRITICAL
Depression (follow-up 0-32 weeks; measured with: self-report; Better indicated by lower values)												
2	randomised trials	very serious[1,2]	serious[5]	no serious indirectness	no serious imprecision	none	199	184	-	SMD 0.06 higher (0.14 lower to 0.26 higher)	VERY LOW	IMPORTANT
Anxiety (follow-up 0-32 weeks; measured with: self-report; Better indicated by lower values)												
2	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	no serious imprecision	none	199	184	-	SMD 0.21 higher (0.01 to 0.41 higher)	LOW	IMPORTANT

CI=confidence interval; HADS(-A/D)=Hospital Anxiety and Depression Scale(-Anxiety/Depression); IES(-R)=Impact of Event Scale(-Revised); MD=mean difference; PTSD=post-traumatic stress disorder; RR=risk ratio; SMD=standard mean difference; TAU=treatment as usual

[1] *Assessors and participants not blinded*
[2] *Unclear randomisation/allocation methods*
[3] *95% confidence interval crosses a line of imprecision (either 0.8 or 1.25)*
[4] *Number of total participants less than 400*
[5] *High heterogeneity; I2 >50%*

Family conference with a nurse versus family conference without a nurse for the treatment of clinically important symptoms/PTSD

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**Family conference with a nurse**	**Family conference without a nurse**	**Relative (95% CI)**	**Absolute**		
Number scoring equal or above 22 on (IES-R) at 13 week follow up (follow-up mean 13 weeks)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	21/42 (50%)	23/44 (52.3%)	not pooled	not pooled	LOW	CRITICAL
Number scoring 8 or above on HADS-D at 13 week follow up (follow-up mean 13 weeks)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2,3]	none	10/42 (23.8%)	17/44 (38.6%)	not pooled	not pooled	VERY LOW	IMPORTANT
Number scoring above 8 on Symptoms HADS-A at 13 weeks (follow-up mean 13 weeks)												
1	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2,3]	none	14/42 (33.3%)	23/44 (52.3%)	not pooled	not pooled	VERY LOW	IMPORTANT

CI=confidence interval; IES-R=Impact of Event Scale-Revised; HADS(-A/D)=Hospital Anxiety and Depression Scale(-Anxiety/Depression)
[1] *Assessors and participants not blinded*
[2] *Number of total participants less than 400*
[3] *95% confidence interval crosses a line of imprecision (either 0.8 or 1.25)*

Decision aids versus placebo session for the treatment of clinically important PTSD symptoms

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Decision aids	Placebo	Relative (95% CI)	Absolute		
Number completing >9 sessions												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	very serious[3,4]	none	4/9 (44.4%)	1/11 (9.1%)	not pooled	not pooled	VERY LOW	CRITICAL

CI=confidence interval
[1] Unclear randomisation/allocation methods
[2] Assessors and participants not blinded
[3] 95% confidence interval crosses a line of imprecision (either 0.8 or 1.25)
[4] Number of total participants less than 400

Stepped Care

Stepped care versus treatment as usual for the treatment of clinically important symptoms/PTSD

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Stepped care	TAU	Relative (95% CI)	Absolute		
PTSD symptomology (TSCYC) (follow-up 0-13 weeks; Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	70	36	-	SMD 0.37 lower (0.77 lower to 0.04 higher)	VERY LOW	CRITICAL
PTSD symptomology (CGI) (follow-up 0-13 weeks; Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	70	36	-	MD 0.59 lower (0.91 to 0.27 lower)	VERY LOW	CRITICAL

CI=confidence interval; CGI=Clinical Global Impression scale; MD=mean difference; SMD=standard mean difference; TAU=treatment as usual; TSCYC=Trauma Symptom Checklist for Young Children

[1] *Assessors and participants not blinded*
[2] *Unclear randomisation/allocation methods*
[3] *Number of total participants less than 400*

School based therapies

School based TF-CBT versus in-clinic TF-CBT for the treatment of clinically important symptoms/PTSD

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**School based therapy**	**in-clinic therapy**	**Relative (95% CI)**	**Absolute**		
PTSD symptomology (CPSS) (follow-up mean 43 weeks; Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	57	14	-	not pooled	VERY LOW	CRITICAL
Symptoms of depression (CDI) (follow-up mean 43 weeks; Better indicated by lower values)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	57	14	-	not pooled	VERY LOW	IMPORTANT
Number completing intervention (follow-up mean 43 weeks)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	57/58 (98.3%)	9/60 (15%)	not pooled	not pooled	VERY LOW	CRITICAL

CI=confidence interval; PTSD=post-traumatic stress disorder; CDI=Children's Depression Inventory; CPSS= Child PTSD Symptom Scale
[1] *Assessors and participants not blinded*
[2] *Unclear randomisation/allocation methods*
[3] *Number of total participants less than 400*

Motivational enhancement therapies

Motivational enhancement versus trauma informed care for the treatment of clinically important symptoms/PTSD

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Motivational enhancement	TIC	Relative (95% CI)	Absolute		
Number completing sessions (follow-up mean 52 weeks)												
1	randomised trials	very serious[1,2]	no serious inconsistency	no serious indirectness	serious[3]	none	42/60 (70%)	30/54 (55.6%)	not pooled	not pooled	VERY LOW	CRITICAL

CI=confidence interval; TIC=trauma informed care

[1] Assessors and participants not blinded
[2] Unclear randomisation/allocation methods
[3] Number of total participants less than 400

Appendix G – Economic evidence study selection

Economic evidence study selection for "Which service delivery models are effective at meeting the needs of adults, children and young people with clinically important post-traumatic stress 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 – Economic evidence tables

Economic evidence tables for "Which service delivery models are effective at meeting the needs of adults, children and young people with clinically important post-traumatic stress symptoms?"

Collaborative care

Schnurr PP, Friedman MJ, Oxman TE (2013) RESPECT-PTSD: Re-engineering systems for the primary care treatment of PTSD, A randomized controlled trial. Journal of General Internal Medicine 28(1), 32-40

Study Country Study type	Intervention details	Study population Study design Data sources	Costs and outcomes: description and values	Results: Cost-effectiveness	Comments
Schnurr 2013 US Cost consequence analysis	Interventions: Collaborative care (three component model), comprising a. education and tools for primary care clinicians and staff; b. telephone care management by a centrally located care manager to answer patient questions and promote treatment adherence; and c. support from a psychiatrist who supervises care managers by telephone, provides consultation to primary care clinicians,	Veterans with PTSD RCT (Schnurr 2013) Source of efficacy and resource use data: RCT (N=195, n=146 at 6-month follow-up) Source of unit costs: national sources	Costs: outpatient visits including intervention, outpatient pharmacy, inpatient care (including pharmacy), and fee-for-service care Mean (SD) cost per person: Collaborative care $6,002 ($12,357) Standard care $3,513 ($4,584) Adjusted mean difference $953 (95% CI -$3.449 to $5,355, p=0.67) Primary outcome measure: PTSD symptom severity, measured using the Posttraumatic Diagnostic Scale (PDS) Other outcomes: depression measured using the Hopkins Symptom Checklist-20; functioning using the SF-12; perceived quality of PTSD care and overall care	Collaborative care dominated by standard care (more costly with no additional benefits)	Perspective: health service Currency: US$ Cost year: 2010 Time horizon: 6 months Discounting: NA Applicability: partially applicable Quality: potentially serious limitations

Study Country Study type	Intervention details	Study population Study design Data sources	Costs and outcomes: description and values	Results: Cost-effectiveness	Comments
	and facilitates mental health referral. Standard care		<u>Outcomes:</u> No significant differences between groups, except in perceived quality of PTSD care, where collaborative care had worse rating		

Stepped-care

Salloum A, Wang W, Robst J(2016) Stepped care versus standard trauma-focused cognitive behavioral therapy for young children. Journal of Child Psychology and Psychiatry 57(5), 614-22

Study Country Study type	Intervention details	Study population Study design Data sources	Costs and outcomes: description and values	Results: Cost-effectiveness	Comments
Salloum 2016 US Cost consequence analysis	Interventions: Stepped care TF-CBT; step one consisted of 3 therapist-led sessions (60 min), 11 parent–child home meetings over 6 weeks, weekly brief phone support, psychoeducation and video demonstrations of relaxation exercises and imaginal and in vivo exposures. If the child responded to step one, they proceeded to the maintenance phase for 6 weeks. If the child did not respond, they stepped up to step two comprising 9 TF-CBT sessions Standard care TF-CBT, comprising 12 x 90-min therapist-led sessions, including active parent involvement	Young children (aged 3-7 years) experiencing PTSD symptoms RCT (Salloum 2016) Source of efficacy and resource use data: RCT (N=53; at 3-month follow up: n=47) Source of unit costs: national sources	Costs: intervention-related costs only, including parents' productivity losses Mean (SD) cost per person: Stepped care: $953 ($645) Standard care: $1,957 ($564); P<0.001 Primary outcome: trauma symptoms measured using the Trauma Symptom Checklist for Young Children (TSCYC, posttraumatic stress (PTS) subscale Secondary outcomes: Clinical Global Impression-Severity (CGI-S); Child Behavior Checklist (CBCL); Diagnostic Infant and Preschool Assessment (DIPA); Clinical Global Impression-Improvement (CGI-I); treatment credibility and satisfaction using the ERF, the Client Satisfaction Questionnaire (CSQ); parents' assessment of PTSD diagnosis Outcomes: Stepped care was not inferior to standard care on all variables except for CBCL externalizing T-scores (p = 0.09).	Stepped care similar to standard care in outcomes (less effective in CBCL externalising T-scores) and less costly	Perspective: societal (payer, provider and patient) Currency: US$ Cost year: not reported; for indirect unit costs, 2011 Time horizon: 3 months Discounting: NA Applicability: partially applicable Quality: potentially serious limitations

Appendix I – Health economic evidence profiles

Health economic evidence profiles for "Which service delivery models are effective at meeting the needs of adults, children and young people with clinically important post-traumatic stress symptoms?"

Collaborative care

Economic evidence profile: collaborative care versus standard care for adults with PTSD							
Study and country	**Limitations**	**Applicability**	**Other comments**	**Incremental cost (£)[1]**	**Incremental effect**	**ICER (£/effect)[1]**	**Uncertainty[1]**
Schnurr 2013 US	Potentially serious limitations[2]	Partially applicable3	Population: veterans with PTSD Outcomes: PTSD symptoms, depression, functioning, satisfaction	£728	No significant differences between groups, except perceived quality of PTSD care, where collaborative care had worse rating	Collaborative care dominated (more costly, no more effective)	Difference in costs not statistically significant
1. Costs converted and uplifted to 2016 UK pounds using purchasing power parity (PPP) exchange rates and the UK HCHS index (Curtis & Burns, 2016). 2. Time horizon 6 months; analysis based on RCT (N=195, n=146 at 6-month follow-up); national unit costs used; no synthesis of costs and outcomes 3. US; health service perspective; no QALYs estimated							

Stepped care

Economic evidence profile: stepped care versus standard (non-stepped) care for children and young people with PTSD							
Study and country	**Limitations**	**Applicability**	**Other comments**	**Incremental cost (£)[1]**	**Incremental effect**	**ICER (£/effect)[1]**	**Uncertainty[1]**
Salloum 2016 US	Potentially serious limitations[2]	Partially applicable[3]	Population: children with PTSD Outcomes: PTSD symptoms,	-£754	Stepped care not inferior to standard care on all variables except for	Stepped care similar to standard care in outcomes (less effective in CBCL	Difference in costs statistically significant

Economic evidence profile: stepped care versus standard (non-stepped) care for children and young people with PTSD							
			functioning, satisfaction		CBCL externalising T-scores	externalising T-scores) and less costly	
1. Costs converted and uplifted to 2016 UK pounds using purchasing power parity (PPP) exchange rates and the UK HCHS index (Curtis & Burns, 2016).							
2. Time horizon 3 months; analysis based RCT (N=53; at 3-month follow up: n=47); intervention-related costs only considered (including parent payments and indirect costs); national unit costs used; no synthesis of costs and outcomes							
3. US study; societal perspective (provider, payer and parent payments including productivity losses); no QALYs estimated							

Appendix J – Health economic analysis

Health economic analysis for "Which service delivery models are effective at meeting the needs of adults, children and young people with clinically important post-traumatic stress symptoms?"

No health economic analysis was conducted for this review.

Appendix K - Excluded Studies

Excluded studies for "Which service delivery models are effective at meeting the needs of adults, children and young people with clinically important post-traumatic stress symptoms?"

Clinical studies

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Batka 2016	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Population outside scope: Trials of soldiers on active service	Batka, C., Tanielian, T., Woldetsadik, M. A., Farmer, C., Jaycox, L. H. (2016) Stakeholder Experiences in a Stepped Collaborative Care Study Within U.S. Army Clinics, Psychosomatics, 57, 586-597	
Chan 2011	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Chan, D., Fan, M. Y., Unutzer, J. (2011) Long-term effectiveness of collaborative depression care in older primary care patients with and without PTSD symptoms, International Journal of Geriatric Psychiatry, 26, 758-764	
Christofides 2006	Handsearch	Population outside scope: Trials of people without PTSD	Christofides, N. J., Muirhead, D., Jewkes, R. K., Penn-Kekana, L., & Conco, D. N. (2006). Women's experiences of and preferences for	Simiola, V., Neilson, E., Thompson, R., Cook, J. (2015) Preferences for trauma treatment: A systematic review of the

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			services after rape in South Africa: Interview study. British Medical Journal, 332, 209–213. http://dx.doi.org/10.1136/bmj.38664.482060.55	empirical literature, Psychological Trauma: Theory, Research, Practice, and Policy, 7, 516-524
Chorpita 2017	RQ 7.1-7.2_organisation and delivery of care	Population outside scope: <80% of the study's participants are eligible for the review and disaggregated data cannot be obtained	Chorpita BF, Daleiden EL, Park AL, Ward AM, Levy MC, Cromley T, Chiu AW, Letamendi AM, Tsai KH, Krull JL. Child STEPs in California: A cluster randomized effectiveness trial comparing modular treatment with community implemented treatment for youth with anxiety, depression, conduct problems, or traumatic stress. Journal of consulting and clinical psychology. 2017 Jan;85(1):13.	
Curtis 2016	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Population outside scope: Trials of people without PTSD	Curtis, J. R., Treece, P. D., Nielsen, E. L., Gold, J., Ciechanowski, P. S., Shannon, S. E., Khandelwal, N., Young, J. P., Engelberg, R. A. (2016) Randomized Trial of Communication Facilitators to Reduce Family Distress and Intensity of End-of-Life	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			Care, American journal of respiratory and critical care medicine, 193, 154-62	
Fann 2009	Handsearch	Intervention not targeted at PTSD symptoms	Fann, J. R., Jones, A. L., Dikmen, S. S., Temkin, N. R., Esselman, P. C., & Bombardier, C. H. (2009). Depression treatment preferences after traumatic brain injury. The Journal of Head Trauma Rehabilitation, 24, 272–278. http://dx.doi.org/10.1097/HTR.0b013e3181a66342	Simiola, V., Neilson, E., Thompson, R., Cook, J. (2015) Preferences for trauma treatment: A systematic review of the empirical literature, Psychological Trauma: Theory, Research, Practice, and Policy, 7, 516-524
Foster 2017	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Population outside scope: Trials of people without PTSD	Foster, K., Young, A., Mitchell, R., Van, C., Curtis, K. (2017) Experiences and needs of parents of critically injured children during the acute hospital phase: A qualitative investigation, Injury, 48, 114-120	
Greene 2010	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Subgroup/secondary analysis of RCT already included	Greene, C. J., Morland, L. A., MacDonald, A., Frueh, B. C., Grubbs, K. M., Rosen, C. S. (2010) How does tele-mental health affect group therapy process? Secondary analysis of a noninferiority trial, Journal	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			of Consulting and Clinical Psychology, 78, 746-750	
Gros 2011	Handsearch	Protocol	Gros DF, Strachan M, Ruggiero KJ, Knapp RG, Frueh BC, Egede LE, Lejuez CW, Tuerk PW, Acierno R. Innovative service delivery for secondary prevention of PTSD in at-risk OIF–OEF service men and women. Contemporary clinical trials. 2011 Jan 31;32(1):122-8.	
Gros 2013	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Subgroup/secondary analysis that is not relevant	Gros DF, Price M, Yuen EK, Acierno R. Predictors of completion of exposure therapy in OEF/OIF veterans with posttraumatic stress disorder. Depression and anxiety. 2013 Nov 1;30(11):1107-13.	
Hegel 2005	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Subgroup/secondary analysis that is not relevant	Hegel, M. T., Unutzer, J., Tang, L., Arean, P. A., Katon, W., Noel, P. H., Williams, J. W., Jr., Lin, E. H. (2005) Impact of comorbid panic and posttraumatic stress disorder on outcomes of collaborative care for late-life depression in primary care, American	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			Journal of Geriatric Psychiatry, 13, 48-58	
Hernandez-Tejada 2014	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Outcomes are not of interest	Hernandez-Tejada, M. A., Zoller, J. S., Ruggiero, K. J., Kazley, A. S., Acierno, R. (2014) Early treatment withdrawal from evidence-based psychotherapy for PTSD: Telemedicine and in-person parameters, International Journal of Psychiatry in Medicine, 48, 33-55	
Hinton 2012	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Paper unavailable	NCT01542372. Two Stepped Care Models for PTSD Among Cambodian Refugees With PTSD	
Hume & Platt 2007	Handsearch	Population outside scope: Trials of people without PTSD	Hume, M., & Platt, S. (2007). Appropriate interventions for the prevention and management of self-harm: A qualitative exploration of service users' views. BMC Public Health, 7, 9. http://dx.doi.org/10.1186/1471-2458-7-9	Simiola, V., Neilson, E., Thompson, R., Cook, J. (2015) Preferences for trauma treatment: A systematic review of the empirical literature, Psychological Trauma: Theory, Research, Practice, and Policy, 7, 516-524
Kelly 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Comparison outside protocol	Kelly, J. M., Jakubovski, E., Bloch, M. H. (2015) Prognostic subgroups for	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			remission and response in the Coordinated Anxiety Learning and Management (CALM) trial, Journal of Clinical Psychiatry, 76, 267-278	
Moreau 2004	Handsearch	Population outside scope: Trials of people without PTSD	Moreau, D., Goldgran-Toledano, D., Alberti, C., Jourdain, M., Adrie, C., Annane, D.(2004) Junior versus senior physicians for informing families of intensive care patients, American Journal of Research in Critical Care Medicine, 169, 512-517	
Morland 2010	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Morland, L. A., Greene, C., Rosen, C., Foy, D., Reilly, P., Shore, J., He, Q., Frueh, C. (2010) Telemedicine for anger management therapy in a rural population of combat veterans with posttraumatic stress disorder: a randomised noninferiority trial, Journal of Clinical Psychiatry, 71, 855-863	
Morland 2013	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Morland, L. A., Raab, M., Mackintosh, M. A., Rosen, C. S., Dismuke, C. E., Greene, C. J., Frueh, B. C. (2013) Telemedicine: a cost-reducing	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			means of delivering psychotherapy to rural combat veterans with PTSD, Telemedicine journal and e-health : the official journal of the American Telemedicine Association, 19, 754-759	
NCT00619255	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Subgroup/secondary analysis of RCT already included	NCT00619255. Maternal Child Health Bureau Adolescent Trauma Recovery and Stress Disorders Collaborative Care (ATRSCC) Model Program Trial	
NCT00645047	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Paper unavailable	NCT00645047. Randomized controlled equivalence trial comparing videoconference and face-to-face delivery of cognitive processing therapy for PTSD	
NCT00941629	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Paper unavailable	NCT00941629. Randomized Controlled Equivalence Trial Comparing Videoconference and Face-to-Face Delivery of Cognitive Processing Therapy for PTSD	
NCT01158001	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Paper unavailable	NCT01158001. Telemedicine for Improved Delivery of Psychosocial Treatments for Post Traumatic Stress Disorder	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
NCT01915160	Handsearch	Unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided)	NCT01915160. Technology-Based Tools to Enhance Quality of Care in Mental Health Treatment. 2013. Available from: https://clinicaltrials.gov/ct2/show/NCT01915160 [accessed 11.07.2015]	
NCT02274688	Handsearch	Unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided)	NCT02274688. A Comparative Effectiveness Trial of Optimal Patient-Centered Care for US Trauma Care Systems. 2013. Available from: https://clinicaltrials.gov/ct2/show/NCT02274688 [accessed 11.05.2017]	
Powell 2017	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Outcomes are not of interest	Powell, J. M., Wise, E. K., Brockway, J. A., Fraser, R., Temkin, N., Bell, K. R. (2017) Characteristics and concerns of caregivers of adults with traumatic brain injury, Journal of Head Trauma Rehabilitation, 32, e33-e41	
Rissanen 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Population outside scope: Trials of people without PTSD	Rissanen, R., Nordin, K., Ahlgren, J., Arving, C. (2015) A stepped care stress management intervention on cancer-related traumatic	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			stress symptoms among breast cancer patients - A randomized study in group vs. individual setting, Psycho-Oncology, 24, 1028-1035	
Roy-Byrne 2010	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Roy-Byrne, P., Craske, M. G., Sullivan, G., Rose, R. D., Edlund, M. J., Lang, A. J., Bystritsky, A., Welch, S. S., Chavira, D. A., Golinelli, D., Campbell-Sills, L., Sherbourne, C. D., Stein, M. B. (2010) Delivery of evidence-based treatment for multiple anxiety disorders in primary care: A randomized controlled trial, JAMA - Journal of the American Medical Association, 303, 1921-1928	
Sherman 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Outcomes are not of interest	Sherman, M., Larsen, J., Borden, L. (2015) Broadening the focus in supporting reintegrating Iraq and Afghanistan veterans: Six key domains of functioning, Professional Psychology: Research and Practice, 46, 355-265	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Simiola 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	Simiola, V., Neilson, E., Thompson, R., Cook, J. (2015) Preferences for trauma treatment: A systematic review of the empirical literature, Psychological Trauma: Theory, Research, Practice, and Policy, 7, 516-524	
Stalker 2005	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Non-randomised group assignment	Stalker CA, Palmer SE, Wright DC, Gebotys R. Specialized inpatient trauma treatment for adults abused as children: A follow-up study. American Journal of Psychiatry. 2005 Mar 1;162(3):552-9.	
Starks 2016	Handsearch	Efficacy or safety data cannot be extracted	Starks, H., Doorenbos, A., Lindhorst, T., Bourget, E., Aisenberg, E., Oman, N., Rue, T., Curtis, J., Hays, R. (2016) The Family Communication Study: A randomized trial of prospective pediatric palliative care consultation, study methodology and perceptions of participation burden, Contemporary Clinical Trials, 49, 15-20	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Thorp 2010	RQ 7.1-7.2_organisation and delivery of care	Unpublished (registered on clinical trials registry and author contacted for full trial report but not provided)	Thorp SR. Telemedicine for Improved Delivery of Psychosocial Treatments for Post Traumatic Stress Disorder [NCT01158001]. Available from: https://clinicaltrials.gov/ct2/show/NCT01158001 [accessed 23.11.17]	
Wetherell 2013	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Subgroup/secondary analysis that is not relevant	Wetherell, J. L., Petkus, A. J., Thorp, S. R., Stein, M. B., Chavira, D. A., Campbell-Sills, L., Craske, M. G., Sherbourne, C., Bystritsky, A., Sullivan, G., Roy-Byrne, P. (2013) Age differences in treatment response to a collaborative care intervention for anxiety disorders, The British journal of psychiatry : the journal of mental science, 203, 65-72	
Wikehult 2008	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention not targeted at PTSD symptoms	Wikehult, B., Hedlund, M., Marsenic, M., Nyman, S., Willebrand, M. (2008) Evaluation of negative emotional care experiences in burn care, Journal of Clinical Nursing, 17, 1923-1929	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
Wilson 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Intervention outside protocol	Wilson, S. R., Gettings, P. E., Hall, E. D., Pastor, R. G. (2015) Dilemmas families face in talking with returning U.S. military service members about seeking professional help for mental health issues, Health Communication, 30, 772-783	
Yuen 2015	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Subgroup/secondary analysis of RCT already included	Yuen, E. K., Gros, D. F., Price, M., Zeigler, S., Tuerk, P. W., Foa, E. B., Acierno, R. (2015) Randomized Controlled Trial of Home-Based Telehealth Versus In-Person Prolonged Exposure for Combat-Related PTSD in Veterans: Preliminary Results, Journal of clinical psychology, 71, 500-512	
Zatzick 2011	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Non-RCT (no control group)	Zatzick, D., Rivara, F., Jurkovich, G., Russo, J., Trusz, S. G., Wang, J., Wagner, A., Stephens, K., Dunn, C., Uehara, E., Petrie, M., Engel, C., Davydow, D., Katon, W. (2011) Enhancing the population impact of collaborative care interventions: Mixed method	

Study ID	Search	Reason for exclusion	Ref 1	Ref 2
			development and implementation of stepped care targeting posttraumatic stress disorder and related comorbidities after acute trauma, General Hospital Psychiatry, 33, 123-134	
Zatzick 2014	RQ 1.1-1.2 & 2.1-2.2 (searches combined)	Population outside scope: Trials of people without PTSD	Zatzick, D., Russo, J., Lord, S. P., Varley, C., Wang, J., Berliner, L., Jurkovich, G., Whiteside, L. K., O'Connor, S., Rivara, F. P. (2014) Collaborative care intervention targeting violence risk behaviors, substance use, and posttraumatic stress and depressive symptoms in injured adolescents a randomized clinical trial, JAMA Pediatrics, 168, 532-539	

Economic studies

Study	Reason for Exclusion
Morland LA, Raab M, Mackintosh MA (2013) Telemedicine: a cost-reducing means of delivering psychotherapy to rural combat veterans with PTSD. Telemedicine journal and e-health: the official journal of the American Telemedicine Association 19, 754-9	Intervention not focused to PTSD symptoms
Priebe S, Gavrilovic JJ, Matanov A (2010). Treatment outcomes and costs at specialized centers for the treatment of PTSD after the war in former Yugoslavia. Psychiatric Services 61, 598-604	Non-comparative study
Salloum A., Robst J, Scheeringa MS (2014). Step one within stepped care trauma-focused cognitive behavioral therapy for young children: a pilot study. Child psychiatry and human development 45, 65-77	Non-comparative study

Appendix L – Research recommendations

Research recommendations for "Which service delivery models are effective at meeting the needs of adults, children and young people with clinically important post-traumatic stress symptoms?"

1. What is the clinical and cost effectiveness of stepped care for PTSD?

Why is this important?

PTSD is a common disorder that affects a significant number of people in the UK. While some individual psychotherapies such as trauma-focused cognitive-behavioural therapy (CBT) are effective treatments, providing this type of intervention to everyone who needs it is a challenge. It can be expensive in terms of therapist time and it may take a long time to build up a workforce to deliver it. This means that people with PTSD can face a significant wait for treatment. Additionally, a treatment that is delivered over several sessions is difficult for many people with PTSD. A randomised controlled trial looking at stepped care approaches might address these issues, by making less intensive forms of treatment more easily available to people who might benefit from them. Less intensive therapies can be undertaken at home (for example online interventions) so they are easier to access. This allows therapist time to be focused on people with more severe presentations.

Research question	What is the clinical and cost effectiveness of stepped care for PTSD?
Importance to 'patients' or the population	Stepped care options may make intervention more accessible (e.g. because treatment can be undertaken at home), may shorten waiting lists and for some may be a preferred therapy option (i.e. self-directed therapy, rather than with a therapist).
Relevance to NICE guidance	Would inform the development of future guidelines.
Relevance to NHS	Potential for greater clinical and cost-effectiveness, and reducing health burden through greater reach.
National priorities	Improving clinical and cost-effectiveness of mental health services.
Current evidence base	There is very little evidence that currently pertains to this question.
Equalities	May be easier for certain groups to access treatment.

Criterion	Explanation
Population	Adults or children and young people meeting criteria (e.g. DSM) for a PTSD diagnosis.
Intervention	Psychological therapies delivered in a less intensive format (e.g. computerised delivery, group therapy).

Criterion	Explanation
Comparator	To compare a lower intensity treatment to usual care (e.g. active case management) in first instance; if efficacious, then compare to “active” therapy (i.e. intensive one-to-one therapy) in a non-inferiority RCT. Clinic vs. school or subspecialist centre vs generalist institution or volume outcome relationships
Outcomes	PTSD severity at post-treatment, and 12m follow up.
Study design	RCT/ Non-inferiority RCT.
Timeframe	To inform a guidance review.

2. What is the clinical and cost effectiveness of trauma informed care or trauma informed approaches?

Why is this important?

A trauma-informed approach to service delivery, or trauma-informed care, has been widely adopted in the US and is becoming increasingly common in the UK. However, it covers a large range of interventions and organisational changes, and there is little high-quality evidence to support its use. If effective, it could have a substantial impact on the experience of people with PTSD, reduce the length of hospital stays and outpatient visits, improve symptoms and reduce the number of restraints used in residential care.

Research question	What is the clinical and cost effectiveness of trauma informed care (TIC) or trauma informed approaches (TIA)?
Importance to 'patients' or the population	Individuals who have been exposed to potentially traumatic events, may be at risk of having the traumatic event triggered, or even being re-traumatised, by the way in which services are delivered. Trauma informed care may reduce the likelihood of such adverse events.
Relevance to NICE guidance	If adopting a trauma-informed approach does indeed make a measurable difference to people who have experienced traumatic events, then NICE guidelines may need to be revised
Relevance to NHS	If adopting a trauma-informed approach is cost-effective, there may be cost-savings for the NHS as well as training implications
National priorities	Improving clinical and cost-effectiveness of mental health services.
Current evidence base	There is very little evidence demonstrating measurable impact of TIC or TIA. The evidence that does exist is of a low quality and come almost exclusively from the US
Equalities	None identified

Criterion	Explanation
Population	Adults or children and young people at risk of developing PTSD as a result of exposure to a potentially traumatic event, and receiving healthcare services other than those specifically for their PTSD
Intervention	Trauma-informed care or practice (TIC or TIP)
Comparator	TIC should be compared to 'service as usual', i.e. without a trauma-informed approach. Alternatively different methods of TIC could be compared to each other.
Outcomes	Experience of service users. Severity of PTSD symptoms. Numbers of referrals to specialist mental health services Academic outcomes for children and young people
Study design	RCT and controlled (but not randomised) studies
Timeframe	To inform a guidance review