



## All psychological therapies

### Introduction

Treatment guidelines typically recommend psychological treatments as first-line treatment for PTSD. A combination of psychological treatments and medication may also be effective.

Cognitive behavioural therapy (CBT) is one of the most common psychological treatments. CBT challenges distorted, negative thinking patterns associated with the trauma to help people develop more adaptive cognitions and behaviours, and to rethink assumptions and reactions to the event. Exposure therapies are also frequently recommended. These aim to desensitise people to trauma-related memories and to help people overcome symptoms by exposing them to specific or non-specific cues or memories related to the trauma. Eye movement desensitisation and reprocessing (EMDR) may also be effective. EMDR involves the patient focussing on a disturbing image, memory, emotion, or cognition associated with the trauma while the therapist initiates rapid voluntary eye movements. This is based on the observation that the intensity of traumatic memories can be reduced through eye movements, although the mechanisms remain unclear.

Other therapies include narrative therapy, which can be used to help people reconstruct a consistent narrative about the trauma. Psychoeducation may help normalise stress reactions. Psychodynamic therapy can help people process the trauma emotionally and gain a better understanding of their responses to it. Supportive therapy involves counsellors giving support, listening, and helping people talk over their problems. Debriefing encourages recollection and reworking of the traumatic event. Family therapy focusses on improving family communication and functioning.

### Method

We have included only systematic reviews (systematic literature search, detailed methodology with inclusion/exclusion criteria) published in full text, in English, from the year 2010 that report results separately for people

with PTSD. Reviews were identified by searching the databases MEDLINE, EMBASE, and PsycINFO. When multiple copies of review topics were found, only the most recent and comprehensive version was included. We prioritised reviews with pooled data for inclusion.

Review reporting assessment was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist that describes a preferred way to present a meta-analysis<sup>1</sup>. Reviews with less than 50% of items checked have been excluded from the library. Note that early reviews may have been guided by less stringent reporting checklists than the PRISMA, and that some reviews may have been limited by journal guidelines.

Evidence was graded using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) Working Group approach where high quality evidence such as that gained from randomised controlled trials (RCTs) may be downgraded to moderate or low if review and study quality is limited, if there is inconsistency in results, indirect comparisons, imprecise or sparse data and high probability of reporting bias. It may also be downgraded if risks associated with the intervention or other matter under review are high. Conversely, low quality evidence such as that gained from observational studies may be upgraded if effect sizes are large or if there is a dose dependent response. We have also taken into account sample size and whether results are consistent, precise and direct with low associated risks (see end of table for an explanation of these terms)<sup>2</sup>. The resulting table represents an objective summary of the available evidence, although the conclusions are solely the opinion of staff of NeuRA (Neuroscience Research Australia).



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### Results

We found 11 systematic reviews that met our inclusion criteria<sup>3-13</sup>.

- Moderate to low quality evidence found large improvements in PTSD symptoms by last follow-up, but not at the end of treatment, with any psychological and combined psychological plus medication treatments compared to medications alone.
- Moderate quality evidence found the improvements in PTSD symptoms after psychological treatments may be seen for up to 20 months post-treatment. Effects were largest in military samples and in child abuse samples, and over longer-term follow-up periods (over 6 months).
- Moderate to low quality evidence found large improvements in PTSD symptoms, depression, and anxiety up to four weeks post-treatment with psychological therapies in people exposed to humanitarian crises in low and middle-income countries. There were smaller, but significant improvements for up to 6 months. There were improvements in children in these settings, particularly in children aged 15-18 years, in non-displaced children, and in children living in smaller households (<6 members). Functioning, hope, coping, and social support also improved, although only functioning mediated the relationship between psychosocial interventions and improvements in PTSD symptoms.
- Moderate quality evidence found CBT with or without a trauma focus, EMDR, prolonged exposure, cognitive processing therapy, narrative exposure therapy, cognitive therapy, present-centred therapy, and virtual reality therapy all showed greater improvements in PTSD symptoms than waitlist or treatment as usual. Moderate to low quality evidence found CBT with a trauma focus was more effective for PTSD symptoms than present-centred therapy, supportive counselling, relaxation training, dialogical exposure therapy, and interpersonal therapy.
- Moderate to high quality evidence found the beneficial effect of trauma-focussed therapies was seen both in clinician-rated and self-rated assessments, although children and adolescents may report more benefit of receiving these treatments than do their clinicians.



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Goldstein E, McDonnell C, Atchley R, Dorado K, Bedford C, Brown RL, Zgierska AE

**The Impact of Psychological Interventions on Posttraumatic Stress Disorder and Pain Symptoms: A Systematic Review and Meta-Analysis**

Clinical Journal of Pain 2019; 35: 703-12

[View review abstract online](#)

<p><b>Comparison</b></p>	<p><b>Effectiveness of psychological therapies (mostly exposure therapies, CBT, and mindfulness) vs. combination treatments vs. usual care or waitlist condition for PTSD symptoms and pain.</b></p> <p>Treatment duration ranged from 2-52 weeks consisting of 2-14 sessions. Mean follow-up was 6.5 months post-treatment.</p>
<p><b>Summary of evidence</b></p>	<p>Moderate quality evidence (large sample, inconsistent, precise, indirect) found a medium-sized effect of reduced PTSD symptom severity with psychological treatments. Effects were larger with psychological-only treatments than with combination treatments, with exposure-based therapies and CBT than with mindfulness, although mindfulness was the only treatment that reduced pain severity and intensity.</p>
<p><b>PTSD symptoms</b></p>	
<p><i>A medium-sized effect of reduced PTSD symptom severity with psychological treatments;</i>  10 RCTs, N = 1,401, SMD = -0.55, 95%CI -0.83 to -0.26, <math>p &lt; 0.05</math>, <math>I^2 = 75\%</math></p> <p>Subgroup analyses showed a large effect of psychological-only treatments (SMD = -0.79), and a small effect of combination treatments (SMD = -0.18). Exposure-based therapies had a large effect (SMD = -0.96), CBT had a large effect (SMD = -0.99), mindfulness had a medium-sized effect (SMD = -0.51). Mindfulness was the only therapy that reduced pain levels (SMD = -0.51 for severity and -0.72 for intensity).</p>	
<p><b>Consistency in results<sup>†</sup></b></p>	<p>Inconsistent</p>
<p><b>Precision in results<sup>§</sup></b></p>	<p>Precise</p>
<p><b>Directness of results<sup>  </sup></b></p>	<p>Indirect; mixed treatment and/or control conditions</p>

Kline AC, Cooper AA, Rytwinski NK, Feeny NC

**Long-term efficacy of psychotherapy for posttraumatic stress disorder: A**



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**meta-analysis of randomized controlled trials**

Clinical Psychology Review 2018; 59: 30-40

[View review abstract online](#)

<p><b>Comparison</b></p>	<p><b>Long-term effectiveness of in-person psychological therapies (at least 3 sessions of cognitive processing therapy, cognitive therapy, exposure therapy, CBT, or EMDR with a minimum of 6 months follow-up) vs. control conditions (supportive counselling, relaxation, usual care, or waitlist).</b></p> <p>Treatment duration ranged from 9-11 weeks. Follow-up ranged from 6-20 months.</p>
<p><b>Summary of evidence</b></p>	<p><b>Moderate quality evidence (large sample, inconsistent, precise, indirect) found psychological treatments improve PTSD symptoms with effects seen for up to 20 months post-treatment. Effects were larger with active (cognitive processing therapy, cognitive therapy, exposure therapy, CBT, or EMDR) than inactive treatments (supportive counselling, relaxation, or usual care), in military samples and child abuse samples, and in longer-term follow-up periods (over 6 months).</b></p>

**PTSD symptoms**

*A large effect of reduced PTSD symptom severity with all psychological treatments from pre-treatment to follow-up;*

32 RCTs, N = 2,935,  $d = 1.88$ , 95%CI 1.68 to 2.08,  $p < 0.05$ ,  $I^2 = 97\%$

*A small effect of reduced PTSD symptom severity with all psychological treatments from post-treatment to follow-up;*

32 RCTs, N = 2,935,  $d = 0.17$ , 95%CI 0.10 to 0.23,  $p < 0.05$ ,  $I^2 = 70\%$

Subgroup analyses showed larger effect sizes pre-treatment to follow up with active treatments than control (inactive) conditions ( $d = 2.14$  vs.  $d = 1.04$ ,  $p < 0.001$ ), although this was not significant in the post-treatment to follow-up analysis ( $d = 0.16$  vs.  $d = 0.17$ ,  $p = 0.90$ ).

Only exposure therapy showed a significant effect over all other active treatments (CBT, cognitive processing therapy, cognitive therapy, and EMDR) of greater improvement in PTSD symptoms in the post-treatment to follow up analysis ( $d = 0.27$  vs.  $d = 0.05$ ,  $p = 0.005$ ), but not in the pre-treatment to follow up analysis.

Military samples, and samples consisting of people exposed to childhood abuse, showed trend level effects of greater improvement in PTSD symptoms than civilian samples or no childhood abuse samples in the post-treatment to follow up analyses (military  $d = 0.32$  vs. civilian  $d = 0.13$ ,  $p = 0.06$ ; childhood abuse  $d = 0.46$  vs. no childhood abuse  $d = 0.12$ ,  $p = 0.07$ ), but not in the pre-treatment to follow up analyses.

Post-treatment to follow-up effect sizes were significantly higher for conditions with follow-up periods greater than six months duration than at 6 months post-treatment ( $d = 0.31$  vs.  $d = 0.09$ ,  $p =$



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0.02).

Higher rates of acute treatment dropout predicted *smaller* pre-treatment to follow-up effect sizes at a trend level ( $\beta = -0.25, p = 0.06$ ), however, greater dropout was also associated with significantly *larger* post-treatment to follow-up effect sizes ( $\beta = 0.33, p = 0.01$ ).

Treatment conditions that included only a subset of randomised patients (who were most often treatment completers), demonstrated significantly larger effects than studies that included all randomised patients in follow-up analyses ( $d = 2.51$  vs.  $d = 1.95, p = 0.03$ ). In the post-treatment to follow-up period, effects were in a similar direction but not statistically significant.

There were no moderating effects of treatment duration.

<b>Consistency in results</b>	Inconsistent
<b>Precision in results</b>	Precise
<b>Directness of results</b>	Indirect; mixed treatment and/or control conditions

Lenz AS, Luo Y

**Differential estimation of treatment effect between clinician-administered and self-reported PTSD assessments**

Journal of Counseling and Development 2019; 97: 3-14

[View review abstract online](#)

<b>Comparison</b>	Effectiveness of trauma-focussed therapies vs. no treatment, and differences between clinician-assessed PTSD outcomes and self-report PTSD outcomes.
<b>Summary of evidence</b>	Moderate to high quality evidence (large sample, inconsistent, precise, direct) found a large effect of reduced PTSD symptom severity with trauma-focussed therapies compared to no treatment. Overall, the effects were similar in clinician-rated and self-rates assessments, although children and adolescents may self-report more benefit than clinicians.

**PTSD symptoms**

*A large effect showed trauma-focussed therapies improved PTSD symptoms more than no treatment;*

17 RCTs, N = 1,315,  $g = -0.78$ , 95%CI -0.91 to -0.65,  $p < 0.01$ ,  $I^2 = 69\%$

There were no significant differences between clinician-assessed ( $g = -0.75$ ) and self-report ( $g = -0.82$ ) PTSD outcomes. The effect sizes were similar in child/adolescent vs. adult samples ( $g = -1.00$  vs.  $g = -0.77$ ), although self-reported assessment by children/adolescents were slightly larger than clinician-rated assessments ( $g = -1.35$  vs.  $g = -0.90$ ). There were no differences in adult





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	assessments ( $g = -0.80$ vs. $g = -0.75$ ).
<b>Consistency in results</b>	Inconsistent
<b>Precision in results</b>	Precise
<b>Directness of results</b>	Direct

*Lewis C, Roberts NP, Andrew M, Starling E, Bisson JI*

**Psychological therapies for post-traumatic stress disorder in adults: systematic review and meta-analysis**

European Journal of Psychotraumatology 2020; 11: 1729633

[View review abstract online](#)

<b>Comparison 1</b>	<b>Effectiveness of any psychological intervention vs. waitlist or treatment as usual.</b>
<b>Summary of evidence</b>	<b>Moderate quality evidence (medium-sized to large samples, inconsistent, mostly imprecise, direct) found CBT with or without a trauma focus, EMDR, prolonged exposure, cognitive processing therapy, narrative exposure therapy, cognitive therapy, present-centred therapy, and virtual reality therapy all showed greater improvements in PTSD symptoms than waitlist or treatment as usual. There were no other significant differences between therapies and waitlist/usual care, or the samples were too small to draw reliable conclusions.</b>

**PTSD symptoms**

*The following interventions improved PTSD symptoms more than waitlist/treatment as usual (in order of descending sample size);*

CBT with a trauma focus: 51 RCTs, N = 1,380, SMD = -1.32, 95%CI -1.57 to -1.08

Prolonged exposure: 12 RCTs, N = 772, SMD = -1.59, 95%CI -2.05 to -1.13

EMDR: 11 RCTs, N = 415, SMD = -1.23, 95%CI -1.69 to -0.76

Non-trauma focussed CBT: 7 RCTs, N = 318, SMD = -1.06, 95%CI -1.39 to -0.73

Group CBT with a trauma focus: 7 RCTs, N = 313, SMD = -1.02, 95%CI -1.26 to -0.78

Cognitive processing therapy: 4 RCTs, N = 298, SMD = -1.03, 95%CI -1.45 to -0.61

Narrative exposure therapy: 8 RCTs, N = 241, SMD = -1.06, 95%CI -1.61 to -0.52

Cognitive therapy: 4 RCTs, N = 189, SMD = -1.33, 95%CI -1.80 to -0.86

Guided internet-based trauma focused CBT: 3 RCTs, N = 145, SMD = -1.08, 95%CI -1.80 to -0.37



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Present-centred therapy: 2 RCTs, N = 138, SMD = -0.97, 95%CI -1.33 to -0.62

Virtual reality therapy: 3 RCTs, N = 104, SMD = -0.43 CI -0.83 to -0.03

Reconsolidation of traumatic memories: 2 RCTs, N = 96, SMD = -2.35, 95%CI -2.89 to -1.82

Single session CBT with a trauma focus: 2 RCTs, N = 90, SMD = -0.57 95%CI -1.00 to -0.15

Group and individual CBT with a trauma focus: 1 RCT, N = 55, SMD = -2.32, 95%CI -3.01 to -1.62

Group interpersonal therapy: 1 RCT, N = 48, SMD = -1.19, 95%CI -1.84 to -0.54

Written exposure therapy: 1 RCT, N = 44, SMD = -3.39, 95%CI -4.43 to -2.44

Couples CBT with a trauma focus: 1 RCT, N = 40, SMD = -1.12, 95%CI -1.79 to -0.45

Observed and experimental integration: 1 RCT, N = 10, SMD = -2.86, 95%CI -4.90 to -0.83

*There were no significant effects of;*

Brief Eclectic Psychotherapy: 2 RCTs, N = 72, SMD = -0.38, 95%CI -0.85 to 0.09

Supportive counselling: 2 RCTs, N = 72, SMD = -0.43, 95%CI -0.90 to 0.04

Group stabilising treatment: 1 RCT, N = 71, SMD = -0.11, 95%CI -0.36 to 0.57

Relaxation training: 1 RCT, N = 53, SMD = -0.10, 95%CI -0.65 to 0.46

Psychodynamic therapy: 1 RCT, N = 52, SMD = -0.41, 95%CI -0.96 to 0.14

<b>Comparison 2</b>	<b>Effectiveness of any psychological intervention vs. any other psychological intervention.</b>
<b>Summary of evidence</b>	<b>Moderate to low quality evidence (mostly small to medium-sized samples, inconsistent, mostly imprecise, direct) found CBT with a trauma focus was more effective for PTSD symptoms than present-centred therapy, supportive counselling, relaxation training, dialogical exposure therapy, and interpersonal therapy. There were no other significant differences between therapies, or the samples were too small to draw reliable conclusions.</b>
<b>PTSD symptoms</b>	
<p><i>The following interventions improved PTSD symptoms more than their comparator (in order of descending sample size);</i></p> <p>CBT with a trauma focus vs. present-centred therapy: 4 RCTs, N = 433, SMD = -0.45 CI -0.81 to -0.09</p> <p>CBT with a trauma focus vs. supportive counselling: 8 RCTs, N = 434, SMD = -0.63, 95%CI -1.04 to -0.21</p> <p>Group CBT with a trauma focus vs. group present-centred therapy: 2 RCTs, N = 333, SMD = -0.44, 95%CI -0.63 to -0.24</p> <p>Individual CBT with a trauma focus vs. group CBT with a trauma focus: 1 RCT, N = 268, SMD = 0.35, 95%CI 0.11 to 0.59</p> <p>CBT with a trauma focus vs. relaxation training: 5 RCTs, N = 203, SMD = -0.49, 95%CI -0.79 to -0.20</p>	



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CBT with a trauma focus vs. dialogical exposure therapy: 1 RCT, N = 138, SMD = -0.39, 95%CI -0.73 to -0.05

CBT with a trauma focus vs. interpersonal therapy: 1 RCT, N = 66, SMD = -0.48, 95%CI -0.98 to -0.01

EMDR vs. supportive counselling: 1 RCT, N = 57, SMD = -0.75, 95%CI -1.29 to -0.21

Couples CBT without a trauma focus vs. couples psychoeducation: 1 RCT, N = 43, SMD = -1.37, 95%CI -2.04 to -0.70

CBT without a trauma focus vs. supportive counselling: 1 RCT, N = 25, SMD = -1.22, 95%CI -2.09 to -0.35

*There were no significant differences between;*

EMDR vs. CBT with a trauma focus: 10 RCTs, N = 387, SMD = -0.17, 95%CI -0.55 to 0.21

CBT with a trauma focus vs. CBT without a trauma focus: 5 RCTs, N = 185, SMD = -0.10, 95%CI -0.19 to 0.39

Virtual reality therapy vs. control exposure: 2 RCTs, N = 177, SMD = 0.01, 95%CI -0.68 to 0.71

Written exposure therapy vs. CBT with a trauma focus: 1 RCT, N = 126, SMD = 0.13, 95%CI -0.21 to 0.48

Cognitive processing therapy vs. prolonged exposure: 1 RCT, N = 124, SMD = -0.18, 95%CI -0.53 to 0.17

EMDR vs. relaxation training: 4 RCTs, N = 117, SMD = -0.23, 95%CI -0.59 to 0.14

CBT without a trauma focus vs. present centred therapy: 1 RCT, N = 101, SMD = -0.04, 95%CI -0.43 to 0.35

Internet-based trauma focused CBT vs. internet-based psychoeducation: 1 RCT, N = 87, SMD = 0.11, 95%CI 0.31 to 0.53

Group CBT without a trauma focus vs. group supportive counselling: 1 RCT, N = 72, SMD = -0.02, 95%CI -0.48 to 0.44

Interpersonal therapy vs. relaxation: 1 RCT, N = 60, SMD = -0.15, 95%CI -0.67 to 0.38

CBT with a trauma focus vs. psychodynamic therapy: 1 RCT, N = 56, SMD = -0.03, 95%CI -0.56 to 0.49

EMDR vs. emotional freedom technique: 1 RCT, N = 46, SMD = 0.08, 95%CI -0.50 to 0.65

Internet-based trauma focused CBT vs. internet-based CBT without a trauma focus: 1 RCT, N = 31, SMD = 0.40, 95%CI -1.12 to 0.31

CBT with a trauma focus vs. psychoeducation: 1 RCT, N = 27, SMD = -0.19, 95%CI -0.95 to 0.57

Supportive counselling vs. psychoeducation: 1 RCT, N = 25, SMD = 0.13, 95%CI -0.92 to 0.65

EMDR vs. REM desensitisation: 1 RCT, N = 21, SMD = 0.06, 95%CI -0.80 to 0.91

Virtual reality therapy vs. present-centred therapy: 1 RCT, N = 9, SMD = -0.51, 95%CI -1.86 to 0.84

**Consistency in results**

Authors state that there is considerable heterogeneity in many of the pooled comparisons.





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<b>Precision in results</b>	Mostly imprecise
<b>Directness of results</b>	Direct

Mavranouzouli I, Megnin-Viggars O, Daly C, Dias S, Welton NJ, Stockton S, Bhutani G, Grey N, Leach J, Greenberg N, Katona C, El-Leithy S, Pilling S

**Psychological treatments for post-traumatic stress disorder in adults: a network meta-analysis**

Psychological Medicine 2020; 50: 542-55

[View review abstract online](#)

<b>Comparison</b>	<b>Effectiveness of psychological therapies vs. waitlist condition for PTSD symptoms post-treatment and at 1-4-month follow-up.</b>
<b>Summary of evidence</b>	<b>Moderate to low quality evidence (medium to large sized samples, inconsistent, imprecise, indirect) found CBT (particularly trauma-focussed CBT) and EMDR were most effective at reducing PTSD symptoms post-treatment and at 1-4-months follow-up. Combined somatic/cognitive therapies (exposure therapies) and non-directive counselling were effective post-treatment but not at follow-up. Samples were too small for reliable assessment of other therapies.</b>
<b>PTSD symptoms</b>	
90 trials, 6,560	
<i>The following therapies gave significant, large improvements in PTSD symptoms between baseline and treatment endpoint;</i>	
Trauma-focussed CBT: 29 RCTs, N = 903, SMD = -1.46, 95%CrI -1.87 to -1.05	
Trauma-focussed CBT + SSRI antidepressants: 3 RCTs, N = 115, SMD = -1.21, 95%CrI -2.35 to -0.07	
Non-trauma-focussed CBT: 7 RCTs, N = 209, SMD = -1.22, 95%CrI -1.95 to -0.49	
Self-help with support (computerised trauma-focussed CBT): 5 RCTs, N = 198, SMD = -1.46, 95%CrI -2.33 to -0.59	
Self-help without support: 11 RCTs, N = 335, SMD = -0.91, 95%CrI -1.67 to -0.15	
EMDR: 11 RCTs, N = 260, SMD = -2.07, 95%CrI -2.70 to -1.44	
Combined somatic/cognitive therapies: 4 RCTs, N = 237, SMD = -1.69, 95%CrI -2.66 to -0.73	
SSRI antidepressants alone: 5 RCTs, N = 166, SMD = -1.14, 95%CrI -2.09 to -0.19	



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Counselling (non-directive person-centred approach): 9 RCTs, N = 278, SMD = -0.73, 95%CrI -1.41 to -0.05

Present-centred therapy: 3 RCTs, N = 99, SMD = -1.42, 95%CrI -2.45 to -0.40

Metacognitive therapy: 1 RCT, N = 10, SMD = -3.04, 95%CrI -5.09 to -0.98

There were no significant effects post-treatment of couples' intervention, resilience-oriented treatment, psychoeducation, interpersonal psychotherapy, relaxation, and attention bias modification.

*The following therapies showed significant, large improvements in PTSD symptoms between baseline and 1-4 month follow-up;*

Trauma-focussed CBT: 13 RCTs, N = 753, SMD = -0.73, 95%CrI -1.23 to -0.25

EMDR: 4 RCTs, N = 121, SMD = -1.12, 95%CrI -1.94 to -0.27

Self-help with support (computerised trauma-focussed CBT): 3 RCTs, N = 85, SMD = -1.27, 95%CrI -2.12 to -0.42

Behavioural therapy: 2 RCTs, N = 47, SMD = -1.19, 95%CrI -2.16 to -0.21

Couples intervention: 1 RCT, N = 21, SMD = -2.04, 95%CrI -3.72 to -0.36

There were no significant effects at 1-4 month follow-up of self-help without support, combined somatic/cognitive therapies, psychoeducation, non-trauma-focussed CBT, interpersonal psychotherapy, counselling, present-centred therapy, and family therapy.

*The following therapies showed significant, medium to large increases in remission rates between baseline and treatment endpoint;*

Trauma-focussed CBT: 21 RCTs, N = 601, LOR = 2.46, 95%CrI 1.79 to 3.19

EMDR: 5 RCTs, N = 132, LOR = 3.38, 95%CrI 2.04 to 4.84

Non-trauma-focussed CBT: 2 RCTs, N = 65, LOR = 3.30, 95%CrI 1.48 to 5.29

Interpersonal psychotherapy: 2 RCTs, N = 72, LOR = 2.53, 95%CrI 0.71 to 4.40

Present-centred therapy: 2 RCTs, N = 75, LOR = 2.50, 95%CrI 0.75 to 4.36

Psychodynamic therapy: 1 RCT, N = 49, LOR = 4.61, 95%CrI 1.87 to 7.57

Relaxation: 2 RCTs, N = 57, LOR = 2.65, 95%CrI 0.77 to 4.59

*Small effects were found for;*

Self-help with support (computerised trauma-focussed CBT): 2 RCTs, N = 105, LOR = 1.76, 95%CrI 0.03 to 3.49

Counselling: 6 RCTs, N = 150, LOR = 1.34, 95%CrI 0.20 to 2.51

There were no significant effects post-treatment of couple intervention, trauma-focussed CBT + SSRI antidepressants, self-help without support, SSRI antidepressants, and psychoeducation.

Authors report that treatments found to be most effective comprised structured therapies, delivered by healthcare professionals who have completed specialist training and who have access to regular supervision and undertake appropriate continuing professional development accreditation.



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<b>Consistency in results</b>	Authors report high heterogeneity across trials.
<b>Precision in results</b>	Imprecise
<b>Directness of results</b>	Indirect; mixed treatment and/or control conditions

*Merz J, Schwarzer G, Gerger H*

**Comparative Efficacy and Acceptability of Pharmacological, Psychotherapeutic, and Combination Treatments in Adults with Posttraumatic Stress Disorder: A Network Meta-analysis**

**JAMA Psychiatry 2019; 76: 904-13**

[View review abstract online](#)

<b>Comparison</b>	<b>Effectiveness of pharmaceutical vs. psychological therapies vs. combination medication + psychological therapies for PTSD.</b> <b>Treatment duration ranged from 5-24 weeks.</b>
<b>Summary of evidence</b>	<b>Moderate to low quality evidence (large sample, inconsistent, imprecise, indirect) found large effects of greater improvement in PTSD symptoms by last follow-up with psychological and combined medication + psychological compared to medications alone. There were no differences at the end of treatment, and no differences between combined treatments and psychological therapies at last follow-up (time frame is not reported).</b>
<b>PTSD symptoms</b>	
12 RCTs, N = 922	
<i>At the last follow-up, psychological therapies showed greater benefit than pharmacological treatments (large effect);</i>	
Network meta-analysis: SMD = -0.83, 95%CI -1.59 to -0.07	
<i>At the last follow-up, combined treatments also showed greater benefit than pharmacological treatments (large effect);</i>	
Network meta-analysis: SMD = -0.96, 95%CI -1.87 to -0.04	
There were no differences immediately following treatment, and no differences between combined and psychological therapies at long-term follow-up.	
All treatments were not necessarily maintained to last follow-up, and follow-up time frames are not reported.	
<b>Risks</b>	No significant differences in drop-out rates were found.



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<b>Consistency in results</b>	Authors report data are inconsistent.
<b>Precision in results</b>	Imprecise
<b>Directness of results</b>	Indirect; mixed treatment and/or control conditions

Patel N, Kellezi B, Williams AC

**Psychological, social and welfare interventions for psychological health and well-being of torture survivors**

Cochrane Database of Systematic Reviews 2014; CD009317

[View review abstract online](#)

<b>Comparison</b>	<p><b>Effectiveness of psychological therapies (exposure therapies, EMDR, or CBT) vs. control conditions (psychoeducation, waitlist, or no treatment) for PTSD symptoms in people exposed to torture.</b></p> <p>Treatment duration ranged from 1-20 hours.</p>
<b>Summary of evidence</b>	<p><b>Moderate to low quality evidence (small to medium-sized samples, some inconsistency, imprecise, indirect) found no differences between psychological therapies and control conditions in efficacy for PTSD symptoms in torture survivors at the end of treatment, but there may be improvements in PTSD symptoms with psychological therapies by 3-12-month follow-up.</b></p>
<b>PTSD symptoms</b>	
<p><i>There was no significant difference in efficacy for PTSD symptoms between psychological therapies and control conditions at the end of treatment;</i></p> <p style="text-align: center;">7 RCTs, N = 388, SMD = -0.30, 95%CI -0.66 to 0.06, <math>p = 0.10</math>, <math>I^2 = 57\%</math></p> <p><i>At 3-12 month follow-up, psychological therapies showed better efficacy for PTSD symptoms than control conditions;</i></p> <p style="text-align: center;">4 RCTs, N = 86, SMD = -0.52, 95%CI -0.97 to -0.07, <math>p = 0.02</math>, <math>I^2 = 5\%</math></p> <p>There was no difference in the number of PTSD cases by the end of treatment between psychological therapies and control conditions in studies that included people exposed to torture who did not have a diagnosis of PTSD pre-treatment (prevention studies).</p>	
<b>Consistency in results</b>	Inconsistent post-treatment, consistent at follow-up.
<b>Precision in results</b>	Precise



**All psychological therapies**

<b>Directness of results</b>	Indirect; mixed treatment and/or control conditions
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*Purgato M, Gastaldon C, Papola D, van Ommeren M, Barbui C, Tol WA*

**Psychological therapies for the treatment of mental disorders in low- and middle-income countries affected by humanitarian crises**

Cochrane Database of Systematic Reviews 2018; 7: CD011849

[View review abstract online](#)

<b>Comparison</b>	<b>Effectiveness of psychological therapies (trauma-focussed or supportive therapies, EMDR, CBT, interpersonal psychotherapy) vs. control conditions (usual care, waitlist, or no treatment) for PTSD symptoms in adults and children exposed to humanitarian crises.</b>
<b>Summary of evidence</b>	<b>Moderate to low quality evidence (large samples, inconsistent, mostly precise, indirect) found large improvements in PTSD symptoms, depression, and anxiety post-treatment with psychological therapies, medium-sized improvements for up to 4 months and smaller improvements for up to 6 months post-treatment.</b>
<b>PTSD symptoms</b>	
<p><i>A large effect showed significant improvement in PTSD symptoms with psychological therapies between 0-4 weeks after treatment;</i></p> <p>Adults: 16 RCTs, N = 1,272, SMD = -1.07, 95%CI -1.34 to -0.79, <math>p &lt; 0.00001</math>, <math>I^2 = 78\%</math>          Children and adolescents: 3 RCTs, N = 130, SMD = -1.56, 95%CI -3.13 to 0.01, <math>p = 0.052</math>, <math>I^2 = 93\%</math></p> <p><i>At 1-4 month follow-up, a medium-sized effect showed significant improvement in PTSD symptoms with psychological therapies;</i></p> <p>Adults: 18 RCTs, N = 1,660, SMD = -0.49, 95%CI -0.68 to -0.31, <math>p &lt; 0.00001</math>, <math>I^2 = 61\%</math></p> <p><i>At 6 month follow-up, a small to medium-sized effect showed significant improvement in PTSD symptoms with psychological therapies;</i></p> <p>Adults: 5 RCTs, N = 400, SMD = -0.37, 95%CI -0.61 to -0.14, <math>p = 0.0019</math>, <math>I^2 = 0\%</math></p> <p>Depression, anxiety, functioning and quality of life also improved with psychological therapies.</p>	
<b>Risks</b>	Drop-out rates were similar across groups.
<b>Consistency in results</b>	Mostly inconsistent.
<b>Precision in results</b>	Mostly precise.





**All psychological therapies**

<b>Directness of results</b>	Indirect; mixed treatment and/or control conditions
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*Purgato M, Gross AL, Betancourt T, Bolton P, Bonetto C, Gastaldon C, Gordon J, O'Callaghan P, Papola D, Peltonen K, Punamaki RL, Richards J, Staples JK, Unterhitzberger J, van Ommeren M, de Jong J, Jordans MJD, Tol WA, Barbui C*

**Focused psychosocial interventions for children in low-resource humanitarian settings: a systematic review and individual participant data meta-analysis**

The Lancet Global Health 2018; 6: e390-e400

[View review abstract online](#)

<b>Comparison</b>	<p><b>Effectiveness of focussed psychosocial therapies vs. waitlist for PTSD symptoms in children and adolescents (0-18 years) in low and middle-income humanitarian settings.</b></p> <p>Interventions included a youth readiness intervention, creative play, a mind-body skills group program, class-based interventions, a family focused intervention, teaching recovery techniques, a sport for development intervention, and emotional writing and positive writing.</p>
<b>Summary of evidence</b>	<p><b>Moderate to low quality evidence (large samples, inconsistent, precise, indirect) found small improvements in PTSD symptoms, but not depression and anxiety, post-treatment and at follow up (≥6 weeks) with psychosocial therapies. Most improvements were found in children aged 15-18 years, in non-displaced children, and in children living in smaller households (&lt;6 members). Functioning, hope, coping, and social support also improved.</b></p>

**PTSD symptoms**

*A small effect showed significant improvement in PTSD symptoms with psychological therapies between 0-4 weeks after treatment;*

8 RCTs, N = 2,355, SMD = -0.33, 95%CI -0.52 to -0.14, *p* = 0.0006, *I*<sup>2</sup> = 80%

*At ≥6 weeks follow-up, a small effect was found;*

6 RCTs, N = 1,808, SMD = -0.21, 95%CI -0.42 to -0.01, *p* < 0.05, *I*<sup>2</sup> = 78%

There was a stronger improvement in PTSD symptoms in children aged 15–18 years, in non-displaced children, and in children living in smaller households (<6 members).

Functioning, hope, coping, and social support also improved with psychological therapies. There were no significant differences between psychological therapies and waitlist in depression or



All psychological therapies

anxiety symptoms.	
<b>Consistency in results</b>	Inconsistent
<b>Precision in results</b>	Precise
<b>Directness of results</b>	Indirect; mixed treatment conditions

*Purgato M, Tedeschi F, Betancourt TS, Bolton P, Bonetto C, Gastaldon C, Gordon J, O'Callaghan P, Papola D, Peltonen K, Punamaki RL, Richards J, Staples JK, Unterhitzberger J, de Jong J, Jordans MJD, Gross AL, Tol WA, Barbui C*

**Mediators of focused psychosocial support interventions for children in low-resource humanitarian settings: analysis from an Individual Participant Dataset with 3,143 participants**

Journal of Child Psychology and Psychiatry, and Allied Disciplines 2019; 07:  
doi.org/10.1111/jcpp.13151

[View review abstract online](#)

<b>Comparison</b>	<b>Factors associated with how psychosocial therapies are effective for children and adolescents (0-18 years) in low and middle-income humanitarian settings.</b>
<b>Summary of evidence</b>	<b>Moderate to low quality evidence (large samples, indirect) found functioning ability was a significant mediator for focused psychosocial interventions on PTSD symptoms. There were no mediating effects of coping, hope, or social support.</b>
<b>Factors associated with improvements in PTSD symptoms</b>	
<i>Functioning was the strongest mediator for focused psychosocial interventions on PTSD symptoms;</i> 6 RCTs, N = 1,877, $\beta = -0.087$ There were no mediating effects of coping, hope, or social support.	
<b>Consistency in results</b>	Not reported
<b>Precision in results</b>	Not reported
<b>Directness of results</b>	Indirect; mixed treatment conditions

*van Ginneken N, Tharyan P, Lewin S, Rao GN, Meera SM, Pian J, Chandrashekar S, Patel V*



**All psychological therapies**

**Non-specialist health worker interventions for the care of mental, neurological, and substance-abuse disorders in low- and middle-income countries**

Cochrane Database of Systematic Reviews: 2013; CD009149

[View review abstract online](#)

<b>Comparison</b>	<b>Effectiveness of non-specialist, lay health worker interventions (group or individual counselling with or without psychoeducation) vs. standard care for adults and children with PTSD in low- and middle-income countries.</b>
<b>Summary of evidence</b>	<b>Moderate to low quality evidence (medium to large samples, some inconsistency and imprecision, indirect) found a small improvement in PTSD symptoms in adults, and a large improvement in PTSD symptoms in children, after non-specialist health worker interventions (~6 months post-treatment). Functioning and depression symptoms also improved in children (small effects), with no differences in anxiety symptoms.</b>
<b>PTSD symptoms</b>	
<p><i>There was a small effect of improved PTSD symptoms in adults after non-specialist health worker interventions by 6 months post-treatment;</i></p> <p style="text-align: center;">3 RCTs, N = 223, SMD = -0.36, 95%CI -0.67 to -0.05, <math>p = 0.02</math>, <math>I^2 = 22\%</math></p> <p><i>There was a large effect of improved PTSD symptoms in children after non-specialist health worker interventions within 6 months post-treatment (mostly in groups, school-based);</i></p> <p style="text-align: center;">3 RCTs, N = 298, SMD = -0.89, 95%CI -1.49 to -0.03, <math>p &lt; 0.01</math>, <math>I^2 = 79\%</math></p> <p><i>There was no significant difference with Classroom-Based Intervention (a specific, manual-based intervention including elements of creative-expressive therapy, co-operative play, and CBT);</i></p> <p style="text-align: center;">3 RCTs, N = 1,090, MCD = -0.56, 95%CI -2.82 to 1.70, <math>p = 0.63</math>, <math>I^2 = 82\%</math></p> <p>Functioning and depression was improved in children after any non-specialist intervention within 6 months post-treatment (small effects), however there was no difference in anxiety symptoms.</p>	
<b>Consistency in results</b>	Consistent for adults, inconsistent for children
<b>Precision in results</b>	Precise for adults, imprecise for children
<b>Directness of results</b>	Indirect; mixed treatment conditions



## All psychological therapies

### Explanation of acronyms

$\beta$  = beta coefficient, CBT = cognitive behavioural therapy, CI = confidence interval, CrI = credible interval,  $d$  or  $g$  = Cohen's  $d$  and Hedges'  $g$ , standardised mean difference, EMDR = eye movement desensitisation and reprocessing,  $I^2$  = the percentage of the variability in effect estimates that is due to heterogeneity rather than sampling error (chance), LOR = log odds ratio,  $N$  = number of participants, RCT = randomised controlled trial, SMD = standardised mean difference,  $p$  = statistical probability of obtaining that result, vs. = versus



## All psychological therapies

### Explanation of technical terms

\* Bias has the potential to affect reviews of both RCT and observational studies. Forms of bias include; reporting bias – selective reporting of results; publication bias - trials that are not formally published tend to show less effect than published trials, further if there are statistically significant differences between groups in a trial, these trial results tend to get published before those of trials without significant differences; language bias – only including English language reports; funding bias - source of funding for the primary research with selective reporting of results within primary studies; outcome variable selection bias; database bias - including reports from some databases and not others; citation bias - preferential citation of authors. Trials can also be subject to bias when evaluators are not blind to treatment condition and selection bias of participants if trial samples are small<sup>14</sup>.

† Different effect measures are reported by different reviews.

Prevalence refers to how many existing cases there are at a particular point in time. Incidence refers to how many new cases there are per population in a specified time period. Incidence is usually reported as the number of new cases per 100,000 people per year. Alternatively some studies present the number of new cases that have accumulated over several years against a person-years denominator. This denominator is the sum of individual units of time that the persons in the population are at risk of becoming a case. It takes into account the size of the underlying population sample and its age structure over the duration of observation.

Reliability and validity refers to how accurate the instrument is. Sensitivity is the proportion of actual positives that are correctly identified

(100% sensitivity = correct identification of all actual positives) and specificity is the proportion of negatives that are correctly identified (100% specificity = not identifying anyone as positive if they are truly not).

Weighted mean difference scores refer to mean differences between treatment and comparison groups after treatment (or occasionally pre to post treatment) and in a randomised trial there is an assumption that both groups are comparable on this measure prior to treatment. Standardised mean differences are divided by the pooled standard deviation (or the standard deviation of one group when groups are homogenous) that allows results from different scales to be combined and compared. Each study's mean difference is then given a weighting depending on the size of the sample and the variability in the data. Less than 0.4 represents a small effect, around 0.5 a medium effect, and over 0.8 represents a large effect<sup>14</sup>.

Odds ratio (OR) or relative risk (RR) refers to the probability of a reduction ( $< 1$ ) or an increase ( $> 1$ ) in a particular outcome in a treatment group, or a group exposed to a risk factor, relative to the comparison group. For example, a RR of 0.75 translates to a reduction in risk of an outcome of 25% relative to those not receiving the treatment or not exposed to the risk factor. Conversely, a RR of 1.25 translates to an increased risk of 25% relative to those not receiving treatment or not having been exposed to a risk factor. A RR or OR of 1.00 means there is no difference between groups. A medium effect is considered if  $RR > 2$  or  $< 0.5$  and a large effect if  $RR > 5$  or  $< 0.2$ <sup>15</sup>. InOR stands for logarithmic OR where a InOR of 0 shows no difference between groups. Hazard ratios measure the effect of an explanatory variable on the hazard or risk of an event.

Correlation coefficients (eg,  $r$ ) indicate the strength of association or relationship





## All psychological therapies

between variables. They can provide an indirect indication of prediction, but do not confirm causality due to possible and often unforeseen confounding variables. An  $r$  of 0.10 represents a weak association, 0.25 a medium association and 0.40 and over represents a strong association. Unstandardised ( $b$ ) regression coefficients indicate the average change in the dependent variable associated with a 1 unit change in the independent variable, statistically controlling for the other independent variables. Standardised regression coefficients represent the change being in units of standard deviations to allow comparison across different scales.

‡ Inconsistency refers to differing estimates of effect across studies (i.e. heterogeneity or variability in results) that is not explained by subgroup analyses and therefore reduces confidence in the effect estimate.  $I^2$  is the percentage of the variability in effect estimates that is due to heterogeneity rather than sampling error (chance) - 0% to 40%: heterogeneity might not be important, 30% to 60%: may represent moderate heterogeneity, 50% to 90%: may represent considerable heterogeneity and over this is considerable heterogeneity.  $I^2$  can be calculated from  $Q$  (chi-square) for the test of heterogeneity with the following formula<sup>14</sup>;

$$I^2 = \left( \frac{Q - df}{Q} \right) \times 100\%$$

§ Imprecision refers to wide confidence intervals indicating a lack of confidence in the effect estimate. Based on GRADE recommendations, a result for continuous data (standardised mean differences, not weighted mean differences) is considered imprecise if the upper or lower confidence

limit crosses an effect size of 0.5 in either direction, and for binary and correlation data, an effect size of 0.25. GRADE also recommends downgrading the evidence when sample size is smaller than 300 (for binary data) and 400 (for continuous data), although for some topics, these criteria should be relaxed<sup>16</sup>.

|| Indirectness of comparison occurs when a comparison of intervention A versus B is not available but A was compared with C and B was compared with C that allows indirect comparisons of the magnitude of effect of A versus B. Indirectness of population, comparator and/or outcome can also occur when the available evidence regarding a particular population, intervention, comparator, or outcome is not available and is therefore inferred from available evidence. These inferred treatment effect sizes are of lower quality than those gained from head-to-head comparisons of A and B.



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