Psychological and psychosocial treatments for children and young people with post-traumatic stress disorder: a network meta-analysis

Ifigeneia Mavranezouli, Odette Megnin-Viggars, Caitlin Daly, Sofia Dias, Sarah Stockton, Richard Meiser-Stedman, David Trickey, Stephen Pilling

Online supplementary material

Appendix 1: Search strategy

Database: Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R), Embase, PsycINFO
Date of last search: 29 January 2018

#	Searches
1	*acute stress/ or *behavioural stress/ or *emotional stress/ or *critical incident stress/ or *mental stress/ or *posttraumatic stress disorder/ or *psychotrauma/
2	1 use emez
3	stress disorders, traumatic/ or combat disorders/ or psychological trauma/ or stress disorders, post-traumatic/ or stress disorders, traumatic, acute/ or stress, psychological/
4	3 use mesz, prem
5	exp posttraumatic stress disorder/ or acute stress disorder/ or combat experience/ or emotional trauma/ or post-traumatic stress/ or traumatic neurosis/ or trauma/ or psychological stress/ or chronic stress/
6	5 use psyh
7	(railway spine or (rape adj2 trauma*) or reexperienc* or re experienc* or torture syndrome or traumatic neuros* or traumatic stress).ti,ab.
8	(trauma* and (avoidance or grief or horror or death* or nightmare* or night mare* or emotion*)).ti,ab.
9	(posttraumatic* or post traumatic* or stress disorder* or acute stress or ptsd or asd or desnos or (combat neuros* or combat syndrome or concentration camp syndrome or extreme stress or flashback* or flash back* or hypervigilan* or hypervigilen* or psych* stress or psych* trauma* or psycho?trauma* or psychotrauma*) or (posttrauma* or traumagenic* or traumatic stress*)).ti,ab.
10	or/2,4,6-9
11	*psychotherapy/ use emez or psychotherapy/ use mesz, prem,psyh
12	(((psycholog* or psycho social* or psychosocial*) adj3 (intervention* or program* or therap* or treat*)) or psychotherap* or psycho therap* or talk* therap* or therapeutic technique* or therapist* or third wave or time limited).ti,ab,sh.
13	exp *behavior therapy/ or exp *cognitive therapy/
14	13 use emez
15	exp behavior therapy/ use mesz, prem
16	exp behavior therapy/ or exp cognitive behavior therapy/
17	16 use psyh
18	(((behaviour* or behavior*) adj2 cognitiv*) or cbt or ccbt or ((behav* or cognitive*) adj3 (intervention* or manag* or program* or restructure* or therap* or treat*)) or (stress inoculation adj2 (intervention* or program* or therap* or train* or treat*)) or (behav* adj2 activat*) or ((trauma adj (based or focused or led)) or exposure based or prolonged exposure)).ti,ab.
19	*emotion/ use emez or emotions/ use mesz, prem
20	emotion focused therapy/ or sympathy/
21	20 use psyh
22	(((compassion or emotion* or emotive*) adj (based or focused or led)) or emotional processing or ((compassion or emotion* or emotive*) adj3 (coach* or intervention* or program* or therap* or treat*))).ti,ab.
23	exposure therapy/ or narrative therapy/ or virtual reality exposure therapy/
24	23 use emez
25	implosive therapy/ or narrative therapy/ or virtual reality exposure therapy/
26	25 use mesz, prem
27	exposure therapy/ or narrative therapy/ or virtual reality/
28	27 use psyh
29	(((augmented or virtual) adj2 reality) or (virtual adj (environment or restorative)) or ((exposure or implosive or virtual reality) adj2 (intervention* or program* or therap* or train*))).ti,ab.

#	Searches
30	((imagery adj2 (rehears* or re hears*)) or (((lower* or reduc*) adj3 (bad dream* or nightmare*)) and (intervention* or program* or therap* or treat*)) or ((intervention* or program* or therap* or treat*) adj3 nightmare*)).mp. or ((presleep or presleep) adj2 imagery).ti,ab.
31	(mindfulness or ((exposure or narrative) adj therapy)).sh.
32	(kidnet or mindful* or narrative therap*).ti,ab.
33	exp "debriefing (psychological)"/ use psyh
34	debrief*.ti,ab.
35	eye movement desensitization reprocessing/ use mesz, prem or eye movement desensitization therapy/ use psyh or (emdr or (eye movement adj2 desensiti*)).ti,ab.
36	hypnosis/ use emez or exp hypnosis/ use mesz, prem or exp hypnotherapy/ use psyh or (hypnosis or hypnotherap*).ti,ab.
37	psychodynamic psychotherapy/ use emez or psychotherapy, psychodynamic/ use mesz, prem or psychodynamic psychotherapy/ use psyh or repetitive transcranial magnetic stimulation/ use emez or Transcranial Magnetic Stimulation/ use mesz, prem, psyh
38	((psychodynamic or (dynamic adj (psychotherapy* or therap*)) or incident reduction) or ((brain or transcranial) adj2 stimulat*) or rtms).ti,ab.
39	(psychoanal* or psychosomatic*).ti,ab.
40	exp counseling/ use emez,mesz,psyh or counsel*.ti,ab.
41	(hg therap* or human givens).ti,ab.
42	psychosomatic disorder/th use emez or exp somatoform disorders/th use mesz, prem
43	(exp somatoform disorders/ or somatization/) and (intervention* or program* or therap* or treat*).ti,ab,hw. use psyh
44	(psychosomatic* or somatherap* or somatic*).ti,ab.
45	(emotional freedom or holistic or thought field).ti,ab.
46	dance therap*.ti,ab,sh.
47	couple therapy/ or family therapy/ or marital therapy/ or exp parent/ed
48	47 use emez
49	couples therapy/ or family therapy/ or marital therapy/ or exp parents/ed
50	49 use mesz, prem
51	couples therapy/ or family intervention/ or exp family therapy/ or exp marriage counseling/ or parent training/
52	51 use psyh
53	(((con?joint or couple* or family or families or husband* or marriage* or marital* or partner* or relations* or spous* or wife or wives* or (child* adj5 parent*)) adj6 (counsel* or intervention* or program* or support* or therap* or treat*)) or ((couples* or family* or relations*) adj (based or focused or led)) or ecological therap* or expressed emotion or family dynamics or family relationships).tw.
54	((child* adj2 family traumatic stress intervention) or cftsi).ti,ab.
55	play therapy.sh.
56	(doll therap* or ((play or playful) adj3 (intervention* or program* or therap* or treat*)) or sandplay or sand play).ti,ab.
57	meditation.sh. or meditat*.ti,ab.
58	mindfulness.sh. or (mbsr or mindful*).ti,ab.
59	exp horticulture/ or occupational therapy/ or recreational therapy/
60	59 use emez
61	horticultural therapy/ or occupational therapy/ or recreation therapy/
62	61 use mesz, prem
63	exp "nature (environment)"/ or horticulture therapy/ or recreation therapy/ or occupational therapy/
64	63 use psyh
65	((nature adj (assisted or based)) or (nature adj3 (intervention* or program* or therap* or treat*)) or ecotherap* or e cotherap* or gardening or horticult* or leisure activit* or naturopath* or occupational therap*).ti,ab. or exp animal assisted therapy/ use emez, mesz or animal assisted therapy/ use psyh or

#	Searches
	(((animal* or dog* or equine* or horse* or pet or pets) adj2 (assist* or based or facilitat*)) or ((animal* or dog* or equine* or horse* or pet or pets) adj3 (intervention* or therap* or treat* or program*))).ti,ab.
66	psychoeducation.sh. or (psychoed* or psycho ed*).ti,ab.
67	exp acupuncture/ use emez or exp alternative medicine/ use emez or biofeedback/ or massage/ use emez or meditation/ use emez or acupressure/ use mesz, prem or massage/ use mesz, prem or acupuncture/ use mesz, prem or exp complementary therapies/ use mesz, prem or exp alternative medicine/ use psyh or biofeedback/ use psyh or massage/ use psyh or mind body therapy/ use psyh
68	(chinese medicine or medicine, chinese traditional or (moxibustion or electroacupuncture)).sh,id. or ((alternative or complementary) adj2 (medicine* or therap*)).ti,ab,sh. or (acu point* or acupoint* or acupressur* or acupunctur* or (ching adj2 lo) or cizhen or dianzhen or electroacupunctur* or (jing adj2 luo) or jingluo or massag* or needle therap* or tapping or zhenjiu or zhenci).tw.
69	exp *exercise/ use emez or exp *kinesiotherapy/ use emez or exp exercise/ use mesz, prem or exercise therapy/ use mesz, prem or exp exercise/ use psyh (physiotherap* or physio therap* or rehab*).ti,ab,hw.
70	(((balance or flexibility or resistance or sitting* or strenth*) adj2 (exercise* or train*)) or aerobic* or anaerobic* or bowls or dancing or dance or cycling or cycle* or elliptical train* or jogging or low impact activit* or running or swimming or sprinting or swim*1 or walking or yoga or tai chi or weight train* or (weight and brain* and (change* or increas* or volum*))).ti,ab.
71	friendship/ or peer counseling/ or peer group/ or self help/ or self care/ or social network/ or social support/ or support group/
72	71 use emez
73	community networks/ or friends/ or exp peer group/ or self care/ or self-help groups/ or social networking/ or social support/
74	73 use mesz, prem
75	friendship/ or network therapy/ or exp social networks/ or peer relations/ or peers/ or peer counseling/ or self care skills/ or exp self help techniques/ or social support/ or exp support groups/
76	75 use psyh
77	((self adj (administer* or assess* or attribut* or care or change or directed or efficacy or help* or guide* or instruct* or manag* or medicat* or monitor* or regulat* or reinforc* or re inforc* or support* or technique* or therap* or train* or treat*)) or selfadminister* or selfassess* or selfattribut* or selfcare or selfchange or selfdirected or selfefficacy or selfhelp* or selfguide* or selfinstruct* or selfmanag* or selfmedicat* or selfmonitor* or selfregulat* or selfreinforc* or self re inforc* or selfsupport* or selftechnique* or selftherap* or selftrain* or selftreat* or (wellness adj (therap* or train* or treat*))).ti,ab,sh.
78	(befriend* or be*1 friend* or buddy or buddies or ((community or lay or paid or support) adj (person or worker*))).ti,ab.
79	(((consumer* or famil* or friend* or lay or mutual* or peer* or social* or spous* or voluntary or volunteer*) adj3 (assist* or advice* or advis* or counsel* or educat* or forum* or help* or mentor* or network* or support* or visit*)) or ((consumer* or famil* or peer* or self help or social* or support* or voluntary or volunteer*) adj2 group*) or ((consumer* or famil* or friend* or lay or mutual* or peer* or self help or social* or spous* or support* or voluntary or volunteer*) adj3 (intervention* or program* or rehab* or therap* or service* or skill* or treat*)) or (((consumer* or famil* or friend* or lay* or peer* or spous* or user* or support* or voluntary or volunteer*) adj (based or counsel* or deliver* or interact* or led or mediat* or operated or provides or provider* or run*)) or ((consumer* or famil* or friend* or lay* or peer* or relation* or spous* or support*) adj3 trust*) or voluntary work*)).ti,ab.
80	(((lay or peer*) adj3 (advis* or consultant or educator* or expert* or facilitator* or instructor* or leader* or mentor* or person* or tutor* or worker*)) or expert patient* or mutual aid).ti,ab.
81	(peer* adj3 (assist* or counsel* or educat* or program* or rehab* or service* or supervis*)).ti,ab.
82	((psychoeducat* or psycho educat*) adj3 (group or network* or service*)).ti,ab.
83	((psychosocial or social) adj work*).ti,ab.
84	((ptsd or posttrauma* or post trauma* or trauma*) adj2 support*).ti,ab.
85	recovery support.ti,ab.
86	financial management/ use emez or financial support/ use mesz, prem or finance/ use psyh
87	((financ* or money) adj2 (assist* or educat* or guidance or intervention* or program* or support* or train*)).ti,ab.
88	assisted living facility/ or emergency shelter/ or halfway house/ or housing/ or independent living/ or residential home/ or residential home/

#	Searches
89	88 use emez
90	assisted living facilities/ or emergency shelter/ or group homes/ or halfway houses/ or housing/ or independent living/ or residential facilities/
91	90 use mesz, prem
92	assisted living / use psyh or shelters/ use psyh or group homes/ use psyh or halfway houses/ use psyh or housing/ use psyh or residential care institutions/ use psyh or ((resident* or hous* or accommod* or commun* or comu* or home*) adj5 (support* or support* or shelter* or outreach* or visit* or appointment*)).ti,ab.
93	(residential treatm* or residential facility* or supported hous* or public hous*).ti,ab.
94	(accomod* or assertive community treatment* or home* or housing* or outreach* or residential*).ti,ab.
95	absenteeism/ or daily life activity/ or employment/ or medical leave/ or mentoring/ or occupational health/ or occupational therapy/ or return to work/ or supported employment/ or unemployment/ or vocational guidance/ or vocational rehabilitation/ or work capacity/ or work/
96	95 use emez
97	absenteeism/ or "activities of daily living"/ or employment, supported/ or employment/ or mentoring/ or occupational health/ or occupational therapy/ or rehabilitation, vocational/ or return to work/ or sick leave/ or unemployment/ or vocational guidance/ or work/
98	97 use mesz, prem
99	"activities of daily living"/ or exp coaching/ or employee absenteeism/ or employment status/ or occupational guidance/ or occupational health/ or occupational therapy/ or reemployment/ or unemployment/ or vocational counselors/ or exp vocational rehabilitation/
100	99 use psyh
101	(((supp* or transitional*) adj5 (employ* or work*)) or individual placement or (placement* adj3 (employ* or work*))).ti,ab.
102	((employ* or placement* or psychosocial* or psycho-social* or occupation* or soc* or vocation* or work* or job* or counsel*) adj5 rehab*).ti,ab.
103	(sheltered work* or vocatio* or fountain house* or fountainhouse* or clubhouse* or club house* or work therap*).ti,ab.
104	(transitional employment or rehabilitation counsel* or (occupational adj (health or medicine)) or work* adjustment).ti,ab.
105	((performance adj (activit* or coach* or management or occupation*)) or coaching).ti,ab.
106	(((sheltered or permitted or voluntary or vocational or return* or rehabilitat*) adj3 work*) or work capacity or reemploy* or re employ* or job retention or work capacity).ti,ab.
107	((employ* or job or occupation* or vocation* or work*) adj5 (counsel* or educat* or guidance* or intervention* or program* or rehab* or reintegrat* or re integrat* or support* or therap* or train*)).ti,ab.
108	placement.ti,ab.
109	or/11-12,14-15,17-19,21-22,24,26,28-46,48,50,52-58,60,62,64-70,72,74,76-87,89,91-94,96,98,100-108
110	meta analysis/ or "meta analysis (topic)"/ or systematic review/
111	110 use emez
112	meta analysis.sh,pt. or "meta-analysis as topic"/ or "review literature as topic"/
113	112 use mesz, prem
114	(literature review or meta analysis).sh,id,md. or systematic review.id,md.
115	114 use psyh
116	(exp bibliographic database/ or (((electronic or computer* or online) adj database*) or bids or cochrane or embase or index medicus or isi citation or medline or psyclit or psychlit or scisearch or science citation or (web adj2 science)).ti,ab.) and (review*.ti,ab,sh,pt. or systematic*.ti,ab.)
117	116 use emez
118	(exp databases, bibliographic/ or (((electronic or computer* or online) adj database*) or bids or cochrane or embase or index medicus or isi citation or medline or psyclit or psychlit or scisearch or science citation or (web adj2 science)).ti,ab.) and (review*.ti,ab,sh,pt. or systematic*.ti,ab.)
119	118 use mesz, prem
120	(computer searching.sh,id. or (((electronic or computer* or online) adj database*) or bids or cochrane or embase or index medicus or isi citation or medline or psyclit or psychlit or scisearch or science citation or (web adj2 science)).ti,ab.) and (review*.ti,ab,pt. or systematic*.ti,ab.)

#	Searches
121	120 use psyh
122	((analy* or assessment* or evidence* or methodol* or quantativ* or systematic*) adj2 (overview* or review*)).tw. or ((analy* or assessment* or evidence* or methodol* or quantativ* or systematic*).ti. and review*.ti,pt.) or (systematic* adj2 search*).ti,ab.
123	(metaanal* or meta anal*).ti,ab.
124	(research adj (review* or integration)).ti,ab.
125	reference list*.ab.
126	bibliograph*.ab.
127	published studies.ab.
128	relevant journals.ab.
129	selection criteria.ab.
130	(data adj (extraction or synthesis)).ab.
131	(handsearch* or ((hand or manual) adj search*)).ti,ab.
132	(mantel haenszel or peto or dersimonian or der simonian).ti,ab.
133	(fixed effect* or random effect*).ti,ab.
134	((pool* or combined or combining) adj2 (data or trials or studies or results)).ti,ab.
135	or/111,113,115,117,119,121-134
136	exp "clinical trial (topic)"/ or exp clinical trial/ or crossover procedure/ or double blind procedure/ or placebo/ or randomization/ or random sample/ or single blind procedure/
137	136 use emez
138	exp clinical trial/ or exp "clinical trials as topic"/ or cross-over studies/ or double-blind method/ or placebos/ or random allocation/ or single-blind method/
139	138 use mesz, prem
140	(clinical trials or placebo or random sampling).sh,id.
141	140 use psyh
142	(clinical adj2 trial*).ti,ab.
143	(crossover or cross over).ti,ab.
144	(((single* or doubl* or trebl* or tripl*) adj2 blind*) or mask* or dummy or doubleblind* or singleblind* or trebleblind* or tripleblind*).ti,ab.
145	(placebo* or random*).ti,ab.
146	treatment outcome*.md. use psyh
147	animals/ not human*.mp. use emez
148	animal*/ not human*/ use mesz, prem
149	(animal not human).po. use psyh
150	or/137,139,141-146
151	150 not (or/147-149)
152	or/135,151
153	10 and 109 and 152

Database: CDSR, DARE, HTA, CENTRAL
Date of last search: 29 January 2018

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

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

Database: CINAHL PLUS
Date of last search: 29 January 2018

#	Searches
s52	s6 and s51
s51	s40 or s50
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)

#	Searches
s35	ti (pool* n2 data or combined n2 data or combining n2 data) or ab (pool* n2 data or combined n2 data or combining n2 data)
s34	s32 and s33
s33	ti review* or pt review*
s32	ti analy* or assessment* or evidence* or methodol* or quantativ* or qualitativ* or systematic*
s31	ti “systematic* n5 search*” or ab “systematic* n5 search*”
s30	ti “systematic* n5 review*” or ab “systematic* n5 review*”
s29	(s24 or s25 or s26) and (s27 or s28)
s28	ti systematic* or ab systematic*
s27	tx review* or mw review* or pt review*
s26	(mh "cochrane library")
s25	ti (bids or cochrane or embase or “index medicus” or “isi citation” or medline or psyclit or psychlit or scisearch or “science citation” or web n2 science) or ab (bids or cochrane or “index medicus” or “isi citation” or psyclit or psychlit or scisearch or “science citation” or web n2 science)
s24	ti (“electronic database*” or “bibliographic database*” or “computeri?ed database*” or “online database*”) or ab (“electronic database*” or “bibliographic database*” or “computeri?ed database*” or “online database*”)
s23	(mh "literature review")
s22	pt systematic* or pt meta*
s21	ti (“fixed effect*” or “random effect*”) or ab (“fixed effect*” or “random effect*”)
s20	ti (“mantel haenszel” or peto or dersimonian or “der simonian”) or ab (“mantel haenszel” or peto or dersimonian or “der simonian”)
s19	ti (handsearch* or "hand search*" or "manual search*") or ab (handsearch* or "hand search*" or "manual search*")
s18	ab "data extraction" or "data synthesis"
s17	ab "selection criteria"
s16	ab "relevant journals"
s15	ab "published studies"
s14	ab bibliograph*
s13	ti "reference list*"
s12	ab "reference list*"
s11	ti (“research review*” or “research integration”) or ab (“research review*” or “research integration”)
s10	ti (metaanal* or “meta anal*” or metasynthes* or “meta synethes*”) or ab (metaanal* or “meta anal*” or metasynthes* or “meta synethes*”)
s9	(mh "meta analysis")
s8	(mh "systematic review")
s7	(mh "literature searching+")
s6	s1 or s2 or s3 or s4 or s5
s5	ti ((posttraumatic* or "post traumatic*" or "stress disorder*" or "acute stress" or ptsd or asd or desnos or ("combat neuros*" or "combat syndrome" or "concentration camp syndrome" or "extreme stress" or flashback* or "flash back*" or hypervigilan* or hypervigilen* or "psych* stress" or "psych* trauma*" or psychotrauma* or psychotrauma*) or (posttrauma* or traumagenic* or "traumatic stress*"))) or ab ((posttraumatic* or "post traumatic*" or "stress disorder*" or "acute stress" or ptsd or asd or desnos or ("combat neuros*" or "combat syndrome" or "concentration camp syndrome" or "extreme stress" or flashback* or "flash back*" or hypervigilan* or hypervigilen* or "psych* stress" or "psych* trauma*" or psychotrauma* or psychotrauma*) or (posttrauma* or traumagenic* or "traumatic stress*")))
s4	ti ((trauma* and (avoidance or grief or horror or death* or nightmare* or "night mare*" or emotion*))) or ab ((trauma* and (avoidance or grief or horror or death* or nightmare* or "night mare*" or emotion*)))
s3	ti (("railway spine" or (rape near/2 trauma*) or reexperienc* or "re experienc*" or "torture syndrome" or "traumatic neuros*" or "traumatic stress")) or ab (("railway spine" or (rape near/2 trauma*) or reexperienc* or "re experienc*" or "torture syndrome" or "traumatic neuros*" or "traumatic stress"))
s2	(mh "stress, psychological")
s1	(mh "stress disorders, post-traumatic")

Appendix 2: Study protocol

Systematic review of psychological, psychosocial and other non-pharmacological interventions for the treatment of PTSD in children and young people

Topic	Psychological, psychosocial and other non-pharmacological interventions for the treatment of PTSD in children and young people
Review question(s)	For children and young people with clinically important post-traumatic stress symptoms, what are the relative benefits and harms of psychological, psychosocial or other non-pharmacological interventions targeted at PTSD symptoms?
Sub-question(s)	Where evidence exists, consideration will be given to the specific needs of: women who have been exposed to sexual abuse or assault, or domestic violence lesbian, gay, bisexual, transsexual or transgender people people from black and minority ethnic groups people who are homeless or in insecure accommodation asylum seekers or refugees or other immigrants who are entitled to NHS 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 autism) people with coexisting conditions (drug and alcohol misuse, common mental health disorders, eating disorders, personality disorders, acquired brain injury, physical disabilities and sensory impairments) people who are critically ill or injured (for instance after a vehicle crash)
Objectives	To identify the most effective psychological, psychosocial or other non-pharmacological interventions for the treatment of PTSD in children and young people
Population	Children and young people (aged under 18 years) with clinically important post-traumatic stress symptoms (more than one month after a traumatic event), defined by a diagnosis of PTSD according to DSM, ICD or similar criteria (including PTSD for children 6 years and younger) or clinically-significant PTSD symptoms as indicated by baseline scores above threshold on a validated scale (see PTSD scales listed under outcomes). For mixed adult and children populations, where possible disaggregated data will be obtained. If this is not possible then the study will be categorised according to the mean age of the population (<18 years as children and young people and ≥18 years as adult).

Topic	Psychological, psychosocial and other non-pharmacological interventions for the treatment of PTSD in children and young people
	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	Psychological interventions (psychological interventions listed below are examples of interventions which may be included either alone or in combination and delivered to the child or young person and/or a parent or carer in an individual or group format): Trauma-focused cognitive behavioural therapies (CBT), including cognitive therapy, cognitive processing therapy, compassion focused therapy, exposure therapy/prolonged exposure (PE), virtual reality exposure therapy (VRET), imagery rehearsal therapy, mindfulness-based cognitive therapy (MBCT) and narrative exposure therapy for traumatized children and adolescents (KidNET) Non-trauma-focused CBT, including stress inoculation training (SIT) Psychologically-focused debriefing (including single session debriefing) Eye movement desensitisation and reprocessing (EMDR) Hypnotherapy Psychodynamic therapies, including traumatic incident reduction (TIR) Counselling, including non-directive/supportive/person-centred counselling Human givens therapy Combined somatic and cognitive therapies, including thought field therapy (TFT) and emotional freedom technique (EFT) Parent training/family interventions, including behavioural family therapy (such as Child and Family Traumatic Stress Intervention [CFTSI]) Play therapy Psychosocial interventions (psychosocial interventions listed below are examples of interventions which may be included either alone or in combination): Meditation Mindfulness-based stress reduction (MBSR) Nature-assisted therapies (including ecotherapy, horticultural therapy, therapeutic horticulture and nature-based therapy) Supported employment (including individual placement and support [IPS] supported employment and Veterans Health Administration Vocational Rehabilitation Programme [VRP]) Practical support (including financial and housing)

Topic	Psychological, psychosocial and other non-pharmacological interventions for the treatment of PTSD in children and young people
	Psychoeducational interventions Peer support (including self-help groups and support groups) Other non-pharmacological interventions (other non-pharmacological interventions listed below are examples of interventions which may be included either alone or in combination): Acupuncture (including classical acupuncture, electroacupuncture, auricular acupuncture, laser acupuncture and acupoint stimulation [such as acupressure, moxibustion and tapping]) Exercise (including anaerobic [such as heavy weight training, sprinting, high-intensity interval training] and aerobic [such as running/jogging, swimming, cycling and walking] exercise, both supervised and unsupervised) Repetitive transcranial magnetic stimulation (rTMS) Yoga (including all types of yoga) Combination interventions, such as combined psychological plus pharmacological versus pharmacological alone, will also be considered here. A distinction will be made between early interventions (delivered within 3 months of the traumatic event) and delayed interventions (delivered more than 3 months after the traumatic event) Exclude: Inoculation interventions for people who may be at risk of experiencing but have not experienced, a traumatic event Interventions that are not targeted at PTSD symptoms
Comparison	Any other intervention Treatment as usual Waitlist Placebo
Critical outcomes	Efficacy PTSD symptomology (mean endpoint score or change in PTSD score from baseline) Diagnosis of PTSD (number of people meeting diagnostic criteria for PTSD according to DSM, ICD or similar criteria) Recovery from PTSD/Remission (number of people no longer meeting diagnostic criteria for PTSD according to DSM, ICD or similar criteria at endpoint, or endpoint scores below threshold on a validated scale) Response (as measured by an agreed percentage improvement in symptoms and/or by a dichotomous rating of much or very much improved on Clinical Global Impressions [CGI] scale)Relapse (number of people who remitted at endpoint but at follow-up either met diagnostic criteria for PTSD according to DSM, ICD or similar criteria, or whose follow-up scores were above threshold on a validated scale)

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

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

Topic	Psychological, psychosocial and other non-pharmacological interventions for the treatment of PTSD in children and young people
	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 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

Topic	Psychological, psychosocial and other non-pharmacological interventions for the treatment of PTSD in children and young people
	Where possible, the influence of subgroups will be considered, including subgroup analyses giving specific consideration to the groups outlined in the sub-question section and to the following groups: Trauma type (including single incident relative to chronic exposure) Duration of intervention (for instance, short-term [≤12 weeks] relative to long-term [>12 weeks]) Intensity of intervention (for instance, low intensity [≤15 sessions] relative to high intensity [>15 sessions]) Format of intervention (individual relative to group) Mode of intervention delivery (including digital relative to face-to-face) First-line 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	Practical and social support (area of scope) is covered quantitatively by interventions listed under psychosocial interventions: • Supported employment (including individual placement and support [IPS] supported employment and Veterans Health Administration Vocational Rehabilitation Programme [VRP]) • Practical support (including financial and housing) • Peer support (including self-help groups and support groups)

Additional criteria applied for the network meta-analysis (population – interventions – outcomes)

Topic	Psychological, psychosocial and other non-pharmacological interventions for the treatment of PTSD in children and young people
Population	Children and young people (aged under 18 years) with clinically important post-traumatic stress symptoms (more than three months after a traumatic event), defined by a diagnosis of PTSD according to DSM, ICD or similar criteria (including PTSD for children 6 years and younger) or clinically-significant PTSD symptoms as indicated by baseline scores above threshold on a validated scale
Interventions	To be included in the network meta-analysis, interventions need to be forming a network of at least 3 treatments. Interventions belonging to the TF-CBT class will form separate nodes in the network.
Outcomes	PTSD symptomology (change in PTSD score from baseline) Self-rated scales are prioritised over clinician-rated ones, if both are available in a study. Recovery from PTSD/Remission (number of people no longer meeting diagnostic criteria for PTSD according to DSM, ICD or similar criteria at endpoint, or endpoint scores below threshold on a validated scale)

Appendix 3: Methods of the statistical analysis and WinBUGS codes for data synthesis

Methods of the statistical analysis

NMAs were conducted within a Bayesian framework using Markov Chain Monte Carlo simulation techniques implemented in WinBUGS 1.4.3 (Lunn, Thomas, Best, & Spiegelhalter, 2000; Spiegelhalter, Thomas, Best, & Lunn, 2003). Two different sets of initial values were used when running each model; convergence was assessed by visually inspecting the mixing of the two chains in the history plots and the Brooks Gelman-Rubin diagram in WinBUGS (Brooks & Gelman, 1998).

For the synthesis of continuous data (changes in PTSD symptom score), a linear model with a normal likelihood and identity link was used (Dias, Sutton, Ades, & Welton, 2013a; Dias, Ades, Welton, Jansen, & Sutton, 2018). Because the RCTs included in the NMAs used different continuous scales to report change in PTSD symptoms, pooling of the differences in means across different scales was not appropriate. For this reason results were expressed in the form of the Standardised Mean Difference (SMD), where the mean difference is divided by a standardising constant, which can be the population standard deviation for each scale (if known), or its estimate (Cooper, Hedges, & Valentine, 2009). In the NMAs of continuous data, this was estimated in each study by pooling the estimated standard deviations across all arms of the study. This SMD is known as Cohen's d (Cohen, 1969).

The suitability of both fixed and random effect models was assessed and compared. The goodness of fit of each model to the data was assessed by comparing the posterior mean of the residual deviance, which measures the magnitude of the differences between the observed data and the model predictions of the data, with the number of data points in the model (Dempster, 1997). Smaller values of the residual deviance are preferred, and in a well-fitting model the posterior mean residual deviance should be close to the number of data points in the analysis (each study arm contributes one data point) (Spiegelhalter, Best, Carlin, & van der Linde, 2002). Models were also compared using the deviance information

criterion (DIC), a measure of model fit that is equal to the sum of the posterior mean deviance and the effective number of parameters, thus penalising model fit for model complexity; lower values are preferred and typically differences of at least 3 points are considered meaningful (Dias et al., 2013a; Spiegelhalter et al., 2002). The posterior median between-study standard deviation, which measures the heterogeneity of treatment effects estimated by trials within contrasts, was also used to compare models. When fitting random effects models, it is important to assess whether there is enough evidence informing the between-study standard deviation. This was done by comparing the prior and posterior distributions of the between-study standard deviation. In addition, the magnitude of heterogeneity was considered.

For both NMAs of changes in PTSD symptom scores, a random effects model was first fitted with a Uniform(0,5) prior was given to the between-study standard deviation. The analysis on changes in PTSD symptom scores between baseline and 1-4 month follow-up suggested that the prior distribution has had some influence on the estimate of the between-trial heterogeneity; therefore, an analysis utilising an informative prior distribution of the between-study variance on the log scale was conducted in this dataset to inform the economic analysis. The prior distribution that informed the between-study variance on the log-scale [$t(-3.85, 1.93^2, 5)$] was derived from a study that estimated the distribution of between-trial variances reported in meta-analyses that compared non-pharmacological treatments in terms of continuous mental health outcomes (Rhodes, Turner, & Higgins, 2015). Non-informative normal prior distributions were assigned to all other parameters (Dias et al., 2013a).

The NMAs that utilised PTSD symptom change scores subsequently informed the guideline economic analysis, described in a companion paper (Mavranezouli et al., submitted). The economic analysis required the outcome to be reported in the form of a probability of effect (remission). SMDs, which were the output of these NMAs, cannot be directly used to estimate these probabilities. However, it was possible to transform the results of the NMAs,

expressed on the SMD scale, to a log-odds ratio (LOR) of effect using the following formula (Chinn, 2000):

$$LOR = -\frac{\pi}{\sqrt{3}} SMD$$

This transformation assumes that remission status is determined based on a scale with an underlying normal distribution that was dichotomised into a PTSD diagnosis versus no PTSD diagnosis ('remission') using a hypothetical cut-off point on the scale.

For the synthesis of dichotomous data (remission), a binomial likelihood and logit link model was used (Dias et al., 2013a, 2018). The output of this analysis was the LORs between all pairs of interventions assessed. The suitability of both fixed and random effect models was assessed and compared in a similar manner described for the analysis of continuous outcomes above. In the random effects model the prior for the between-study standard deviation was Uniform(0,2) and non-informative normal prior distributions were assigned to all other parameters (Dias et al., 2013a).

WinBUGS code for synthesis of changes in PTSD symptom scores (random and fixed effect models) [Dias et al., 2013a]

Normal likelihood and identity link model

RANDOM EFFECTS MODEL

```
# Normal likelihood, identity link: SMD with arm-based means;
# output as log Odds Ratios
# Random effects model for multi-arm trials
model{                          # *** PROGRAM STARTS
for(i in 1:ns){                 #   LOOP THROUGH STUDIES
  w[i,1] <- 0   # adjustment for multi-arm trials is zero for control arm
  delta[i,1] <- 0                # treatment effect is zero for control arm
  mu[i] ~ dnorm(0,.0001)            # vague priors for all trial baselines
 }
# CONTINUOUS DATA AS ARM MEANS
for(i in 1:ns){
  # calculate pooled.sd and adjustment for SMD
  df[i] <- sum(n[i,1:na[i]]) - na[i] # denominator for pooled.var
  Pooled.var[i] <- sum(nvar[i,1:na[i]])/df[i]
  Pooled.sd[i] <- sqrt(Pooled.var[i]) # pooled sd for study i, for SMD
  H[i] <- 1                      # use Cohen's d (ie no adjustment)
  for (k in 1:na[i]){
```

```
    se[i,k] <- sd[i,k]/sqrt(n[i,k])
    var[i,k] <- pow(se[i,k],2)       # calculate variances
    prec[i,k] <- 1/var[i,k]          # set precisions
    y[i,k] ~ dnorm(phi[i,k], prec[i,k]) # normal likelihood
    phi[i,k] <- theta[i,k] * (Pooled.sd[i]/H[i]) # theta is standardised mean
    theta[i,k] <- mu[i] + delta[i,k] # model for linear predictor, delta is SMD
    dev[i,k] <- (y[i,k]-phi[i,k])*(y[i,k]-phi[i,k])*prec[i,k]
    nvar[i,k] <- (n[i,k]-1) * pow(sd[i,k],2) # for pooled.sd
   }
  # summed residual deviance contribution for this trial
  resdev[i] <- sum(dev[i,1:na[i]])
 }

# RE MODEL USING UNINFORMATIVE PRIOR FOR THE BETWEEN-STUDY STANDARD DEVIATION
for(i in 1:ns){                  # LOOP THROUGH ALL STUDIES
  for (k in 2:na[i]){             # LOOP THROUGH ARMS
    # trial-specific RE distributions
    delta[i,k] ~ dnorm(md[i,k], taud[i,k])
    md[i,k] <- d[t[i,k]] - d[t[i,1]] + sw[i,k]
    # precision of RE distributions (with multi-arm trial correction)
    taud[i,k] <- tau *2*(k-1)/k
    # adjustment, multi-arm RCTs
    w[i,k] <- delta[i,k] - d[t[i,k]] + d[t[i,1]]
    # cumulative adjustment for multi-arm trials
    sw[i,k] <-sum(w[i,1:k-1])/(k-1)
   }
}
#
totresdev <- sum(resdev[])           # Total Residual Deviance (all data)
# Priors distributions
d[1]<-0                      # treatment effect is zero for control arm
# vague prior for treatment effects
for (k in 2:nt){ d[k] ~ dnorm(0, .0001) }
sdev ~ dunif(0,5)                 # vague prior for between-trial SD
tau <- pow(sdev,-2)                 # between-trial precision
for (c in 1:(nt-1)){
  for (k in (c+1):nt){
    diff[c,k] <- d[k] - d[c]        # all pairwise differences (SMD)
    lor[c,k] <- diff[c,k]*(-3.1416/sqrt(3)) # convert to lor (note sign)
  }
 }

# RE MODEL USING INFORMATIVE PRIOR FOR THE BETWEEN-STUDY STANDARD DEVIATION
for(i in 1:ns){                  # LOOP THROUGH ALL STUDIES
  for (k in 2:na[i]){             # LOOP THROUGH ARMS
    # trial-specific RE distributions
    delta[i,k] ~ dnorm(md[i,k], taud[i,k])
    md[i,k] <- d[t[i,k]] - d[t[i,1]] + sw[i,k]
    # precision of RE distributions (with multi-arm trial correction)
    taud[i,k] <- invtausq *2*(k-1)/k
    # adjustment, multi-arm RCTs
    w[i,k] <- delta[i,k] - d[t[i,k]] + d[t[i,1]]
```

```
    # cumulative adjustment for multi-arm trials
    sw[i,k] <-sum(w[i,1:k-1])/(k-1)
   }
 }
#
totresdev <- sum(resdev[])           # Total Residual Deviance (all data)
# Priors distributions
d[1]<-0                    # treatment effect is zero for control arm
# vague prior for treatment effects
for (k in 2:nt){ d[k] ~ dnorm(0, .0001) }
#informative prior for log(tau-squared)
invtausq <- 1/tausq                                  #between-study precision
tausq <- exp(log.tausq)                  #between-study variance
sdev <- pow(tausq,0.5)         #between-study standard deviation
prior.prec <- pow(1.93,-2)               #precision of prior distribution
#informative prior on log-between-study variance (t(-3.85,1.93^2,5))
log.tausq ~ dt(-3.85,prior.prec,5)
for (c in 1:(nt-1)){
  for (k in (c+1):nt){
    diff[c,k] <- d[k] - d[c]         # all pairwise differences (SMD)
    lor[c,k] <- diff[c,k]*(-3.1416/sqrt(3)) # convert to lor (note sign)
                        or[c,k] <- exp(lor[c,k])
  }
 }
# rank treatments
for (k in 1:nt)  {
  rk[k]  <- rank(d[],k)
  best[k]  <- equals(rk[k],1)    # Smallest is best (i.e. rank 1)
  # prob treat k is h-th best, prob[1,k]=best[k]
  for (h in 1:nt) { prob[h,k] <- equals(rk[k],h) }
 }
}                                # *** PROGRAM ENDS
```

Initial values for each chain

- changes in PTSD symptom scale scores between baseline and treatment endpoint

```
# chain 1
list(d = c(NA,0,0,0,0,    0,0,0,0,0,   0,0,0,0,0,  0,0),
mu = c(0,0,0,0,0,   0,0,0,0,0,   0,0,0,0,0,   0,0,0,0,0,   0,0,0,0,0,   0,0,0,0),
 sdev = 1)
# chain 2
list(d = c(NA,-1,1,1,-0.5,    1,1,1,-1,-0.7,   1,-1,0.5,0.7,-1,  -1,0.5),
mu = c(0.5,1,0.7,1,-1,   -0.5,0,1,-0.5,-1,   0.7,1,-0.7,0.5,0.6,   -0.4,1,-1,0.5,-1,   1,-0.5,-1,-0.7,0.7,   0.6,-0.5,-
0.6,1),
 sdev = 1)
```

- changes in PTSD symptom scale scores between baseline and 1-4-month follow-up [uninformative prior for the between-study standard deviation]

```
# chain 1
list(d = c(NA,0,0,0,0,    0,0,0,0,0,   0,0),
mu = c(0,0,0,0,0,   0,0,0,0,0),
 sdev = 1)
# chain 2
list(d = c(NA,-1,1,1,-0.5,    1,1,1,-1,-0.7,  -1,0.5),
mu = c(0.5,1,0.7,1,-1,   -0.5,0,1,-0.5,-1),
```

```
 sdev = 1)
```

- changes in PTSD symptom scale scores between baseline and 1-4-month follow-up [informative prior for the between-study standard deviation]

```
# chain 1
list(d = c(NA,0,0,0,0,    0,0,0,0,0,   0,0),
mu = c(0,0,0,0,0,0,   0,0,0,0,0,0),
log.tausq = 1)
# chain 2
list(d = c(NA,-1,1,1,-0.5,    1,1,1,-1,-0.7,  -1,0.5),
mu = c(0.5,1,0.7,1,-1,   -0.5,0,1,-0.5,-1),
log.tausq = 0.5)
```

FIXED EFFECTS MODEL

```
# Normal likelihood, identity link: SMD with arm-based means;
# output as log Odds Ratios
# Fixed effect model
model{                          # *** PROGRAM STARTS
for(i in 1:ns){                 #   LOOP THROUGH STUDIES
  mu[i] ~ dnorm(0,.0001)            # vague priors for all trial baselines
# CONTINUOUS DATA AS ARM MEANS
  # calculate pooled.sd and adjustment for SMD
  df[i] <- sum(n[i,1:na[i]]) - na[i] # denominator for pooled.var
  Pooled.var[i] <- sum(nvar[i,1:na[i]])/df[i]
  Pooled.sd[i] <- sqrt(Pooled.var[i]) # pooled sd for study i, for SMD
#  H[i] <- 1 - 3/(4*df[i]-1)          # use Hedges' g
  H[i] <- 1                         # use Cohen's d (ie no adjustment)
  for (k in 1:na[i]){
    se[i,k] <- sd[i,k]/sqrt(n[i,k])
    var[i,k] <- pow(se[i,k],2)       # calculate variances
    prec[i,k] <- 1/var[i,k]          # set precisions
    y[i,k] ~ dnorm(phi[i,k], prec[i,k]) # normal likelihood
    phi[i,k] <- theta[i,k] * (Pooled.sd[i]/H[i]) # theta is standardised mean
    theta[i,k] <- mu[i] + d[t[i,k]] - d[t[i,1]] # model for linear predictor
    dev[i,k] <- (y[i,k]-phi[i,k])*(y[i,k]-phi[i,k])*prec[i,k]
    nvar[i,k] <- (n[i,k]-1) * pow(sd[i,k],2) # for pooled.sd
   }
  # summed residual deviance contribution for this trial
  resdev[i] <- sum(dev[i,1:na[i]])
 }
totresdev <- sum(resdev[])           # Total Residual Deviance (all data)
# Priors distributions
d[1]<-0                      # treatment effect is zero for control arm
# vague prior for treatment effects
for (k in 2:nt){ d[k] ~ dnorm(0, .0001) }

for (c in 1:(nt-1)){
  for (k in (c+1):nt){
    diff[c,k] <- d[k] - d[c]         # all pairwise differences (SMD)
    lor[c,k] <- diff[c,k]*(-3.1416/sqrt(3)) # convert to lor (note sign)
  }
 }
# rank treatments
```

```
for (k in 1:nt)  {
  rk[k]  <- rank(d[],k)
  best[k]  <- equals(rk[k],1)    # Smallest is best (i.e. rank 1)
  # prob treat k is h-th best, prob[1,k]=best[k]
  for (h in 1:nt) { prob[h,k] <- equals(rk[k],h) }
 }
}                                # *** PROGRAM ENDS
```

Initial values for each chain

- changes in PTSD symptom scale scores between baseline and treatment endpoint

```
# chain 1
list(d = c(NA,0,0,0,0,    0,0,0,0,0,   0,0,0,0,0,  0,0),
mu = c(0,0,0,0,0,   0,0,0,0,0,   0,0,0,0,0,   0,0,0,0,0,   0,0,0,0,0,   0,0,0,0))
# chain 2
list(d = c(NA,-1,1,1,-0.5,    1,1,1,-1,-0.7,   1,-1,0.5,0.7,-1,  -1,0.5),
mu = c(0.5,1,0.7,1,-1,   -0.5,0,1,-0.5,-1,   0.7,1,-0.7,0.5,0.6,   -0.4,1,-1,0.5,-1,   1,-0.5,-1,-0.7,0.7,   0.6,-0.5,-
0.6,1))
```

- changes in PTSD symptom scale scores between baseline and 1-4-month follow-up

```
# chain 1
list(d = c(NA,0,0,0,0,    0,0,0,0,0,   0,0),
mu = c(0,0,0,0,0,   0,0,0,0,0))
# chain 2
list(d = c(NA,-1,1,1,-0.5,    1,1,1,-1,-0.7,  -1,0.5),
mu = c(0.5,1,0.7,1,-1,   -0.5,0,1,-0.5,-1))
```

WinBUGS code for synthesis of dichotomous remission data at treatment endpoint (random and fixed effect models) [Dias et al., 2013a]

Binomial likelihood and logit link model

RANDOM EFFECTS MODEL

```
# Binomial likelihood, logit link
# Random effect model, multi-arm trials
model{                                                  # *** PROGRAM STARTS
for(i in 1:ns){                                          # LOOP THROUGH STUDIES
  w[i,1] <- 0                                           # adjustment for multi-arm trials is zero for control arm
  delta[i,1] <- 0                                        # treatment effect is zero for control arm
  mu[i] ~ dnorm(0,.0001)                                   # vague priors for all trial baselines
  for (k in 1:na[i]) {                                   # LOOP THROUGH ARMS
    r[i,k] ~ dbin(p[i,k],n[i,k])                         # binomial likelihood
    logit(p[i,k]) <- mu[i] + delta[i,k]                    # model for linear predictor
     rhat[i,k] <- p[i,k] * n[i,k]                        # expected value of the numerators
     dev[i,k] <- 2 * (r[i,k] * (log(r[i,k])-log(rhat[i,k]))          #Deviance contribution
        + (n[i,k]-r[i,k]) * (log(n[i,k]-r[i,k]) - log(n[i,k]-rhat[i,k])))
  }
  resdev[i] <- sum(dev[i,1:na[i]])                  # summed residual deviance contribution for this trial
  for (k in 2:na[i]) {                                   # LOOP THROUGH ARMS
     delta[i,k] ~ dnorm(md[i,k],taud[i,k])                 # trial-specific LOR distributions
     md[i,k] <- d[t[i,k]] - d[t[i,1]] + sw[i,k]            # mean of LOR distributions (with multi-arm correction)
     taud[i,k] <- tau *2*(k-1)/k                           # precision of LOR distributions (with multi-arm correction)
     w[i,k] <- (delta[i,k] - d[t[i,k]] + d[t[i,1]])        # adjustment for multi-arm RCTs
```

```
    sw[i,k] <- sum(w[i,1:k-1])/(k-1)                    # cumulative adjustment for multi-arm trials
   }
}
totresdev <- sum(resdev[])                               #Total Residual Deviance
d[1]<- 0                                                 # treatment effect is zero for reference treatment
for (k in 2:nt)  { d[k] ~ dnorm(0,.0001)}                  # vague priors for treatment effects
sd ~ dunif(0,2)
tau <- pow(sd,-2)

# pairwise ORs and LORs for all possible pair-wise comparisons
for (c in 1:(nt-1)) {  for (k in (c+1):nt) {
      or[c,k] <- exp(d[k] - d[c])
      lor[c,k] <- (d[k]-d[c])
     }
}

# ranking
for (k in 1:nt) {
   rk[k] <- nt+1-rank(d[],k)                 # assumes events are "good"
   best[k] <- equals(rk[k],1)                #calculate probability that treat k is best
}
}                                                        # *** PROGRAM ENDS
```

Initial values for each chain

```
#chain 1
list(d=c(NA,0,0,0,0,0,0),   sd=1,
mu=c(0,0,0,0,0,  0,0,0,0))
#chain 2
list(d=c(NA,0.1,-1,-0.2,1,0.1,-1),  sd=0.5,
mu=c(1,-1,-2,0,0,    -2,1,0,2))
```

FIXED EFFECTS MODEL

```
# Binomial likelihood, logit link, MTC
# Fixed effect model
model{                                                   # *** PROGRAM STARTS
for(i in 1:ns){                                          # LOOP THROUGH STUDIES
  mu[i] ~ dnorm(0,.0001)                                 # vague priors for all trial baselines
  for (k in 1:na[i]) {                                   # LOOP THROUGH ARMS
    r[i,k] ~ dbin(p[i,k],n[i,k])                         # binomial likelihood
    logit(p[i,k]) <- mu[i] + d[t[i,k]]-d[t[i,1]]         # model for linear predictor
    rhat[i,k] <- p[i,k] * n[i,k]                         # expected value of the numerators
    dev[i,k] <- 2 * (r[i,k] * (log(r[i,k])-log(rhat[i,k]))     #Deviance contribution
       + (n[i,k]-r[i,k]) * (log(n[i,k]-r[i,k]) - log(n[i,k]-rhat[i,k])))
  }
  resdev[i] <- sum(dev[i,1:na[i]])               # summed residual deviance contribution for this trial
}
totresdev <- sum(resdev[])                           #Total Residual Deviance
d[1]<- 0                                             # treatment effect is zero for reference treatment
for (k in 2:nt)  { d[k] ~ dnorm(0,.0001) }           # vague priors for treatment effects

# pairwise ORs and LORs for all possible pair-wise comparisons
for (c in 1:(nt-1)) {  for (k in (c+1):nt) {
```

```
      or[c,k] <- exp(d[k] - d[c])
      lor[c,k] <- (d[k]-d[c])
     }
}

# ranking
for (k in 1:nt) {
   rk[k] <- nt+1-rank(d[],k)              # assumes events are “good”
   best[k] <- equals(rk[k],1)             #calculate probability that treat k is best
}
}                                                    # *** PROGRAM ENDS
```

Initial values for each chain

```
#chain 1
list(d=c(NA,0,0,0,0,0,0),
mu=c(0,0,0,0,0,  0,0,0,0))
#chain 2
list(d=c(NA,0.1,-1,-0.2,1,0.1,1),
mu=c(1,-1,-2,0,0,    -2,1,0,2))
```

Appendix 4. Methods of the inconsistency checks and WinBUGS code for inconsistency models

Methods of the inconsistency checks

The assumption of consistency between direct and indirect evidence was explored by comparing the fit of a model assuming consistency with a model which allowed for inconsistency (also known as an unrelated mean effects model (Dias et al., 2013b)). The latter is equivalent to having separate, unrelated meta-analyses for every pair-wise contrast while assuming a common between-study heterogeneity across all comparisons in the case of random effects models. Improvement in model fit or a substantial reduction in heterogeneity in the inconsistency model compared with the NMA consistency model indicates evidence of inconsistency. Inconsistency can only be assessed when there are closed loops of direct evidence on 3 treatments that are informed by at least 3 distinct trials (van Valkenhoef, Dias, Ades, & Welton, 2016). Deviance plots, in which the posterior mean deviance of the individual data points in the inconsistency model were plotted against their posterior mean deviance in the consistency model, were inspected in order to identify studies which may have contributed to loops of evidence where inconsistency may be present. Further checks were conducted using a node-split approach implemented in R using the gemtc package in R. This method permits the direct and indirect evidence contributing to an estimate of a relative effect to be split and compared (Dias et al., 2013b; van Valkenhoef & Kuiper, 2016).

WinBUGS code for inconsistency random effects models on changes in PTSD symptom scores [Dias et al., 2013b]

Normal likelihood, identity link: SMD with arm-based means

```
# Random effects inconsistency model
model{                          # *** PROGRAM STARTS
for(i in 1:ns){                 #   LOOP THROUGH STUDIES
  delta[i,1] <- 0               # treatment effect is zero for control arm
  mu[i] ~ dnorm(0,.0001)            # vague priors for all trial baselines
 }
# CONTINUOUS DATA AS ARM MEANS
for(i in 1:ns){
  # calculate pooled.sd and adjustment for SMD
  df[i] <- sum(n[i,1:na[i]]) - na[i] # denominator for pooled.var
  Pooled.var[i] <- sum(nvar[i,1:na[i]])/df[i]
  Pooled.sd[i] <- sqrt(Pooled.var[i]) # pooled sd for study i, for SMD
#  H[i] <- 1 - 3/(4*df[i]-1)         # use Hedges' g
  H[i] <- 1                       # use Cohen's d (ie no adjustment)
  for (k in 1:na[i]){
    se[i,k] <- sd[i,k]/sqrt(n[i,k])
    var[i,k] <- pow(se[i,k],2)       # calcultate variances
    prec[i,k] <- 1/var[i,k]          # set precisions
    y[i,k] ~ dnorm(phi[i,k], prec[i,k]) # normal likelihood
    phi[i,k] <- theta[i,k] * (Pooled.sd[i]/H[i]) # theta is standardised mean
    theta[i,k] <- mu[i] + delta[i,k] # model for linear predictor, delta is SMD
    dev[i,k] <- (y[i,k]-phi[i,k])*(y[i,k]-phi[i,k])*prec[i,k]
    nvar[i,k] <- (n[i,k]-1) * pow(sd[i,k],2) # for pooled.sd
   }
  # summed residual deviance contribution for this trial
  resdev[i] <- sum(dev[i,1:na[i]])
 }
# RANDOM EFFECTS MODEL
for(i in 1:ns){                 # LOOP THROUGH ALL STUDIES
  for (k in 2:na[i]){           # LOOP THROUGH ARMS
    # trial-specific RE distributions
    delta[i,k] ~ dnorm(d[t[i,1], t[i,k]], tau)
    }
 }
#
totresdev <- sum(resdev[])          # Total Residual Deviance (all data)
# Priors distributions
sdev ~ dunif(0,5)               # vague prior for between-trial SD
tau <- pow(sdev,-2)                # between-trial precision
# vague prior for treatment effects
for (c in 1:(nt-1)){
  d[c,c]<-0
  for (k in (c+1):nt){ d[c,k] ~ dnorm(0,.001) }
}
}                               # *** PROGRAM ENDS
```

Appendix 5. Methods of the threshold analysis

A threshold analysis (Caldwell 2016, Phillippo, Dias, Ades, Didelez & Welton, 2018; Phillippo 2019) was conducted to assess the robustness of recommending a treatment based on the results of the NMA. Results assisted in answering questions in the form of*, is the recommendation of X based on the NMA results sensitive to plausible bias or random error in the evidence? If so, which new treatment recommendation should be made*?

The threshold analysis assesses the robustness of a treatment recommendation based on a decision rule; in this analysis, noting the small evidence base and high uncertainty in the results, the decision rule was to recommend the most efficacious treatment among those that had been studied on at least 50 patients. The threshold analysis was run at study-level, to see how much the estimated relative effect(s) in each study would have to change for the treatment recommendation to change, and at a contrast-level, to see how much a pooled relative effect estimate informed only by direct evidence would have to change for the treatment recommendation to change.

Reasons for potential changes in the point estimates are assessed in terms of bias and sampling variation, and this can be done through inspection of invariant intervals, which encompass the thresholds of no change on either side of a point estimate. To assess the plausibility of changes due to bias potentially altering a treatment recommendation, one should consider whether the characteristics of the study/ies informing a relative effect could bias the treatment effect estimate enough to fall outside the invariant threshold. As a starting point, one could consider the plausible direction of bias. For example, for active vs. inactive treatment comparisons, is it plausible for an estimate to be biased in favour of the active treatment? In the case of active vs. active treatment comparisons, clinical judgement and expertise should be exercised to consider the plausible direction of bias (e.g., old vs. new treatment). In terms of sampling variability, if either of the limits of the confidence interval

(CI) or credible interval (CrI) accompanying a point estimate fall outside the invariant interval, then this suggests the treatment recommendation is sensitive to imprecision.

For each threshold analysis, the point estimates of the relative effects at study- and contrast-level, their 95% confidence or credible intervals, and invariant intervals are presented. If the true treatment effect is outside the invariant interval, the treatments that would be subsequently recommended are listed on either side of the invariant intervals. In the forest plots, the invariant intervals are illustrated as shaded areas of blue or red, the latter colour indicating that the threshold is within the 95% CI or CrI of the estimated relative effect. Similarly, the invariant thresholds and alternative treatment recommendations are presented in table format.

Appendix 6: Characteristics of studies included in the network meta-analysis, and full references

Trauma-focused CBT							
	Study ID	**Intervention**	**PTSD details**	**Trauma type**	**N**	**Demographics**	**Reference**
1	Ahrens 2002	Trauma-focused CBT: Cohen TF-CBT/Cognitive processing therapy	PTSD diagnosis according to ICD/DSM criteria (including self-report of diagnosis)	Mixed - Adolescent offenders incarcerated in a youth facility. Interview data indicated that about one-third of the youths had experienced multiple traumas (n = 11, 29%), and over half had documented trauma histories (n = 26 or 68%, as documented in their charts from collateral sources ranging from Social Rehabilitation Service investigations, child protective services reports, hospital reports, etc.)	38	Age range (mean): 15-18 (16.4) Gender (% female): 0 BME (% non-white): 40 Country: US Coexisting conditions: 52% stated they had experienced a head injury that led to loss of consciousness; 40% stated that they had been diagnosed with ADD or ADHD in the past Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): 29% had experienced multiple traumas; 68% had documented trauma histories (in their charts from collateral sources ranging from Social Rehabilitation Service investigations, child protective services reports, hospital reports, etc.). Single or multiple incident index trauma: Multiple	Ahrens J and Rexford L (2002) Cognitive processing therapy for incarcerated adolescents with PTSD. Journal of Aggression. Maltreatment & Trauma 6(1), 201-16
2	Al-Hadethe 2015	Trauma-focused CBT: Narrative exposure therapy for traumatized children and adolescents (KidNET)	PTSD diagnosis according to ICD/DSM criteria (including self-report of diagnosis)	Unclear (Not reported in details)	60	Age range (mean): 16-19 (NR) Gender (% female): 0 BME (% non-white): Unclear Country: Iraq Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Unclear	Al-Hadethe A, Hunt N, Al-Qaysi G and Thomas S (2015) Randomised Controlled Study Comparing Two Psychological Therapies for Posttraumatic Stress Disorder (PTSD): Emotional Freedom Techniques (EFT) Vs. Narrative Exposure Therapy (NET). J Trauma Stress Disor Treat 4, 2
3	Auslander 2017	Trauma-focused CBT: CBT group	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Mixed (Girls involved in child welfare who had histories of abuse and neglect. Girls with histories of sexual abuse were included)	34	Age range (mean): 12-18 (14.6) Gender (% female): 100 BME (% non-white): 78 Country: US Coexisting conditions: NR	Auslander W, McGinnis H, Tlapek S, et al. (2017) Adaptation and implementation of a trauma-focused cognitive behavioral intervention for girls in child welfare. American Journal of Orthopsychiatry 87(3), 206

						Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	
4	Berger 2009	Trauma-focused CBT: CBT group	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Natural disasters (such as severe floods, earthquakes or tsunamis) - Tsunami (Sri Lanka, December 26 2004) - 84% present and physically hurt during the tsunami; 12% present during the tsunami, but were not hurt; 4% not personally exposed to the tsunami. 89.2% had been exposed to a major traumatic incident not related to the tsunami.	166	Age range (mean): 9-14 (NR) Gender (% female): 48 BME (% non-white): NR Country: Sri Lanka Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): 89% had been exposed to a major traumatic incident not related to the tsunami Single or multiple incident index trauma: Single	Berger R and Gelkopf M (2009) School-based intervention for the treatment of tsunami-related distress in children: a quasi-randomized controlled trial. Psychotherapy and psychosomatics 78(6), 364-71
5	Chen 2014	Trauma-focused CBT: CBT group	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Natural disasters (such as severe floods, earthquakes or tsunamis): Adolescents who had lost at least 1 parent in the Sichuan, China, Earthquake	40	Age range (mean): NR (14.5) Gender (% female): 68 BME (% non-white): NR Country: China Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Single	Chen Y, Shen WW, Gao K, et al. (2014) Effectiveness RCT of a CBT intervention for youths who lost parents in the Sichuan, China, earthquake. Psychiatric Services 65(2), 259-62
6	Cohen 1998/2005a	Trauma-focused CBT: Cohen TF-CBT/Cognitive processing therapy	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Childhood sexual abuse - Contact sexual abuse perpetrated by someone at least 5 years older than the participants (36% single episode, 21% 2-5 abuse occasions, 8% 6-10 times, 33% were	82	Age range (mean): 7-15 (11.1) Gender (% female): 69 BME (% non-white): 41 Country: US Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR	Cohen JA and Mannarino AP (1998) Interventions for sexually abused children: Initial treatment outcome findings. Child Maltreatment 3(1), 17-26 Cohen JA, Mannarino AP and Knudsen K (2005) Treating sexually abused children: 1 year follow-up of a

				abused more than 10 times; 2% unknown)		Single or multiple incident index trauma: Multiple	randomized controlled trial. Child Abuse & Neglect 29(2), 135-45
7	Cohen 2011/2005b	Trauma-focused CBT: Cohen TF-CBT/Cognitive processing therapy	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Domestic violence (Children exposed to intimate partner violence)	124	Age range (mean): 7-14 (9.6) Gender (% female): 51 BME (% non-white): 44 Country: US Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Mean number of trauma types: 3.7. Past trauma experiences: Car accident (15%); Other accident (38%); Fire (12%); Disaster (9%); Witness to violent crime (23%); Victim of violent crime (18%); Physical abuse (36%); Sexual abuse (8%); Other (44%) Single or multiple incident index trauma: Multiple	Cohen JA, Mannarino AP and Iyengar S (2011) Community treatment of posttraumatic stress disorder for children exposed to intimate partner violence: a randomized controlled trial. Arch Pediatr Adolesc Med 165(1), 16-21 [DOI: 10.1001/archpediatrics.2010.247] Cohen JA (2005) Treating PTSD in Children Exposed to Domestic Violence [NCT00183326] Available from: https://www.clinicaltrials.gov/ct2/show/NCT00183326 [accessed 15.05.2018]
8	Deblinger 1996/1999	Trauma-focused CBT: Exposure therapy/prolonged exposure (PE)	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Childhood sexual abuse (Contact sexual abuse. 18% experienced 1 sexually abusive incident, 47% 2-10 episodes, 22% 11-50 episodes, and 13% >50 abusive incidents)	100	Age range (mean): 7-13 (9.8) Gender (% female): 83 BME (% non-white): 28 Country: US Coexisting conditions: 29% major depression; 30% oppositional defiant disorder; 20% ADHD; 11% separation anxiety; 6% conduct disorder; 5% specific phobia; 1% OCD Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	Deblinger E, Lippman J and Steer R (1996) Sexually abused children suffering posttraumatic stress symptoms: initial treatment outcome findings. Child Maltreatment 1, 310-321 Deblinger E, Steer RA and Lippmann J (1999) Two-year follow-up study of cognitive behavioral therapy for sexually abused children suffering post-traumatic stress symptoms. Child Abuse & Neglect 23, 1371-1378
9	de Roos 2017	Trauma-focused CBT: Narrative exposure therapy (NET)	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Mixed - Physical abuse/assault (23%); Sexual abuse (26%); Accident/injury of a loved one (19%); Traumatic loss (18%); Disaster/other (13%)	103	Age range (mean): 8-18 (13.1) Gender (% female): 57 BME (% non-white): NR Country: Netherlands Coexisting conditions: 54% had one or more co-morbid disorder (assessed with ADIS-C)	de Roos C, van der Oord S, Zijlstra B, et al. (2017) Comparison of eye movement desensitization and reprocessing therapy, cognitive behavioral writing therapy, and wait-list in pediatric posttraumatic stress disorder following single-incident trauma: a multicenter randomized clinical trial. Journal of Child

						Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Single	Psychology and Psychiatry 58(11), 1219-1228
10	Diehle 2015/ Lindauer 2009	Trauma-focused CBT: Cohen TF-CBT/Cognitive processing therapy	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Mixed - 63% Single-event index trauma. Single event traumas: accidents (23 %), sexual assault (17 %); threat (with weapon) (13 %); kidnapping (10 %); serious illness (7 %); or other (30 %). Multiple-event traumas: exposure to domestic violence (44 %) and sexual assault (39 %) and other (17 %)	48	Age range (mean): 8-18 (12.9) Gender (% female): 62 BME (% non-white): NR Country: Netherlands Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Mean types of prior trauma 6.5 Single or multiple incident index trauma: Single	Diehle J, Opmeer BC, Boer F, et al. (2015) Trauma-focused cognitive behavioral therapy or eye movement desensitization and reprocessing: What works in children with posttraumatic stress symptoms? A randomized controlled trial. European child & adolescent psychiatry 24(2), 227-36 Lindauer RJL (2009) Effects of Trauma Focused Cognitive Behavioural Therapy (TF-CBT) and Eye Movement Desensitization and Reprocessing (EMDR) for children with Posttraumatic Stress Symptoms after Emergency Care [NTR1814]. Available from: http://www.trialregister.nl/trialreg/admin/rctview.asp?TC=1814 [accessed 15.05.18]
11	Ertl 2011/ Neuner 2007	Trauma-focused CBT: Narrative exposure therapy for traumatized children and adolescents (KidNET)	PTSD diagnosis according to ICD/DSM criteria (including self-report of diagnosis)	Child soldiers - The duration of abduction ranged from several hours to 7.42 years, with a median of 2.47 months. Other than abduction, the most common traumatic event types reported by 81 or more of the 85 participants were exposure to a war zone, witnessing someone being killed, witnessing abduction, witnessing physical assault, and assaults	85	Age range (mean): 12-25 (18.4) Gender (% female): 55 BME (% non-white): NR Country: Uganda Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	Ertl V, Pfeiffer A, Schauer E, et al. (2011) Community-implemented trauma therapy for former child soldiers in Northern Uganda: a randomized controlled trial. JAMA 306(5), 503-12 [DOI: 10.1001/jama.2011.1060] Neuner F, Elbert T and Ertl V (2007) A Randomized Controlled Clinical Trial (RCCT) to Test the Effectiveness of Narrative Exposure Therapy (NET) Versus an Attention Control Condition (AC) in Reducing Trauma Related Symptoms in Formerly Abducted Children and Former Child Soldiers Suffering From Posttraumatic Stress

				with weapons. The likelihood of an event being indicated as the worst if present was highest for being forced to kill (55%), followed by witnessed killing (31%) and seeing someone being mutilated or seeing dead bodies (13%)			Disorder (PTSD) [NCT00552006]. Available from: https://clinicaltrials.gov/show/NCT00552006 [accessed 15.05.18]
12	Foa 2013a/ McLean 2015a/ Capaldi 2016/ Kaczkurkin 2016/ Zandberg 2016	Trauma-focused CBT: Exposure therapy/prolonged exposure (PE)	PTSD diagnosis according to ICD/DSM criteria (including self-report of diagnosis)	Childhood sexual abuse	61	Age range (mean): 13-18 (15.3) Gender (% female): 100 BME (% non-white): 82 Country: US Coexisting conditions: 57% had ≥1 comorbid psychiatric diagnoses Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	Foa EB, McLean CP, Capaldi S and Rosenfield D (2013) Prolonged exposure vs supportive counseling for sexual abuse–related PTSD in adolescent girls: A randomized clinical trial. JAMA 310(24), 2650-7 McLean CP, Yeh R, Rosenfield D and Foa EB (2015) Changes in negative cognitions mediate PTSD symptom reductions during client-centered therapy and prolonged exposure for adolescents. Behaviour research and therapy 68, 64-9 Capaldi S, Asnaani A, Zandberg LJ, et al. (2016) Therapeutic Alliance during Prolonged Exposure Versus Client-Centered Therapy for Adolescent Posttraumatic Stress Disorder. Journal of clinical psychology 72(10), 1026-36 Kaczkurkin AN, Asnaani A, Zhong J andFoa EB (2016) The moderating effect of state anger on treatment outcome in female adolescents with PTSD. Journal of Traumatic Stress 29(4), 325-31 Zandberg L, Kaczkurkin AN, McLean CP, et al. (2016) Treatment of Adolescent PTSD: The Impact of

							Prolonged Exposure versus Client-Centered Therapy on Co-Occurring Emotional and Behavioral Problems. Journal of Traumatic Stress 29(6), 507-14
13	Ford 2012	Trauma-focused CBT: Cohen TF-CBT/Cognitive processing therapy	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Mixed - Trauma exposure was extensive, including 97% to a traumatic accident, disaster, or illness; 88% to physical assault or abuse; 81% to traumatic community violence; 78% to traumatic family violence; 44% to sexual assault or abuse; 41% to traumatic emotional abuse; and 29% to traumatic bullying	59	Age range (mean): 13-17 (14.7) Gender (% female): 100 BME (% non-white): 75 Country: US Coexisting conditions: 34% major depressive disorder, 26% oppositional defiant disorder, 23% conduct disorder, and 13% attention deficit hyperactivity disorder Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	Ford JD, Steinberg KL, Hawke J, et al. Randomized trial comparison of emotion regulation and relational psychotherapies for PTSD with girls involved in delinquency. Journal of Clinical Child & Adolescent Psychology 41(1), 27-37
14	Gilboa-Schechtman 2004/2010	Trauma-focused CBT: Exposure therapy/prolonged exposure (PE)	PTSD diagnosis according to ICD/DSM criteria (including self-report of diagnosis)	Mixed - Terrrorist attack (13%); motor vehicle accident (42%); non-sexual assault (0.5%); sexual assault (21%); Other (18%)	38	Age range (mean): 12-18 (14.1) Gender (% female): 63 BME (% non-white): NR Country: Israel Coexisting conditions: 81% ≥ 1 comorbid disorder: 50% had one additional internalizing disorder, 13% had an additional externalizing disorder, and 16% had internalizing and externalizing disorders. Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Single	Gilboa-Schechtman E and Foa EB (2004) Treating Terror-Related PTSD in Adolescents [NCT00183690]. Available from: https://www.clinicaltrials.gov/ct2/show/NCT00183690 [accessed 15.05.18] Gilboa-Schechtman E, Foa EB, Shafran N, et al. (2010) Prolonged exposure versus dynamic therapy for adolescent PTSD: a pilot randomized controlled trial. J Am Acad Child Adolesc Psychiatry 49(10), 1034-42. [DOI: 10.1016/j.jaac.2010.07.014]
15	Goldbeck 2016/Sachser 2016	Trauma-focused CBT: Cohen TF-CBT/Cognitiv	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Mixed - Interpersonal trauma (77%); accidental (23%). The most frequently reported traumatic index events were	159	Age range (mean): 7-17 (13) Gender (% female): 72 BME (% non-white): NR Country: Germany Coexisting conditions: 34% >1 comorbid DSM-IV disorder: Depressive disorders	Goldbeck L, Muche R, Sachser C, et al. (2016) Effectiveness of Trauma-Focused Cognitive Behavioral Therapy for Children and Adolescents: A Randomized Controlled Trial in Eight German Mental Health Clinics.

		e processing therapy		experiences of sexual abuse, sexual assaults, physical violence, or witnessing domestic violence		(20%); Anxiety disorders (10%); ADHD (6%); Disruptive behaviour disorders (4%) Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Number of traumatic events: 6.35 (3.70) Single or multiple incident index trauma: Multiple	Psychotherapy and Psychosomatics 85, 159-170 Sachser C, Keller F, Goldbeck L (2016) Complex PTSD as proposed for ICD-11: validation of a new disorder in children and adolescents and their response to Trauma-Focused Cognitive Behavioral Therapy. Journal of Child Psychology and Psychiatry
16	Jaycox 2009	Trauma-focused CBT: CBT group	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Exposure to non-sexual violence (Experience of severe violence in the prior year)	78	Age range (mean): NR (11.5) Gender (% female): 51 BME (% non-white): 96 Country: US Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Single	Jaycox LH, Langley AK, Stein BD, et al. (2009) Support for students exposed to trauma: A pilot study. School mental health 1(2), 49-60
17	Jensen 2014	Trauma-focused CBT: Cohen TF-CBT/Cognitive processing therapy	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Mixed - 59% violence or threats of violence outside the family context, 45.5% physical abuse within the family, 42.9% witnessing violence within the family, 27.6% witnessing violence outside the family, 27.6% sexual abuse outside the family, 20.5% severe accident, 16% extremely painful or frightening medical procedures, 10.9% robbery or assault, 7.7% sexual abuse within the family, 5.8% natural disaster, 5.1%	156	Age range (mean): 10-18 (15.1) Gender (% female): 80 BME (% non-white): NR Country: Norway Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Mean 3.6 different types of traumas (SD=1.8, range=1–10) Single or multiple incident index trauma: Multiple	Jensen TK, Holt T, Ormhaug SM, et al. (2014) A randomized effectiveness study comparing trauma-focused cognitive behavioral therapy with therapy as usual for youth. J Clin Child Adolesc Psychol 43(3), 356-69

				kidnapping, and 30.8% other frightening or overwhelming experiences			
18	King 2000	Trauma-focused CBT: Exposure therapy/prolonged exposure (PE)	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Childhood sexual abuse (In the majority of cases, the offenders were male adults known to the child such as the biological father, stepfather, family friend, neighbour, or teacher. Nearly all of the children had experienced multiple episodes of sexual abuse involving penetration offenses and other forms of sexual abuse)	36	Age range (mean): 5-17 (11.4) Gender (% female): 69 BME (% non-white): NR Country: Australia Coexisting conditions: For 69% who met DSM-IV criteria for full PTSD (N=25): 16% with full PTSD had no other Axis I diagnoses, 36% had one comorbid diagnosis, 40% had two comorbid diagnoses, and 8% had three comorbid diagnoses. The comorbid diagnoses included dysthymia (28%), oppositional defiant disorder (28%), separation anxiety disorder (24%), generalized anxiety disorder (20%), conduct disorder (12%), major depression (8%), attention-deficit/hyperactivity disorder (8%), and specific phobia (8%). Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Mean number of abusive episodes: 7.6 (SD=3.8; range 1-33) Single or multiple incident index trauma: Multiple	King NJ, Tonge BJ, Mullen P, et al. (2000) Treating sexually abused children with posttraumatic stress symptoms: A randomized clinical trial. Journal of the American Academy of Child and Adolescent Psychiatry 39(11), 1347-1355
19	Langley 2015	Trauma-focused CBT: CBT group	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Mixed (Types of trauma commonly reported included: Witnessed/ know of family member arrested (31%); Witnessed physical violence (26%); Victim of physical violence (25%); Witnessed or heard about neighbourhood or school violence (25%); Separated from	74	Age range (mean): 6-11 (7.7) Gender (% female): 50 BME (% non-white): 73 Country: US Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	Langley AK, Gonzalez A, Sugar CA, et al. (2015) Bounce back: Effectiveness of an elementary school-based intervention for multicultural children exposed to traumatic events. Journal of consulting and clinical psychology 83(5), 853

				parent(s) (e.g., deportation, deployment, hospitalization) (22%); Witnessed a serious accident (18%); Threatened by someone (violence) (18%); Someone close to child very sick or hurt badly (16%); Serious Illness/hospitalization of loved one (15%))			
20	Meiser-Stedman 2010/2017	Trauma-focused CBT: Cognitive therapy	PTSD diagnosis according to ICD/DSM criteria (including self-report of diagnosis)	Motor Vehicle Collisions: Motor vehicle collision (52%); Assault (24%); Medical emergency (3%); House fire (3%); Other (17%)	29	Age range (mean): 8-17 (13.3) Gender (% female): 72 BME (% non-white): 14 Country: UK Coexisting conditions: 86% comorbid anxiety disorder; 55% comorbid affective disorder; 52% comorbid behavioural disorder Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): 38% had experienced previous trauma Single or multiple incident index trauma: Single	Meiser-Stedman R (2010) Cognitive behavioural therapy (CBT) as an early intervention for post-traumatic stress disorder (PTSD) in youth: preliminary efficacy and mechanisms of action [ISRCTN38352118]. Available from: http://www.isrctn.com/ISRCTN38352118 [accessed 30.04.17] Meiser-Stedman R, Smith P, McKinnon A, et al. (2017) Cognitive therapy as an early treatment for post-traumatic stress disorder in children and adolescents: a randomized controlled trial addressing preliminary efficacy and mechanisms of action. Journal of Child Psychology and Psychiatry 58(5), 623-633
21	Pityaratstian 2015	Trauma-focused CBT: Brief group CBT	PTSD diagnosis according to ICD/DSM criteria (including self-report of diagnosis)	Natural disasters (such as severe floods, earthquakes or tsunamis): Tsunami in Thailand - 50% saw tsunami with own eyes; 36% lost family member; 64% lost friend; 25% lost home; 28% sustained injury	36	Age range (mean): 10-15 (12.3) Gender (% female): 72 BME (% non-white): NR Country: Thailand Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Single	Pityaratstian N, Piyasil V, Ketumarn P, et al. (2015) Randomized controlled trial of group cognitive behavioural therapy for post-traumatic stress disorder in children and adolescents exposed to tsunami in Thailand. Behavioural and cognitive psychotherapy 43(05), 549-61

22	Ruf 2010	Trauma-focused CBT: Narrative exposure therapy for traumatized children and adolescents (KidNET)	PTSD diagnosis according to ICD/DSM criteria (including self-report of diagnosis)	Witnessing war as a civilian - Violent attacks against their parents or other family members at home (73%) were the most common trauma type reported. These assaults were mainly conducted by soldiers or other organized militant groups (58%). Other traumatic experiences included witnessing physical attacks against non-family members outside of the house (50%), accidents (46%), violence against the child at home (35%, most of these were by militant forces, 27%), assaults against the child outside of the home (35%), living in a place of war (35%), seeing dead bodies (35%), painful or scary medical treatments (27%), hearing about the violent death of a beloved person (27%), earthquakes (19%), other natural disasters (12%), and sexual abuse (8%)	26	Age range (mean): 7-16 (11.4) Gender (% female): 46 BME (% non-white): NR Country: Germany Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Mean number of traumatic event types: 4.4 Single or multiple incident index trauma: Multiple	Ruf M, Schauer M, Neuner F, Catani C, Schauer E, Elbert T. Narrative exposure therapy for 7-to 16-year-olds: A randomized controlled trial with traumatized refugee children. Journal of traumatic stress. 2010 Aug 1; 23(4):437-45
23	Shein-Szydlo 2016	Trauma-focused CBT: Cohen TF-CBT/Cognitiv	PTSD diagnosis according to ICD/DSM criteria (including self-	Mixed (Street Children in Mexico City - 56% were victims of sexual abuse,47% of physical abuse, 18% of witnessing a violent	100	Age range (mean): 12-18 (14.9) Gender (% female): 64 BME (% non-white): NR Country: Mexico	Shein-Szydlo J, Sukhodolsky DG, Kon DS, et al. (2016) A Randomized Controlled Study of Cognitive–Behavioral Therapy for Posttraumatic Stress in Street Children in Mexico

		e processing therapy	report of diagnosis)	event, and 17% of death of a family member)		Coexisting conditions: 14% anxiety disorder; 28% depression Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): 35% reported more than one type of traumatic event Single or multiple incident index trauma: Multiple	City. Journal of Traumatic Stress 29(5), 406-14
24	Smith 2007	Trauma-focused CBT: Cognitive therapy	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Motor Vehicle Collisions: Motor vehicle accident (50%); Assault (38%); Witnessed violence (13%)	24	Age range (mean): NR (13.9) Gender (% female):50 BME (% non-white): 54 Country: UK Coexisting conditions: 79% had any comorbidity Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): 29% prior exposure to trauma Single or multiple incident index trauma: Single	Smith P, Yule W, Perrin S, et al. (2007) Cognitive-behavioral therapy for PTSD in children and adolescents: a preliminary randomized controlled trial. Journal of the American Academy of Child & Adolescent Psychiatry 46(8), 1051-61
25	Stein 2003a/ Kataoka 2011	Trauma-focused CBT: CBT group	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Exposure to non-sexual violence (76% any violence involving a gun or knife. Number of violent events experienced: 2.8; Number of violent events witnessed: 5.95)	126	Age range (mean): NR (11) Gender (% female): 56 BME (% non-white): NR Country: US Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	Stein BD, Jaycox LH, Kataoka SH, et al. (2003) A mental health intervention for schoolchildren exposed to violence - A randomized controlled trial. JAMA 290(5), 603-611 Kataoka S, Jaycox LH, Wong M, et al. (2011) Effects on school outcomes in low-income minority youth: Preliminary findings from a community-partnered study of a school trauma intervention. Ethnicity & disease 21(301):S1

ADHD-Attention deficit hyperactivity disorder; BME-Black and minority ethnic; CBT-Cognitive Behavioural Therapy; DSM-Diagnostic and Statistical Manual of Mental Disorders; ICD-International Classification of Disease; NET-Narrative exposure therapy; NR-Not recorded; PTSD-Post-traumatic stress disorder; PTSS-Post-traumatic stress syndrome.

EMDR							
	Study ID	**Intervention**	**PTSD details**	**Trauma type**	**N**	**Demographics**	**Reference**
26	Ahmad 2007/2008	EMDR	PTSD diagnosis according to ICD/DSM criteria	Mixed - Maltreatment (36.4%), sexual abuse (21.2%), road accident (15.2%), witnessing	33	Age range (mean): 6-16 (9.9) Gender (% female): 61 BME (% non-white): NR	Ahmad A, Larsson B and Sundelin-Wahlsten V (2007) EMDR treatment for children with PTSD: Results of a

			(including self-report of diagnosis)	unnatural death (12.1%) and other types of trauma (6.1%)		Country: Sweden Coexisting conditions: 79% fulfilled DSM-IV criteria for at least one additional diagnosis: Depression (46%); ADHD (30%); ODD (21%); separation anxiety (18%); conduct disorder (12%), overanxious disorder and autism spectrum (3%) Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	randomized controlled trial. Nordic journal of psychiatry 61(5), 349-54 Ahmad A and Sundelin-Wahlsten V (2002) Applying EMDR on children with PTSD. European Child & Adolescent Psychiatry 17(3), 127-32
	de Roos 2017	EMDR	**SEE OTHER DETAILS OF THE STUDY UNDER TRAUMA-FOCUSED CBT**				
27	Soberman 2002	EMDR	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Unclear (Not reported in details)	29	Age range (mean): 10-16 (NR) Gender (% female): 0 BME (% non-white): NR Country: US Coexisting conditions: Other primary diagnoses included: Conduct Disorder (59%); Attention Deficit Hyperactive Disorder (17%), Learning Disability (14%), Substance Abuse (13%), and Oppositional/Defiant Disorder (3%) Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Unclear	Soberman GB, Greenwald R and Rule DL (2002) A controlled study of eye movement desensitization and reprocessing (EMDR) for boys with conduct problem. Journal of aggression, maltreatment & trauma 6(1), 217-36

BME-Black and minority ethnic; DSM-Diagnostic and statistical manual of mental disorders; EMDR-Eye movement desensitisation and reprocessing; NR-Not recorded; PTSD-Post-traumatic stress disorder

Supportive counselling							
	Study ID	**Intervention**	**PTSD details**	**Trauma type**	**N**	**Demographics**	**Reference**
	Chen 2014	Supportive counselling	**SEE OTHER DETAILS OF THE STUDY UNDER TRAUMA-FOCUSED CBT**				
	Ertl 2011/Neuner 2007	Supportive counselling	**SEE OTHER DETAILS OF THE STUDY UNDER TRAUMA-FOCUSED CBT**				

CBT-Cognitive Behavioural Therapy; PTSD-Post-traumatic stress disorder

Parent training / family interventions							
	Study ID	**Intervention**	**PTSD details**	**Trauma type**	**N**	**Demographics**	**Reference**
	Deblinger 1996/1999	Parent training: Cognitive-behavioural therapy with parent-only	**SEE OTHER DETAILS OF THE STUDY UNDER TRAUMA-FOCUSED CBT**				
	King 2000	Trauma-focused CBT + parent training	**SEE OTHER DETAILS OF THE STUDY UNDER TRAUMA-FOCUSED CBT**				
28	Kazak 2004	Family therapy: Family therapy group	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Diagnosis of life-threatening condition - Diagnoses included leukaemia (25%), solid tumours (22%), lymphoma (21%), bone tumours (8%), and other (24%)	150	Age range (mean): 10-19 (14.6) Gender (% female): 52 BME (% non-white): 12 Country: US Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Single	Kazak AE, Alderfer MA, Streisand R, et al. (2004) Treatment of posttraumatic stress symptoms in adolescent survivors of childhood cancer and their families: A randomized clinical trial. Journal of Family Psychology 18(3), 493-504

BME-Black and minority ethnic; CBT-Cognitive Behavioural Therapy; NR-Not recorded; PE-Prolonged exposure; PTSD-Post-traumatic stress disorder

Combined somatic and cognitive therapies							
	Study ID	**Intervention**	**PTSD details**	**Trauma type**	**N**	**Demographics**	**Reference**
	Al-Hadethe 2015	Combined somatic and cognitive therapies: Emotional freedom technique (EFT)	**SEE OTHER DETAILS OF THE STUDY UNDER TRAUMA-FOCUSED CBT**				

EFT-Emotional freedom technique; PTSD-Post-traumatic stress disorder

Play therapy							
	Study ID	**Intervention**	**PTSD details**	**Trauma type**	**N**	**Demographics**	**Reference**
29	Deeba 2015	Play therapy: Play therapy	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Mixed - Most of the children (90%) had lost one or both parents following natural disasters or accidents or due to domestic violence and witnessed direct or indirect violence against a parent (mostly towards the mother)	131	Age range (mean): 5-9 (7.2) Gender (% female): 37 BME (% non-white): NR Country: Bangladesh Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	Deeba F and Rapee RM (2015) Evaluation of an innovative intervention for traumatized children from a low resourced country. Mental Health & Prevention 3(4), 157-69
30	Schottelkorb 2012	Play therapy: Play therapy	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Witnessing war as a civilian (Childhood Refugee Trauma)	31	Age range (mean): 6-13 (9.2) Gender (% female): 45 BME (% non-white): 67 Country: US Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	Schottelkorb AA, Doumas DM and Garcia R (2012) Treatment for childhood refugee trauma: A randomized, controlled trial. International Journal of Play Therapy 21(2), 57

BME-Black and minority ethnic; NR-Not recorded; PTSD-Post-traumatic stress disorder

Child-Parent Psychotherapy							
	Study ID	**Intervention**	**PTSD details**	**Trauma type**	**N**	**Demographics**	**Reference**
31	Lieberman 2005/2006/ Ghosh Ippen 2011	Child-Parent Psychotherapy using play	Clinically important PTSD symptoms (scoring above a threshold on validated scale)	Domestic violence: Children exposed to marital violence	75	Age range (mean): 3-5 (4.1) Gender (% female): 52 BME (% non-white): 91 Country: US Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): Multiple stressors, including exposure to community violence (46.7%), physical abuse (18.7%), sexual abuse (14.7%), or both (4%). During the study, 33.3% of the mothers reported new traumas that affected the dyad and	Lieberman AF, Van Horn P and Ippen CG (2005) Toward evidence-based treatment: child-parent psychotherapy with preschoolers exposed to marital violence. J Am Acad Child Adolesc Psychiatry 44(12), 1241-8 Lieberman AF, Ippen CG and Van Horn P (2006) Child-parent psychotherapy: 6-month follow-up of a randomized controlled trial. Journal of the American Academy of Child & Adolescent Psychiatry 45(8), 913-8

						17.3% of the mothers reported either returning to their violent partners or entering a new violent relationship Single or multiple incident index trauma: Multiple	Ghosh I, Harris WW, Van Horn and Lieberman AF (2011) Traumatic and stressful events in early childhood: can treatment help those at highest risk? Child abuse & neglect 35(7), 504-513

BME-Black and minority ethnic; NR-Not recorded; PTSD-Post-traumatic stress disorder

Meditation							
	Study ID	**Intervention**	**PTSD details**	**Trauma type**	**N**	**Demographics**	**Reference**
32	Gordon 2006/2008	Meditation: Mind-body skills group	PTSD diagnosis according to ICD/DSM criteria (including self-report of diagnosis)	Witnessing war as a civilian (Kosovar adolescents)	82	Age range (mean): 14-18 (16.3) Gender (% female): 76 BME (% non-white): NR Country: Kosovo Coexisting conditions: NR Lifetime experience of trauma (mean number of prior traumas/% with previous trauma): NR Single or multiple incident index trauma: Multiple	Gordon JS (2006) Treatment of Posttraumatic Stress Disorder in Kosovar High School Students Using Mind-Body Skills Groups: A Randomized Controlled Trial [NCT00136357]. Available from: https://clinicaltrials.gov/ct2/show/study/NCT00136357 [accessed 29.04.17]

BME-Black and minority ethnic; DSM-Diagnostic and Statistical Manual of Mental Disorders; ICD-International Classification of Disease; NR-Not reported; PTSD-Post-traumatic stress disorder.

Appendix 7: List of excluded studies with reasons for exclusion

Excluded from the systematic review of psychological, psychosocial and other non-pharmacological treatments for PTSD in children and young people

Trauma-focused CBT			
	Study ID	**Reference**	**Reason for exclusion**
1	Adelufosi 2017	Adelufosi A, Edet B, Arikpo D, Aquaisua E, Meremikwu MM. Cognitive behavioral therapy for post-traumatic stress disorder, depression, or anxiety disorders in women and girls living with female genital mutilation: A systematic review. International Journal of Gynecology & Obstetrics 2017; 136(S1):56-9.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
2	Capaldi 2016	Capaldi S, Asnaani A, Zandberg LJ, Carpenter JK, Foa EB. Therapeutic Alliance during Prolonged Exposure Versus Client-Centered Therapy for Adolescent Posttraumatic Stress Disorder. Journal of clinical psychology. 2016; 72(10):1026-36.	Subgroup/secondary analysis of RCT already included
3	Cary 2012	Cary CE, McMillen JC. The data behind the dissemination: A systematic review of trauma-focused cognitive behavioral therapy for use with children and youth. Children and Youth Services Review. 2012 Apr 30;34(4):748-57.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
4	Chemtob 2008	Chemtob CM, Luthra R. Effectiveness of Trauma-Focused Cognitive Behavioral Therapy in Treating Children With Post-Traumatic Stress Disorder [NCT00614068]. 2008. Available from: https://clinicaltrials.gov/ct2/show/NCT00614068 [accessed 29.04.17]	Unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided)
5	Cohen 2016	Cohen JA, Mannarino AP, Jankowski K, Rosenberg S, Kodya S, Wolford GL. A randomized implementation study of trauma-focused cognitive behavioral therapy for adjudicated teens in residential treatment facilities. Child maltreatment. 2016; 21(2):156-67.	Intervention outside protocol
6	Corcoran 2008	Corcoran J, Pillai V. A meta-analysis of parent-involved treatment for child sexual abuse. Research on Social Work Practice. 2008; 18(5):453-64.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
7	de Arellano 2014	de Arellano MA, Lyman DR, Jobe-Shields L, George P, Dougherty RH, Daniels AS, Ghose SS, Huang L, Delphin-Rittmon ME. Trauma-focused cognitive-behavioral therapy for children and adolescents: Assessing the evidence. Psychiatric Services. 2014; 65(5):591-602.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
8	Deblinger 1990	Deblinger E, McLEER SV, Henry D. Cognitive behavioral treatment for sexually abused children suffering post-traumatic stress: Preliminary findings. Journal of the American Academy of Child & Adolescent Psychiatry. 1990; 29(5):747-52.	Non-RCT (no control group)
9	Deblinger 2011	Deblinger E, Mannarino AP, Cohen JA, Runyon MK, Steer RA. Trauma-focused cognitive behavioral therapy for children: impact of the trauma narrative and treatment length. Depression and anxiety. 2011 Jan 1;28(1):67-75.	Comparison outside protocol
10	Dorsey 2014	Dorsey S, Pullmann MD, Berliner L, Koschmann E, McKay M, Deblinger E. Engaging foster parents in treatment: A randomized trial of supplementing Trauma-focused	Population not relevant

		Cognitive Behavioral Therapy with evidence-based engagement strategies. Child abuse & neglect. 2014; 38(9):1508-20.	
11	Fernandez 2012	Fernandez, S., Cromer, L.D., Borntrager, C., Swopes*, R. & Davis, J. L. A Case Series: Cognitive-Behavioral Treatment (Exposure, Relaxation, and Rescripting Therapy) of Trauma-Related Nightmares Experienced by Children. Clinical Case Studies 2012; 12, 39-59.	Non-RCT (no control group)
12	Forman-Hoffman 2013b	Forman-Hoffman V, Knauer S, McKeeman J, Zolotor A, Blanco R, Lloyd S, et al. Child and adolescent exposure to trauma: comparative effectiveness of interventions addressing trauma other than maltreatment or family violence. Database of Abstracts of Reviews of Effects. 2013; (2):1.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
13	Gillies 2012	Gillies D, Taylor F, Gray C, O'Brien L, D'Abrew N. Psychological therapies for the treatment of post-traumatic stress disorder in children and adolescents. Cochrane Database of Systematic Reviews 2012, Issue 12. Art. No.: CD006726. DOI: 10.1002/14651858.CD006726.pub2.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
14	Goenjian 1997	Goenjian AK, Karayan I, Pynoos RS, Minassian D, Najarian LM, Steinberg AM, Fairbanks LA. Outcome of psychotherapy among early adolescents after trauma. American Journal of Psychiatry. 1997; 154(4):536-42.	Non-randomised group assignment
15	Haight 2012	Haight W, Black J, Sheridan K. A mental health intervention for rural, foster children from methamphetamine-involved families: Experimental assessment with qualitative elaboration. Children and youth services review. 2010; 32(10):1446-57.	Intervention not targeted at PTSD symptoms
16	Harvey 2010	Harvey ST, Taylor JE. A meta-analysis of the effects of psychotherapy with sexually abused children and adolescents. Clinical Psychology Review. 2010; 30(5):517-35.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
17	Hermenau 2013	Hermenau, K., et al. Addressing post-traumatic stress and aggression by means of narrative exposure: A randomized controlled trial with ex-combatants in the eastern DRC. Journal of Aggression, Maltreatment and Trauma 2013; 22(8): 916-934.	Population not relevant
18	Hetrick 2010	Hetrick SE, Purcell R, Garner B, Parslow R. Combined pharmacotherapy and psychological therapies for posttraumatic stress disorder (PTSD). Cochrane Database of Systematic Reviews 2010, Issue 7. Art. No.: CD007316. DOI: 10.1002/14651858.CD007316.pub2.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
19	Holt 2014	Holt T, Jensen TK, Wentzel-Larsen T. The change and the mediating role of parental emotional reactions and depression in the treatment of traumatized youth: results from a randomized controlled study. Child and adolescent psychiatry and mental health. 2014; 8(1):11.	Subgroup/secondary analysis of RCT already included
20	Hyde 1995	Hyde C, Bentovim A, Monck E. Some clinical and methodological implications of a treatment outcome study of sexually abused children. Child Abuse & Neglect. 1995; 19(11):1387-99.	Intervention not targeted at PTSD symptoms
21	ISRCTN35018680	ISRCTN35018680. A pilot randomised clinical trial of trauma-focused cognitive behaviour therapy for posttraumatic stress disorder (PTSD) in young children aged 3-8 years (PYCES). 2013. Available from: http://www.isrctn.com/ISRCTN35018680 [accessed 11.05.2017]	Unpublished (registered on clinical trials registry and author contacted for full trial report but not provided)
22	ISRCTN58027256	ISRCTN58027256. Identification and treatment within the Swedish Child and Adolescent Psychiatry Services of children exposed or subjected to intimate partner violence or child	Unpublished (registered on clinical trials registry and author contacted for full trial report but not provided)

		abuse: a randomised controlled trial. 2012. Available from: http://www.isrctn.com/ISRCTN58027256 [accessed 11.05.2017]	
23	Jaberghaderi 2004	Jaberghaderi,N., Greenwald,R., Rubin,A., Zand, S.O., Shiva Dolatabadi1, S. (2004) A Comparison of CBT and EMDR for Sexually-abused Iranian Girls. Clinical Psychology and Psychotherapy 2004; 11: 358-368.	Sample size (N<10/arm)
24	Kalantari 2012	Kalantari M, Yule W, Dyregrov A, Neshatdoost H, Ahmadi SJ. Efficacy of writing for recovery on traumatic grief symptoms of Afghani refugee bereaved adolescents: A randomized control trial. OMEGA-Journal of death and dying. 2012; 65(2):139-50.	Population outside scope: Trials of people with traumatic grief
25	Kameoka 2013	Kameoka S. Randomized controlled trial on the efficacy of the Trauma-Focused Cognitive Behavioral Therapy for children with posttraumatic stress disorder [JPRN-UMIN000010699]. Available from: https://upload.umin.ac.jp/cgi-open-bin/ctr_e/ctr_view.cgi?recptno=R000012501 [accessed 30.04.17]	Unpublished (registered on clinical trials registry and author contacted for full trial report but not provided)
26	Kane 2016	Kane JC, Murray LK, Cohen J, Dorsey S, Skavenski van Wyk S, Galloway Henderson J, Imasiku M, Mayeya J, Bolton P. Moderators of treatment response to trauma-focused cognitive behavioral therapy among youth in Zambia. Journal of Child Psychology and Psychiatry. 2016; 57(10):1194-202.	Subgroup/secondary analysis that is not relevant
27	Kenardy 2012	Kenardy J. Comparison of cognitive-behavioural treatments for children with post-traumatic stress disorder (PTSD) following an accidental injury: a multicentre randomised controlled trial [ISRCTN79049138]. 2012. Available from: http://www.isrctn.com/ISRCTN79049138 [accessed 30.04.17]	Unpublished (registered on clinical trials registry and author contacted for full trial report but not provided)
28	Kowalik 2011	Kowalik J, Weller J, Venter J, Drachman D. Cognitive behavioral therapy for the treatment of pediatric posttraumatic stress disorder: A review and meta-analysis. Journal of Behavior Therapy and Experimental Psychiatry. 2011; 42(3):405-13.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
29	Leenarts 2013	Leenarts LE, Diehle J, Doreleijers TA, Jansma EP, Lindauer RJ. Evidence-based treatments for children with trauma-related psychopathology as a result of childhood maltreatment: a systematic review. European child & adolescent psychiatry. 2013; 22(5):269-83.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
30	Lenz 2015	Lenz AS, Hollenbaugh KM. Meta-analysis of trauma-focused cognitive behavioral therapy for treating PTSD and co-occurring depression among children and adolescents. Counseling Outcome Research and Evaluation. 2015; 6(1):18-32.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
31	McLean 2015b	McLean CP, Su YJ, Foa EB. Mechanisms of symptom reduction in a combined treatment for comorbid posttraumatic stress disorder and alcohol dependence. Journal of consulting and clinical psychology. 2015; 83(3):655.	Subgroup/secondary analysis of RCT already included
32	McLean 2017	McLean CP, Su YJ, Carpenter JK, Foa EB. Changes in PTSD and depression during prolonged exposure and client-centered therapy for PTSD in adolescents. Journal of Clinical Child & Adolescent Psychology. 2017; 46(4):500-10.	Subgroup/secondary analysis of RCT already included
33	Miller-Graff 2016	Miller-Graff LE, Campion K. Interventions for posttraumatic stress with children exposed to violence: factors associated with treatment success. Journal of clinical psychology. 2015 Nov 1.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
34	Morina 2016	Morina N, Koerssen R, Pollet TV. Interventions for children and adolescents with posttraumatic stress disorder: A meta-analysis of comparative outcome studies. Clinical Psychology Review. 2016; 47:41-54.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract

35	Morina 2017b	Morina N, Malek M, Nickerson A, Bryant RA. Psychological interventions for post-traumatic stress disorder and depression in young survivors of mass violence in low-and middle-income countries: meta-analysis. The British Journal of Psychiatry. 2017; 210(4):247-54.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
36	Murray 2015	Murray LK, Skavenski S, Kane JC, Mayeya J, Dorsey S, Cohen JA, Michalopoulos LT, Imasiku M, Bolton PA. Effectiveness of Trauma-Focused Cognitive Behavioral Therapy Among Trauma-Affected Children in Lusaka, Zambia: A Randomized Clinical Trial. JAMA Pediatr. 2015; 169(8):761-9. doi: 10.1001/jamapediatrics.2015.0580.	Efficacy or safety data cannot be extracted
37	NCT00073684	NCT00073684. Young Sexually Abused Children: Optimal CBT Strategies. 2003. Available from: https://clinicaltrials.gov/ct2/show/NCT00073684 [accessed 11.05.2017]	Unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided)
38	NCT00893750	NCT00893750. Effects of Trauma-Therapy and Truth Education, Conflict Resolution and Social Skills Trainings and Traditional Ways of Coping in Northern Uganda. 2009. Available from: https://clinicaltrials.gov/ct2/show/NCT00893750 [accessed 11.05.17]	Dissertation
39	NCT02334566	NCT02334566. Lending a Hand to Our Future: Documenting, Assessing and Treating Posttraumatic Stress Disorder in Refugee Children and Youth. 2014. Available from: https://clinicaltrials.gov/ct2/show/NCT02334566 [accessed 11.05.2017]	Unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided)
40	NCT02402205	NCT02402205. TF-CBT for Adjudicated Youth in Residential Treatment. 2015. Available from: https://clinicaltrials.gov/ct2/show/NCT02402205 [accessed 11.05.2017]	Unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided)
41	Nenova 2013	Nenova M, Morris L, Paul L, Li Y, Applebaum A, DuHamel K. Psychosocial interventions with cognitive-behavioral components for the treatment of cancer-related traumatic stress symptoms: a review of randomized controlled trials. J Cogn Psychother. 2013; 27(3):258-84.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
42	Nixon 2012a/2017	Nixon RD, Sterk J, Pearce A. A Randomized Trial of Cognitive Behavior Therapy and Cognitive Therapy for Children with Posttraumatic Stress Disorder Following Single-Incident Trauma. Journal of Abnormal Child Psychology. 2012; 40(3):327. And Nixon RD, Sterk J, Pearce A, Weber N. A randomized trial of cognitive behavior therapy and cognitive therapy for children with posttraumatic stress disorder following single-incident trauma: Predictors and outcome at 1-year follow-up. Psychological Trauma: Theory, Research, Practice, and Policy. 2017; 9(4):471.	Comparison outside protocol
43	Ormaugh 2014	Ormhaug SM, Jensen TK, Wentzel-Larsen T, Shirk SR. The therapeutic alliance in treatment of traumatized youths: Relation to outcome in a randomized clinical trial. Journal of consulting and clinical psychology. 2014 Feb; 82(1):52.	Subgroup/secondary analysis of RCT already included
44	Parsons 2008	Parsons TD, Rizzo AA. Affective outcomes of virtual reality exposure therapy for anxiety and specific phobias: A meta-analysis. Journal of behavior therapy and experimental psychiatry. 2008; 39(3):250-61.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
45	Reynolds 2012	Reynolds S, Wilson C, Austin J, Hooper L. Effects of psychotherapy for anxiety in children and adolescents: A meta-analytic review. Clinical psychology review. 2012; 32(4):251-62.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
46	Rolfsnes 2011	Rolfsnes ES, Idsoe T. School-based intervention programs for PTSD symptoms: A review and meta-analysis. Journal of Traumatic Stress. 2011; 24(2):155-65.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract

47	Salloum 2008	Salloum A, Overstreet S. Evaluation of individual and group grief and trauma interventions for children post disaster. Journal of Clinical Child & Adolescent Psychology. 2008; 37(3):495-507.	Comparison outside protocol
48	Salloum 2014	Salloum A, Robst J, Scheeringa MS, Cohen JA, Wang W, Murphy TK, Tolin DF, Storch EA. Step one within stepped care trauma-focused cognitive behavioral therapy for young children: a pilot study. Child Psychiatry Hum Dev. 2014; 45(1):65-77.	Sample size (N<10/arm)
49	Salloum 2015	Salloum A, Small BJ, Robst J, Scheeringa MS, Cohen JA, Storch EA. Stepped and standard care for childhood trauma: A pilot randomized clinical trial. Research on Social Work Practice. 2015 Sep 24:1049731515601898. And Salloum A, Scheeringa MS, Cohen JA, Storch EA. Responder Status Criterion for Stepped Care Trauma-Focused Cognitive Behavioral Therapy for Young Children. Child Youth Care Forum. 2015; 44(1):59-78.	Sample size (N<10/arm)
50	Scheeringa 2011/ Weems 2013	Scheeringa MS, Weems CF, Cohen JA, Amaya-Jackson L, Guthrie D. Trauma-focused cognitive-behavioral therapy for posttraumatic stress disorder in three-through six year-old children: A randomized clinical trial. Journal of Child Psychology and Psychiatry. 2011; 52(8):853-60. And Weems CF, Scheeringa MS. Maternal depression and treatment gains following a cognitive behavioral intervention for posttraumatic stress in preschool children. Journal of anxiety disorders. 2013; 27(1):140-6.	Non-randomised group assignment
51	Scott 2005	Scott RW, Mughelli K, Deas D. An overview of controlled studies of anxiety disorders treatment in children and adolescents. Journal of the National Medical Association. 2005; 97(1):13.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
52	Silverman 2008	Silverman WK, Ortiz CD, Viswesvaran C, Burns BJ, Kolko DJ, Putnam FW, Amaya-Jackson L. Evidence-based psychosocial treatments for children and adolescents exposed to traumatic events. Journal of Clinical Child & Adolescent Psychology. 2008; 37(1):156-83.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
53	Stallard 2006b	Stallard P. A pilot randomised trial to determine the efficacy of early cognitive behaviour therapy (CBT) versus delayed treatment for children with significant post-traumatic reactions [ISRCTN05595708]. 2006. Available from: http://www.isrctn.com/ISRCTN05595708 [accessed 30.04.17]	Unpublished (registered on clinical trials registry and author contacted for full trial report but not provided)
54	Swain 2013	Swain J, Hancock K, Hainsworth C, Bowman J. Acceptance and commitment therapy in the treatment of anxiety: a systematic review. Clinical psychology review. 2013; 33(8):965-78.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
55	Taylor 2004	Taylor TL, Chemtob CM. Efficacy of treatment for child and adolescent traumatic stress. Archives of pediatrics & adolescent medicine. 2004; 158(8):786-91.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
56	Townsend 2008	Townsend E, Walker DM, Sargeant S, Stocker O, Vostanis P, Sithole J, Hawton KKE. Interventions for mood and anxiety disorders, and self harm in young offenders. Cochrane Database of Systematic Reviews 2008, Issue 2. Art. No.: CD007195. DOI: 10.1002/14651858.CD007195.	Protocol

57	Trask 2011	Trask EV, Walsh K, DiLillo D. Treatment effects for common outcomes of child sexual abuse: A current meta-analysis. Aggression and violent behavior. 2011; 16(1):6-19.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
58	Tutus 2017	Tutus D, Pfeiffer E, Rosner R, Sachser C, Goldbeck L. Sustainability of Treatment Effects of Trauma-focused Cognitive-behavioral Therapy for Children and Adolescents: Findings from 6-and 12-month Follow-ups. Psychotherapy and psychosomatics. 2017;86(6):379-81.	Efficacy or safety data cannot be extracted
59	UMIN000010699	Randomized controlled trial on the efficacy of the Trauma-Focused Cognitive Behavioral Therapy for children with posttraumatic stress disorder, https://upload.umin.ac.jp/cgi-open-bin/ctr_e/ctr_view.cgi?recptno=R000012501	Unpublished (registered on clinical trials registry and author contacted for full trial report but not provided)

Non-trauma-focused CBT			
	Study ID	**Reference**	**Reason for exclusion**
60	James 2015	James AC, James G, Cowdrey FA, Soler A, Choke A. Cognitive behavioural therapy for anxiety disorders in children and adolescents. Cochrane Database of Systematic Reviews 2015, Issue 2. Art.No.: CD004690. DOI: 10.1002/14651858.CD004690.pub4.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
61	March 1998	March, J. S., Amaya-Jackson, L., Murray, M. C., & Schulte, A. Cognitive-behavioral psychotherapy for children and adolescents with posttraumatic stress disorder after a single-incident stressor. Journal of the American Academy of Child & Adolescent Psychiatry. 1998; 37: 585-593.	Non-randomised group assignment
62	Mitchell 2011	Mitchell P, Smedley K, Kenning C, McKee A, Woods D, Rennie CE, Bell RV, Aryamanesh M, Dolan M. Cognitive behaviour therapy for adolescent offenders with mental health problems in custody. Journal of adolescence. 2011; 34(3):433-43.	Intervention not targeted at PTSD symptoms
63	Schaeffer 2013	Schaeffer, C., Swenson, C., Tuerk, E. and Henggler, S. Comprehensive treatment for co-occurring child maltreatment and parental substance abuse: Outcomes from a 24-month pilot study of the MST-Building Stronger Families program, Child Abuse and Neglect. 2013; 37: 596-607	Intervention not targeted at PTSD symptoms

Behavioural therapy			
	Study ID	**Reference**	**Reason for exclusion**
64	Berliner 1996	Berliner L, Saunders BE. Treating fear and anxiety in sexually abused children: Results of a controlled 2-year follow-up study. Child maltreatment. 1996; 1(4):294-309	Intervention not targeted at PTSD symptoms
65	Lustig 2008	Lustig, S., Tennakoon, L. (2008) Testimonials, narratives, stories and drawings: child refugees as witnesses, Child and Adolescent Psychiatric Clinics of North America, 17, 569-584	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
66	Macfarlane 1986	MacFarlane K, Cunningham C (1986), Steps to Healthy Touching. Mt Dora, FL: Kidsrights	Book Section

Psychologically-focused debriefing			
	Study ID	**Reference**	**Reason for exclusion**
67	Pynoos 1988	Pynoos RS, Nader K (1988), Psychological first aid and treatment approach to child ren exposed to community violence: research implications, Trauma Stress 1:445 - 473	Commentary
68	Thabet 2005	Thabet AA, Vostanis P, Karim K. Group crisis intervention for children during ongoing war conflict. European Child & Adolescent Psychiatry. 2005; 14(5):262-9.	Non-randomised group assignment

Eye movement desensitisation and reprocessing (EMDR)			
	Study ID	**Reference**	**Reason for exclusion**
69	Field 2011	Field A, Cottrell D. Eye movement desensitization and reprocessing as a therapeutic intervention for traumatized children and adolescents: a systematic review of the evidence for family therapists. Journal of Family Therapy. 2011; 33(4):374-88.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
70	Greyber 2012	Greyber LR, Dulmus CN, Cristalli ME. Eye movement desensitization reprocessing, posttraumatic stress disorder, and trauma: A review of randomized controlled trials with children and adolescents. Child and Adolescent Social Work Journal. 2012; 29(5):409-25.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
71	Hassanzadeh Moghaddam 2016	Hassanzadeh Moghaddam M, Khalatbari J. Investigating the Effectiveness of Eye Movement Desensitization and Reprocessing (EMDR) on Children with Post-Traumatic Stress Disorder (Traffic Accident). The International Journal of Indian Psychology. 2016; 3(3).	Intervention not targeted at PTSD symptoms
72	Kemp 2010	Kemp M, Drummond P, McDermott B. A wait-list controlled pilot study of eye movement desensitization and reprocessing (EMDR) for children with post-traumatic stress disorder (PTSD) symptoms from motor vehicle accidents. Clinical child psychology and psychiatry. 2010; 15(1):5-25.	Efficacy or safety data cannot be extracted
73	Rodenburg 2009	Rodenburg R, Benjamin A, de Roos C, Meijer AM, Stams GJ. Efficacy of EMDR in children: A meta-analysis. Clinical Psychology Review. 2009; 29(7):599-606.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
74	Roos 2013	Roos C. A Randomized Comparison of Eye Movement Desensitization and Reprocessing (EMDR) and Cognitive Behavioral Writing Therapy (CBWT) in pediatric posttraumatic stress disorder following single- incident trauma [NTR3870]. 2013. Available from: http://www.trialregister.nl/trialreg/admin/rctview.asp?TC=3870 [accessed 30.04.17]	Unpublished (registered on clinical trials registry and author contacted for full trial report but not provided)
75	Rubin 2001	Rubin A, Bischofshausen S, Conroy-Moore K, Dennis B, Hastie M, Melnick L, Reeves D, Smith T. The effectiveness of EMDR in a child guidance center. Research on Social Work Practice. 2001; 11(4):435-57.	Intervention not targeted at PTSD symptoms

76	Verardo 2017	Verardo AR, Cioccolanti E. Traumatic experiences and EMDR in childhood and adolescence. A review of the scientific literature on efficacy studies. Clinical Neuropsychiatry 2017; 1(5).	Systematic review with no new useable data and any meta-analysis results not appropriate to extract

Hypnotherapy			
	Study ID	**Reference**	**Reason for exclusion**
77	Lesmana 2009	Lesmana CB, Suryani LK, Jensen GD, Tiliopoulos N. A spiritual-hypnosis assisted treatment of children with PTSD after the 2002 Bali terrorist attack. American Journal of Clinical Hypnosis. 2009 Jul 1;52(1):23-34.	Intervention outside protocol

Psychodynamic therapies			
	Study ID	**Reference**	**Reason for exclusion**
78	Gaensbauer 1994	Gaensbauer TJ. Therapeutic work with a traumatized toddler. Psychoanal StudyChild. 1994; 49:412-433	Non-RCT (no control group)
79	Trowell 2002	Trowell, J., Kolvin, I., Weeramanthri, T., Sadowski, H., Berelowitz, M., Glaser, D. et al. Psychotherapy for sexually abused girls: psychopathological outcome findings and patterns of change. Br.J Psychiatry. 2002; 180: 234-247.	Comparison outside protocol

Counselling			
	Study ID	**Reference**	**Reason for exclusion**
80	Lowenstein 1995	Lowenstein LB. The resolution scrapbook as an aid in the treatment of traumatized children. Child Welfare. 1995; 74:889- 904	Commentary
81	Schauer 2005/2011	Schauer M, Neuner F, Elbert T (2005/2011): Narrative Exposure Therapy. A Short-Term Intervention for Traumatic Stress Disorders. 2nd Ed. Cambridge/ Göttingen: Hogrefe & Huber Publishers	Book Section
82	Sullivan 1994	Sullivan JM, Evans K. Integrated treatment for the survivor of childhood trauma who is chemically dependent. Psycboactiue Drugs 1994; 26:369-378	Commentary

Self-help (without support)			
	Study ID	**Reference**	**Reason for exclusion**

83	Pennant 2015	Pennant ME, Loucas CE, Whittington C, Creswell C, Fonagy P, Fuggle P, Kelvin R, Naqvi S, Stockton S, Kendall T, Group EA. Computerised therapies for anxiety and depression in children and young people: A systematic review and meta-analysis. Behaviour research and therapy. 2015; 67:1-8.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract

Parent training/family interventions			
	Study ID	**Reference**	**Reason for exclusion**
84	Saxe 2012	Saxe, G. N., Heidi Ellis, B., Fogler, J., Navalta, C. P. Innovations in Practice: Preliminary evidence for effective family engagement in treatment for child traumatic stress-trauma systems therapy approach to preventing dropout, Child and Adolescent Mental Health. 2012; 17:, 58-61	Efficacy or safety data cannot be extracted

Psychoeducation			
	Study ID	**Reference**	**Reason for exclusion**
85	Adler-Nevo 2005	Adler-Nevo G, Manassis K. Psychosocial treatment of pediatric posttraumatic stress disorder: the neglected field of single-incident trauma. Depression and Anxiety. 2005; 22(4):177-89.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
86	Ager 2011	Ager A, Akesson B, Stark L, Flouri E, Okot B, McCollister F, Boothby N. The impact of the school-based Psychosocial Structured Activities (PSSA) program on conflict-affected children in northern Uganda. Journal of Child Psychology and Psychiatry. 2011; 52(11):1124-33.	Outcome measures are not validated
87	Kazdin 2002	Kazdin A. Comment on a school based psychosocial intervention was effective in children with persistent post-disaster trauma symptoms.) Evid Based Ment Health. 2002; 5(3):76.	Commentary
88	NCT00751946	NCT00751946. Girls In Recovery From Life Stress (GIRLS) Study. 2008. Available from: https://clinicaltrials.gov/ct2/show/NCT00751946 [accessed 11.05.2017]	Unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided)
89	Peltonen 2012	Peltonen K, Qouta S, El Sarraj E, Punamäki RL. Effectiveness of school-based intervention in enhancing mental health and social functioning among war-affected children. Traumatology. 2012; 18(4):37-46.	Non-randomised group assignment
90	Salloum 2012	Salloum A, Overstreet S. Grief and trauma intervention for children after disaster: Exploring coping skills versus trauma narration. Behaviour research and therapy. 2012; 50(3):169-79.	Comparison outside protocol
91	Santacroce 2010	Judge Santacroce S, Asmus K, Kadan-Lottick N, Grey M. Feasibility and preliminary outcomes from a pilot study of coping skills training for adolescent—Young adult survivors of childhood cancer and their parents. Journal of pediatric oncology nursing. 2010; 27(1):10-20.	Sample size (N<10/arm)

Art therapy			
	Study ID	**Reference**	**Reason for exclusion**
92	Brillantes-Evangelista 2013	Brillantes-Evangelista G. An evaluation of visual arts and poetry as therapeutic interventions with abused adolescents. The Arts in Psychotherapy. 2013; 40(1):71-84.	Non-randomised group assignment
93	Raider 2008	Raider MC, Steele W, Delillo-Storey M, Jacobs J, Kuban C. Structured sensory therapy (SITCAP-ART) for traumatized adjudicated adolescents in residential treatment. Residential Treatment for Children & Youth. 2008; 25(2):167-85.	Sample size (N<10/arm)
94	Schreier 2005	Schreier H, Ladakakos C, Morabito D, Chapman L, Knudson MM. Posttraumatic stress symptoms in children after mild to moderate pediatric trauma: a longitudinal examination of symptom prevalence, correlates, and parent-child symptom reporting. Journal of Trauma and Acute Care Surgery. 2005; 58(2):353-63.	Efficacy or safety data cannot be extracted

Music therapy			
	Study ID	**Reference**	**Reason for exclusion**
95	Baker 2006	Baker F, Jones C. The effect of music therapy services on classroom behaviours of newly arrived refugee students in Australia—a pilot study. Emotional and Behavioural Difficulties. 2006; 11(4):249-60.	Non-randomised group assignment

Meditation			
	Study ID	**Reference**	**Reason for exclusion**
96	Hartmann 2012	Hartmann F, Vlieger AM. Effects of mind–body therapies in children. Focus on Alternative and Complementary Therapies. 2012; 17(2):91-6.	Systematic review with no new useable data and any meta-analysis results not appropriate to extract
97	NCT00202709	NCT00202709. Can Thought Field Therapy (TFT) be Helpful for Patients With an Anxiety Disorder, a Prospective, Randomized Pilot Study With Wait List as Control Group. Available from: https://clinicaltrials.gov/ct2/show/NCT00202709 [accessed 14/06/17]	Population outside scope: <80% of the study's participants are eligible for the review and disaggregated data cannot be obtained
98	NCT01595477	NCT01595477. A Randomized Controlled Study of Mind-Body Skills Groups for the Treatment of War-Related Trauma in Children in Gaza. 2012. Available from: https://clinicaltrials.gov/ct2/show/NCT01595477 [accessed 11.05.2017]	Unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided)
99	NCT01595490	NCT01595490. A Randomized Controlled Study of Mind-Body Skills Groups for the Treatment of War-Related Trauma in Adolescents in Gaza. 2012. Available from: https://clinicaltrials.gov/ct2/show/NCT01595490 [accessed 11.05.2017]	Unpublished (registered on clinical trials.gov and author contacted for full trial report but not provided)

Peer support			
	Study ID	**Reference**	**Reason for exclusion**
100	Fantuzzo 1996	Fantuzzo J, Sutton-Smith B, Atkins M, Meyers R, Stevenson H, Coolahan K, Weiss A, Manz P. Community-based resilient peer treatment of withdrawn maltreated preschool children. Journal of Consulting and Clinical Psychology. 1996; 64(6):1377.	Intervention not targeted at PTSD symptoms
101	Fantuzzo 2005	Fantuzzo J, Manz P, Atkins M, Meyers R. Peer-mediated treatment of socially withdrawn maltreated preschool children: Cultivating natural community resources. Journal of Clinical Child and Adolescent Psychology. 2005; 34(2):320-5.	Intervention not targeted at PTSD symptoms
102	Hardin 2002	Hardin SB, Weinrich S, Weinrich M, Garrison C, Addy C, Hardin TL. (2002) Effects of long-term psychological nursing intervention on adolescents exposed to catastrophic stress. Issues in Mental Health Nursing, 23:537-551	Efficacy or safety data cannot be extracted
103	Shechtman 2010	Shechtman Z, Mor M. Groups for children and adolescents with trauma-related symptoms: outcomes and processes. International journal of group psychotherapy. 2010 Apr;60(2):221-44.	Efficacy or safety data cannot be extracted

Massage			
	Study ID	**Reference**	**Reason for exclusion**
104	Field 1996	Field T, Seligman S, Scafidi F, Schanberg S. Alleviating posttraumatic stress in children following Hurricane Andrew. Journal of Applied Developmental Psychology, 1996; 17	Efficacy or safety data cannot be extracted

Included in the systematic review but excluded from the network meta-analysis of psychological, psychosocial and other non-pharmacological treatments for PTSD in children and young people

	Study ID	Reference	Reason for exclusion
1	Catani 2009/ Rockstroh 2004	Catani C, Kohiladevy M, Ruf M, et al. (2009) Treating children traumatized by war and Tsunami: a comparison between exposure therapy and meditation-relaxation in North-East Sri Lanka. BMC Psychiatry 9, 22 [DOI: 10.1186/1471-244X-9-22.] Rockstroh B and Schauer E (2004) KIDNET vs Meditation/Relaxation - a Dissemination Randomized Controlled Trial for the Treatment of Traumatized Children After War in Sri Lanka [NCT00564317]. Availabel from: https://clinicaltrials.gov/ct2/show/NCT00564317 [accessed 15.05.18]	Early treatment (offered within three months after a traumatic event)
2	Cohen 2004a/ Deblinger 2006	Cohen JA, Deblinger E, Mannarino AP and Steer RA (2004) A multisite, randomized controlled trial for children with sexual abuse–related PTSD symptoms. Journal of the American Academy of Child & Adolescent Psychiatry 43(4), 393-402 Deblinger E, Mannarino AP, Cohen JA and Steer RA (2006) A follow-up study of a multisite, randomized, controlled trial for children with sexual abuse-related PTSD symptoms. Journal of the American Academy of Child & Adolescent Psychiatry 5(12), 1474-84	No outcomes of interest (either change in PTSD symptom scores or remission) were reported
3	Layne 2008	Layne CM, Saltzman WR, Poppleton L, et al. (2008) Effectiveness of a school-based group psychotherapy program for war-exposed adolescents: a randomized controlled trial. Journal of the American Academy of Child and Adolescent Psychiatry 47(9), 1048-62	Comparison between TF-CBT & psychoeducation vs psychoeducation alone - not connected to the network
4	Najavits 2006	Najavits LM, Gallop RJ and Weiss RD (2006) Seeking safety therapy for adolescent girls with PTSD and substance use disorder: A randomized controlled trial. The Journal of Behavioral Health Services & Research 33(4), 453-63	No outcomes of interest (either change in PTSD symptom scores or remission) were reported
5	Lyshak-Stelzer 2007	Lyshak-Stelzer F, Singer P, Patricia SJ and Chemtob CM (2007) Art therapy for adolescents with posttraumatic stress disorder symptoms: A pilot study. Art Therapy 24(4), 163-9	Comparison between art therapy + TAU vs attention placebo + TAU - not connected to the network

Appendix 8: NMA data files

A. Changes in PTSD symptom scores between baseline and treatment endpoint

t[,1]	y[,1]	sd[,1]	n[,1]	t[,2]	y[,2]	sd[,2]	n[,2]	t[,3]	y[,3]	sd[,3]	n[,3]	na[]	#Study
1	1.55	9.01	12	3	-2.80	8.37	10	5	-14.00	19.94	10	3	#Chen 2014
1	-6.02	15.82	18	8	-34.3	16.22	42	10	-32.24	14.20	43	3	#de Roos 2017
1	-1.09	7.63	37	5	-3.74	6.89	39	NA	NA	NA	NA	2	#Jaycox 2009
1	-5.8	10.59	13	7	-24.9	6.95	13	NA	NA	NA	NA	2	#Meiser-Stedman 2010 /2017
1	0.39	9.78	18	5	-1.94	9.40	18	NA	NA	NA	NA	2	#Pityaratstian 2015
1	-6.3	9.63	11	7	-39	7.65	12	NA	NA	NA	NA	2	#Smith 2007
2	0.8	9.68	10	5	-5.68	6.71	15	NA	NA	NA	NA	2	#Auslander 2016
1	-7.52	9.18	82	6	-13.4	9.63	74	NA	NA	NA	NA	2	#Goldbeck 2016 /Sachser 2016
2	-10.01	7.63	63	6	-15.48	6.96	59	NA	NA	NA	NA	2	#Jensen 2014
1	-2.05	9.82	36	5	-14.41	9.91	35	NA	NA	NA	NA	2	#Langley 2015
1	-1.94	9.84	49	6	-23.72	8.12	50	NA	NA	NA	NA	2	#Shein-Szydlo 2016
1	-8	7.01	63	5	-15.6	5.07	54	NA	NA	NA	NA	2	#Stein 2003a /Kataoka 2011
1	2.1	7.25	20	8	-5.05	5.64	19	17	-9.95	5.37	20	3	#Al-Hadethe 2015
2	-3.29	2.34	14	9	-5.48	2.12	21	15	-4.7	2.34	20	3	#Deblinger 1996/1999
1	-1.47	1.68	12	9	-5.75	3.01	12	16	-7.08	4.10	12	3	#King 2000
1	-4.5	12.34	13	8	-26.1	9.75	12	NA	NA	NA	NA	2	#Ruf 2010
3	-10.79	8.36	19	9	-19.37	8.45	19	NA	NA	NA	NA	2	#Gilboa-Schechtman 2004/2010
3	-0.91	3.97	41	6	-1.85	3.56	41	NA	NA	NA	NA	2	#Cohen 1998 /2005a
3	-1.66	9.14	60	6	-7.16	13.52	64	NA	NA	NA	NA	2	#Cohen 2011 /2005b
3	-15.3	6.83	30	9	-18.7	6.86	31	NA	NA	NA	NA	2	#Foa 2013
3	-17	9.53	20	6	-24.4	13.93	26	NA	NA	NA	NA	2	#Ford 2012
6	-20.2	15.58	23	10	-20.9	20.08	25	NA	NA	NA	NA	2	#Diehle 2015 /Lindauer 2009
2	-5.73	12.39	11	11	-5.5	10.20	10	NA	NA	NA	NA	2	#Soberman 2002
1	-7.4	14.01	16	10	-6.3	15.35	17	NA	NA	NA	NA	2	#Ahmad 2007 /2008

t[,1]	y[,1]	sd[,1]	n[,1]	t[,2]	y[,2]	sd[,2]	n[,2]	t[,3]	y[,3]	sd[,3]	n[,3]	na[]	#Study
15	-0.4	3.03	29	12	-3.61	2.33	36	NA	NA	NA	NA	2	#Lieberman 2005 / 2006 / Ghosh Ippen 2011
1	-4.49	5.53	74	13	-6.53	5.36	75	NA	NA	NA	NA	2	#Kazak 2004
2	0.77	6.00	60	14	-5.2	5.15	69	NA	NA	NA	NA	2	#Deeba 2015
6	-2.25	10.04	12	14	-3.36	9.40	14	NA	NA	NA	NA	2	#Schottelkorb 2012
1	-0.1	0.26	39	4	-0.5	0.21	38	NA	NA	NA	NA	2	#Gordon 2006 /2008

t1, t2, t3 indicate the coded treatment in each trial arm
y1, y2, y3 indicate the mean change in effect in each trial arm
sd1, sd2, sd3 indicate the standard deviation of the mean change in effect in each trial arm
n1, n2, n3 indicate the number of participants in each trial arm
na indicates number of arms
NA: non-applicable

Treatment codes: 1. Waitlist / no treatment; 2. TAU; 3. Supportive counselling; 4. Meditation; 5. TF-CBT (group CBT); 6. TF-CBT (Cohen TF-CBT/CPT); 7. TF-CBT (cognitive therapy); 8. TF-CBT (narrative exposure); 9. TF-CBT (exposure/prolonged exposure); 10. EMDR; 11. EMDR & TAU; 12. Child-parent psychotherapy; 13. Family therapy; 14. Play therapy; 15. Parent training; 16. TF-CBT & parent training; 17. Combined somatic/cognitive therapies
CBT: cognitive behavioural therapy; CPT: cognitive processing therapy; EMDR: eye movement desensitisation and reprocessing; TAU: treatment as usual; TF: trauma-focused

B. Changes in PTSD symptom scores between baseline and 1-4 month follow-up

t[,1]	y[,1]	sd[,1]	n[,1]	t[,2]	y[,2]	sd[,2]	n[,2]	t[,3]	y[,3]	sd[,3]	n[,3]	na[]	#Study
1	0.08	5.76	19	5	-12.11	8.05	19	NA	NA	NA	NA	2	#Ahrens 2002
1	-1.52	5.20	82	3	-8.73	5.82	84	NA	NA	NA	NA	2	#Berger 2009
1	-2.2	9.07	12	3	-6.5	10.84	10	4	-22.8	8.75	10	3	#Chen 2014
1	0.78	10.15	18	4	-5.67	8.50	18	NA	NA	NA	NA	2	#Pityaratstian 2015
1	3.5	7.41	20	6	-4	7.72	19	12	-9.4	5.35	20	3	#Al-Hadethe 2015
2	-4.15	2.90	14	7	-5.53	2.09	21	10	-5.8	2.29	20	3	#Deblinger 1996/1999
1	-10.68	13.80	28	3	-16.87	14.42	24	6	-20.3	12.73	26	3	#Ertl 2011 / Neuner 2007
1	-1.91	1.95	12	7	-4.66	2.52	12	11	-6.33	4.06	12	3	#King 2000
6	-36.63	15.83	42	8	-31.31	14.61	43	NA	NA	NA	NA	2	#de Roos 2017
2	-6.78	8.14	11	9	-12.83	8.1	12	NA	NA	NA	NA	2	#Soberman 2002

t1, t2, t3 indicate the coded treatment in each trial arm
y1, y2, y3 indicate the mean change in effect in each trial arm
sd1, sd2, sd3 indicate the standard deviation of the mean change in effect in each trial arm
n1, n2, n3 indicate the number of participants in each trial arm
na indicates number of arms
NA: non-applicable

Treatment codes: 1. Waitlist / no treatment; 2. TAU; 3. Supportive counselling; 4. TF-CBT (group CBT); 5. TF-CBT (Cohen TF-CBT/CPT); 6. TF-CBT (narrative exposure); 7. TF-CBT (exposure/prolonged exposure); 8. EMDR; 9. EMDR & TAU; 10. Parent training; 11. TF-CBT & parent training; 12. Combined somatic/cognitive therapies

CBT: cognitive behavioural therapy; CPT: cognitive processing therapy; EMDR: eye movement desensitisation and reprocessing; TAU: treatment as usual; TF: trauma-focused

C. Dichotomous remission at treatment endpoint

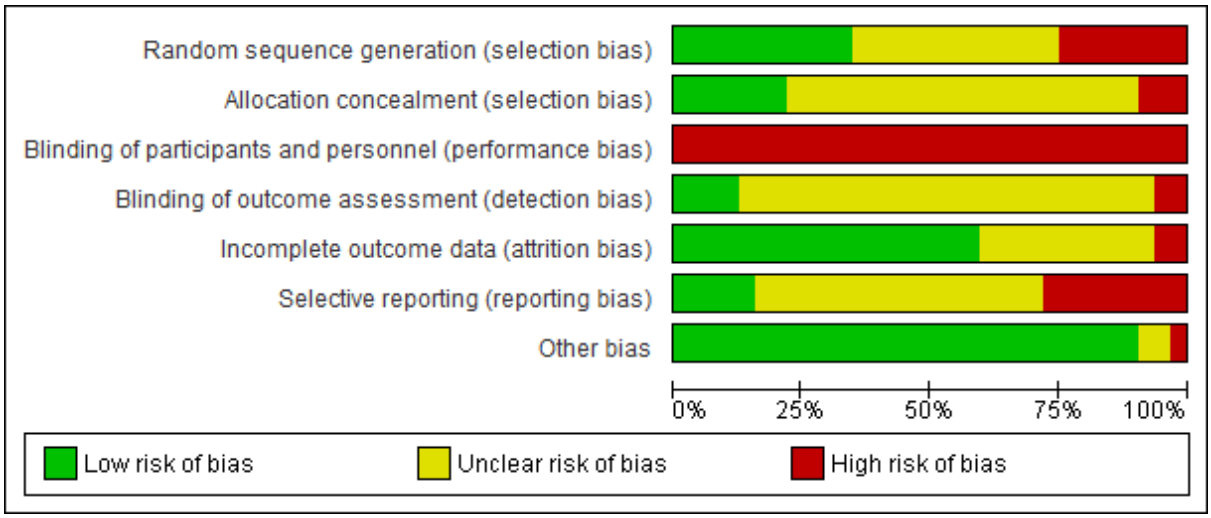
t[,1]	r[,1]	n[,1]	t[,2]	r[,2]	n[,2]	na[]	#Study
1	3	15	4	10	14	2	#Meiser-Stedman 2010/2017
1	5	12	4	11	12	2	#Smith 2007
1	24	63	5	34	57	2	#Goldbeck 2016/Sachser 2016
2	23	42	5	28	36	2	#Jensen 2014
1	4	13	6	11	13	2	#Ruf 2010
3	7	19	7	13	19	2	#Gilboa-Schechtman 2004/2010
3	8	18	5	24	32	2	#Cohen 2011/2005b
3	13	30	7	24	31	2	#Foa 2013
3	7	26	5	10	33	2	#Ford 2012

t1, t2, t3 indicate the coded treatment in each trial arm
r1, r2, r3 indicate the number of events in each trial arm
n1, n2, n3 indicate the number of participants in each trial arm
na indicates number of arms

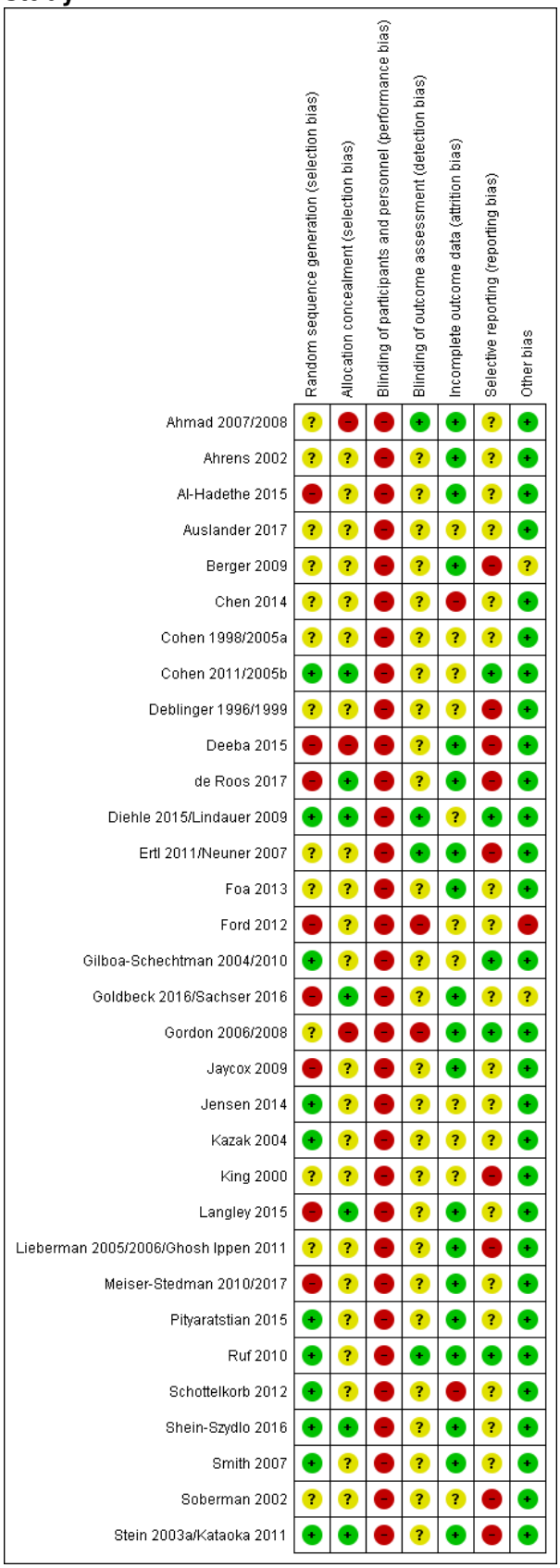
Treatment codes: 1. Waitlist; 2. TAU; 3. Supportive counselling; 4. TF-CBT (cognitive therapy); 5. TF-CBT (Cohen TF-CBT/CPT); 6. TF-CBT (narrative exposure); 7. TF-CBT (exposure/prolonged exposure)
CBT: cognitive behavioural therapy; CPT: cognitive processing therapy; TAU: treatment as usual; TF: trauma-focused

Appendix 9: Risk of bias of studies included in the NMA

Risk of bias graph: reviewer's judgements about each risk of bias item presented as percentages across all included studies.



Risk of bias graph: reviewer's judgements about each risk of bias item presented by study.



Appendix 10: Model fit statistics

A. Changes in PTSD symptom scores between baseline and treatment endpoint

Convergence was satisfactory for both fixed and random effects after 40,000 iterations, and the models were compared using results based on samples from a further 80,000 iterations on two chains. The random effects model provided a better fit over the fixed effect model; however, the between-trial standard deviation (posterior median tau 0.56, 95% CrI 0.37 to 0.89) was moderate-to-high when compared with the size of the intervention effect estimates.

Model	Between Study Heterogeneity - Standard Deviation			Residual deviance[a]	DIC[b]
	Posterior mean	Posterior median	95% CrI		
Fixed effect - consistency		-		142.20	340.17
Random effects - consistency	0.58	0.56	0.37 - 0.89	63.01	275.27
Random effects - inconsistency	0.73	0.70	0.44 - 1.21	63.05	277.32

[a] Posterior mean residual deviance compared to 63 total data points
[b] Deviance information criterion (DIC) – lower values preferred
CrI: credible intervals

B. Changes in PTSD symptom scores between baseline and 1-4 month follow-up

Convergence was satisfactory for both fixed and random effects after 60,000 iterations, and the models were compared using results based on samples from a further 120,000 iterations on two chains. The random effects model provided a better fit over the fixed effect model; however, high between trial heterogeneity (posterior median tau 0.81, 95% CrI 0.30 to 2.69) was observed relative to the size of the intervention effect estimates. The posterior distribution of the between-study standard deviation suggested that there were not enough data to update the prior distribution (Uniform(0,5)), which was influencing the estimate of heterogeneity; for this reason, an informative prior distribution on the logged between-study variance was used (Rhodes, Turner, & Higgins, 2015), as described in online Appendix 3. The between-study heterogeneity after use of informative priors, was moderate-to-high compared with the size of treatment effects (posterior median tau 0.46, 95% CrI 0.10 to 1.20).

Model	Between Study Heterogeneity - Standard Deviation			Residual deviance[a]	DIC[b]
	Posterior mean	Posterior median	95% CrI		
Fixed effect – consistency	-			41.51	128.18
Random effects – consistency	0.97	0.81	0.30 - 2.69	25.22	115.57
Random effects - consistency - informative prior	0.51	0.46	0.10 - 1.20	26.91	117.05
Random effects - inconsistency	0.90	0.75	0.28 - 2.47	25.11	115.39
Random effects - inconsistency - informative prior	0.49	0.45	0.13 - 1.14	26.46	116.44

[a] Posterior mean residual deviance compared to 25 total data points
[b] Deviance information criterion (DIC) – lower values preferred
CrI: credible intervals

C. Dichotomous remission at treatment endpoint

Convergence was satisfactory for both fixed and random effects after 40,000 iterations, and the models were compared using results based on samples from a further 80,000 iterations on two chains. Both fixed and random effects models provided good fit; therefore, the simpler, fixed effect model was chosen.

Model	Between Study Heterogeneity - Standard Deviation			Residual deviance[a]	DIC[b]
	Posterior mean	Posterior median	95% CrI		
Fixed effect – consistency	-			17.37	93.71
Random effects - consistency	0.65	0.54	0.03 - 1.80	17.38	95.03

[a] Posterior mean residual deviance compared to 18 total data points
[b] Deviance information criterion (DIC) – lower values preferred
CrI: credible intervals

Appendix 11: Relative effects between all pairs of interventions: results of network meta-analysis and direct (head-to-head) RCT comparisons

A. Standardised mean differences (changes in PTSD symptom scores) between baseline and treatment endpoint

[negative values favour first intervention in the comparison; head-to-head comparison results reported where available]

Comparison	Effect: standardised mean difference (SMD)	
	NMA mean SMD (95% CrI)	Head-to-head[a] mean SMD (95% CI)
TAU vs waitlist / no treatment	-0.31 (-1.16 to 0.56)	
Supportive counselling vs waitlist / no treatment	-0.59 (-1.29 to 0.12)	-0.48 (-1.33 to 0.37)
Meditation vs waitlist / no treatment	**-1.67 (-2.94 to -0.41)**	**-1.65 (-2.17 to -1.13)**
TF-CBT (group CBT) vs waitlist / no treatment	**-0.91 (-1.48 to -0.34)**	**-1.07 (-1.75 to -0.40)**
TF-CBT (Cohen TF-CBT/CPT) vs waitlist / no treatment	**-1.17 (-1.78 to -0.54)**	-1.50 (-3.24 to 0.24)
TF-CBT (cognitive therapy) vs waitlist / no treatment	**-2.94 (-3.94 to -1.95)**	**-2.77 (-4.31 to -1.23)**
TF-CBT (narrative exposure) vs waitlist / no treatment	**-1.49 (-2.25 to -0.74)**	**-1.51 (-2.00 to -1.03)**
TF-CBT (exposure/PE) vs waitlist / no treatment	**-1.34 (-2.15 to -0.51)**	**-1.70 (2.65 to -0.74)**
EMDR vs waitlist / no treatment	**-0.99 (-1.76 to -0.23)**	-0.85 (-2.65 to 0.95)
EMDR & TAU vs waitlist / no treatment	-0.28 (-1.96 to 1.40)	
Child-parent psychotherapy vs waitlist / no treatment	**-2.16 (-4.02 to -0.26)**	
Family therapy vs waitlist / no treatment	-0.37 (-1.60 to 0.84)	**-0.37 (-0.70 to -0.05)**
Play therapy vs waitlist / no treatment	**-1.35 (-2.48 to -0.20)**	
Parent training vs waitlist / no treatment	**-1.79 (-3.15 to -0.45)**	
TF-CBT & parent training vs waitlist / no treatment	-0.96 (-2.32 to 0.41)	**-1.73 (-2.69 to -0.77)**
Combined somatic/cognitive therapies vs waitlist / no treatment	**-2.14 (-3.34 to -0.92)**	**-1.85 (-2.60 to -1.10)**
Supportive counselling vs TAU	-0.29 (-1.18 to 0.59)	
Meditation vs TAU	-1.36 (-2.88 to 0.16)	
TF-CBT (group CBT) vs TAU	-0.60 (-1.51 to 0.31)	-0.78 (-1.62 to 0.05)
TF-CBT (Cohen TF-CBT/CPT) vs TAU	**-0.86 (-1.65 to -0.07)**	**-0.74 (-1.11 to -0.38)**
TF-CBT (cognitive therapy) vs TAU	**-2.63 (-3.97 to -1.33)**	
TF-CBT (narrative exposure) vs TAU	**-1.19 (-2.32 to -0.07)**	
TF-CBT (exposure/PE) vs TAU	**-1.03 (-1.94 to -0.12)**	**-0.97 (-1.69 to -0.25)**
EMDR vs TAU	-0.69 (-1.78 to 0.39)	
EMDR & TAU vs TAU	0.02 (-1.45 to 1.48)	0.02 (-0.84 to 0.88)
Child-parent psychotherapy vs TAU	**-1.86 (-3.63 to -0.08)**	
Family therapy vs TAU	-0.07 (-1.59 to 1.41)	
Play therapy vs TAU	**-1.04 (-2.04 to -0.06)**	**-1.07 (-1.44 to -0.70)**
Parent training vs TAU	-0.66 (-1.92 to 0.60)	-0.59 (-1.29 to 0.11)
TF-CBT & parent training vs TAU	-1.48 (-3.01 to 0.03)	
Combined somatic/cognitive therapies vs TAU	**-1.83 (-3.30 to -0.36)**	
Meditation vs supportive counselling	-1.07 (-2.53 to 0.34)	
TF-CBT (group CBT) vs supportive counselling	-0.31 (-1.13 to 0.50)	-0.70 (-1.61 to 0.21)
TF-CBT (Cohen TF-CBT/CPT) vs supportive counselling	-0.57 (-1.18 to 0.03)	**-0.42 (-0.67 to -0.17)**
TF-CBT (cognitive therapy) vs supportive counselling	**-2.34 (-3.56 to -1.16)**	
TF-CBT (narrative exposure) vs supportive counselling	-0.90 (-1.92 to 0.11)	
TF-CBT (exposure/PE) vs supportive counselling	-0.74 (-1.49 to 0.00)	**-0.69 (-1.18 to -0.20)**
EMDR vs supportive counselling	-0.40 (-1.37 to 0.55)	
EMDR & TAU vs supportive counselling	0.31 (-1.40 to 2.03)	
Child-parent psychotherapy vs supportive counselling	-1.57 (-3.44 to 0.30)	
Family therapy vs supportive counselling	0.23 (-1.18 to 1.62)	
Play therapy vs supportive counselling	-0.75 (-1.91 to 0.40)	
Parent training vs supportive counselling	-0.37 (-1.71 to 1.00)	
TF-CBT & parent training vs supportive counselling	-1.19 (-2.60 to 0.25)	
Combined somatic/cognitive therapies vs supportive counselling	**-1.54 (-2.93 to -0.15)**	
TF-CBT (group CBT) vs meditation	0.76 (-0.62 to 2.15)	

TF-CBT (Cohen TF-CBT/CPT) vs meditation	0.50 (-0.89 to 1.91)	
TF-CBT (cognitive therapy) vs meditation	-1.27 (-2.87 to 0.34)	
TF-CBT (narrative exposure) vs meditation	0.18 (-1.29 to 1.64)	
TF-CBT (exposure/PE) vs meditation	0.33(-1.17 to 1.83)	
EMDR vs meditation	0.68 (-0.77 to 2.17)	
EMDR & TAU vs meditation	1.38 (-0.74 to 3.53)	
Child-parent psychotherapy vs meditation	-0.49 (-2.76 to 1.78)	
Family therapy vs meditation	1.30 (-0.47 to 3.02)	
Play therapy vs meditation	0.32 (-1.36 to 2.00)	
Parent training vs meditation	0.71 (-1.13 to 2.59)	
TF-CBT & parent training vs meditation	-0.12 (-1.97 to 1.71)	
Combined somatic/cognitive therapies vs meditation	-0.47 (-2.22 to 1.28)	
TF-CBT (Cohen TF-CBT/CPT) vs TF-CBT (group CBT)	-0.26 (-1.03 to 0.51)	
TF-CBT (cognitive therapy) vs TF-CBT (group CBT)	**-2.03 (-3.18 to -0.89)**	
TF-CBT (narrative exposure) vs TF-CBT (group CBT)	-0.59 (-1.52 to 0.36)	
TF-CBT (exposure/PE) vs TF-CBT (group CBT)	-0.43 (-1.36 to 0.50)	
EMDR vs TF-CBT (group CBT)	-0.08 (-1.02 to 0.86)	
EMDR & TAU vs TF-CBT (group CBT)	0.62 (-1.08 to 2.34)	
Child-parent psychotherapy vs TF-CBT (group CBT)	-1.25 (-3.15 to 0.66)	
Family therapy vs TF-CBT (group CBT)	0.54 (-0.83 to 1.87)	
Play therapy vs TF-CBT (group CBT)	-0.44 (-1.62 to 0.78)	
Parent training vs TF-CBT (group CBT)	-0.05 (-1.47 to 1.37)	
TF-CBT & parent training vs TF-CBT (group CBT)	-0.88 (-2.33 to 0.57)	
Combined somatic/cognitive therapies vs TF-CBT (group CBT)	-1.23 (-2.55 to 0.11)	
TF-CBT (cognitive therapy) vs TF-CBT (Cohen TF-CBT/CPT)	**-1.77 (-2.95 to -0.62)**	
TF-CBT (narrative exposure) vs TF-CBT (Cohen TF-CBT/CPT)	-0.33 (-1.28 to 0.62)	
TF-CBT (exposure/PE) vs TF-CBT (Cohen TF-CBT/CPT)	-0.17 (-0.99 to 0.64)	
EMDR vs TF-CBT (Cohen TF-CBT/CPT)	0.18 (-0.67 to 1.03)	-0.04 (-0.60 to 0.53)
EMDR & TAU vs TF-CBT (Cohen TF-CBT/CPT)	0.88 (-0.76 to 2.53)	
Child-parent psychotherapy vs TF-CBT (Cohen TF-CBT/CPT)	-0.99 (-2.85 to 0.85)	
Family therapy vs TF-CBT (Cohen TF-CBT/CPT)	0.80 (-0.58 to 2.16)	
Play therapy vs TF-CBT ((Cohen TF-CBT/CPT)	-0.18 (-1.21 to 0.87)	-0.11 (-0.88 to 0.66)
Parent training vs TF-CBT (Cohen TF-CBT/CPT)	0.21 (-1.13 to 1.56)	
TF-CBT & parent training vs TF-CBT (Cohen TF-CBT/CPT)	-0.62 (-2.04 to 0.80)	
Combined somatic/cognitive therapies vs TF-CBT (Cohen TF-CBT/CPT)	-0.97 (-2.31 to 0.37)	
TF-CBT (narrative exposure) vs TF-CBT (cognitive therapy)	**1.44 (0.18 to 2.69)**	
TF-CBT (exposure/PE) vs TF-CBT (cognitive therapy)	**1.60 (0.33 to 2.90)**	
EMDR vs TF-CBT (cognitive therapy)	**1.95 (0.69 to 3.23)**	
EMDR & TAU vs TF-CBT (cognitive therapy)	**2.65 (0.70 to 4.62)**	
Child-parent psychotherapy vs TF-CBT (cognitive therapy)	0.78 (-1.35 to 2.89)	
Family therapy vs TF-CBT (cognitive therapy)	**2.57 (0.97 to 4.14)**	
Play therapy vs TF-CBT (cognitive therapy)	**1.59 (0.07 to 3.12)**	
Parent training vs TF-CBT (cognitive therapy)	**1.98 (0.28 to 3.69)**	
TF-CBT & parent training vs TF-CBT (cognitive therapy)	1.15 (-0.55 to 2.83)	
Combined somatic/cognitive therapies vs TF-CBT (cognitive therapy)	0.80 (-0.75 to 2.39)	
TF-CBT (exposure/PE) vs TF-CBT (narrative exposure)	0.16 (-0.94 to 1.25)	
EMDR vs TF-CBT (narrative exposure)	0.50 (-0.43 to 1.45)	0.13 (-0.29 to 0.56)
EMDR & TAU vs TF-CBT (narrative exposure)	1.21 (-0.63 to 3.05)	
Child-parent psychotherapy vs TF-CBT (narrative exposure)	-0.67 (-2.67 to 1.36)	
Family therapy vs TF-CBT (narrative exposure)	1.12 (-0.33 to 2.56)	
Play therapy vs TF-CBT (narrative exposure)	0.15 (-1.21 to 1.49)	
Parent training vs TF-CBT (narrative exposure)	0.53 (-1.01 to 2.10)	
TF-CBT & parent training vs TF-CBT (narrative exposure)	-0.30 (-1.81 to 1.25)	
Combined somatic/cognitive therapies vs TF-CBT (narrative exposure)	-0.64 (-1.83 to 0.57)	**-0.87 (-1.53 to -0.21)**
EMDR vs TF-CBT (exposure/PE)	0.35 (-0.71 to 1.42)	
EMDR & TAU vs TF-CBT (exposure/PE)	1.05 (-0.66 to 2.79)	

Child-parent psychotherapy vs TF-CBT (exposure/PE)	-0.83 (-2.61 to 0.97)	
Family therapy vs TF-CBT (exposure/PE)	0.96 (-0.52 to 2.44)	
Play therapy vs TF-CBT (exposure/PE)	-0.01 (-1.22 to 1.22)	
Parent training vs TF-CBT (exposure/PE)	0.38 (-0.86 to 1.62)	0.34 (-0.27 to 0.96)
TF-CBT & parent training vs TF-CBT (exposure/PE)	-0.45 (-1.83 to 0.92)	-0.36 (-1.16 to 0.45)
Combined somatic/cognitive therapies vs TF-CBT (exposure/PE)	-0.80 (-2.25 to 0.64)	
EMDR & TAU vs EMDR	0.71 (-1.10 to 2.52)	
Child-parent psychotherapy vs EMDR	-1.17 (-3.15 to 0.83)	
Family therapy vs EMDR	0.62 (-0.82 to 2.05)	
Play therapy vs EMDR	-0.36 (-1.67 to 0.93)	
Parent training vs EMDR	0.03 (-1.50 to 1.55)	
TF-CBT & parent training vs EMDR	-0.80 (-2.34 to 0.73)	
Combined somatic/cognitive therapies vs EMDR	-1.15 (-2.53 to 0.22)	
Child-parent psychotherapy vs EMDR & TAU	-1.88 (-4.18 to 0.43)	
Family therapy vs EMDR & TAU	-0.09 (-2.20 to 2.01)	
Play therapy vs EMDR & TAU	-1.06 (-2.83 to 0.72)	
Parent training vs EMDR & TAU	-0.68 (-2.64 to 1.26)	
TF-CBT & parent training vs EMDR & TAU	-1.50 (-3.61 to 0.62)	
Combined somatic/cognitive therapies vs EMDR & TAU	-1.85 (-3.94 to 0.25)	
Family therapy vs child-parent psychotherapy	1.79 (-0.46 to 4.05)	
Play therapy vs child-parent psychotherapy	0.82 (-1.17 to 2.81)	
Parent training vs child-parent psychotherapy	1.20 (-0.09 to 2.48)	1.19 (-0.66 to 1.72)
TF-CBT & parent training vs child-parent psychotherapy	0.37 (-1.85 to 2.55)	
Combined somatic/cognitive therapies vs child-parent psychotherapy	0.03 (-2.21 to 2.21)	
Play therapy vs family therapy	-0.97 (-2.64 to 0.70)	
Parent training vs family therapy	-0.59 (-2.43 to 1.26)	
TF-CBT & parent training vs family therapy	-1.42 (-3.22 to 0.41)	
Combined somatic/cognitive therapies vs family therapy	**-1.76 (-3.48 to -0.04)**	
Parent training vs play therapy	0.39 (-1.17 to 1.91)	
TF-CBT & parent training vs play therapy	-0.44 (-2.16 to 1.27)	
Combined somatic/cognitive therapies vs play therapy	-0.79 (-2.44 to 0.84)	
TF-CBT & parent training vs parent training	-0.83 (-2.61 to 0.98)	
Combined somatic/cognitive therapies vs parent training	-1.18 (-3.00 to 0.62)	
Combined somatic/cognitive therapies vs TF-CBT & parent training	-0.35 (-2.18 to 1.46)	
a obtained from standard pairwise meta-analysis of head-to-head trials conducted in Review Manager CBT: cognitive behavioural therapy; CI: confidence intervals; CPT: cognitive processing therapy; CrI: credible intervals; EMDR: eye movement desensitisation and reprocessing; PE: prolonged exposure; SMD: standardised mean difference; TAU: treatment as usual; TF: trauma-focused **In bold** effects where the 95% CrI do not cross the line of no effect (SMD=0)		

B. Standardised mean differences (changes in PTSD symptom scores) between baseline and 1-4 month follow-up

[negative values favour first intervention in the comparison; head-to-head comparison results reported where available]

Comparison	**Effect: standardised mean difference (SMD)**	
	NMA mean SMD (95% CrI)	**Head-to-head[a] mean SMD (95% CI)**
TAU vs waitlist / no treatment	-0.35 (-2.26 to 1.60)	
Supportive counselling vs waitlist / no treatment	-0.74 (-1.41 to 0.06)	-0.43 (-0.89 to 0.03)
TF-CBT (group CBT) vs waitlist / no treatment	**-1.51 (-2.48 to -0.61)**	**-1.28 (-1.93 to -0.63)**

TF-CBT (Cohen TF-CBT/CPT) vs waitlist / no treatment	**-1.74 (-3.09 to -0.42)**	**-1.71 (-2.46 to -0.95)**
TF-CBT (narrative exposure) vs waitlist / no treatment	**-0.94 (-1.84 to -0.04)**	**-0.82 (-1.24 to -0.39)**
TF-CBT (exposure/PE) vs waitlist / no treatment	-0.92 (-2.25 to 0.37)	**-1.18 (-2.06 to -0.30)**
EMDR vs waitlist / no treatment	-0.59 (-2.12 to 0.97)	
EMDR & TAU vs waitlist / no treatment	-1.10 (-3.51 to 1.23)	
Parent training vs waitlist / no treatment	-1.04 (-2.91 to 0.80)	
TF-CBT & parent training vs waitlist / no treatment	**-1.49 (-2.90 to -0.07)**	**-1.34 (-2.24 to -0.44)**
Combined somatic/cognitive therapies vs waitlist / no treatmet	**-1.80 (-3.01 to -0.58)**	**-1.96 (-2.72 to -1.19)**
Supportive counselling vs TAU	-0.39 (-2.35 to 1.74)	
TF-CBT (group CBT) vs TAU	-1.17 (-3.32 to 0.92)	
TF-CBT (Cohen TF-CBT/CPT) vs TAU	-1.40 (-3.70 to 0.90)	
TF-CBT (narrative exposure) vs TAU	-0.60 (-2.65 to 1.53)	
TF-CBT (exposure/PE) vs TAU	-0.58 (-1.96 to 0.79)	-0.55 (-1.24 to 0.14)
EMDR vs TAU	-0.25 (-2.64 to 2.21)	
EMDR & TAU vs TAU	-0.75 (-2.19 to 0.68)	-0.72 (-1.57 to 0.13)
Parent training vs TAU	-0.69 (-2.10 to 0.69)	-0.63 (-1.33 to 0.07)
TF-CBT & parent training vs TAU	-1.14 (-3.17 to 0.90)	
Combined somatic/cognitive therapies vs TAU	-1.45 (-3.65 to 0.81)	
TF-CBT (group CBT) vs supportive counselling	-0.78 (-1.93 to 0.24)	**-1.58 (-2.62 to -0.55)**
TF-CBT (Cohen TF-CBT/CPT) vs supportive counselling	-1.01 (-2.59 to 0.45)	
TF-CBT (narrative exposure) vs supportive counselling	-0.21 (-1.28 to 0.74)	-0.25 (-0.81 to 0.31)
TF-CBT (exposure/PE) vs supportive counselling	-0.19 (-1.76 to 1.25)	
EMDR vs supportive counselling	0.14 (-1.52 to 1.70)	
EMDR & TAU vs supportive counselling	-0.36 (-2.94 to 2.05)	
Parent training vs supportive counselling	-0.30 (-2.38 to 1.60)	
TF-CBT & parent training vs supportive counselling	-0.75 (-2.41 to 0.78)	
Combined somatic/cognitive therapies vs supportive counselling	-1.06 (-2.50 to 0.24)	
TF-CBT (Cohen TF-CBT/CPT) vs TF-CBT (group CBT)	-0.23 (-1.86 to 1.41)	
TF-CBT (narrative exposure) vs TF-CBT (group CBT)	0.57 (-0.66 to 1.89)	
TF-CBT (exposure/PE) vs TF-CBT (group CBT)	0.59 (-1.03 to 2.23)	
EMDR vs TF-CBT (group CBT)	0.92 (-0.83 to 2.72)	
EMDR & TAU vs TF-CBT (group CBT)	0.42 (-2.12 to 2.97)	
Parent training vs TF-CBT (group CBT)	0.47 (-1.60 to 2.55)	
TF-CBT & parent training vs TF-CBT (group CBT)	0.03 (-1.66 to 1.72)	
Combined somatic/cognitive therapies vs TF-CBT (group CBT)	-0.29 (-1.75 to 1.28)	
TF-CBT (narrative exposure) vs TF-CBT (Cohen TF-CBT/CPT)	0.80 (-0.81 to 2.39)	
TF-CBT (exposure/PE) vs TF-CBT (Cohen TF-CBT/CPT)	0.82 (-1.00 to 2.69)	
EMDR vs TF-CBT (Cohen TF-CBT/CPT)	1.15 (-0.85 to 3.20)	
EMDR & TAU vs TF-CBT (Cohen TF-CBT/CPT)	0.64 (-2.06 to 3.33)	
Parent training vs TF-CBT (Cohen TF-CBT/CPT)	0.70 (-1.56 to 2.94)	
TF-CBT & parent training vs TF-CBT (Cohen TF-CBT/CPT)	0.26 (-1.69 to 2.18)	
Combined somatic/cognitive therapies vs TF-CBT (Cohen TF-CBT/CPT)	-0.06 (-1.87 to 1.78)	
TF-CBT (exposure/PE) vs TF-CBT (narrative exposure)	0.02 (-1.57 to 1.58)	
EMDR vs TF-CBT (narrative exposure)	0.35 (-0.92 to 1.61)	0.35 (-0.08 to 0.77)
EMDR & TAU vs TF-CBT (narrative exposure)	-0.16 (-2.72 to 2.34)	
Parent training vs TF-CBT (narrative exposure)	-0.10 (-2.17 to 1.89)	
TF-CBT & parent training vs TF-CBT (narrative exposure)	-0.55 (-2.23 to 1.13)	
Combined somatic/cognitive therapies vs TF-CBT (narrative exposure)	-0.86 (-2.07 to 0.37)	**-0.80 (-1.46 to -0.15)**
EMDR vs TF-CBT (exposure/PE)	0.33 (-1.70 to 2.38)	
EMDR & TAU vs TF-CBT (exposure/PE)	-0.18 (-2.15 to 1.83)	
Parent training vs TF-CBT (exposure/PE)	-0.12 (-1.45 to 1.17)	-0.12 (-0.73 to 0.49)
TF-CBT & parent training vs TF-CBT (exposure/PE)	-0.56 (-2.02 to 0.90)	-0.48 (-1.29 to 0.34)
Combined somatic/cognitive therapies vs TF-CBT (exposure/PE)	-0.88 (-2.66 to 0.90)	

EMDR & TAU vs EMDR	-0.51 (-3.32 to 2.27)	
Parent training vs EMDR	-0.45 (-2.85 to 1.92)	
TF-CBT & parent training vs EMDR	-0.89 (-2.97 to 1.17)	
Combined somatic/cognitive therapies vs EMDR	-1.21 (-2.95 to 0.56)	
Parent training vs EMDR & TAU	0.06 (-1.97 to 2.06)	
TF-CBT & parent training vs EMDR & TAU	-0.39 (-2.87 to 2.11)	
Combined somatic/cognitive therapies vs EMDR & TAU	-0.70 (-3.33 to 1.99)	
TF-CBT & parent training vs parent training	-0.45 (-2.39 to 1.55)	
Combined somatic/cognitive therapies vs parent training	-0.76 (-2.95 to 1.43)	
Combined somatic/cognitive therapies vs TF-CBT & parent training	-0.31 (-2.16 to 1.55)	
a obtained from standard pairwise meta-analysis of head-to-head trials conducted in Review Manager CBT: cognitive behavioural therapy; CI: confidence intervals; CPT: cognitive processing therapy; CrI: credible intervals; EMDR: eye movement desensitisation and reprocessing; PE: prolonged exposure; SMD: standardised mean difference; TAU: treatment as usual; TF: trauma-focused **In bold** effects where the 95% CrI do not cross the line of no effect (SMD=0)		

C. Dichotomous remission at treatment endpoint

[positive values favour first intervention in the comparison; head-to-head comparison results reported where available]

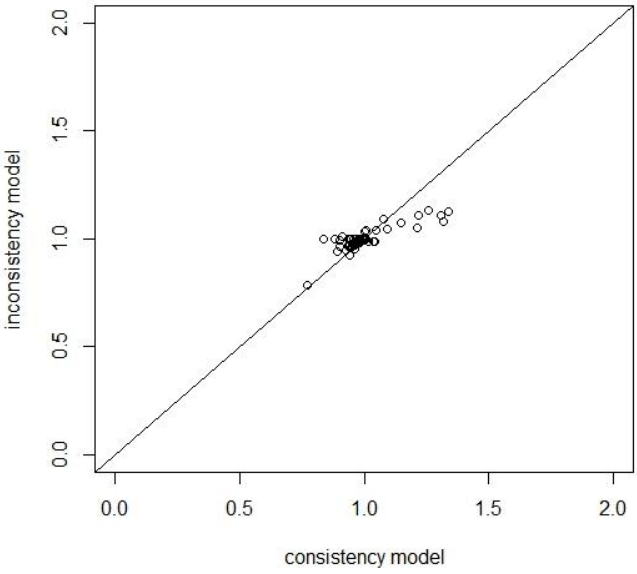
Comparison	**Effect: log-odds ratios (LOR)**	
	NMA mean LOR (95% CrI)	**Head-to-head[a] mean LOR (95% CI)**
TAU vs waitlist	-0.21 (-1.48 to 1.03)	
Supportive counselling vs waitlist	0.15 (-0.98 to 1.28)	
TF-CBT (cognitive therapy) vs waitlist	**2.66 (1.28 to 4.22)**	**2.47 (1.09 to 3.85)**
TF-CBT (Cohen TF-CBT/CPT) vs waitlist	**0.89 (0.15 to 1.64)**	**0.88 (0.14 to 1.61)**
TF-CBT (narrative exposure) vs waitlist	**2.81 (0.87 to 5.13)**	**2.52 (0.60 to 4.43)**
TF-CBT (exposure/PE) vs waitlist	**1.62 (0.22 to 3.04)**	
Supportive counselling vs TAU	0.36 (-0.95 to 1.69)	
TF-CBT (cognitive therapy) vs TAU	**2.87 (1.01 to 4.88)**	
TF-CBT (Cohen TF-CBT/CPT) vs TAU	**1.10 (0.13 to 2.15)**	**1.06 (0.07 to 2.06)**
TF-CBT (narrative exposure) vs TAU	**3.02 (0.71 to 5.62)**	
TF-CBT (exposure/PE) vs TAU	**1.83 (0.26 to 3.45)**	
TF-CBT (cognitive therapy) vs supportive counselling	**2.51 (0.72 to 4.44)**	
TF-CBT (Cohen TF-CBT/CPT) vs supportive counselling	0.74 (-0.11 to 1.60)	0.72 (-0.42 to 1.85)
TF-CBT (narrative exposure) vs supportive counselling	**2.66 (0.40 to 5.18)**	
TF-CBT (exposure/PE) vs supportive counselling	**1.47 (0.62 to 2.36)**	**1.50 (0.39 to 2.61)**
TF-CBT (Cohen TF-CBT/CPT) vs TF-CBT (cognitive therapy)	**-1.77 (-3.49 to -0.20)**	
TF-CBT (narrative exposure) vs TF-CBT (cognitive therapy)	0.15 (-2.33 to 2.83)	
TF-CBT (exposure/PE) vs TF-CBT (cognitive therapy)	-1.04 (-3.14 to 0.95)	
TF-CBT (narrative exposure) vs TF-CBT (Cohen TF-CBT/CPT)	1.92 (-0.16 to 4.31)	
TF-CBT (exposure/PE) vs TF-CBT (Cohen TF-CBT/CPT)	0.73 (-0.49 to 1.96)	
TF-CBT (exposure/PE) vs TF-CBT (narrative exposure)	-1.19 (-3.83 to 1.27)	
a obtained from standard pairwise meta-analysis of head-to-head trials conducted in Review Manager CBT: cognitive behavioural therapy; CI: confidence intervals; CPT: cognitive processing therapy; CrI: credible intervals; LOR: log-odds ratio; PE: prolonged exposure; TAU: treatment as usual; TF: trauma-focused **In bold** effects where the 95% CrI do not cross the line of no effect (LOR=0)		

Appendix 12: Inconsistency checks - results

A. Changes in PTSD symptom scores between baseline and treatment endpoint

No evidence of inconsistency was found through comparison of the consistency and inconsistency random effects models, as little difference was observed between the fit of the models. Further checks for inconsistency using the node-splitting method (random effects model) did not find any evidence of inconsistency between the direct and indirect estimates.

Deviance contributions for the random effects consistency and inconsistency models



Summary of node-splitting results

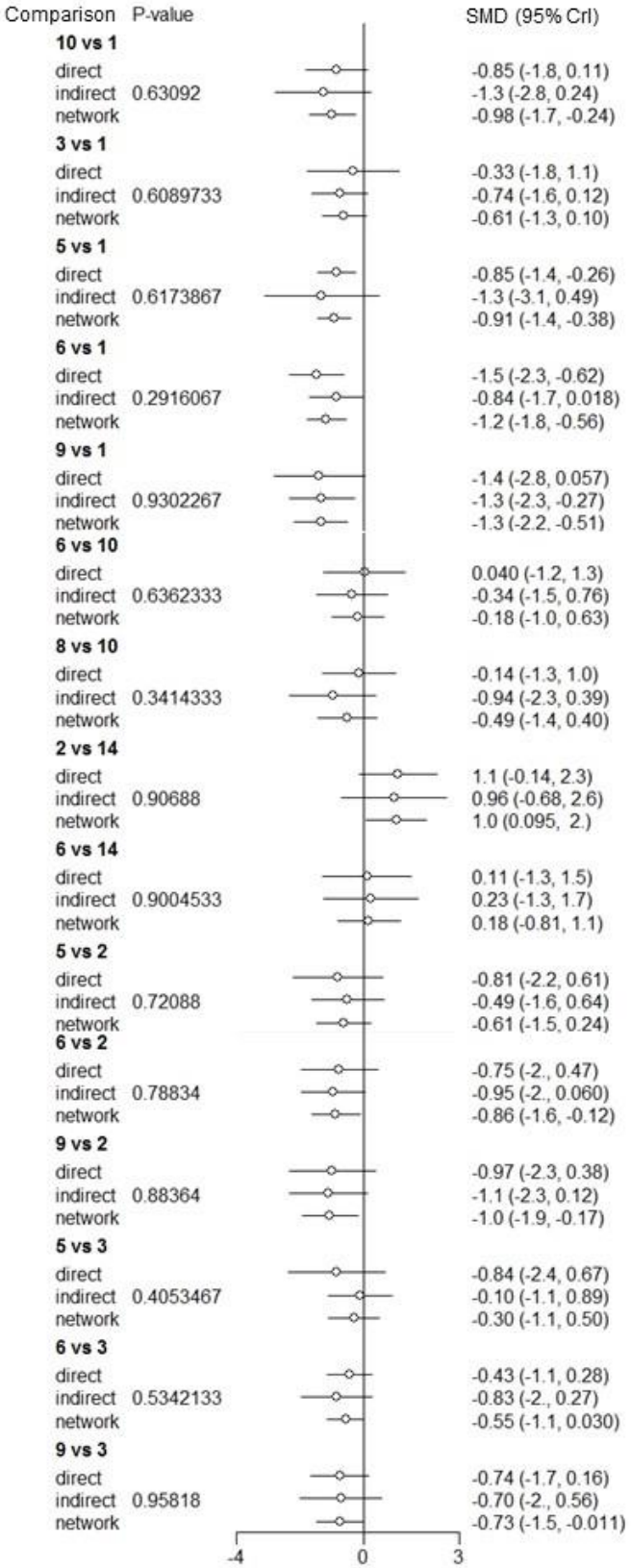
Node split model	Heterogeneity (SD)		Residual deviance	Data points[a]	p-value[b]
	Median	95% CrI			
EMDR vs waitlist / no treatment	0.56	(0.35, 0.93)	33.4	33	0.63
Supportive counselling vs waitlist / no treatment	0.55	(0.34, 0.91)	33.6	33	0.61
TF-CBT (group CBT) vs waitlist / no treatment	0.55	(0.34, 0.92)	33.5	33	0.62
TF-CBT (Cohen TF-CBT/CPT) vs waitlist / no treatment	0.53	(0.33, 0.87)	34.0	34	0.29
TF-CBT (exposure/PE) vs waitlist / no treatment	0.54	(0.33, 0.89)	33.6	33	0.93
TF-CBT (Cohen TF-CBT/CPT) vs EMDR	0.54	(0.33, 0.89)	34.4	34	0.64
TF-CBT (narrative exposure) vs EMDR	0.52	(0.31, 0.87)	33.3	33	0.34
TAU vs. play therapy	0.55	(0.34, 0.89)	34.4	34	0.91
TF-CBT (Cohen TF-CBT/CPT) vs play therapy	0.55	(0.34, 0.89)	34.4	34	0.90
TF-CBT (group CBT) vs TAU	0.54	(0.33, 0.89)	34.5	34	0.72
TF-CBT (Cohen TF-CBT/CPT) vs TAU	0.55	(0.34, 0.89)	34.3	34	0.79
TF-CBT (exposure/PE) vs TAU	0.54	(0.33, 0.9)	33.4	33	0.88
TF-CBT (group CBT) vs supportive counselling	0.55	(0.34, 0.91)	33.6	33	0.41
TF-CBT (Cohen TF-CBT/CPT) vs supportive counselling	0.54	(0.33, 0.88)	34.3	34	0.53
TF-CBT (exposure/PE) vs supportive counselling	0.54	(0.33, 0.89)	34.5	34	0.96
NMA (no nodes split)	0.52	(0.32, 0.85)	34.4	34	**---**

[a] The number of data points varies due to the inclusion of multi-arm trials (van Valkenhoef, G., Dias, S., Ades, A. E., & Welton, N. J. (2016). Automated generation of node-splitting models for assessment of inconsistency in network meta-analysis. Research Synthesis Methods, 7, 80-93). Continuous trial data were inputted as standardised mean differences, accompanied with the standard error of the mean of the baseline arm on the standardised scale in order to compute the covariance of the differences in multi-arm trials.

[b] p-values < 0.05 is indicative of evidence of inconsistency between the direct and indirect estimates

CBT: cognitive behavioural therapy; CPT: cognitive processing therapy; EMDR: eye movement desensitisation and reprocessing; NMA: network meta-analysis; PE: prolonged exposure; SD: standard deviation; TAU: treatment as usual; TF: trauma-focused

Direct, indirect, and network estimates of relative treatment effects based on node-splitting results

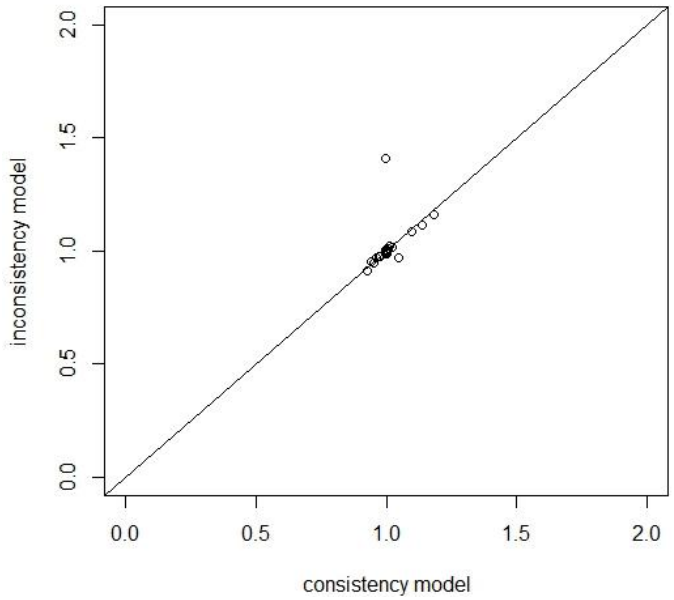


Treatments codes: 1. Waitlist / no treatment; 2. TAU; 3. Supportive counselling; 4. Meditation; 5. TF-CBT (group CBT); 6/ TF-CBT (Cohen TF-CBT/CPT); 7. TF-CBT (cognitive therapy); 8. TF-CBT (narrative exposure); 9. TF-CBT (exposure/PE); 10. EMDR; 11. EMDR & TAU; 12. Child-parent psychotherapy; 13. Family therapy; 14. Play therapy; 15. Parent training; 16. TF-CBT & parent training; 17. Combined somatic/cognitive therapies

B. Changes in PTSD symptom scores between baseline and 1-4 month follow-up

No evidence of inconsistency was found through comparison of the consistency and inconsistency random effects models, as little difference was observed between the fit of the models. Further checks for inconsistency using the node-splitting method (random effects model) did not find any evidence of inconsistency between the direct and indirect estimates.

Deviance contributions for the random effects consistency and inconsistency models

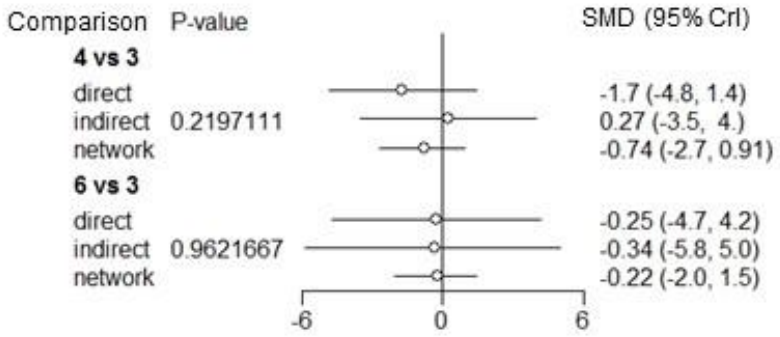


Summary of node-splitting results

Node split model	Heterogeneity (SD)		Residual deviance	Data points[a]	p-value[b]
	Median	95% CrI			
TF-CBT (group CBT) vs supportive counselling	0.72	(0.09, 3.92)	14.2	14	0.22
TF-CBT (narrative exposure) vs supportive counselling	1.44	(0.35, 4.50)	14.2	14	0.96
NMA (no nodes split)	0.74	(0.22, 2.62)	15.5	15	---

[a] The number of data points varies due to the inclusion of multi-arm trials (van Valkenhoef, G., Dias, S., Ades, A. E., & Welton, N. J. (2016). Automated generation of node-splitting models for assessment of inconsistency in network meta-analysis. Research Synthesis Methods, 7, 80-93). Continuous trial data were inputted as standardised mean differences, accompanied with the standard error of the mean of the baseline arm on the standardised scale in order to compute the covariance of the differences in multi-arm trials.
[b] p-values < 0.05 is indicative of evidence of inconsistency between the direct and indirect estimates
NMA: network meta-analysis; SD: standard deviation

Direct, indirect, and network estimates of relative treatment effects based on node-splitting results



Treatment codes: 1. Waitlist / no treatment; 2. TAU; 3. Supportive counselling; 4. TF-CBT (group CBT); 5. TF-CBT (Cohen TF-CBT/CPT); 6. TF-CBT (narrative exposure); 7. TF-CBT (exposure/PE); 8. EMDR; 9. EMDR & TAU; 10. Parent training; 11. TF-CBT & parent training; 12. Combined somatic/cognitive therapiies

C. Dichotomous remission at treatment endpoint

Since there were no closed loops of direct evidence within the network, inconsistency checks were not possible for this outcome.

Appendix 13: Threshold analysis – results

A. Changes in PTSD symptom scores between baseline and treatment endpoint

Among the treatments that have been studied on at least 50 patients, [TF-CBT] narrative exposure was the most efficacious in improving PTSD symptom scores between baseline and treatment endpoint (posterior mean SMD: -1.49, 95% CrI: -2.25 to -0.74). In these threshold analyses, we assess whether the recommendation of [TF-CBT] narrative exposure based on the NMA results is sensitive to plausible bias or random error in the evidence. The treatment codes presented in Table 1 may be referred to in Figures 1-2 and Tables 2-3.

Table 1: Treatments and their corresponding treatment code

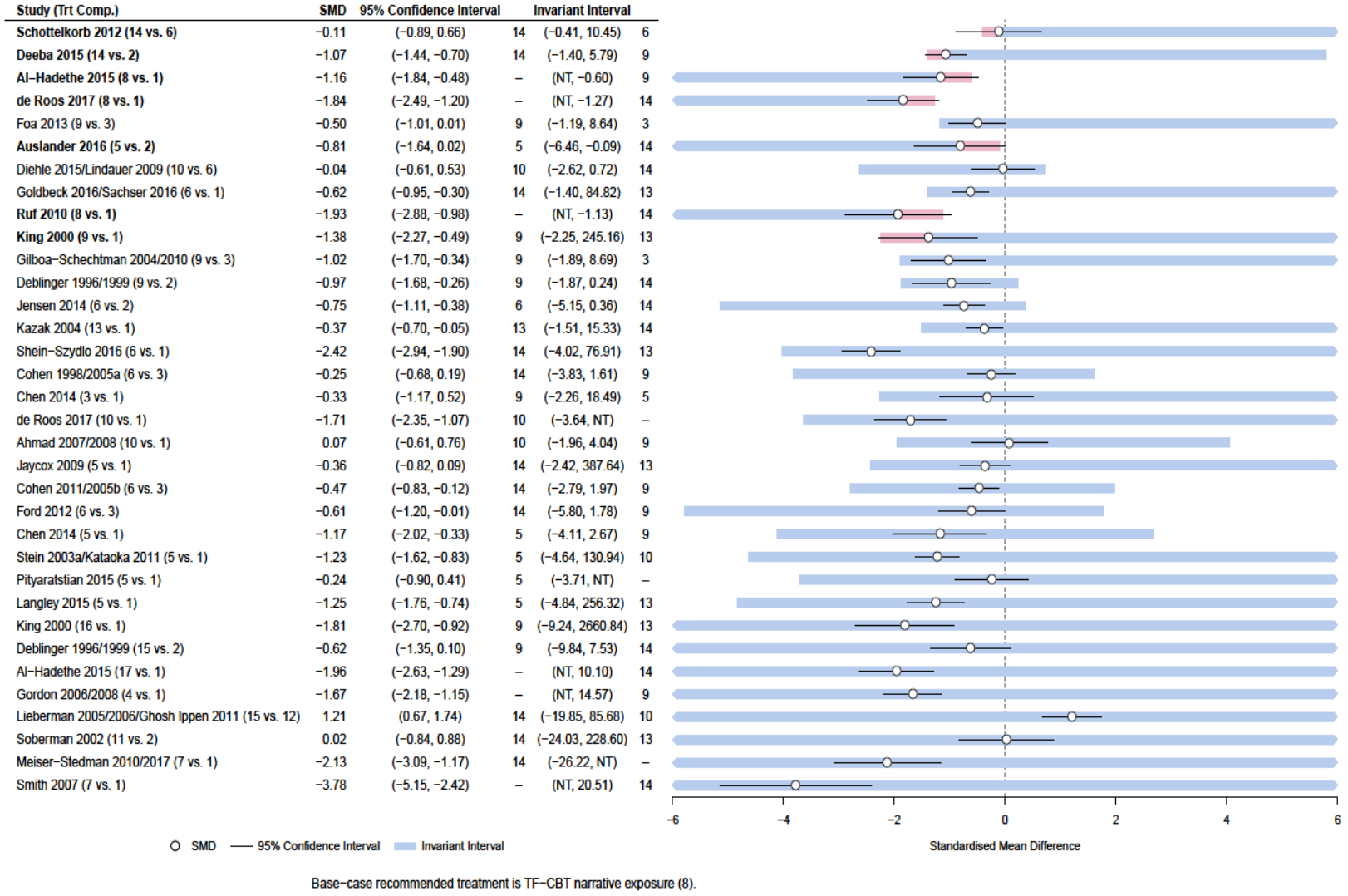
Treatment	Code	Sample size
Waitlist / no treatment	1	513
TAU	2	158
Supportive counselling	3	180
Meditation	4	38
TF-CBT (group CBT)	5	171
TF-CBT (Cohen TF-CBT/CPT)	6	349
TF-CBT (cognitive therapy)	7	25
TF-CBT (narrative exposure)	8	73
TF-CBT (exposure/prolonged exposure)	9	83
EMDR	10	85
EMDR & TAU	11	10
Child-parent psychotherapy	12	36
Family therapy	13	75
Play therapy	14	83
Parent training	15	49
TF-CBT & parent training	16	12
Combined somatic/cognitive therapies	17	20

Treatments with at least 50 patients are italicised and were the only ones considered in the threshold analysis.
CBT: cognitive behavioural therapy; CPT: cognitive processing therapy; EMDR: eye movement desensitisation and reprocessing; TAU: treatment as usual; TF: trauma-focused

Play therapy could also plausibly be recommended as the best treatment, as the results of the NMA are sensitive to imprecision in 5 studies (Schottelkorb 2012, Deeba 2015, de Roos 2017, Auslander 2016, Ruf 2010) (Figure 1). These studies directly contribute to evidence for some of the contrasts that are also sensitive to imprecision, in which play therapy would be recommended if the point estimates changed (Figure 2). The smallest invariant threshold in which play therapy would be recommended for reasons beyond imprecision was observed in Diehle 2015/Lindauer 2009, where the estimate would have to be biased by SMD=0.76 in favour of TF-CBT (Cohen TF-CBT/CPT) (Table 2).

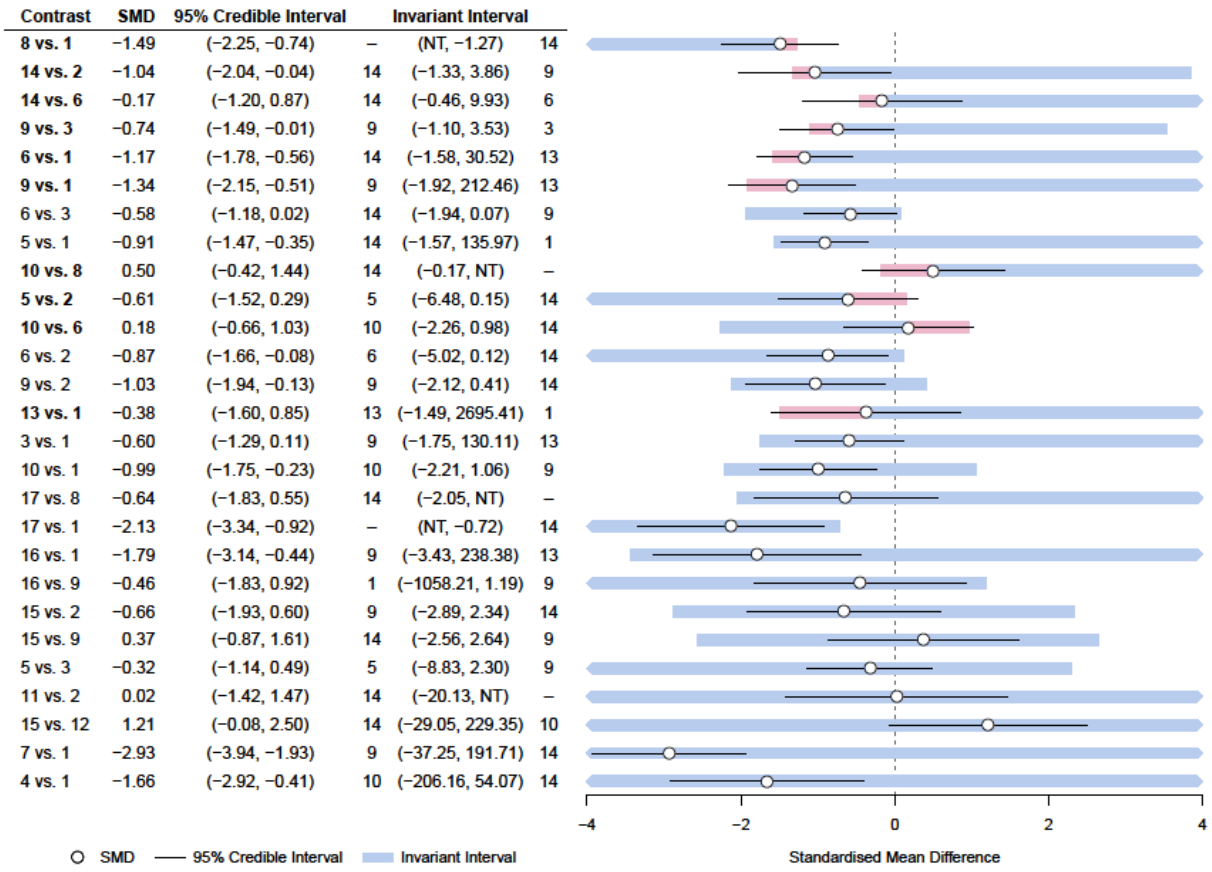
[TF-CBT] exposure/prolonged exposure could also plausibly be ranked best if the point estimates changed, as the NMA results are sensitive to imprecision in 2 studies (Al-Hadethe 2015 and King 2000) (Figure 1). The pooled direct estimate of [TF-CBT] exposure/prolonged exposure versus supportive counselling would have to be biased by SMD=0.36 in favour of the former treatment for it to be recommended (Table 3).

Figure 1: Study-level threshold analysis, where [TF-CBT] narrative exposure is the base-case recommended best treatment, and only treatments that have been studied on at least 50 patients are considered.



Base−case recommended treatment is TF−CBT narrative exposure (8).

Figure 2: Contrast-level threshold analysis, where [TF-CBT] narrative exposure is the base-case recommended best treatment, and only treatments that have been studied on at least 50 patients are considered.



Contrast	SMD	95% Credible Interval		Invariant Interval	
8 vs. 1	−1.49	(−2.25, −0.74)	–	(NT, −1.27)	14
14 vs. 2	−1.04	(−2.04, −0.04)	14	(−1.33, 3.86)	9
14 vs. 6	−0.17	(−1.20, 0.87)	14	(−0.46, 9.93)	6
9 vs. 3	−0.74	(−1.49, −0.01)	9	(−1.10, 3.53)	3
6 vs. 1	−1.17	(−1.78, −0.56)	14	(−1.58, 30.52)	13
9 vs. 1	−1.34	(−2.15, −0.51)	9	(−1.92, 212.46)	13
6 vs. 3	−0.58	(−1.18, 0.02)	14	(−1.94, 0.07)	9
5 vs. 1	−0.91	(−1.47, −0.35)	14	(−1.57, 135.97)	1
10 vs. 8	0.50	(−0.42, 1.44)	14	(−0.17, NT)	–
5 vs. 2	−0.61	(−1.52, 0.29)	5	(−6.48, 0.15)	14
10 vs. 6	0.18	(−0.66, 1.03)	10	(−2.26, 0.98)	14
6 vs. 2	−0.87	(−1.66, −0.08)	6	(−5.02, 0.12)	14
9 vs. 2	−1.03	(−1.94, −0.13)	9	(−2.12, 0.41)	14
13 vs. 1	−0.38	(−1.60, 0.85)	13	(−1.49, 2695.41)	1
3 vs. 1	−0.60	(−1.29, 0.11)	9	(−1.75, 130.11)	13
10 vs. 1	−0.99	(−1.75, −0.23)	10	(−2.21, 1.06)	9
17 vs. 8	−0.64	(−1.83, 0.55)	14	(−2.05, NT)	–
17 vs. 1	−2.13	(−3.34, −0.92)	–	(NT, −0.72)	14
16 vs. 1	−1.79	(−3.14, −0.44)	9	(−3.43, 238.38)	13
16 vs. 9	−0.46	(−1.83, 0.92)	1	(−1058.21, 1.19)	9
15 vs. 2	−0.66	(−1.93, 0.60)	9	(−2.89, 2.34)	14
15 vs. 9	0.37	(−0.87, 1.61)	14	(−2.56, 2.64)	9
5 vs. 3	−0.32	(−1.14, 0.49)	5	(−8.83, 2.30)	9
11 vs. 2	0.02	(−1.42, 1.47)	14	(−20.13, NT)	–
15 vs. 12	1.21	(−0.08, 2.50)	14	(−29.05, 229.35)	10
7 vs. 1	−2.93	(−3.94, −1.93)	9	(−37.25, 191.71)	14
4 vs. 1	−1.66	(−2.92, −0.41)	10	(−206.16, 54.07)	14

Base−case recommended treatment is TF−CBT narrative exposure (8).

Table 2: Study-level thresholds for Changes in PTSD symptom scores between baseline and treatment endpoint				
Study (Contrast)	**Thresholds and New Optimal Treatments**			
		Lower	**Upper**	
Schottelkorb 2012 (14 vs. 6)	14	-0.30	10.57	6
Deeba 2015 (14 vs. 2)	14	-0.33	6.86	9
Al-Hadethe 2015 (8 vs. 1)	-	NT	0.56	9
de Roos 2017 (8 vs. 1)	-	NT	0.57	14
Foa 2013 (9 vs. 3)	9	-0.69	9.14	3
Auslander 2016 (5 vs. 2)	5	-5.65	0.72	14
Diehle 2015/Lindauer 2009 (10 vs. 6)	10	-2.59	0.76	14
Goldbeck 2016/Sachser 2016 (6 vs. 1)	14	-0.77	85.44	13
Ruf 2010 (8 vs. 1)	-	NT	0.80	14
King 2000 (9 vs. 1)	9	-0.87	246.54	13
Gilboa-Schechtman 2004/2010 (9 vs. 3)	9	-0.87	9.71	3
Deblinger 1996/1999 (9 vs. 2)	9	-0.90	1.21	14
Jensen 2014 (6 vs. 2)	6	-4.40	1.11	14
Kazak 2004 (13 vs. 1)	13	-1.13	15.70	14
Shein-Szydlo 2016 (6 vs. 1)	14	-1.60	79.33	13
Cohen 1998/2005a (6 vs. 3)	14	-3.58	1.86	9
Chen 2014 (3 vs. 1)	9	-1.93	18.81	5
de Roos 2017 (10 vs. 1)	10	-1.93	NT	-
Ahmad 2007/2008 (10 vs. 1)	10	-2.03	3.97	9
Jaycox 2009 (5 vs. 1)	14	-2.06	388.00	13
Cohen 2011/2005b (6 vs. 3)	14	-2.32	2.44	9
Ford 2012 (6 vs. 3)	14	-5.19	2.39	9
Chen 2014 (5 vs. 1)	5	-2.94	3.84	9
Stein 2003a/Kataoka 2011 (5 vs. 1)	5	-3.41	132.17	10
Pityaratstian 2015 (5 vs. 1)	5	-3.46	NT	-
Langley 2015 (5 vs. 1)	5	-3.58	257.57	13
King 2000 (16 vs. 1)	9	-7.42	2662.65	13
Deblinger 1996/1999 (15 vs. 2)	9	-9.21	8.15	14
Al-Hadethe 2015 (17 vs. 1)	-	NT	12.06	14
Gordon 2006/2008 (4 vs. 1)	-	NT	16.24	9
Lieberman 2005/2006/Ghosh Ippen 2011 (15 vs. 12)	14	-21.05	84.47	10
Soberman 2002 (11 vs. 2)	14	-24.05	228.58	13
Meiser-Stedman 2010/2017 (7 vs. 1)	14	-24.09	NT	-
Smith 2007 (7 vs. 1)	-	NT	24.29	14

Table 3: Contrast-level thresholds for Changes in PTSD symptom scores between baseline and treatment endpoint				
Contrast	**Thresholds and New Optimal Treatments**			
		Lower	**Upper**	
8 vs. 1	-	NT	0.22	14
14 vs. 2	14	-0.30	4.89	9
14 vs. 6	14	-0.30	10.10	6
9 vs. 3	9	-0.36	4.27	3
6 vs. 1	14	-0.41	31.69	13
9 vs. 1	9	-0.58	213.80	13
6 vs. 3	14	-1.37	0.65	9
5 vs. 1	14	-0.66	136.88	1
10 vs. 8	14	-0.67	NT	-
5 vs. 2	5	-5.87	0.75	14
10 vs. 6	10	-2.44	0.80	14
6 vs. 2	6	-4.16	0.99	14
9 vs. 2	9	-1.09	1.44	14
13 vs. 1	13	-1.12	2695.78	1
3 vs. 1	9	-1.15	130.71	13
10 vs. 1	10	-1.21	2.05	9
17 vs. 8	14	-1.41	NT	-
17 vs. 1	-	NT	1.41	14
16 vs. 1	9	-1.64	240.17	13
16 vs. 9	1	-1057.76	1.65	9
15 vs. 2	9	-2.23	3.00	14
15 vs. 9	14	-2.93	2.27	9
5 vs. 3	5	-8.52	2.61	9
11 vs. 2	14	-20.15	NT	-
15 vs. 12	14	-30.26	228.14	10
7 vs. 1	9	-34.32	194.64	14
4 vs. 1	10	-204.50	55.73	14

B. Changes in PTSD symptom scores between baseline and 1-4 months follow-up

Among the treatments that have been studied on at least 50 patients, [TF-CBT] group CBT was the most efficacious in improving PTSD symptom scores between baseline and 1-4 months follow-up (posterior mean SMD: -1.51, 95% CrI: -2.48 to -0.61). In these threshold analyses, we assess whether the recommendation of [TF-CBT] group CBT based on the NMA results is sensitive to plausible bias or random error in the evidence. The treatment codes presented in Table 4 may be referred to in Figures 3-4 and Tables 5-6.

Table 4: Treatments and their corresponding treatment code

Treatment	Code	Sample size
Waitlist / no treatment	1	191
TAU	2	25
Supportive counselling	3	34
TF-CBT (group CBT)	4	112
TF-CBT (Cohen TF-CBT/CPT)	5	19
TF-CBT (narrative exposure)	6	87
TF-CBT (exposure/prolonged exposure)	7	33
EMDR	8	43
EMDR & TAU	9	12
Parent training	10	20
TF-CBT & parent training	11	12
Combined somatic/cognitive therapies	12	20

Treatments with at least 50 patients are italicised and were the only ones considered in the threshold analysis.
CBT: cognitive behavioural therapy; CPT: cognitive processing therapy; EMDR: eye movement desensitisation and reprocessing; TAU: treatment as usual; TF: trauma-focused

[TF-CBT] narrative exposure could also plausibly be recommended as the best treatment, as the results of the NMA are sensitive to imprecision in the pooled direct estimate of [TF-CBT] group CBT versus waitlist/no treatment (Figure 4). Aside from this, the smallest invariant threshold in which [TF-CBT] narrative exposure would be recommended was observed in the pooled direct estimate of [TF-CBT] narrative exposure versus waitlist/no treatment, where the estimate would have to biased by SMD=1.02 (a large bias) in favour of the former treatment (Tables 5-6).

Figure 3: Study-level threshold analysis, where [TF-CBT] group therapy is base-case recommended best treatment, and only treatments with evidence on at least 50 patients are considered.

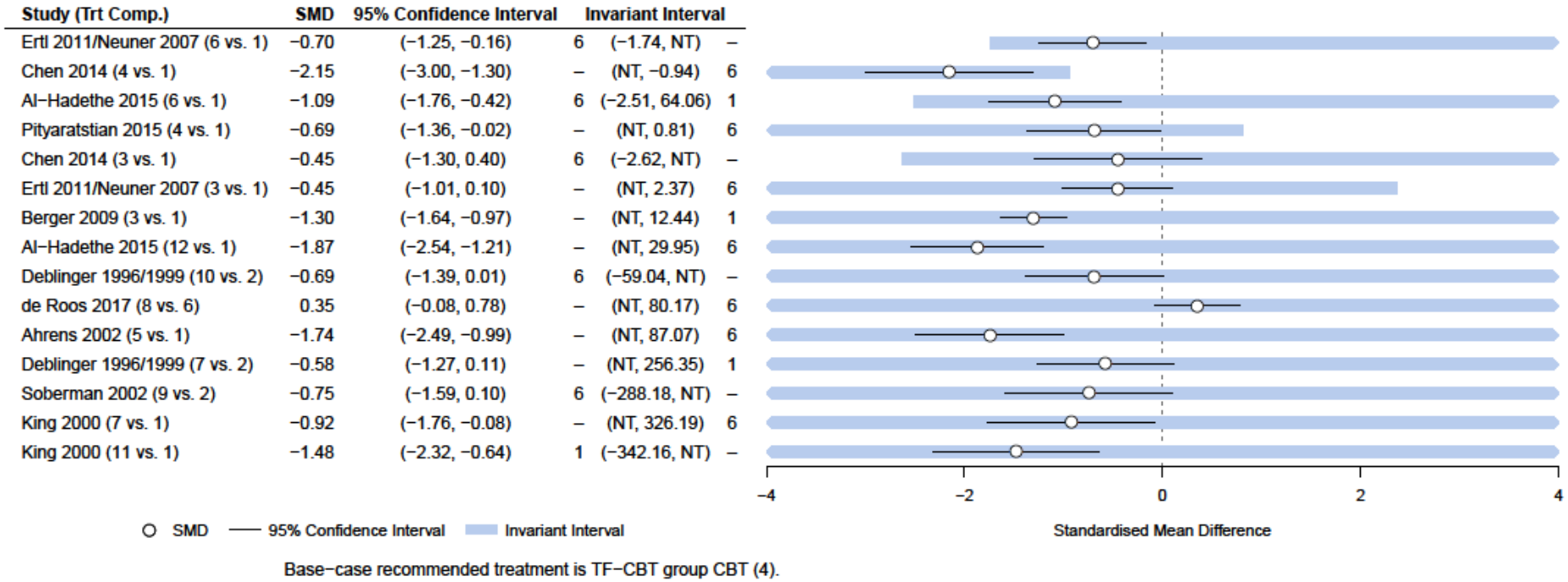
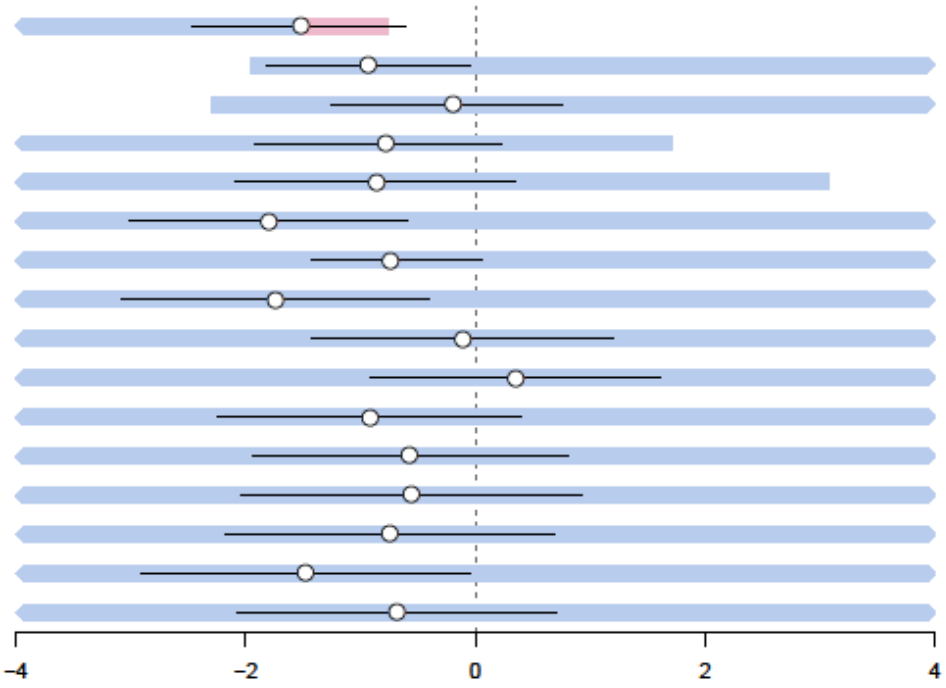


Figure 4: Contrast-level threshold analysis, where [TF-CBT] group therapy is base-case recommended best treatment, and only treatments with evidence on at least 50 patients are considered.

Contrast	SMD	95% Credible Interval		Invariant Interval	
4 vs. 1	−1.52	(−2.47, −0.61)	–	(NT, −0.76)	6
6 vs. 1	−0.94	(−1.81, −0.04)	6	(−1.96, 50.52)	1
6 vs. 3	−0.20	(−1.25, 0.76)	6	(−2.29, NT)	–
4 vs. 3	−0.78	(−1.92, 0.22)	–	(NT, 1.71)	6
12 vs. 6	−0.86	(−2.09, 0.34)	1	(−257.42, 3.07)	6
12 vs. 1	−1.80	(−3.01, −0.59)	6	(−5.80, 159.78)	1
3 vs. 1	−0.74	(−1.42, 0.05)	6	(−14.60, 8.32)	1
5 vs. 1	−1.74	(−3.08, −0.41)	–	(NT, 96.50)	6
10 vs. 7	−0.11	(−1.42, 1.20)	–	(NT, 151.52)	6
8 vs. 6	0.35	(−0.92, 1.61)	–	(NT, 157.05)	6
7 vs. 1	−0.92	(−2.25, 0.39)	–	(NT, 163.89)	6
7 vs. 2	−0.57	(−1.94, 0.81)	6	(−254.02, NT)	–
11 vs. 7	−0.56	(−2.04, 0.92)	6	(−271.81, NT)	–
9 vs. 2	−0.75	(−2.18, 0.68)	6	(−467.13, NT)	–
11 vs. 1	−1.48	(−2.92, −0.05)	1	(−721.44, 21867.88)	6
10 vs. 2	−0.68	(−2.08, 0.71)	–	(NT, 846.14)	6



Base−case recommended treatment is TF−CBT group CBT (4).

Table 5: Study-level thresholds for Changes in PTSD symptom scores between baseline and 1-4 months follow-up				
Study (Contrast)	**Thresholds and New Optimal Treatments**			
		Lower	**Upper**	
Ertl 2011/Neuner 2007 (6 vs. 1)	6	-1.04	NT	-
Chen 2014 (4 vs. 1)	-	NT	1.21	6
Al-Hadethe 2015 (6 vs. 1)	6	-1.42	65.15	1
Pityaratstian 2015 (4 vs. 1)	-	NT	1.50	6
Chen 2014 (3 vs. 1)	6	-2.17	NT	-
Ertl 2011/Neuner 2007 (3 vs. 1)	-	NT	2.83	6
Berger 2009 (3 vs. 1)	-	NT	13.74	1
Al-Hadethe 2015 (12 vs. 1)	-	NT	31.82	6
Deblinger 1996/1999 (10 vs. 2)	6	-58.35	NT	-
de Roos 2017 (8 vs. 6)	-	NT	79.82	6
Ahrens 2002 (5 vs. 1)	-	NT	88.81	6
Deblinger 1996/1999 (7 vs. 2)	-	NT	256.93	1
Soberman 2002 (9 vs. 2)	6	-287.43	NT	-
King 2000 (7 vs. 1)	-	NT	327.11	6
King 2000 (11 vs. 1)	1	-340.68	NT	-

Table 6: Contrast-level thresholds for Changes in PTSD symptom scores between baseline and 1-4 months follow-up				
Contrast	**Thresholds and New Optimal Treatments**			
		Lower	**Upper**	
4 vs. 1	-	NT	0.76	6
6 vs. 1	6	-1.02	51.46	1
6 vs. 3	6	-2.10	NT	-
4 vs. 3	-	NT	2.49	6
12 vs. 6	1	-256.56	3.93	6
12 vs. 1	6	-4.01	161.57	1
3 vs. 1	6	-13.86	9.06	1
5 vs. 1	-	NT	98.24	6
10 vs. 7	-	NT	151.63	6
8 vs. 6	-	NT	156.71	6
7 vs. 1	-	NT	164.81	6
7 vs. 2	6	-253.44	NT	-
11 vs. 7	6	-271.25	NT	-
9 vs. 2	6	-466.39	NT	-
11 vs. 1	1	-719.96	21869.36	6
10 vs. 2	-	NT	846.83	6

C. Dichotomous remission at treatment endpoint

Among the treatments that have been studied on at least 50 patients, [TF-CBT] exposure/prolonged exposure was the most efficacious in improving improves the odds of remission (posterior mean LOR: 1.62, 95% CrI: -0.22 to 3.04). In these threshold analyses, we assess whether the recommendation of [TF-CBT] exposure/prolonged exposure based on the NMA results is sensitive to plausible bias or random error in the evidence. The treatment codes presented in Table 7 may be referred to in Figures 5-6 and Tables 8-9.

Table 7: Treatments and their corresponding treatment code

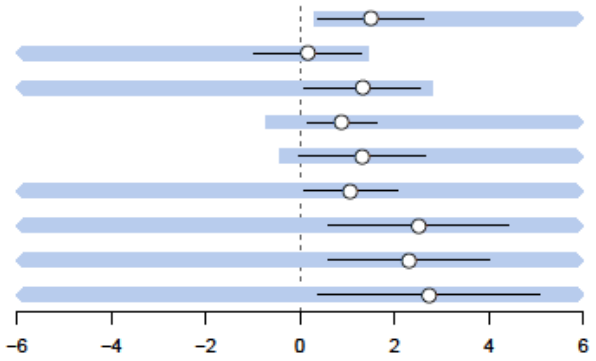
Treatment	Code	Sample size
Waitlist	1	103
TAU	2	42
Supportive counselling	3	93
TF-CBT (cognitive therapy)	4	26
TF-CBT (Cohen TF-CBT/CPT)	5	158
TF-CBT (narrative exposure)	6	13
TF-CBT (exposure/prolonged exposure)	7	50

Treatments with at least 50 patients are italicised and were the only ones considered in the threshold analysis.
CBT: cognitive behavioural therapy; CPT: cognitive processing therapy; TAU: treatment as usual; TF: trauma-focused

[TF-CBT] Cohen TF-CBT/CPT could also plausibly be recommended as the best treatment, as the results of the NMA are sensitive to imprecision in the pooled direct estimate of [TF-CBT] exposure/prolonged exposure versus supportive counselling and [TF-CBT] cognitive processing therapy vs. supportive counselling (Figure 6). Aside from this, the smallest invariant threshold in which [TF-CBT] cognitive processing therapy would be recommended was observed in the estimate of [TF-CBT] exposure/prolonged exposure vs. supportive counselling in Foa 2013, where the estimate would have to be biased by LOR=1.18 (a large bias) in favour of the former treatment (Tables 8-9).

Figure 5: Study-level threshold analysis, where [TF-CBT] narrative exposure is base-case recommended best treatment, and only treatments that have been studied on at least 50 patients are considered.

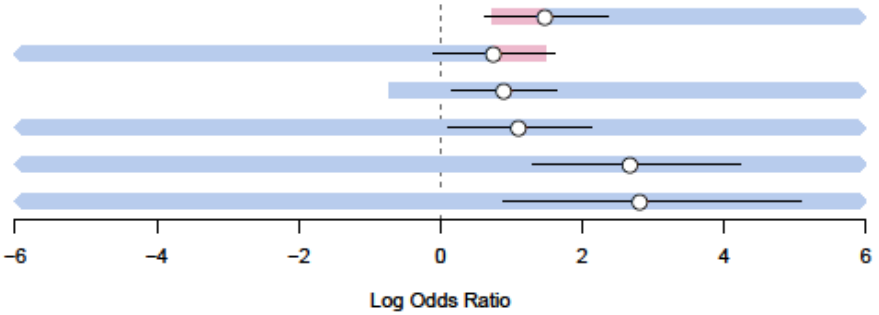
Study (Trt Comp.)	LOR	95% Confidence Interval		Invariant Interval	
Foa 2013 (7 vs. 3)	1.50	(0.39, 2.61)	5	(0.32, NT)	–
Ford 2012 (5 vs. 3)	0.17	(−0.98, 1.31)	3	(−260.90, 1.45)	5
Cohen 2011/2005b (5 vs. 3)	1.32	(0.10, 2.55)	3	(−300.34, 2.81)	5
Goldbeck 2016/Sachser 2016 (5 vs. 1)	0.88	(0.14, 1.61)	1	(−0.72, 91.25)	5
Gilboa−Schechtman 2004/2010 (7 vs. 3)	1.31	(−0.03, 2.66)	5	(−0.42, NT)	–
Jensen 2014 (5 vs. 2)	1.06	(0.07, 2.05)	–	(NT, 352.16)	3
Ruf 2010 (6 vs. 1)	2.52	(0.60, 4.43)	3	(−5673.34, 552.77)	5
Meiser−Stedman 2010/2017 (4 vs. 1)	2.30	(0.59, 4.02)	1	(−707.98, 1308.77)	3
Smith 2007 (4 vs. 1)	2.73	(0.39, 5.08)	1	(−1325.59, 2445.99)	3



Base−case recommended treatment is TF−CBT exposure/PE (7).

Figure 6: Contrast-level threshold analysis, where [TF-CBT] narrative exposure is base-case recommended best treatment, and only treatments that have been studied on at least 50 patients are considered.

Contrast	LOR	95% Credible Interval		Invariant Interval	
7 vs. 3	1.47	(0.62, 2.36)	5	(0.74, NT)	–
5 vs. 3	0.75	(−0.10, 1.62)	3	(−149.19, 1.49)	5
5 vs. 1	0.89	(0.15, 1.64)	1	(−0.73, 92.78)	5
5 vs. 2	1.10	(0.10, 2.14)	–	(NT, 367.36)	3
4 vs. 1	2.67	(1.29, 4.22)	1	(−510.14, 945.91)	3
6 vs. 1	2.81	(0.89, 5.09)	3	(−6785.31, 660.89)	5



Base−case recommended treatment is TF−CBT exposure/PE (7).

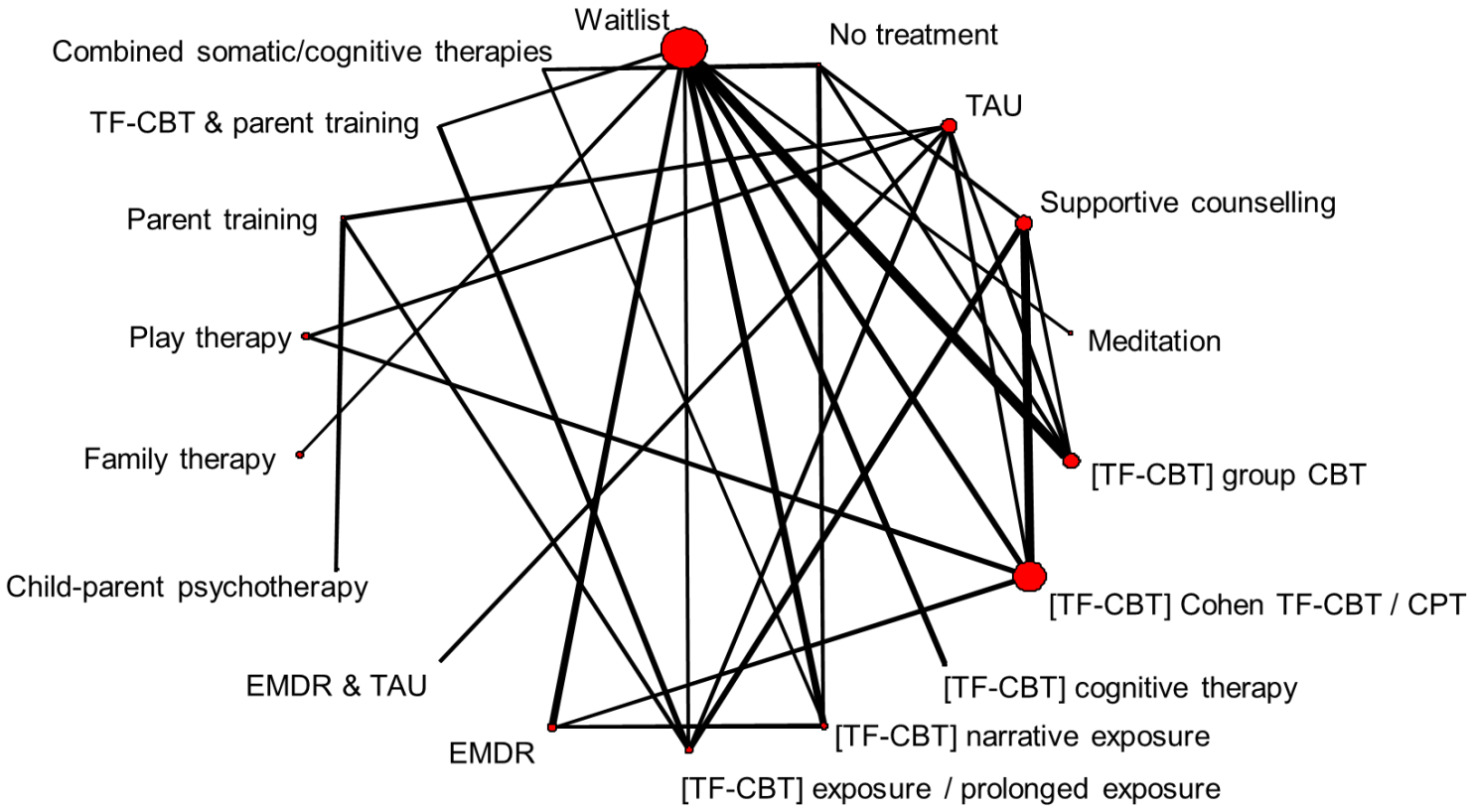
Table 8: Study-level thresholds for Remission				
Study (Contrast)	**Thresholds and New Optimal Treatments**			
		Lower	**Upper**	
Foa 2013 (7 vs. 3)	5	-1.18	NT	-
Ford 2012 (5 vs. 3)	3	-261.07	1.29	5
Cohen 2011/2005b (5 vs. 3)	3	-301.66	1.49	5
Goldbeck 2016/Sachser 2016 (5 vs. 1)	1	-1.59	90.37	5
Gilboa-Schechtman 2004/2010 (7 vs. 3)	5	-1.73	NT	-
Jensen 2014 (5 vs. 2)	-	NT	351.10	3
Ruf 2010 (6 vs. 1)	3	-5675.86	550.25	5
Meiser-Stedman 2010/2017 (4 vs. 1)	1	-710.28	1306.46	3
Smith 2007 (4 vs. 1)	1	-1328.32	2443.26	3

Table 9: Contrast-level thresholds for Remission				
Contrast	**Thresholds and New Optimal Treatments**			
		Lower	Upper	
7 vs. 3	5	-0.73	NT	-
5 vs. 3	3	-149.94	0.74	5
5 vs. 1	1	-1.62	91.89	5
5 vs. 2	-	NT	366.26	3
4 vs. 1	1	-512.81	943.24	3
6 vs. 1	3	-6788.12	658.08	5

Appendix 14: Sensitivity analysis: waitlist and no treatment analysed in separate nodes

A. Changes in PTSD symptom scores between baseline and treatment endpoint

Network of interventions



NMA data file

t[,1]	y[,1]	sd[,1]	n[,1]	t[,2]	y[,2]	sd[,2]	n[,2]	t[,3]	y[,3]	sd[,3]	n[,3]	na[]	#Study
2	1.55	9.01	12	4	-2.80	8.37	10	6	-14.00	19.94	10	3	#Chen 2014
1	-6.02	15.82	18	9	-34.3	16.22	42	11	-32.24	14.20	43	3	#de Roos 2017
1	-1.09	7.63	37	6	-3.74	6.89	39	NA	NA	NA	NA	2	#Jaycox 2009
1	-5.8	10.59	13	8	-24.9	6.95	13	NA	NA	NA	NA	2	#Meiser-Stedman 2010 /2017
1	0.39	9.78	18	6	-1.94	9.40	18	NA	NA	NA	NA	2	#Pityaratstian 2015
1	-6.3	9.63	11	8	-39	7.65	12	NA	NA	NA	NA	2	#Smith 2007
3	0.8	9.68	10	6	-5.68	6.71	15	NA	NA	NA	NA	2	#Auslander 2016
1	-7.52	9.18	82	7	-13.4	9.63	74	NA	NA	NA	NA	2	#Goldbeck 2016 /Sachser 2016
3	-10.01	7.63	63	7	-15.48	6.96	59	NA	NA	NA	NA	2	#Jensen 2014
1	-2.05	9.82	36	6	-14.41	9.91	35	NA	NA	NA	NA	2	#Langley 2015
1	-1.94	9.84	49	7	-23.72	8.12	50	NA	NA	NA	NA	2	#Shein-Szydlo 2016
1	-8	7.01	63	6	-15.6	5.07	54	NA	NA	NA	NA	2	#Stein 2003a /Kataoka 2011
2	2.1	7.25	20	9	-5.05	5.64	19	18	-9.95	5.37	20	3	#Al-Hadethe 2015
3	-3.29	2.34	14	10	-5.48	2.12	21	16	-4.7	2.34	20	3	#Deblinger 1996/1999
1	-1.47	1.68	12	10	-5.75	3.01	12	17	-7.08	4.10	12	3	#King 2000
1	-4.5	12.34	13	9	-26.1	9.75	12	NA	NA	NA	NA	2	#Ruf 2010
4	-10.79	8.36	19	10	-19.37	8.45	19	NA	NA	NA	NA	2	#Gilboa-Schechtman 2004/2010
4	-0.91	3.97	41	7	-1.85	3.56	41	NA	NA	NA	NA	2	#Cohen 1998 /2005a
4	-1.66	9.14	60	7	-7.16	13.52	64	NA	NA	NA	NA	2	#Cohen 2011 /2005b
4	-15.3	6.83	30	10	-18.7	6.86	31	NA	NA	NA	NA	2	#Foa 2013
4	-17	9.53	20	7	-24.4	13.93	26	NA	NA	NA	NA	2	#Ford 2012
7	-20.2	15.58	23	11	-20.9	20.08	25	NA	NA	NA	NA	2	#Diehle 2015 /Lindauer 2009
3	-5.73	12.39	11	12	-5.5	10.20	10	NA	NA	NA	NA	2	#Soberman 2002
1	-7.4	14.01	16	11	-6.3	15.35	17	NA	NA	NA	NA	2	#Ahmad 2007 /2008
16	-0.4	3.03	29	13	-3.61	2.33	36	NA	NA	NA	NA	2	#Lieberman 2005 / 2006 / Ghosh Ippen 2011
1	-4.49	5.53	74	14	-6.53	5.36	75	NA	NA	NA	NA	2	#Kazak 2004

t[,1]	y[,1]	sd[,1]	n[,1]	t[,2]	y[,2]	sd[,2]	n[,2]	t[,3]	y[,3]	sd[,3]	n[,3]	na[]	#Study
3	0.77	6.00	60	15	-5.2	5.15	69	NA	NA	NA	NA	2	#Deeba 2015
7	-2.25	10.04	12	15	-3.36	9.40	14	NA	NA	NA	NA	2	#Schottelkorb 2012
1	-0.1	0.26	39	5	-0.5	0.21	38	NA	NA	NA	NA	2	#Gordon 2006 /2008

t1, t2, t3 indicate the coded treatment in each trial arm
y1, y2, y3 indicate the mean change in effect in each trial arm
sd1, sd2, sd3 indicate the standard deviation of the mean change in effect in each trial arm
n1, n2, n3 indicate the number of participants in each trial arm
na indicates number of arms
NA: non-applicable

Treatment codes: 1. Waitlist; 2. No treatment; 3. TAU; 4. Supportive counselling; 5. Meditation; 6. TF-CBT (group CBT); 7. TF-CBT (Cohen TF-CBT/CPT); 8. TF-CBT (cognitive therapy); 9. TF-CBT (narrative exposure); 10. TF-CBT (exposure/prolonged exposure); 11. EMDR; 12. EMDR & TAU; 13. Child-parent psychotherapy; 14. Family therapy; 15. Play therapy; 16. Parent training; 17. TF-CBT & parent training; 18. Combined somatic/cognitive therapies
CBT: cognitive behavioural therapy; CPT: cognitive processing therapy; EMDR: eye movement desensitisation and reprocessing; TAU: treatment as usual; TF: trauma-focused

Results - random effects model

Intervention	N	k	Mean SMD (95% CrI) vs waitlist	Mean SMD (95% CrI) vs no treatment	Mean ranking (95% CrI)
[TF-CBT] cognitive therapy	25	2	**-2.93 (-3.97 to -1.92)**	**-2.68 (-4.17 to -1.23)**	1.72 (1 to 5)
Combined somatic/cognitive therapies	20	1	**-2.30 (-3.70 to -0.89)**	**-2.05 (-3.34 to -0.77)**	3.48 (1 to 11)
Child-parent psychotherapy	36	1	**-2.21 (-4.12 to -0.31)**	-1.96 (-4.07 to 0.13)	4.19 (1 to 14)
TF-CBT & parent training	12	1	**-1.81 (-3.17 to -0.40)**	-1.55 (-3.21 to 0.13)	5.57 (1 to 14)
Meditation	38	1	**-1.67 (-2.96 to -0.36)**	-1.41 (-3.10 to 0.28)	6.31 (1 to 15)
[TF-CBT] narrative exposure	73	3	**-1.58 (-2.42 to -0.75)**	**-1.32 (-2.37 to -0.28)**	6.36 (3 to 12)
[TF-CBT] exposure/PE	83	4	**-1.38 (-2.22 to -0.53)**	-1.13 (-2.36 to 0.08)	7.51 (3 to 13)
Play therapy	83	2	**-1.37 (-2.54 to -0.18)**	-1.12 (-2.60 to 0.35)	7.73 (2 to 15)
[TF-CBT] Cohen TF-CBT/CPT	349	8	**-1.21 (-1.84 to -0.56)**	-0.95 (-2.04 to 0.14)	8.74 (5 to 13)
EMDR	85	3	**-1.02 (-1.80 to -0.23)**	-0.77 (-1.98 to 0.44)	10.24 (5 to 16)
Parent training	49	2	-1.00 (-2.39 to 0.38)	-0.75 (-2.44 to 0.90)	10.40 (3 to 18)
[TF-CBT] group CBT	171	6	**-0.94 (-1.53 to -0.36)**	-0.68 (-1.79 to 0.40)	10.89 (6 to 15)
Supportive counselling	180	6	-0.66 (-1.42 to 0.11)	-0.40 (-1.46 to 0.65)	12.98 (8 to 17)
Family therapy	75	1	-0.37 (-1.63 to 0.86)	-0.12 (-1.76 to 1.51)	14.13 (5 to 18)
EMDR & TAU	10	1	-0.32 (-2.04 to 1.44)	-0.07 (-2.02 to 1.89)	14.08 (4 to 18)
TAU	158	5	-0.34 (-1.21 to 0.55)	-0.09 (-1.36 to 1.16)	14.89 (10 to 18)
No treatment	32	2	-0.25 (-1.29 to 0.81)	reference	15.10 (9 to 18)
Waitlist	481	14	reference	0.25 (-0.81 to 1.29)	16.70 (14 to 18)

N total = 1960; k total = 29; 63 study arms

Model fit statistics: posterior median between-trial heterogeneity (sd): 0.58 (95% CrI 0.37 to 0.92); residual deviance: 63.32; deviance information criterion (DIC): 276.14

CPT: cognitive processing therapy; CrI: credible intervals; EMDR: eye movement desensitisation reprocessing; SMD: standardised mean difference; PE: prolonged exposure; TAU: treatment as usual; TF-CBT: trauma-focused cognitive behavioural therapy

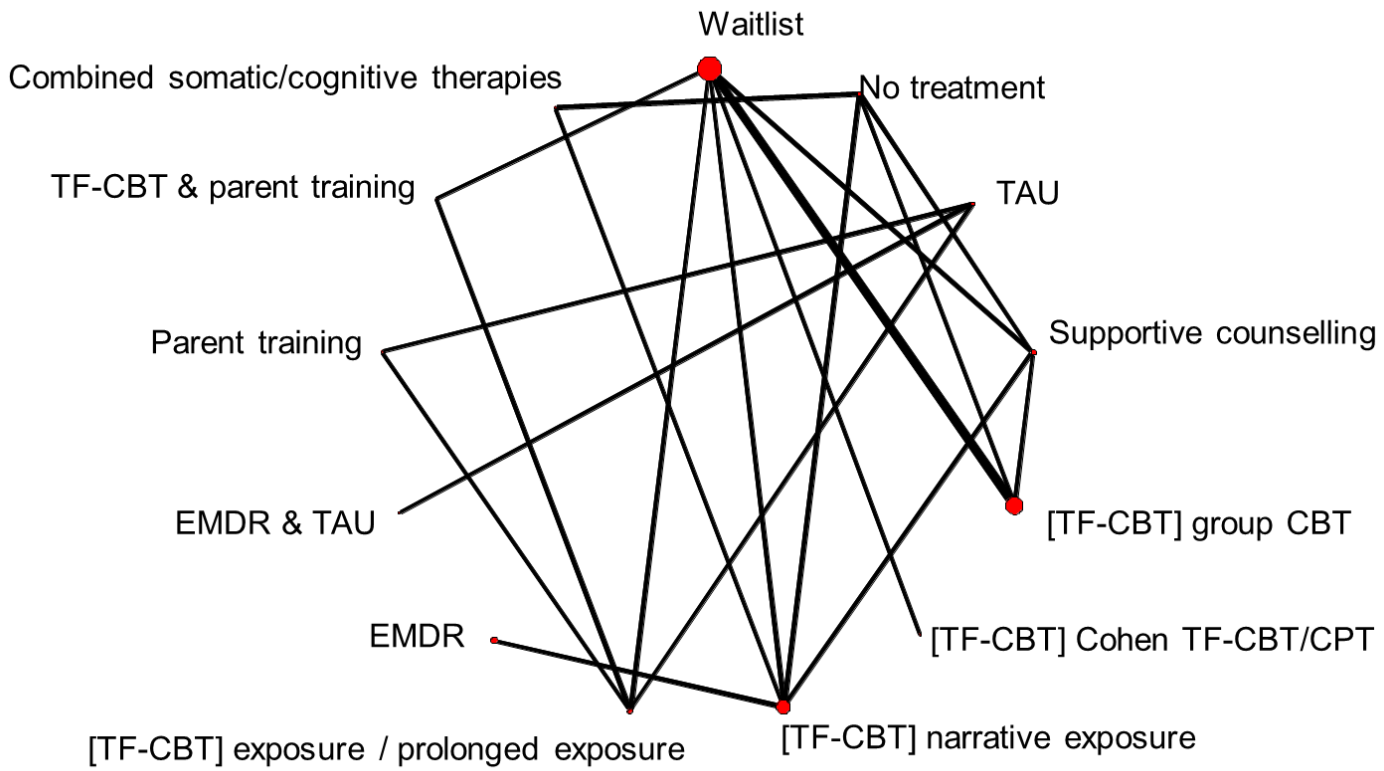
k: number of randomised controlled trials (RCTs) that assessed each intervention; N: number randomised to each treatment across RCTs

Negative values for the SMD indicate a better effect for the intervention compared with the reference treatment (waitlist or no treatment).

In bold effects where the 95% CrI do not cross the line of no effect (SMD=0)

B. Changes in PTSD symptom scores between baseline and 1-4 month follow-up

Network of interventions



NMA data file

t[,1]	y[,1]	sd[,1]	n[,1]	t[,2]	y[,2]	sd[,2]	n[,2]	t[,3]	y[,3]	sd[,3]	n[,3]	na[]	#Study
1	0.08	5.76	19	6	-12.11	8.05	19	NA	NA	NA	NA	2	#Ahrens 2002
1	-1.52	5.20	82	5	-8.73	5.82	84	NA	NA	NA	NA	2	#Berger 2009
2	-2.2	9.07	12	4	-6.5	10.84	10	5	-22.8	8.75	10	3	#Chen 2014
1	0.78	10.15	18	5	-5.67	8.50	18	NA	NA	NA	NA	2	#Pityaratstian 2015
2	3.5	7.41	20	7	-4	7.72	19	13	-9.4	5.35	20	3	#Al-Hadethe 2015
3	-4.15	2.90	14	8	-5.53	2.09	21	11	-5.8	2.29	20	3	#Deblinger 1996/1999
1	-10.68	13.80	28	4	-16.87	14.42	24	7	-20.3	12.73	26	3	#Ertl 2011 / Neuner 2007
1	-1.91	1.95	12	8	-4.66	2.52	12	12	-6.33	4.06	12	3	#King 2000
7	-36.63	15.83	42	9	-31.31	14.61	43	NA	NA	NA	NA	2	#de Roos 2017
3	-6.78	8.14	11	10	-12.83	8.1	12	NA	NA	NA	NA	2	#Soberman 2002

t1, t2, t3 indicate the coded treatment in each trial arm
y1, y2, y3 indicate the mean change in effect in each trial arm
sd1, sd2, sd3 indicate the standard deviation of the mean change in effect in each trial arm
n1, n2, n3 indicate the number of participants in each trial arm
na indicates number of arms
NA: non-applicable

Treatment codes: 1. Waitlist; 2: No treatment; 3. TAU; 4. Supportive counselling; 5. TF-CBT (group CBT); 6. TF-CBT (Cohen TF-CBT/CPT); 7. TF-CBT (narrative exposure); 8. TF-CBT (exposure/prolonged exposure); 9. EMDR; 10. EMDR & TAU; 11. Parent training; 12. TF-CBT & parent training; 13. Combined somatic/cognitive therapies

CBT: cognitive behavioural therapy; CPT: cognitive processing therapy; EMDR: eye movement desensitisation and reprocessing; TAU: treatment as usual; TF: trauma-focused

Results - random effects model

Intervention	N	k	Mean SMD (95% CrI) vs waitlist	Mean SMD (95% CrI) vs no treatment	Mean ranking (95% CrI)
[TF-CBT] Cohen TF-CBT/CPT	19	1	**-1.75 (-2.53 to -0.95)**	**-2.35 (-3.44 to -1.28)**	2.11 (1 to 6)
TF-CBT & parent training	12	1	**-1.47 (-2.46 to -0.50)**	**-2.08 (-3.30 to -0.88)**	3.23 (1 to 8)
Combined somatic/cognitive therapies	20	1	**-1.29 (-2.16 to -0.41)**	**-1.90 (-2.61 to -1.18)**	4.00 (1 to 8)
[TF-CBT] group CBT	112	3	**-1.25 (-1.67 to -0.81)**	**-1.85 (-2.57 to -1.14)**	4.18 (2 to 8)
EMDR & TAU	12	1	-1.11 (-2.61 to 0.42)	**-1.72 (-3.38 to -0.06)**	5.07 (1 to 12)
Parent training	20	1	-1.03 (-2.09 to 0.05)	**-1.64 (-2.93 to -0.35)**	5.37 (1 to 10)
[TF-CBT] exposure/PE	33	2	**-0.91 (-1.68 to -0.14)**	**-1.52 (-2.59 to -0.47)**	6.10 (3 to 9)
[TF-CBT] narrative exposure	87	3	-0.54 (-1.15 to 0.10)	**-1.15 (-1.80 to -0.49)**	7.89 (5 to 10)
TAU	25	2	-0.35 (-1.53 to 0.86)	-0.96 (-2.33 to 0.42)	9.30 (4 to 13)
EMDR	43	1	-0.19 (-1.08 to 0.73)	-0.79 (-1.72 to 0.12)	9.91 (5 to 13)
Supportive counselling	34	2	-0.15 (-0.76 to 0.51)	**-0.76 (-1.48 to -0.01)**	10.11 (6 to 12)
Waitlist	20	1	Reference		10.99 (8 to 13)
No treatment	191	7	0.61 (-0.13 to 1.34)	reference	12.76 (11 to 13)

N total = 608; k total = 10; 25 study arms

Model fit statistics: posterior median between-trial heterogeneity (sd): 0.14 (95% CrI 0.01 to 0.63); residual deviance: 26.51; deviance information criterion (DIC): 115.14

CPT: cognitive processing therapy; CrI: credible intervals; EMDR: eye movement desensitisation reprocessing; SMD: standardised mean difference; PE: prolonged exposure; TAU: treatment as usual; TF-CBT: trauma-focused cognitive behavioural therapy

k: number of randomised controlled trials (RCTs) that assessed each intervention; N: number randomised to each treatment across RCTs

Negative values indicate a better effect for the intervention compared with the reference treatment (waitlist or no treatment).

In bold effects where the 95% CrI do not cross the line of no effect (SMD=0)

Appendix 15: References in the online supplementary material

Brooks, S. P. & Gelman, A. (1998). Alternative methods for monitoring convergence of iterative simulations. *Journal of Computational and Graphical Statistics, 7,* 434-455.

Caldwell, D. M., Ades, A. E., Dias, S., Watkins, S., Li, T., Taske, N., Naidoo, B., & Welton, N. J. (2016). A threshold analysis assessed the credibility of conclusions from network meta-analysis. Journal of Clinical Epidemiology, 80, 68-76.

Chinn, S. (2000). A simple method for converting an odds ratio to effect size for use in meta-analysis. Statistics in Medicine, 19, 3127-3131.

Cohen, J. (1969). *Statistical power analysis for the behavioral sciences*. New York: Academic Press.

Cooper, H., Hedges, L. V., & Valentine, J. C. (2009). *The Handbook of Research Synthesis and Meta-analysis*. New York: Russel Sage Foundation.

Dempster, A. (1997). The direct use of likelihood for significance testing. *Statistics and Computing, 7,* 247-252.

Dias, S., Ades, A. E., Welton, N. J., Jansen, J. P., & Sutton, A. J. (2018). Network Meta-analysis for Decision-Making. In *Generalised Linear Models* (pp. 93-154). Hoboken NJ: Wiley.

Dias, S., Sutton, A. J., Ades, A. E., & Welton, N. J. (2013a). Evidence synthesis for decision making 2: a generalized linear modeling framework for pairwise and network meta-analysis of randomized controlled trials. *Medical Decision Making, 33,* 607-617.

Dias, S., Welton, N. J., Sutton, A. J., Caldwell, D. M., Lu, G., & Ades, A. E. (2013b). Evidence synthesis for decision making 4: inconsistency in networks of evidence based on randomized controlled trials. *Medical Decision Making, 33,* 641-656.

Lunn, D. J., Thomas, A., Best, N., & Spiegelhalter, D. (2000). WinBUGS-A Bayesian modelling framework: Concepts, structure, and extensibility. *Statistics and Computing, 10,* 325-337.

Mavranezouli, I., Megnin-Viggars, O., Trickey, D., Meiser-Stedman, R., Daly, C., Dias, S., Stockton, S., & Pilling, S. (submitted). Cost effectiveness of psychological interventions for

children and young people with post-traumatic stress disorder. *Journal of Child Psychology and Psychiatry, submitted*.

Phillippo, D. M., Dias, S., Ades, A. E., Didelez, V., Welton, N. J. (2018). Sensitivity of treatment recommendations to bias in network meta-analysis. *Journal of the Royal Statistical Society: Series A, 181*, 843-867.

Phillippo, D. M., Dias, S., Welton, N. J., Caldwell, D. M., Taske, N., & Ades, A. E. (2019). Threshold Analysis as an Alternative to GRADE for Assessing Confidence in Guideline Recommendations Based on Network Meta-analyses. *Annals of Internal Medicine*, *170*, 538-546.

Rhodes, K. M., Turner, R. M., & Higgins, J. P. (2015). Predictive distributions were developed for the extent of heterogeneity in meta-analyses of continuous outcome data. *Journal of Clinical Epidemiology, 68,* 52-60.

Spiegelhalter, D., Thomas, A., Best, N., & Lunn, D. J. (2003). *WinBUGS user manual: version 1.4.* Cambridge: MRC Biostatistics Unit.

Spiegelhalter, D. J., Best, N. G., Carlin, B. P., & van der Linde, A. (2002). Bayesian measures of model complexity and fit. *Journal of the Royal Statistical Society: Series B, 64,* 583-616.

van Valkenhoef, G., Dias, S., Ades, A. E., & Welton, N. J. (2016). Automated generation of node-splitting models for assessment of inconsistency in network meta-analysis. *Research Synthesis Methods, 7,* 80-93.

van Valkenhoef, G. & Kuiper, J. (2016). *gemtc: Network Meta-Analysis Using Bayesian Methods*. R package version 0.8-2. Available from: https://CRAN.R-project.org/package=gemtc