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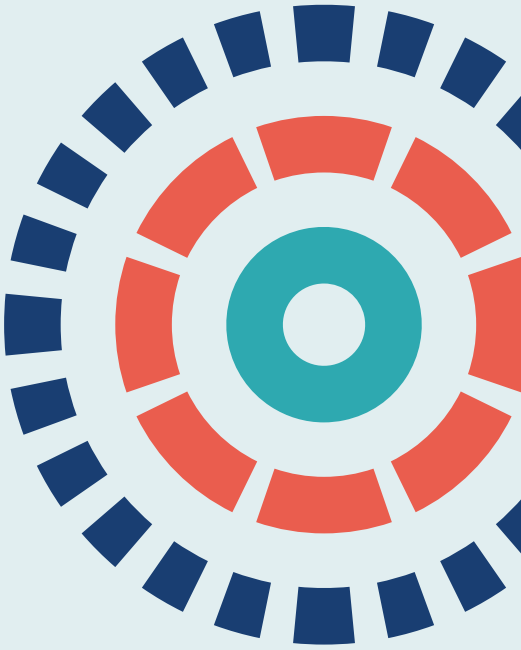

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Interventions for adults with a history of complex traumatic events: the INCiTE mixed-methods systematic review

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This report

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Abstract

Interventions for adults with a history of complex traumatic events: the INCiTE mixed-methods systematic review

Hollie Melton[1], Nick Meader[1], Holly Dale[2], Kath Wright[1], Julie Jones-Diette[1], Melanie Temple[3], Iram Shah[3], Karina Lovell[4], Dean McMillan[5,6], Rachel Churchill[1], Corrado Barbui[7], Simon Gilbody[5,6] and Peter Coventry[1,5]*

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Background: People with a history of complex traumatic events typically experience trauma and stressor disorders and additional mental comorbidities. It is not known if existing evidence-based treatments are effective and acceptable for this group of people.

Objective: To identify candidate psychological and non-pharmacological treatments for future research.

Design: Mixed-methods systematic review.

Participants: Adults aged ≥ 18 years with a history of complex traumatic events.

Interventions: Psychological interventions versus control or active control; pharmacological interventions versus placebo.

Main outcome measures: Post-traumatic stress disorder symptoms, common mental health problems and attrition.

Data sources: Cumulative Index to Nursing and Allied Health Literature (CINAHL) (1937 onwards); Cochrane Central Register of Controlled Trials (CENTRAL) (from inception); EMBASE (1974 to 2017 week 16); International Pharmaceutical Abstracts (1970 onwards); MEDLINE and MEDLINE Epub Ahead of Print and In-Process & Other Non-Indexed Citations (1946 to present); Published International Literature on Traumatic Stress (PILOTS) (1987 onwards); PsycINFO (1806 to April week 2 2017); and Science Citation Index (1900 onwards). Searches were conducted between April and August 2017.

Review methods: Eligible studies were singly screened and disagreements were resolved at consensus meetings. The risk of bias was assessed using the Cochrane risk-of-bias tool and a bespoke version of a quality appraisal checklist used by the National Institute for Health and Care Excellence. A meta-analysis was conducted across all populations for each intervention category and for population subgroups. Moderators of effectiveness were assessed using metaregression and a component network meta-analysis. A qualitative synthesis was undertaken to summarise the acceptability of interventions with the relevance of findings assessed by the GRADE-CERQual checklist.

Results: One hundred and four randomised controlled trials and nine non-randomised controlled trials were included. For the qualitative acceptability review, 4324 records were identified and nine studies were included. The population subgroups were veterans, childhood sexual abuse victims, war affected, refugees and domestic violence victims. Psychological interventions were superior to the control post treatment for reducing post-traumatic stress disorder symptoms (standardised mean difference −0.90, 95% confidence interval −1.14 to −0.66; number of trials = 39) and also for associated symptoms of depression, but not anxiety. Trauma-focused therapies were the most effective interventions across all populations for post-traumatic stress disorder and depression. Multicomponent and trauma-focused interventions were effective for negative self-concept. Phase-based approaches were also superior to the control for post-traumatic stress disorder and depression and showed the most benefit for managing emotional dysregulation and interpersonal problems. Only antipsychotic medication was effective for reducing post-traumatic stress disorder symptoms; medications were not effective for mental comorbidities. Eight qualitative studies were included. Interventions were more acceptable if service users could identify benefits and if they were delivered in ways that accommodated their personal and social needs.

Limitations: Assessments about long-term effectiveness of interventions were not possible. Studies that included outcomes related to comorbid psychiatric states, such as borderline personality disorder, and populations from prisons and humanitarian crises were under-represented.

Conclusions: Evidence-based psychological interventions are effective and acceptable post treatment for reducing post-traumatic stress disorder symptoms and depression and anxiety in people with complex trauma. These interventions were less effective in veterans and had less of an impact on symptoms associated with complex post-traumatic stress disorder.

Future work: Definitive trials of phase-based versus non-phase-based interventions with long-term follow-up for post-traumatic stress disorder and associated mental comorbidities.

Study registration: This study is registered as PROSPERO CRD42017055523.

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List of abbreviations

CAPS	Clinician-Administered PTSD Scale
CASP	Critical Appraisal Skills Programme
CBT	cognitive–behavioural therapy
CENTRAL	Cochrane Central Register of Controlled Trials
CI	confidence interval
CINAHL	Cumulative Index to Nursing and Allied Health Literature
CPT	cognitive processing therapy
CPTSD	complex post-traumatic stress disorder
DBT	dialectical behaviour therapy
DESNOS	disorders of extreme stress not otherwise specified
DIC	deviance information criterion
DSM	*Diagnostic and Statistical Manual of Mental Disorders*
EMDR	eye movement desensitisation and reprocessing
ICD	*International Classification of Diseases*
ICD-10	*International Classification of Diseases*, Tenth Revision
INCiTE	INterventions for Complex Traumatic Events
IPT	interpersonal psychotherapy
ISTSS	International Society for Traumatic Stress Studies
MBSR	mindfulness-based stress reduction
NA	not applicable
NET	narrative exposure therapy
NICE	National Institute for Health and Care Excellence
NR	did not report information
OR	odds ratio
PANSS	Positive and Negative Syndrome Scale
PILOTS	Published International Literature On Traumatic Stress
PPI	patient and public involvement
PTSD	post-traumatic stress disorder
RCT	randomised controlled trial
ROBINS-I	Risk Of Bias In Non-randomized Studies – of Interventions
SE	standard error
SMD	standardised mean difference
SSRI	selective serotonin reuptake inhibitor
STAIR	Skills Training in Affect and Interpersonal Regulation
WHO	World Health Organization

Plain English summary

Traumatic events that happen often and that are difficult to escape from, such as childhood abuse, are sometimes known as complex traumatic events. People who have a history of complex traumatic events can develop post-traumatic stress disorder and can also suffer from other mental health problems. It is not known if people who experience complex traumatic events can benefit from existing psychological treatments or medications, or if these treatments are acceptable. This review aimed to find out which treatments are most effective and acceptable for mental health problems in people with complex trauma histories, and to identify the frontrunners for future research. We searched electronic databases for evidence about treatment effectiveness and acceptability in adults with a history of complex traumatic events. We found 104 randomised controlled trials and nine non-randomised controlled trials that tested the effectiveness of psychological and/or medications, as well as nine studies that used interviews and focus groups to describe the acceptability of psychological treatments. The studies were split across different populations that included veterans, refugees, people who had experienced childhood sexual abuse and domestic violence, and civilians affected by war. We found that psychological treatments that focused on improving symptoms associated with trauma were effective for reducing post-traumatic stress disorder symptoms and depression across all populations and fewer people dropped out of these treatments, suggesting that they are acceptable. However, trauma-focused treatments were less effective among veterans than among other groups and less effective for reducing other psychological symptoms commonly experienced by people with complex trauma histories. Phased treatments that first start with helping people to feel safe before focusing on trauma symptoms might be beneficial for both post-traumatic stress disorder and additional psychological symptoms. There was little evidence that medications, other than antipsychotics, were effective for post-traumatic stress disorder symptoms. Future work should test if phased treatments are more effective than non-phased treatments over the long term.

Scientific summary

Background

There is growing evidence that, in addition to post-traumatic stress disorder symptoms, exposure to prolonged and repetitive trauma of an interpersonal nature, such as childhood sexual abuse, is associated with mental health symptoms related to problems of emotional regulation, negative self-concept and interpersonal dysfunction. To better capture the symptom profile of people exposed to prolonged and multiple forms of trauma, a separate diagnosis of complex post-traumatic stress disorder has been proposed as part of the new *International Classification of Diseases*, Eleventh Edition.

Evidence-based treatments exist for single-event post-traumatic stress disorder and these include trauma-focused psychological interventions, which are recommended as first-line therapies, and also pharmacological therapies. However, it is not known if these therapeutic approaches are effective for people with a history of complex trauma or if they are safe and acceptable among this population. People with complex mixes of comorbidities may be excluded from clinical trials and they are further disadvantaged because their health needs are not well met by health services, such as Improving Access to Psychological Therapy services.

Complex trauma is increasingly prominent and relevant to the NHS, but existing mental health services are not well equipped to appropriately manage patients with complex traumatic histories. There is a need to identify candidate psychological and pharmacological treatments for this group with a view to informing practice and prioritising future research.

Objectives

The primary research question set by the Health Technology Assessment programme was the following: how effective are interventions that treat mental health problems associated with a history of complex traumatic events? The funding brief further elaborated on this research question by stating that the global objective was to undertake a broad evidence synthesis that builds on and extends previous reviews, reflective of the patient group seen in clinical practice, and to include pharmacological as well as non-pharmacological interventions. A key objective was to identify leading candidate interventions that the Health Technology Assessment programme could fund as part of a future round of primary research.

To achieve these objectives, we specifically aimed to:

- descriptively synthesise evidence from randomised and non-randomised controlled trials of psychological and/or pharmacological interventions for mental health in people with a history of complex traumatic events
- quantitatively assess, with meta-analysis if feasible, the clinical effectiveness of interventions delivered to adults, aged $\geq$ 18 years, with trauma and stressor disorders after exposure to complex traumatic events
- provide evaluations of the comparative clinical effectiveness of psychological interventions and pharmacological interventions using a network meta-analysis

- identify, appraise and synthesise qualitative and quantitative data that address service user and provider perspectives about the acceptability and feasibility of using psychological and/or pharmacological interventions to treat mental health problems after complex traumatic events
- identify leading candidate interventions that could be feasibly tested and used in the NHS and make recommendations to the Health Technology Assessment programme about future research priorities.

Methods

A mixed-methods systematic review was conducted that included eligible studies to address questions about the effectiveness and acceptability of psychological and/or pharmacological interventions for mental health problems in adults, aged ≥ 18 years, with a history of complex trauma. The methods for screening and data extraction and analysis followed guidance from the Cochrane Collaboration and the Centre for Reviews and Dissemination.

The quantitative and qualitative findings were presented at a stakeholder research prioritisation day attended by the research team, as well as by practitioners with an interest and experience in complex trauma, by voluntary and third-sector providers of services to people affected by complex trauma, and by experts through experience. Research priorities were co-produced during workshops and ranked following an online voting exercise, which was facilitated by the Beyond The Room (http://beyondtheroom.net/).

Data sources

- Cumulative Index to Nursing and Allied Health Literature (CINAHL) via EBSCO*host* (1937 onwards; search date: 20 April 2017).
- Cochrane Central Register of Controlled Trials (CENTRAL) via The Cochrane Library (from inception; search date: 21 April 2017).
- EMBASE via Ovid (1974 to 2017 week 16; search date: 19 April 2017).
- International Pharmaceutical Abstracts via ProQuest (1970 onwards; search date: 30 August 2017).
- MEDLINE Epub Ahead of Print and In-Process & Other Non-Indexed Citations, Ovid MEDLINE Daily and Ovid MEDLINE via Ovid (1946 to present; search date: 18 April 2017).
- Published International Literature On Traumatic Stress (PILOTS) via ProQuest (1987 onwards; search date: 2 May 2017).
- PsycINFO via Ovid (1806 to April week 2 2017; search date: 18 April 2017).
- Science Citation Index via Web of Science (1900 onwards; search date: 20 April 2017).

Two separate searches were run to capture eligible studies relevant to questions of effectiveness and acceptability of interventions.

Study selection

We identified the population of interest as adults, aged ≥ 18 years, exposed to deliberate and premeditated events, to a series of events that were extreme and prolonged or to events of a repetitive nature from which escape was difficult or impossible. Studies were included if they assessed treatment effectiveness and acceptability in this population. This approach approximated the definition of complex trauma used to describe complex post-traumatic stress disorder, although we did not use the newly defined *International Classification of Diseases*, Eleventh Edition, diagnostic category of complex post-traumatic stress disorder to search for eligible studies. Eligible studies for the effectiveness review needed to be randomised or non-randomised controlled trials and needed to measure post-traumatic stress disorder and/or mental health outcomes. Eligible studies for the qualitative acceptability review

needed to have used qualitative methods, such as in-depth interviews or focus groups. Studies that evaluated any first- or second-line psychological therapy that aimed to improve symptoms (including comorbidities) of trauma- and stressor-related disorders, delivered to either individuals or groups, were included. Complementary and alternative therapeutic interventions were excluded. All drug treatments subjected to experimental testing in the context of the treatment of mental health problems in people with a history of complex trauma were considered for inclusion.

Data extraction

Data were singly extracted by the review team using a prespecified data extraction Microsoft Excel® (Microsoft Corporation, Redmond, WA, USA) spreadsheet that included domains for study and participant characteristics, outcomes and attrition. The risk of bias for randomised controlled trials was assessed using the Cochrane risk-of-bias tool. The risk of bias for non-randomised controlled intervention studies was assessed using a bespoke version of a quality appraisal checklist used by the National Institute for Health and Care Excellence in public health guidance, and based on the Graphical Appraisal Tool for Epidemiological studies.

Quality assessments of the qualitative data were undertaken using the Critical Appraisal Skills Programme checklist and the validity and relevance of the data to the questions were assessed using the GRADE-CERQual checklist.

Data synthesis

For the quantitative review of effectiveness, we undertook a series of meta-analyses that pooled results across all populations for each intervention category. Mean differences and 95% confidence intervals were computed for outcomes measured using the same scale. Standardised mean differences with 95% confidence intervals were computed for outcomes measured using different scales. We also evaluated the effectiveness of interventions with a meta-analysis across population subgroups. In addition to the meta-analyses, we explored if the treatment effects of interventions were moderated by population subgroup, intervention components and delivery methods (e.g. individual or group). We further explored whether or not certain components of composite interventions were more effective than each other using a component network meta-analysis.

For the qualitative review of acceptability of interventions, we undertook a narrative synthesis of qualitative data extracted from the included studies, mapping data to themes and subthemes related to acceptability and feasibility.

Results

In the effectiveness review, 104 studies were included. Of these, 95 were randomised controlled trials and nine were non-randomised controlled trials. The population subgroups that were included were veterans, childhood sexual abuse, war affected, refugees and domestic violence.

Effectiveness of psychological interventions across all populations

The pooled results across all populations with complex trauma showed that existing evidence-based psychological interventions were effective at reducing post-traumatic stress disorder symptoms when compared with the control post treatment (standardised mean difference –0.90, 95% confidence

interval −1.14 to −0.66; number of trials = 39), and there was some evidence that this finding held when treatment effects were measured up to 6 months post treatment. Trauma-focused cognitive–behavioural therapy and more broadly single-component and trauma-focused interventions were more effective than the control post treatment and at follow-up. Multicomponent and trauma-focused interventions for post-traumatic stress disorder symptoms post treatment were also effective, but the treatment effects were smaller than for single-component and trauma-focused interventions.

For the symptom cluster associated with complex post-traumatic stress disorder, we found no evidence that either trauma- or non-trauma-focused psychological interventions were superior in improving emotional dysregulation or interpersonal problems. Multicomponent and single-component trauma-focused interventions showed benefits for negative self-concept. Phase-based interventions that included stabilisation work before exposure therapy had positive effects on emotional dysregulation and interpersonal problems, although the results for these outcomes were of borderline significance.

Collectively, psychological interventions were superior to the control, but not the active control, post treatment and at follow-up for managing associated symptoms of depression in all populations with complex trauma (standardised mean difference −0.94, 95% confidence interval −1.20 to −0.68; number of trials = 22). The most consistent and the largest effects for depression across all time points were observed in trials that tested single-component and trauma-focused interventions. Similarly, pooled results showed that psychological interventions of any type were effective for reducing anxiety in all populations with complex trauma (standardised mean difference −0.81, 95% confidence interval −1.18 to −0.46; number of trials = 13). Trauma-focused approaches, when delivered as either a single-component or a multicomponent intervention, were superior to the control for anxiety symptoms when effects were pooled across all populations.

There were insufficient data to assess the effectiveness of psychological interventions for other secondary outcomes.

Effectiveness of psychological interventions across population subgroups

Among veterans, psychological interventions were effective for reducing post-traumatic stress disorder symptoms, but the size of the treatment effect was much smaller than in analyses that pooled results across all populations (standardised mean difference −0.48, 95% confidence interval −0.72 to 0.24; number of trials = 14). Trauma-focused cognitive–behavioural therapy and eye movement desensitisation and reprocessing therapy were the most efficacious treatments in this subgroup for post-traumatic stress disorder, but superior effects were observed when multicomponent and trauma-focused interventions were compared with the control. These two therapies were also effective for reducing depression and anxiety in veterans.

For people exposed to childhood sexual abuse, psychological interventions were effective for reducing post-traumatic stress disorder symptoms (standardised mean difference −0.90, 95% confidence interval −1.43 to −0.37; number of trials = 9). The largest effects for reducing depression in this subgroup were observed in the meta-analysis that compared multicomponent trauma-focused interventions with the control. There was no clear indication about which treatments were effective for reducing anxiety in people with a history of childhood sexual abuse.

Among war-affected populations, psychological interventions as a whole were effective at reducing symptoms of post-traumatic stress disorder (standardised mean difference −0.46, 95% confidence interval −0.68 to −0.25; number of trials = 8). Individual trauma-focused cognitive–behavioural therapy was the most effective intervention in this subgroup for post-traumatic stress disorder symptoms and for depression; there was insufficient evidence to draw firm conclusions about the effectiveness of interventions for anxiety symptoms among war-affected populations.

Large and positive effects in favour of psychological interventions for post-traumatic stress disorder symptoms were observed in refugee populations (standardised mean difference −1.84, 95% confidence interval −2.18 to −1.49; number of trials = 6). Trauma-focused cognitive–behavioural therapy and eye movement desensitisation and reprocessing therapy were the most effective interventions for both post-traumatic stress disorder and depression in this subgroup; meta-analyses that assessed the effectiveness of interventions for anxiety among refugees were not possible.

Only two trials were included in the meta-analyses of psychological interventions for people exposed to domestic violence. Trauma-focused cognitive–behavioural therapy was effective for reducing post-traumatic stress disorder and depression in this subgroup.

The meta-regression showed that psychological interventions were most effective for post-traumatic stress disorder symptoms in populations exposed to domestic violence and were least effective among veterans. The component network meta-analysis showed that cognitive restructuring, imaginal exposure and relaxation were effective components of trauma-focused cognitive–behavioural therapy. Mindfulness and phase-based interventions were also effective components of composite interventions for post-traumatic stress disorder symptoms.

Effectiveness of pharmacological interventions

All but one of the six trials that compared pharmacological interventions with placebo were conducted in veterans. Overall, only antipsychotic medicine was effective in reducing post-traumatic stress disorder symptoms in veterans (standardised mean difference −0.45, 95% confidence interval −0.85 to −0.05; number of trials = 5). No pharmacological intervention was effective for reducing symptoms of depression or psychosis in veterans. There was evidence from just two studies that prazosin had positive benefits for sleep quality among veterans.

Quality of evidence

The risk of bias across randomised controlled trials was difficult to ascertain for five of six domains of the Cochrane risk-of-bias tool, owing to inadequate reporting. Only a small proportion (20–30%) of randomised controlled trials were rated as being at low risk of bias for sequence generation, allocation concealment and blinding of outcome assessments, which were the primary indicators of study quality. Similarly, study quality was variable among the non-randomised controlled trials. There was a high risk of bias for outcome assessment, with only three of nine studies taking steps to blind investigators; domains related to allocation bias were poorly reported, leading to judgements that the internal validity of non-randomised trials was low or difficult to assess.

Acceptability of interventions

Eight qualitative studies were included in the acceptability synthesis. The acceptability of interventions was associated with how congruent they were with participants' therapeutic needs and social contexts, as well as the means by which they were able to provide participants with opportunities to engage in personal and interpersonal improvement and confer demonstrable improvements. The feasibility of interventions hinged on more instrumental features, such as scheduling and timing of treatment sessions.

Conclusions

Trauma-focused cognitive–behavioural therapy and other trauma-focused interventions, including eye movement desensitisation and reprocessing therapy, delivered as single-component or multicomponent approaches, are superior to the control for post-traumatic stress disorder symptoms and associated

mental disorder comorbidities. Positive effects were mainly found post treatment, with few studies showing benefit over the long term. The quality of the randomised controlled trial evidence was generally low or sufficiently unclear to be able to make fundamental recommendations about the effectiveness of interventions. We identified only a small subset of evidence from non-randomised controlled studies in which study quality was variable and internal validity was low. The sizes of the positive treatment effects were not evenly distributed across populations exposed to complex trauma, with the smallest effects observed among veterans and war-affected populations and the largest effects observed in those affected by domestic violence. Phase-based interventions, along with non-trauma-focused intervention components including mindfulness and relaxation, are potentially among the most effective approaches for post-traumatic stress disorder symptoms in people with a history of complex trauma, such as childhood sexual abuse. In addition, there is inconclusive evidence that existing trauma-focused interventions are effective in treating the symptom cluster associated with disturbances of self-organisation typically seen in complex post-traumatic stress disorder. There was little evidence of effectiveness of pharmacological interventions for post-traumatic stress disorder or for associated mental comorbidities.

Recommendations for research

Following the research prioritisation day and based on the synthesis of the effectiveness and acceptability reviews, we have identified the following priorities for future research:

- definitive and fully powered evaluations of effectiveness of interventions in complex trauma with long-term follow-up (i.e. at least 12 months), especially in veterans, people exposed to childhood sexual abuse and populations affected by humanitarian crises
- qualitative and quantitative process evaluations to assess the relationship between intervention and programme theory and anticipated outputs and trial results
- qualitative evaluations of the acceptability and feasibility of interventions among people exposed to complex interventions to inform barriers to and facilitators of treatment uptake, especially in refugees and asylum seekers
- evaluations of the lived experience of people with a history of complex trauma across population subgroups
- safety and adverse event profiles of trauma- and non-trauma-focused interventions for people with complex trauma
- a core outcome set for trials in complex trauma that includes outcomes related to disturbances of self-organisation and mental comorbidities
- the validity of the new *International Classification of Diseases*, Eleventh Edition, diagnostic category for complex post-traumatic stress disorder to identify and recruit eligible participants to experimental studies.

Study registration

This study is registered as PROSPERO CRD42017055523.

Funding

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Chapter 1 Background

Trauma- and stressor-related disorders and their relevance to complex traumatic events

Trauma- and stressor-related disorders, also known as reactions to severe stress and adjustment disorders, are mental health problems directly related to exposure to a traumatic event or series of traumatic events. Post-traumatic stress disorder (PTSD) is among the most common mental health disorders to occur after experiencing (or witnessing) a major traumatic event. Typical symptoms include involuntary re-experiencing of the traumatic event in a vivid and distressing way (e.g. flashbacks, nightmares), avoidance of activities reminiscent of the trauma, persistent numbness, emotional blunting and detachment from other people and previously significant activities, along with hyperarousal in the presence of reminders of the trauma (including hypervigilance, difficulty sleeping, irritability, poor concentration and an exaggerated startle response). People with PTSD may also experience comorbid psychological problems including substance use disorders, depression (with increased risk of suicide) and other anxiety disorders (e.g. panic disorders), and functional somatic syndromes, which can further impair social, educational and occupational functioning.

Post-traumatic stress disorder can occur at any age and it is relatively common, with a lifetime prevalence of 7.8%;[1] 12-month prevalence ranges from 3% to 4%.[2] Rates vary depending on the type of stressor experienced; for example, physical assaults in women are associated with a lifetime prevalence of 29%, combat experience in men is associated with a lifetime prevalence of 39% and lifetime prevalence is 15.4% in people exposed to war and displacement.[3]

It is argued, however, that the PTSD symptom clusters described in the current and previous versions of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) and the *International Classification of Diseases*, Tenth Revision (ICD-10), do not adequately capture the full range of clinical symptoms exhibited by those who experience complex trauma (i.e. developmentally adverse interpersonal trauma such as prolonged domestic or community violence, childhood abuse, torture or exploitation).[4] People who experience complex trauma especially, but not exclusively or necessarily in formative periods, are more at risk of other psychiatric disorders. Complex PTSD (CPTSD) and disorders of extreme stress not otherwise specified (DESNOS) are labels that have been used to define syndromes that involve, in addition to core PTSD symptoms, pathological disassociation, emotional dysregulation, somatisation and altered core schemas about the self, relationships and sustaining beliefs.[5]

Recent empirical work using latent class analysis in people exposed to different types of acute and chronic stress has gone some way to endorse the distinction (to be included in ICD-11)[6] between PTSD and CPTSD, with the CPTSD class scoring highest for symptoms related to affective dysregulation, negative self-concept and interpersonal problems.[7,8] The symptom profile of CPTSD is thus characterised by the loss of emotional, social, cognitive and psychological skills, because either the person's development has been interrupted during a formative phase or they have been seriously impaired owing to exposure to complex trauma. Beyond the prototypical case of childhood sexual abuse, complex trauma experiences have also come to embrace 'other types of catastrophic, deleterious and entrapping traumatisation occurring in childhood and/or adulthood, such as repeated domestic violence, trafficking and exploitation, and being forcibly displaced'.[9] Compared with single-event PTSD, complex trauma is characterised by sustained or repeated instances of trauma of an interpersonal nature that are 'extremely threatening or horrific and from which escape is difficult or impossible due to physical, psychological, maturational, family/environmental, or social constraints'.[10]

Impact and burden of complex trauma

Mass conflict, persecution, generalised violence and human rights violations pose a critical threat to global mental health. By the end of 2014, 59.5 million people across the world were forcibly displaced (19.5 million refugees, 1.8 million asylum seekers and 38.2 million internally displaced persons) and this figure has certainly been surpassed owing to exceptional numbers fleeing conflict in the Middle East.[11] Asylum trends show that there has been a huge increase in applications in industrialised countries, with 80% being lodged in European countries (82% of these in EU countries); the UK saw a 5% increase in asylum applications from 2013 to 2014.[12]

Among forcibly displaced people, 30.6% are affected by PTSD; reported torture is consistently the strongest population risk factor associated with PTSD in this group.[3] Depression and anxiety occur as frequently as, if not more often than, PTSD among refugees and asylum seekers, with rates as high as 40% observed among some displaced groups.[13] Similarly, human trafficking (i.e. recruitment and movement of individuals by force, coercion or deception for exploitative purposes) is associated with high levels of physical and mental health problems.[14] Worldwide, up to 2.5 million people are known to be in conditions of forced labour and are exposed to high levels of physical and sexual violence, economic restrictions and controlling behaviour.[15] The risk of depression, anxiety and PTSD is significantly higher in women who have been exploited for $\geq$ 6 months compared with the general population,[16] and higher in women trafficked for sexual exploitation than in women trafficked for labour exploitation.[17]

Other critical cases of complex trauma are associated with exposure to childhood sexual and physical abuse. Although under-reported (one in three cases are not reported), 1 in 20 children has been sexually abused in the UK.[18] Victims of child abuse are three times more likely to experience PTSD over their lifetime. Rates of PTSD and alcohol dependence are especially high in women who have experienced childhood abuse and related interpersonal violence. In total, the cost of physical and mental health (depression and PTSD) and substance abuse to the UK is estimated to be £3.2B per year, in part owing to under- and unemployment and the high spend in the criminal justice system, as well as costs attributed to the use of mental health services.[19] Stigma, discrimination and depression similarly affect victims of childhood abuse and severely impair their quality of life.

Treating mental health problems in people affected by complex trauma

Existing international guidance makes no distinction between more complex variants of PTSD and recommends the use of trauma-focused therapies for people with comorbidities and PTSD. However, many of the trials included in existing systematic reviews [on which National Institute for Health and Care Excellence (NICE) guidance is based][20] were carried out in North American or Western European countries where the type and severity of trauma experienced by participants may not be comparable to settings and scenarios with a higher risk of prolonged exposure to complex interpersonal trauma. In addition, the World Health Organization (WHO) guideline excluded systematic reviews based on trials of treatment of PTSD in refugee populations.[21] As such, it is unclear if treatments that are effective for people with single-event PTSD are equally effective for people exposed to complex traumatic events, who have significantly greater psychological comorbidity and functional impairment than the former group. Standard cognitive and behavioural therapies and exposure-based treatments for PTSD might have limited utility and might be harmful if used prematurely for people with psychological problems following complex traumatic events.[22] Many people with CPTSD have high levels of disassociation and psychological comorbidities that might limit their capacity to engage in exposure-based therapies, and findings from effectiveness studies in single-event PTSD cannot be generalised to people with complex trauma.[23] Compared with brief trauma-focused treatments, phase-based approaches or sequential interventions that first focus on stabilisation (ensuring individuals' safety, resolving symptoms – including dissociative symptoms – and increasing emotional, social and psychological competencies),

followed by processing unresolved aspects of individuals' trauma, with an emphasis on consolidation of treatment gains to facilitate re-engagement with social, educational or occupational relationships, can be effective in more complex presentations of PTSD following childhood sexual abuse.[24]

However, the quality of the evidence for the CPTSD expert consensus guidelines is mixed: two studies were not randomised controlled trials (RCTs); only three included an active control and none included head-to-head comparisons with trauma-focused therapies; three studies did not follow up with participants; and all of the evidence was drawn from populations exposed to childhood sexual abuse and no other types of complex trauma, which limits the validity and generalisability of the conclusions.[25] Indeed, patients with a history of complex traumatic events might benefit from existing evidence-based psychological and pharmacological treatments. Crumlish and O'Rourke identified 10 trials ($n = 528$) in a review of psychotherapy for refugees and asylum seekers.[26] Cognitive–behavioural therapy (CBT) and narrative exposure therapy (NET) emerged as candidate interventions for reducing core PTSD symptoms, but small sample sizes, inadequate allocation concealment and the use of different comparisons limit the conclusions. Similarly, Palic and Elklit, in a review of 25 experimental and non-experimental studies ($n = 1113$) of psychosocial treatments for PTSD among refugees, identified CBT as the most effective therapy for reducing PTSD symptoms.[27] Trauma-focused therapies such as CBT and NET appear to be equally efficacious across different types of trauma too, including repeated traumatisation. Powers *et al.*, in a review of 13 trials ($n = 675$), showed that there was no significant difference in effect sizes for prolonged exposure therapy across types of trauma (combat/terror, childhood sexual abuse, rape, mixed; $p = 0.14$).[28]

More complex presentations of PTSD include psychiatric comorbidities and there is growing evidence that existing non-phase-based approaches are effective in this group. A wide-ranging review with a meta-analysis that included 148 anxiety-disordered treatment samples (47 in PTSD; combined $n = 3534$) showed that effect sizes post treatment or at follow-up were generally unrelated to psychiatric comorbidity (for comparisons with active and non-active psychological or pharmacotherapy treatments).[29] However, in cases of PTSD, there was a positive association between the presence of comorbidities and the treatment outcome: people with comorbidities did better. More specifically, there is emerging evidence that PTSD symptoms in patients with comorbid dissociation, depression, substance abuse and/or mild borderline personality disorder can be successfully and safely treated with existing evidence-based trauma-focused therapies, and their outcomes are comparable with those for patients without these comorbidities.[30] CBT is also possibly the most effective approach for PTSD symptoms when compared with multicomponent interventions that seek to first address additional social and psychological problems in refugees.[31]

In addition, consistent with NICE guidance, trauma-focused therapies that target PTSD symptoms can have a positive impact on comorbidities. A review of 93 studies with 116 comparisons showed that there was a strong correlation between effect sizes for PTSD and depression outcomes, suggesting that psychological and pharmacological therapies are equally efficacious for PTSD and depressive symptoms.[32]

Rationale and aims of this review

In summary, there is expert consensus that phase-based approaches effectively treat symptoms associated with CPTSD in adults, but the evidence on which this consensus is based is methodologically weak and exclusively based on studies that recruited participants with childhood abuse; findings might not translate to other populations with complex trauma histories. These consensus guidelines also did not review evidence about the effectiveness of pharmacological interventions in CPTSD. There is accumulating evidence that trauma-focused psychological therapies can reduce PTSD symptoms in people exposed to complex traumatic events who have psychiatric comorbidities. These treatments can also reduce comorbid illness in people with PTSD and can be used safely without a stabilisation phase.

However, existing reviews of the use of trauma-focused therapies in people with complex trauma histories have focused on narrowly defined population subgroups and we still do not know how effective psychological therapies are across all populations with complex trauma. The comparative effectiveness of psychological interventions for mental health outcomes is also unknown for people with complex trauma histories in all settings. The acceptability of psychological interventions, either phased based or trauma focused, has been less well studied. There are also no comprehensive overviews of the effectiveness of pharmacological interventions in people who have been exposed to complex traumatic events. As such, a broad synthesis of evidence is needed to build on and extend the findings from previous reviews, but uncertainties and questions remain about which interventions warrant further evaluation. Furthermore, both pharmacological and psychological interventions should be included across a wide range of populations with a history of complex traumatic events.

Chapter 2 Methods of the effectiveness review and meta-analysis

Aims and objectives

The aim of this review was to provide a broad synthesis of evidence about the effectiveness of psychological and/or pharmacological interventions to treat mental health problems (with or without PTSD symptoms) in people exposed to complex traumatic events. In addition, where feasible, the review aimed to identify and synthesise qualitative and quantitative evidence about the acceptability and uptake of delivering mental health interventions for people with a history of complex traumatic events. Together, these syntheses aimed to offer estimates of the clinical effectiveness and acceptability of existing and novel treatments and to describe uncertainties about the strength of this evidence to inform a broader understanding about which interventions are likely to be candidates for testing in future definitive trials.

More specifically, the objectives of this review were as follows.

- Descriptive synthesis: to provide an overview of existing RCTs and non-RCTs of psychological and/or pharmacological interventions for mental health problems in people with a history of complex traumatic events with specific reference to participant characteristics, intervention format and content, and the outcomes measured.
- Clinical effectiveness: narratively and quantitatively, with a meta-analysis if feasible, to report on the clinical effectiveness of interventions delivered to adults aged 18 years and over with trauma and stressor disorders after exposure to complex traumatic events.
- Comparative effectiveness: to provide evaluations of comparative clinical effectiveness of psychological interventions (e.g. phase-based vs. conventional trauma-focused therapies) and different pharmacological interventions using a network meta-analysis.
- Acceptability and feasibility: to identify, appraise and synthesise narratively qualitative and quantitative data that address service user and provider perspectives about the acceptability and feasibility of using psychological and/or pharmacological interventions to treat mental health problems after complex traumatic events.
- Research priorities: to identify candidate interventions that could feasibly be tested and used in the NHS and to make recommendations to the Health Technology Assessment programme about future research priorities.

Literature searches

Literature searches of the following databases were conducted:

- Cumulative Index to Nursing and Allied Health Literature (CINAHL) via EBSCO*host* (1937 onwards; search date: 20 April 2017).
- Cochrane Central Register of Controlled Trials (CENTRAL) via The Cochrane Library (from inception; search date: 21 April 2017).
- EMBASE via Ovid (1974 to 2017 Week 16; search date: 19 April 2017).
- International Pharmaceutical Abstracts via ProQuest (1970 onwards; search date: 30 August 2017).

- MEDLINE Epub Ahead of Print and In-Process & Other Non-Indexed Citations, Ovid MEDLINE Daily and Ovid MEDLINE via Ovid (1946 to present; search date: 18 April 2017).
- Published International Literature On Traumatic Stress (PILOTS) via ProQuest (1987 onwards; search date: 2 May 2017).
- PsycINFO via Ovid (1806 to April Week 2 2017; search date: 18 April 2017).
- Science Citation Index via Web of Science (1900 onwards; search date: 20 April 2017).

The full search strategies used are available in *Appendix 1*.

Inclusion and exclusion criteria

Population

Neither DSM-IV nor ICD-10 distinguishes between PTSD and CPTSD. DSM-V does include a dissociative subtype, but it is unlikely that many studies have yet been conducted using this approach. ICD-11 criteria that will include CPTSD are not yet published and few studies will have used these criteria, making it difficult to identify studies using this diagnostic label. Our goal was therefore to identify studies based primarily on trauma history rather than diagnostic criteria.

We included adults > 18 years of age who had been exposed to complex interpersonal traumatic events, which were defined as follows:

> *. . . deliberate and premeditated event or series of events of an extreme and prolonged or repetitive nature that is experienced as extremely threatening or horrific and from which escape is difficult or impossible due to physical, psychological, maturational, family/environmental, or social constraints.*
>
> *Cloitre* et al.[10]

This included (but was not limited to) adults exposed to childhood physical and/or sexual abuse, being a victim of or witnessing domestic violence, forcibly displaced persons (refugees, asylum seekers, internally displaced persons), torture survivors, those recruited into armed conflict as a child, those who had experienced ongoing armed conflict and combat, and those who had been relocated through human trafficking.

Studies were identified primarily based on trauma history rather than diagnostic criteria, and only those with adults > 18 years of age were included. The interpersonal trauma experience may have occurred at any age, but only studies of adults were included. Inclusion in the review was not restricted based on psychiatric comorbidities, with the exception of substance misuse disorders.

If studies included a mix of participants with complex interpersonal trauma history and single-event trauma history, studies were included if > 75% of participants had experienced complex interpersonal trauma (unless the data were presented separately).

Studies examining preventative therapies or interventions in populations not yet exhibiting psychological problems following complex traumatic events were excluded.

Interventions

Psychological interventions

Studies that evaluated any first- or second-line psychological therapy aimed at improving symptoms (including comorbidities) of trauma- and stressor-related disorders delivered either to individuals or in a group were included. Complementary and alternative therapeutic interventions were excluded from

this review. As per the protocol registered with PROSPERO[34] and in keeping with the classification used by NICE,[20] the following interventions were considered:

- trauma-focused CBT that included one or more of the following types of treatment techniques: exposure, cognitive therapy, stress management
- eye movement desensitisation and reprocessing (EMDR)
- other psychological treatments used to treat trauma survivors and victims but that predominantly use non-CBT techniques: supportive therapy and non-directive counselling, psychodynamic therapies including interpersonal psychotherapy (IPT), hypnotherapy, mindfulness and compassion-focused therapies, acceptance and commitment therapies, accelerated resolution, and sensorimotor therapies.

A more detailed study categorisation was undertaken to better describe the volume of evidence (see *Subgroup analyses: categorising interventions*).

Where possible, analyses of group trauma-focused CBT and group non-trauma-focused CBT were considered, as planned. The approach used is detailed in *Meta-regression analyses: predictors of treatment effectiveness*. The volume of evidence permitted further superordinate categorisation (see *Subgroup analyses: categorising interventions*).

Pharmacological interventions

All drug treatments subjected to experimental testing in the context of the treatment of mental health problems in people with a history of complex trauma were considered for inclusion. The following categories of pharmacotherapy were considered: selective serotonin reuptake inhibitors (SSRIs), antidepressants as a whole, antipsychotics, anticonvulsants and other medications typically used in the context of managing the symptoms of trauma and stressor disorders.

Comparators

Psychological interventions

Psychological interventions were compared with the following:

- waitlist
- treatment as usual (defined as non-experimental active treatments that conform to best and/or clinical guideline recommended care and that are ordinarily made available to patients)
- no intervention
- symptom monitoring
- repeated assessment or other minimal attention control group akin to psychological placebo
- alternative psychological treatment
- pharmacological treatment.

Pharmacological interventions

Pharmacological interventions were compared with the following:

- placebo
- other medication
- no intervention
- psychological therapy.

Head-to-head comparisons

Comparisons of two or more active interventions were included. Differences in comparators were taken into account during data summary and analyses. Network meta-analyses were conducted to provide comparisons of all interventions within a connected network (including comparisons of active interventions not originally evaluated in the included trials).

Outcomes

The outcomes measured were core symptoms related to trauma- and stressor-related disorders and outcomes associated with psychological and psychiatric comorbidities even in the absence of PTSD. However, all outcomes reported within studies were extracted to gain a comprehensive overview of all commonly reported outcomes.

Primary outcomes

- Reduction in severity of traumatic stress symptoms as measured using a validated and standardised clinician-rated scale.
- Reduction in symptoms of difficulties with emotion regulation (e.g. Difficulties with Emotion Regulation Scale[35]) and interpersonal relationship problems (e.g. Inventory of Interpersonal Problems[36]).

Secondary outcomes

- Severity of self-reported traumatic stress symptoms using a standardised measure (e.g. Modified PTSD Symptom Scale[37]).
- Reduction in depressive and/or anxiety symptoms measured using validated clinician-rated instruments (e.g. Hamilton Depression Rating Scale[38]) or validated patient self-reported instruments (e.g. Hospital Anxiety and Depression Scale[39]).
- Reduction in symptoms of panic disorder.
- Reduction in symptoms of disassociation.
- Reduction in symptoms of functional somatic syndromes.
- Reduction in substance misuse.
- Acceptability measured in terms of intervention uptake, adherence and withdrawal (dropouts).
- Adverse events and harms from trial data (e.g. worsening of traumatic stress symptoms).
- Suicidal ideation, attempts and completion.
- Functioning, disability and quality of life measured by validated clinician-rated scales (e.g. Global Assessment of Functioning) or validated self-reported scales (e.g. Short Form questionnaire-36 items).
- Study designs.
- RCTs and cluster RCTs (where relevant).

Because CPTSD and complex trauma make up an emerging and relatively new diagnostic category, we proposed to also identify and include non-randomised controlled studies so as to capture data on emerging treatments and treatments tested in more pragmatic settings that might not have been tested in the context of a RCT. Studies undertaken in any country and setting (i.e. both low and middle-income countries and high-income countries) were included. Single-group before-and-after studies, uncontrolled observational studies, single-subject designs, case studies, opinion papers, descriptive studies and editorials were excluded.

Study selection

The selection criteria and process were independently checked by an advisory group (see *Advisory group*). Three researchers (Julie Jones-Diette, Hollie Melton and Holly Dale) independently screened titles and abstracts. The EndNote library was split evenly between those involved in screening, but, to ensure the distribution was not weighted to any particular year or author groups, each reviewer screened a cross-section of the library across dates and authors. To ensure that the inclusion criteria were consistently applied, a 10% sample of records was first double screened based on the title and abstract by pairs of researchers. Consensus meetings with the rest of the research team were held at regular intervals to resolve unclear decisions at the title and abstract screening phase. Full-text records were similarly screened with consensus meetings used to resolve disagreements.

Advisory group

We convened a study advisory group that comprised the principal investigator (Peter Coventry) and co-investigator (Rachel Churchill), along with content and clinical experts in trauma studies, PTSD and CPTSD. The advisory group provided independent advice about the strategic direction and scientific and policy relevance of the research undertaken by the INCiTE (INterventions for Complex Traumatic Events) review team. The broad aim of the advisory group was to ensure that the INCiTE study met its objectives and to maximise the impact and benefit of the review to end-users. The chairperson of the advisory group shared with the INCiTE team search terms and preliminary results associated with an update of a review of treatments for PTSD. Our search was shared with the advisory group and vetted for accuracy and credibility. Following the first advisory group meeting, the INCiTE team was advised to modify the inclusion criteria to include populations with a history of complex traumatic events who also had psychosis. In addition, feedback from the clinical content experts suggested that screening decisions should include combat trauma of all kinds because of the increased likelihood that veterans who present with PTSD may have encountered other traumatic events prior to military service and that it is the experience of multiple forms of trauma resulting in symptoms associated with CPTSD.

Data extraction

Data extraction was piloted on a small sample of studies by three researchers independently. Both RCTs and non-RCTs were extracted using the same template and were managed in separate Microsoft Excel® (Microsoft Corporation, Redmond, WA, USA) spreadsheets. After consensus checking, the included records were split between three reviewers to singly extract, owing to the volume of evidence. Uncertainties were resolved by consultation between reviewers tasked with data extraction or by deferring to the wider review team. Extracted data across domains related to study and participant characteristics and outcomes were compiled in a spreadsheet. When they were presented, intention-to-treat data were extracted instead of complete cases.

If an included study was published across multiple manuscripts, we used the primary publication as the main source of information. New and follow-up data were taken from subsequent publications but the unit of allocation remained the study rather than numbers of publications.

Risk of bias

Randomised controlled studies of clinical effectiveness

Studies were evenly distributed between researchers tasked with data extraction and each study was singly assessed for risk of bias. A subset of studies was used to pilot the Cochrane risk-of-bias tool. This tool assessed each study against domains known to be associated with bias in RCTs: selection, performance, detection, attrition, reporting and other biases (which were applied based on the specific context). Each study was assessed as being at 'low', 'unclear' or 'high' risk of bias across each of these domains. Attrition bias was used as an independent variable in the sensitivity analysis; this domain was checked by a further reviewer after all of the original appraisals had been made.

Selection bias was assessed by considering random sequence generation and allocation concealment; when these were not reported with sufficient detail, they were graded as at unclear risk. Performance bias considered the blinding of participants and personnel; when this was not possible owing to intervention type (e.g. comparing a psychological intervention with a waitlist), studies were graded as high risk. Detection bias was assessed by considering the blinding of outcomes assessors. The attrition bias domain took account of incomplete outcome data and how they were managed. When attrition was unequal, in high frequency or not appropriately managed by study authors, this was graded as high risk. Reporting bias was appraised by considering the risk of selective reporting. Generally, studies without a registered protocol were graded as being an unclear risk, while studies that favoured

significant outcomes or obscured results were graded as high risk. Finally, other biases were assessed and descriptively reported if there were possible concerns not addressed by the existing domains of the tool.

Non-randomised controlled intervention studies

Non-randomised controlled intervention studies that were subject to the same piloting and agreement process as RCTs were included. Two reviewers piloted the Risk Of Bias In Non-randomized Studies – of Interventions (ROBINS-I),[40] the Newcastle–Ottawa Scale[41] and the NICE quality appraisal checklist.[42] After piloting these tools, the pragmatic decision was taken to use a modified version of the NICE quality appraisal checklist[42] used in public health guidance. There were few non-randomised controlled studies but the resources needed to use the ROBINS-I tool would have outstripped capacity in the team and compromised the schedule allocated for extracting data from the large volume of included RCTs.

Reviewers singly appraised the quality of each included non-randomised controlled intervention study. The checklist was originally developed based on the 'Graphical Appraisal Tool for Epidemiological studies' (GATE) tool[43] and includes domains of population bias, allocation, outcomes and analyses, as well as summary judgements for internal and external validity. Ten items were not directly relevant to the included studies, so were graded as 'not applicable' (items 2.3, 2.5, 3.2, 3.4, 3.5, 3.6, 4.3, 4.5 and 4.6). Each study was graded '++' indicating minimal risk of bias, '+' indicating potential sources of bias or '–' indicating significant sources of bias. The additional grade 'NR' was used when studies did not report information and 'NA' was used when an item was not applicable to the given study design.

Data analysis

Meta-analyses of clinical effectiveness and attrition

Random-effects pairwise meta-analyses were conducted using Stata® 15 (StataCorp LP, College Station, TX, USA). We decided to use a frequentist approach for the pairwise meta-analyses, as this remains the standard approach in the literature.

Control conditions were grouped into two categories: controls (which included a waitlist or other controls with no or minimal therapeutic input) and active controls (including attention controls or treatment as usual with non-systematic psychological intervention input).

If multiple intervention groups were included in the study, we analysed the data in the following way:

- If one of the groups did not meet criteria for our review, we did not combine across groups but used data from the group that met our review criteria.
- If studies included two intervention groups that met criteria for the same intervention classification, we combined them together. For example, if a study included a prolonged exposure group and a cognitive processing therapy group, we combined them together into one group for the trauma-focused CBT analyses.
- However, of course, if a study included a mindfulness arm and a trauma-focused CBT arm, we did not combine them but included them in their appropriate subgroups.

Most outcomes were continuous. If all studies used the same scale, we calculated mean differences and their 95% confidence interval (CI). If studies used different scales to measure a particular outcome, we calculated standardised mean differences (SMDs) and their 95% CI. In keeping with established cut-off points of effect in behavioural medicine, SMDs of 0.56 to 1.2 were categorised as large, effect sizes of 0.33 to 0.55 were categorised as moderate and effect sizes ≤ 0.32 were categorised as small. For dichotomous outcomes, such as attrition, we calculated odds ratios (ORs) and their 95% CI.

Heterogeneity assessment was based on visual inspection of forest plots and the I^2 statistic.[44] A Q-value (approximating chi-squared distribution) of $p < 0.1$ indicated statistically significant heterogeneity.

Statistical heterogeneity was explored using subgroup analyses, meta-regression and components network meta-analyses.

Subgroup analyses: categorising interventions

Given the substantial and inherent heterogeneity expected from our broad research questions, we conducted a range of subgroup analyses.

First, we conducted meta-analyses including all psychological interventions versus controls or active controls in all populations.

Second, we grouped these meta-analyses of all psychological interventions into the following populations based on descriptions in the study and through discussion with clinical experts: veterans, people who had experienced childhood sexual abuse, refugees, people who had experienced domestic violence and war-affected civilians.

Third, we grouped the data according to intervention categories commonly reported in the literature based on reporting from the original papers and discussion with clinical experts: trauma-focused CBT, EMDR therapy, non-trauma-focused CBT, mindfulness, dialectical behaviour therapy (DBT) and IPT. We assessed the effectiveness of these intervention categories in the same populations as described above: all psychological interventions, veterans, childhood sexual abuse, refugees, domestic violence and war.

Fourth, we further grouped the data into three superordinate intervention categories:

1. single-component trauma-focused interventions: any trauma-focused intervention that includes a single therapeutic approach (e.g. trauma-focused CBT, EMDR)
2. multicomponent trauma-focused interventions: any intervention that is primarily trauma-focused but also includes elements of other theoretical approaches, such as mindfulness, present-centred therapy or counselling [e.g. Skills Training in Affect and Interpersonal Regulation (STAIR)]
3. single-component non-trauma-focused interventions: any non-trauma-focused intervention including a single theoretical approach (e.g. non-trauma-focused CBT, mindfulness, IPT, present-centred therapy).

These intervention categories were then grouped according to the populations listed above (i.e. all psychological interventions, veterans, childhood sexual abuse, refugees, domestic violence and war).

Meta-regression analyses: predictors of treatment effectiveness

Mixed-effects meta-regression analyses were conducted using the 'metareg' package in Stata 15 to examine the impact of differences in population and intervention components on the effectiveness of psychological interventions (using SMD as the outcome measure) for reducing trauma outcomes in all populations (number of trials = 46). We used a frequentist approach to supplement and compare with the more complex Bayesian approach used for the components network meta-analyses.

The impact of the following populations was explored based on the same categories described above for the subgroup analyses: veterans, people who had experienced childhood sexual abuse, refugees, people who had experienced domestic violence and war-affected civilians.

Intervention components were identified on the basis of study descriptions in the published manuscripts, accessing treatment manuals where available, and in discussion with clinical experts with experience of delivering these types of interventions. The following intervention components were included, as long as they had sufficient data to be included as covariates in the meta-regression: support, psychoeducation, relaxation, cognitive restructuring, in vivo exposure, imaginal exposure, virtual reality exposure, mindfulness and phased based.

We also assessed the impact of the following methods of intervention delivery on effectiveness: individual versus group, face to face versus other and duration of intervention (< 12 weeks, 12 weeks, > 12 weeks).

Components network meta-analyses

We sought to further explore the impact of different combinations of intervention components using network meta-analyses. We used a Bayesian approach, as this allows greater flexibility in fitting more complex models and, therefore, a more thorough exploration of heterogeneity.

As with the meta-regression analyses above, we began by conducting the component network meta-analyses using SMDs that combined different trauma outcomes and all populations. However, there were difficulties with compiling the model. Given the greater complexity of the network meta-analysis models, we judged that it would be appropriate to simplify the analyses by focusing on mean differences for the Clinician-Administered PTSD Scale (CAPS; i.e. the most frequently reported trauma outcome reporting scale; number of trials = 16) in all populations for this outcome.

We fitted models using WinBUGS 1.4.3 (MRC Biostatistics Unit, Cambridge, UK) based on the components network meta-analyses approach proposed by Welton *et al.*[45] and an adaptation of the WinBUGS code reported in Freeman *et al.*[46] All models used a normal likelihood for continuous outcomes and vague priors for treatment effect and between-trial standard deviation. Convergence was assessed based on visual assessment of trace plots, the Brooks–Gelman–Rubin statistic and autocorrelation plots using three Markov chain Monte Carlo methods. All models were judged to have reached convergence after 50,000 iterations. These iterations were then discarded and all results were based on a further 50,000 iterations.

Goodness of fit to the observed data was assessed using total residual deviance and the deviance information criterion (DIC). Total residual deviance approximately equal to the number of data points was considered to indicate acceptable fit.[47] Greater than 5 points on the DIC was considered a substantial difference in goodness of fit between models.[48]

We compared four models:

1. Model 1 included the intervention categories used in the pairwise meta-analyses (trauma-focused CBT, EMDR, non-trauma-focused CBT, mindfulness and IPT) compared with either control or active control.
2. Model 2 included all intervention components originally assessed in the meta-regression analyses discussed above (support, psychoeducation, relaxation, cognitive restructuring, in vivo exposure, imaginal exposure, virtual reality exposure, mindfulness and phased based). In addition to these, it was also assumed that all active treatments and attention controls included a placebo component. We also took into account the effect of the control group (waitlist vs. active control). Each component had a separate effect and assumed the total effect of the intervention was a sum of these separate effects.
3. Model 3 included all intervention components in model 2 plus all available pairs of components. Seven pairs of intervention components were reported in two or more included studies and were therefore included in the analyses: support + psychoeducation, psychoeducation + relaxation, psychoeducation + cognitive restructuring, psychoeducation + imaginal exposure, relaxation + mindfulness, relaxation + cognitive restructuring and relaxation + imaginal exposure. This model allowed for interactions between pairs of interventions above or below what would be expected from the sum of their components.
4. Model 4 included all possible combinations of intervention components.

Acceptability sensitivity analyses

For the attrition outcome, we were concerned that any differences between interventions and the control may be confounded by study design characteristics. Therefore, we conducted sensitivity analyses on attrition outcomes including only studies with a low risk of attrition bias and compared these findings with all included studies.

Chapter 3 Methods of the qualitative acceptability review

Objective

The aim of this element of the review was to identify, appraise and synthesise narratively qualitative data that addressed service user and provider perspectives about the acceptability and feasibility of using psychological and/or pharmacological interventions to treat mental health problems after complex traumatic events.

Literature searches

Literature searches of the following databases were conducted: CINAHL, EMBASE, MEDLINE and PsycINFO. The searches identified 4289 records, which were downloaded, imported into EndNote [Clarivate Analytics (formerly Thomson Reuters), Philadelphia, PA, USA] bibliographic software and de-duplicated to leave 1574 unique records. The full qualitative search strategy is available in *Appendix 2*.

Study selection

Qualitative research was defined as those studies that collected data using specific qualitative techniques such as unstructured interviews, semistructured interviews or focus groups, either as a stand-alone methodology or as a discrete part of a larger mixed-method study, and analysed qualitatively. Studies that collected data using qualitative methods but then analysed these data using quantitative methods were therefore excluded.

For qualitative evaluations, the inclusion criteria for population, intervention and comparisons were largely unchanged from those used to identify studies for the effectiveness syntheses. In addition, to ensure that we identified non-trial-based qualitative evaluations of acceptability of psychological and/or pharmacological interventions, we also included stand-alone studies not specifically linked to RCTs.

Population

As per the effectiveness review.

Interventions

As per the effectiveness review.

Comparators

As per the effectiveness review.

Outcomes

The outcomes were qualitative thematic and verbatim data related to service user and/or provider experiences of psychological and/or pharmacological interventions for mental health problems in the presence of complex trauma histories.

Data extraction

The findings and supporting quotations from the nine qualitative studies included were extracted into a standardised template designed for the purpose of the review. For each study, the key themes, as reported by the study authors, were first categorised according to whether they addressed issues related to the 'acceptability' or 'feasibility' of interventions. Themes were then further coded into three subcategories: (1) uptake and adherence, (2) service experience and (3) professional competencies/ training. New thematic categories were created, where necessary, for any data that did not fit into the three main groupings.

Quality assessment

Following the lead established by the GRADE Working Group[49] and the Cochrane Qualitative and Implementation Methods Group,[50] we used the CERQual (certainty of the qualitative evidence) approach[51] to assess both the methodological limitations of individual studies and the coherence of our review findings. CERQual assessment offers a framework to evaluate the certainty of evidence, addressing questions beyond the effectiveness of interventions, such as acceptability. Methodological limitations were assessed with the Critical Appraisal Skills Programme (CASP) checklist.[52] The elements of the CASP assessment, questions 1 to 9, were assessed and scored as either 'yes', 'no' or 'cannot say'. When a question was assessed as meeting the criteria describing a suitable methodological rigour, the question was scored as 'yes'; conversely, if the methodology did not meet the expected level of methodological rigour or the information was not apparent from the methods, the study was scores as 'no' or 'cannot say', respectively. A 'yes' received a numeric score of 1.0, a 'no' scored 0 and 'cannot say' scored 0.5. Therefore, the maximum score, namely if each of the nine questions was allocated a 'yes' for methodological rigour, would be 9.0.

The coherence of the review was assessed by identifying patterns across the data that were contributed to by each of the individual included studies, for example by combining findings across multiple settings or different subgroups. The certainty of the evidence in each individual study was rated as 'no concerns', 'minimal concerns', 'moderate concerns' or 'significant concerns' by considering the CASP assessment and ranked according to the methodological limitations and coherence of each finding.

Data analysis

A narrative synthesis approach was used to summarise the research findings of the studies included. This approach allows the creation of a description and map of findings from the studies included for interpretation, but also allows the identification of both common and emergent themes (a thematic analysis) within and between studies. This methodology provides a broader perspective on solutions and recommendations that are relevant to end-users.

Chapter 4 Results of the effectiveness review

Flow of the studies included

The searches identified 16,552 records, which were downloaded, imported into EndNote bibliographic software and de-duplicated to leave 10,212 unique records. In addition, 42 records were identified from International Pharmaceutical Abstracts. A total of 10,254 titles and/or abstracts were screened.

Approximately 10% of the titles and abstracts were pilot screened to achieve consistency and agreement between researchers. Full-text records were double screened at the following stage, and 328 were excluded for the reasons summarised in *Figure 1*.

Studies included

Overall, we included 105 papers, comprising 96 reports[53–147] of RCTs (95 unique trials) and nine non-randomised trials.[148–156] A table of the studies excluded, with rationale for their exclusion, can be found in *Appendix 3*.

Characteristics of the randomised controlled trials included

Of the RCTs, the vast majority of trials were conducted in the USA ($n = 62$[58–60,64,66,68–76,78,79,81,82,84,85,87,89–91,93–95,97–102,104–107,109,110,112,115–117,120–133,135,137,140–142,146]), followed by countries in Europe [Germany ($n = 4$[55,88,92,136]), Denmark ($n = 3$[63,77,103,134]), the Netherlands ($n = 2$[138,139]), Croatia ($n = 1$[80]), Kosovo ($n = 1$[143]), Portugal ($n = 1$[83]), Romania ($n = 1$[61]) and Sweden ($n = 1$[119])], countries in the Middle East [Iran ($n = 4$[56,57,111,118]), Iraq/Iraqi

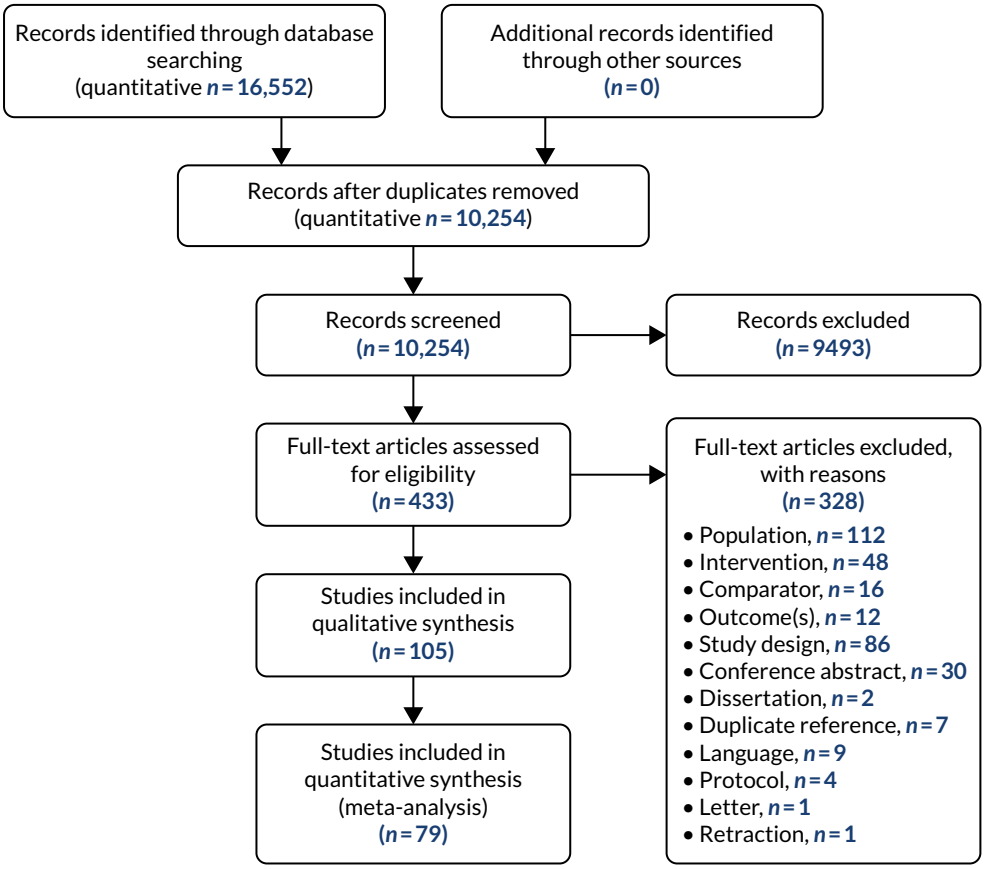

FIGURE 1 The PRISMA flow diagram indicating the flow of studies through the review process.

Kurdistan ($n = 3$[62,144]), Turkey/Syria ($n = 3$[53,54,65]), Egypt ($n = 1$[108]) and Israel ($n = 1$[147])] and countries in Africa [Uganda ($n = 2$[113,114]), Burundi ($n = 1$[145]) and the Democratic Republic of the Congo ($n = 1$[86])]. One study took place in South Korea[67] and another took place remotely in Germany[96] while its participants were located in Iraq. No studies were conducted in the UK. *Appendix 3* details the comparisons in each study, as well as their characteristics.

In terms of the types of trauma that participants were exposed to, the vast majority of participants' exposure related to their status as veterans ($n = 47$ studies[56,58–60,64,65,67,71–74,78,80–85,88,91,94,95,97,99,102,104,105,107,110–112,115,118,120–124,126,128–130,135,137,140,142,147]), followed by refugees ($n = 17$[53–55,63,87,89,90,108,113,114,116,119,133,134,136,138,139]), those who experienced childhood sexual abuse ($n = 14$[66,68–70,75–77,92,98,103,106,117,127,131,132,146]), those who experienced war-related trauma ($n = 10$[57,61,62,86,96,109,143–145]), those who experienced mixed trauma ($n = 3$[79,93,141]) and those who experienced domestic violence ($n = 3$[100,101,125]).

Of the 95 trials included, all trial arms with active interventions were categorised for analysis. For psychological interventions this included trauma-focused CBT ($n = 41$[55,60–63,66,71,79,81,83,84,86,87,89,90,92–94,96,100,101,105–107,109,113,114,117,119,124,126,128,136,140,143,144]), EMDR ($n = 11$[53,54,64,74,76,88,91,130,138,139]), mindfulness ($n = 7$[57,95,115,120,121,142]), non-trauma-focused CBT ($n = 6$[62,78,131,132,137]), DBT ($n = 4$[69,70]), other psychotherapy ($n = 12$[93,103,106,114,120,124,125,128,145,146]), exposure only ($n = 3$[60,119,130]) and IPT ($n = 2$,[98,108] $n = 2$ for each non-trauma-focused non-CBT[64,111] and stabilisation,[138,139] and $n = 1$ for both biofeedback[102] and other psychological interventions).[142] Classen *et al.*[68] conducted a trial in two interventions (trauma-focused therapy and psychotherapy) but presented combined results, so these were not included in the categorisation. The pharmacological interventions compared in the studies included were categorised as antidepressant ($n = 15$,[59,65,67,73,82,112,116,118,133,141,147] of which 10 were SSRIs[65,67,82,112,116,118,133,141,147]), antipsychotic ($n = 6$[58,85,99,110,127,135]) and anticonvulsant ($n = 2$[72,104]), as well as prazosin ($n = 3$[84,122,123]) and rivastigmine ($n = 1$[56]). There were also a number of combined treatments: antidepressant and trauma-focused CBT ($n = 6$,[63,97,116,134] of which there were three SSRI and trauma-focused CBT interventions[63,116,134]), SSRI and other psychotherapy ($n = 2$[63,80]), antidepressant and other psychotherapy ($n = 1$[80]), benzodiazepine and trauma-focused CBT ($n = 1$[129]) and d-cycloserine and trauma-focused CBT ($n = 1$[129]).

Psychological interventions were then grouped into superordinate classifications (as described in the methods), which were single-component trauma-focused ($n = 41$[53–55,60–62,64,74,76,79,81,83,86,87,89–91,93,94,96,106,107,109,113,114,117,119,124,126,128,136,138,139,144,145]), single-component non-trauma-focused ($n = 27$[57,62,64,78,95,98,106,108,111,114,115,120,121,124,125,128,131,132,137–139,142,146]), multicomponent trauma-focused ($n = 17$[60,66,69–71,84,88,92,100,101,105,130,140,143–145]) and multicomponent non-trauma-focused ($n = 4$[70,93,103]).

Characteristics of the non-randomised controlled trials included

A total of nine non-RCTs were included in the review; eight compared psychological interventions with a control group[148–153,155,156] and one compared a pharmacological intervention with placebo[154] (see *Appendix 6*). Studies were conducted in a range of regions [Canada ($n = 2$[152,156]), Croatia ($n = 1$[154]), Germany ($n = 1$[149]), Iran ($n = 1$[153]), Israel ($n = 1$[150]), Palestine ($n = 1$[155]), Sweden ($n = 1$[151]) and the USA ($n = 1$[148])], presenting a diverse selection of health-care systems that may differ from that in the UK. Studies were published between 1999[152,153,156] and 2016,[150] with one-third being published in 1999.

The population subgroups included in the non-RCTs were veterans ($n = 3$[148,150,154]), childhood sexual abuse ($n = 3$[151,152,156]), war affected ($n = 2$[153,155]) and refugees ($n = 1$[149]). When reported, the mean age of participants ranged from 30 to 60 years old. Across studies, there was largely equal representation of majority female[149,151,152,156] and majority male populations.[150,154,155] Further detail about the characteristics of populations of the studies included can be found in *Appendix 7*.

The majority of studies were compared with an inactive control (no intervention, waitlist or placebo), with the exception of two direct comparison studies,[150,154] and effect sizes were not calculated for these.

Another study included treatment as usual, which was considered to be an alternative active psychological intervention and so was narratively synthesised as a direct comparison.[148] Intervention details are outlined in *Appendix 4*.

Quality of the studies included

Randomised controlled trials

The quality of the RCTs included was assessed using the Cochrane Collaboration's risk-of-bias tool, as described in *Chapter 2*, *Randomised controlled studies of clinical effectiveness*. The grading of each study across six domains can be found in *Appendix 8*.

Overall, reporting was quite variable, with a large proportion of responses being graded as 'unclear'. Five of the six domains were largely assessed as being at an unclear or high risk of bias. This indicated that studies reported insufficient detail to make a clear decision about the risk of bias across these domains or, in most cases, that the study designs did not appropriately account for sources of bias. The exception to this was the domain of 'other bias', which was graded as a low risk of bias for over 80% of studies.

A small proportion of trials were rated as being at a high risk of selection bias. The majority of studies were unclear in reporting on selection bias (*Figure 2*). However, less than 20% were considered as at a low risk of bias based on allocation concealment and less than 50% were at a low risk based on random sequence generation.

Over half of the trials were rated as being at high risk of performance bias because the blinding of participants and personnel was inadequate or infeasible. The latter was especially true in the case of most psychological interventions, in which the nature of the allocated intervention could not easily be disguised.

Detection bias was generally considered as low risk or unclear for the majority of trials, with a slightly larger proportion being rated as unclear than low risk. This was indicative of the outcome assessment being blinded effectively or reported unclearly. Approximately 10% of studies were considered as being at high risk of detection bias.

In terms of attrition bias, gradings of low risk, high risk or unclear bias were almost equally prevalent across studies. This suggested that the majority of studies experienced high dropout and did not handle it appropriately or did not report sufficiently on the number of participants and withdrawals.

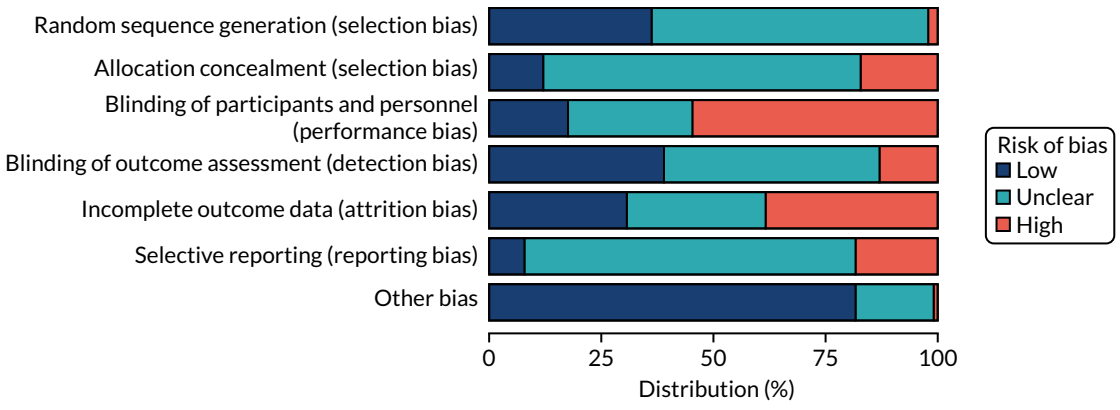

FIGURE 2 Proportional distribution of the risk-of-bias grades across the RCTs included per domain of bias.

Selective reporting was assessed via the reporting bias domain, for which a large majority of studies were graded as being unclear, typically owing to a lack of preregistration (see *Figure 2*). Close to 10% were considered as low risk in this domain of bias, and nearly 20% were considered as high risk.

Finally, there was generally a low risk of bias from other sources across the large majority of studies. The remainder of studies were graded as having an unclear risk of bias from sources not covered within the other domains. Just one study was graded as high risk from other sources of bias.[100]

Non-randomised controlled trials

The quality of the nine non-randomised trials included was assessed using the NICE (2012)[42] tool as described in *Chapter 2*, *Methods*, *Non-randomised controlled intervention studies*; the grading is presented in *Table 1*. Overall, methods were reported adequately to make summary judgements on studies. Notable exceptions were the availability of information to grade contamination (domain 2.6; present in only three studies[148,152,156]) and information regarding the similarity of other interventions across study arms (domain 2.7; clearly reported in four studies[148,149,151,156]).

Generally, population bias domains were well reported, with minimal or some potential sources of bias.

Allocation bias domains presented the largest subset of quality assessment and were also the most poorly reported. Investigator blinding (domain 2.4) was the highest risk domain, with a high risk of bias across all studies that reported sufficient detail to make a judgement.[148,150–152,154,156]

Outcome domains were also well reported, with most studies attaining a '+' grading indicating some potential sources of bias, but not high risk.

Domains regarding analyses were mostly well reported, with baseline similarities between study arms (domain 4.1) and estimates of effect being given or calculable (domain 4.4), mostly showing low or some sources of bias.

Finally, summary grades of the overall risk of bias were mostly indicative of designs attempting to address sources of bias, with some potential risks. External validity showed minimal risk of bias; just one study was graded as high risk.[153] By contrast, internal validity was not considered low risk in any study; three trials were judged to be high risk[150,151,156] and one did not report sufficient detail.[154]

Meta-analyses of clinical effectiveness

Of the 104 RCTs and non-RCTs included in the systematic review, 79 included effectiveness data that could be meta-analysed.[53–56,58,59,62,64–67,69,71–74,76,78,79,81,82,84–92,94–96,98–101,104–113,115,118,121–123,125–127,131,132,135,137–140,142–147]
All of these studies were RCTs. We conducted a series of meta-analyses to investigate the effectiveness of psychological and pharmacological interventions on the primary outcome and, when the data permitted, a number of secondary outcomes. In summary, the comparisons that were meta-analysed were:

- psychological interventions versus control for all populations combined
- psychological interventions versus control in veteran populations
- psychological interventions versus control in war-affected populations
- psychological interventions versus control in childhood sexual abuse populations
- psychological interventions versus control in refugee populations
- psychological interventions versus control in domestic violence populations
- pharmacological interventions versus placebo in veteran and childhood sexual abuse populations.

TABLE 1 Risk-of-bias gradings for the non-randomised controlled studies included

	Population bias			Allocation					
Authors (year)	1.1: Is the source population or source area well described?	1.2: Is the eligible population or area representative of the source population or area?	1.3: Do the selected participants or areas represent the eligible population or area?	2.1: Allocation to intervention (or comparison). How was selection bias minimised?	2.2: Were interventions (and comparisons) well described and appropriate?	2.4: Were participants or investigators blind to exposure and comparison?	2.6: Was contamination acceptably low?	2.7: Were other interventions similar in both groups?	2.8: Were all participants accounted for at study conclusion?
King *et al.* (2013)[148]	++	++	+	+	++	–	++	++	++
Levi *et al.* (2016)[150]	++	++	+	–	++	–	NR	NR	+
Morgan and Cummings (1999)[152]	+	+	+	+		–	++	NR	++
Saxe and Johnson (1999)[156]	+	+	++	+	+	–	++	–	+
Pivac *et al.* (2004)[154]	+	+	NR	NR	+	–	NR	NR	NR
Lundqvist *et al.* (2006)[151]	+	+	+	–	–	–	NR	–	+
Salo *et al.* (2008)[155]	++	+	++	–	+	NR	NR	NR	–
Narimani *et al.* (2008)[153]	–	+	++	+	++	NR	NR	NR	–
Kruse *et al.* (2009)[149]	++	+	++	+	++	NR	NR	+	–

continued

TABLE 1 Risk-of-bias gradings for the non-randomised controlled studies included (*continued*)

	Allocation	Outcomes		Analyses			Summary	
Authors (year)	2.10: Did the intervention or control comparison reflect usual UK practice?	3.1: Were outcome measures reliable?	3.3: Were all important outcomes assessed?	4.1: Were exposure and comparison groups similar at baseline? If not, were these adjusted?	4.2: Was intention-to-treat analysis conducted?	4.4: Were the estimates of effect size given or calculable?	5.1: Are the study results internally valid (i.e. unbiased)?	5.2: Are the findings generalisable to the source population (i.e. externally valid)?
King *et al.* (2013)[148]	NA	+	+	++	+	++	+	+
Levi *et al.* (2016)[150]	NA	+	+	++	+	++	–	+
Morgan and Cummings (1999)[152]	NA	+	–	+	+	+	+	+
Saxe and Johnson (1999)[156]	NA	+	–	++	–	++	–	+
Pivac *et al.* (2004)[154]	NA	+	+	+	NR	–	NR	+
Lundqvist *et al.* (2006)[151]	NA	+	–	+	–	+	–	+
Salo *et al.* (2008)[155]	++	++	++	–	–	++	+	++
Narimani *et al.* (2008)[153]	++	+	+	NR	NR	–	+	–
Kruse *et al.* (2009)[149]	++	++	+	++	–	++	+	++

When the data permitted, the following outcomes were meta-analysed:

- PTSD symptoms
- CPTSD symptoms
    - emotional dysregulation
    - interpersonal problems
    - negative self-concept
- depression symptoms
- anxiety symptoms
- quality of life
- sleep quality.

All populations and trauma exposure combined

Post-traumatic stress disorder total symptoms

A summary of meta-analyses of the effectiveness of psychological interventions across all populations for PTSD symptoms is shown in *Appendix 9*, *Table 34*. Overall, when all eligible trials were combined (39 trials, $n = 2506$)[53–55,62,66,69,74,76,78,81,86,88,89,91,92,94–96,98,100,101,106–109,121,126,131,132,140,142–146,157–159] across all populations, psychological interventions were associated with a large and significant post-treatment effect in favour of a reduction in PTSD total symptoms (*Figure 3*).

Of the six trials ($n = 259$)[71,84,87,113,137–139,160] that compared psychological interventions with an active control, the post-treatment effect size was smaller and in favour of a reduction in total PTSD symptoms, but not significantly (SMD −0.35, 95% CI −0.72 to 0.03; $I^2 = 47.0\%$). Ten trials ($n = 738$)[78,81,92,95,98,121,132] measured outcomes after < 6 months and showed that psychological interventions were associated with a medium and significant effect in favour of a reduction in PTSD total symptoms (SMD −0.38, 95% CI −0.68 to −0.08; $I^2 = 79.4\%$).

When treatment effects were meta-analysed by intervention type, we showed that IPT was associated with the largest post-treatment effect on total PTSD symptoms (SMD −1.41, 95% CI −1.97 to −0.85; $I^2 = 0\%$). This result is based on two small studies ($n = 66$)[98,108] and associated with a high degree of uncertainty, as indicated by the wide CIs for the individual and combined point estimates (see *Appendix 10*, *Figure 27*).

There was strong evidence from 21 trials ($n = 1283$)[55,62,66,81,86,92,94–96,100,101,106,107,109,126,140,143,144,158,159] that trauma-focused CBT is effective for reducing PTSD total symptoms (see *Appendix 10*, *Figure 28*). Four trials ($n = 206$)[81,87,92,113] that tested trauma-focused CBT measured outcomes at follow-up after < 6 months and were associated with a large and significant treatment effect (SMD −0.64, 95% CI −1.10 to −0.18; $I^2 = 44.9\%$). However, we did not find evidence of the effectiveness of trauma-focused CBT versus active controls.

Evidence from seven trials ($n = 244$)[53,54,74,76,88,91,157] showed that EMDR was similarly effective at reducing PTSD symptoms post treatment (see *Appendix 10*, *Figure 29*). Two trials ($n = 71$)[138,139] compared EMDR with an active control. Post-treatment effects were in favour of a small reduction in PTSD total symptoms, but this result was non-significant (SMD −0.15, 95% CI −0.62 to 0.32; $I^2 = 0\%$).

Mindfulness (three trials, $n = 183$)[95,121,142] was associated with a small non-significant effect in favour of symptom reduction when compared with control post treatment (see *Appendix 10*, *Figure 30*). In two trials[95,121] that measured outcomes at follow-up after < 6 months, mindfulness was not effective for PTSD symptoms (SMD −0.08, 95% CI −1.56 to −0.32; $I^2 = 59\%$).

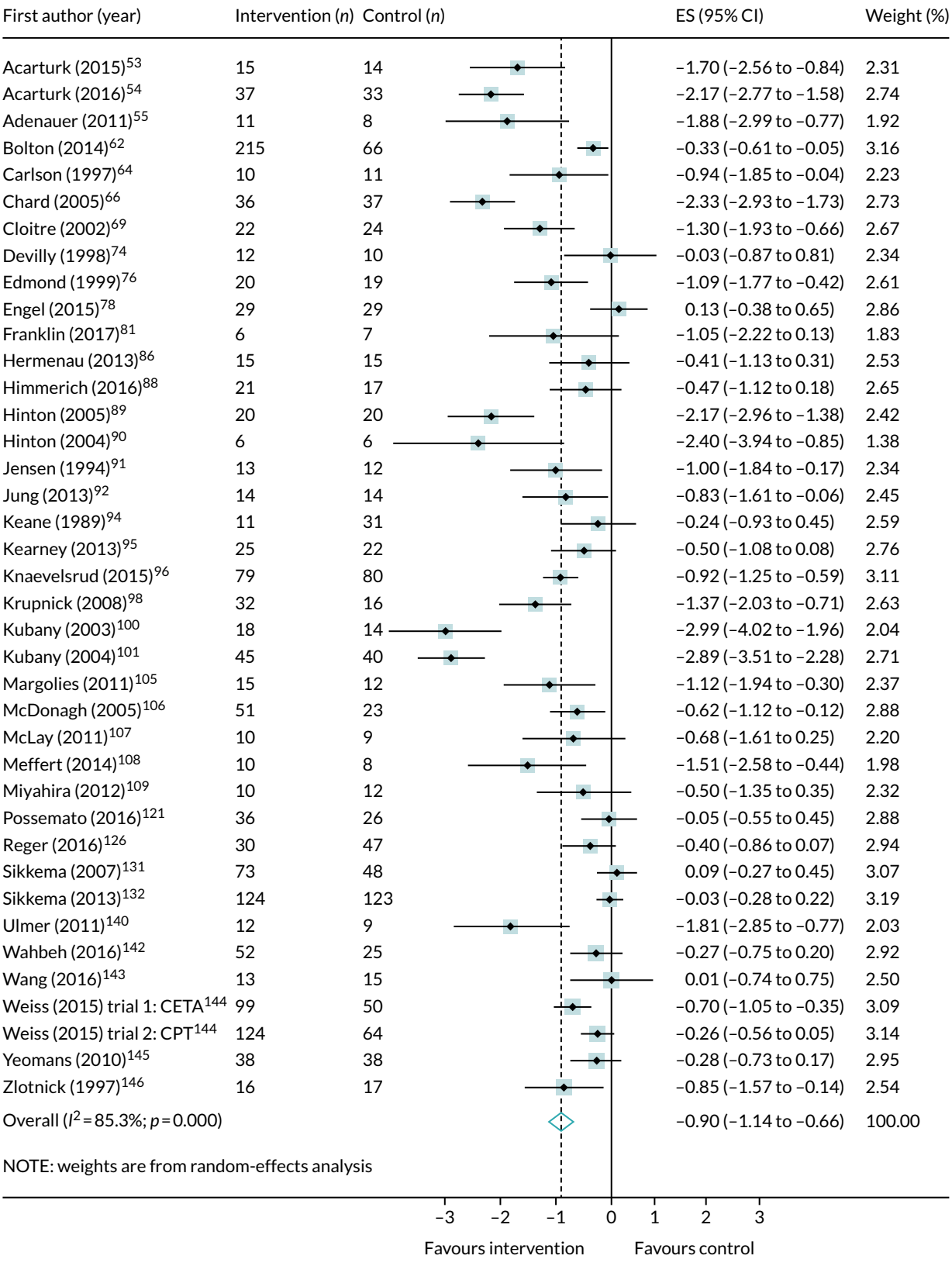

FIGURE 3 Meta-analysis of post-treatment effect size (ES) for PTSD total symptoms, comparing all psychological interventions with control. CETA, common elements treatment approach; CPT, cognitive processing therapy.

Non-trauma-focused CBT (three trials, $n = 548$)[62,78,131,132] was associated with small non-significant effects in favour of symptom reduction when compared with control post treatment (see *Appendix 10*, *Figure 31*). Treatment effects were also non-significant for non-trauma-focused CBT for PTSD outcomes in two trials[78,132] that measured outcomes after < 6 months (SMD −0.02, 95% CI −0.25 to 0.20; $I^2 = 0\%$).

When interventions from 22 trials ($n = 1191$)[53–55,62,66,74,76,81,86,89,91,92,94,96,100,101,106,107,109,126,144,157,158] were grouped using composite intervention categories, we showed that single-component and trauma-focused interventions based on a single theoretical approach were associated with a large and significant treatment effect in favour of a reduction in PTSD symptoms (see *Appendix 10*, *Figure 32*). A large effect was also observed in a meta-analysis of five trials ($n = 276$)[54,78,81,95,98,132] that measured outcomes at follow-up after < 6 months (SMD −0.94, 95% CI −1.56 to −0.32; $I^2 = 77.6\%$).

Seven trials ($n = 440$)[69,88,140,143–145,159] delivered multicomponent and trauma-focused interventions (DBT, EMDR, trauma-focused CBT and other psychotherapeutic approaches) and were associated with a large and significant effect in favour of a reduction in PTSD symptoms (see *Appendix 10*, *Figure 32*).

There was evidence (11 trials, $n = 936$)[62,78,95,98,106,108,121,131,132,142,146] that single-component non-trauma-focused interventions (CBT, mindfulness, counselling, IPT and other psychotherapeutic approaches) were associated with a significant and moderate treatment effect in favour of a reduction in PTSD symptoms post treatment (see *Appendix 10*, *Figure 34*). In five trials ($n = 462$)[78,95,98,121,132] that measured outcomes after < 6 months, the treatment effect for single-component non-trauma-focused interventions was small and non-significant (SMD −0.05, 95% CI −0.23 to 0.14; $I^2 = 0\%$). When compared with an active control (two trials, $n = 62$),[137,160] single-component non-trauma-focused interventions were associated with a non-significant large treatment effect in favour of a reduction in PTSD symptoms (SMD −0.64, 95% CI −1.82 to 0.53; $I^2 = 76.9\%$).

Figure 4 shows the results of a meta-analysis that compared phase-based psychological interventions with control. Only six studies ($n = 190$)[69,88,98,107,108,140] were coded as phased based for PTSD outcomes. The results show that a variety of trauma- and non-trauma-focused interventions (DBT, EMDR, IPT and trauma-focused CBT) are associated with a large and significant improvement in PTSD symptoms when delivered as part of a phase-based approach with a stabilisation component.

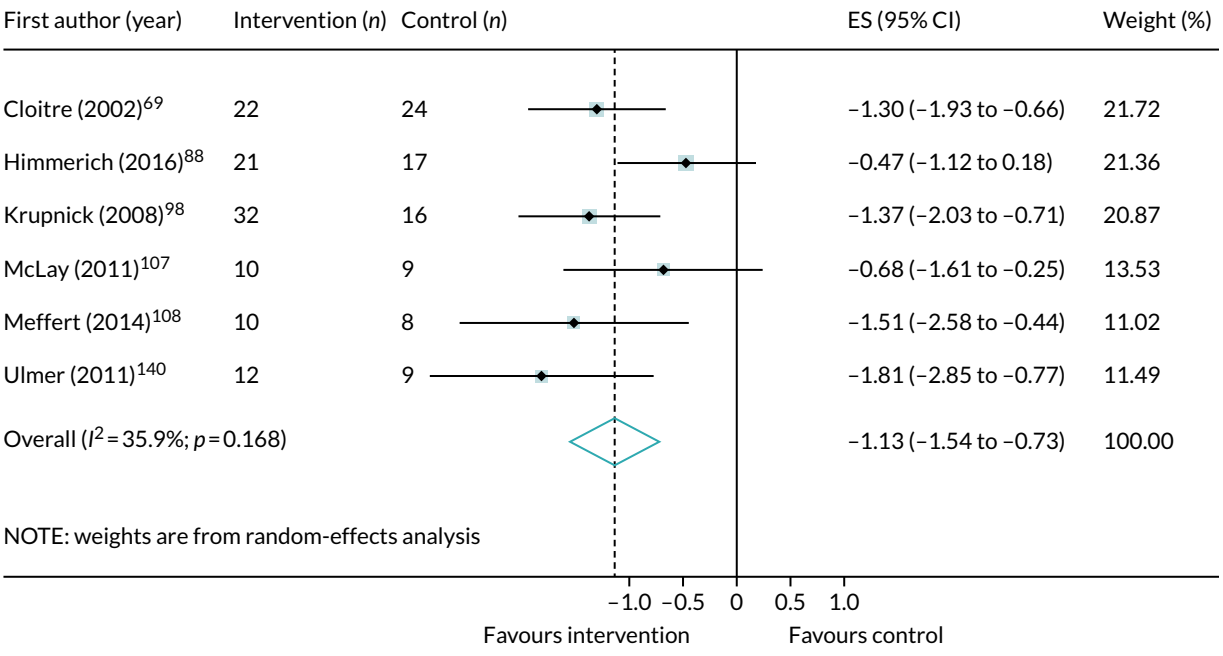

FIGURE 4 Meta-analysis of post-treatment effect size (ES) for PTSD total symptoms, comparing phase-based psychological interventions with control.

Complex post-traumatic stress disorder symptoms

A summary of meta-analyses of the clinical effectiveness of psychological interventions across all populations for CPTSD symptoms is shown in *Appendix 9*, *Table 35*.

Emotional dysregulation

Seven studies ($n = 289$)[69,79,86,98,106,108,142] included data about symptoms of emotional dysregulation that could be meta-analysed across populations and trauma exposure. *Figure 5* shows the results of a meta-analysis that compared all psychological interventions with control as regards a reduction in symptoms of emotional dysregulation at the end of treatment. The results favoured the interventions but did not reach statistical significance.

Of these seven trials, three compared trauma-focused CBT with control.[79,86,106] At the end of treatment, trauma-focused CBT was associated with a small effect in favour of a reduction in symptoms of emotional dysregulation, but this result did not reach statistical significance (see *Appendix 10*, *Figure 35*). Two small studies ($n = 51$)[79] that compared trauma-focused CBT with control measured outcomes after < 6 months and were associated with a medium but non-significant treatment effect (SMD −0.42, 95% CI −1.53 to 0.69; $I^2 = 72.3\%$).

Four studies ($n = 163$)[98,106,108,142] compared single-component and non-trauma-focused interventions with control. At the end of treatment, the meta-analysis showed that single-component and non-trauma interventions were not significantly associated with a reduction in symptoms of emotional dysregulation (see *Appendix 10*, *Figure 36*).

The largest treatment effect for emotional dysregulation was associated with three studies ($n = 112$)[69,98,108] that tested interventions that can be characterised as phased based. However, while the large treatment effect favoured a reduction in symptoms of emotional dysregulation, it was statistically non-significant (*Figure 6*).

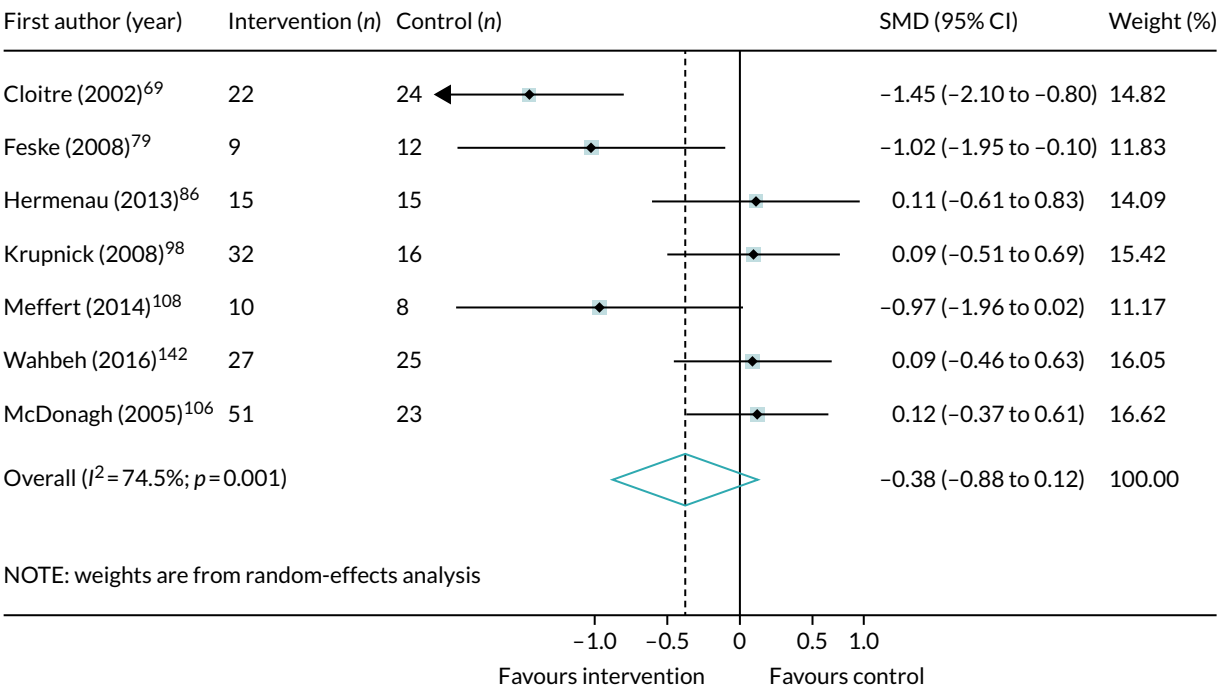

FIGURE 5 Meta-analysis of post-treatment SMD for emotional dysregulation, comparing all psychological interventions with control.

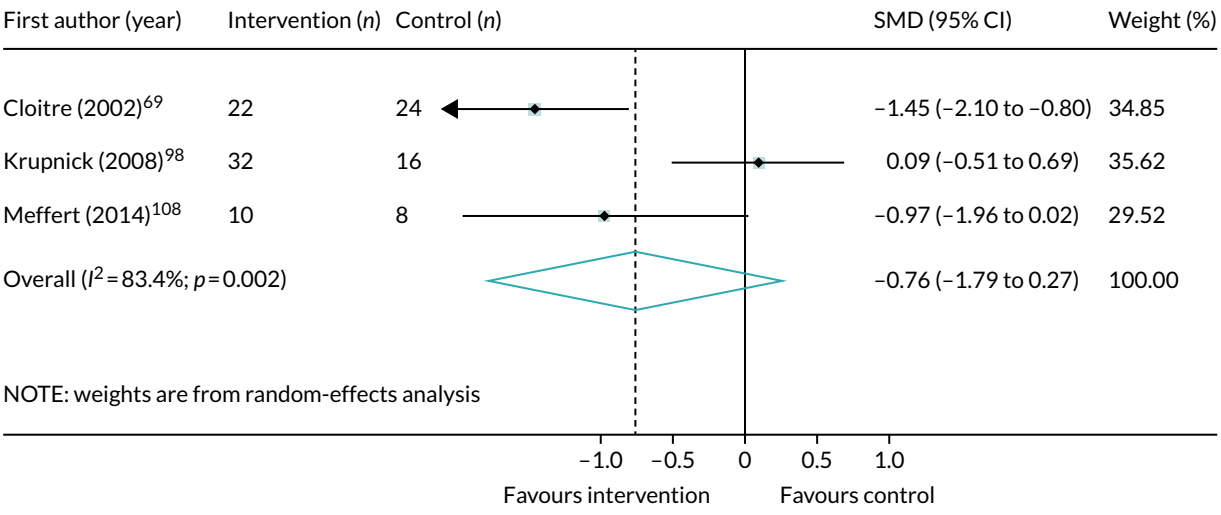

FIGURE 6 Meta-analysis of post-treatment SMD for emotional dysregulation, comparing phase-based psychological interventions with control.

Negative self-concept

Five studies ($n = 215$)[92,100,101,125,142] included data about symptoms of negative self-concept that could be meta-analysed. *Figure 7* shows the results of a meta-analysis that compared all psychological interventions with control as regards a reduction in symptoms of negative self-concept at the end of treatment. When combined, psychological interventions were associated with a large treatment effect in favour of a reduction in symptoms of negative self-concept, albeit with a high degree of uncertainty and heterogeneity.

Figure 37 (see *Appendix 10*) shows that, when only the trauma-focused CBT studies were meta-analysed (three trials, $n = 145$),[92,100,101] the effect size was very large and significant but with high degree of uncertainty about the combined point estimate and high levels of heterogeneity (SMD 2.22, 95% CI 0.75 to 3.70; $I^2 = 90.4\%$).

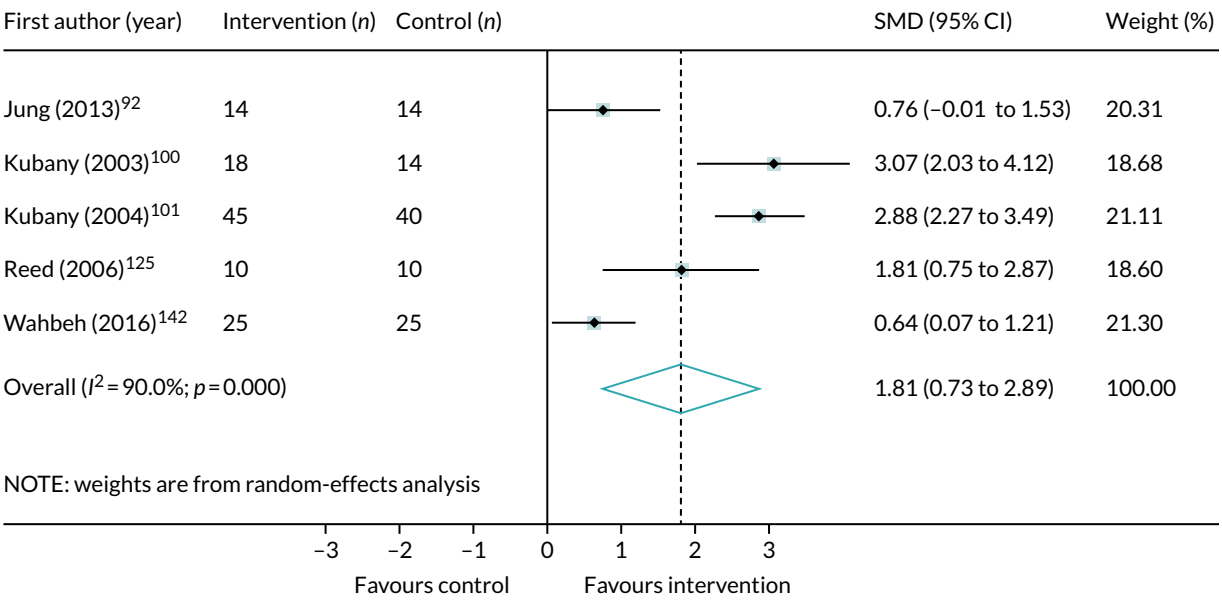

FIGURE 7 Meta-analysis of post-treatment SMD for negative self-concept, comparing all psychological interventions with control (positive SMD equals improvement in symptoms).

A more homogeneous and significantly large treatment effect was associated with the two studies ($n = 117$)[100,101] that were characterised as comparing multicomponent and trauma-focused interventions with control (SMD 2.93, 95% 2.40 to 3.45; $I^2 = 0\%$; see *Appendix 10*, *Figure 38*).

Single-component non-trauma-focused interventions (two studies; $n = 70$)[125,142] were also associated with large and significant effects in favour of improvement in negative self-concept, but the overall point estimate had a high degree of uncertainty (SMD 1.14, 95% CI 0.01 to 2.27; $I^2 = 72.6\%$; see *Appendix 10*, *Figure 39*).

Interpersonal problems

Only two studies ($n = 94$),[69,98] both testing phase-based interventions, were identified that included outcome data for interpersonal problems that could be meta-analysed. The overall treatment effect was large and in favour of a reduction in symptoms associated with interpersonal problems, but did not reach significance (SMD −0.59, 95% CI −1.28 to 0.11; $I^2 = 61.9\%$; see *Appendix 10*, *Figure 40*).

Depression symptoms

A summary of meta-analyses of the clinical effectiveness of psychological interventions across all populations for depression symptoms is shown in *Appendix 9*, *Table 36*. *Figure 8* shows the results of the meta-analysis of the 31 studies ($n = 1866$)[53–55,62,69,74,76,81,92,95,96,98,100,101,106,108,109,111,121,125,137,140,142,144,157–159] that compared all psychological interventions with control post treatment for depression symptoms. The results show that interventions were associated with a large effect in favour of a reduction in depression symptoms. When all psychological interventions were compared with control at follow-up after < 6 months, there was a medium and still significant effect in favour of a reduction in depression symptoms (SMD −0.51, 95% CI −0.80 to −0.22; $I^2 = 48\%$; nine trials, $n = 410$).[54,78,81,87,92,95,98,111,121]

When interventions were meta-analysed by type, studies that tested trauma-focused CBT were the most numerous. Fifteen studies ($n = 1115$)[62,81,92,96,100,101,106,109,126,140,143,144,159] compared trauma-focused CBT with control post treatment. *Figure 41* (see *Appendix 10*) shows that trauma-focused CBT was associated with a large and significant effect in favour of a reduction in depression symptoms. There was also a positive effect in the three studies ($n = 104$)[81,87,92] that compared post-treatment outcomes at follow-up after < 6 months, although the point estimate was associated with considerable uncertainty (SMD −0.72, 95% CI −1.43 to −0.01; $I^2 = 56.6\%$).

Large and significant treatment effects in favour of a reduction of depression symptoms were also similarly observed in a meta-analysis (five trials, $n = 182$)[53,54,74,76,157] that compared EMDR with control post treatment (see *Appendix 10*, *Figure 42*). In the two studies ($n = 72$)[138,139] that compared EMDR with an active control, at the end of treatment the effect on depression symptoms favoured the intervention, but did not reach significance (SMD −0.32, 95% CI −1.23 to 0.59; $I^2 = 47.8\%$).

There was also some evidence from two small studies ($n = 66$)[98,108] that IPT compared with control was effective at reducing symptoms of depression (see *Appendix 10*, *Figure 43*).

Three studies ($n = 186$),[95,121,142] all of which included veteran populations, compared mindfulness with control post treatment. Mindfulness interventions were associated with a medium effect size in favour of a reduction in depression symptoms (see *Appendix 10*, *Figure 44*). In the two studies[95,121] that measured outcomes at follow-up after < 6 months, mindfulness was also associated with a medium and significant treatment effect (SMD −0.41, 95% CI −0.79 to −0.02; $I^2 = 0\%$).

Non-trauma-focused interventions[78,137] were not effective in reducing depression symptoms (see *Appendix 10*, *Figure 45*).

Using composite intervention categories, we showed that single-component and trauma-focused interventions (17 studies; $n = 1034$)[53–55,62,74,76,81,92,96,100,101,106,109,126,144,157,158] based on a single theoretical

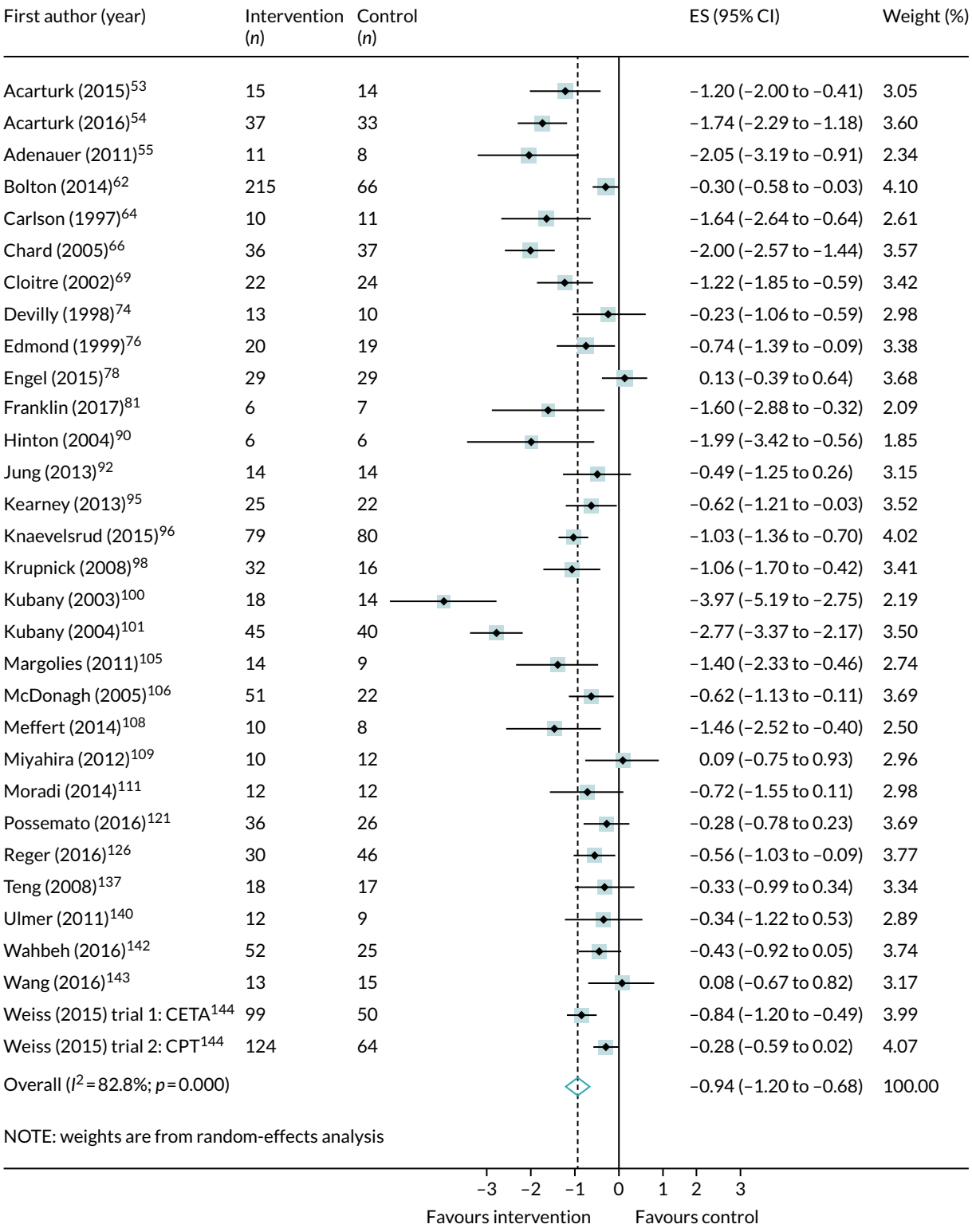

FIGURE 8 Meta-analysis of post-treatment effect size (ES) for depression symptoms, comparing all psychological interventions with control. CETA, common elements treatment approach; CPT, cognitive treatment therapy.

approach were associated with a large and significant treatment effect in favour of a reduction in depression symptoms (see *Appendix 10*, *Figure 46*). A large and significant effect was also observed in the four studies ($n = 174$)[53,81,87,92] that compared outcomes at follow-up after < 6 months (SMD −0.85, 95% −1.42 to −0.29; $I^2 = 62.5\%$).

Six studies ($n = 340$)[69,140,143,144,159] compared multicomponent and trauma-focused interventions with control and were associated with a similarly large and significant effect in favour of a reduction in depression symptoms (see *Appendix 10*, *Figure 47*).

A smaller but still significant and favourable treatment effect was observed in the 10 studies ($n = 594$)[62,78,95,98,106,108,111,121,137,142] that compared single-component and non-trauma-focused interventions with control post treatment (see *Appendix 10*, *Figure 48*). There was a small and non-significant effect in the five studies ($n = 236$)[78,95,98,111,121] that measured outcomes at follow-up after < 6 months (SMD −0.30, 95% −0.56 to 0.04; $I^2 = 0\%$).

Figure 9 shows that, post treatment, compared with control, phase-based interventions were associated with a large and significant treatment effect in favour of a reduction in depression symptoms, although this result is based on just four small studies.[69,98,108,140]

Anxiety symptoms

A summary of meta-analyses of the clinical effectiveness of psychological interventions across all populations for anxiety symptoms is shown in *Appendix 9*, *Table 37*. *Figure 10* shows the result of a meta-analysis of 13 studies ($n = 1136$)[62,69,74,76,81,91,96,126,143,144,157] that compared all psychological interventions with control post treatment. Interventions were associated with a large and significant treatment effect in favour of a reduction in anxiety symptoms.

The majority of the studies (eight studies; $n = 7$)[62,81,96,106,126,143,144] that included data about anxiety symptoms tested trauma-focused CBT. When compared with control post treatment, meta-analysis showed that trauma-focused CBT was associated with a large and significant effect in favour of a reduction in anxiety symptoms (*Figure 11*).

The largest effects in favour of a reduction in anxiety symptoms were observed in a meta-analysis of four studies ($n = 102$)[74,76,91,157] that compared EMDR with control post treatment (see *Appendix 10*, *Figure 49*).

There were no data that could be meta-analysed that compared mindfulness or non-trauma-focused CBT with either control or an active control.

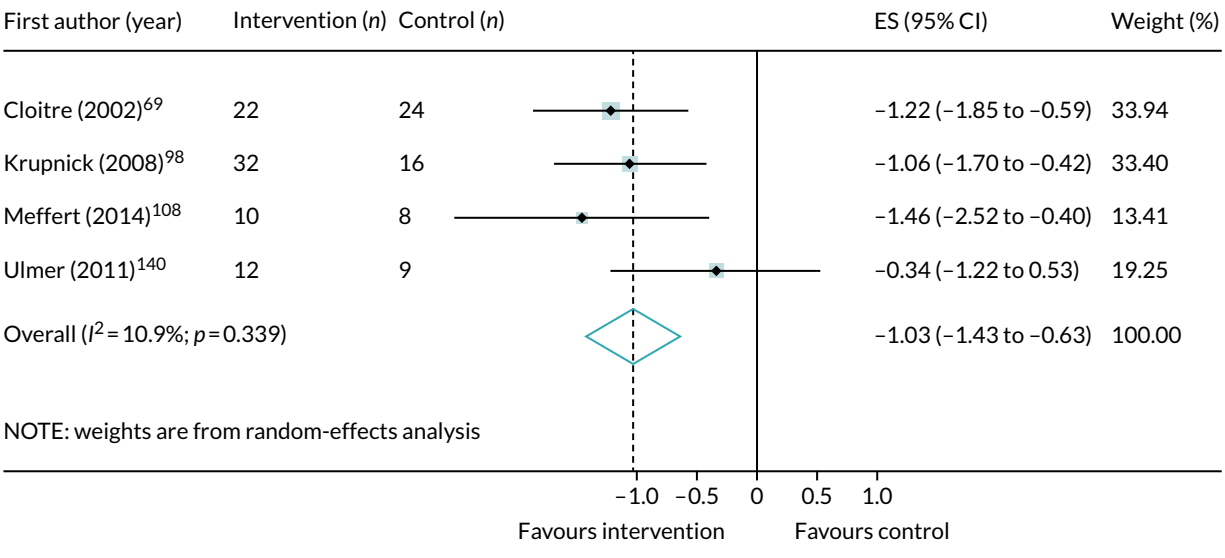

FIGURE 9 Meta-analysis of post-treatment effect size (ES) for depression symptoms, comparing phase-based interventions with control.

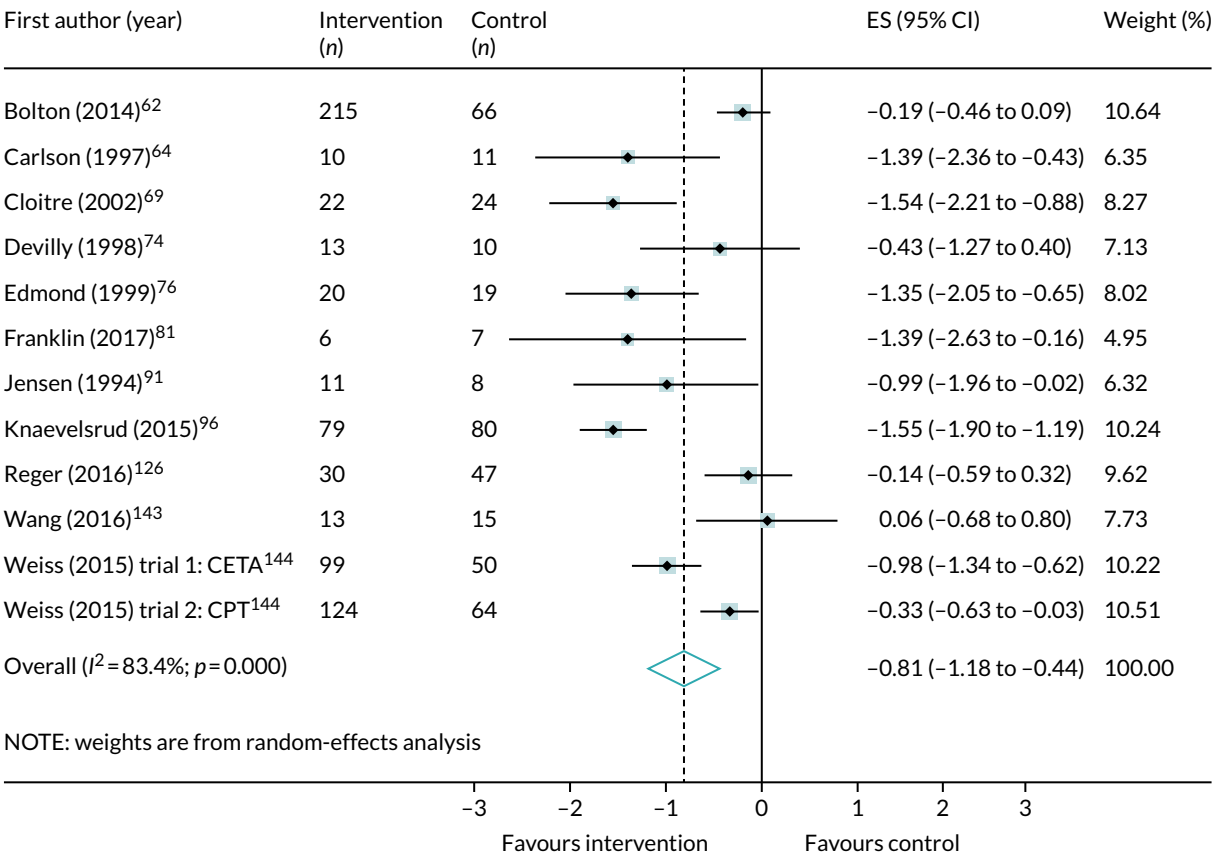

FIGURE 10 Meta-analysis of post-treatment effect size (ES) for anxiety symptoms, comparing all psychological interventions with control. CETA, common elements treatment approach; CPT, cognitive treatment therapy.

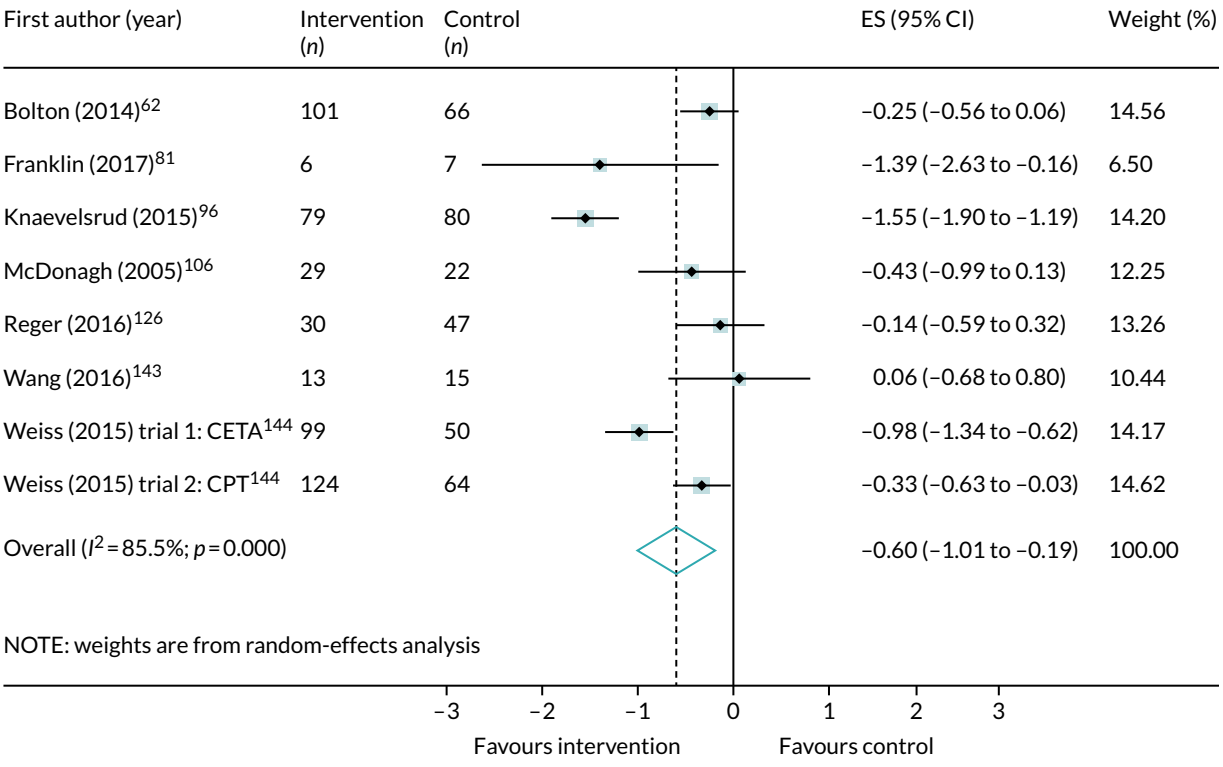

FIGURE 11 Meta-analysis of post-treatment effect size (ES) for anxiety symptoms, comparing trauma-focused CBT with control. CETA, common elements treatment approach; CPT, cognitive treatment therapy.

Using composite intervention categories, we showed in a meta-analysis that single-component and trauma-focused interventions (10 studies; $n = 757$)[62,74,76,81,91,96,106,126,144,157] were associated with a large and significant treatment effect in favour of a reduction in anxiety symptoms (see *Appendix 10*, *Figure 50*).

Compared with control, multicomponent and trauma-focused interventions were associated with the largest treatment effect in favour of a reduction of anxiety symptoms (SMD −0.85, 95% CI −1.60 to −0.10; $I^2 = 80.4\%$).[69,143,144] This meta-analysis included studies that tested a phase-based intervention and trauma-focused CBT (see *Appendix 10*, *Figure 51*).

Only two studies ($n = 225$)[62,106] compared single-component and non-trauma-focused interventions with control post treatment: one tested a counselling intervention and one tested non-trauma-focused CBT. Although the treatment effect favoured a reduction in anxiety symptoms, the effect was small and did not reach significance (see *Appendix 10*, *Figure 52*).

Quality of life

A summary of meta-analyses of the clinical effectiveness of psychological interventions across all populations for quality of life is shown in *Appendix 9*, *Table 38*. We identified five trials ($n = 307$)[95,96,106,109,143] that included quality-of-life data that could be meta-analysed. *Figure 12* shows the result of a meta-analysis that compared all psychological interventions with control post treatment.

Four of these five studies ($n = 260$)[96,106,109,143] compared trauma-focused CBT with control post treatment. Although interventions favoured a small improvement in quality of life, the effect size did not reach significance (SMD 0.23, 95% CI −0.33 to 0.79; $I^2 = 73.9\%$; see *Appendix 10*, *Figure 53*).

Sleep quality

A summary of meta-analyses of the clinical effectiveness of psychological interventions across all populations for sleep quality is shown in *Appendix 9*, *Table 39*. Only three studies ($n = 111$)[140,142,159] included data about sleep quality that could be meta-analysed. When compared with control post treatment, all psychological interventions were associated with a large and significant effect on sleep

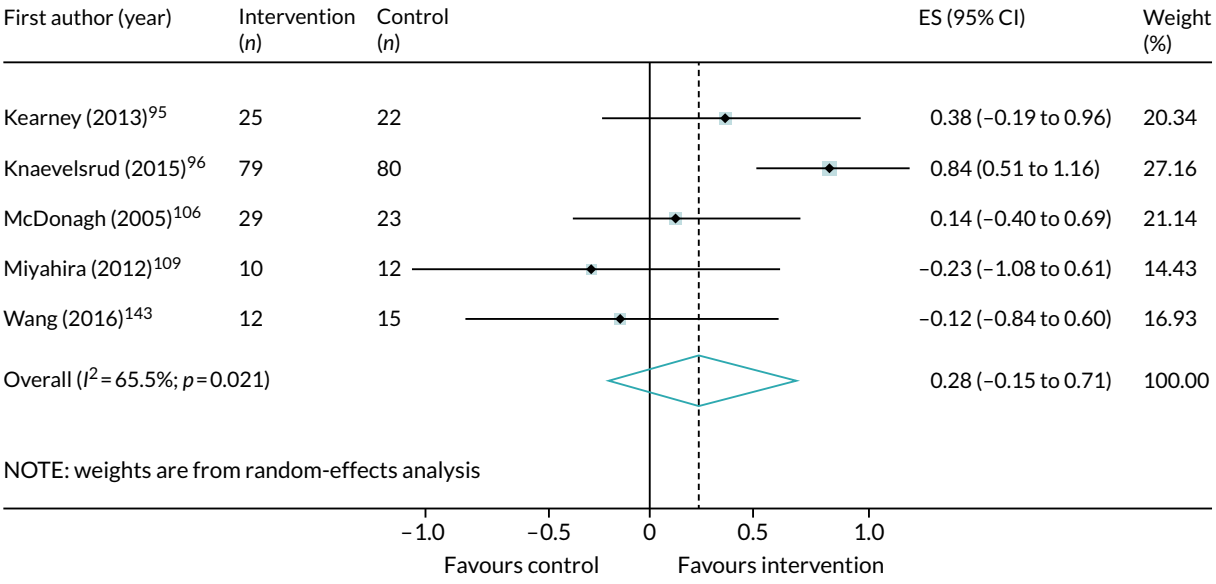

FIGURE 12 Meta-analysis of post-treatment effect size (ES) for quality of life, comparing all psychological interventions with control (positive ES favours intervention).

quality (SMD −1.00, 95% CI −1.49 to −0.51; $I^2 = 28.8\%$; see *Appendix 10*, *Figure 54*). A larger and significant treatment effect in favour of improved sleep quality was observed in a meta-analysis of just two small studies[140,159] that compared trauma-focused CBT with control post treatment (SMD −1.30, 95% CI −1.87 to −0.73; $I^2 = 0\%$; see *Appendix 10*, *Figure 55*).

Psychological interventions versus control

A summary of all of the clinical effectiveness meta-analyses undertaken within each trauma exposure can be found in *Appendix 9*.

Veterans

A summary of meta-analyses of the clinical effectiveness of psychological interventions in veterans for PTSD, depression and anxiety symptoms is shown in *Appendix 9*, *Table 40*. Twenty-three trials were identified that included data about veteran populations. Five trials were not included in the meta-analysis: three compared head-to-head interventions,[120,124,128] one compared trauma-focused CBT with exposure alone[60] and one did not include extractable data.[83]

Post-traumatic stress disorder symptoms

Figure 13 shows the result of a meta-analysis (14 trials, $n = 502$)[74,78,81,88,91,94,95,107,121,126,140,142,157,159] that compared all psychological interventions with control post treatment. The medium treatment effect favours a significant reduction in PTSD symptoms.

Four trials ($n = 180$)[78,95,121] measured PTSD outcomes at follow-up after < 6 months and, while psychological interventions were associated with a small treatment effect in favour of interventions, this did not reach significance (SMD −0.20, 95% −0.72 to 0.33; $I^2 = 63.1\%$).

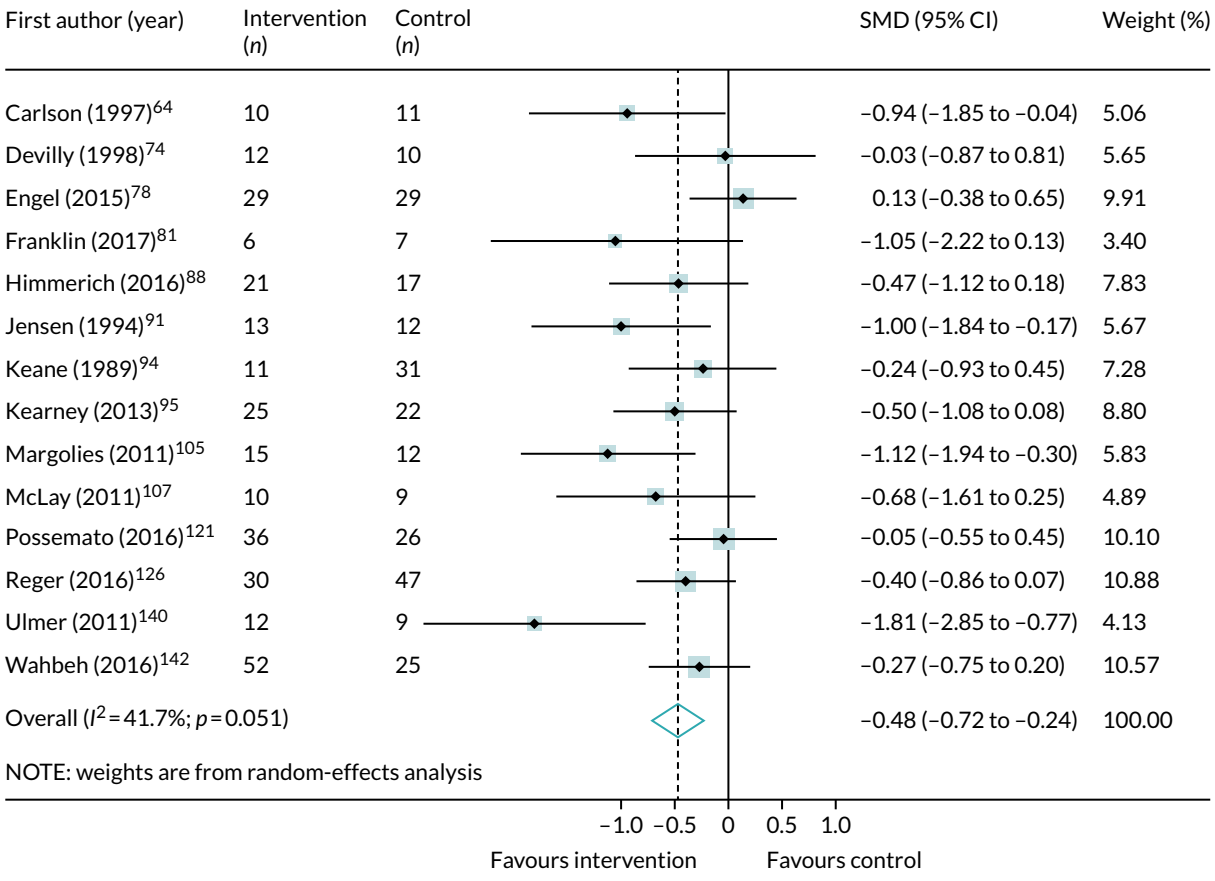

FIGURE 13 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing all psychological interventions with control in veteran populations.

Six trials ($n = 106$)[81,94,100,107,126,159] compared trauma-focused CBT with control post treatment. Trauma-focused CBT was associated with a large and significant treatment effect in favour of a reduction in PTSD total symptoms (SMD −0.77, 95% CI −1.20 to −0.33; $I^2 = 44.6\%$; see *Appendix 10*, *Figure 56*).

A meta-analysis of four trials ($n = 106$)[74,88,91,157] showed that EMDR was associated with a smaller but still significant treatment effect when compared with control post treatment (see *Appendix 10*, *Figure 57*).

Studies that included veterans[95,121,142] provided all of the data in the previous meta-analysis that compared mindfulness with control post treatment and at follow-up after < 6 months (see *Appendix 10*, *Figure 58*).

No studies that included veterans compared non-trauma-focused CBT with either a control or an active control group.

Figure 59 (see *Appendix 10*) shows the results of a meta-analysis (seven trials, $n = 219$)[74,81,91,94,107,157] that compared single-component and trauma-focused interventions with control post treatment. This shows that single-component and trauma-focused interventions were associated with a medium and significant effect in favour of a reduction in PTSD symptoms. The size of the effect was about half that observed in the equivalent analysis for all populations and trauma exposures pooled.

The largest effect was observed in a meta-analysis of three small studies ($n = 86$)[88,140,159] that compared multicomponent and trauma-focused interventions with control post treatment (see *Appendix 10*, *Figure 60*).

Single-component and non-trauma-focused interventions were not associated with a significant treatment effect in favour of a reduction in PTSD symptoms post treatment in veterans (see *Appendix 10*, *Figure 61*).[78,95,121,142]

Four trials compared psychological interventions with active control (sleep and nightmare management, placebo and psychoeducation).[71,84,137,160] It was unclear if psychological interventions as a whole (SMD −0.44, 95% CI −0.98 to 0.10; $I^2 = 64\%$; four trials, $n = 188$) or trauma-focused CBT (SMD −0.26, 95% CI −0.88 to 0.35; $I^2 = 51.1\%$; two trials, $n = 126$) were effective for PTSD symptoms.

Depression

Figure 14 shows the results of a meta-analysis (11 trials; 445)[74,78,81,95,111,121,126,137,140,142,157,159] that compared all psychological interventions with control post treatment. The size of the treatment effect is smaller than the effect observed in the equivalent analysis that pooled PTSD outcomes across all populations and trauma exposures. In five studies ($n = 201$)[78,81,95,111,121] that measured outcomes at follow-up after < 6 months, all psychological interventions were associated with a medium effect in favour of a reduction in depression symptoms, but this effect was not significant (SMD −0.38, 95% CI −0.78 to 0.01; $I^2 = 42.3\%$).

When only those studies that compared trauma-focused CBT with control post treatment were considered, the meta-analysis (three trials, $n = 112$)[81,126,159] showed that interventions were associated with a large and significant treatment effect in favour of a reduction of depression symptoms (see *Appendix 10*, *Figure 62*). There was, however, no evidence of a significant difference between trauma-focused CBT and active control (SMD −0.04, 95% CI −0.55 to 0.48; $I^2 = 38.7\%$; two trials, $n = 128$).[71,84]

Compared with control post treatment, EMDR was similarly associated with large effects in favour of a reduction in depression symptoms, but the overall point estimate was non-significant and associated with considerable uncertainty (see *Appendix 10*, *Figure 63*).[74,157]

The pooled population meta-analysis that compared mindfulness with control post treatment and after < 6 months included only studies with veterans and is shown in *Appendix 10*, *Figure 64*.[95,121,142]

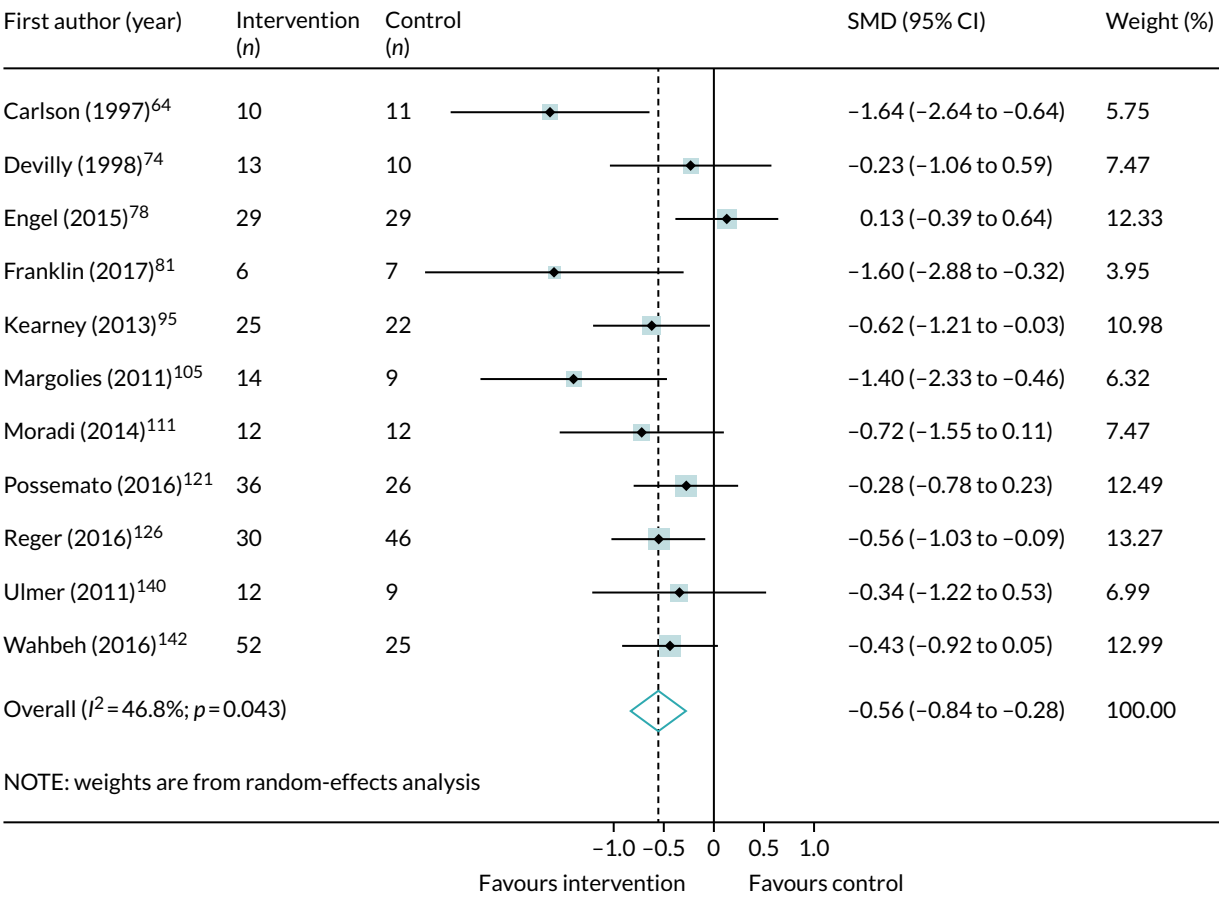

FIGURE 14 Meta-analysis of post-treatment SMD for total depression symptoms, comparing all psychological interventions with control in veteran populations.

No studies that included veteran populations compared non-trauma-focused CBT with control for depression symptoms.

Single-component and trauma-focused interventions were associated with large and significant effects in favour of a reduction in depression symptoms (see *Appendix 10*, *Figure 65*).[74,81,126,157]

There was less evidence in favour of multicomponent and trauma-focused interventions, which were not significantly associated with a reduction in depression symptoms in a meta-analysis that included only two small trials (see *Appendix 10*, *Figure 66*).[140,159]

By contrast, a meta-analysis that included five studies ($n = 268$)[78,95,111,121,142] that compared single-component and non-trauma-focused interventions showed that interventions were associated with a medium but significant effect in favour of a reduction in depression symptoms (see *Appendix 10*, *Figure 67*). Four of these studies ($n = 188$)[78,95,111,121] measured outcomes after < 6 months, but the effect was not significant (SMD −0.27, 95% CI −0.56 to 0.02; $I^2 = 0\%$).

Anxiety

There was less evidence for using psychological interventions for managing anxiety symptoms than other symptoms in veteran populations. We identified five studies ($n = 153$)[74,81,91,126,157] that showed, in a meta-analysis, that overall, when pooled together, psychological interventions compared with control were associated with a large and significant effect in favour of a reduction in anxiety symptoms (*Figure 15*).

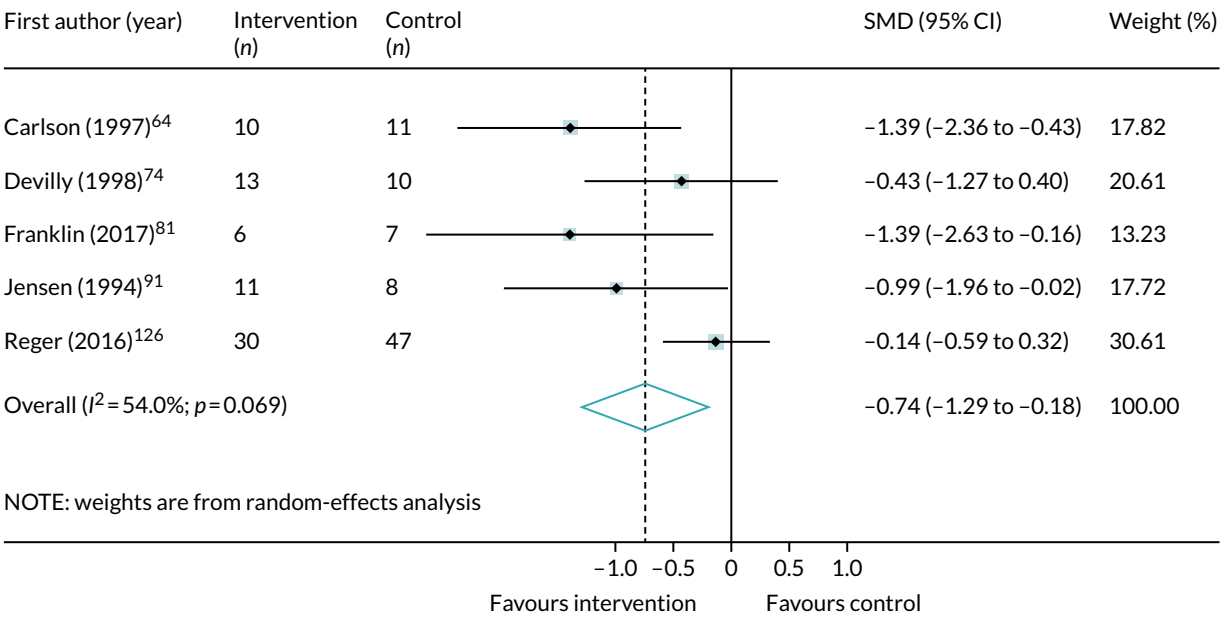

FIGURE 15 Meta-analysis of post-treatment SMD for total anxiety symptoms, comparing all psychological interventions with control in veteran populations.

Only two studies ($n = 90$)[81,126] compared trauma-focused CBT with control post treatment in veterans. Meta-analysis showed that interventions favoured a reduction in anxiety symptoms, but this effect was not significant and was associated with a high degree of uncertainty (see *Appendix 10*, *Figure 68*).

By contrast, EMDR compared with control was associated in a meta-analysis (three trials, $n = 63$)[74,91,157] with a large treatment effect in favour of a reduction in anxiety symptoms post treatment (see *Appendix 10*, *Figure 69*). The size of this effect was marginally smaller than that observed in the meta-analysis that pooled all populations and that included more studies.

War-affected populations

A summary of meta-analyses of the clinical effectiveness of psychological interventions across war-affected populations for PTSD, depression and anxiety symptoms is shown in *Appendix 9*, *Table 41*. Ten studies that included war-affected populations were identified; eight were included in the meta-analyses. Azad Marzabadi and Hashemi Zadeh[57] did not report outcomes that were sufficiently similar to other studies (i.e. they only reported on the WHO Quality of Life questionnaire) and Bichescu *et al.*[61] compared head-to-head interventions; therefore, these were not meta-analysed.

Post-traumatic stress disorder total symptoms

Figure 16 shows the results of a meta-analysis that compared all psychological interventions (eight trials, $n = 933$)[62,86,96,109,143–145] with control post treatment. The results show that psychological interventions were associated with a medium effect size in favour of a reduction in total PTSD symptoms. The size of this effect was comparable to that observed for veteran populations.

The majority of the studies (seven trials, $n = 743$)[62,86,96,109,143,144] in war-affected populations compared trauma-focused CBT with control post treatment. *Figure 70* (see *Appendix 10*) shows that trauma-focused interventions were associated with a medium and significant effect in favour of reducing PTSD symptoms in war-affected populations.

A very similar result was found when single-component and trauma-focused interventions were compared in a meta-analysis (five trials, $n = 566$)[62,86,96,109,144] with control post treatment (SMD −0.51, 95% CI −0.80 to −0.23; $I^2 = 55.9\%$).

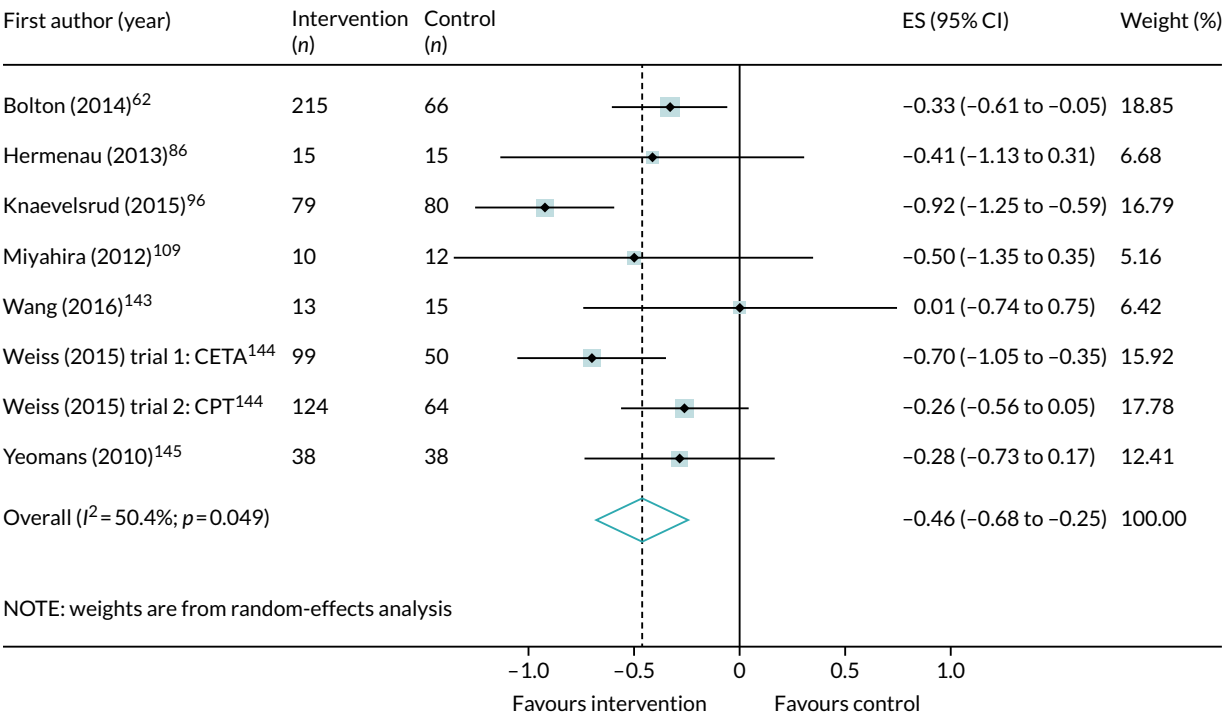

FIGURE 16 Meta-analysis of post-treatment effect size (ES) for total PTSD symptoms, comparing all psychological interventions with control in war-affected populations. CETA, common elements treatment approach; CPT, cognitive treatment therapy.

Three studies delivered therapies as part of a multicomponent and trauma-focused intervention.[143–145] When meta-analysed, these three studies ($n = 253$) showed that multicomponent and trauma-focused interventions were associated with a medium effect size in favour of a reduction in PTSD symptoms post treatment, but the overall point estimate was more uncertain than in the other meta-analyses in this population subgroup (see *Appendix 10*, *Figure 71*).

Depression symptoms

Six trials ($n = 827$)[62,96,109,143,144] were identified that included data that could be meta-analysed for depression symptoms in the war-affected subgroup. All of these studies compared trauma-focused CBT with control post treatment. When meta-analysed together, *Figure 17* shows that trauma-focused CBT is associated with a medium and significant effect size in favour of a reduction in depression symptoms.

When trauma-focused CBT was delivered as part of a single-component intervention and compared with control, the meta-analysis (four trials, $n = 536$)[62,96,109,144] shows that the intervention was associated with a similarly medium and significant effect size in favour of a reduction in depression symptoms (see *Appendix 10*, *Figure 72*). However, in the two studies that tested trauma-focused CBT as part of a multicomponent intervention, the meta-analysis ($n = 177$)[143,144] shows that the treatment effect favoured a reduction in depression symptoms but did not reach significance (see *Appendix 10*, *Figure 73*).

Anxiety symptoms

Five trials ($n = 691$)[62,96,143,144] were identified that included data that could be meta-analysed for depression symptoms in the war-affected subgroup. All of these studies compared trauma-focused CBT with control post treatment. When meta-analysed together, *Figure 18* shows that trauma-focused CBT is associated with a large and significant effect size in favour of a reduction in anxiety symptoms.

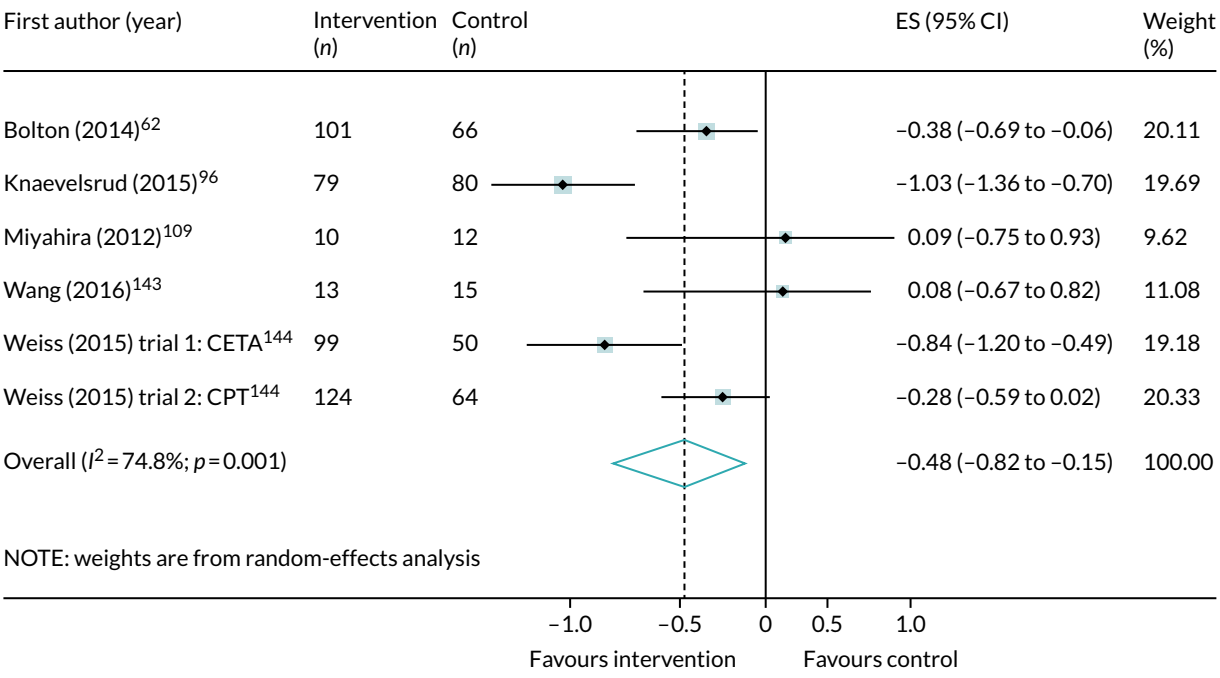

FIGURE 17 Meta-analysis of post-treatment effect size (ES) for total depression symptoms, comparing all trauma-focused CBT interventions with control in war-affected populations. CETA, common elements treatment approach; CPT, cognitive treatment therapy.

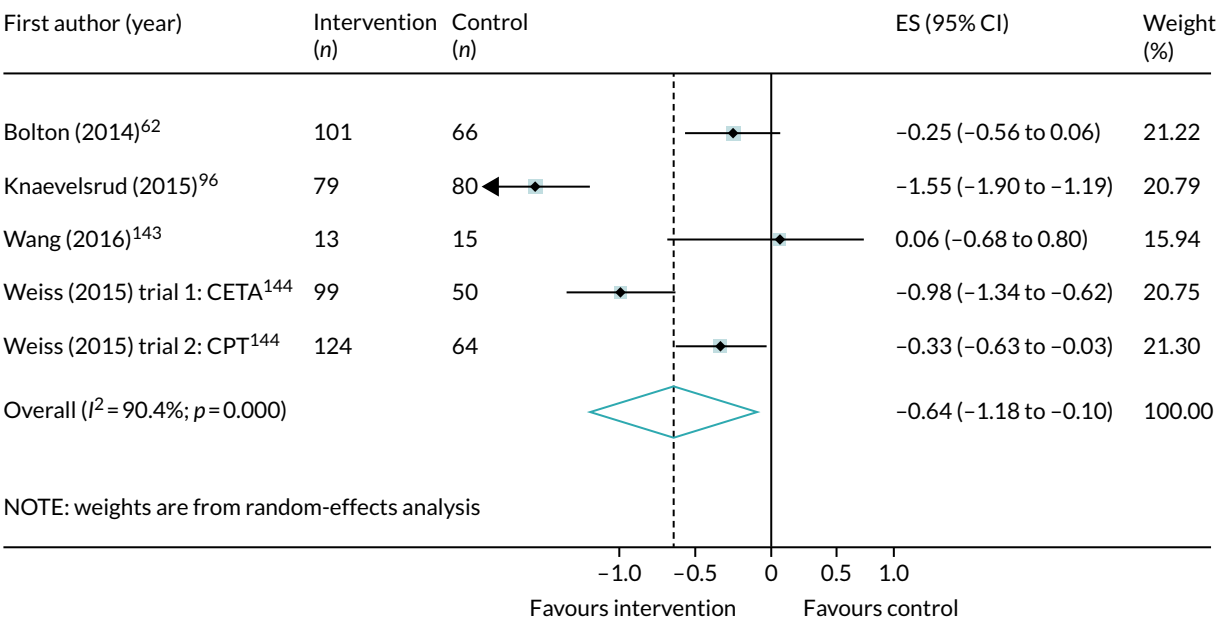

FIGURE 18 Meta-analysis of post-treatment effect size (ES) for total anxiety symptoms, comparing trauma-focused CBT with control in war-affected populations. CETA, common elements treatment approach; CPT, cognitive treatment therapy.

When trauma-focused CBT was delivered as part of a single-component intervention and compared with control, the meta-analysis (three trials, $n = 514$)[62,96,144] shows that the intervention was associated with a large effect size in favour of a reduction in anxiety symptoms, but this effect did not reach significance (see *Appendix 10*, *Figure 74*). Similarly, in the two studies[143,144] that tested trauma-focused CBT as part of a multicomponent intervention, the meta-analysis ($n = 177$) shows that the treatment effect favoured a reduction in depression symptoms but did not reach significance and was associated with considerable uncertainty (see *Appendix 10*, *Figure 75*).

Childhood sexual abuse

A summary of meta-analyses of the clinical effectiveness of psychological interventions across populations exposed to childhood sexual abuse for PTSD, depression and anxiety symptoms is shown in *Appendix 9*, *Table 42*. Thirteen of these studies included data that could be meta-analysed in the childhood sexual abuse subgroup; nine studies ($n = 687$)[66,69,76,92,98,106,131,132,146] were included in the meta-analyses. Those excluded from the meta-analyses were Cloitre *et al.*,[69] which was a deconstruction trial; Lau and Kristensen,[103] which compared analytic with systemic group therapy; Classen *et al.*,[68] which combined data from trauma-focused CBT and present-centred therapy groups, making it difficult to separate out and interpret the intervention effects; and Owens *et al.*,[117] which only reported loss of PTSD diagnosis (an outcome not reported in any other study in this population).

Post-traumatic stress disorder total symptoms

Figure 19 shows the results of a meta-analysis (nine trials, $n = 687$)[66,69,76,92,98,106,131,132,146] that compared all psychological interventions with control post treatment. The treatment effect was large and significant and about twice the size of the comparable result in the meta-analysis that assessed the effectiveness of all psychological interventions across all populations. Three studies ($n = 323$)[92,98,132] measured outcomes at follow-up after < 6 months. The meta-analysis of these three studies showed that the treatment effect still favoured a reduction in PTSD symptoms, but it did not reach significance (SMD −0.27, 95% CI −0.71 to 0.17; $I^2 = 53.6\%$).

Three studies ($n = 153$)[66,92,106] compared trauma-focused CBT with control post treatment. The meta-analysis shows that trauma-focused CBT was the most effective intervention in this subgroup. *Figure 76* (see *Appendix 10*) shows that this intervention was associated with a large effect in favour of a reduction in PTSD symptoms, but the wide CIs suggest that this result is particularly uncertain.

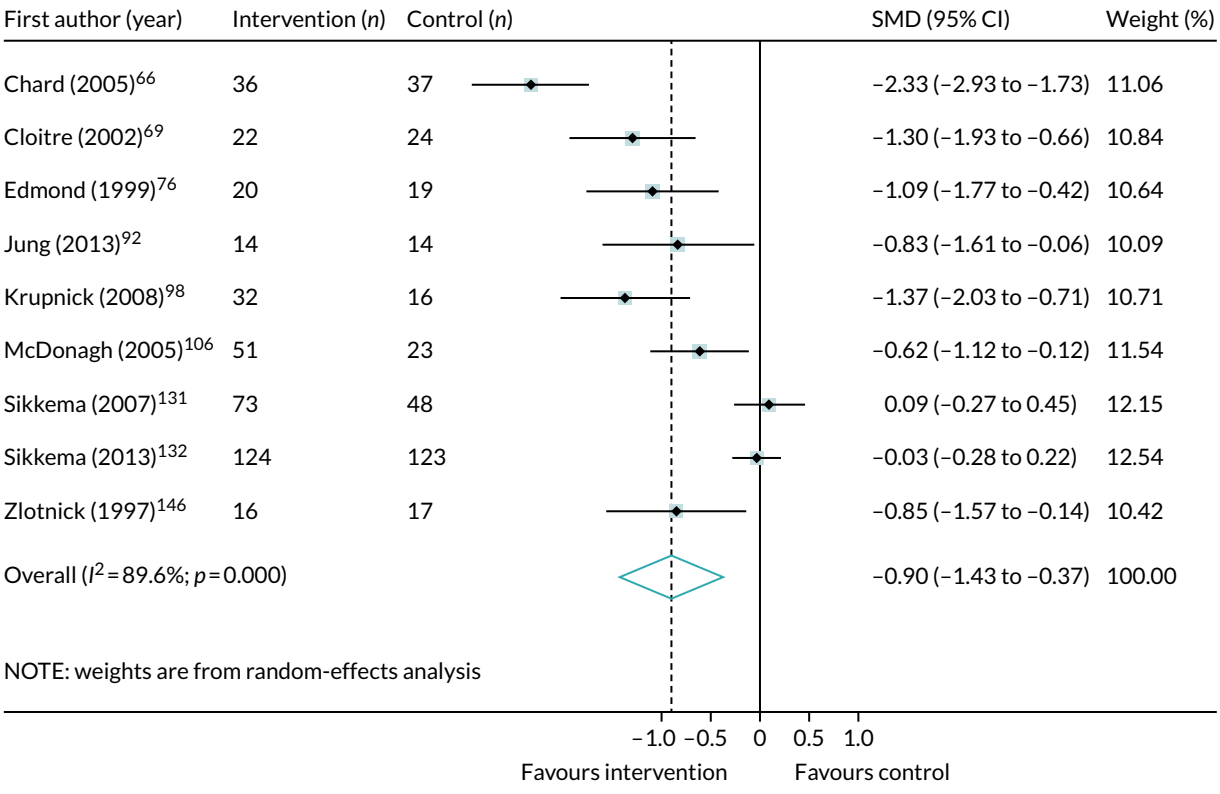

FIGURE 19 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing all psychological interventions with control in childhood sexual abuse populations.

By contrast, non-trauma-focused CBT, meta-analysed in two studies ($n = 368$),[131,132] did not favour the intervention when compared with control post treatment (see *Appendix 10*, *Figure 77*).

When studies (three trials, $n = 119$)[66,76,92,106] were grouped using the composite categories, we showed that single-component and trauma-focused interventions were associated with a large and significant effect in favour of a reduction in PTSD symptoms (see *Appendix 10*, *Figure 78*).

Larger and significant effects in favour of a reduction in PTSD symptoms were observed in the meta-analysis that compared multicomponent and trauma-focused interventions with control post treatment, but the treatment estimate was associated with considerable uncertainty (SMD −1.82, 95% CI −2.83 to −0.81; $I^2 = 81.3\%$; two trials, $n = 122$). Single-component and non-trauma-focused interventions (five trials, $n = 494$)[98,106,131,132,146] were shown, in a meta-analysis, to be associated with a medium and significant effect that favoured a reduction in PTSD symptoms (see *Appendix 10*, *Figure 79*). This analysis included a phase-based study of IPT that was associated with a large and significant effect.[98] Two of these trials measured outcomes at follow-up after < 6 months and a meta-analysis shows that there was no significant difference between interventions and control (SMD −0.08, 95% CI −0.31 to 0.15; $I^2 = 0\%$).[98,132]

Depression

Figure 20 shows the result of a meta-analysis (six trials, $n = 307$)[69,76,92,98,106] that compared all psychological interventions with control post treatment. Psychological interventions were associated with a large and significant effect in favour of a reduction in depression symptoms.

Two of these six trials measured outcomes at follow-up after < 6 months; the treatment effect still favoured interventions and was significant (SMD −0.52, 95% CI −0.99 to −0.04; $I^2 = 0\%$).[92,98]

Figure 80 (see *Appendix 10*) shows that trauma-focused CBT, when compared with control post treatment, is associated with a large but non-significant effect size in favour of a reduction in depression symptoms. This analysis was based on three small studies ($n = 152$) and there is considerable uncertainty regarding the overall point estimate.

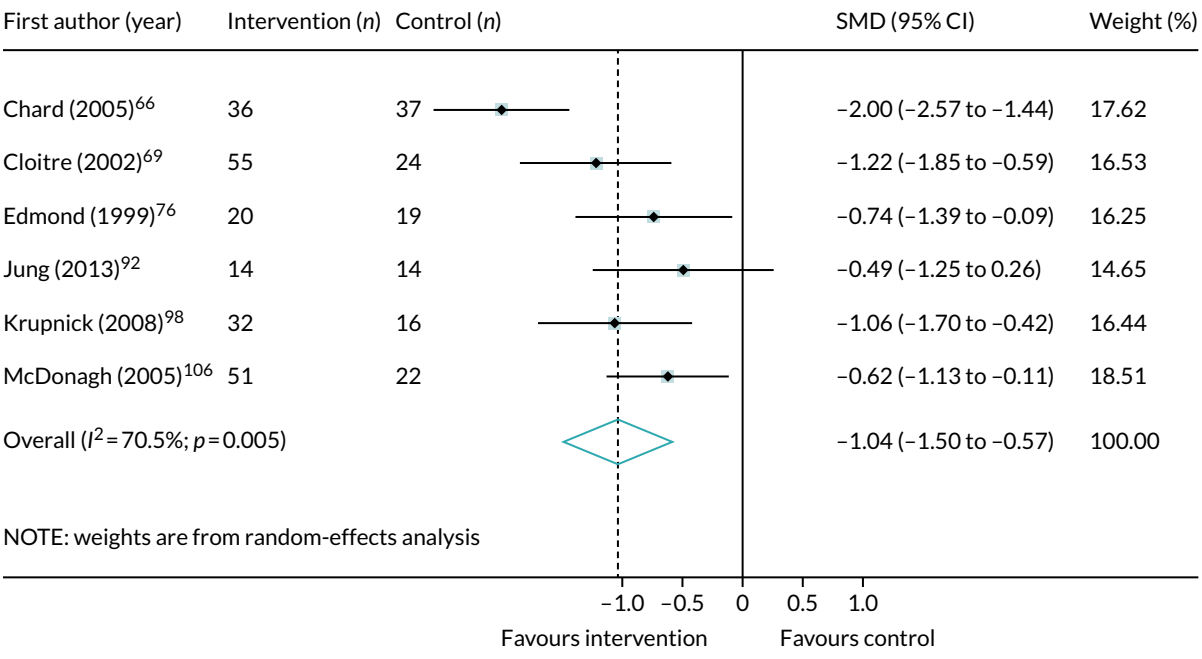

FIGURE 20 Meta-analysis of post-treatment SMD for depression symptoms, comparing all psychological interventions with control in childhood sexual abuse populations.

There was some tentative evidence from a meta-analysis of three studies ($n = 118$)[76,92,106] that single-component and trauma-focused interventions were similarly associated with a large and significant effect size (see *Appendix 10*, *Figure 81*).

Single-component and non-trauma-focused interventions were associated with a medium and significant effect in favour of a reduction in depression symptoms in this subgroup (see *Appendix 10*, *Figure 82*). This analysis was based on three small studies ($n = 118$).[76,92,106]

Larger and significant effects in favour of a reduction in depression symptoms were observed in the meta-analysis that compared multicomponent and trauma-focused interventions with control post treatment, but the treatment estimate was associated with considerable uncertainty (SMD −1.63, 95% CI −2.40 to −0.85; $I^2 = 69.7\%$; two trials, $n = 122$).

Anxiety symptoms

Only two studies ($n = 90$)[76,106] included anxiety outcome data that could be meta-analysed. *Figure 83* (see *Appendix 10*) shows that single-component and trauma-focused interventions (one testing EMDR, one testing trauma-focused CBT) are associated with a large effect in favour of a reduction in anxiety symptoms, but the effect did not reach significance.

Refugee populations

A summary of meta-analyses of the clinical effectiveness of psychological interventions across refugee populations for PTSD, depression and anxiety symptoms is shown in *Appendix 9*, *Table 43*. Twelve studies that included refugee populations were identified; however, few meta-analyses were possible. The following trials did not appear in any meta-analyses:

- Neuner *et al.*[114] compared trauma-focused CBT, supportive counselling and psychoeducation and there was no comparison with a control group.
- Paunovic and Ost[119] compared trauma-focused CBT with an exposure-only intervention.
- In Stenmark *et al.*,[136] trauma-focused CBT data were not extractable.

Post-traumatic stress disorder symptoms

Figure 21 shows the results of a meta-analysis (six trials, $n = 188$)[53–55,89,108,136,158] that compared all psychological interventions with control post treatment. Interventions were associated with a very large and significant effect size in favour of a reduction in PTSD symptoms. Three studies ($n = 235$)[54,87,113] measured outcomes at follow-up after < 6 months and, in the meta-analysis, the treatment effect was large and significant at follow-up (SMD −0.66, 95% CI −1.22 to −0.09; $I^2 = 72.7\%$).

Three small studies ($n = 71$)[55,89,158] compared trauma-focused CBT with control post treatment and were associated in a meta-analysis with a very large and significant treatment effect in favour of a reduction in PTSD symptoms (see *Appendix 10*, *Figure 83*). Two larger studies ($n = 165$)[87,113] that compared trauma-focused CBT with control measured outcomes at follow-up after < 6 months. The meta-analysis of these two studies showed that the treatment effect favoured interventions but did not reach significance (SMD −0.40, 95% CI −0.87 to 0.06; $I^2 = 86.3\%$).

There was some evidence, based on two small trials ($n = 99$),[53,54] that EMDR, when compared with control post treatment, was effective at reducing total PTSD symptoms (see *Appendix 10*, *Figure 85*).

A large and significant effect in favour of a reduction in total PTSD symptoms was observed in a meta-analysis (five trials, $n = 170$)[53–55,89,158] that compared single-component and trauma-focused interventions with control post treatment (see *Appendix 10*, *Figure 86*). Two studies ($n = 133$)[54,87] measured outcomes at follow-up after < 6 months and, in a meta-analysis, the treatment effect favoured the interventions but did not reach significance (SMD −0.67, 95CI% −1.65 to 0.32; $I^2 = 86.3\%$).

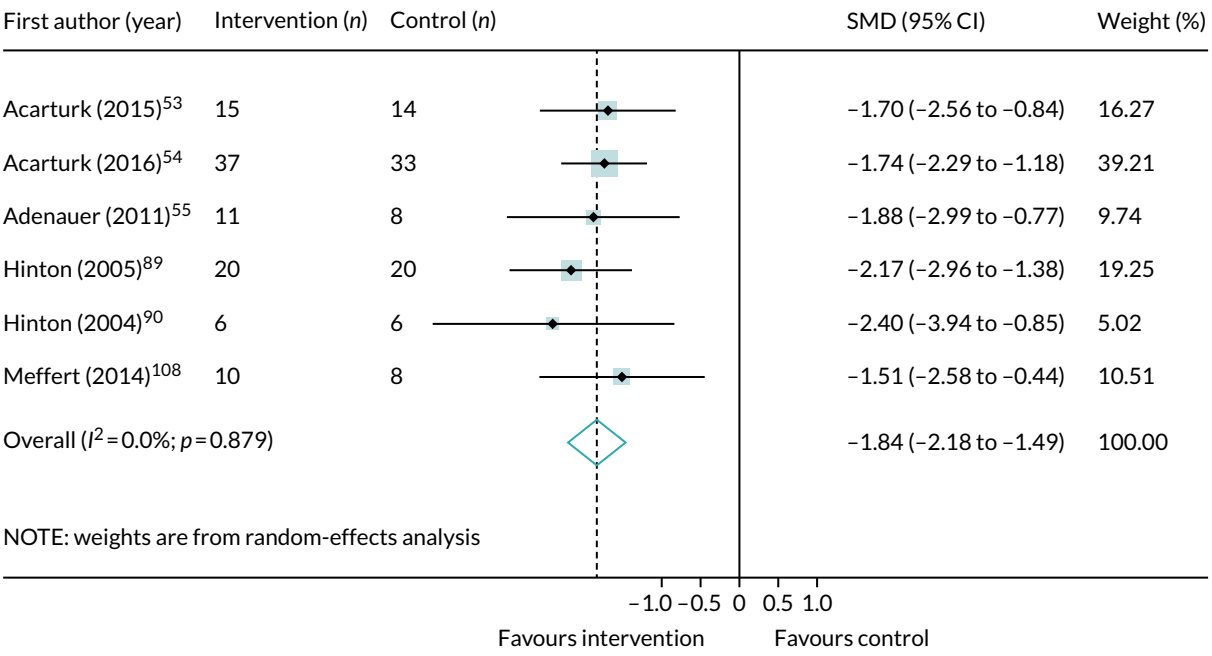

FIGURE 21 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing all psychological interventions with control in refugee populations.

In addition to the comparisons with control, two studies ($n = 71$)[138,139] compared EMDR with stabilisation only. There was insufficient evidence to conclude that EMDR was more effective post treatment (SMD −0.15, 95% CI −0.62 to 0.32; $I^2 = 0\%$) and at follow-up after < 6 months (SMD −0.15, 95% CI −0.80 to 0.49; $I^2 = 22.4\%$).

Depression symptoms

Figure 22 shows the results of a meta-analysis (five trials, $n = 148$)[53–55,108,158] that compared all psychological interventions with control post treatment. There is evidence that psychological interventions are effective in reducing symptoms of depression in refugee populations.

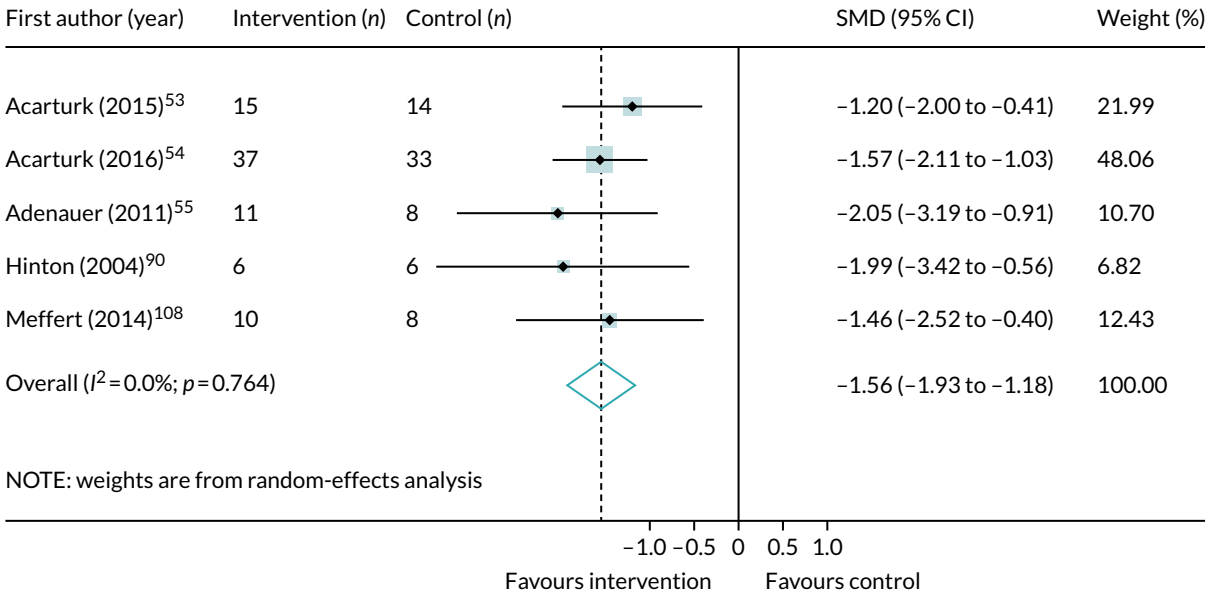

FIGURE 22 Meta-analysis of post-treatment SMD for depression symptoms, comparing all psychological interventions with control in refugee populations.

There was only modest evidence from a meta-analysis of two small trials ($n = 31$)[55,158] that trauma-focused CBT when compared with control is associated with large and significant treatment effects in favour of a reduction in depression symptoms; the wide CIs suggest this result is uncertain (see *Appendix 10*, *Figure 87*). Two other trials ($n = 133$)[54,87] measured outcomes at follow-up after < 6 months and a meta-analysis shows that the treatment effect favoured interventions but did not reach significance (SMD −0.73, 95% CI −1.57 to 0.10; $I^2 = 81.3\%$).

Evidence to support the use of EMDR for managing depression in this population was also based only on data from two small trials ($n = 99$).[53,54] When compared with control post treatment, EMDR was associated with a large and significant treatment effect in favour of a reduction in depression symptoms (see *Appendix 10*, *Figure 88*).

Taken together, single-component and trauma-focused interventions that included trauma-focused CBT and EMDR were effective at reducing depression in refugee populations. A meta-analysis (four trials, $n = 130$)[53–55,158] showed that, overall, these interventions are associated with a large and significant treatment effect (see *Appendix 10*, *Figure 89*).

Two studies also compared EMDR with stabilisation only.[138,139] There was insufficient evidence to conclude that EMDR was more effective post treatment (SMD −0.32, 95% CI −1.23 to 0.59; $I^2 = 47.8\%$; two trials, $n = 72$) or at follow-up after < 6 months (SMD −0.01, 95% CI −0.47 to 0.45; $I^2 = 0\%$; two trials, $n = 73$).

Anxiety symptoms

Only data from two studies that compared EMDR with stabilisation included data on anxiety symptoms that could be extracted.[138,139] There was no evidence that EMDR was effective in reducing anxiety symptoms in refugee populations post treatment (SMD −0.36, 95% CI −0.82 to 0.11; $I^2 = 0\%$; two trials, $n = 73$) or at follow-up after < 6 months (SMD −0.43, 95% CI −1.21 to 0.35; $I^2 = 35.1\%$; two trials, $n = 73$).

Domestic violence

A summary of meta-analyses of the clinical effectiveness of psychological interventions across populations exposed to domestic violence for PTSD, depression and anxiety symptoms is shown in *Appendix 9*, *Table 44*.

Post-traumatic stress disorder symptoms

Three trials were identified that measured PTSD symptoms in populations affected by domestic violence. Two of the three trials were included in the meta-analyses that compared trauma-focused CBT with control post treatment and interventions were associated with a large and significant treatment effect (SMD −2.92, 95% CI −3.45 to −2.39; $I^2 = 0\%$; two trials, $n = 117$).[100,101]

The other trial in this subgroup compared forgiveness therapy with an alternative treatment including anger validation, assertiveness and interpersonal skills training and could not be meta-analysed.[125]

Depression symptoms

The same two trials that compared trauma-focused CBT with control also reported post-treatment outcomes for depression. A meta-analysis showed that interventions were associated with a large and significant treatment effect, but there is a high degree of uncertainty about the overall point estimate (SMD −3.24, 95% CI −4.40 to −2.09; $I^2 = 66.6\%$; two trials, $n = 117$).[125]

Pharmacological interventions versus placebo

Nineteen trials were identified that compared pharmacological interventions with placebo. Rezaei Ardani *et al.*[56] tested rivastigmine augmentation and this study was not included in the meta-analyses because there were no other comparable interventions to combine it with. Two other studies were excluded from the meta-analyses because they compared head-to-head interventions, with no placebo

group.[65,67] All the trials ($n = 16$)[58,59,72,73,82,84,85,99,104,110,112,118,122,123,135,147] included in the meta-analyses, except one trial in childhood sexual abuse, were in veteran populations.

Total post-traumatic stress disorder symptoms

A summary of meta-analyses of the clinical effectiveness of pharmacological interventions for PTSD symptoms is shown in *Appendix 9*, *Table 45*. A meta-analysis of six trials ($n = 338$)[59,73,82,112,118,147] compared antidepressants with placebo post treatment. The results show that there was a medium treatment effect in favour of antidepressants, but this did not reach significance (see *Appendix 10*, *Figure 90*).

Four trials ($n = 293$)[82,112,118,147] were included in a meta-analysis that compared SSRIs with placebo. *Figure 91* (see *Appendix 10*) shows that SSRIs were associated with a large effect in favour of a reduction in total PTSD symptoms, but this did not reach significance.

Data about the effectiveness of antipsychotics were meta-analysed in five trials ($n = 365$).[58,85,99,110,135] Antipsychotics were associated with a medium and significant treatment effect in favour of a reduction in total PTSD symptoms post treatment (see *Appendix 10*, *Figure 92*).

Only two trials that compared anticonvulsants with placebo were meta-analysed and there was little evidence that these classes of drugs were effective at reducing total PTSD symptoms (see *Appendix 10*, *Figure 93*).[72,104]

Three trials ($n = 110$) compared prazosin with placebo and a meta-analysis showed that this sympatholytic medication is associated with a medium treatment effect post treatment in favour of reducing total PTSD symptoms (see *Appendix 10*, *Figure 94*).[84,122,123]

Depression symptoms

A summary of meta-analyses of the clinical effectiveness of pharmacological interventions for depression symptoms is shown in *Appendix 9*, *Table 46*. Antidepressant medication was compared with placebo post treatment in a meta-analysis that included three trials ($n = 220$).[59,73,82] The results were inconclusive, with no evidence that these classes of drugs were effective in reducing depression symptoms in veteran populations (see *Appendix 10*, *Figure 95*).

There was some evidence drawn from two trials ($n = 266$)[99,135] that antipsychotic medication compared with placebo post treatment favoured the intervention, but the treatment effect did not reach significance (see *Appendix 10*, *Figure 96*).

There was very little evidence that anticonvulsants compared with placebo post treatment were effective in reducing depression symptoms. A meta-analysis of two trials ($n = 106$)[72,104] showed that the treatment effect marginally favoured the placebo group (see *Appendix 10*, *Figure 97*).

In a meta-analysis of two trials ($n = 76$)[84,123] that compared prazosin with placebo post treatment, the treatment effect favoured prazosin but did not reach significance.

There were insufficient data to assess the effectiveness of SSRIs. Only one study that compared SSRIs with placebo reported a depression outcome.[82] Among the other studies that tested SSRIs, one study did not report depression outcomes separately and instead presented combined depression and anxiety data using the Hospital Anxiety and Depression Scale total,[112] and two other trials did not report any depression outcome data.[118,147]

Anxiety symptoms

No meta-analyses were possible for anxiety outcomes.

Psychosis symptoms

A summary of meta-analyses of the clinical effectiveness of pharmacological interventions for psychosis symptoms is shown in *Appendix 9*, *Table 47*. All of the trials included in the meta-analyses that compared antipsychotic medication with placebo tested risperidone. Three trials were identified that included post-treatment outcome data related to symptoms of psychosis; all used the Positive and Negative Syndrome Scale (PANSS).[58,85,99]

There was no good evidence that antipsychotic medication reduces symptoms of psychosis in veteran and childhood sexual abuse populations.

In a meta-analysis of three trials ($n = 329$),[58,85,99] risperidone was associated with a reduction in positive psychotic symptoms on the PANSS, but the treatment effect did not reach significance and the overall point estimate was very uncertain (see *Appendix 10*, *Figure 98*).

In a meta-analysis of one small and one medium-sized trial, the treatment effect did not favour risperidone for either negative or total scores on the PANSS, although the effects were not significant (see *Appendix 10*, *Figures 99* and *100*).[85,99] In the same meta-analysis, there was some evidence that risperidone favoured an improvement on the general psychopathology scale of the PANSS, but the effect did not reach significance (see *Appendix 10*, *Figure 101*).

Sleep quality

A summary of meta-analyses of the clinical effectiveness of pharmacological interventions for sleep quality is shown in *Appendix 8*, *Figure 26*. Prazosin was the only pharmacological intervention with sufficient data to conduct meta-analyses; it was more effective than placebo (mean difference −2.53, 95% CI −3.82 to 1.23; $I^2 = 0\%$; three trials, $n = 109$).[84,122,123]

Meta-analysis of attrition

Of the RCTs included, 46 studies representing 47 trials in psychological interventions reported attrition data.[53,55,62,64,66,69,71,76,78,79,81,83,84,86–92,94–96,98,100,105–109,111,115,121,125,126,128,131,132,135–140,144,145] Thirteen RCTs reported attrition data for pharmacological interventions.[56,58,72,73,82,84,85,99,104,110,118,127,141] We conducted meta-analyses to investigate the odds of attrition from psychological and pharmacological interventions. Owing to a subset of trials reporting zero attrition, ORs were not calculable for eight trials;[88–91,94,111,125,138] therefore, these were excluded from the analyses presented. The comparisons meta-analysed for odds of attrition from psychological interventions were considered two ways:

1. psychological interventions versus control for all populations combined, reported by intervention category
2. all psychological interventions versus control, reported by trauma experience.

All pharmacological interventions included in this analysis were in veteran populations, with the exception of one study in individuals with a history of childhood sexual abuse;[127] therefore, veterans-only pharmacological intervention attrition meta-analyses were undertaken (see *Veterans*).

Intervention categories

Trauma-focused cognitive–behavioural therapy

Twenty-one studies ($n = 1557$)[55,62,66,79,81,83,86,87,92,96,100,105–107,109,126,128,136,140,144] reported attrition figures in trauma-focused CBT across all populations, and indicated participation in a trauma-focused CBT intervention was significantly associated with a reduction in the odds of dropout compared with controls (*Figure 23*).

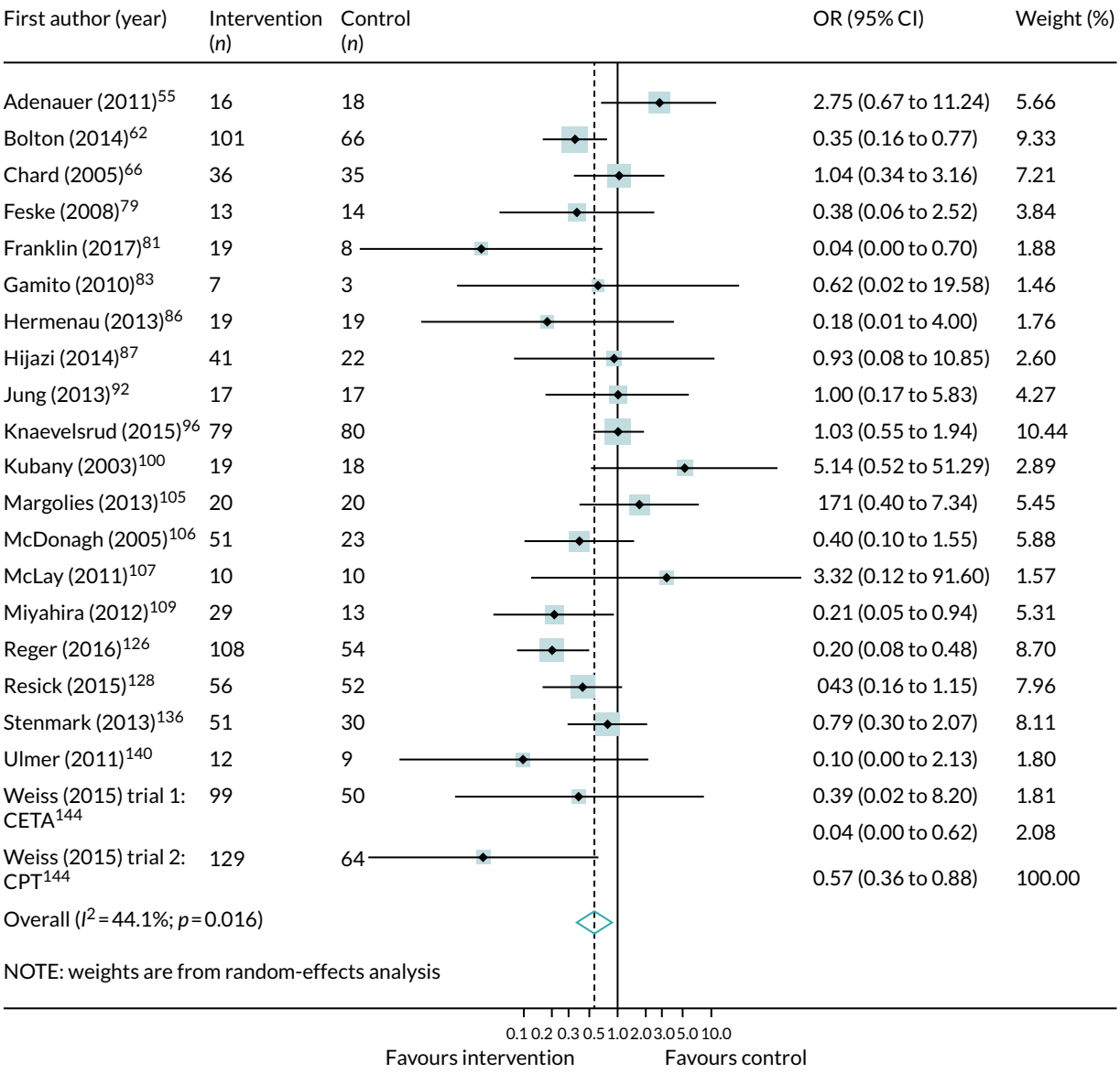

FIGURE 23 Meta-analysis of ORs of attrition for trauma-focused CBT interventions compared with control. CETA, common elements treatment approach; CPT, cognitive treatment therapy.

Four trials stood out owing to ORs that favoured increased attrition from the intervention; these had smaller sample sizes (< 20 participants per arm) and did not have a common trauma population (including veterans,[105,107] domestic violence populations[100] and refugees[55]).

Eye movement desensitisation and reprocessing

Few controlled EMDR trials reported attrition data (three trials, $n = 179$).[53,64,76] All favoured increased odds of attrition in the intervention group, with a non-significant pooled estimate suggesting uncertainty (OR 1.79, 95% CI 0.79 to 4.07; $I^2 = 0.0\%$). Trials included within this analysis were each from different populations (refugees,[53] veterans[64] and those with a history of childhood sexual abuse[76]).

Mindfulness

There were also few mindfulness trials reporting attrition (three trials, $n = 141$).[57,95,121] The pooled estimate suggested that the odds of attrition of individuals in mindfulness interventions were one-third those of individuals on a waitlist, but this finding did not reach significance (OR 0.29, 95% CI 0.05 to 1.74; $n = 141$). There was also moderate heterogeneity in the sample with the CI including 1, suggesting mindfulness interventions could also have greater odds of attrition than waitlists.

Non-trauma-focused cognitive–behavioural therapy

There were insufficient data comparing non-trauma-focused CBT with an inactive control to perform analyses.

Trauma populations

Meta-analyses were carried out according to each intervention category within populations in which there were multiple studies present. The results for each of these can be found in *Appendix 10*. The following sections give the results of attrition from any psychological intervention within each population and highlight notable contrasts due to the sparsity of data in grouped meta-analyses.

Veterans

Twelve trials ($n = 616$)[66,78,81,83,95,105–107,109,121,128,157] were included in this meta-analysis, which compared psychological intervention with a control (see *Appendix 10*, *Figure 102*). Veterans receiving any psychological intervention had less than half the odds of attrition as those on a waitlist (OR 0.49, 95% CI 0.26 to 0.92; $I^2 = 41.8\%$), a statistically significant result. This suggests that it is likely that psychological therapies experience favourable dropout in comparison with waitlists or non-interventions in veteran populations.

Four trials ($n = 225$) compared psychological interventions with an active control[71,84,115,137] and also showed reduced attrition among veterans receiving psychological intervention (OR 0.34, 95% CI 0.17 to 0.68; $I^2 = 0.0\%$; see *Appendix 10*, *Figure 103*).

Pharmacological interventions

A sufficient number of pharmacological trials in veterans reported attrition to analyse the odds of dropout in antidepressant intervention, including three studies of SSRIs[82,118,141] (OR 0.56, 95% CI 0.29 to 1.07; $I^2 = 24.9\%$; four studies, $n = 345$; see *Appendix 10*, *Figure 104*)[73,82,118,141] and antipsychotics (OR 0.46, 95% CI 0.14 to 1.56; $I^2 = 56.5\%$; four studies, $n = 414$; see *Appendix 10*, *Figure 105*).[58,85,99,110] Two studies reported attrition for the use of anticonvulsants[72,104] (see *Appendix 10*, *Figure 106*).

Although all had an OR that favoured reduced attrition in the intervention group, none was significant.

Childhood sexual abuse

Based on five trials ($n = 414$),[69,92,98,131,140] individuals with experience of childhood sexual abuse and receiving psychological therapy had almost one-quarter the odds of dropout as inactive controls (OR 0.24, 95% CI 0.08 to 0.75; $I^2 = 26.5\%$; see *Appendix 10*, *Figure 107*). Three of the five studies in the analysis were also phased based.[69,98,140]

One trial reported attrition data for a pharmacological intervention, comparing antipsychotics with placebo; therefore, an OR was not calculated for these data.[127]

Refugee populations

Evidence for attrition in refugee populations was mixed. Five studies ($n = 298$)[53,55,87,108,136] were associated with psychological intervention having greater odds of attrition than controls, a finding that was not significant (OR 1.21, 95% CI 0.69 to 2.12; $I^2 = 0.0\%$; see *Appendix 10*, *Figure 108*). Across trials, odds were not consistent in favouring increased or decreased odds of attrition, resulting in a wide CI for the pooled estimate.

Domestic violence

There were only two studies on psychological interventions for individuals exposed to domestic violence.[62,100] Both investigated individual therapies and they had opposing directions of effect for attrition (see *Appendix 10*, *Figure 109*).

War-affected populations

Six trials of psychological interventions gave a pooled OR that suggested reduced attrition for psychological intervention (when compared with inactive controls) in war-related trauma populations (OR 0.66, 95% CI

0.27 to 1.60; $I^2 = 36.7\%$; $n = 695$).[57,86,96,144,145] However, the CI includes 1, while an equivalent number of trials favour both reduced and increased odds of attrition. There is large uncertainty as regards the direction of effect, despite low to moderate heterogeneity (see *Appendix 10*, *Figure 110*).

Meta-regression analyses: predictors of treatment effectiveness

We conducted meta-regression analyses for any validated trauma outcome measure (using SMDs) and in all populations.

Model 1: predictors of treatment effectiveness by population type

Table 2 shows the results of the univariable analyses. Interventions delivered in studies that included veterans were less likely to be effective than interventions delivered in studies in other populations. In addition, interventions delivered in studies that included people who had experienced domestic violence were more effective than studies that included other populations. However, there were few studies of people exposed to domestic violence and therefore it is unclear if further studies will consistently show greater effectiveness for people who have experienced domestic violence.

In multivariable analyses both remained statistically significant: studies of veterans [coefficient 0.41, standard error (SE) 0.20; $p = 0.049$] and studies of people experiencing domestic violence (coefficient −2.01, SE 0.51; $p < 0.001$). The multivariable model was statistically significant [$F_{2,42} = 11.51$; $p < 0.001$) and explained some of the heterogeneity (adjusted $R^2 = 38.96\%$); however, a substantial proportion of heterogeneity remained unexplained (I^2 residual = 79%).

Model 2: predictors of treatment effectiveness by intervention components

When covariates for intervention content were assessed, only imaginal exposure was found to have a statistically significant association with effectiveness, but psychoeducation had a borderline statistically significant effect (*Table 3*). Therefore, both covariates were included in the multivariable analysis; psychoeducation was no longer statistically significant (coefficient −0.39, SE 0.23; $p = 0.1$) and imaginal exposure was borderline statistically significant (coefficient −0.44, SE 0.24; $p = 0.07$). The multivariable model as a whole was statistically significant ($F_{2,42} = 3.88$; $p = 0.03$) and explained some of the heterogeneity (adjusted $R^2 = 15.78\%$), but a substantial proportion of heterogeneity remained unexplained (I^2 residual = 81.19%).

Model 3: treatment effectiveness by delivery method

Studies that tested individually delivered interventions reported improved outcomes compared with studies that tested interventions delivered in a group (*Table 4*). Since almost all interventions were delivered face to face, it was not possible to confirm if there was a difference in effectiveness compared with other modalities. There was no evidence that the duration of intervention had an impact on effectiveness.

TABLE 2 Predictors of effectiveness of psychological interventions by population type (univariable analyses)

Populations	Coefficient (standard error)	*p*-value
Veterans	0.56 (0.23)	0.02
Childhood sexual abuse	−0.04 (0.30)	0.89
Refugees	−0.36 (0.28)	0.21
Domestic violence	−2.19 (0.52)	< 0.001
War affected	0.25 (0.45)	0.59

TABLE 3 Univariable predictors of treatment effectiveness by intervention component

Components	Coefficient (SE)	*p*-value
Support	−0.12 (0.33)	0.71
Psychoeducation	−0.47 (0.23)	0.052
Relaxation	−0.06 (0.27)	0.83
Mindfulness	−0.13 (0.36)	0.73
Cognitive	−0.03 (0.25)	0.91
In vivo exposure	−0.04 (0.45)	0.92
Virtual reality exposure	0.36 (0.49)	0.47
Imaginal exposure	−0.51 (0.24)	0.04
Phased based	−0.36 (0.37)	0.33

TABLE 4 Predictors of treatment effectiveness by delivery method

Delivery method	Coefficient (SE)	*p*-value
Face to face vs. other	−0.47 (0.39)	0.74
Individual vs. group	−0.67 (0.28)	0.02
< 12 weeks vs. 12 weeks	0.12 (0.32)	0.70
> 12 weeks vs. 12 weeks	0.20 (0.44)	0.66

Only studies that used individually delivered psychological interventions were statistically significantly associated with greater effectiveness compared with group-delivered psychological interventions explaining a small proportion of the heterogeneity (adjusted $R^2 = 12.72\%$; I^2 residual = 81.54%). No multivariable analyses were conducted.

Components network meta-analyses

We fitted four models to assess the impact of different combinations of interventions on reducing trauma. Owing to the instability of models when assessing different trauma scales combined, we conducted all analyses on the CAPS (the most frequently reported trauma scale). *Figure 24* shows all of the combinations of intervention components extracted from the studies included. The thickness of the lines for each node are weighted by the number of studies (i.e. the thicker the line, the more studies comparing a particular combination of components with an active control or a waitlist).

Model selection

Models 1, 2 and 4 did not fit the data well, reflected by the very high total residual deviance found for each of these models. Model 3 had an acceptable goodness of fit (total residual deviance = 36.33) and the DIC was substantially lower than in other models. Therefore, further analyses were conducted using model 3 (*Table 5*).

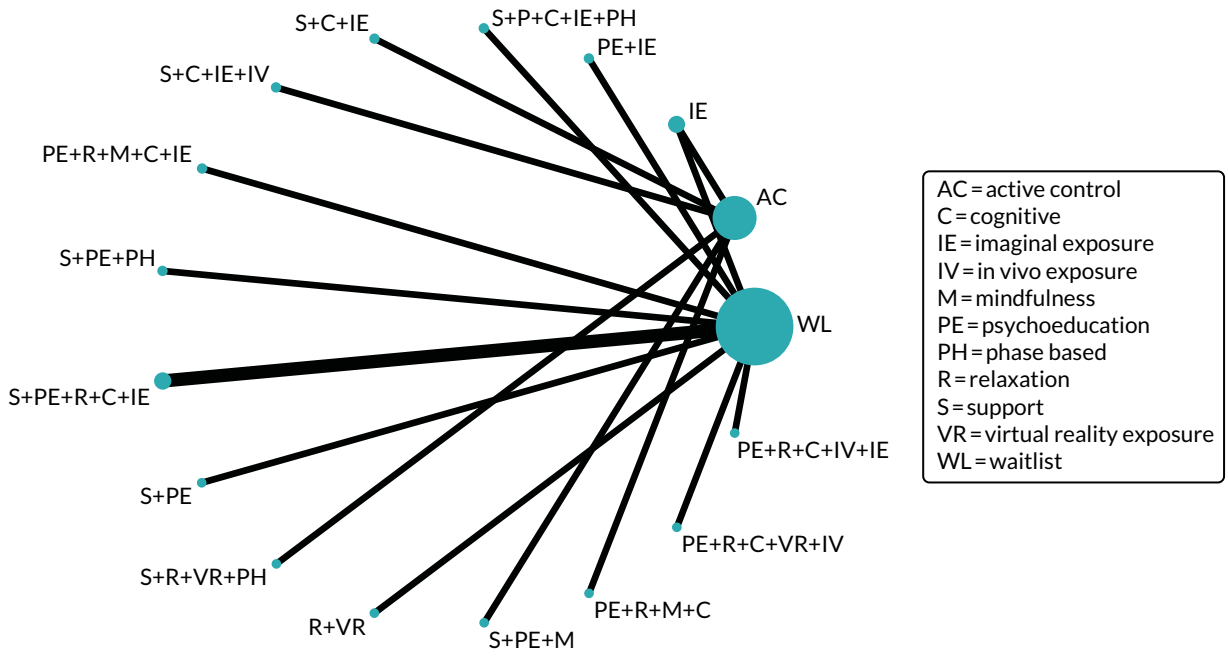

FIGURE 24 Network plot for all combinations of components extracted from the studies included.

TABLE 5 Comparing the goodness of fit for different component network meta-analysis models

Model	Posterior mean deviance	DIC	Total residual deviance	τ
Model 1: waitlist, active control, trauma-focused CBT, EMDR, mindfulness, DBT, IPT	25.72	252.99	70.03	0.043
Model 2: waitlist, placebo, support, psychoeducation, relaxation, cognitive restructuring, in vivo exposure, imaginal exposure, virtual reality exposure, mindfulness, phased based	28.60	267.93	70.57	0.042
Model 3: waitlist, placebo, support, psychoeducation, relaxation, cognitive restructuring, in vivo exposure, imaginal exposure, virtual reality exposure, phased based, support + psychoeducation, psychoeducation + relaxation, psychoeducation + cognitive restructuring, psychoeducation + imaginal exposure, relaxation + mindfulness, relaxation + cognitive restructuring, relaxation + imaginal exposure	30.94	235.45	36.33	0.13
Model 4: full interaction model	30.56	264.89	66.09	0.04

Findings from the intervention component network meta-analysis (model 3)

The intervention components with evidence of effectiveness and sufficiently precise credible intervals were mindfulness, cognitive restructuring, phase-based approaches, relaxation + imaginal exposure and relaxation + cognitive restructuring (*Table 6*).

TABLE 6 Mean difference for outcomes by intervention component

Intervention component	Mean difference vs. waitlist (95% CI)
Active control	−0.07 (−61.71 to 62.21)
Placebo	−27.6 (−57.76 to 2.60)
Support	16.78 (−13.07 to 47.08)
Psychoeducation	−0.24 (−30.23 to 29.76)
Relaxation	24.32 (−12.12 to 60.56)
Mindfulness	−32.22 (−53.18 to −10.52)
Cognitive restructuring	−39.24 (−54.05 to −23.88)
Virtual reality exposure	−8.6 (−42.08 to 25.84)
Imaginal exposure	−1.18 (−32.16 to 29.76)
Phased based	−26.95 (−41.59 to −11.96)
In vivo exposure	14.45 (−32.74 to 61.39)
Support + psychoeducation	21.3 (−10.29 to 52.64)
Psychoeducation + relaxation	32.09 (−6.64 to 70.77)
Psychoeducation + cognitive restructuring	10.56 (−8.07 to 29.29)
Psychoeducation + imaginal exposure	18.28 (−13.0 to 49.48)
Relaxation + mindfulness	28.03 (−17.44 to 73.86)
Relaxation + cognitive restructuring	−28.29 (−47.56 to −8.79)
Relaxation + imaginal exposure	−45.34 (−70.86 to −19.52)
Mindfulness + cognitive restructuring	28.41 (−16.96 to 74.14)
Cognitive restructuring + in vivo exposure	14.31 (−32.8 to 61.41)
In vivo exposure + imaginal exposure	15.42 (−18.72 to 49.73)

Acceptability sensitivity analyses

Estimates of attrition in intervention and control groups are likely to be effected by both the acceptability of the intervention and attrition bias. To try to disentangle these factors, we conducted sensitivity analyses including only studies judged to be at a low risk of attrition bias. *Table 7* shows the OR of attrition for psychological interventions compared with controls, as presented in *Trauma populations* earlier, and the OR of attrition for psychological interventions compared with controls for only those trials graded as at a low risk of attrition bias.

Overall, studies with a low risk of attrition bias were associated with reduced odds of dropout from psychological interventions in comparison with controls in all populations combined (14 trials).[55,62,64,78,87,92,98,121,126,131,132,140,144] This trend was seen across trauma experiences (when data were available), although differences between interventions and controls were not always statistically significant. The exception was refugee populations, in which people assigned to psychological interventions were more likely to drop out than those in controls.

Trauma populations that demonstrated a reduced likelihood of dropout in psychological interventions saw a further decrease in the likelihood of dropout when considering only those trials with a low risk of attrition bias. These populations were veterans (three trials),[64,78,121] childhood sexual abuse populations (four trials)[92,98,131,140] and war-affected populations (two trials),[144] but none was statistically significant. In the case of veterans and childhood sexual abuse populations, the reduced odds of dropout were

TABLE 7 Odds ratios of attrition per population shown across all studies and across only those trials rated as being at a low risk of attrition bias

	OR (95% CI)	
Population	All studies	Low risk of attrition bias
All	0.56 (0.40 to 0.80)	0.39 (0.21 to 0.73)
Veterans	0.49 (0.26 to 0.92)	0.44 (0.06 to 3.54)
Childhood sexual abuse	0.24 (0.08 to 0.75)	0.18 (0.03 to 1.00)
Refugee	1.21 (0.69 to 2.12)	2.10 (0.62 to 7.14)
Domestic violence	Insufficient data	Insufficient data
War affected	0.66 (0.27 to 1.60)	0.11 (0.01 to 1.27)
Mixed	Insufficient data	Insufficient data

statistically significant when considering trials of all risk-of-bias gradings. Therefore, the lack of statistical significance is most likely explained by the reduced statistical power resulting from including only a subset of the data.

In refugee populations, the odds of dropout from psychological interventions were greater than from controls and increased when considering only those trials with a low risk of attrition bias (based on two trials);[55,87] however, neither of the pooled ORs was statistically significant.

Adverse events for pharmacological interventions

All of the data relating to adverse events and pharmacological interventions were collated (*Table 8*). All reporting of further information regarding reasons for withdrawal and adverse events were from veteran populations. Withdrawal owing to adverse events was common across studies, but with relatively small numbers. Practical issues resulting in withdrawal were more frequently reported; there was insufficient detail to infer acceptability from this.

TABLE 8 Pharmacological intervention withdrawals and adverse events as reported

Intervention category	Authors (year), population	Reasons for withdrawal	Adverse events
Antidepressants (including SSRIs)	Becker *et al.* (2007),[59] veterans	Bupropion and control overall: allergic reaction ($n = 1$), transportation difficulties ($n = 1$), no further interest ($n = 1$), lost to contact ($n = 2$)	Overall: allergic reaction ($n = 1$)
	Chung *et al.* (2004),[67] veterans	Mirtazapine: lack of efficacy ($n = 3$), personal reasons ($n = 3$), side effects ($n = 1$)	NR
		Sertraline: lack of efficacy ($n = 5$), personal reasons ($n = 1$)	
	Davis *et al.* (2004),[73] veterans	Nefazodone: adverse effects ($n = 5$), medication ineffective ($n = 2$), lost to follow-up ($n = 4$), non-compliance ($n = 1$)	Nefazodone: drowsiness, dizziness, agitation, gastrointestinal distress, fatigue, orthostatic hypotension, headaches
		Placebo: adverse effects ($n = 1$), medication ineffective ($n = 2$), lost to follow-up ($n = 1$), no reason given ($n = 2$)	Placebo: insomnia, irritability

TABLE 8 Pharmacological intervention withdrawals and adverse events as reported (*continued*)

Intervention category	Authors (year), population	Reasons for withdrawal	Adverse events
	Panahi *et al.* (2011),[118] veterans	Sertraline: adverse events ($n = 2$), protocol violation ($n = 1$) Placebo: adverse event ($n = 1$), protocol violation ($n = 2$), other (of own accord) ($n = 2$)	Sertraline: headache (31%), insomnia (31%), nausea (31%), restlessness (25%), diarrhoea (22%), dry mouth (19%), drowsiness (16%), asthenia (16%), decreased appetite (16%), constipation (16%), decreased libido (13%) Placebo: headache (20%), insomnia (13%), nausea (17%), restlessness (17%), diarrhoea (13%), dry mouth (17%), drowsiness (7%), asthenia (7%), decreased appetite (10%), constipation (10%), decreased libido (7%)
	Zohar *et al.* (2002),[147] veterans	NR	Sertraline: nausea (35%), headache (26%), drowsiness (26%), asthenia (17%), increased appetite (13%), dry mouth (13%), decreased appetite (13%) Placebo: nausea (21%), headache (16%), drowsiness (16%), asthenia (15%), increased appetite (10%), dry mouth (10%), decreased appetite (5%)
Antipsychotics	Bartzokis *et al.* (2005),[58] veterans	Risperidone: adverse effects ($n = 11$), unrelated medical condition ($n = 1$), alcohol abuse ($n = 1$), discontinuing medication ($n = 1$), lost to follow-up ($n = 5$) Placebo: adverse effects ($n = 6$), alcohol abuse ($n = 1$), lost to follow-up ($n = 3$)	NR
	Monnelly *et al.* (2003),[110] veterans	Risperidone: episode of urinary retention ($n = 1$)	Risperidone: mild adverse event ($n = 4$) Placebo: mild adverse event ($n = 2$), moderate adverse event ($n = 1$)
	Stein *et al.* (2002),[135] veterans	Olanzapine: (early protocol terminations) somnolence ($n = 2$), unspecified ($n = 1$) Placebo: lack of efficacy ($n = 1$)	Olanzapine: weight gain change of +13.2 lb (SD 5.9 lb) Placebo: −3 lb (SD 6.5 lb)
Anticonvulsants	Davis *et al.* (2008),[72] veterans	Divalproex: adverse events ($n = 3$), serious but unrelated adverse event ($n = 1$), failure to return ($n = 2$), lost to follow-up ($n = 4$) Placebo: adverse event ($n = 1$), lack of efficacy ($n = 1$), lost to follow-up ($n = 4$)	NR
	Lindley *et al.* (2007),[104] veterans	Topiramate: adverse events ($n = 6$), clinician withdrew because of adverse event ($n = 2$), significant worsening of symptoms ($n = 1$), left residential treatment ($n = 1$), discharged by clinical staff owing to behaviour ($n = 1$) Placebo: adverse event ($n = 1$), clinician withdrew because of adverse event ($n = 1$), left residential treatment ($n = 12$), discharged by clinical staff owing to behaviour ($n = 1$)	Topiramate: reported in 17 patients Placebo: reported in 16 patients

continued

TABLE 8 Pharmacological intervention withdrawals and adverse events as reported (*continued*)

Intervention category	Authors (year), population	Reasons for withdrawal	Adverse events
Prazosin	Raskind *et al.* (2013),[123] veterans	Prazosin: adverse event ($n = 1$), opted for open-label prazosin ($n = 1$), too busy ($n = 1$), lost contact ($n = 1$) Placebo: opted for open-label prazosin ($n = 1$), too busy ($n = 2$), lost contact ($n = 3$)	Prazosin: hospitalisation for suicidal ideation ($n = 1$), suicide attempt with non-lethal overdose of oxycodone/acetaminophen ($n = 1$); syncope (3%), light-headedness (25%), nasal congestion (22%), palpitations (6%), drowsiness (3%), muscle weakness (3%), headaches (3%) Placebo: light-headedness (20%), nasal congestion (11%), lack of energy (3%), palpitations (3%), drowsiness (9%), depression (6%), headaches (23%)

SD, standard deviation.

Non-randomised studies of clinical effectiveness

Post-traumatic stress disorder symptoms

Six of the nine non-randomised studies reported PTSD outcomes.[148–150,152,155,156] Effect sizes were calculated for four of these studies (representing five interventions), as they used inactive control comparators (*Table 9*).[149,152,155,156]

TABLE 9 Non-randomised trial intervention characteristics and effects on PTSD outcomes

Authors (year)	Population	Intervention (category)	Control	Scale	Post-treatment effect, SMD (95% CI)	*n*
Kruse *et al.* (2009)[149]	Refugees	Trauma-focused psychotherapy (non-trauma-focused CBT)	Treatment as usual	HTQ	−2.54 (−3.21 to −1.88)	64
Morgan and Cummings (1999)[152]	Childhood sexual abuse	Group therapy (multicomponent trauma-focused intervention)	No intervention	DSM-III subscales	−0.18 (−0.62 to 0.26)	80
Salo *et al.* (2008)[155]	War affected	Individual therapy (trauma-focused CBT)	Waitlist	HTQ: re-experiencing	0.00 (−0.50 to 0.50)	95
				HTQ: avoidance	−1.22 (−1.75 to −0.69)	95
				HTQ: hyperarousal	−1.50 (−2.04 to −0.95)	95
		Group therapy (multicomponent non-trauma-focused intervention)		HTQ: re-experiencing	0.32 (−0.18 to 0.81)	96
				HTQ: avoidance	2.66 (2.04 to 3.28)	96
				HTQ: hyperarousal	0.74 (0.24 to 1.25)	96
Saxe and Johnson (1999)[156]	Childhood sexual abuse	'Victim to survivor' group therapy (trauma-focused CBT)	No intervention	IES intrusion subscale	−0.09 (−0.58 to 0.41)	63
				IES avoidance subscale	−1.01 (−1.53 to −0.48)	63

HTQ, Harvard Trauma Questionnaire; IES, Impact of Events Scale.

Trauma-focused interventions

Two studies in trauma-focused CBT saw a significant reduction in PTSD avoidance symptoms.[155,156] One study investigated 'victim to survivor' group therapy in a childhood sexual abuse population[156] (SMD −1.01, 95% CI −1.53 to −0.48; $n = 63$) and the other investigated individual therapy in a war-affected population[155] (SMD −1.22, 95% CI −1.75 to −0.69; $n = 95$). Individual therapy in a war-affected population also showed a large and significant effect in reducing PTSD hyperarousal symptoms (SMD −1.50, 95% CI −2.04 to −0.95; $n = 95$), but was equivalent to the waitlist at reducing PTSD re-experiencing symptoms.[155]

One study examined a multicomponent trauma-focused intervention delivered in a group format to a childhood sexual abuse population.[152] A small reduction in PTSD symptoms was found, but this was not significant.

Non-trauma-focused interventions

Non-trauma-focused CBT was investigated in one study in a refugee population and showed a large and significant effect favouring group intervention for reducing PTSD symptoms (SMD −2.54, 95% CI −3.21 to −1.88; $n = 64$).[149]

Multicomponent non-trauma-focused therapy was investigated in just one study of war-affected individuals[155] and showed significant effects favouring controls for PTSD hyperarousal (SMD 0.74, 95% CI 0.24 to 1.25; $n = 96$) and avoidance symptoms (SMD 2.66, 95% CI 2.04 to 3.28; $n = 96$). A small, insignificant effect on PTSD re-experiencing symptoms also favoured the control group.

Head-to-head comparisons

Two[148,150] of the non-randomised studies reporting PTSD outcomes were head-to-head comparisons conducted in veteran populations.

One comparison of trauma-focused CBT versus psychodynamic psychotherapy reported a significant reduction in PTSD symptoms (clinician- and patient-rated), with no significant difference between interventions.[150]

A comparison of mindfulness-based cognitive therapy with a mixed comparator of active interventions reported a significant reduction in PTSD symptoms for those undergoing mindfulness-based cognitive therapy, but not the mixed comparator.[148]

Depression

Five non-randomised studies[150–153,156] reported depression outcomes. Of these, four studies[150–152,156] used inactive comparators. Effect sizes were calculated for three studies (constituting four interventions); outcome reporting prohibited this for one study,[153] so it is described as published (*Table 10*).

Trauma-focused interventions

All studies for which SMDs were calculated were trauma-focused interventions, delivered in a group format, to childhood sexual abuse populations.

Two studies reported depression outcomes for three trauma-focused CBT interventions. In one study,[151] a short-term therapy demonstrated an insignificant and small effect of increasing depression (compared with control); the same study found an insignificant and small effect of group therapy reducing depression. Another study[156] of trauma-focused CBT in group therapy showed a large and significant effect for decreasing depression symptoms on two scales: the Beck Depression Inventory (−1.53, 95% CI −2.09 to −0.97; $n = 63$) and the Center for Epidemiologic Studies Depression Scale (−1.19, 95% CI −1.73 to −0.65; $n = 63$).

TABLE 10 Non-randomised trial intervention characteristics and effects on depression outcomes

Authors (year)	Population	Intervention	Control	Scale	Post-treatment effect, SMD (95% CI)	*n*
Lundqvist *et al.* (2006)[151]	Childhood sexual abuse	Group therapy (trauma-focused CBT)	Waitlist	SCL-90: depression	−0.31 (−1.00 to 0.38)	52
		Short-term therapy (trauma-focused CBT)		SCL-90: depression	0.11 (−0.66 to 0.89)	28
Morgan and Cummings (1999)[152]	Childhood sexual abuse	Group therapy (multicomponent trauma-focused intervention)	No intervention	BDI	−0.43 (−0.88 to 0.01)	80
Saxe and Johnson (1999)[156]	Childhood sexual abuse	'Victim to survivor' group therapy (trauma-focused CBT)	Waitlist	BDI	−1.53 (−2.09 to −0.97)	63
				CES-D	−1.19 (−1.73 to −0.65)	63

BDI, Beck Depression Inventory; CES-D, Center for Epidemiologic Studies Depression Scale; SCL-90, Symptom Checklist 90.

Based on one study,[152] multicomponent trauma-focused group therapy was associated with a moderate treatment effect in favour of a reduction of depression and this was of borderline significance (SMD −0.43, 95% CI −0.88 to 0.01; $n = 80$).

In one study,[153] a SMD was not calculated owing to outcome reporting. This compared both EMDR and trauma-focused CBT with a control in a war-affected population. The reported results stated that both interventions significantly reduced depression symptoms with no significant difference between EMDR and CBT, suggesting effectiveness.

Head-to-head comparisons

One study[150] reported a direct comparison of trauma-focused CBT with psychodynamic therapy in veterans. A significant reduction in depression symptoms was reported following treatment, with equivalent effectiveness between therapies.

Anxiety

One[151] of the nine non-randomised studies included in this review reported anxiety outcomes for two interventions. The findings are presented in *Table 11*.

TABLE 11 Non-randomised trial intervention characteristics and effects on anxiety outcomes

Authors (year)	Population	Intervention	Control	Scale	Post-treatment effect, SMD (95% CI)	*n*
Lundqvist *et al.* (2006)[151]	Childhood sexual abuse	Group therapy (trauma-focused CBT)	Waitlist	SCL-90 anxiety	−0.16 (−0.85 to 0.53)	52
		Short-term therapy (trauma-focused CBT)		SCL-90 anxiety	0.16 (−0.62 to 0.93)	28

SCL-90, Symptom Checklist 90.

Trauma-focused interventions

Two trauma-focused CBT interventions were both compared with control in a childhood sexual abuse population.[151] Group therapy was associated with a small reduction in anxiety symptoms, while short-term therapy was associated with a small increase compared with control. Neither finding was significant.

Quality of life

None of the non-randomised studies included reported quality-of-life outcomes.

Sleep quality

None of the non-randomised studies included reported sleep quality outcomes.

Attrition

Six[148–151,155,156] of the non-randomised trials included reported attrition data for eight comparisons. All were compared with a control group, with the exception of one active control trial[148] and one head-to-head comparison.[150] ORs were calculated for all controlled trials and are presented in *Table 12*.

Only one trial,[155] investigating two interventions, reached significance. There was a reduced likelihood of dropout in both the trauma-focused CBT and the multicomponent non-trauma-focused intervention compared with control in a war-affected population.

Three trauma-focused CBT interventions in a childhood sexual abuse population had reduced odds of attrition among those receiving the intervention, but large CIs resulting in uncertain estimates.[151,156] A non-trauma-focused CBT intervention in a refugee population showed increased odds of dropout among those receiving the intervention compared with those in the control; this finding also had wide CIs and was not significant.[149]

TABLE 12 Odds ratios of attrition for each trial reporting data

Authors (year)	Trauma population	Intervention category vs. control	OR of attrition (95% CI)	*n*
Kruse *et al.* (2009)[149]	Refugees	Non-trauma-focused CBT	2.06 (0.19 to 23.83)	70
Lundqvist *et al.* (2006)[151]	Childhood sexual abuse	(Group) trauma-focused CBT	0.58 (0.03 to 12.08)	55
		(Short-term) trauma-focused CBT	0.20 (0.01 to 4.01)	32
Salo *et al.* (2008)[155]	War affected	Trauma-focused CBT	0.02 (0.00 to 0.36)	106
		Multicomponent non-trauma-focused intervention	0.00 (0.00 to 0.08)	106
Saxe and Johnson (1999)[156]	Childhood sexual abuse	Trauma-focused CBT	0.51 (0.16 to 1.61)	108

Chapter 5 Results of the qualitative acceptability review

Studies included

In total, 1609 titles and abstracts were screened and 1560 were excluded. In addition, 49 full-text papers were screened and 41 were excluded, with the reasons summarised in *Figure 25*. We included nine papers, constituting eight unique studies, that were found to use qualitative methods or a mixed-methods approach with a strong qualitative component. Qualitative components included data collection using interviews (unstructured or semistructured) and focus groups, and the data were analysed following a qualitative methodology, with methods such as thematic analysis, ethnography or a phenomenological approach.

Of the studies selected for inclusion in the qualitative review, the majority were from North America ($n = 7$); two studies were performed in Canada but most of the research was performed in the USA ($n = 5$). The other studies were performed in Bangladesh ($n = 1$) and the UK ($n = 1$).

In terms of the types of trauma that participants were exposed to, four studies involved participants exposed to intimate partner violence,[161–164] of which two are linked.[163,164] Two studies involved veterans,[165,166] two studies involves participants exposed to childhood sexual abuse[167,168] and one study involved asylum seekers.[169]

The intervention classifications include group mindfulness-based stress reduction (MBSR; $n = 3$[163–165]), motivational interviewing ($n = 1$[162]), prolonged exposure ($n = 1$[166]), mental health counselling ($n = 1$[161]), group healing or group treatments ($n = 2$[167,168]) and trauma-focused CBT ($n = 2$[166,169]), which, in one case, was a combined treatment with prolonged exposure ($n = 1$[166]). *Table 13* provides details of all of the studies included.

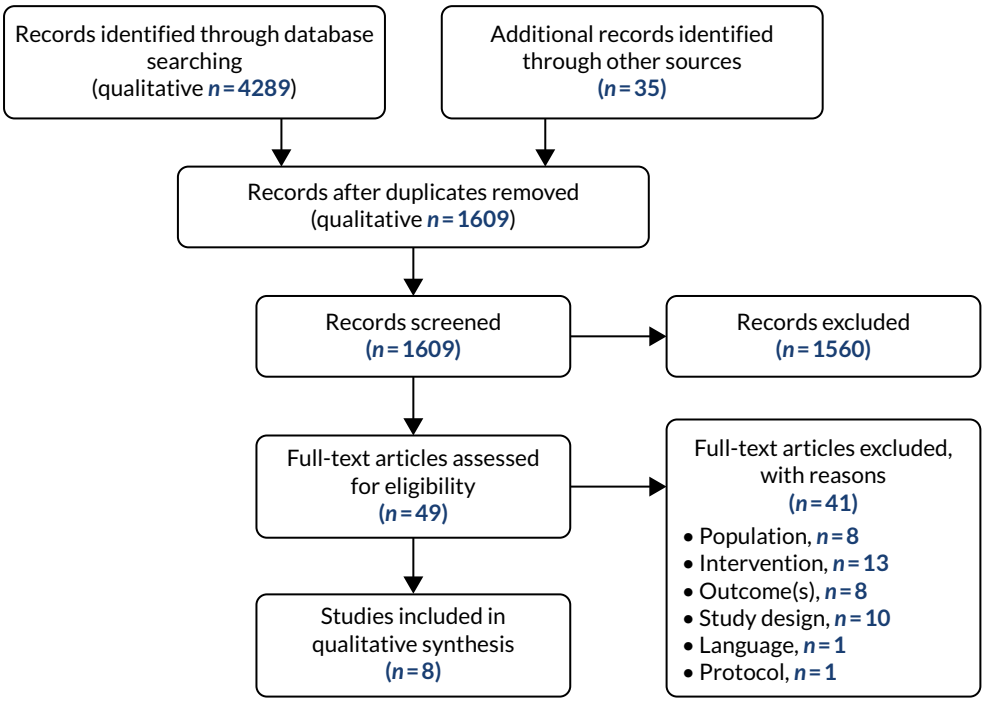

FIGURE 25 The PRISMA diagram of the flow of records through the review process.

TABLE 13 Risk-of-bias assessment of the qualitative studies included using the CASP tool

	Authors (year)								
Research question	Hundt *et al.* (2017)[166]	Martinez *et al.* (2015)[165]	[a]Bermudez *et al.* (2013)[163]	[a]Dutton *et al.* (2013)[164]	Hughes and Rasmussen (2010)[162]	Naved *et al.* (2009)[161]	Palmer *et al.* (2007)[167]	Parker *et al.* (2007)[168]	Vincent *et al.* (2013)[169]
1. Was there a clear statement of the aims of the research?	Y	Y	Y	Y	Y	Y	Y	Y	Y
2. Was a qualitative methodology appropriate?	Y	Y	Y	Y	Y	Y	Y	Y	Y
3. Was the research design appropriate to address the aims of the research?	Y	Y	Y	Y	Y	C	Y	Y	Y
4. Was the recruitment strategy appropriate to the aims of the research?	Y	Y	Y	Y	N	N	C	Y	Y
5. Were the data collected in a way that addressed the research issue?	Y	Y	Y	Y	Y	Y	Y	Y	Y
6. Has the relationship between researcher and participants been adequately considered?	C	C	C	Y	Y	Y	Y	Y	C
7. Have ethical issues been taken into consideration?	Y	Y	Y	C	Y	Y	C	Y	Y
8. Was the data analysis sufficiently rigorous?	Y	Y	Y	Y	C	C	Y	Y	C
9. Is there a clear statement of findings?	Y	Y	Y	Y	Y	Y	Y	Y	Y
10. How valuable is the research?	Score 8.5	Score 8.5	Score 8.5	Score 8.5	Score 7.5	Score 7.5	Score 8.0	Score 9.0	Score 8.0

C, cannot say; N, no; Y, yes.
a Linked studies.

Quality of the studies included: Critical Appraisal Skills Programme assessment

Methodological limitations were assessed with the CASP qualitative checklist to facilitate the assessment of both study design and implementation, as described in the GRADE-CERQual recommendations.[51] The studies included were assessed for methodological limitations using a modified version of the CASP in which the individual elements for the quality assessment (see *Table 13* for the CASP checklist) were used in conjunction with a scoring system. A full score of 9.0 for the CASP assessment allowed a CERQual score of 'no concerns' as regards the methodological limitations of the studies included, as well as the relevance and coherence of data with regard to integration across the review themes.

The majority of the studies were allocated less than the maximum score of 9.0, as information was not clearly apparent in the methods of the paper. This contributed to a CERQual assessment of 'minimal concerns' for the integration of research findings for this review. When no score was given, the CERQual score was registered as 'significant concerns'; the only instance of this was attributed to selection bias for the participant selection, as many studies experienced difficulties in recruiting participants and, as such, studies enrolled a small number of participants or a convenience sample.

Table 13 presents the findings of the CASP assessment and the tables in *Appendix 9* provides additional information on the study details and their methodological assessments.

Narrative synthesis

All of the studies included offered in-depth accounts of service user experiences of psychological interventions either delivered in health- or social-care or settings or by voluntary agencies. Population subgroups included veterans, people with a history of childhood sexual abuse, people with a history of domestic violence and asylum seekers. Using acceptability and feasibility as organising meta-themes, we identified three core subthemes across these populations:

1. therapeutic context
2. skills strengthening
3. self-efficacy and reward.

Therapeutic context

Group-based therapies

This theme captured data that spoke to service users' perspectives on the merits of engaging in therapeutic interventions in groups and how feasibly these group-based approaches aligned with the therapeutic orientation and goals of the intervention. For non-trauma-focused interventions such as mindfulness, there was an understanding that delivering interventions in groups was potentially a safe and advantageous way to connect with others who have had similar traumatic experiences without fear of re-traumatisation. This was especially true of women with a history of domestic violence: 'Having had common traumas made it easy to relate to other participants. I was able to revisit traumatic situations without judgement.'[163]

However, this perspective was not universally shared, with a contrary finding among veterans, whose overall perception of mindfulness was positive but was layered with misgivings about taking part in groups. For some participants, groups were less acceptable because their PTSD symptom profile made them feel 'uncomfortable in groups', with the risk that interactions with other group members were counterproductive to the therapeutic goals of achieving serenity and non-judgemental self-awareness: 'I had such issues with certain people and one of them couldn't sit still. I would turn around and he kept staring at me. I was not comfortable.'[165]

Women with a history of childhood sexual abuse also voiced similar concerns about the negative impact of taking part in groups as part of more trauma-focused interventions:

> *[I] found it hard to break through the barriers that I'd already set up . . . a lot of trust issues with the group . . . I was still just breaking the ice . . . about my sexuality . . . I saved it right up to the very last day.*
>
> *Palmer* et al.[167]

The idea that group approaches were not always an acceptable platform to engage people with complex trauma histories was also linked to concerns that group-based activities that focused on trauma experiences risked re-traumatising participants: 'I would come out of [the process groups] exhausted, even if I didn't say anything . . . just listening to other people's stories was very draining.'[167]

Scheduling and setting

Another key feature of the therapeutic context that underpinned perceptions about the acceptability and feasibility of interventions was that scheduling and the setting of treatments were important determinants of participants' satisfaction and engagement with therapy. Veterans that were signed up to mindfulness noted that scheduling could be a practical barrier to attendance.[165] More critically, among women with a history of domestic violence, there were widely voiced concerns that waiting times and the length of treatment sessions for counselling could increase the risk of further abuse at home if they returned late.[161] This highlighted the importance of providing treatment in a safe and caring environment that offered participants sanctuary and the security to engage in treatment, as reported by women with a history of domestic violence who were given classes in motivational interviewing at a shelter: 'You deserve the caring, and you deserve to be treated well.'[162]

The need for additional wraparound care to help facilitate engagement with treatment was especially salient among women exposed to domestic violence who had children and felt frustrated that their family needs were not often met:

> *I was takto [irritated/annoyed] . . . I was annoyed that I left my child in the corridor. They took me to another room . . . The child was crying.*
>
> *Naved* et al.[161]

Skills strengthening

Participants' ratings about the acceptability of interventions were also associated with the extent to which they perceived interventions as strengthening their personal and interpersonal skills. This was especially true among participants who had experience of non-trauma-focused interventions such as mindfulness and motivational interviewing. MBSR was particularly earmarked by women with a history of domestic violence as conferring opportunities to use newly acquired skills in self-compassion and self-awareness to regulate their emotions and manage their stress more effectively, because they 'felt they had learned how to quiet their minds'.[163,164]

Beyond the recognition that non-trauma-focused interventions can bring about positive steps towards self-actualisation through personal development, there were also signals that treatment acceptability hinged on the broader impact on participants' interpersonal skills. Women with a history of domestic violence voiced how taking part in motivational interviewing had enabled them to more effectively engage in other treatment services. In addition, for some participants, these interpersonal benefits spilled over into the domestic sphere, positively affecting the way that they interacted with partners and underpinning a newly derived confidence to engage in family life:

> *My confidence has gone up a great deal . . . Even though I came in self-confident in some areas of my life, I think that when it comes to specifically how I relate with my husband in that area, it's boosted it up completely. I think that I'm capable.*
>
> *Hughes and Rasmussen*[162]

Self-efficacy and reward

Related to the notion that interventions were more acceptable if they led to strengthening of personal and interpersonal skills was the finding that participants tended to favour interventions that made intuitive sense, rewarded persistence and were demonstrably effective. In this sense, the more self-efficacious participants felt about fulfilling the requirement of treatment sessions, the more likely they were to persist with treatment; this bi-directional relationship was also reinforced by visible signs of recovery. Dropout and attrition were more common among participants who engaged in interventions that they struggled to identify with and master, with mindfulness being singled out by veterans, among the non-trauma-focused interventions, as challenging:

> *I just didn't get it. I was so stupid when I first went to it the last time. I didn't even realise what I was supposed to be doing . . . I felt ignorant and embarrassed so that's why I quit.*
>
> *Martinez* et al.[165]

By contrast, although trauma-focused interventions such as prolonged exposure and cognitive processing therapy could initially lead to a worsening of symptoms, veteran participants recognised that it was likely to be ultimately effective and 'worth it'.[166]

In part, participants' willingness to stay the course in trauma-focused treatment stemmed from a 'commitment to finish', born from a realisation that their time had come to 'turn things around', to paraphrase a male veteran, a theme that was voiced by other veterans engaged in cognitive processing therapy:

> *Yes, I did [consider dropping out] because I was avoiding having to write out my traumatic experience but I knew I had to do it . . . I can't keep burying my head in the sand.*
>
> *Hundt* et al.[166]

For others, participation in trauma-focused work was made feasible only through engagement with a supportive therapist. In this context, a positive therapeutic alliance conferred the means to stay focused on treatment goals:

> *I loved [therapist name]; she was great and she was patient and she helped keep me focused . . . that made it a little bit easier to show up.*
>
> *Hundt* et al.[166]

The tone of participants' ratings about trauma-focused interventions differed depending on their circumstances, with asylum seekers, who feared deportation, more likely push themselves to take up treatment on the grounds that it will be effective:

> *I used to force myself to do it just because I feel that it's going to help me.*
>
> *Vincent* et al.[169]

Despite ongoing fears of repatriation and a sense of creeping fatalism among asylum seekers, there were participants whose ability to see signs of progress encouraged them to continue to push themselves to take up therapy:

> *. . . I started maybe feeling a bit of difference. That's when I used to force myself 'You have to go. No, be strong, go and they are helping you', so I end up going.*
>
> *Vincent* et al.[169]

Summary

In summary, the acceptability of interventions was associated with how congruent they were with participants' therapeutic needs and social contexts, and the means by which the interventions were able to provide participants with opportunities to engage in personal and interpersonal improvement and confer demonstrable improvements. The feasibility of interventions hinged on more instrumental features, such as the scheduling and timing of treatment sessions.

Chapter 6 Patient and public involvement and the research prioritisation exercise

Although the overarching focus and framework of the current review was prespecified by the commissioned brief, we recognise that patient and public involvement (PPI) in systematic reviews is a critical means to ensure that the research process and products are more accessible, relevant and meaningfully used through active involvement of service users (known as 'experts by experience') and key stakeholders.[170] However, there is a broad range of conceptual models of service user involvement in systematic reviews, from one-off consultation to ongoing collaboration, and early engagement with potential contributors at a conceptual level is likely to shape the content and style of user involvement.[171]

Our strategy was informed by an understanding that knowledge mobilisation is a dynamic and interactive process that is reliant on forming equitable transactional relationships with patients, the public and stakeholders.[172] Our user engagement strategy was informed by an understanding that experts by experience can bring critical insights and perspectives that can add value to contextualising the findings of our review and contribute to enhancing the reach of dissemination activities, especially in relation to setting future research priorities.

Aims

Our PPI strategy had three broad aims:

1. to consult with experts by experience about the focus and design of the review
2. to contribute to identifying research priorities
3. to contribute to dissemination of the findings of the review, including the research priorities.

Aim 1: consultation on the overall aims and design of the review

Methods

To identify people with a history of complex traumatic events, we approached The Retreat hospital, York, or service user groups that were known to us through our clinical experience of working in the field. We have not named the groups involved in this consultation exercise to protect the identity of the service users.

Participants

Ten people (six women and four men) who had used inpatient and secondary care mental health services, all with a history of complex trauma, took part in the focus groups. Trauma histories included childhood sexual abuse, sexual assault as adults, self-harm and domestic violence. Some had experienced homelessness and had been offenders; comorbidities and symptom profiles included drug and alcohol addictions, suicidality and dissociated identities. All of the service users identified were all currently using or had recently used NHS mental health services and/or third-sector mental health services. None of the subjects was approached within an NHS setting or directly through NHS services.

Research governance approval to contact and identify eligible service users who had been patients at The Retreat was granted on 31 July 2017 by Dr Mark McFetridge, Chairperson of the Clinical Governance Group at The Retreat, York.

Format and timing of focus groups

Interviewing people who are currently using mental health services or who are still acutely affected by their symptoms is difficult owing to the sometimes chaotic nature of engagement with services, as well as the sensitivity and care needed to avoid causing harm to these subjects. An expert by experience (the Involvement Lead at The Retreat) and a specialist trauma psychotherapist (IS) carried out the interviews so that the risk of re-traumatisation was minimised. Following the interviews, all of the subjects had access to mental health nursing staff or support workers with whom they had an existing relationship.

Four focus groups were conducted between May and July 2018. Where possible, focus groups were carried out at times when the service users were already planning to meet so that the researchers could align the focus groups with an existing structured timetable, thereby minimising disturbance to the service users' schedule.

Topic guide

A structured topic guide was used to ensure that each focus group addressed similar issues pertinent to the review process. Participants were given copies of lay summaries of the project protocol that specified and explained the criteria for the population, interventions, comparisons and outcomes used to determine inclusion within and exclusion from the eligible studies. In addition, participants were given lay summaries of the descriptive results of the effectiveness review that characterised the number of studies included, the types of populations included and the characteristics of the interventions included. The following questions and prompts were used to elicit responses about the aims and focus of the review, with a view to generating feedback about the scope of the current review and future research priorities:

1. Which populations should be included in the study?

    - Do you feel this is an accurate representation of populations with a history of trauma?
    - What other groups do you think should be included?
    - Do you think this is the right balance of studies on each population?

2. What types of therapies should be included in the review?

    - Is this an accurate representation of the therapies available for people with a history of trauma?
    - Do you know of any therapies for trauma that have not been included here?
    - Do you think this is a good balance of therapies included in the systematic review?
    - Are there any additional psychological interventions that should be included?
    - Do you think any of the therapies included to date require further research?

3. Which medicines should be included in the review?

    - What other types of medicine are prescribed to individuals with complex trauma?
    - What do you think about the balance of studies on each type of medication included in the systematic review?

Results

Theme 1: under- or over-representation of populations of interest

There were a number of responses that clustered around discussions of certain population groups exposed to complex trauma being either under- or over-represented in the review: 'It's important to include all populations to get the scale of it'.

In general, participants suggested that female populations were seen as under-represented within population groups that might typically be associated with males, such as veterans: '. . . it's strange; it's [the review] so male dominated because most domestic abuse happens to women'.

Respondents suggested that groups such as people in drug and alcohol services and those that foster children should be included. In addition, participants who had experienced treatment in inpatient settings suggested that studies that evaluated treatments among inpatients were under-represented and pointed to the complexity of their symptoms as indicative of the need for a broader formulation of what complex trauma is: '. . . people associate trauma with war, but PTSD is not the same as complex trauma' and '. . . it can be a fine line between stress and trauma'.

Theme 2: mind and body separation

Participants highlighted that the review was possibly focused on a narrow range of symptoms associated with mental health alone, with too little focus on understanding the impact of complex trauma on physical functioning: 'why does it just include psychological therapies? There is a mind–body separation here'.

This awareness of a mind–body separation was reflected by participants acknowledging that the therapies included in the review were prescriptive and manualised psychological interventions, with a focus on mental health symptom management rather than more humanistic and integrative therapies, such as transactional analysis and Gestalt, which look to overcome such mind–body dualism: '. . . are trauma-focused CBT and exposure therapies really integrative therapies? . . . humanistic therapies should be added as a category of their own'.

Similarly, participants noted that there is also scope to learn more about the effectiveness of therapies that address the somatic impact of complex trauma, such as alternative and complimentary therapies such as yoga and kinesiology: '. . . lots of trauma relates to the body'.

There was also a sense that future research should address the effectiveness of therapies for people who had limited access to existing evidence-based treatments owing to learning difficulties and language barriers.

Theme 3: further work on pharmacological therapies

Fewer studies about pharmacological interventions have been included in the current review and service users' own experiences were predominantly drawn from their experience of psychological interventions. However, there was an awareness that, in the current review, many of the studies that evaluated the effectiveness of medications were focused on medications used for severe and enduring mental health problems (such as personality disorder rather than PTSD) and it was not clear if there was sufficient understanding about the role of a broader range of medications in managing symptoms across the complex trauma experience.

Aims 2 and 3: setting research priorities and disseminating findings

Process

A stakeholder research prioritisation day was held on 9 July 2018 to present preliminary quantitative and qualitative findings. The goal was to identify research priorities and co-produce with stakeholders a ranked list of future research questions. Attendees were practitioners with interest and experience in complex trauma, voluntary and third-sector providers of services to people affected by complex trauma, and experts by experience.

The team from Beyond The Room (http://beyondtheroom.net/) facilitated online voting and online public engagement via social media. A Twitter account was set up (@UoY_INCiTE) and a hashtag for the project (#INCiTEstudy) was also active throughout the day, alongside the Beyond The Room social media account, to disseminate information being shared at the event and to invite non-participants on the day to engage in the voting.

Future research priorities were co-produced in a workshop format, following the presentation of results. Three break-out groups discussed their perspectives on the range of evidence presented and identified important unanswered questions. The role of the review team was to help facilitate development of research questions and offer guidance about appropriate methodologies that could be feasibly used to address the questions identified within the groups.

Research priorities were then collated online using MentiMeter (www.mentimeter.com), an online voting platform provided by the Beyond The Room team. This platform enabled online voting among participants in the room but also facilitated wider engagement with voting on research priorities from those not present but following the discussions on the INCiTE Twitter account. Each participant was awarded 100 points to allocate to the long-list of research questions.

Participants were encouraged to promote further engagement in the voting exercise by advertising the voting link with interested people in their networks. Voting was open for 1 week following the event and closed on 16 July 2018.

Results

On the day, there were 16 attendees (plus the review team) who were from:

- The Retreat, York
- Tees, Esk and Wear Valleys NHS Foundation Trust, Darlington
- Combat Stress, Surrey
- Home-Start, York
- IDAS (Independent Domestic Abuse Services), York
- University of Manchester, Manchester
- University of York, York.

The research priorities developed during the prioritisation event are listed in *Table 14*. A total of 68 people took part in the online vote. The proportional share of points awarded to each priority is also shown.

A majority of the points were awarded to just 4 of the 13 research priorities, accumulating over 10% each. A definitive trial of the effectiveness of interventions with a long-term follow-up and a peer researcher exercise to understand the lived experience of people with experience of complex trauma were the two most favoured priorities, with both having a similar percentage of vote share.

TABLE 14 Research priorities developed from research prioritisation exercise attendees and the share of the online vote

Research priority	Vote share (%)
Conduct a definitive trial of the effectiveness of interventions in complex trauma, with long-term follow-up (e.g. 24 months)	15.91
Understand the lived experience of people with experience of complex traumatic events: a peer researcher exercise	14.80
Conduct a qualitative study exploring the patient perspective on key outcomes, preferred therapies, acceptability and delivery format of interventions (e.g. group or individual)	12.48
Develop holistic and biopsychosocial assessment, prioritising a mind–body approach	10.46
Understand what the core outcomes for patients, families and health-care providers are (e.g. appropriate outcome domains and measures, including adverse outcomes)	7.55
Understand how best you engage populations with experience of complex traumatic events	6.43
Understand what the key outcomes that should be included in trials are	6.28
What are the key components of an effective multicomponent intervention? (e.g. support in engaging in work, debt management)	5.83
Test the feasibility of social prescribing for wraparound care for people with complex traumatic experiences	5.68
Understand what the core components and domains of interventions and integrated approaches are (e.g. individual vs. group plus individual therapy)	4.71
Understand how we can define good practice. Use a Delphi survey to capture perspectives on positive recovery stories and barriers to and facilitators of retaining patients in care	3.74
Understand how we best taper off psychological interventions	3.14
Understand what the optimal duration of treatment is	2.99

Chapter 7 Discussion

Summary of results across all populations with complex trauma for post-traumatic stress disorder

We included 104 studies in the effectiveness review and reported 37 comparisons using meta-analysis across 79 RCTs. There were a total of nine non-RCTs that included five comparisons for PTSD, four comparisons for depression and two comparisons for anxiety. The number of non-RCTs included in the review was much lower than anticipated and we identified a greater volume of trial evidence than was anticipated. This may have been because we adopted a strategy that favoured including studies based on trauma exposure rather than diagnostic criteria and thereby we were able to identify a much broader range of studies pertaining to complex trauma. However, the merit of including data from non-RCTs was diminished by the fact that these studies rarely reported the same intervention types or outcomes, making meta-analyses less possible. Overall, the quality of the available evidence was unclear, with the lowest risk observed in domains related to detection bias, random sequence generation and other risks of bias and the highest risk of bias observed in performance bias and attrition domains. The majority of studies were at high risk of performance bias, partially explained by the predominance of psychological interventions included in the review and the challenges of blinding their delivery. When pooled across all populations with complex trauma, psychological interventions were proven to be effective at reducing PTSD symptoms when compared with control post treatment. There was less evidence that this finding held when treatment effects were measured up to 6 months post treatment, with only trauma-focused CBT and single-component trauma-focused interventions showing positive effects over the longer term. There was no significant difference in the effectiveness of psychological interventions for PTSD symptoms when compared with active controls.

The bulk of the evidence across all populations for reducing PTSD symptoms favoured trauma-focused CBT when compared with control post treatment and at follow-up after up to 6 months. There was no evidence of the effectiveness of trauma-focused CBT versus active controls and this is a weakness of the set of trials analysed. IPT and EMDR were also superior to control post treatment but there was less evidence that mindfulness improves PTSD symptoms in the presence of complex trauma. Non-trauma-focused CBT was not effective at any time point. These findings were reflected in the meta-analysis that showed that single-component and trauma-focused interventions were more effective than control post treatment and at follow-up and outperformed multicomponent and trauma-focused interventions post treatment. Collectively, single-component non-trauma-focused interventions that included approaches beyond CBT were effective post treatment, but these approaches were the least best option for managing PTSD symptoms across all populations.

Few studies addressed the symptom cluster associated with CPTSD and, of those that did, the majority focused on emotional dysregulation. We found no evidence that either trauma- or non-trauma-focused psychological interventions were superior to control in improving emotional dysregulation or interpersonal problems post treatment. By contrast, psychological interventions post treatment were associated with large and positive effect sizes for improving negative self-concept, with multicomponent trauma-focused interventions outperforming all other approaches. There was some evidence that phase-based approaches that allow for stabilisation work to be done before exposure to trauma-focused interventions are the most promising candidate intervention for managing emotional dysregulation and interpersonal problems, although the superiority of these approaches over control was not statistically significant.

Summary of results for psychological interventions across populations for depression and anxiety

Collectively, psychological interventions were shown to be superior to control, but not to active control, both post treatment and at follow-up for managing associated symptoms of depression in all populations with complex trauma. There was strong evidence that trauma-focused CBT post treatment was a highly effective treatment for managing depression in people exposed to complex trauma, but there was less evidence that these effects are present at 6 months' follow-up. IPT and EMDR were similarly associated with large treatment effects for reducing depression when compared with control, but not active control, post treatment, but evidence in favour of these approaches was thin. Mindfulness was also superior to control post treatment; it was also effective at 6 months' follow-up, but evidence for this finding is inconclusive. While single-component non-trauma-focused interventions that included mindfulness-based approaches were effective in reducing depression symptoms post treatment, the most consistent and largest effects for depression post treatment and at 6 months' follow-up were observed in trials that tested single-component and trauma-focused interventions.

A similar set of results were returned in the meta-analyses that assessed the effectiveness of psychological interventions across all populations for reducing associated symptoms of anxiety. All analyses for this outcome were conducted post treatment. Trauma-focused CBT emerged as a leading candidate intervention for reducing anxiety symptoms in the presence of any type of complex trauma, with interventions associated with medium to large effect sizes. The largest effects were observed in trials that compared EMDR with control, albeit this finding was based on relatively few trials. In summary, trauma-focused approaches, when delivered as either a single-component or a multicomponent intervention, were superior to control for anxiety symptoms when effects were pooled across all populations.

We found no evidence that psychological interventions in general, and trauma-focused CBT in particular, were effective in improving quality of life across all populations. There was a modest amount of evidence in favour of trauma-focused CBT for managing sleep problems when results were pooled across all populations.

Summary of population subgroup analyses

Veterans

Among veterans, psychological trauma-focused CBT and EMDR emerged as the most effective individual psychological interventions for reducing PTSD symptoms post treatment. There was little evidence to show that mindfulness was an effective therapeutic strategy in this group and, overall, single-component non-trauma-focused interventions were not superior to control either post treatment or at follow-up. Multicomponent and trauma-focused interventions were the most effective approaches among veterans for managing PTSD symptoms.

Psychological interventions, in general, are effective for managing depression in veterans exposed to complex trauma. When effects were pooled across all interventions, the SMD post treatment represented a medium and positive effect in favour of reducing depression, but this effect was about half the size observed in the analysis across any type of trauma exposure. The most effective interventions for depression among veterans were trauma-focused CBT and EMDR, and these positive and large effects held when trauma-focused interventions were delivered as either a single-component or a multicomponent approach. Limited evidence from non-RCTs suggested that trauma-focused CBT and psychodynamic therapy had equivalent positive effects for depression in veterans. The least effective but still positive approaches for depression in veterans were mindfulness and single-component non-trauma-focused interventions, which yielded moderate treatment effects.

Similarly, psychological interventions were, on the whole, effective at reducing associated anxiety symptoms in veterans exposed to complex trauma post treatment. There was less evidence to draw on by comparison with studies that measured depression. However, EMDR and trauma-focused CBT were

superior to control post treatment and were associated with large and positive effects in favour of reducing anxiety.

Childhood sexual abuse

People exposed to childhood sexual abuse formed the next largest complex trauma subgroup. We showed that psychological interventions overall were associated with large and positive treatment effects for reducing PTSD in this subgroup post treatment only. As was the case with veterans, individual trauma-focused CBT was the most effective individual treatment for PTSD in people exposed to childhood sexual abuse. In addition, evidence gleaned from the non-RCTs showed that trauma-focused CBT was superior to control in reducing PTSD avoidance symptoms, suggesting that this approach was among the most effective in this group. Moreover, while single-component and trauma-focused interventions were collectively superior to control post treatment, it is clear that larger and positive effects were observed in trials that tested multicomponent and trauma-focused interventions in the childhood sexual abuse subgroup.

A similar pattern emerged for associated depression symptoms in this subgroup. When pooled together, psychological interventions in general were associated with large and positive effects for reducing depression post treatment; there was only modest evidence that these effects were positive at follow-up. Individual trauma-focused CBT and, collectively, single-component and trauma-focused interventions were superior to control for reducing depression post treatment. Consistent with the findings for veterans, the single-component and non-trauma-focused interventions were also superior to control post treatment for depression. Furthermore, the largest treatment effects for depression symptoms observed in the childhood sexual abuse subgroup were associated with multicomponent and trauma-focused interventions. With veteran and childhood sexual abuse being prototypical exposures for CPTSD, it might be that, among these populations, PTSD and associated depression symptoms are more effectively managed with multicomponent approaches that also include non-trauma-focused work. There was, however, no strong evidence in any direction for which types of psychological interventions might be most effective for reducing anxiety symptoms in this subgroup.

War-affected populations

War-affected populations comprised the next largest subgroup. All analyses in this subgroup were conducted post treatment. Although psychological interventions of any type were superior to control for PTSD symptoms, the sizes of the SMDs were small in comparison with all other subgroups except for veterans. Individual trauma-focused CBT interventions were the most efficacious for reducing PTSD symptoms in war-affected populations. In addition, evidence gleaned from the non-RCTs showed that trauma-focused CBT was superior to control in reducing PTSD avoidance symptoms, suggesting that this approach was among the most effective in this group. Single-component and trauma-focused interventions were marginally more effective than multicomponent and trauma-focused interventions, but both approaches yielded medium and positive treatment effects in favour of reducing PTSD symptoms. Evidence from non-RCTs suggested that multicomponent interventions were in fact inferior to control for PTSD symptoms, but this finding was not endorsed by the meta-analyses of trials.

Comparable medium and positive treatment effects were observed for individual trauma-focused CBT in this subgroup for associated depression symptoms. Single-component, but not multicomponent, trauma-focused interventions were superior to control post treatment for depression symptoms. There was less evidence to judge the effectiveness of psychological interventions for anxiety symptoms in war-affected populations. Individual trauma-focused CBT was the only class of intervention associated with significant and positive effects in favour of reducing anxiety.

Refugees

Few meta-analyses were possible among studies that included refugees. Any psychological intervention was vastly superior to control post treatment and also at follow-up for PTSD symptoms in refugees. In keeping with a recent review of treatments in refugees and asylum seekers,[173] we found that very

large and positive treatment effects for PTSD were observed in studies that compared trauma-focused CBT and EMDR with control post treatment, but these effects were not sustained at follow-up. A similar picture was shown when psychological interventions were compared with control for associated depression symptoms: trauma-focused CBT and EMDR emerged as being better than control post treatment, but these findings were based on scarce evidence and it is not possible to judge if these effects are maintained at follow-up. Based on limited evidence from non-RCTs, it is possible that non-trauma-focused interventions could be effective for PTSD in refugees, but this finding was not observed in the meta-analyses of the trials. There was insufficient evidence to determine if psychological interventions were effective for anxiety symptoms in refugees.

Domestic violence

There was very limited evidence to draw on to make firm conclusions about the effectiveness of psychological interventions in the subgroup of trials that included people exposed to domestic violence. Individual trauma-focused CBT was associated with very large and positive effects in favour of reducing PTSD and associated depression symptoms in this subgroup post treatment only. However, these findings were associated with high levels of uncertainty and based on few studies of variable quality.

Summary of results of pharmacological interventions

The pooled results for pharmacological interventions in veterans showed that only antipsychotic medication was effective in reducing PTSD symptoms post treatment. The SMD for antipsychotics was equivalent to that observed in a comparable analysis in veterans that compared psychological interventions as a whole with control, but less than half the size of that observed in the analysis that compared multicomponent and trauma-focused interventions with control. There was also a small amount of evidence to signal that blood pressure medicine (prazosin) can reduce PTSD symptoms in veterans. Curiously, in veterans, antipsychotic medication was not effective in reducing symptoms of psychosis.

These findings might suggest that, in veterans at least, pharmacological interventions alone are not as effective as using multicomponent and trauma-focused interventions for PTSD symptoms. Moreover, additional strategies might be warranted to more effectively manage symptoms of psychosis in veterans in the presence of complex trauma.

Heterogeneity

The I^2 statistic and chi-squared tests for the pooled results across all populations demonstrated substantial and significant heterogeneity at the 0.10 level for all classes of psychological interventions for PTSD symptoms. A similar picture was seen in the forest plots for the pooled results across all populations for associated symptoms of depression and anxiety. Although this might be mainly attributed to clinical diversity among the populations, it is also known that there is a link between meta-analysis size and heterogeneity levels and the high levels detected in our review might also thus be a function of the size of the review.

We explored these high levels of heterogeneity by undertaking subgroup analyses of the effectiveness of interventions by population. For the primary outcome, the pooled results for psychological interventions as a whole were associated with much less heterogeneity in the veteran and war-affected subgroups, with I^2 results (between 42 and 50%) suggesting lower levels of between-study variability, but chi-squared results were still significant suggesting inconsistency between study results.

However, the pooled results for PTSD symptoms by intervention type among the veteran and war-affected subgroups returned considerably lower levels of heterogeneity. It might be that subgrouping by population and then by intervention appears to explain much of the heterogeneity in veteran and war-effected groups but not in others (e.g. childhood sexual abuse groups). This trend was not duplicated in the childhood

sexual abuse subgroup, in which the pooled results across all psychological interventions and for specific classes of psychological interventions were still associated with high and significant levels of heterogeneity, making it more difficult to be confident about the true size and direction of effects in this subgroup. There was negligible and non-significant levels of heterogeneity for the pooled results for PTSD for all and any class of psychological intervention in the refugee and domestic violence subgroups. We might suggest that the lower and nil levels of heterogeneity returned in the subgroup analyses can partly be explained by less clinical variability and fewer trials within each subgroup. However, it is worth noting that, among the veteran, war-affected and childhood sexual abuse subgroups, heterogeneity was still more apparent in the pooled results that compared composite intervention categories with control. This was especially true for the pooled results that compared multicomponent and trauma-focused interventions with control and it might be that, in these analyses, heterogeneity was partly driven by variability among intervention components as well as by any residual clinical diversity.

In addition, we can conclude on the basis of the meta-regression results that population type partly moderated the effectiveness of psychological interventions for PTSD symptoms, with interventions doing less well in veterans and war-affected populations and significantly better in those exposed to domestic violence. In this sense, clinical diversity accounted for a modest amount of the heterogeneity observed in the pooled results across all populations, but there was still significant levels of residual heterogeneity that remained unexplained. Similarly, while the meta-regression was able to model the moderating effects of intervention content on the effectiveness for PTSD symptoms, results were fairly inconclusive, with the multivariable model that included only imaginal exposure and psychoeducation accounting for a fraction of heterogeneity and between-study inconsistencies.

Component network meta-analysis

We further explored the treatment effects of different components of the composite complex interventions included by using component network meta-analysis. The results of the component network meta-analysis showed that the components of standard trauma-focused CBT – cognitive restructuring, imaginal exposure and relaxation – appear to be effective for PTSD symptoms. This is consistent with the results of the population subgroup analyses. There were strong interaction effects between relaxation, cognitive restructuring and imaginal exposure in part because most of these components were used together.

Mindfulness was treated as a component and, in that sense, it was an approach identified in studies that primarily tested a mindfulness intervention as well as in studies in which mindfulness was a component of a broader CBT intervention. However, there were limitations to categorising mindfulness interventions owing to the variability of reporting, especially when mindfulness was but one of several components as part of a broader CBT package. There is scope here for future work to tease apart differences in the effectiveness of mindfulness when delivered as a stand-alone therapy and mindfulness as part of a composite psychological intervention.

The analyses of phase-based approaches presented even greater challenges. The phase-based approaches included in this review comprised combinations of multicomponent trauma-focused CBT, DBT, EMDR and IPT. Pragmatically, these approaches were categorised for the network meta-analysis in terms of the components included, for example imaginal exposure or mindfulness. However, we also coded these interventions as phased based if the components were phased in such a way that allowed for stabilisation before working on the trauma. It is unclear if the phasing itself constitutes an intervention or if it is a higher order theoretical construct, but phasing of these components, as well as the intervention content, appears to be one of the factors having an impact on effectiveness. There is a need for future work on phase-based approaches to reach a consensus on how phasing is conceptualised in the presence of composite interventions.

Attrition

Across all populations, trauma-focused CBT was associated with reduced odds of attrition compared with control. There was less evidence to draw firm conclusions about the attrition rate for other interventions, although there was some suggestion that across all populations EMDR incurred a greater attrition rate than control. When attrition was analysed across population subgroups, we found that veterans who received any type of psychological intervention were half as likely to drop out than those on a waitlist or in the active control. In studies that tested psychological interventions in people exposed to childhood sexual abuse, the attrition rate for any psychological intervention was one-quarter of that observed in the control groups. There was a mixed picture among studies that included refugees, with some evidence that there were greater rates of attrition among those given a psychological intervention than in the control, suggesting that it is a challenge for displaced populations to adhere to psychological treatment protocols. Why this might be is not clear and future work could focus on the acceptability and feasibility of psychological interventions in this group. There was insufficient evidence to determine the odds of attrition in war-affected and domestic abuse populations.

Acceptability and feasibility of interventions: qualitative findings

The narrative synthesis of the subset of qualitative studies identified three core themes related to patient ratings about the acceptability and feasibility of interventions: therapeutic context, skills strengthening, and self-efficacy and reward. These themes cut across patient perceptions about both trauma- and non-trauma-focused therapies. Specifically, where and how interventions were delivered were seen to be important factors that determined acceptability and feasibility. Group delivery could be advantageous in some contexts, for example for the delivery of non-trauma-focused interventions such as mindfulness, but there were risks of vicarious re-traumatisation for those attending group-based therapies with a focus on trauma reprocessing. Perceptions about the acceptability of different therapeutic approaches were split between instrumental perceptions about the capacity for interventions to confer life skills and perceptions about how likely interventions were to aid symptomatic recovery. For those primarily engaged with non-trauma-focused interventions, there was a sense of these approaches equipping them with practical skills that made using other health- and social-care services more feasible. By contrast, among those who had experience of trauma-focused interventions, their willingness to persist with treatment was linked with their belief that they were going to feel better and the emergence of vital signs that were indeed feeling better.

Comparison with other reviews and guidance

We have shown that existing psychological treatments for PTSD are effective for people with a history of complex traumatic events. The strongest evidence was in favour of trauma-focused therapies such as trauma-focused CBT and EMDR delivered either as stand-alone therapies or as part of single-component and trauma-focused interventions. This finding mirrors that of a Cochrane review for psychological therapies for the treatment of chronic PTSD and is consistent with the NICE guideline that recommends the use of trauma-focused psychological treatment for PTSD for $\geq$ 3 months.[20,174] While there was less good evidence in favour of non-trauma-focused interventions, we did show that IPT and mindfulness were effective, to varying degrees, across all populations for PTSD symptoms and to a lesser extent for depression too. This breaks with the NICE guideline, which suggests that non-trauma-focused interventions should not be routinely offered to people with chronic PTSD for $>$ 3 months. We were not able to identify sufficient evidence about adverse events associated with psychological treatments to make judgements about the safety of these approaches in people with complex trauma. However, we showed that dropout was lower in people offered psychological interventions and this might suggest that existing trauma-focused interventions are at least acceptable and feasible, as well as effective, in the presence of complex trauma.

Consistent with the International Society for Traumatic Stress Studies (ISTSS) expert consensus guidelines for CPTSD, we also showed that phase-based interventions that drew on a variety of trauma-focused (CBT, EMDR) and non-trauma-focused (DBT, IPT) approaches and included stabilisation and skills strengthening were effective across all populations for PTSD symptoms.[175] However, unlike the ISTSS expert guidelines, our review includes only evidence from RCTs and we were able to also show that phasing of interventions moderated effectiveness, making our findings more robust and trustworthy.

Current NICE guidance suggests that, when several problems need to be addressed, especially in the presence of multiple traumatic events or when presented with comorbid problems, trauma-focused interventions should perhaps be extended and wrapped around a broader care plan. However, we showed that unmodified and existing trauma-focused treatments delivered individually or as part of multicomponent packages were also shown to be effective for managing associated symptoms of depression and anxiety in people exposed to complex trauma.

Although the underlying findings from the pooled results across all complex trauma populations show that trauma-focused interventions are effective for PTSD and associated mental disorder comorbidities, the effects were less pronounced in veterans and war-affected populations. A recent rapid review of service provision for UK armed forces veterans with PTSD included a meta-review of seven systematic reviews and concluded that there was limited and low-quality evidence in favour of EMDR, cognitive processing therapy, trauma-focused CBT and exposure-based therapies for PTSD symptoms and depression.[176] In addition, this rapid review also found evidence in favour of a broad range of pharmacotherapies for PTSD and depression in veterans. Previous reviews have shown that SSRIs are superior to placebo for PTSD in a wide range of populations with PTSD, including those exposed to combat trauma.[177] By contrast, our findings showed that only antipsychotics were effective for reducing PTSD symptoms in veterans, suggesting that pharmacotherapy might not be a candidate for first-line therapy in the presence of complex trauma.

Although adjacent to and in some senses part of the same broader class of people affected by humanitarian crises, we undertook separate subgroup analyses of war-affected populations and of refugees. Among the war-affected populations, we showed that trauma-focused CBT was effective for reducing PTSD but there was little support for other approaches. Similarly, Purgato *et al.*[178] have shown in a Cochrane review that psychological therapies, many with a trauma focus, are effective at reducing PTSD among people affected by humanitarian crises. The pooled treatment effect for PTSD identified by Purgato *et al.*[178] was twice that identified in our review and this might be accounted for by their exclusive focus on low- to middle-income countries and the inclusion of studies of children and adolescents. Our findings and those of Purgato *et al.*[178] were very similar, however, when assessing the impact of psychological interventions on depression and anxiety in adults alone.

Dorrepaal *et al.*[179] have previously shown that trauma-focused therapies, especially those that include exposure, can benefit people with a history of childhood sexual abuse. Of note in our review was that single-component and non-trauma-focused interventions were the most effective for associated depression symptoms among childhood sexual abuse populations, suggesting that different combinations of therapies that include non-trauma- as well as trauma-focused approaches might be warranted in this population.

Among refugees and asylum seekers resettled in high-income countries, manualised and brief narrative exposure therapies based on CBT have been shown to be effective for PTSD symptoms.[180] There is a strong argument that treatment provision for conflict-affected and displaced populations should be provided as part of multiagency care and extend beyond PTSD symptoms.[181] In the absence of such integrated and multiagency care, our review at least confirms that trauma-focused interventions are superior to control for PTSD and can also be effective for depression too.

A review based on 21 studies (11 of which measured PTSD) showed that brief psychological interventions that are tailored to meet the additional needs of people exposed to intimate partner domestic violence are effective for PTSD, depression, increased self-esteem and functioning.[182] The most effective classes of interventions were CBT and IPT. Our findings partially concur, but are based on a very narrow and limited data set drawn from few studies. In the light of the thin evidence base, there is a consensus that further well-designed and controlled studies of the effectiveness of interventions for survivors of intimate partner violence are needed, especially with a focus on how setting moderates effectiveness.

There was a less clear picture about the effectiveness of treatments for the CPTSD symptom cluster. Conventional stand-alone trauma-focused interventions were not effective in treating emotional dysregulation or interpersonal problems, but did have a positive impact on negative self-concept. In keeping with the ISTSS expert consensus guidelines for CPTSD, we identified phase-based approaches as a leading candidate intervention for managing emotional dysregulation, although the evidence was based on only three trials and the result was of borderline significance. More robust evidence was gleaned from the component network meta-analysis, which identified phasing as a key moderating component of the effectiveness of both trauma- and non-trauma-focused interventions.

Taken together, the fact that trauma-focused interventions do less well in certain populations with complex trauma, and only have a modest impact on disturbances of self-organisation, suggests that our review findings endorse the current diagnostic distinction between CPTSD and PTSD. This is an important argument that has implications for research and practice. We explicitly eschewed a diagnostic approach to the inclusion of studies in this review, but, nonetheless, we would suggest that our findings converge with comparable reviews that have opted to use the new ICD-11 diagnostic CPTSD category as an organising feature of their inclusion criteria.[183] Accordingly, because CPTSD exerts symptoms over and above PTSD extending to disturbances of self-organisation, there is merit in exploring ways to harness existing trauma- and non-trauma-focused interventions more effectively, with phase-based interventions among the leading candidate approaches.

Strengths and limitations

Our review has a number of strengths that enhance the robustness of the findings. By taking a non-diagnostic approach, we were able to develop and operationalise broad inclusion criteria for the population of interest based on exposure to traumatic events that could be defined as complex using the ICD-11 criteria for CPTSD, but which need not have been diagnosed as CPTSD. In doing so, our search was not tied to a narrowly defined group of studies that exclusively evaluated interventions in populations with the as yet untested diagnostic label of CPTSD, but rather captured a broader set of studies salient to more complex trauma rather than a single event and not of an interpersonal nature. In addition, our approach conferred a level of scientific independence from the clinical community actively involved in research in CPTSD and, as such, we feel confident that the process of screening and inclusion was as free from bias as possible. However, to ensure that our review linked with but did not duplicate other ongoing evidence syntheses in the field, we convened a study advisory group that included content and clinical experts in chronic PTSD and CPTSD. The advisory group offered indispensable advice about how to ensure that our review retained an independent identity outside existing evidence syntheses on CPTSD, provided scientific scrutiny about the process of the review, and supported and enabled dissemination activities within the broader trauma studies community.

Our broad approach also extended to including both randomised and non-randomised evaluations of psychological interventions, evaluations of pharmacological interventions and qualitative evaluations of acceptability of interventions, making this review the largest and most comprehensive assessment of treatment effectiveness and acceptability of interventions in complex trauma. This approach was facilitated by conducting an extensive search across key electronic databases, as well as searching

specialist fee-for-service libraries and hand searching existing systematic reviews. Although we did not double screen all titles and abstracts, we did run a pilot screening exercise whereby members of the research team double screened a sample of abstracts and titles to familiarise themselves with the PICO. At the title and abstract screening phase, all uncertain decisions were resolved by a consensus meeting, thus minimising the risk of excluding relevant studies.

Additional strengths of the review include the application of robust and innovative approaches to understanding treatment effectiveness and moderators of effectiveness. We not only completed a broad range of meta-analyses, including subgroup analyses by population, but also explored moderators using multivariable meta-regression. By searching extensively and adopting a broad approach to inclusion, we were able to assemble a much larger data set than in previous reviews, enhancing our ability to quantify and explore heterogeneity with a greater level of statistical power and reducing the chance of spurious findings.[184] Many of the meta-analyses exhibited high levels of estimated heterogeneity, but this is a positive finding, as it appears that heterogeneity levels are being consistently underestimated in meta-analyses.[185] Because there is a link between meta-analysis size and heterogeneity levels, we anticipated that we might detect high levels given the size of our review, but the large between-study variability suggests that there might be other study- or patient-level variables that could explain some of it. Individual patient data meta-analysis is likely to confer considerable advantages to accounting for such residual heterogeneity associated with patient-level characteristics.

We were not able to fully undertake all planned PPI activities as specified in the protocol. Specifically, we were unable to recruit service users with experience of complex trauma to join the study advisory group. Our initial plan was to use The Retreat hospital in York to identify eligible candidates for the advisory group, but the length of time that elapsed between applying for and securing research governance permissions meant that opportunities to do this were prohibitively curtailed. However, during this down time, we worked with the Involvement Lead and Iram Shah from The Retreat to offer experts by experience from a voluntary organisation run by service users for people affected by mental health problems to contribute to a series of telephone and face-to-face focus groups. These groups, in lieu of lay membership of the advisory group, contributed critical thinking about the focus of our review and generated data that informed the scope of the research prioritisation exercise. In addition, via our network with the Tees, Esk and Wear Valleys NHS Foundation Trust, we invited service users by experience (as well as key stakeholders from the scientific and clinical communities with an interest in trauma and stress research) to attend and contribute to the research prioritisation day. We also engaged a wider group of stakeholders and service users in the research prioritisation exercise via our social media presence. In these ways, we were still able to build PPI into our review in ways that aligned with established best practice for user involvement in systematic reviews.[186]

We originally committed to using the ROBINS-I[40] tool for assessing the risk of bias in non-RCTs, but ultimately we opted for a more parsimonious approach afforded by a quality appraisal checklist widely used by NICE in public health guidelines. Although the ROBINS-I tool has emerged as the most likely gold standard method for assessing the risk of bias in non-randomised studies of interventions, it was decided that the tool operated at too high a level of resolution for the purposes of our review and the resource needed to use this tool appropriately would have outstripped capacity within the team at a time when the emphasis was on data extraction and assessing the risk of bias in over 100 RCTs. Future studies that intend on including both non-RCTs and RCTs should ensure that there is sufficient capacity within the review team to use the ROBINS-I tool.

Despite using an extensive search strategy and applying broad inclusion criteria, there is an under-representation of studies in our review with a focus on complex trauma populations drawn from prison settings and survivors of torture and forced migrant labour, otherwise known as modern slavery. Future work should look to identify ways to ensure these populations are not overlooked. In addition, our search did not capture a critical mass of studies that included outcomes related to comorbid psychiatric states such as borderline personality disorder. This might have been off set had we adopted

a more clinical and diagnostic approach to our inclusion criteria, but we have previously explained that our review set out to explicitly avoid running searches around diagnostic labels. Finally, while we did include populations with comorbidities, including psychiatric disorders and common mental health problems, we excluded those with dual diagnosis of complex trauma and substance and alcohol misuse on the grounds that these populations are likely to require care that is different from and more specialist than that typically provided in the context of PTSD. However, recent work among ex-serving regular personnel deployed to combat roles in Iraq or Afghanistan has highlighted that populations with dual diagnoses (e.g. mental health problems and alcohol misuse) are an important feature following exposure to complex trauma.[187]

A further limitation relates to the use of standard frequentist approaches to random-effects meta-analyses. When there are few studies included in the meta-analyses, there is the potential for bias in estimating the heterogeneity parameter.

Conclusions and implications for research

The funder called for a review to identify the most promising front runners that the Health Technology Assessment programme could then consider for future primary research in complex trauma as part of a separate call.

We have identified that trauma-focused CBT and other trauma-focused interventions, including EMDR, delivered as single-component or multicomponent approaches are superior to control for PTSD symptoms and associated mental comorbidities. However, the size of these positive treatment effects was not equivalent across populations exposed to complex trauma, with treatments being least effective among veterans. Phase-based interventions, along with non-trauma-focused intervention components including mindfulness and relaxation, are potentially among the most effective approaches for PTSD symptoms in people with a history of complex trauma, such as childhood sexual abuse. In addition, there was inconclusive evidence that existing trauma-focused interventions are effective in treating the symptom cluster associated with disturbances of self-organisation typically seen in CPTSD. There is scope to identify if phase-based approaches are more effective than non-phase-based approaches for PTSD and the broader symptom profile associated with complex trauma. There was little evidence of effectiveness of pharmacological interventions for PTSD or for associated mental comorbidities, and no trial that tested the effectiveness of pharmacological interventions for outcomes related to disturbances of self-organisation.

Going forward, we can synthesise the findings from our meta-analyses and from the stakeholder and service user research prioritisation event and draw up a long-list of research questions for consideration in future funding calls. These research questions come under five main topic domains: (1) the effectiveness of psychological and/or pharmacological interventions, (2) the process and implementation of care, (3) understanding the lived experience of complex trauma, (4) the safety and adverse event profile of interventions and (5) methodological considerations about trials in complex trauma.

1. studies about the effectiveness of interventions

    - definitive and fully powered evaluations of the effectiveness of interventions in complex trauma with long-term follow-up (i.e. at least 12 months), especially in veterans, childhood sexual abuse populations and populations affected by humanitarian crises

        - phase-based versus non-phase-based interventions
        - trauma-focused versus non-trauma-focused interventions (including IPT, DBT, mindfulness and relaxation)
        - integrated and multiagency care packages versus control
        - pharmacological interventions versus placebo.

2. studies about the process and implementation of care
    - qualitative and quantitative process evaluations that draw on best practice for understanding the relationship between intervention and programme theory and anticipated outputs and trial results (Medical Research Council guidance)
        - measuring fidelity and adherence to interventions
        - understanding if contexts (e.g. setting, timing of delivery) moderate outcomes
        - assessing what was delivered (i.e. intervention content) and how it was delivered (e.g. individual vs. group) with a view to drawing conclusions about drivers of effectiveness
    - qualitative evaluations of the acceptability and feasibility of interventions among people exposed to complex interventions to inform barriers to and facilitators of treatment uptake, especially in refugees and asylum seekers.
3. studies about understanding the lived experience of people with a history of complex trauma
    - qualitative evaluations that draw on a phenomenological perspective to elicit in-depth narratives of the day-to-day lived experience of people with a history of complex trauma
    - ethnographic research to illustrate commonalities and differences in the lived experience of complex trauma across population subgroups.
4. studies about the safety and adverse event profile of interventions for people with a history of complex trauma
    - evaluations of adverse events associated with trauma- and non-trauma-focused psychological interventions (e.g. rates of re-traumatisation)
    - evaluations of adverse events associated with pharmacological treatments in all complex trauma populations.
5. studies about methodological considerations in trials among people with a history of complex traumatic events
    - developing a core outcome set for trials in complex trauma that include outcomes related to disturbances of self-organisation and mental comorbidities
    - testing the validity of the new ICD-11 diagnostic category for CPTSD to identify and recruit eligible participants to experimental studies.

Acknowledgements

Contributions of authors

Hollie Melton (https://orcid.org/0000-0003-3837-510X) (Research Fellow, evidence synthesis) screened titles, abstracts and full-text papers, led the data extraction and risk-of-bias assessment, undertook attrition meta-analyses, led the writing up of the risk-of-bias assessment for randomised controlled intervention studies and non-randomised controlled intervention studies, led the synthesis of non-randomised intervention studies, led the research prioritisation exercise and ran the INCiTE social media account.

Nick Meader (https://orcid.org/0000-0001-9332-6605) (Research Fellow, evidence synthesis and statistics) contributed to the research prioritisation exercise, was principally responsible for the methodological aspects of the effectiveness review and led the meta-analyses, meta-regression and component network meta-analysis.

Holly Dale (https://orcid.org/0000-0002-6553-7939) (Research Training Fellow, evidence synthesis) screened titles, abstracts and full-text papers, contributed to the research prioritisation exercise, contributed to data extraction and contributed to writing up the risk-of-bias assessment for randomised controlled intervention studies.

Kath Wright (https://orcid.org/0000-0002-9020-1572) (Information Service Manager, Information Specialist) was principally responsible for compiling and running database searches and building and maintaining the EndNote libraries.

Julie Jones-Diette (https://orcid.org/0000-0003-1769-8612) (Research Fellow, evidence synthesis and PROSPERO manager) contributed to the research prioritisation exercise and led the data extraction and appraisal of qualitative data.

Melanie Temple (https://orcid.org/0000-0002-4496-3437) (Consultant Psychiatrist, complex trauma) contributed to the research prioritisation exercise, data extraction and meta-analyses of phase-based interventions.

Iram Shah (https://orcid.org/0000-0002-7868-601X) (Consultant Trauma Psychotherapist, trauma) contributed to the research prioritisation exercise, led the service user engagement, ran the focus groups to support delivery of the PPI strategy and led the writing up of the focus group results.

Karina Lovell (https://orcid.org/0000-0001-8821-895X) (Professor of Mental Health, psychological therapies and PPI) contributed to the research prioritisation exercise and supported the development of the PPI engagement strategy.

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Rachel Churchill (https://orcid.org/0000-0002-1751-0512) (Professor of Evidence Synthesis, knowledge mobilisation) contributed to the research prioritisation exercise and was a full member of the study advisory group.

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Simon Gilbody (https://orcid.org/0000-0002-8236-6983) (Professor of Health Services Research, psychological medicine) contributed to writing the protocol and the research prioritisation exercise.

Peter Coventry (https://orcid.org/0000-0003-0625-3829) (Senior Lecturer, health services research) had overall responsibility for the project, chaired the review group meetings, was a full member of the advisory group, supervised the review team, contributed to the research prioritisation exercise and took primary responsibility for the drafting of the report.

All authors contributed to the report and approved the final version.

Contributions of others

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Data-sharing statement

All data requests should be submitted to the corresponding author for consideration. Access to anonymised data may be granted following review.

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Appendix 1 Literature search strategies for the effectiveness review

Literature searches of the following databases were conducted: CINAHL, CENTRAL, EMBASE, International Pharmaceutical Abstracts, MEDLINE, PILOTS, PsycINFO and Science Citation Index.

The original searches carried out in April and May 2017 identified 17,177 records, which were downloaded, imported into EndNote bibliographic software and de-duplicated to leave 10,212 unique records.

CINAHL via EBSCO*host*

Search date: 20 April 2017.

Records retrieved: 1919.

Date range searched: 1937 onwards.

TABLE 15 Search strategy for CINAHL via EBSCO*host*

Search terms	Search options
S1	(MH "Violence") OR (MH "Exposure to Violence")
S2	TX violence
S3	(MH "Domestic Violence") OR (MH "Intimate Partner Violence") OR (MH "Dating Violence")
S4	TX (batter$ N2 (wife* or wive* or woman or women or men or husband* or partner*)) OR TX (physical* N2 (abus* or assault* or violen* or aggress*)) OR TX emotional N2 abus*
S5	(MH "Rape")
S6	TX rape OR TX (sexual* N2 (assault* or abus* or violen* or aggress*))
S7	(MH "Child Abuse, Sexual") OR (MH "Child Abuse Survivors") OR (MH "Sexual Abuse") OR (MH "Child Abuse")
S8	TX "child* sexual abuse"
S9	TX child* N2 exploit* OR TX child* N2 neglect* OR TX child* N2 trauma* OR TX ("non accidental injur*" or "non-accidental injur*" or "nonaccidental injur*")
S10	TX "human rights abuse*"
S11	(MH "Human Trafficking")
S12	TX ((human or person* or people) N2 (traffick* or exploit*)) OR TX ((forced or exploit*) N2 labour*)
S13	organ N2 traffick*
S14	TX slavery or slaves or "slave trade"
S15	(MH "Torture") OR (MH "Torture Survivors")
S16	(MH "Prostitution")
S17	TX (prostitut* or brothel*) OR TX (sex* N2 (exploit* or traffick*))
S18	(MH "Terrorism")
S19	TX (terrorism or terrorist*) OR TX "political terror*"

continued

TABLE 15 Search strategy for CINAHL via EBSCO*host* (*continued*)

Search terms	Search options
S20	(MH "War") OR (MH "War Crimes")
S21	(MH "Holocaust")
S22	TX ethnic* N2 cleans* OR TX genocide OR TX (civil N2 (unrest or conflict* or disturb* or war or wars or warfare)) OR TX (persecution or victimisation or victimization) OR TX (captivity or imprison*) OR TX concentration camp*
S23	(MH "Disasters") OR (MH "Natural Disasters") OR (MH "Mass Casualty Incidents")
S24	catastrophe* or ("catastrophic event*") or ("catastrophic experience*")
S25	(MH "Survivors+")
S26	(MH "Refugees")
S27	TX refugee* OR TX "asylum seek*" OR TX migrant* OR TX ((forcibly or internally) N2 displaced) OR TX (displace* N2 (people or person* or civilian*))
S28	(MH "Crime Victims") OR (MH "Victims")
S29	(MH "Prisoners")
S30	(MH "Veterans")
S31	TX ((expose* or exposure) N2 (abuse or assault* or disaster* or terror* or torture* or trauma* or rape or violen* or war or warfare)) OR TX (survivor* N2 (abuse or assault* or disaster* or terror* or torture* or trauma* or rape or violen* or war or warfare)) OR TX (victim* N2 (abuse or assault* or crime or disaster* or rape or terror* or torture* or trauma* or violen* or war or warfare)) OR TX (witness* N2 (abuse or assault* or disaster* or rape or terror* or torture* or trauma* or violen* or war or warfare))
S32	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR 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 S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 (143,422)
S33	(MH "Stress Disorders, Post-Traumatic+")
S34	TX (PTSD or CPTSD) OR TX posttrauma* OR TX post-trauma* OR TX "post trauma*" OR TX "post traumatic stress" OR TX "combat stress*" OR TX "combat disorder*" OR TX DESNOS OR TX "complex trauma*" OR TX complex N3 trauma* OR TX "traumatic stress" OR TX "traumatic memor*"
S35	TX traumatisation OR TX traumatization OR TX (trauma* N3 (expos* or event* or experienc*))
S36	S33 OR S34 OR S35 (28,298)
S37	(MH "Cognitive Therapy+") OR TX "cognitive behaviour* therap*" OR TX "cognitive behavior* therap*" OR TX "cognitive restructuring" OR TX "cognitive rescripting" OR TX "cognitive processing therap*" OR TX (CPT or CBT or TFCBT) OR TX "cognitive therap*" OR TX "cognitive behavioural treat*" OR TX "cognitive behavioral treat*" OR TX "cognitive trauma therap*" OR TX "trauma focus* CBT"
S38	(MH "Behavior Therapy") OR TX (behavior* N2 (therap* or treat* or modif*)) OR TX (behavior* N2 (therap* or treat* or modif*)) OR TX ((dialectical behavio*) N1 (therap* or treat*)) OR TX (biofeedback or neurofeedback or ("sensory feedback")) OR TX psychological N2 desensiti#ation OR TX ("eye movement desensiti#ation reprocessing") OR TX EMDR OR TX (exposure N1 (therap* or treat*)) OR TX "live exposure" OR TX "imaginal exposure" OR TX "prolonged exposure therapy"
S39	TX "imaginal flooding" OR TX "exposure inhibition therap*" OR TX "implosive therap*" OR TX "image habituation" OR TX "inoculation training"
S40	((MH "Acceptance and Commitment Therapy")) OR TX acceptance N2 therap* OR TX commitment N2 therap*
S41	(MH "Biofeedback")
S42	(MH "Feedback")
S43	(MH "Eye Movement Desensitization and Reprogramming")
S44	(MH "Virtual Reality Exposure Therapy")
S45	(MH "Hypnosis")

TABLE 15 Search strategy for CINAHL via EBSCO*host* (*continued*)

Search terms	Search options
S46	TX hypnosis or hypnotherap*
S47	(MH "Mindfulness")
S48	TX mindfulness
S49	TX "supportive therap*" OR TX (non-directive N1 (counselling or counseling)) OR TX ((non directive) N1 (counselling or counseling))
S50	((MH "Psychotherapy") OR (MH "Psychotherapy, Brief") OR (MH "Psychotherapy, Group") OR (MH "Psychotherapy, Psychodynamic")) OR TX psychodynamic N1 therap* OR TX "inter personal psychotherap*" OR TX "interpersonal psychotherap*" OR TX IPT OR TX "compassion therap*" OR TX "accelerated resolution*" OR TX "sensorimotor therap*" OR TX "schema therap*" OR TX stress N2 manag*
S51	(MH "Counseling") OR TX "non-directive counsel*" OR TX "non directive counsel*" OR TX "nondirective counsel*" OR "compassion therap*"
S52	S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45 OR S46 OR S47 OR S48 OR S49 OR S50 OR S51 (99,780)
S53	((MH "Hypnotics and Sedatives")) OR TX (alprazolam or amobarbital or azaperone or barbital or bromisovalum or "chloral hydrate" or chloralose or chlordiazepoxide or chlormethiazole or dexmedetomidine or diazepam or diphenhydramine or eszopiclone or ethchlorvynol or etomidate or etorphine or flurazepam or glutethimide or hexobarbital or lorazepam or medazepam or medetomidine or mephobarbital or meprobamate or methapyrilene or methaqualone or midazolam or nitrazepam or oxazepam or paraldehyde or pentobarbital or phenobarbital or propofol or secobarbital or temazepam or thiamylal or thiopental or xylazine) OR TX "z drugs"
S54	(MH "Antianxiety Agents+") OR (bromazepam or buspirone or chlormezanone or "clorazepate dipotassium" or estazolam or flunitrazepam or fluvoxamine or nordazepam or ondansetron or oxprenolol or prazepam or pregabalin or ritanserin or tranylcypromine or trazodone or triazolam or zolazepam or benzodiazepines or benzodiazepinones or "sedative antihistamine*" or promethazine)
S55	(MH "Antidepressive Agents+") OR TX (benactyzine or clorgyline or deanol or "desvenlafaxine succinate" or "duloxetine hydrochloride" or iproniazid or isocarboxazid or "lithium carbonate" or "lithium compounds" or moclobemide or nialamide or phenelzine or pizotyline or rolipram or sertraline or tranylcypromine or "vilazodone hydrochloride" or Imipramine or mirtazapine)
S56	(MH "Antipsychotic Agents+") OR TX (acepromazine or aripiprazole or azaperone or benperidol or butaclamol or chlorpromazine or chlorprothixene or clopenthixol or clozapine or droperidol or etazolate or flupenthixol or fluphenazine or fluspirilene or haloperidol or loxapine or "lurasidone hydrochloride" or mesoridazine or methiothepin or methotrimeprazine or molindone or ondansetron or "paliperidone palmitate" or penfluridol or perazine or perphenazine or pimozide or prochlorperazine) OR TX (promazine or "quetiapine fumarate" or raclopride or remoxipride or reserpine or risperidone or ritanserin or spiperone or sulpiride or thioridazine or thiothixene or "tiapride hydrochloride" or trifluoperazine or trifluperidol or triflupromazine or olanzapine)
S57	(MH "Anticonvulsants+") OR TX (anticonvulsants or acetazolamide or bromides or carbamazepine or clonazepam or "clorazepate dipotassium" or diazepam or dimethadione or estazolam or ethosuximide or flunarizine or lorazepam or "magnesium sulfate" or medazepam or mephenytoin or mephobarbital or meprobamate or nitrazepam or paraldehyde or phenobarbital or phenytoin or pregabalin or primidone or riluzole or thiopental or tiletamine or trimethadione or "valproic acid" or vigabatrin)
S58	(MH "Antimanic Agents+") OR TX ("lithium chloride" or "lithium compounds" or lamotrigine or topiramate)
S59	(MH "Monoamine Oxidase Inhibitors+") OR TX (chlorphenamidine or clorgyline or cuprizone or furazolidone or harmaline or harmine or isocarboxazid or moclobemide or monocrotophos or pargyline or selegiline or tranylcypromine or Prazosin or N-Methyl-3,4-methylenedioxyamphetamine or MDMA or ecstasy)
S60	S53 OR S54 OR S55 OR S56 OR S57 OR S58 OR S59 (68,988)
S61	S32 AND S36 AND S52 (1786)
S62	S32 AND S36 AND S60 (229)
S63	S61 OR S62 (1936)
S64	S61 OR S62 (1919) 1992 ONWARDS

CENTRAL via The Cochrane Library

Search date: 21 April 2017.

Records retrieved: 637.

Date range searched: from inception.

TABLE 16 Search strategy for CENTRAL via The Cochrane Library

#1	MeSH descriptor: [Violence] explode all trees
#2	violence:ti,ab,kw (Word variations have been searched)
#3	MeSH descriptor: [Domestic Violence] explode all trees
#4	MeSH descriptor: [Intimate Partner Violence] explode all trees
#5	MeSH descriptor: [Battered Women] explode all trees
#6	batter* near/2 (wife* or wive* or woman or women or men or husband* or partner*):ti,ab,kw (Word variations have been searched)
#7	physical* near/2 (abus* or assault* or violen* or aggress*):ti,ab,kw (Word variations have been searched)
#8	emotional* near/2 abus*:ti,ab,kw (Word variations have been searched)
#9	MeSH descriptor: [Rape] explode all trees
#10	rape:ti,ab,kw or sexual* near/2 (abus* or assault* or violen* or aggress*):ti,ab,kw (Word variations have been searched)
#11	MeSH descriptor: [Child Abuse, Sexual] explode all trees
#12	child* sexual abuse:ti,ab,kw (Word variations have been searched)
#13	child* near/2 (exploit* or neglect* or trauma*):ti,ab,kw (Word variations have been searched)
#14	non accidental injur*:ti,ab,kw or non-accidental injur*:ti,ab,kw or nonaccidental injur*:ti,ab,kw (Word variations have been searched)
#15	MeSH descriptor: [Human Rights Abuses] explode all trees
#16	MeSH descriptor: [Human Trafficking] explode all trees
#17	(human or person or people) near/2 (traffick* or exploit*):ti,ab,kw (Word variations have been searched)
#18	(forced or exploit*) near/2 labour:ti,ab,kw (Word variations have been searched)
#19	MeSH descriptor: [Organ Trafficking] explode all trees
#20	MeSH descriptor: [Slavery] explode all trees
#21	MeSH descriptor: [Torture] explode all trees
#22	slavery or enslave* or torture*:ti,ab,kw (Word variations have been searched)
#23	MeSH descriptor: [Sex Workers] explode all trees
#24	MeSH descriptor: [Prostitution] explode all trees
#25	prostitut* or brothel*:ti,ab,kw (Word variations have been searched)
#26	sex* near/2 (exploit* or traffick*):ti,ab,kw (Word variations have been searched)
#27	MeSH descriptor: [Terrorism] explode all trees
#28	terrorism or terrorist*:ti,ab,kw (Word variations have been searched)
#29	political terror*:ti,ab,kw (Word variations have been searched)
#30	MeSH descriptor: [Torture] explode all trees

TABLE 16 Search strategy for CENTRAL via The Cochrane Library (*continued*)

#31 MeSH descriptor: [Warfare] explode all trees
#32 MeSH descriptor: [Armed Conflicts] explode all trees
#33 MeSH descriptor: [War Crimes] explode all trees
#34 MeSH descriptor: [Genocide] explode all trees
#35 MeSH descriptor: [Holocaust] explode all trees
#36 MeSH descriptor: [Ethnic Cleansing] explode all trees
#37 civil near/2 (unrest or conflict* or disturbance* or war or wars or warfare):ti,ab,kw (Word variations have been searched)
#38 persecution or victimization or victimisation:ti,ab,kw (Word variations have been searched)
#39 captivity or imprison* or concentration camp*:ti,ab,kw (Word variations have been searched)
#40 MeSH descriptor: [Disasters] explode all trees
#41 MeSH descriptor: [Earthquakes] explode all trees
#42 MeSH descriptor: [Tsunamis] explode all trees
#43 natural disaster*:ti,ab,kw (Word variations have been searched)
#44 earthquake* or tsunami*:ti,ab,kw (Word variations have been searched)
#45 humanitarian near/1 (crisis or crises):ti,ab,kw (Word variations have been searched)
#46 catastrophe* or catastrophic event* or catastrophic experience*:ti,ab,kw (Word variations have been searched)
#47 MeSH descriptor: [Survivors] explode all trees
#48 MeSH descriptor: [Refugees] explode all trees
#49 asylum seeker* or refugee* or migrant*:ti,ab,kw (Word variations have been searched)
#50 (forcibly or internally) near/2 displace*:ti,ab,kw (Word variations have been searched)
#51 displace* near/2 (people or person* or civilian*):ti,ab,kw (Word variations have been searched)
#52 MeSH descriptor: [Crime Victims] explode all trees
#53 MeSH descriptor: [Adult Survivors of Child Abuse] explode all trees
#54 MeSH descriptor: [Disaster Victims] explode all trees
#55 MeSH descriptor: [Prisoners] explode all trees
#56 MeSH descriptor: [Prisoners of War] explode all trees
#57 MeSH descriptor: [Slaves] explode all trees
#58 MeSH descriptor: [Veterans] explode all trees
#59 MeSH descriptor: [Military Personnel] explode all trees
#60 exposure near/2 (abuse or assault* or disaster* or terror* or torture* or trauma* or rape or violen* or war or warfare):ti,ab,kw (Word variations have been searched)
#61 exposed near/2 (abuse or assault* or disaster* or terror* or torture* or trauma* or rape or violen* or war or warfare):ti,ab,kw (Word variations have been searched)
#62 survivor* near/2 (abuse or assault* or disaster* or terror* or torture* or trauma* or rape or violen* or war or warfare):ti,ab,kw (Word variations have been searched)
#63 victim* near/2 (abuse or assault* or crime or disaster* or rape or terror* or torture* or trauma* or violen* or war or warfare):ti,ab,kw (Word variations have been searched)
#64 witness* near/2 (abuse or assault* or disaster* or rape or terror* or torture* or trauma* or violen* or war or warfare):ti,ab,kw (Word variations have been searched)

continued

TABLE 16 Search strategy for CENTRAL via The Cochrane Library (*continued*)

#65	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44 or #45 or #46 or #47 or #48 or #49 or #50 or #51 or #52 or #53 or #54 or #55 or #56 or #57 or #58 or #59 or #60 or #61 or #62 or #63 or #64
#66	MeSH descriptor: [Stress Disorders, Post-Traumatic] explode all trees
#67	PTSD or CPTSD:ti,ab,kw (Word variations have been searched)
#68	posttrauma*:ti,ab,kw (Word variations have been searched)
#69	post-trauma*:ti,ab,kw (Word variations have been searched)
#70	post trauma*:ti,ab,kw (Word variations have been searched)
#71	"post traumatic stress":ti,ab,kw (Word variations have been searched)
#72	combat stress:ti,ab,kw (Word variations have been searched)
#73	combat disorder*:ti,ab,kw (Word variations have been searched)
#74	DESNOS:ti,ab,kw (Word variations have been searched)
#75	extreme distress:ti,ab,kw (Word variations have been searched)
#76	complex near/3 trauma:ti,ab,kw (Word variations have been searched)
#77	traumatic stress:ti,ab,kw (Word variations have been searched)
#78	traumatic memories:ti,ab,kw (Word variations have been searched)
#79	traumatization:ti,ab,kw (Word variations have been searched)
#80	"traumatisation":ti,ab,kw (Word variations have been searched)
#81	trauma near/3 (expos* or event* or experienc*):ti,ab,kw (Word variations have been searched)
#82	#66 or #67 or #68 or #69 or #70 or #71 or #72 or #73 or #74 or #75 or #76 or #77 or #78 or #79 or #80 or #81
#83	#65 and #82
#84	MeSH descriptor: [Cognitive Therapy] explode all trees
#85	cognitive near/2 therap*:ti,ab,kw (Word variations have been searched)
#86	"cognitive restructuring":ti,ab,kw (Word variations have been searched)
#87	cognitive rescripting:ti,ab,kw (Word variations have been searched)
#88	"cognitive processing therapy":ti,ab,kw (Word variations have been searched)
#89	CPT:ti,ab,kw (Word variations have been searched)
#90	cognitive near/2 treat*:ti,ab,kw (Word variations have been searched)
#91	CBT or TFCBT:ti,ab,kw (Word variations have been searched)
#92	MeSH descriptor: [Behavior Therapy] explode all trees
#93	behavior* near/2 (therap* or treat* or modif*):ti,ab,kw (Word variations have been searched)
#94	behaviour* near/2 (therap* or treat* or modif*):ti,ab,kw (Word variations have been searched)
#95	MeSH descriptor: [Biofeedback, Psychology] explode all trees
#96	MeSH descriptor: [Feedback, Sensory] explode all trees
#97	MeSH descriptor: [Neurofeedback] explode all trees
#98	biofeedback:ti,ab,kw (Word variations have been searched)
#99	"neurofeedback":ti,ab,kw (Word variations have been searched)
#100	"sensory feedback":ti,ab,kw (Word variations have been searched)
#101	MeSH descriptor: [Eye Movement Desensitization Reprocessing] explode all trees

TABLE 16 Search strategy for CENTRAL via The Cochrane Library (*continued*)

#102	MeSH descriptor: [Implosive Therapy] explode all trees
#103	MeSH descriptor: [Virtual Reality Exposure Therapy] explode all trees
#104	psychological near/2 desensit*:ti,ab,kw (Word variations have been searched)
#105	"Eye Movement Desensitization Reprocessing":ti,ab,kw or "Eye Movement Desensitisation Reprocessing":ti,ab,kw (Word variations have been searched)
#106	EMDR:ti,ab,kw (Word variations have been searched)
#107	exposure near/1 (therap* or treat*):ti,ab,kw (Word variations have been searched)
#108	"live exposure":ti,ab,kw (Word variations have been searched)
#109	"imaginal exposure":ti,ab,kw (Word variations have been searched)
#110	"prolonged exposure therapy":ti,ab,kw (Word variations have been searched)
#111	"imaginal flooding":ti,ab,kw (Word variations have been searched)
#112	"exposure inhibition therapy":ti,ab,kw (Word variations have been searched)
#113	"implosive therapy":ti,ab,kw (Word variations have been searched)
#114	"image habituation":ti,ab,kw (Word variations have been searched)
#115	"inoculation training":ti,ab,kw (Word variations have been searched)
#116	MeSH descriptor: [Acceptance and Commitment Therapy] explode all trees
#117	acceptance near/2 therap*:ti,ab,kw (Word variations have been searched)
#118	commitment near/2 therap*:ti,ab,kw (Word variations have been searched)
#119	MeSH descriptor: [Hypnosis] explode all trees
#120	hypnosis:ti,ab,kw (Word variations have been searched)
#121	hypnotherap*:ti,ab,kw (Word variations have been searched)
#122	MeSH descriptor: [Mindfulness] explode all trees
#123	mindfulness:ti,ab,kw (Word variations have been searched)
#124	supportive near/1 therap*:ti,ab,kw (Word variations have been searched)
#125	non-directive near/1 counsel*:ti,ab,kw (Word variations have been searched)
#126	nondirective near/2 counsel*:ti,ab,kw (Word variations have been searched)
#127	"non directive" near/1 counsel*:ti,ab,kw (Word variations have been searched)
#128	MeSH descriptor: [Psychotherapy] explode all trees
#129	MeSH descriptor: [Psychotherapy, Brief] explode all trees
#130	MeSH descriptor: [Cognitive Therapy] explode all trees
#131	MeSH descriptor: [Psychotherapy, Group] explode all trees
#132	MeSH descriptor: [Psychotherapy, Multiple] explode all trees
#133	MeSH descriptor: [Psychotherapy, Psychodynamic] explode all trees
#134	MeSH descriptor: [Psychotherapy, Rational-Emotive] explode all trees
#135	psychodynamic near/1 therap*:ti,ab,kw (Word variations have been searched)
#136	interpersonal near/1 psychotherap*:ti,ab,kw (Word variations have been searched)
#137	compassion near/2 therap*:ti,ab,kw (Word variations have been searched)
#138	"accelerated resolution":ti,ab,kw (Word variations have been searched)
#139	sensorimotor near/2 therap*:ti,ab,kw (Word variations have been searched)

continued

TABLE 16 Search strategy for CENTRAL via The Cochrane Library (*continued*)

#140	schema near/1 therap*:ti,ab,kw (Word variations have been searched)
#141	MeSH descriptor: [Counseling] explode all trees
#142	#84 or #85 or #86 or #87 or #88 or #89 or #90 or #91 or #92 or #93 or #94 or #95 or #96 or #97 or #98 or #99 or #100 or #101 or #102 or #103 or #104 or #105 or #106 or #107 or #108 or #109 or #110 or #111 or #112 or #113 or #114 or #115 or #116 or #117 or #118 or #119 or #120 or #121 or #122 or #123 or #124 or #125 or #126 or #127 or #128 or #129 or #130 or #131 or #132 or #133 or #134 or #135 or #136 or #137 or #138 or #139 or #140 or #141
#143	MeSH descriptor: [Hypnotics and Sedatives] explode all trees
#144	MeSH descriptor: [Alprazolam] explode all trees
#145	MeSH descriptor: [Amobarbital] explode all trees
#146	MeSH descriptor: [Azaperone] explode all trees
#147	MeSH descriptor: [Barbital] explode all trees
#148	MeSH descriptor: [Bromisovalum] explode all trees
#149	MeSH descriptor: [Chloral Hydrate] explode all trees
#150	MeSH descriptor: [Chloralose] explode all trees
#151	MeSH descriptor: [Chlordiazepoxide] explode all trees
#152	MeSH descriptor: [Chlormethiazole] explode all trees
#153	MeSH descriptor: [Dexmedetomidine] explode all trees
#154	MeSH descriptor: [Diazepam] explode all trees
#155	MeSH descriptor: [Diphenhydramine] explode all trees
#156	MeSH descriptor: [Eszopiclone] explode all trees
#157	MeSH descriptor: [Ethchlorvynol] explode all trees
#158	MeSH descriptor: [Etomidate] explode all trees
#159	MeSH descriptor: [Etorphine] explode all trees
#160	MeSH descriptor: [Flurazepam] explode all trees
#161	MeSH descriptor: [Glutethimide] explode all trees
#162	MeSH descriptor: [Hexobarbital] explode all trees
#163	MeSH descriptor: [Lorazepam] explode all trees
#164	MeSH descriptor: [Medazepam] explode all trees
#165	MeSH descriptor: [Medetomidine] explode all trees
#166	MeSH descriptor: [Mephobarbital] explode all trees
#167	MeSH descriptor: [Meprobamate] explode all trees
#168	MeSH descriptor: [Methapyrilene] explode all trees
#169	MeSH descriptor: [Methaqualone] explode all trees
#170	MeSH descriptor: [Midazolam] explode all trees
#171	MeSH descriptor: [Nitrazepam] explode all trees
#172	MeSH descriptor: [Oxazepam] explode all trees
#173	MeSH descriptor: [Paraldehyde] explode all trees
#174	MeSH descriptor: [Pentobarbital] explode all trees
#175	MeSH descriptor: [Phenobarbital] explode all trees

TABLE 16 Search strategy for CENTRAL via The Cochrane Library (*continued*)

#176	MeSH descriptor: [Propofol] explode all trees
#177	MeSH descriptor: [Secobarbital] explode all trees
#178	MeSH descriptor: [Temazepam] explode all trees
#179	MeSH descriptor: [Thiamylal] explode all trees
#180	MeSH descriptor: [Thiopental] explode all trees
#181	MeSH descriptor: [Xylazine] explode all trees
#182	#143 or #144 or #145 or #146 or #147 or #148 or #149 or #150 or #151 or #152 or #153 or #154 or #155 or #156 or #157 or #158 or #159 or #160 or #161 or #162 or #163 or #164 or #165 or #166 or #167 or #168 or #169 or #170 or #171 or #172 or #173 or #174 or #175 or #176 or #177 or #178 or #179 or #180 or #181
#183	"z drugs":ti,ab,kw (Word variations have been searched)
#184	MeSH descriptor: [Anti-Anxiety Agents] explode all trees
#185	MeSH descriptor: [Bromazepam] explode all trees
#186	MeSH descriptor: [Buspirone] explode all trees
#187	MeSH descriptor: [Chlormezanone] explode all trees
#188	MeSH descriptor: [Estazolam] explode all trees
#189	MeSH descriptor: [Flunitrazepam] explode all trees
#190	MeSH descriptor: [Fluvoxamine] explode all trees
#191	MeSH descriptor: [Nordazepam] explode all trees
#192	MeSH descriptor: [Ondansetron] explode all trees
#193	MeSH descriptor: [Oxprenolol] explode all trees
#194	MeSH descriptor: [Prazepam] explode all trees
#195	MeSH descriptor: [Pregabalin] explode all trees
#196	MeSH descriptor: [Ritanserin] explode all trees
#197	MeSH descriptor: [Tranylcypromine] explode all trees
#198	MeSH descriptor: [Trazodone] explode all trees
#199	MeSH descriptor: [Triazolam] explode all trees
#200	MeSH descriptor: [Zolazepam] explode all trees
#201	MeSH descriptor: [Benzodiazepines] explode all trees
#202	MeSH descriptor: [Benzodiazepinones] explode all trees
#203	sedative near/1 antihistamine*:ti,ab,kw (Word variations have been searched)
#204	MeSH descriptor: [Promethazine] explode all trees
#205	#183 or #184 or #185 or #186 or #187 or #188 or #189 or #190 or #191 or #192 or #193 or #194 or #195 or #196 or #197 or #198 or #199 or #200 or #201 or #202 or #203 or #204
#206	MeSH descriptor: [Antidepressive Agents] explode all trees
#207	MeSH descriptor: [Benactyzine] explode all trees
#208	MeSH descriptor: [Clorgyline] explode all trees
#209	MeSH descriptor: [Deanol] explode all trees
#210	MeSH descriptor: [Desvenlafaxine Succinate] explode all trees
#211	MeSH descriptor: [Duloxetine Hydrochloride] explode all trees

continued

TABLE 16 Search strategy for CENTRAL via The Cochrane Library (*continued*)

#212	MeSH descriptor: [Iproniazid] explode all trees
#213	MeSH descriptor: [Isocarboxazid] explode all trees
#214	MeSH descriptor: [Lithium Compounds] explode all trees
#215	MeSH descriptor: [Moclobemide] explode all trees
#216	MeSH descriptor: [Nialamide] explode all trees
#217	MeSH descriptor: [Phenelzine] explode all trees
#218	MeSH descriptor: [Pizotyline] explode all trees
#219	MeSH descriptor: [Rolipram] explode all trees
#220	MeSH descriptor: [Sertraline] explode all trees
#221	MeSH descriptor: [Tranylcypromine] explode all trees
#222	MeSH descriptor: [Vilazodone Hydrochloride] explode all trees
#223	MeSH descriptor: [Imipramine] explode all trees
#224	#206 or #207 or #208 or #209 or #210 or #211 or #212 or #213 or #214 or #215 or #216 or #217 or #218 or #219 or #220 or #221 or #222 or #223
#225	MeSH descriptor: [Antipsychotic Agents] explode all trees
#226	MeSH descriptor: [Acepromazine] explode all trees
#227	MeSH descriptor: [Aripiprazole] explode all trees
#228	MeSH descriptor: [Azaperone] explode all trees
#229	MeSH descriptor: [Benperidol] explode all trees
#230	MeSH descriptor: [Butaclamol] explode all trees
#231	MeSH descriptor: [Chlorpromazine] explode all trees
#232	MeSH descriptor: [Chlorprothixene] explode all trees
#233	MeSH descriptor: [Clopenthixol] explode all trees
#234	MeSH descriptor: [Clozapine] explode all trees
#235	MeSH descriptor: [Droperidol] explode all trees
#236	MeSH descriptor: [Etazolate] explode all trees
#237	MeSH descriptor: [Flupenthixol] explode all trees
#238	MeSH descriptor: [Fluphenazine] explode all trees
#239	MeSH descriptor: [Fluspirilene] explode all trees
#240	MeSH descriptor: [Haloperidol] explode all trees
#241	MeSH descriptor: [Loxapine] explode all trees
#242	MeSH descriptor: [Mesoridazine] explode all trees
#243	MeSH descriptor: [Methiothepin] explode all trees
#244	MeSH descriptor: [Methotrimeprazine] explode all trees
#245	MeSH descriptor: [Molindone] explode all trees
#246	MeSH descriptor: [Paliperidone Palmitate] explode all trees
#247	MeSH descriptor: [Penfluridol] explode all trees
#248	MeSH descriptor: [Perazine] explode all trees
#249	MeSH descriptor: [Perphenazine] explode all trees

TABLE 16 Search strategy for CENTRAL via The Cochrane Library (*continued*)

#250	MeSH descriptor: [Pimozide] explode all trees
#251	MeSH descriptor: [Prochlorperazine] explode all trees
#252	MeSH descriptor: [Promazine] explode all trees
#253	MeSH descriptor: [Quetiapine Fumarate] explode all trees
#254	MeSH descriptor: [Raclopride] explode all trees
#255	MeSH descriptor: [Remoxipride] explode all trees
#256	MeSH descriptor: [Reserpine] explode all trees
#257	MeSH descriptor: [Risperidone] explode all trees
#258	MeSH descriptor: [Ritanserin] explode all trees
#259	MeSH descriptor: [Spiperone] explode all trees
#260	MeSH descriptor: [Sulpiride] explode all trees
#261	MeSH descriptor: [Thioridazine] explode all trees
#262	MeSH descriptor: [Thiothixene] explode all trees
#263	MeSH descriptor: [Tiapride Hydrochloride] explode all trees
#264	MeSH descriptor: [Trifluoperazine] explode all trees
#265	MeSH descriptor: [Trifluperidol] explode all trees
#266	MeSH descriptor: [Triflupromazine] explode all trees
#267	"olanzapine":ti,ab,kw (Word variations have been searched)
#268	#225 or #226 or #227 or #228 or #229 or #230 or #231 or #232 or #233 or #234 or #235 or #236 or #237 or #238 or #239 or #240 or #241 or #242 or #243 or #244 or #245 or #246 or #247 or #248 or #249 or #250 or #251 or #252 or #253 or #254 or #255 or #256 or #257 or #258 or #259 or #260 or #261 or #262 or #263 or #264 or #265 or #266 or #267
#269	MeSH descriptor: [Anticonvulsants] explode all trees
#270	MeSH descriptor: [Acetazolamide] explode all trees
#271	MeSH descriptor: [Bromides] explode all trees
#272	MeSH descriptor: [Carbamazepine] explode all trees
#273	MeSH descriptor: [Clonazepam] explode all trees
#274	MeSH descriptor: [Clorazepate Dipotassium] explode all trees
#275	MeSH descriptor: [Diazepam] explode all trees
#276	MeSH descriptor: [Dimethadione] explode all trees
#277	MeSH descriptor: [Estazolam] explode all trees
#278	MeSH descriptor: [Ethosuximide] explode all trees
#279	MeSH descriptor: [Flunarizine] explode all trees
#280	MeSH descriptor: [Lorazepam] explode all trees
#281	MeSH descriptor: [Magnesium Sulfate] explode all trees
#282	MeSH descriptor: [Medazepam] explode all trees
#283	MeSH descriptor: [Mephenytoin] explode all trees
#284	MeSH descriptor: [Mephobarbital] explode all trees
#285	MeSH descriptor: [Meprobamate] explode all trees

continued

TABLE 16 Search strategy for CENTRAL via The Cochrane Library (*continued*)

#286	MeSH descriptor: [Nitrazepam] explode all trees
#287	MeSH descriptor: [Paraldehyde] explode all trees
#288	MeSH descriptor: [Phenobarbital] explode all trees
#289	MeSH descriptor: [Phenytoin] explode all trees
#290	MeSH descriptor: [Pregabalin] explode all trees
#291	MeSH descriptor: [Primidone] explode all trees
#292	MeSH descriptor: [Riluzole] explode all trees
#293	MeSH descriptor: [Thiopental] explode all trees
#294	MeSH descriptor: [Tiletamine] explode all trees
#295	MeSH descriptor: [Trimethadione] explode all trees
#296	MeSH descriptor: [Valproic Acid] explode all trees
#297	MeSH descriptor: [Vigabatrin] explode all trees
#298	#269 or #270 or #271 or #272 or #273 or #274 or #275 or #276 or #277 or #278 or #279 or #280 or #281 or #282 or #283 or #284 or #285 or #286 or #287 or #288 or #289 or #290 or #291 or #292 or #293 or #294 or #295 or #296 or #297
#299	MeSH descriptor: [Antimanic Agents] explode all trees
#300	MeSH descriptor: [Lithium Chloride] explode all trees
#301	"lamotrigine":ti,ab,kw (Word variations have been searched)
#302	"topiramate":ti,ab,kw (Word variations have been searched)
#303	MeSH descriptor: [Monoamine Oxidase Inhibitors] explode all trees
#304	MeSH descriptor: [Chlorpheniramine] explode all trees
#305	MeSH descriptor: [Clorgyline] explode all trees
#306	MeSH descriptor: [Cuprizone] explode all trees
#307	MeSH descriptor: [Furazolidone] explode all trees
#308	MeSH descriptor: [Harmaline] explode all trees
#309	MeSH descriptor: [Harmine] explode all trees
#310	MeSH descriptor: [Isocarboxazid] explode all trees
#311	MeSH descriptor: [Moclobemide] explode all trees
#312	MeSH descriptor: [Monocrotophos] explode all trees
#313	MeSH descriptor: [Pargyline] explode all trees
#314	MeSH descriptor: [Selegiline] explode all trees
#315	MeSH descriptor: [Tranylcypromine] explode all trees
#316	MeSH descriptor: [Prazosin] explode all trees
#317	MeSH descriptor: [N-Methyl-3,4-methylenedioxyamphetamine] explode all trees
#318	MDMA:ti,ab,kw or ecstasy:kw (Word variations have been searched)
#319	#299 or #300 or #301 or #302 or #303 or #304 or #305 or #306 or #307 or #308 or #309 or #310 or #311 or #312 or #313 or #314 or #315 or #316 or #317 or #318
#320	#182 or #205 or #224 or #268 or #298 or #319
#321	#83 and #142
#322	#83 and #320
#323	#321 or #322

EMBASE via Ovid

Search date: 19 April 2017.

Records retrieved: 5473.

Date range searched: 1974 to 2017 week 16.

TABLE 17 Search strategy for EMBASE via Ovid

1	exp Violence/ (127,415)
2	violence.ti,ab. (42,364)
3	Exposure to Violence/ (299)
4	Domestic Violence/(8799)
5	Sexual Violence/ (1468)
6	Battered Woman/ (3115)
7	(batter$ adj2 (wife$ or wive$ or woman or women or men or husband$ or partner$)).ti,ab. (973)
8	(physical$ adj2 (abus$ or assault$ or violen$ or aggress$)).ti,ab. (12,350)
9	(emotional$ adj2 abus$).ti,ab. (2304)
10	Rape/(7255)
11	Sexual Assault/ (1440)
12	rape.ti,ab. (7034)
13	(sexual$ adj2 (abus$ or assault$ or violen$ or aggress$)).ti,ab. (23,249)
14	Child Sexual Abuse/ (8661)
15	child$ sexual abuse.ti,ab. (4983)
16	Child Abuse/ (27,390)
17	(child$ adj2 exploit$).ti,ab. (221)
18	child neglect.ti,ab. (490)
19	(child$ adj2 trauma).ti,ab. (6375)
20	(non accidental injur$ or non-accidental injur$ or nonaccidental injury).ti,ab. (755)
21	Human Rights Abuse/ (1442)
22	Human Trafficking/(259)
23	((human or person or people) adj2 (traffick$ or exploit$)).ti,ab. (907)
24	((forced or exploit$) adj2 labour).ti,ab. (62)
25	Organ Trafficking/ (190)
26	Slavery/ (115)
27	Torture/ (2635)
28	(slavery or enslave$ or torture$).ti,ab. (2768)
29	Prostitution/ (8919)
30	(prostitut$ or brothel$).ti,ab. (3430)
31	(sex$ adj2 (exploit$ or traffick$)).ti,ab. (618)
32	exp Terrorism/ (9017)
33	(terrorism or terrorist$).ti,ab. (6169)

continued

TABLE 17 Search strategy for EMBASE via Ovid (*continued*)

34	political terror$.ti,ab. (19)
35	Torture/ (2635)
36	exp warfare/ (18,460)
37	War crime/ (174)
38	Genocide/ (334)
39	Holocaust/ (369)
40	Ethnic Conflict/ (58)
41	(civil adj (unrest or conflict$ or disturbance$ or war or wars or warfare)).ti,ab. (1866)
42	(persecution or victimization or victimisation).ti,ab. (7768)
43	(captivity or imprison$ or concentration camp$).ti,ab. (6611)
44	exp Disasters/ (27,191)
45	natural disaster$.ti,ab. (3220)
46	(earthquake$ or tsunami$).ti,ab. (8306)
47	(humanitarian adj (crisis or crises)).ti,ab. (230)
48	(catastrophe$ or catastrophic event$ or catastrophic experience$).ti,ab. (7315)
49	exp Survivor/ (65,046)
50	Refugee/ (9945)
51	(asylum seeker$ or refugee$ or migrant$).ti,ab. (22,105)
52	((forcibly or internally) adj2 displace$).ti,ab. (518)
53	(displace$ adj2 (people or person$ or civilian$)).ti,ab. (769)
54	Crime Victim/(1526)
55	exp Childhood Trauma Survivor/ (209)
56	Disaster Victim/ (296)
57	exp Prisoner/ (15,304)
58	Prisoner of War/ (396)
59	Slave/ (82)
60	Veteran/ (24,063)
61	Soldier/ (29,325)
62	((expose$ or exposure) adj2 (abuse or assault$ or disaster$ or terror$ or torture$ or trauma$ or rape or violen$ or war or warfare)).ti,ab. (8060)
63	(survivor$ adj2 (abuse or assault$ or disaster$ or terror$ or torture$ or trauma$ or rape or violen$ or war or warfare)).ti,ab. (2541)
64	(victim$ adj2 (abuse or assault$ or crime or disaster$ or rape or terror$ or torture$ or trauma$ or violen$ or war or warfare)).ti,ab. (9275)
65	(witness$ adj2 (abuse or assault$ or disaster$ or rape or terror$ or torture$ or trauma$ or violen$ or war or warfare)).ti,ab. (1147)
66	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 or 64 or 65 (372,799)
67	Posttraumatic Stress Disorder/ (48,288)
68	(PTSD or CPTSD).ti,ab. (22,853)
69	posttrauma$.ti,ab. (35,543)
70	post-trauma$.ti,ab. (32,384)

TABLE 17 Search strategy for EMBASE via Ovid (*continued*)

71	"post trauma$".ti,ab. (32,384)
72	post traumatic stress.ti,ab. (12,118)
73	post traumatic stress.kw. (2904)
74	combat stress$.ti,ab. (414)
75	combat disorder$.ti,ab. (19)
76	DESNOS.ti,ab. (37)
77	"Disorders of Extreme Distress Not Otherwise Specified".ti,ab. (0)
78	complex trauma$.ti,ab. (468)
79	(complex adj3 trauma$).ti,ab. (1446)
80	traumatic stress.ti,ab. (14,496)
81	traumatic memor$.ti,ab. (767)
82	traumatization.ti,ab. (1253)
83	traumatisation.ti,ab. (258)
84	(trauma$ adj3 (expos$ or event$ or experienc$)).ti,ab. (20,684)
85	67 or 68 or 69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 or 77 or 78 or 79 or 80 or 81 or 82 or 83 or 84 (99,034)
86	66 and 85 (29,961)
87	exp Cognitive Therapy/ (44,498)
88	cognitive behaviour$ therapy.ti,ab. (5617)
89	cognitive behavior$ therapy.ti,ab. (10,869)
90	cognitive restructuring.ti,ab. (1117)
91	cognitive rescripting.ti,ab. (0)
92	cognitive processing therapy.ti,ab. (197)
93	CPT.ti,ab. (15,303)
94	cognitive therapy.ti,ab. (3567)
95	cognitive behavioural treatment$.ti,ab. (569)
96	cognitive behavioral treatment$.ti,ab. (1915)
97	(CBT or TFCBT).ti,ab. (11,649)
98	cognitive trauma therapy.ti,ab. (7)
99	trauma focus$ CBT.ti,ab. (48)
100	87 or 88 or 89 or 90 or 91 or 92 or 93 or 94 or 95 or 96 or 97 or 98 or 99 (65,898)
101	exp Behavior Therapy/ (42,878)
102	(behavior$ adj2 (therap$ or treat$ or modif$)).ti,ab. (35,788)
103	(behaviour$ adj2 (therap$ or treat$ or modif$)).ti,ab. (13,871)
104	(dialectical behavio$ adj (therap$ or treat$)).ti,ab. (829)
105	biofeedback, psychology/or feedback, sensory/or neurofeedback/ (21,789)
106	(biofeedback or neurofeedback or sensory feedback).ti,ab. (11,442)
107	eye movement desensitization reprocessing/or implosive therapy/or virtual reality exposure therapy/ (414)
108	(psychological adj2 desensiti$).ti,ab. (9)
109	eye movement desensiti?ation reprocessing.ti,ab. (39)
110	EMDR.ti,ab. (560)
111	(exposure adj (therap$ or treat$)).ti,ab. (2851)

continued

TABLE 17 Search strategy for EMBASE via Ovid (*continued*)

112	live exposure.ti,ab. (16)
113	imaginal exposure.ti,ab. (183)
114	prolonged exposure therapy.ti,ab. (120)
115	imaginal flooding.ti,ab. (27)
116	exposure inhibition therap$.ti,ab. (0)
117	implosive therap$.ti,ab. (58)
118	image habituation.ti,ab. (4)
119	inoculation training.ti,ab. (114)
120	101 or 102 or 103 or 104 or 105 or 106 or 107 or 108 or 109 or 110 or 111 or 112 or 113 or 114 or 115 or 116 or 117 or 118 or 119 (107,793)
121	"Acceptance and Commitment Therapy"/ (780)
122	(acceptance adj2 therap$).ti,ab. (384)
123	(commitment adj2 therap$).ti,ab. (858)
124	Hypnosis/ (14,590)
125	(hypnosis or hypnotherap$).ti,ab. (9008)
126	Mindfulness/ (3696)
127	mindfulness.ti,ab. (5250)
128	supportive therap$.ti,ab. (5535)
129	(non-directive adj (counselling or counseling)).ti,ab. (118)
130	(nondirective adj (counselling or counseling)).ti,ab. (51)
131	(non directive adj (counselling or counseling)).ti,ab. (118)
132	Psychotherapy/or Group Therapy/or Psychodynamic Psychotherapy/ (104,777)
133	psychodynamic therap$.ti,ab. (636)
134	inter personal psychotherap$.ti,ab. (1)
135	interpersonal psychotherap$.ti,ab. (940)
136	IPT.ti,ab. (2383)
137	(compassion adj2 therap$).ti,ab. (58)
138	accelerated resolution.ti,ab. (120)
139	sensorimotor therap$.ti,ab. (24)
140	schema therapy.ti,ab. (180)
141	(stress adj2 manag$).ti,ab. (6629)
142	supportive therap$.ti,ab. (5535)
143	Counseling/ (75,492)
144	(non-directive counsel$ or non directive counsel$ or nondirective counsel$).ti,ab. (170)
145	compassion therap$.ti,ab. (2)
146	121 or 122 or 123 or 124 or 125 or 126 or 127 or 128 or 129 or 130 or 131 or 132 or 133 or 134 or 135 or 136 or 137 or 138 or 139 or 140 or 141 or 142 or 143 or 144 or 145 (209,736)
147	100 or 120 or 146 (330,152)
148	hypnotic sedative agent/or alprazolam/or amobarbital/or azaperone/or barbital/or bromisovalum/or chloral hydrate/or chloralose/or chlordiazepoxide/or chlomethiazole/or dexmedetomidine/or diazepam/or diphenhydramine/or eszopiclone/or ethchlorvynol/or etomidate/or etorphine/or flurazepam/or glutethimide/or hexobarbital/or lorazepam/or medazepam/or medetomidine/or methylphenobarbital/or meprobamate/or methapyrilene/or methaqualone/or midazolam/or nitrazepam/or oxazepam/or paraldehyde/or pentobarbital/or phenobarbital/or propofol/or secobarbital/or temazepam/or thiamylal/or thiopental/or xylazine/ (321,753)

TABLE 17 Search strategy for EMBASE via Ovid (*continued*)

149 z drugs.ti,ab. (207)
150 anxiolytic agent/or bromazepam/or buspirone/or chlormezanone/or clorazepate dipotassium/or estazolam/or flunitrazepam/or fluvoxamine/or nordazepam/or ondansetron/or oxprenolol/or prazepam/or pregabalin/or ritanserin/or tranylcypromine/or trazodone/or triazolam/or zolazepam/ (100,358)
151 benzodiazepine derivative/ (40,227)
152 sedative antihistamine$.ti,ab. (114)
153 promethazine/ (13,661)
154 antidepressive agent/or benactyzine/or clorgyline/or deanol/or desvenlafaxine/or duloxetine/or iproniazid/or isocarboxazid/or lithium carbonate/or lithium derivative/or moclobemide/or nialamide/or phenelzine/or pizotifen/or rolipram/or sertraline/or tranylcypromine/or vilazodone/ (147,901)
155 Imipramine/ (34,101)
156 mirtazapine/ (10,903)
157 neuroleptic agent/or acepromazine/or aripiprazole/or azaperone/or benperidol/or butaclamol/or chlorpromazine/or chlorprothixene/or clopenthixol/or clozapine/or droperidol/or etazolate/or flupentixol/or fluphenazine/or fluspirilene/or haloperidol/or loxapine/or lurasidone/or mesoridazine/or metitepine/or methotrimeprazine/or molindone/or ondansetron/or paliperidone/or penfluridol/or perazine/or perphenazine/or pimozide/or prochlorperazine/or promazine/or quetiapine/or raclopride/or remoxipride/or reserpine/or risperidone/or ritanserin/or spiperone/or sulpiride/or thioridazine/or tiothixene/or tiapride/or trifluoperazine/or trifluperidol/or triflupromazine/ (250,352)
158 olanzapine/ (30,419)
159 anticonvulsive agent/or acetazolamide/or bromides/or carbamazepine/or clonazepam/or clorazepate dipotassium/or diazepam/or dimethadione/or estazolam/or ethosuximide/or flunarizine/or lorazepam/or magnesium sulfate/or medazepam/or mephenytoin/or methylphenobarbital/or meprobamate/or nitrazepam/or paraldehyde/or phenobarbital/or phenytoin/or pregabalin/or primidone/or riluzole/or thiopental/or tiletamine/or trimethadione/or valproic acid/or vigabatrin/ (370,923)
160 tranquilizer/or lithium chloride/or lithium derivative/ (25,358)
161 lamotrigine/ (21,972)
162 topiramate/ (18,900)
163 monoamine oxidase inhibitor/or chlorphenamidine/or clorgyline/or cuprizone/or furazolidone/or harmaline/or harmine/or isocarboxazid/or moclobemide/or monocrotophos/or pargyline/or selegiline/or tranylcypromine/ (44,538)
164 Prazosin/ (22,822)
165 3,4 methylenedioxyamphetamine/ (2221)
166 (MDMA or ecstasy).ti,ab. (6467)
167 148 or 149 or 150 or 151 or 152 or 153 or 154 or 155 or 156 or 157 or 158 or 159 or 160 or 161 or 162 or 163 or 164 or 165 or 166 (904,230)
168 86 and 147 (4620)
169 86 and 167 (1616)
170 168 or 169 (5607)
171 limit 170 to yr="1992 -Current" (5473)

International Pharmaceutical Abstracts via ProQuest

Search date: 30 August 2017.

The initial search identified 625 records.

Date range searched: 1970 onwards.

TABLE 18 Search strategy for International Pharmaceutical Abstracts via ProQuest

(SU.EXACT("Stress disorders")) OR (PTSD or CPTSD) OR (posttrauma* or post-trauma*) OR ("post traumatic stress") OR ("combat disorder*") OR ("combat stress") OR DESNOS OR (traumatisation OR traumatization) OR (complex NEAR/3 trauma*) OR (trauma* NEAR/3 (expos* or event* or experienc*))

MEDLINE via Ovid

Search date: 18 April 2017.

Records retrieved: 2818.

Database: Ovid MEDLINE Epub Ahead of Print and In-Process & Other Non-Indexed Citations, Ovid MEDLINE Daily and Ovid MEDLINE.

Date range searched: 1946 to present.

TABLE 19 Search strategy for MEDLINE via Ovid

1	exp Violence/ (84,653)
2	violence.ti,ab. (38,287)
3	Domestic Violence/ (5769)
4	Intimate Partner Violence/ (716)
5	Battered Women/ (2579)
6	(batter$ adj2 (wife$ or wive$ or woman or women or men or husband$ or partner$)).ti,ab. (870)
7	(physical$ adj2 (abus$ or assault$ or violen$ or aggress$)).ti,ab. (10,464)
8	(emotional$ adj2 abus$).ti,ab. (1749)
9	Rape/ (6157)
10	rape.ti,ab. (6600)
11	(sexual$ adj2 (abus$ or assault$ or violen$ or aggress$)).ti,ab. (19,466)
12	Child Sexual Abuse/ (9551)
13	child$ sexual abuse.ti,ab. (4339)
14	(child$ adj2 exploit$).ti,ab. (200)
15	child neglect.ti,ab. (468)
16	(child$ adj2 trauma).ti,ab. (4689)
17	(non accidental injur$ or non-accidental injur$ or nonaccidental injury).ti,ab. (533)
18	Human Rights Abuses/ (734)
19	Human Trafficking/ (177)
20	((human or person or people) adj2 (traffick$ or exploit$)).ti,ab. (818)
21	((forced or exploit$) adj2 labour).ti,ab. (56)
22	Organ Trafficking/ (33)
23	Slavery/ (45)
24	Torture/ (1996)

TABLE 19 Search strategy for MEDLINE via Ovid (*continued*)

25	(slavery or enslave$ or torture$).ti,ab. (2480)
26	Sex Work/ (5675)
27	(prostitut$ or brothel$).ti,ab. (3946)
28	(sex$ adj2 (exploit$ or traffick$)).ti,ab. (561)
29	Terrorism/ (4718)
30	(terrorism or terrorist$).ti,ab. (5408)
31	political terror$.ti,ab. (16)
32	Torture/ (1996)
33	exp warfare/ (35,511)
34	exp Armed Conflicts/ (8467)
35	War crimes/ (1197)
36	Genocide/ (84)
37	Holocaust/ (782)
38	Ethnic Cleansing/ (0)
39	(civil adj (unrest or conflict$ or disturbance$ or war or wars or warfare)).ti,ab. (1859)
40	(persecution or victimization or victimisation).ti,ab. (7276)
41	(captivity or imprison$ or concentration camp$).ti,ab. (6151)
42	exp Disasters/ (67,463)
43	Earthquakes/ (3095)
44	Tsunamis/ (708)
45	natural disaster$.ti,ab. (2928)
46	(earthquake$ or tsunami$).ti,ab. (7947)
47	(humanitarian adj (crisis or crises)).ti,ab. (221)
48	(catastrophe$ or catastrophic event$ or catastrophic experience$).ti,ab. (5922)
49	exp Survivors/ (22,782)
50	Refugees/ (8204)
51	(asylum seeker$ or refugee$ or migrant$).ti,ab. (21,535)
52	((forcibly or internally) adj2 displace$).ti,ab. (476)
53	(displace$ adj2 (people or person$ or civilian$)).ti,ab. (763)
54	Crime Victims/ (7200)
55	Adult Survivors of Child Abuse/ (1437)
56	Disaster Victims/ (96)
57	Prisoners/ (15,110)
58	Prisoners of War/ (469)
59	Slaves/ (31)
60	Veterans/ (13,136)
61	Military Personnel/ (35,416)
62	((expose$ or exposure) adj2 (abuse or assault$ or disaster$ or terror$ or torture$ or trauma$ or rape or violen$ or war or warfare)).ti,ab. (7019)

continued

TABLE 19 Search strategy for MEDLINE via Ovid (*continued*)

63	(survivor$ adj2 (abuse or assault$ or disaster$ or terror$ or torture$ or trauma$ or rape or violen$ or war or warfare)).ti,ab. (2319)
64	(victim$ adj2 (abuse or assault$ or crime or disaster$ or rape or terror$ or torture$ or trauma$ or violen$ or war or warfare)).ti,ab. (8160)
65	(witness$ adj2 (abuse or assault$ or disaster$ or rape or terror$ or torture$ or trauma$ or violen$ or war or warfare)).ti,ab. (1041)
66	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 or 64 or 65 (331,505)
67	Stress Disorders, Post Traumatic/ (26,733)
68	(PTSD or CPTSD).ti,ab. (18,107)
69	posttrauma$.ti,ab. (30,066)
70	post-trauma$.ti,ab. (25,637)
71	“post trauma$”.ti,ab. (25,637)
72	post traumatic stress.ti,ab. (9289)
73	post traumatic stress.kw. (88)
74	combat stress$.ti,ab. (343)
75	combat disorder$.ti,ab. (15)
76	DESNOS.ti,ab. (31)
77	“Disorders of Extreme Distress Not Otherwise Specified”.ti,ab. (0)
78	complex trauma$.ti,ab. (403)
79	(complex adj3 trauma$).ti,ab. (1217)
80	traumatic stress.ti,ab. (10,740)
81	traumatic memor$.ti,ab. (579)
82	traumatization.ti,ab. (990)
83	traumatisation.ti,ab. (192)
84	(trauma$ adj3 (expos$ or event$ or experienc$)).ti,ab. (16,288)
85	67 or 68 or 69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 or 77 or 78 or 79 or 80 or 81 or 82 or 83 or 84 (75,076)
86	66 and 85 (24,059)
87	exp Cognitive Therapy/ (22,441)
88	cognitive behaviour$ therapy.ti,ab. (3982)
89	cognitive behavior$ therapy.ti,ab. (8052)
90	cognitive restructuring.ti,ab. (723)
91	cognitive rescripting.ti,ab. (0)
92	cognitive processing therapy.ti,ab. (178)
93	CPT.ti,ab. (10,770)
94	cognitive therapy.ti,ab. (2397)
95	cognitive behavioural treatment$.ti,ab. (403)
96	cognitive behavioral treatment$.ti,ab. (1378)
97	(CBT or TFCBT).ti,ab. (7996)

TABLE 19 Search strategy for MEDLINE via Ovid (*continued*)

98	cognitive trauma therapy.ti,ab. (6)
99	trauma focus$ CBT.ti,ab. (31)
100	87 or 88 or 89 or 90 or 91 or 92 or 93 or 94 or 95 or 96 or 97 or 98 or 99 (40,659)
101	exp Behavior Therapy/ (64,582)
102	(behavior$ adj2 (therap$ or treat$ or modif$)).ti,ab. (26,789)
103	(behaviour$ adj2 (therap$ or treat$ or modif$)).ti,ab. (9862)
104	(dialectical behavio$ adj (therap$ or treat$)).ti,ab. (581)
105	biofeedback, psychology/or feedback, sensory/or neurofeedback/ (9330)
106	(biofeedback or neurofeedback or sensory feedback).ti,ab. (8461)
107	eye movement desensitization reprocessing/or implosive therapy/or virtual reality exposure therapy/ (1347)
108	(psychological adj2 desensiti$).ti,ab. (4)
109	eye movement desensiti?ation reprocessing.ti,ab. (25)
110	EMDR.ti,ab. (372)
111	(exposure adj (therap$ or treat$)).ti,ab. (2282)
112	live exposure.ti,ab. (11)
113	imaginal exposure.ti,ab. (147)
114	prolonged exposure therapy.ti,ab. (99)
115	imaginal flooding.ti,ab. (13)
116	exposure inhibition therap$.ti,ab. (0)
117	implosive therap$.ti,ab. (43)
118	image habituation.ti,ab. (3)
119	inoculation training.ti,ab. (78)
120	101 or 102 or 103 or 104 or 105 or 106 or 107 or 108 or 109 or 110 or 111 or 112 or 113 or 114 or 115 or 116 or 117 or 118 or 119 (90,057)
121	"Acceptance and Commitment Therapy"/ (184)
122	(acceptance adj2 therap$).ti,ab. (257)
123	(commitment adj2 therap$).ti,ab. (603)
124	Hypnosis/ (8730)
125	(hypnosis or hypnotherap$).ti,ab. (7561)
126	Mindfulness/ (1325)
127	mindfulness.ti,ab. (4005)
128	supportive therap$.ti,ab. (3906)
129	(non-directive adj (counselling or counseling)).ti,ab. (100)
130	(nondirective adj (counselling or counseling)).ti,ab. (54)
131	(non directive adj (counselling or counseling)).ti,ab. (100)
132	Psychotherapy/or Psychotherapy, Brief/or Psychotherapy, Group/or Psychotherapy, Multiple/or Psychotherapy, Psychodynamic/or Psychotherapy, Rational-emotive/ (65,822)
133	psychodynamic therap$.ti,ab. (431)
134	inter personal psychotherap$.ti,ab. (1)

continued

TABLE 19 Search strategy for MEDLINE via Ovid (*continued*)

135	interpersonal psychotherap$.ti,ab. (778)
136	IPT.ti,ab. (1907)
137	(compassion adj2 therap$).ti,ab. (39)
138	accelerated resolution.ti,ab. (86)
139	sensorimotor therap$.ti,ab. (21)
140	schema therapy.ti,ab. (106)
141	(stress adj2 manag$).ti,ab. (5168)
142	supportive therap$.ti,ab. (3906)
143	Counseling/(32,854)
144	(non-directive counsel$ or non directive counsel$ or nondirective counsel$).ti,ab. (155)
145	compassion therap$.ti,ab. (1)
146	121 or 122 or 123 or 124 or 125 or 126 or 127 or 128 or 129 or 130 or 131 or 132 or 133 or 134 or 135 or 136 or 137 or 138 or 139 or 140 or 141 or 142 or 143 or 144 or 145 (122,017)
147	100 or 120 or 146 (211,031)
148	"hypnotics and sedatives"/or alprazolam/or amobarbital/or azaperone/or barbital/or bromisovalum/or chloral hydrate/or chloralose/or chlordiazepoxide/or chlormethiazole/or dexmedetomidine/or diazepam/or diphenhydramine/or eszopiclone/or ethchlorvynol/or etomidate/or etorphine/or flurazepam/or glutethimide/or hexobarbital/or lorazepam/or medazepam/or medetomidine/or mephobarbital/or meprobamate/or methapyrilene/or methaqualone/or midazolam/or nitrazepam/or oxazepam/or paraldehyde/or pentobarbital/or phenobarbital/or propofol/or secobarbital/or temazepam/or thiamylal/or thiopental/or xylazine/ (114,648)
149	z drugs.ti,ab. (120)
150	anti-anxiety agents/or bromazepam/or buspirone/or chlormezanone/or clorazepate dipotassium/or estazolam/or flunitrazepam/or fluvoxamine/or nordazepam/or ondansetron/or oxprenolol/or prazepam/or pregabalin/or ritanserin/or tranylcypromine/or trazodone/or triazolam/or zolazepam/ (33,101)
151	benzodiazepines/or benzodiazepinones/ (23,660)
152	sedative antihistamine$.ti,ab. (61)
153	promethazine.ti,ab. (2061)
154	antidepressive agents/or benactyzine/or clorgyline/or deanol/or desvenlafaxine succinate/or duloxetine hydrochloride/or iproniazid/or isocarboxazid/or lithium carbonate/or lithium compounds/or moclobemide/or nialamide/or phenelzine/or pizotyline/or rolipram/or sertraline/or tranylcypromine/or vilazodone hydrochloride/ (55,533)
155	Imipramine/ (9832)
156	mirtazapine.ti,ab. (1765)
157	antipsychotic agents/or acepromazine/or aripiprazole/or azaperone/or benperidol/or butaclamol/or chlorpromazine/or chlorprothixene/or clopenthixol/or clozapine/or droperidol/or etazolate/or flupenthixol/or fluphenazine/or fluspirilene/or haloperidol/or loxapine/or lurasidone hydrochloride/or mesoridazine/or methiothepin/or methotrimeprazine/or molindone/or ondansetron/or paliperidone palmitate/or penfluridol/or perazine/or perphenazine/or pimozide/or prochlorperazine/or promazine/or quetiapine fumarate/or raclopride/or remoxipride/or reserpine/or risperidone/or ritanserin/or spiperone/or sulpiride/or thioridazine/or thiothixene/or tiapride hydrochloride/or trifluoperazine/or trifluperidol/or triflupromazine/ (114,997)
158	olanzapine.ti,ab. (7555)
159	anticonvulsants/or acetazolamide/or bromides/or carbamazepine/or clonazepam/or clorazepate dipotassium/or diazepam/or dimethadione/or estazolam/or ethosuximide/or flunarizine/or lorazepam/or magnesium sulfate/or medazepam/or mephenytoin/or mephobarbital/or meprobamate/or nitrazepam/or paraldehyde/or phenobarbital/or phenytoin/or pregabalin/or primidone/or riluzole/or thiopental/or tiletamine/or trimethadione/or valproic acid/or vigabatrin/ (129,932)
160	antimanic agents/or lithium chloride/or lithium compounds/ (9229)
161	lamotrigine.ti,ab. (4632)

TABLE 19 Search strategy for MEDLINE via Ovid (*continued*)

162	topiramate.ti,ab. (4045)
163	monoamine oxidase inhibitors/or chlorphenamidine/or clorgyline/or cuprizone/or furazolidone/or harmaline/or harmine/or isocarboxazid/or moclobemide/or monocrotophos/or pargyline/or selegiline/or tranylcypromine/ (17,953)
164	Prazosin/ (7567)
165	N-Methyl-3,4-methylenedioxyamphetamine/ (3644)
166	(MDMA or ecstasy).ti,ab. (5232)
167	148 or 149 or 150 or 151 or 152 or 153 or 154 or 155 or 156 or 157 or 158 or 159 or 160 or 161 or 162 or 163 or 164 or 165 or 166 (407,459)
168	86 and 147 (2717)
169	86 and 167 (405)
170	168 or 169 (3004)
171	limit 170 to yr="1992 -Current" (2818)

PILOTS via ProQuest

Search date: 2 May 2017.

Two separate searches were conducted: one for psychological interventions and a second for pharmacological interventions.

Total records retrieved: 1981.

Date range searched: 1987 onwards.

TABLE 20 Search strategy for PILOTS via ProQuest

Set	Search	Results
Psychological interventions search strategy		
S1	(SU.EXACT("Dating Violence") OR SU.EXACT("Interpersonal Violence") OR SU.EXACT("Family Violence")) OR (batter* NEAR/2 (wife* OR wive* OR woman OR women OR men OR husband* OR partner*)) OR (physical* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR (emotional* NEAR/1 abus*) OR (SU.EXACT("Acquaintance Rape") OR SU.EXACT("Acquaintance Rape" OR "Partner Rape" OR "Rape") OR SU.EXACT("Partner Rape")) OR (sexual* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR SU.EXACT("Child Abuse") OR (child* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR (child* NEAR/2 (exploit* OR neglect* OR trauma*)) OR ("non accidental injur*" OR "non-accidental injur*" OR "nonaccidental injur*") OR SU.EXACT("Human Trafficking") OR ((human OR person OR people) NEAR/2 (traffick* OR exploit*)) OR ((forced OR exploit*) NEAR/2 labour) OR SU.EXACT("Slavery") OR SU.EXACT("Torture") OR (slavery OR enslave* OR torture*) OR SU.EXACT ("Prostitution") OR (prostitution* OR brothel*) OR (sex* NEAR/2 (exploit* OR traffick*)) OR SU.EXACT("Terrorism") OR SU.EXACT("Chemical Warfare" OR "Civil Warfare" OR "Humanitarian Intervention" OR "Military Intervention" OR "War") OR SU.EXACT("Genocide") OR (SU.EXACT("War Neuroses") OR SU.EXACT("War Imprisonment")) OR SU.EXACT("Persecution") OR (civil NEAR/1 (unrest OR conflict* OR disturbance* OR war OR wars OR warfare)) OR (persecution OR victimization OR victimisation) OR (captivity OR imprison*) OR SU.EXACT("Concentration Camps") OR (SU.EXACT("Avalanches" OR "Blizzards" OR "Drought" OR "Earthquakes" OR "Epidemics" OR "Epizootics" OR "Famine" OR "Floods" OR "Hurricanes" OR "Landslides" OR "Lightning" OR "Natural Disasters" OR "Tornadoes" OR "Tsunamis" OR "Volcanoes") OR SU.EXACT("Accidents" OR "Agent Orange" OR "Air Traffic Accidents" OR "Avalanches" OR "Blizzards" OR "Building Collapse" OR "Disasters" OR "Drought" OR "Earthquakes" OR "Epidemics" OR "Epizootics" OR "Explosions" OR	43,537[a]

continued

TABLE 20 Search strategy for PILOTS via ProQuest (*continued*)

Set	Search	Results
	"Famine" OR "Fires" OR "Floods" OR "Home Accidents" OR "Hurricanes" OR "Industrial Accidents" OR "Landmines" OR "Landslides" OR "Lightning" OR "Motor Traffic Accidents" OR "Natural Disasters" OR "Nuclear Accidents" OR "Nuclear Testing" OR "Oil Spills" OR "Pedestrian Accidents" OR "Railroad Accidents" OR "Ship Accidents" OR "Technological Disasters" OR "Tornadoes" OR "Toxic Contamination" OR "Tsunamis" OR "Volcanoes")) OR (humanitarian NEAR/1 (crisis OR crises)) OR (catastrophe OR catastrophic) OR SU.EXACT("Survivors") OR SU.EXACT("Asylum Seekers" OR "Refugees") OR ((forcibly OR internally) NEAR/1 displace*) OR (displace* NEAR/1 (people OR person* OR civilian*)) OR (victim* NEAR/2 (crime* OR disaster*)) OR (SU.EXACT("Political Prisoners") OR SU.EXACT("Prisoners of War")) OR SU.EXACT("Military Personnel") OR ((expose* OR exposure) NEAR/2 (abuse OR assault* OR disaster* OR terror* OR torture* OR trauma* OR rape OR violen* OR war OR warfare)) OR (survivor* NEAR/2 (abuse OR assault* OR disaster* OR terror* OR torture* OR trauma* OR rape OR violen* OR war OR warfare)) OR (victim* NEAR/2 (abuse OR assault* OR crime OR disaster* OR rape OR terror* OR torture* OR trauma* OR violen* OR war OR warfare)) OR (witness* NEAR/2 (abuse OR assault* OR crime OR disaster* OR rape OR terror* OR torture* OR trauma* OR violen* OR war OR warfare))	
S2	(cognitive N2 therap*) OR (cognitive N2 treat*) OR (cognitive N1 rescript*) OR (cognitive N1 restructur*) OR CPT OR CBT OR TFCBT OR (trauma N2 CBT)	812°
S4	(behav* N2 therap*) OR (behav* N2 treat*) OR (behav* N2 modif*) OR biofeedback OR neurofeedback OR "sensory feedback" OR "eye movement desensitization reprocessing" OR "eye movement desensitisation reprocessing" OR EMDR	1077°
S6	(exposure N2 therap*) OR (exposure N2 treat*) OR "live exposure" OR "imaginal exposure" OR "imaginal flooding" OR "exposure inhibition therapy" OR (implosive N2 therap*) OR "image habituation" OR "inoculation training"	223°
S8	(acceptance N2 therap*) OR (commitment N2 therap*) OR hypnosis OR hypnotherap* OR mindfulness OR (supportive N2 therap*) OR (non-directive N2 counsel*) OR (nondirective N2 counsel*) OR psychotherapy OR "group therapy"	6900°
S9	(psychodynamic N1 therap*) OR (interpersonal psychotherap*) OR IPT OR (compassion N2 therap*) OR "accelerated resolution" OR (sensorimotor N1 therap*) OR (schema N1 therap*)	756°
S10	((cognitive N2 therap*) OR (cognitive N2 treat*) OR (cognitive N1 rescript*) OR (cognitive N1 restructur*) OR CPT OR CBT OR TFCBT OR (trauma N2 CBT)) OR ((behav* N2 therap*) OR (behav* N2 treat*) OR (behav* N2 modif*) OR biofeedback OR neurofeedback OR "sensory feedback" OR "eye movement desensitization reprocessing" OR "eye movement desensitisation reprocessing" OR EMDR) OR ((exposure N2 therap*) OR (exposure N2 treat*) OR "live exposure" OR "imaginal exposure" OR "imaginal flooding" OR "exposure inhibition therapy" OR (implosive N2 therap*) OR "image habituation" OR "inoculation training") OR ((acceptance N2 therap*) OR (commitment N2 therap*) OR hypnosis OR hypnotherap* OR mindfulness OR (supportive N2 therap*) OR (non-directive N2 counsel*) OR (nondirective N2 counsel*) OR psychotherapy OR "group therapy") OR ((psychodynamic N1 therap*) OR (interpersonal psychotherap*) OR IPT OR (compassion N2 therap*) OR "accelerated resolution" OR (sensorimotor N1 therap*) OR (schema N1 therap*))	8207°
S11	((SU.EXACT("Dating Violence") OR SU.EXACT("Interpersonal Violence") OR SU.EXACT("Family Violence")) OR (batter* NEAR/2 (wife* OR wive* OR woman OR women OR men OR husband* OR partner*)) OR (physical* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR (emotional* NEAR/1 abus*) OR (SU.EXACT("Acquaintance Rape") OR SU.EXACT("Acquaintance Rape" OR "Partner Rape" OR "Rape") OR SU.EXACT("Partner Rape")) OR (sexual* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR SU.EXACT("Child Abuse") OR (child* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR (child* NEAR/2 (exploit* OR neglect* OR trauma*)) OR ("non accidental injur*" OR "non-accidental injur*" OR "nonaccidental injur*") OR SU.EXACT("Human Trafficking") OR ((human OR person OR people) NEAR/2 (traffick* OR exploit*)) OR ((forced OR exploit*) NEAR/2 labour) OR SU.EXACT("Slavery") OR SU.EXACT("Torture") OR (slavery OR enslave* OR torture*) OR SU.EXACT ("Prostitution") OR (prostitution* OR brothel*) OR (sex* NEAR/2 (exploit* OR traffick*)) OR SU.EXACT("Terrorism") OR SU.EXACT("Chemical Warfare" OR "Civil Warfare" OR "Humanitarian Intervention" OR "Military Intervention" OR "War") OR SU.EXACT("Genocide") OR (SU.EXACT("War Neuroses") OR SU.EXACT("War Imprisonment")) OR SU.EXACT("Persecution") OR (civil NEAR/1 (unrest OR conflict* OR disturbance* OR war OR wars OR warfare)) OR (persecution OR victimization OR victimisation) OR (captivity OR imprison*) OR SU.EXACT("Concentration Camps") OR (SU.EXACT("Avalanches" OR "Blizzards" OR "Drought" OR "Earthquakes" OR "Epidemics" OR "Epizootics" OR "Famine" OR "Floods" OR "Hurricanes" OR "Landslides" OR "Lightning" OR "Natural Disasters" OR "Tornadoes" OR "Tsunamis" OR "Volcanoes") OR SU.EXACT("Accidents" OR "Agent Orange" OR "Air Traffic Accidents" OR "Avalanches" OR "Blizzards" OR "Building Collapse" OR	5986°

TABLE 20 Search strategy for PILOTS via ProQuest (*continued*)

Set	Search	Results
	"Disasters" OR "Drought" OR "Earthquakes" OR "Epidemics" OR "Epizootics" OR "Explosions" OR "Famine" OR "Fires" OR "Floods" OR "Home Accidents" OR "Hurricanes" OR "Industrial Accidents" OR "Landmines" OR "Landslides" OR "Lightning" OR "Motor Traffic Accidents" OR "Natural Disasters" OR "Nuclear Accidents" OR "Nuclear Testing" OR "Oil Spills" OR "Pedestrian Accidents" OR "Railroad Accidents" OR "Ship Accidents" OR "Technological Disasters" OR "Tornadoes" OR "Toxic Contamination" OR "Tsunamis" OR "Volcanoes")) OR (humanitarian NEAR/1 (crisis OR crises)) OR (catastrophe OR catastrophic) OR SU.EXACT("Survivors") OR SU.EXACT("Asylum Seekers" OR "Refugees") OR ((forcibly OR internally) NEAR/1 displace*) OR (displace* NEAR/1 (people OR person* OR civilian*)) OR (victim* NEAR/2 (crime* OR disaster*)) OR (SU.EXACT("Political Prisoners") OR SU.EXACT("Prisoners of War")) OR SU.EXACT("Military Personnel") OR ((expose* OR exposure) NEAR/2 (abuse OR assault* OR disaster* OR terror* OR torture* OR trauma* OR rape OR violen* OR war OR warfare)) OR (survivor* NEAR/2 (abuse OR assault* OR disaster* OR terror* OR torture* OR trauma* OR rape OR violen* OR war OR warfare)) OR (victim* NEAR/2 (abuse OR assault* OR crime OR disaster* OR rape OR terror* OR torture* OR trauma* OR violen* OR war OR warfare)) OR (witness* NEAR/2 (abuse OR assault* OR crime OR disaster* OR rape OR terror* OR torture* OR trauma* OR violen* OR war OR warfare))) AND (((cognitive N2 therap*) OR (cognitive N2 treat*) OR (cognitive N1 rescript*) OR (cognitive N1 restructur*) OR CPT OR CBT OR TFCBT OR (trauma N2 CBT)) OR ((behav* N2 therap*) OR (behav* N2 treat*) OR (behav* N2 modif*) OR biofeedback OR neurofeedback OR "sensory feedback" OR "eye movement desensitization reprocessing" OR "eye movement desensitisation reprocessing" OR EMDR) OR ((exposure N2 therap*) OR (exposure N2 treat*) OR "live exposure" OR "imaginal exposure" OR "imaginal flooding" OR "exposure inhibition therapy" OR (implosive N2 therap*) OR "image habituation" OR "inoculation training") OR ((acceptance N2 therap*) OR (commitment N2 therap*) OR hypnosis OR hypnotherap* OR mindfulness OR (supportive N2 therap*) OR (non-directive N2 counsel*) OR (nondirective N2 counsel*) OR psychotherapy OR "group therapy") OR ((psychodynamic N1 therap*) OR (interpersonal psychotherap*) OR IPT OR (compassion N2 therap*) OR "accelerated resolution" OR (sensorimotor N1 therap*) OR (schema N1 therap*)))	
S12	SU.EXACT("Complex PTSD") OR SU.EXACT("PTSD")	18,871°
S13	(((SU.EXACT("Dating Violence") OR SU.EXACT("Interpersonal Violence") OR SU.EXACT("Family Violence")) OR (batter* NEAR/2 (wife* OR wive* OR woman OR women OR men OR husband* OR partner*)) OR (physical* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR (emotional* NEAR/1 abus*) OR (SU.EXACT("Acquaintance Rape") OR SU.EXACT("Acquaintance Rape" OR "Partner Rape" OR "Rape") OR SU.EXACT("Partner Rape")) OR (sexual* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR SU.EXACT("Child Abuse") OR (child* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR (child* NEAR/2 (exploit* OR neglect* OR trauma*)) OR ("non accidental injur*" OR "non-accidental injur*" OR "nonaccidental injur*") OR SU.EXACT("Human Trafficking") OR ((human OR person OR people) NEAR/2 (traffick* OR exploit*)) OR ((forced OR exploit*) NEAR/2 labour) OR SU.EXACT("Slavery") OR SU.EXACT("Torture") OR (slavery OR enslave* OR torture*) OR SU.EXACT ("Prostitution") OR (prostitution* OR brothel*) OR (sex* NEAR/2 (exploit* OR traffick*)) OR SU.EXACT("Terrorism") OR SU.EXACT("Chemical Warfare" OR "Civil Warfare" OR "Humanitarian Intervention" OR "Military Intervention" OR "War") OR SU.EXACT("Genocide") OR (SU.EXACT("War Neuroses") OR SU.EXACT("War Imprisonment")) OR SU.EXACT("Persecution") OR (civil NEAR/1 (unrest OR conflict* OR disturbance* OR war OR wars OR warfare)) OR (persecution OR victimization OR victimisation) OR (captivity OR imprison*) OR SU.EXACT("Concentration Camps") OR (SU.EXACT("Avalanches" OR "Blizzards" OR "Drought" OR "Earthquakes" OR "Epidemics" OR "Epizootics" OR "Famine" OR "Floods" OR "Hurricanes" OR "Landslides" OR "Lightning" OR "Natural Disasters" OR "Tornadoes" OR "Tsunamis" OR "Volcanoes") OR SU.EXACT("Accidents" OR "Agent Orange" OR "Air Traffic Accidents" OR "Avalanches" OR "Blizzards" OR "Building Collapse" OR "Disasters" OR "Drought" OR "Earthquakes" OR "Epidemics" OR "Epizootics" OR "Explosions" OR "Famine" OR "Fires" OR "Floods" OR "Home Accidents" OR "Hurricanes" OR "Industrial Accidents" OR "Landmines" OR "Landslides" OR "Lightning" OR "Motor Traffic Accidents" OR "Natural Disasters" OR "Nuclear Accidents" OR "Nuclear Testing" OR "Oil Spills" OR "Pedestrian Accidents" OR "Railroad Accidents" OR "Ship Accidents" OR "Technological Disasters" OR "Tornadoes" OR "Toxic Contamination" OR "Tsunamis" OR "Volcanoes")) OR (humanitarian NEAR/1 (crisis OR crises)) OR (catastrophe OR catastrophic) OR SU.EXACT("Survivors") OR SU.EXACT("Asylum Seekers" OR "Refugees") OR ((forcibly OR internally) NEAR/1 displace*) OR (displace* NEAR/1 (people OR person* OR civilian*)) OR (victim* NEAR/2 (crime* OR disaster*)) OR (SU.EXACT("Political Prisoners") OR SU.EXACT("Prisoners of War")) OR SU.EXACT("Military Personnel") OR ((expose* OR exposure) NEAR/2 (abuse OR assault* OR disaster* OR terror* OR torture* OR trauma* OR rape OR violen* OR war OR warfare)) OR (survivor* NEAR/2 (abuse OR assault* OR disaster* OR terror* OR torture* OR trauma* OR rape OR violen* OR war OR warfare)) OR (victim* NEAR/2 (abuse OR assault* OR crime OR disaster* OR rape OR terror* OR torture* OR trauma* OR violen* OR war OR warfare)) OR	1955°

continued

TABLE 20 Search strategy for PILOTS via ProQuest (*continued*)

Set	Search	Results
	(witness* NEAR/2 (abuse OR assault* OR crime OR disaster* OR rape OR terror* OR torture* OR trauma* OR violen* OR war OR warfare))) AND (((cognitive N2 therap*) OR (cognitive N2 treat*) OR (cognitive N1 rescript*) OR (cognitive N1 restructur*) OR CPT OR CBT OR TFCBT OR (trauma N2 CBT)) OR ((behav* N2 therap*) OR (behav* N2 treat*) OR (behav* N2 modif*) OR biofeedback OR neurofeedback OR "sensory feedback" OR "eye movement desensitization reprocessing" OR "eye movement desensitisation reprocessing" OR EMDR) OR ((exposure N2 therap*) OR (exposure N2 treat*) OR "live exposure" OR "imaginal exposure" OR "imaginal flooding" OR "exposure inhibition therapy" OR (implosive N2 therap*) OR "image habituation" OR "inoculation training") OR ((acceptance N2 therap*) OR (commitment N2 therap*) OR hypnosis OR hypnotherap* OR mindfulness OR (supportive N2 therap*) OR (non-directive N2 counsel*) OR (nondirective N2 counsel*) OR psychotherapy OR "group therapy") OR ((psychodynamic N1 therap*) OR (interpersonal psychotherap*) OR IPT OR (compassion N2 therap*) OR "accelerated resolution" OR (sensorimotor N1 therap*) OR (schema N1 therap*)))) AND (SU.EXACT("Complex PTSD") OR SU.EXACT("PTSD"))	
S14	(((SU.EXACT("Dating Violence") OR SU.EXACT("Interpersonal Violence") OR SU.EXACT("Family Violence")) OR (batter* NEAR/2 (wife* OR wive* OR woman OR women OR men OR husband* OR partner*)) OR (physical* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR (emotional* NEAR/1 abus*) OR (SU.EXACT("Acquaintance Rape") OR SU.EXACT("Acquaintance Rape" OR "Partner Rape" OR "Rape") OR SU.EXACT("Partner Rape")) OR (sexual* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR SU.EXACT("Child Abuse") OR (child* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR (child* NEAR/2 (exploit* OR neglect* OR trauma*)) OR ("non accidental injur*" OR "non-accidental injur*" OR "nonaccidental injur*") OR SU.EXACT("Human Trafficking") OR ((human OR person OR people) NEAR/2 (traffick* OR exploit*)) OR ((forced OR exploit*) NEAR/2 labour) OR SU.EXACT("Slavery") OR SU.EXACT("Torture") OR (slavery OR enslave* OR torture*) OR SU.EXACT ("Prostitution") OR (prostitution* OR brothel*) OR (sex* NEAR/2 (exploit* OR traffick*)) OR SU.EXACT("Terrorism") OR SU.EXACT("Chemical Warfare" OR "Civil Warfare" OR "Humanitarian Intervention" OR "Military Intervention" OR "War") OR SU.EXACT("Genocide") OR (SU.EXACT("War Neuroses") OR SU.EXACT("War Imprisonment")) OR SU.EXACT("Persecution") OR (civil NEAR/1 (unrest OR conflict* OR disturbance* OR war OR wars OR warfare)) OR (persecution OR victimization OR victimisation) OR (captivity OR imprison*) OR SU.EXACT("Concentration Camps") OR (SU.EXACT("Avalanches" OR "Blizzards" OR "Drought" OR "Earthquakes" OR "Epidemics" OR "Epizootics" OR "Famine" OR "Floods" OR "Hurricanes" OR "Landslides" OR "Lightning" OR "Natural Disasters" OR "Tornadoes" OR "Tsunamis" OR "Volcanoes") OR SU.EXACT("Accidents" OR "Agent Orange" OR "Air Traffic Accidents" OR "Avalanches" OR "Blizzards" OR "Building Collapse" OR "Disasters" OR "Drought" OR "Earthquakes" OR "Epidemics" OR "Epizootics" OR "Explosions" OR "Famine" OR "Fires" OR "Floods" OR "Home Accidents" OR "Hurricanes" OR "Industrial Accidents" OR "Landmines" OR "Landslides" OR "Lightning" OR "Motor Traffic Accidents" OR "Natural Disasters" OR "Nuclear Accidents" OR "Nuclear Testing" OR "Oil Spills" OR "Pedestrian Accidents" OR "Railroad Accidents" OR "Ship Accidents" OR "Technological Disasters" OR "Tornadoes" OR "Toxic Contamination" OR "Tsunamis" OR "Volcanoes")) OR (humanitarian NEAR/1 (crisis OR crises)) OR (catastrophe OR catastrophic) OR SU.EXACT("Survivors") OR SU.EXACT("Asylum Seekers" OR "Refugees") OR ((forcibly OR internally) NEAR/1 displace*) OR (displace* NEAR/1 (people OR person* OR civilian*)) OR (victim* NEAR/2 (crime* OR disaster*)) OR (SU.EXACT("Political Prisoners") OR SU.EXACT("Prisoners of War")) OR SU.EXACT("Military Personnel") OR ((expose* OR exposure) NEAR/2 (abuse OR assault* OR disaster* OR terror* OR torture* OR trauma* OR rape OR violen* OR war OR warfare)) OR (survivor* NEAR/2 (abuse OR assault* OR disaster* OR terror* OR torture* OR trauma* OR rape OR violen* OR war OR warfare)) OR (victim* NEAR/2 (abuse OR assault* OR crime OR disaster* OR rape OR terror* OR torture* OR trauma* OR violen* OR war OR warfare)) OR (witness* NEAR/2 (abuse OR assault* OR crime OR disaster* OR rape OR terror* OR torture* OR trauma* OR violen* OR war OR warfare))) AND (((cognitive N2 therap*) OR (cognitive N2 treat*) OR (cognitive N1 rescript*) OR (cognitive N1 restructur*) OR CPT OR CBT OR TFCBT OR (trauma N2 CBT)) OR ((behav* N2 therap*) OR (behav* N2 treat*) OR (behav* N2 modif*) OR biofeedback OR neurofeedback OR "sensory feedback" OR "eye movement desensitization reprocessing" OR "eye movement desensitisation reprocessing" OR EMDR) OR ((exposure N2 therap*) OR (exposure N2 treat*) OR "live exposure" OR "imaginal exposure" OR "imaginal flooding" OR "exposure inhibition therapy" OR (implosive N2 therap*) OR "image habituation" OR "inoculation training") OR ((acceptance N2 therap*) OR (commitment N2 therap*) OR hypnosis OR hypnotherap* OR mindfulness OR (supportive N2 therap*) OR (non-directive N2 counsel*) OR (nondirective N2 counsel*) OR psychotherapy OR "group therapy") OR ((psychodynamic N1 therap*) OR (interpersonal psychotherap*) OR IPT OR (compassion N2 therap*) OR "accelerated resolution" OR (sensorimotor N1 therap*) OR (schema N1 therap*)))) AND (SU.EXACT("Complex PTSD") OR SU.EXACT("PTSD")) Limits applied	

TABLE 20 Search strategy for PILOTS via ProQuest (*continued*)

Set	Search	Results
Pharmacological interventions search strategy		
S1	(SU.EXACT("Dating Violence") OR SU.EXACT("Interpersonal Violence") OR SU.EXACT("Family Violence")) OR (batter* NEAR/2 (wife* OR wive* OR woman OR women OR men OR husband* OR partner*)) OR (physical* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR (emotional* NEAR/1 abus*) OR (SU.EXACT("Acquaintance Rape") OR SU.EXACT("Acquaintance Rape" OR "Partner Rape" OR "Rape") OR SU.EXACT("Partner Rape")) OR (sexual* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR SU.EXACT("Child Abuse") OR (child* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR (child* NEAR/2 (exploit* OR neglect* OR trauma*)) OR ("non accidental injur*" OR "non-accidental injur*" OR "nonaccidental injur*") OR SU.EXACT("Human Trafficking") OR ((human OR person OR people) NEAR/2 (traffick* OR exploit*)) OR ((forced OR exploit*) NEAR/2 labour) OR SU.EXACT("Slavery") OR SU.EXACT("Torture") OR (slavery OR enslave* OR torture*) OR SU.EXACT ("Prostitution") OR (prostitution* OR brothel*) OR (sex* NEAR/2 (exploit* OR traffick*)) OR SU.EXACT("Terrorism") OR SU.EXACT("Chemical Warfare" OR "Civil Warfare" OR "Humanitarian Intervention" OR "Military Intervention" OR "War") OR SU.EXACT("Genocide") OR (SU.EXACT("War Neuroses") OR SU.EXACT("War Imprisonment")) OR SU.EXACT("Persecution") OR (civil NEAR/1 (unrest OR conflict* OR disturbance* OR war OR wars OR warfare)) OR (persecution OR victimization OR victimisation) OR (captivity OR imprison*) OR SU.EXACT("Concentration Camps") OR (SU.EXACT("Avalanches" OR "Blizzards" OR "Drought" OR "Earthquakes" OR "Epidemics" OR "Epizootics" OR "Famine" OR "Floods" OR "Hurricanes" OR "Landslides" OR "Lightning" OR "Natural Disasters" OR "Tornadoes" OR "Tsunamis" OR "Volcanoes") OR SU.EXACT("Accidents" OR "Agent Orange" OR "Air Traffic Accidents" OR "Avalanches" OR "Blizzards" OR "Building Collapse" OR "Disasters" OR "Drought" OR "Earthquakes" OR "Epidemics" OR "Epizootics" OR "Explosions" OR "Famine" OR "Fires" OR "Floods" OR "Home Accidents" OR "Hurricanes" OR "Industrial Accidents" OR "Landmines" OR "Landslides" OR "Lightning" OR "Motor Traffic Accidents" OR "Natural Disasters" OR "Nuclear Accidents" OR "Nuclear Testing" OR "Oil Spills" OR "Pedestrian Accidents" OR "Railroad Accidents" OR "Ship Accidents" OR "Technological Disasters" OR "Tornadoes" OR "Toxic Contamination" OR "Tsunamis" OR "Volcanoes")) OR (humanitarian NEAR/1 (crisis OR crises)) OR (catastrophe OR catastrophic) OR SU.EXACT("Survivors") OR SU.EXACT("Asylum Seekers" OR "Refugees") OR ((forcibly OR internally) NEAR/1 displace*) OR (displace* NEAR/1 (people OR person* OR civilian*)) OR (victim* NEAR/2 (crime* OR disaster*)) OR (SU.EXACT("Political Prisoners") OR SU.EXACT("Prisoners of War")) OR SU.EXACT("Military Personnel") OR ((expose* OR exposure) NEAR/2 (abuse OR assault* OR disaster* OR terror* OR torture* OR trauma* OR rape OR violen* OR war OR warfare)) OR (survivor* NEAR/2 (abuse OR assault* OR disaster* OR terror* OR torture* OR trauma* OR rape OR violen* OR war OR warfare)) OR (victim* NEAR/2 (abuse OR assault* OR crime OR disaster* OR rape OR terror* OR torture* OR trauma* OR violen* OR war OR warfare)) OR (witness* NEAR/2 (abuse OR assault* OR crime OR disaster* OR rape OR terror* OR torture* OR trauma* OR violen* OR war OR warfare))	43,537°
S12	SU.EXACT("Complex PTSD") OR SU.EXACT("PTSD")	18,871°
S13	((SU.EXACT("Dating Violence") OR SU.EXACT("Interpersonal Violence") OR SU.EXACT("Family Violence")) OR (batter* NEAR/2 (wife* OR wive* OR woman OR women OR men OR husband* OR partner*)) OR (physical* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR (emotional* NEAR/1 abus*) OR (SU.EXACT("Acquaintance Rape") OR SU.EXACT("Acquaintance Rape" OR "Partner Rape" OR "Rape") OR SU.EXACT("Partner Rape")) OR (sexual* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR SU.EXACT("Child Abuse") OR (child* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR (child* NEAR/2 (exploit* OR neglect* OR trauma*)) OR ("non accidental injur*" OR "non-accidental injur*" OR "nonaccidental injur*") OR SU.EXACT("Human Trafficking") OR ((human OR person OR people) NEAR/2 (traffick* OR exploit*)) OR ((forced OR exploit*) NEAR/2 labour) OR SU.EXACT("Slavery") OR SU.EXACT("Torture") OR (slavery OR enslave* OR torture*) OR SU.EXACT ("Prostitution") OR (prostitution* OR brothel*) OR (sex* NEAR/2 (exploit* OR traffick*)) OR SU.EXACT("Terrorism") OR SU.EXACT("Chemical Warfare" OR "Civil Warfare" OR "Humanitarian Intervention" OR "Military Intervention" OR "War") OR SU.EXACT("Genocide") OR (SU.EXACT("War Neuroses") OR SU.EXACT("War Imprisonment")) OR SU.EXACT("Persecution") OR (civil NEAR/1 (unrest OR conflict* OR disturbance* OR war OR wars OR warfare)) OR (persecution OR victimization OR victimisation) OR (captivity OR imprison*) OR SU.EXACT("Concentration Camps") OR (SU.EXACT("Avalanches" OR "Blizzards" OR "Drought" OR "Earthquakes" OR "Epidemics" OR "Epizootics" OR "Famine" OR "Floods" OR "Hurricanes" OR "Landslides" OR "Lightning" OR "Natural Disasters" OR "Tornadoes" OR "Tsunamis" OR "Volcanoes") OR SU.EXACT("Accidents" OR "Agent Orange" OR "Air Traffic Accidents" OR "Avalanches" OR "Blizzards" OR "Building Collapse" OR "Disasters" OR "Drought" OR "Earthquakes" OR "Epidemics" OR "Epizootics" OR "Explosions" OR "Famine" OR "Fires" OR "Floods" OR "Home Accidents" OR "Hurricanes" OR "Industrial Accidents" OR "Landmines" OR "Landslides" OR "Lightning" OR "Motor Traffic Accidents" OR "Natural Disasters"	13,010°

continued

TABLE 20 Search strategy for PILOTS via ProQuest (*continued*)

Set	Search	Results
	OR "Nuclear Accidents" OR "Nuclear Testing" OR "Oil Spills" OR "Pedestrian Accidents" OR "Railroad Accidents" OR "Ship Accidents" OR "Technological Disasters" OR "Tornadoes" OR "Toxic Contamination" OR "Tsunamis" OR "Volcanoes")) OR (humanitarian NEAR/1 (crisis OR crises)) OR (catastrophe OR catastrophic) OR SU.EXACT("Survivors") OR SU.EXACT("Asylum Seekers" OR "Refugees") OR ((forcibly OR internally) NEAR/1 displace*) OR (displace* NEAR/1 (people OR person* OR civilian*)) OR (victim* NEAR/2 (crime* OR disaster*)) OR (SU.EXACT("Political Prisoners") OR SU.EXACT("Prisoners of War")) OR SU.EXACT("Military Personnel") OR ((expose* OR exposure) NEAR/2 (abuse OR assault* OR disaster* OR terror* OR torture* OR trauma* OR rape OR violen* OR war OR warfare)) OR (survivor* NEAR/2 (abuse OR assault* OR disaster* OR terror* OR torture* OR trauma* OR rape OR violen* OR war OR warfare)) OR (victim* NEAR/2 (abuse OR assault* OR crime OR disaster* OR rape OR terror* OR torture* OR trauma* OR violen* OR war OR warfare)) OR (witness* NEAR/2 (abuse OR assault* OR crime OR disaster* OR rape OR terror* OR torture* OR trauma* OR violen* OR war OR warfare))) AND (SU.EXACT("Complex PTSD") OR SU.EXACT("PTSD"))	
S14	alprazolam or amobarbital or azaperone or barbital or bromisovalum or chloral hydrate or chloralose or chlordiazepoxide or chlormethiazole or dexmedetomidine or diazepam or diphenhydramine or eszopiclone or ethchlorvynol or etomidate or etorphine or flurazepam or glutethimide or hexobarbital or lorazepam or medazepam or medetomidine or mephobarbital or meprobamate or methapyrilene or methaqualone or midazolam or nitrazepam or oxazepam or paraldehyde or pentobarbital or phenobarbital or propofol or secobarbital or temazepam or thiamylal or thiopental or xylazine	77°
S15	bromazepam or buspirone or chlormezanone or clorazepate dipotassium or estazolam or flunitrazepam or fluvoxamine or nordazepam or ondansetron or oxprenolol or prazepam or pregabalin or ritanserin or tranylcypromine or trazodone or triazolam or zolazepam	84°
S16	benzodiazepines or benzodiazepinones or promethazine or benactyzine or clorgyline or deanol or desvenlafaxine succinate or duloxetine hydrochloride or iproniazid or isocarboxazid or lithium carbonate or lithium compounds or moclobemide or nialamide or phenelzine or pizotyline or rolipram or sertraline or tranylcypromine or vilazodone hydrochloride or Imipramine or mirtazapine	547°
S17	acepromazine or aripiprazole or azaperone or benperidol or butaclamol or chlorpromazine or chlorprothixene or clopenthixol or clozapine or droperidol or etazolate or flupenthixol or fluphenazine or fluspirilene or haloperidol or loxapine or lurasidone hydrochloride or mesoridazine or methiothepin or methotrimeprazine or molindone or ondansetron or paliperidone palmitate or penfluridol or perazine or perphenazine or pimozide or prochlorperazine or promazine or quetiapine fumarate or raclopride or remoxipride or reserpine or risperidone or ritanserin or spiperone or sulpiride or thioridazine or thiothixene or tiapride hydrochloride or trifluoperazine or trifluperidol or triflupromazine or olanzapine	107°
S18	acetazolamide or bromides or carbamazepine or clonazepam or clorazepate dipotassium or diazepam or dimethadione or estazolam or ethosuximide or flunarizine or lorazepam or magnesium sulfate or medazepam or mephenytoin or mephobarbital or meprobamate or nitrazepam or paraldehyde or phenobarbital or phenytoin or pregabalin or primidone or riluzole or thiopental or tiletamine or trimethadione or valproic acid or vigabatrin or lithium chloride or lithium compounds or lamotrigine or topiramate	145°
S19	monoamine oxidase inhibitors or chlorphenamidine or clorgyline or cuprizone or furazolidone or harmaline or harmine or isocarboxazid or moclobemide or monocrotophos or pargyline or selegiline or tranylcypromine or Prazosin or N-Methyl-3,4-methylenedioxyamphetamine or MDMA or ecstasy	197°
S20	hypnotics OR (hypnotic drugs) OR sedatives OR (sedative drugs) OR "anti-anxiety drug*" OR "anti-anxiety agent*" OR "antidepressive agent*" OR "antidepressive drug*" OR "antipsychotic agent*" OR "antipsychotic drug*"	413°
S21	"antimanic agent*" OR "antimanic drug*" OR anticonvulsants OR "anticonvulsant drug*" OR "z drug*"	176°
S22	(alprazolam or amobarbital or azaperone or barbital or bromisovalum or chloral hydrate or chloralose or chlordiazepoxide or chlormethiazole or dexmedetomidine or diazepam or diphenhydramine or eszopiclone or ethchlorvynol or etomidate or etorphine or flurazepam or glutethimide or hexobarbital or lorazepam or medazepam or medetomidine or mephobarbital or meprobamate or methapyrilene or methaqualone or midazolam or nitrazepam or oxazepam or paraldehyde or pentobarbital or phenobarbital or propofol or secobarbital or temazepam or thiamylal or thiopental or xylazine) OR (bromazepam or buspirone or chlormezanone or clorazepate dipotassium or estazolam or flunitrazepam or fluvoxamine or nordazepam or ondansetron or oxprenolol or prazepam or pregabalin or ritanserin or tranylcypromine or trazodone or triazolam or zolazepam) OR (benzodiazepines or benzodiazepinones or promethazine or benactyzine or clorgyline or deanol or desvenlafaxine succinate or duloxetine hydrochloride or iproniazid or isocarboxazid or lithium	1302°

TABLE 20 Search strategy for PILOTS via ProQuest (*continued*)

Set	Search	Results
	carbonate or lithium compounds or moclobemide or nialamide or phenelzine or pizotyline or rolipram or sertraline or tranylcypromine or vilazodone hydrochloride or Imipramine or mirtazapine) OR (acepromazine or aripiprazole or azaperone or benperidol or butaclamol or chlorpromazine or chlorprothixene or clopenthixol or clozapine or droperidol or etazolate or flupenthixol or fluphenazine or fluspirilene or haloperidol or loxapine or lurasidone hydrochloride or mesoridazine or methiothepin or methotrimeprazine or molindone or ondansetron or paliperidone palmitate or penfluridol or perazine or perphenazine or pimozide or prochlorperazine or promazine or quetiapine fumarate or raclopride or remoxipride or reserpine or risperidone or ritanserin or spiperone or sulpiride or thioridazine or thiothixene or tiapride hydrochloride or trifluoperazine or trifluperidol or triflupromazine or olanzapine) OR (acetazolamide or bromides or carbamazepine or clonazepam or clorazepate dipotassium or diazepam or dimethadione or estazolam or ethosuximide or flunarizine or lorazepam or magnesium sulfate or medazepam or mephenytoin or mephobarbital or meprobamate or nitrazepam or paraldehyde or phenobarbital or phenytoin or pregabalin or primidone or riluzole or thiopental or tiletamine or trimethadione or valproic acid or vigabatrin or lithium chloride or lithium compounds or lamotrigine or topiramate) OR (monoamine oxidase inhibitors or chlorphenamidine or clorgyline or cuprizone or furazolidone or harmaline or harmine or isocarboxazid or moclobemide or monocrotophos or pargyline or selegiline or tranylcypromine or Prazosin or N-Methyl-3,4-methylenedioxyamphetamine or MDMA or ecstasy) OR (hypnotics OR (hypnotic drugs) OR sedatives OR (sedative drugs) OR "anti-anxiety drug*" OR "anti-anxiety agent*" OR "antidepressive agent*" OR "antidepressive drug*" OR "antipsychotic agent*" OR "antipsychotic drug*") OR ("antimanic agent*" OR "antimanic drug*" OR anticonvulsants OR "anticonvulsant drug*" OR "z drug*")	
S23	(((SU.EXACT("Dating Violence") OR SU.EXACT("Interpersonal Violence") OR SU.EXACT("Family Violence")) OR (batter* NEAR/2 (wife* OR wive* OR woman OR women OR men OR husband* OR partner*)) OR (physical* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR (emotional* NEAR/1 abus*) OR (SU.EXACT("Acquaintance Rape") OR SU.EXACT("Acquaintance Rape" OR "Partner Rape" OR "Rape") OR SU.EXACT("Partner Rape")) OR (sexual* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR SU.EXACT("Child Abuse") OR (child* NEAR/2 (abus* OR assault* OR violen* OR aggress*)) OR (child* NEAR/2 (exploit* OR neglect* OR trauma*)) OR ("non accidental injur*" OR "non-accidental injur*" OR "nonaccidental injur*") OR SU.EXACT("Human Trafficking") OR ((human OR person OR people) NEAR/2 (traffick* OR exploit*)) OR ((forced OR exploit*) NEAR/2 labour) OR SU.EXACT("Slavery") OR SU.EXACT ("Torture") OR (slavery OR enslave* OR torture*) OR SU.EXACT("Prostitution") OR (prostitution* OR brothel*) OR (sex* NEAR/2 (exploit* OR traffick*)) OR SU.EXACT("Terrorism") OR SU.EXACT("Chemical Warfare" OR "Civil Warfare" OR "Humanitarian Intervention" OR "Military Intervention" OR "War") OR SU.EXACT("Genocide") OR (SU.EXACT("War Neuroses") OR SU.EXACT("War Imprisonment")) OR SU.EXACT("Persecution") OR (civil NEAR/1 (unrest OR conflict* OR disturbance* OR war OR wars OR warfare)) OR (persecution OR victimization OR victimisation) OR (captivity OR imprison*) OR SU.EXACT ("Concentration Camps") OR (SU.EXACT("Avalanches" OR "Blizzards" OR "Drought" OR "Earthquakes" OR "Epidemics" OR "Epizootics" OR "Famine" OR "Floods" OR "Hurricanes" OR "Landslides" OR "Lightning" OR "Natural Disasters" OR "Tornadoes" OR "Tsunamis" OR "Volcanoes") OR SU.EXACT("Accidents" OR "Agent Orange" OR "Air Traffic Accidents" OR "Avalanches" OR "Blizzards" OR "Building Collapse" OR "Disasters" OR "Drought" OR "Earthquakes" OR "Epidemics" OR "Epizootics" OR "Explosions" OR "Famine" OR "Fires" OR "Floods" OR "Home Accidents" OR "Hurricanes" OR "Industrial Accidents" OR "Landmines" OR "Landslides" OR "Lightning" OR "Motor Traffic Accidents" OR "Natural Disasters" OR "Nuclear Accidents" OR "Nuclear Testing" OR "Oil Spills" OR "Pedestrian Accidents" OR "Railroad Accidents" OR "Ship Accidents" OR "Technological Disasters" OR "Tornadoes" OR "Toxic Contamination" OR "Tsunamis" OR "Volcanoes")) OR (humanitarian NEAR/1 (crisis OR crises)) OR (catastrophe OR catastrophic) OR SU.EXACT ("Survivors") OR SU.EXACT("Asylum Seekers" OR "Refugees") OR ((forcibly OR internally) NEAR/1 displace*) OR (displace* NEAR/1 (people OR person* OR civilian*)) OR (victim* NEAR/2 (crime* OR disaster*)) OR (SU.EXACT("Political Prisoners") OR SU.EXACT("Prisoners of War")) OR SU.EXACT("Military Personnel") OR ((expose* OR exposure) NEAR/2 (abuse OR assault* OR disaster* OR terror* OR torture* OR trauma* OR rape OR violen* OR war OR warfare)) OR (survivor* NEAR/2 (abuse OR assault* OR disaster* OR terror* OR torture* OR trauma* OR rape OR violen* OR war OR warfare)) OR (victim* NEAR/2 (abuse OR assault* OR crime OR disaster* OR rape OR terror* OR torture* OR trauma* OR violen* OR war OR warfare)) OR (witness* NEAR/2 (abuse OR assault* OR crime OR disaster* OR rape OR terror* OR torture* OR trauma* OR violen* OR war OR warfare))) AND (SU.EXACT("Complex PTSD") OR SU.EXACT ("PTSD"))) AND ((alprazolam or amobarbital or azaperone or barbital or bromisovalum or chloral hydrate or chloralose or chlordiazepoxide or chlormethiazole or dexmedetomidine or diazepam or diphenhydramine or eszopiclone or ethchlorvynol or etomidate or etorphine or flurazepam or glutethimide or hexobarbital or lorazepam or medazepam or medetomidine or mephobarbital or meprobamate or methapyrilene or methaqualone or midazolam or nitrazepam or oxazepam or paraldehyde or pentobarbital or phenobarbital or propofol or secobarbital or temazepam or thiamylal or thiopental or xylazine) OR (bromazepam or buspirone or chlormezanone or clorazepate dipotassium or estazolam or flunitrazepam or fluvoxamine or	199°

continued

TABLE 20 Search strategy for PILOTS via ProQuest (*continued*)

Set	Search	Results
	nordazepam or ondansetron or oxprenolol or prazepam or pregabalin or ritanserin or tranylcypromine or trazodone or triazolam or zolazepam) OR (benzodiazepines or benzodiazepinones or promethazine or benactyzine or clorgyline or deanol or desvenlafaxine succinate or duloxetine hydrochloride or iproniazid or isocarboxazid or lithium carbonate or lithium compounds or moclobemide or nialamide or phenelzine or pizotyline or rolipram or sertraline or tranylcypromine or vilazodone hydrochloride or Imipramine or mirtazapine) OR (acepromazine or aripiprazole or azaperone or benperidol or butaclamol or chlorpromazine or chlorprothixene or clopenthixol or clozapine or droperidol or etazolate or flupenthixol or fluphenazine or fluspirilene or haloperidol or loxapine or lurasidone hydrochloride or mesoridazine or methiothepin or methotrimeprazine or molindone or ondansetron or paliperidone palmitate or penfluridol or perazine or perphenazine or pimozide or prochlorperazine or promazine or quetiapine fumarate or raclopride or remoxipride or reserpine or risperidone or ritanserin or spiperone or sulpiride or thioridazine or thiothixene or tiapride hydrochloride or trifluoperazine or trifluperidol or triflupromazine or olanzapine) OR (acetazolamide or bromides or carbamazepine or clonazepam or clorazepate dipotassium or diazepam or dimethadione or estazolam or ethosuximide or flunarizine or lorazepam or magnesium sulfate or medazepam or mephenytoin or mephobarbital or meprobamate or nitrazepam or paraldehyde or phenobarbital or phenytoin or pregabalin or primidone or riluzole or thiopental or tiletamine or trimethadione or valproic acid or vigabatrin or lithium chloride or lithium compounds or lamotrigine or topiramate) OR (monoamine oxidase inhibitors or chlorphenamidine or clorgyline or cuprizone or furazolidone or harmaline or harmine or isocarboxazid or moclobemide or monocrotophos or pargyline or selegiline or tranylcypromine or Prazosin or N-Methyl-3,4-methylenedioxyamphetamine or MDMA or ecstasy) OR (hypnotics OR (hypnotic drugs) OR sedatives OR (sedative drugs) OR "anti-anxiety drug*" OR "anti-anxiety agent*" OR "antidepressive agent*" OR "antidepressive drug*" OR "antipsychotic agent*" OR "antipsychotic drug*") OR ("antimanic agent*" OR "antimanic drug*" OR anticonvulsants OR "anticonvulsant drug*" OR "z drug*"))	

PsycINFO via Ovid

Search date: 18 April 2017.

Records retrieved: 2658.

Date range searched: 1806 to April week 2 2017.

TABLE 21 Search strategy for PsycINFO via Ovid

1	exp Violence/ (66,551)
2	Exposure to Violence/ (509)
3	violence.ti,ab. (60,703)
4	Domestic Violence/ (10,282)
5	Intimate Partner Violence/ (5917)
6	Battered Females/ (3011)
7	Partner Abuse/ (4576)
8	(batter$ adj2 (wife$ or wive$ or woman or women or men or husband$ or partner$)).ti,ab. (2311)
9	Physical Abuse/ (5465)
10	(physical$ adj2 (abus$ or assault$ or violen$ or aggress$)).ti,ab. (14,559)
11	Emotional Abuse/ (2267)
12	(emotional$ adj2 abus$).ti,ab. (2704)

TABLE 21 Search strategy for PsycINFO via Ovid (*continued*)

13	Rape/ (5043)
14	rape.ti,ab. (7403)
15	(sexual$ adj2 (abus$ or assault$ or violen$ or aggress$)).ti,ab. (30,943)
16	Child Abuse/ (26,161)
17	Sexual Abuse/ (18,589)
18	child$ sexual abuse.ti,ab. (8393)
19	Incest/ (2526)
20	(child$ adj2 exploit$).ti,ab. (354)
21	Child Neglect/ (3628)
22	child neglect.ti,ab. (642)
23	(child$ adj2 trauma).ti,ab. (4693)
24	(non accidental injur$ or non-accidental injur$ or nonaccidental injur$).ti,ab. (48)
25	Human Trafficking/ (595)
26	((human or person or people) adj2 (traffick$ or exploit$)).ti,ab. (543)
27	((forced or exploit$) adj2 labour).ti,ab. (40)
28	Slavery/ (215)
29	Torture/ (1151)
30	(slavery or torture$ or enslave$).ti,ab. (3946)
31	Prostitution/ (2998)
32	(prostitut$ or brothel$).ti,ab. (2805)
33	(sex$ adj2 (exploit$ or traffick$)).ti,ab. (1080)
34	Terrorism/ (6711)
35	(terrorism or terrorist$).ti,ab. (7151)
36	political terror$.ti,ab. (71)
37	Torture/ (1151)
38	War/ (12,259)
39	Combat Experience/ (2479)
40	Genocide/ (899)
41	Holocaust/ (1199)
42	Mass Murder/ (84)
43	(civil adj (unrest or conflict$ or disturbance$ or war or wars or warfare)).ti,ab. (1682)
44	(persecution or victimization or victimisation).ti,ab. (15,549)
45	(captivity or imprison$ or concentration camp$).ti,ab. (5516)
46	exp Disasters/ (7760)
47	Natural Disasters/ (4227)
48	natural disaster$.ti,ab. (2344)
49	(earthquake$ or tsunami$).ti,ab. (2820)
50	(humanitarian adj (crisis or crises)).ti,ab. (106)

continued

TABLE 21 Search strategy for PsycINFO via Ovid (*continued*)

51	(catastrophe$ or catastrophic event$ or catastrophic experience$).ti,ab. (1943)
52	exp Survivors/ (11,959)
53	Holocaust Survivors/ (1105)
54	Refugees/ (4568)
55	(asylum seeker$ or refugee$ or migrant$).ti,ab. (13,548)
56	((forcibly or internally) adj displace$).ti,ab. (237)
57	(displace$ adj (people or person$ or civilian$)).ti,ab. (408)
58	Crime Victims/ (4167)
59	Victimization/ (18,276)
60	Prisoners/ (9692)
61	"Prisoners of War"/ (472)
62	Slavery/ (215)
63	Military Veterans/ (10,341)
64	((expose$ or exposure) adj2 (abuse or assault$ or disaster$ or terror$ or torture$ or trauma$ or rape or violen$ or war or warfare)).ti,ab. (9024)
65	(survivor$ adj2 (abuse or assault$ or disaster$ or terror$ or torture$ or trauma$ or rape or violen$ or war or warfare)).ti,ab. (4321)
66	(victim$ adj2 (abuse or assault$ or crime or disaster$ or rape or terror$ or torture$ or trauma$ or violen$ or war or warfare)).ti,ab. (9727)
67	(witness$ adj2 (abuse or assault$ or disaster$ or rape or terror$ or torture$ or trauma$ or violen$ or war or warfare)).ti,ab. (1747)
68	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 or 64 or 65 or 66 or 67 (213,458)
69	exp Posttraumatic Stress Disorder/ (27,018)
70	Complex PTSD/ (123)
71	DESNOS/ (15)
72	"Disorders of Extreme Distress Not Otherwise Specified".ti,ab. (0)
73	(PTSD or CPTSD).ti,ab. (25,381)
74	posttrauma$.ti,ab. (26,998)
75	post-trauma$.ti,ab. (11,564)
76	"post trauma$".ti,ab. (11,564)
77	post traumatic stress.ti,ab. (8923)
78	post traumatic stress.id. (2783)
79	combat stress$.ti,ab. (497)
80	combat disorder$.ti,ab. (12)
81	DESNOS.ti,ab. (54)
82	complex trauma$.ti,ab. (515)
83	(complex adj2 trauma$).ti,ab. (689)
84	traumatic stress.ti,ab. (11,630)
85	traumatic memor$.ti,ab. (1290)

TABLE 21 Search strategy for PsycINFO via Ovid (*continued*)

86	traumatization.ti,ab. (1511)
87	traumatisation.ti,ab. (154)
88	(trauma adj2 (expos$ or event$ or experienc$)).ti,ab. (6634)
89	69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 or 77 or 78 or 79 or 80 or 81 or 82 or 83 or 84 or 85 or 86 or 87 or 88 (47,567)
90	68 and 89 (25,142)
91	exp Cognitive Therapy/ (12,639)
92	cognitive behaviour$ therapy.ti,ab. (3854)
93	cognitive behavior$ therapy.ti,ab. (13,015)
94	cognitive restructuring.ti,ab. (2074)
95	cognitive rescripting.ti,ab. (0)
96	cognitive processing therapy.ti,ab. (272)
97	CPT.ti,ab. (1922)
98	cognitive therapy.ti,ab. (5335)
99	cognitive behavioural treatment$.ti,ab. (520)
100	cognitive behavioral treatment$.ti,ab. (2997)
101	(CBT or TFCBT).ti,ab. (10,616)
102	cognitive trauma therapy.ti,ab. (8)
103	trauma focus$ CBT.ti,ab. (57)
104	91 or 92 or 93 or 94 or 95 or 96 or 97 or 98 or 99 or 100 or 101 or 102 or 103 (33,767)
105	exp Behavior Therapy/ (18,509)
106	(behavior$ adj2 (therap$ or treat$ or modif$)).ti,ab. (41,822)
107	(behaviour$ adj2 (therap$ or treat$ or modif$)).ti,ab. (7365)
108	(dialectical behavio$ therap$ or dialectical behavio$ treat$).ti,ab. (1461)
109	DBT.ti,ab. (1135)
110	biofeedback, psychology/or feedback, sensory/or neurofeedback/ (1205)
111	(biofeedback or neurofeedback or sensory feedback).ti,ab. (6695)
112	desensitization, psychologic/or eye movement desensitization reprocessing/or implosive therapy/or virtual reality exposure therapy/ (421)
113	(psychological adj2 desensiti$).ti,ab. (5)
114	Eye Movement Desensitization Therapy/ (1230)
115	eye movement desensiti?ation reprocessing.ti,ab. (61)
116	EMDR.ti,ab. (1346)
117	Exposure Therapy/ (1979)
118	(exposure adj (therap$ or treat$)).ti,ab. (2200)
119	prolonged exposure therap$.ti,ab. (151)
120	live exposure.ti,ab. (22)
121	imaginal exposure.ti,ab. (280)
122	imaginal flooding.ti,ab. (35)

continued

TABLE 21 Search strategy for PsycINFO via Ovid (*continued*)

123	exposure inhibition therap$.ti,ab. (1)
124	implosive therap$.ti,ab. (143)
125	image habituation.ti,ab. (5)
126	inoculation training.ti,ab. (292)
127	105 or 106 or 107 or 108 or 109 or 110 or 111 or 112 or 113 or 114 or 115 or 116 or 117 or 118 or 119 or 120 or 121 or 122 or 123 or 124 or 125 or 126 (65,864)
128	(acceptance adj2 therap$).ti,ab. (376)
129	(commitment adj2 therap$).ti,ab. (1501)
130	Hypnosis/ (7091)
131	(hypnosis or hypnotherap$).ti,ab. (11,623)
132	Mindfulness/ (6583)
133	mindfulness.ti,ab. (8091)
134	(supportive adj (therap$ or psychotherap$)).ti,ab. (1490)
135	(non-directive adj (counselling or counseling)).ti,ab. (81)
136	(nondirective adj (counselling or counseling)).ti,ab. (113)
137	(non directive adj (counselling or counseling)).ti,ab. (81)
138	psychodynamic therap$.ti,ab. (1317)
139	inter personal psychotherap$.ti,ab. (1)
140	interpersonal psychotherap$.ti,ab. (1197)
141	interpersonal therapy.ti,ab. (512)
142	IPT.ti,ab. (974)
143	(compassion adj2 therap$).ti,ab. (105)
144	accelerated resolution.ti,ab. (8)
145	sensorimotor therap$.ti,ab. (11)
146	schema therapy.ti,ab. (312)
147	Stress Management/ (4566)
148	Supportive Psychotherapy/ (480)
149	Group Psychotherapy/ (18,367)
150	Counseling/ (21,293)
151	(non-directive counsel$ or non directive counsel$ or nondirective counsel$).ti,ab. (197)
152	compassion therap$.ti,ab. (4)
153	128 or 129 or 130 or 131 or 132 or 133 or 134 or 135 or 136 or 137 or 138 or 139 or 140 or 141 or 142 or 143 or 144 or 145 or 146 or 147 or 148 or 149 or 150 or 151 or 152 (71,049)
154	104 or 127 or 153 (140,028)
155	hypnotic drugs/or amobarbital/or apomorphine/or barbital/or chloral hydrate/or codeine/or flurazepam/or glutethimide/or hexobarbital/or meprobamate/or methaqualone/or nitrazepam/or pentobarbital/or phenobarbital/or secobarbital/or thalidomide/or thiopental/or triazolam/ (5588)
156	hypnotics.ti,ab. (1574)
157	hypnotic drug$.ti,ab. (399)
158	z drug$.ti,ab. (43)

TABLE 21 Search strategy for PsycINFO via Ovid (*continued*)

159 tranquilizing drugs/or amitriptyline/or benactyzine/or doxepin/or haloperidol/or meprobamate/or minor tranquilizers/or neuroleptic drugs/or phenothiazine derivatives/or pimozide/or thiothixene/ (27,445)
160 exp benzodiazepines/ (9874)
161 sedative antihistamine$.ti,ab. (13)
162 promethazine.ti,ab. (184)
163 antidepressant drugs/or bupropion/or citalopram/or fluoxetine/or fluvoxamine/or iproniazid/or isocarboxazid/or lithium carbonate/or methylphenidate/or mianserin/or moclobemide/or molindone/or nefazodone/or nialamide/or nomifensine/or paroxetine/or phenelzine/or pheniprazine/or pipradrol/or serotonin norepinephrine reuptake inhibitors/or sertraline/or sulpiride/or tranylcypromine/or trazodone/or tricyclic antidepressant drugs/or venlafaxine/or zimeldine/ (31,904)
164 Imipramine.ti,ab. (3980)
165 mirtazapine.ti,ab. (1112)
166 neuroleptic drugs/or aripiprazole/or clozapine/or molindone/or nialamide/or olanzapine/or quetiapine/or reserpine/or risperidone/or spiroperidol/or sulpiride/or tetrabenazine/ (28,386)
167 mood stabilizers/or anticonvulsive drugs/or carbamazepine/or lithium/or valproic acid/ (13,520)
168 mood stabilisers.ti,ab. (141)
169 antiepileptics.ti,ab. (305)
170 lamotrigine.ti,ab. (1792)
171 topiramate.ti,ab. (1494)
172 valproate.ti,ab. (2781)
173 monoamine oxidase inhibitors/or iproniazid/or isocarboxazid/or moclobemide/or nialamide/or pargyline/or phenelzine/or pheniprazine/or tranylcypromine/ (2188)
174 antihypertensive drugs/or alpha methylparatyrosine/or captopril/or chlorpromazine/or clonidine/or guanethidine/or hexamethonium/or hydralazine/or mecamylamine/or methyldopa/or phenoxybenzamine/or quinpirole/ (4387)
175 alpha blocker anti-hypertensive$.ti,ab. (0)
176 alpha blocker antihypertensive$.ti,ab. (0)
177 prazosin.ti,ab. (618)
178 Methylenedioxymethamphetamine/ (1923)
179 (mdma or ecstasy).ti,ab. (3061)
180 155 or 156 or 157 or 158 or 159 or 160 or 161 or 162 or 163 or 164 or 165 or 166 or 167 or 168 or 169 or 170 or 171 or 172 or 173 or 174 or 175 or 176 or 177 or 178 or 179 (99,763)
181 90 and 154 (2588)
182 90 and 180 (306)
183 181 or 182 (2861)
184 limit 183 to human (2798)
185 limit 184 to yr="1992 -Current" (2658)

Science Citation Index via Web of Science

Search date: 20 April 2017.

Records retrieved: 1066.

Date range searched: 1900 onwards.

TABLE 22 Search strategy for Science Citation Index via Web of Science

#16	1066	#15 OR #11 *Indexes=SCI-EXPANDED Timespan=1992-2017*
#15	204	#14 AND #7 *Indexes=SCI-EXPANDED Timespan=1992-2017*
#14	352,711	#13 OR #12 *Indexes=SCI-EXPANDED Timespan=1992-2017*
#13	188,961	TS=((hypnotic or sedative) NEAR/1 (drug$ or agent$)) OR TS=(hypnotics or sedatives) OR TS=(alprazolam or amobarbital or azaperone or barbital or bromisovalum or "chloral hydrate" or chloralose or chlordiazepoxide or chlormethiazole or dexmedetomidine or diazepam or diphenhydramine or eszopiclone or ethchlorvynol or etomidate or etorphine or flurazepam or glutethimide or hexobarbital or lorazepam or medazepam or medetomidine or mephobarbital or meprobamate or methapyrilene or methaqualone or midazolam or nitrazepam or oxazepam or paraldehyde or pentobarbital or phenobarbital or propofol or secobarbital or temazepam or thiamylal or thiopental or xylazine) OR TS=("z drug$") OR TS=("anti-anxiety agent$" or "anti-anxiety drug$") OR TS=("antianxiety agent$" or "antianxiety drug$") OR TS=("anti anxiety agent$" or "anti anxiety drug$") OR TS=("anxiolytic agent$" or "anxiolytic drug$" or anxiolytics) OR TS=(bromazepam or buspirone or chlormezanone or "clorazepate dipotassium" or estazolam or flunitrazepam or fluvoxamine or nordazepam or ondansetron or oxprenolol or prazepam or pregabalin or ritanserin or tranylcypromine or trazodone or triazolam or zolazepam or benzodiazepines or benzodiazepinones or "sedative antihistamine$" or promethazine) OR TS=("antidepressive agent$" or "antidepressive drug$" or antidepressives) OR TS=("anti-depressive agent$" or "anti-depressive drug$" or antidepressives) OR TS=("anti depressive agent$" or "anti depressive drug$" or antidepressives) OR TS=(benactyzine or clorgyline or deanol or "desvenlafaxine succinate" or "duloxetine hydrochloride" or iproniazid or isocarboxazid or "lithium carbonate" or "lithium compounds" or moclobemide or nialamide or phenelzine or pizotyline or rolipram or sertraline or tranylcypromine or "vilazodone hydrochloride" or imipramine or mirtazapine) OR TS=("antipsychotic agent$" or "antipsychotic drug$" or antipsychotics) OR TS=("anti-psychotic agent$" or "anti-psychotic drug$" or anti-psychotics) OR TS=("anti psychotic agent$" or "anti psychotic drug$" or anti psychotics) OR TS=(acepromazine or aripiprazole or azaperone or benperidol or butaclamol or chlorpromazine or chlorprothixene or clopenthixol or clozapine or droperidol or etazolate or flupenthixol or fluphenazine or fluspirilene or haloperidol or loxapine or lurasidone hydrochloride or mesoridazine or methiothepin or methotrimeprazine or molindone or ondansetron or "paliperidone palmitate" or penfluridol or perazine or perphenazine or pimozide or prochlorperazine or promazine or quetiapine fumarate or raclopride or remoxipride or reserpine or risperidone or ritanserin or spiperone or sulpiride or thioridazine or thiothixene or "tiapride hydrochloride" or trifluoperazine or trifluperidol or triflupromazine or olanzapine) *Indexes=SCI-EXPANDED Timespan=1992-2017*
#12	202,663	TS=("anticonvulsants agent$" or "anticonvulsant drug$" or anticonvulsants) OR TS=("anti-convulsants agent$" or "anti-convulsant drug$" or anti-convulsants) OR TS=("anti convulsants agent$" or "anti convulsant drug$" or anti convulsants) OR TS=(acetazolamide or bromides or carbamazepine or clonazepam or "clorazepate dipotassium" or diazepam or dimethadione or estazolam or ethosuximide or flunarizine or lorazepam or magnesium sulfate or medazepam or mephenytoin or mephobarbital or meprobamate or nitrazepam or paraldehyde or phenobarbital or phenytoin or pregabalin or primidone or riluzole or thiopental or tiletamine or trimethadione or "valproic acid" or vigabatrin) OR TS=("antimanic agent$" or "antimanic drug$") OR TS=("anti-manic agent$" or "anti-manic drug$") OR TS=("anti manic agent$" or "anti manic drug$") OR TS=("lithium chloride" or "lithium compounds" or lamotrigine or topiramate) OR TS=("monoamine oxidase inhibitors" or chlorphenamidine or clorgyline or cuprizone or furazolidone or harmaline or harmine or isocarboxazid or moclobemide or monocrotophos or pargyline or selegiline or tranylcypromine or Prazosin or "N-Methyl-3 4-methylenedioxyamphetamine" or MDMA or ecstasy) *Indexes=SCI-EXPANDED Timespan=1992-2017*
#11	915	#10 AND #7 *Indexes=SCI-EXPANDED Timespan=1992-2017*

TABLE 22 Search strategy for Science Citation Index via Web of Science (*continued*)

#10	130,643	#9 OR #8 *Indexes=SCI-EXPANDED Timespan=1992-2017*
#9	75,396	TS=(acceptance NEAR/2 therap$) OR TS=(commitment NEAR/2 therap$) OR TS=(hypnosis or hypnotherap$) OR TS=(mindfulness) OR TS=("supportive therapy") OR TS=(non-directive NEAR/1 (counselling or counseling)) OR TS=(nondirective NEAR/1 (counselling or counseling)) OR TS=("non directive" NEAR/1 (counselling or counseling)) OR TS=(psychotherapy or "brief psychotherapy" or "group psychotherapy" or "psychodynamic psychotherapy") OR TS=("rational emotive psychotherapy") OR TS=("rational-emotive psychotherapy") OR TS=("psychodynamic therap$") OR TS=("inter personal psychotherap$" or "interpersonal psychotherap$" or "inter-personal psychotherap$") OR TS=((compassion or schema or sensorimotor) NEAR/2 therap$) OR TS=(counseling or counselling) OR TS=("accelerated resolution") *Indexes=SCI-EXPANDED Timespan=1992-2017*
#8	60,687	TS=(cognitive NEAR/3 (therap$ or treat$ or restructur$ or rescript$)) OR TS=(CBT or CPT or TFCBT) OR TS=("trauma focus$ CBT") OR TS=(behavior$ NEAR/2 (therap$ or treat$ or modif$)) OR TS=(behaviour$ NEAR/2 (therap$ or treat$ or modif$)) OR TS=(biofeedback or neurofeedback or "sensory feedback") OR TS=("implosive therapy") OR TS=("virtual reality therapy") OR TS=(psychological NEAR/2 desensiti$) OR TS=("eye movement desensitisation reprocessing" or "eye movement desensitization reprocessing") OR TS=(EMDR) OR TS=(exposure NEAR/2 (imaginal or live or prolonged or therap$ or treat$)) OR TS=("imaginal flooding") OR TS=("image habituation") OR TS=("inoculation training") *Indexes=SCI-EXPANDED Timespan=1992-2017*
#7	9164	#6 AND #5 *Indexes=SCI-EXPANDED Timespan=1992-2017*
#6	29,452	**TOPIC:** ("posttraumatic stress disorder*") *OR* **TOPIC:** ("post-traumatic stress disorder*") *OR* **TOPIC:** ("post traumatic stress disorder*") *OR* **TOPIC:** ("posttraumatic stress*") *OR* **TOPIC:** ("post-traumatic stress*") *OR* **TOPIC:** ("post traumatic stress*") *OR* **TOPIC:** ("traumatic stress*") *OR* **TOPIC:** (posttrauma$ or post-trauma$ or "post trauma$") *OR* **TOPIC:** ("combat stress" or "combat disorder") *OR* **TOPIC:** (DESNOS) *OR* **TOPIC:** ("extreme distress") *OR* **TOPIC:** ("complex trauma") *OR* **TOPIC:** (complex NEAR/3 trauma) *OR* **TOPIC:** (traumatic NEAR/2 (stress or memor$)) *OR* **TOPIC:** (traumatization or traumatisation) *OR* **TOPIC:** (trauma$ NEAR/3 (expos$ or event$ or experienc$)) *Indexes=SCI-EXPANDED Timespan=1992-2017*
#5	288,605	#4 OR #3 OR #2 OR #1 *Indexes=SCI-EXPANDED Timespan=1992-2017*
#4	29,766	**TOPIC:** (victim$) *OR* **TOPIC:** (prisoner$) *OR* **TOPIC:** (soldier$ or veteran$) *AND* **TOPIC:** ((expose$ or exposure) NEAR/2 (abuse or assault$ or disaster$ or terror$ or torture$ or trauma$ or rape or violen$ or war or warfare)) *AND* **TOPIC:** (survivor$ NEAR/2 (abuse or assault$ or disaster$ or terror$ or torture$ or trauma$ or rape or violen$ or war or warfare)) *AND* **TOPIC:** (victim$ NEAR/2 (abuse or assault$ or crime or disaster$ or rape or terror$ or torture$ or trauma$ or violen$ or war or warfare)) *AND* **TOPIC:** (witness$ NEAR/2 (abuse or assault$ or disaster$ or rape or terror$ or torture$ or trauma$ or violen$ or war or warfare)) *Indexes=SCI-EXPANDED Timespan=1992-2017*
#3	202,637	**TOPIC:** (disaster$ or earthquake$ or tsunami$) *OR* **TOPIC:** ("natural disaster$") *OR* **TOPIC:** (humanitarian NEAR/2 (crisis or crises)) *OR* **TOPIC:** (catastrophe$ or "catastrophic event$" or "catastrophic experience$") *OR* **TOPIC:** (survivor*) *OR* **TOPIC:** (refugee$ or "asylum seeker$" or migrant$) *OR* **TOPIC:** ((forcibly or internally) NEAR/2 displace$) *OR* **TOPIC:** (displace$ NEAR/2 (people or person$ or civilian$)) *Indexes=SCI-EXPANDED Timespan=1992-2017*

continued

TABLE 22 Search strategy for Science Citation Index via Web of Science (*continued*)

#2	25,515	**TOPIC:** ("human rights abuse*") *OR* **TOPIC:** ((human or person or people) NEAR/2 (traffick$ or exploit$)) *OR* **TOPIC:** ((forced or exploit$) NEAR/2 labour) *OR* **TOPIC:** ("organ traffick$") *OR* **TOPIC:** (slavery or "slave trade$" or enslave$) *OR* **TOPIC:** (torture$) *OR* **TOPIC:** (prostitution or "sex work$" or brothel$) *OR* **TOPIC:** (sex NEAR/2 (exploit$ or traffick$)) *OR* **TOPIC:** (terrorism or terrorist$ or "political terror$") *OR* **TOPIC:** (warfare or "war crime$" or "armed conflict$" or "civil conflict" or "civil war$" or "civil unrest") *OR* **TOPIC:** ("ethnic conflict$" or "ethnic unrest" or "ethnic cleans*" or genocide or holocaust) *OR* **TOPIC:** (persecution or victimization or victimisation) *OR* **TOPIC:** (imprison$ or "concentration camp") *Indexes=SCI-EXPANDED Timespan=1992-2017*
#1	47,352	TS=(violence) OR TS=(batter* NEAR/2 (wife$ or wive$ or woman or women or men or husband$ or partner$)) OR TS=(physical$ NEAR/2 (abus$ or assault$ or violen$ or aggress$)) OR TS=(emotional near/2 abus*) OR TS=(rape) OR TS=(sexual$ NEAR/2 (abus$ or assault$ or violen$ or aggress$)) OR TS=(child$ NEAR/2 (abus$ or exploit or maltreat$ or neglect$ or trauma$)) OR TS=("non accidental injur$" or "non-accidental injur$" or "nonaccidental injur$") *Indexes=SCI-EXPANDED Timespan=1992-2017*

Appendix 2 Literature search strategies for the qualitative acceptability review

The original searches were carried out in June 2017 using the following databases: CINAHL, EMBASE, MEDLINE and PsycINFO. Results were restricted to 1992 onwards.

The numbers of records identified in each database are as follows:

- CINAHL: 470
- EMBASE: 1749
- MEDLINE: 1151
- PsycINFO: 919.

The total number of records identified before de-duplication was 4289; after de-duplication, 3162 records were left.

This set was subsequently de-duplicated against the results of the effectiveness searches to leave a total of 1574 records.

CINAHL via EBSCO*host*

Search date: 1 June 2017.

TABLE 23 Search strategy for CINAHL via EBSCO*host*

Search terms	Search options
S1	(MH "Stress Disorders, Post-Traumatic+")
S2	TX (PTSD or CPTSD) OR TX posttrauma* OR TX post-trauma* OR TX "post trauma*" OR TX "post traumatic stress" OR TX "combat stress*" OR TX "combat disorder*" OR TX DESNOS OR TX "complex trauma*" OR TX "complex N3 trauma*" OR TX "traumatic stress" OR TX "traumatic memor*"
S3	TX traumatisation OR TX traumatization OR TX (trauma* N3 (expos* or event* or experienc*))
S4	S1 OR S2 OR S3
S5	(MH "Cognitive Therapy+") OR TX "cognitive behaviour* therap*" OR TX "cognitive behavior* therap*" OR TX "cognitive restructuring" OR TX "cognitive rescripting" OR TX "cognitive processing therap*" OR TX (CPT or CBT or TFCBT) OR TX "cognitive therap*" OR TX "cognitive behavioural treat*" OR TX "cognitive behavioral treat*" OR TX "cognitive trauma therap*" OR TX "trauma focus* CBT"
S6	(MH "Behavior Therapy") OR TX (behavior* N2 (therap* or treat* or modif*)) OR TX (behavior* N2 (therap* or treat* or modif*)) OR TX (("dialectical behavio*") N1 (therap* or treat*)) OR TX (biofeedback or neurofeedback or "sensory feedback") OR TX psychological N2 desensiti#ation OR TX "eye movement desensiti#ation reprocessing" OR TX EMDR OR TX (exposure N1 (therap* or treat*)) OR TX "live exposure" OR TX "imaginal exposure" OR TX "prolonged exposure therapy"
S7	TX "imaginal flooding" OR TX "exposure inhibition therap*" OR TX "implosive therap*" OR TX "image habituation" OR TX "inoculation training"
S8	((MH "Acceptance and Commitment Therapy")) OR TX acceptance N2 therap* OR TX commitment N2 therap*

continued

TABLE 23 Search strategy for CINAHL via EBSCO*host* (*continued*)

Search terms	Search options
S9	(MH "Biofeedback")
S10	(MH "Feedback")
S11	(MH "Eye Movement Desensitization and Reprogramming")
S12	(MH "Virtual Reality Exposure Therapy")
S13	(MH "Hypnosis")
S14	TX hypnosis or hypnotherap*
S15	(MH "Mindfulness")
S16	TX mindfulness
S17	TX "supportive therap*" OR TX (non-directive N1 (counselling or counseling)) OR TX ("non directive" N1 (counselling or counseling))
S18	((MH "Psychotherapy") OR (MH "Psychotherapy, Brief") OR (MH "Psychotherapy, Group") OR (MH "Psychotherapy, Psychodynamic")) OR TX psychodynamic N1 therap* OR TX "inter personal psychotherap*" OR TX "interpersonal psychotherap*" OR TX IPT OR TX "compassion therap*" OR TX "accelerated resolution*" OR TX "sensorimotor therap*" OR TX "schema therap*" OR TX stress N2 manag*
S19	(MH "Counseling") OR TX "non-directive counsel*" OR TX "non directive counsel*" OR TX "nondirective counsel*" OR "compassion therap*"
S20	S5 OR S6 OR 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
S21	((MH "Hypnotics and Sedatives")) OR TX (alprazolam or amobarbital or azaperone or barbital or bromisovalum or "chloral hydrate" or chloralose or chlordiazepoxide or chlormethiazole or dexmedetomidine or diazepam or diphenhydramine or eszopiclone or ethchlorvynol or etomidate or etorphine or flurazepam or glutethimide or hexobarbital or lorazepam or medazepam or medetomidine or mephobarbital or meprobamate or methapyrilene or methaqualone or midazolam or nitrazepam or oxazepam or paraldehyde o...
S22	(MH "Antianxiety Agents+") OR (bromazepam or buspirone or chlormezanone or "clorazepate dipotassium" or estazolam or flunitrazepam or fluvoxamine or nordazepam or ondansetron or oxprenolol or prazepam or pregabalin or ritanserin or tranylcypromine or trazodone or triazolam or zolazepam or benzodiazepines or benzodiazepinones or "sedative antihistamine*" or promethazine)
S23	(MH "Antidepressive Agents+") OR TX (benactyzine or clorgyline or deanol or "desvenlafaxine succinate" or "duloxetine hydrochloride" or iproniazid or isocarboxazid or "lithium carbonate" or "lithium compounds" or moclobemide or nialamide or phenelzine or pizotyline or rolipram or sertraline or tranylcypromine or "vilazodone hydrochloride" or Imipramine or mirtazapine)
S24	(MH "Antipsychotic Agents+") OR TX (acepromazine or aripiprazole or azaperone or benperidol or butaclamol or chlorpromazine or chlorprothixene or clopenthixol or clozapine or droperidol or etazolate or flupenthixol or fluphenazine or fluspirilene or haloperidol or loxapine or "lurasidone hydrochloride" or mesoridazine or methiothepin or methotrimeprazine or molindone or ondansetron or "paliperidone palmitate" or penfluridol or perazine or perphenazine or pimozide or prochlorperazine) OR TX (p...
S25	(MH "Anticonvulsants+") OR TX (anticonvulsants or acetazolamide or bromides or carbamazepine or clonazepam or "clorazepate dipotassium" or diazepam or dimethadione or estazolam or ethosuximide or flunarizine or lorazepam or "magnesium sulfate" or medazepam or mephenytoin or mephobarbital or meprobamate or nitrazepam or paraldehyde or phenobarbital or phenytoin or pregabalin or primidone or riluzole or thiopental or tiletamine or trimethadione or "valproic acid" or vigabatrin)
S26	(MH "Antimanic Agents+") OR TX ("lithium chloride" or "lithium compounds" or lamotrigine or topiramate)

TABLE 23 Search strategy for CINAHL via EBSCO*host* (*continued*)

Search terms	Search options	
S27	(MH "Monoamine Oxidase Inhibitors+") OR TX (chlorphenamidine or clorgyline or cuprizone or furazolidone or harmaline or harmine or isocarboxazid or moclobemide or monocrotophos or pargyline or selegiline or tranylcypromine or Prazosin or N-Methyl-3, 4-methylenedioxyamphetamine or MDMA or ecstasy)	
S28	S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27	
S29	S4 AND S20	(3665)
S30	S4 AND S28	(820)
S31	S29 OR S30	(4259)
S32	(MH "Qualitative Studies")	(74,214)
S33	(MH "Interviews") OR (MH "Unstructured Interview") OR (MH "Semi-Structured Interview")	(156,659)
S34	(MH "Ethnographic Research")	(6044)
S35	(MH "Grounded Theory")	(11,936)
S36	(MH "Thematic Analysis")	(41,678)
S37	(MH "Observational Methods") OR (MH "Participant Observation")	(16,594)
S38	(MH "Field Notes")	(6623)
S39	(MH "Narratives")	(11,936)
S40	(MH "Field Studies")	(2485)
S41	(MH "Audiorecording")	(36,402)
S42	(MH "Focus Groups")	(31,284)
S43	(MH "Descriptive Research")	(60,598)
S44	(MH "Case Studies")	(16,717)
S45	(MH "Discourse Analysis")	(3490)
S46	(MH "Exploratory Research")	(29,405)
S47	(MH "Phenomenology")	(2577)
S48	(MH "Naturalistic Inquiry")	(929)
S49	(MH "Open-Ended Questionnaires")	(3206)
S50	(MH "Videorecording")	(22,181)
S51	(MH "Anthropology, Cultural")	(1713)
S52	"conversation* analysis" OR "comparative method*" OR hermeneutic* OR participatory OR in-depth OR key informant* OR narration*	(45,445)
S53	S32 OR S33 OR S34 OR S35 OR S36 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45 OR S46 OR S47 OR S48 OR S49 OR S50 OR S51 OR S52	(325,689)
S54	S31 AND S53	(470)

EMBASE via Ovid

Search date: 1 June 2017.

Date range searched: 1980 to 2017 week 22.

TABLE 24 Search strategy for EMBASE via Ovid

1	Posttraumatic Stress Disorder/ (45,884)
2	(PTSD or CPTSD).ti,ab. (22,707)
3	posttrauma$.ti,ab. (34,058)
4	post-trauma$.ti,ab. (30,965)
5	"post trauma$".ti,ab. (30,965)
6	post traumatic stress.ti,ab. (12,036)
7	post traumatic stress.kw. (2854)
8	combat stress$.ti,ab. (405)
9	combat disorder$.ti,ab. (18)
10	DESNOS.ti,ab. (39)
11	"Disorders of Extreme Distress Not Otherwise Specified".ti,ab. (0)
12	complex trauma$.ti,ab. (454)
13	(complex adj3 trauma$).ti,ab. (1408)
14	traumatic stress.ti,ab. (14,416)
15	traumatic memor$.ti,ab. (768)
16	traumatization.ti,ab. (1152)
17	traumatisation.ti,ab. (242)
18	(trauma$ adj3 (expos$ or event$ or experienc$)).ti,ab. (20,405)
19	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 (95,383)
20	exp Cognitive Therapy/ (42,280)
21	cognitive behaviour$ therapy.ti,ab. (5626)
22	cognitive behavior$ therapy.ti,ab. (10,664)
23	cognitive restructuring.ti,ab. (1093)
24	cognitive rescripting.ti,ab. (0)
25	cognitive processing therapy.ti,ab. (197)
26	CPT.ti,ab. (15,122)
27	cognitive therapy.ti,ab. (3508)
28	cognitive behavioural treatment$.ti,ab. (571)
29	cognitive behavioral treatment$.ti,ab. (1879)
30	(CBT or TFCBT).ti,ab. (11,500)
31	cognitive trauma therapy.ti,ab. (7)
32	trauma focus$ CBT.ti,ab. (46)
33	20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 (64,373)
34	exp Behavior Therapy/ (40,674)
35	(behavior$ adj2 (therap$ or treat$ or modif$)).ti,ab. (33,760)

TABLE 24 Search strategy for EMBASE via Ovid (*continued*)

36	(behaviour$ adj2 (therap$ or treat$ or modif$)).ti,ab. (13,506)
37	(dialectical behavio$ adj (therap$ or treat$)).ti,ab. (811)
38	biofeedback, psychology/or feedback, sensory/or neurofeedback/ (20,411)
39	(biofeedback or neurofeedback or sensory feedback).ti,ab. (10,762)
40	eye movement desensitization reprocessing/or implosive therapy/or virtual reality exposure therapy/ (438)
41	(psychological adj2 desensiti$).ti,ab. (6)
42	eye movement desensiti?ation reprocessing.ti,ab. (38)
43	EMDR.ti,ab. (559)
44	(exposure adj (therap$ or treat$)).ti,ab. (2781)
45	live exposure.ti,ab. (16)
46	imaginal exposure.ti,ab. (180)
47	prolonged exposure therapy.ti,ab. (111)
48	imaginal flooding.ti,ab. (20)
49	exposure inhibition therap$.ti,ab. (0)
50	implosive therap$.ti,ab. (36)
51	image habituation.ti,ab. (4)
52	inoculation training.ti,ab. (115)
53	34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 (102,846)
54	"Acceptance and Commitment Therapy"/ (709)
55	(acceptance adj2 therap$).ti,ab. (363)
56	(commitment adj2 therap$).ti,ab. (838)
57	Hypnosis/ (12,985)
58	(hypnosis or hypnotherap$).ti,ab. (8081)
59	Mindfulness/ (3457)
60	mindfulness.ti,ab. (5257)
61	supportive therap$.ti,ab. (5309)
62	(non-directive adj (counselling or counseling)).ti,ab. (114)
63	(nondirective adj (counselling or counseling)).ti,ab. (50)
64	(non directive adj (counselling or counseling)).ti,ab. (114)
65	Psychotherapy/or Group Therapy/or Psychodynamic Psychotherapy/ (93,420)
66	psychodynamic therap$.ti,ab. (627)
67	inter personal psychotherap$.ti,ab. (1)
68	interpersonal psychotherap$.ti,ab. (930)
69	IPT.ti,ab. (2387)
70	(compassion adj2 therap$).ti,ab. (62)
71	accelerated resolution.ti,ab. (112)
72	sensorimotor therap$.ti,ab. (22)
73	schema therapy.ti,ab. (174)
74	(stress adj2 manag$).ti,ab. (6583)

continued

TABLE 24 Search strategy for EMBASE via Ovid (*continued*)

75	supportive therap$.ti,ab. (5309)
76	Counseling/ (52,136)
77	(non-directive counsel$ or non directive counsel$ or nondirective counsel$).ti,ab. (165)
78	compassion therap$.ti,ab. (2)
79	54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 or 64 or 65 or 66 or 67 or 68 or 69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 or 77 or 78 (174,613)
80	33 or 53 or 79 (291,814)
81	19 and 80 (10,397)
82	hypnotic sedative agent/or alprazolam/or amobarbital/or azaperone/or barbital/or bromisovalum/or chloral hydrate/or chloralose/or chlordiazepoxide/or chlomethiazole/or dexmedetomidine/or diazepam/or diphenhydramine/or eszopiclone/or ethchlorvynol/or etomidate/or etorphine/or flurazepam/or glutethimide/or hexobarbital/or lorazepam/or medazepam/or medetomidine/or methylphenobarbital/or meprobamate/or methapyrilene/or methaqualone/or midazolam/or nitrazepam/or oxazepam/or paraldehyde/or pentobarbital/or phenobarbital/or propofol/or secobarbital/or temazepam/or thiamylal/or thiopental/or xylazine/ (276,213)
83	z drugs.ti,ab. (207)
84	anxiolytic agent/or bromazepam/or buspirone/or chlormezanone/or clorazepate dipotassium/or estazolam/or flunitrazepam/or fluvoxamine/or nordazepam/or ondansetron/or oxprenolol/or prazepam/or pregabalin/or ritanserin/or tranylcypromine/or trazodone/or triazolam/or zolazepam/ (91,974)
85	benzodiazepine derivative/ (36,147)
86	sedative antihistamine$.ti,ab. (115)
87	promethazine/ (11,286)
88	antidepressive agent/or benactyzine/or clorgyline/or deanol/or desvenlafaxine/or duloxetine/or iproniazid/or isocarboxazid/or lithium carbonate/or lithium derivative/or moclobemide/or nialamide/or phenelzine/or pizotifen/or rolipram/or sertraline/or tranylcypromine/or vilazodone/ (131,288)
89	Imipramine/ (29,724)
90	mirtazapine/ (10,727)
91	neuroleptic agent/or acepromazine/or aripiprazole/or azaperone/or benperidol/or butaclamol/or chlorpromazine/or chlorprothixene/or clopenthixol/or clozapine/or droperidol/or etazolate/or flupentixol/or fluphenazine/or fluspirilene/or haloperidol/or loxapine/or lurasidone/or mesoridazine/or metitepine/or methotrimeprazine/or molindone/or ondansetron/or paliperidone/or penfluridol/or perazine/or perphenazine/or pimozide/or prochlorperazine/or promazine/or quetiapine/or raclopride/or remoxipride/or reserpine/or risperidone/or ritanserin/or spiperone/or sulpiride/or thioridazine/or tiothixene/or tiapride/or trifluoperazine/or trifluperidol/or triflupromazine/ (221,511)
92	olanzapine/ (29,757)
93	anticonvulsive agent/or acetazolamide/or bromides/or carbamazepine/or clonazepam/or clorazepate dipotassium/or diazepam/or dimethadione/or estazolam/or ethosuximide/or flunarizine/or lorazepam/or magnesium sulfate/or medazepam/or mephenytoin/or methylphenobarbital/or meprobamate/or nitrazepam/or paraldehyde/or phenobarbital/or phenytoin/or pregabalin/or primidone/or riluzole/or thiopental/or tiletamine/or trimethadione/or valproic acid/or vigabatrin/ (323,161)
94	tranquilizer/or lithium chloride/or lithium derivative/ (21,662)
95	lamotrigine/ (21,528)
96	topiramate/ (18,511)
97	monoamine oxidase inhibitor/or chlorphenamidine/or clorgyline/or cuprizone/or furazolidone/or harmaline/or harmine/or isocarboxazid/or moclobemide/or monocrotophos/or pargyline/or selegiline/or tranylcypromine/(38,999)
98	Prazosin/ (21,809)
99	3,4 methylenedioxyamphetamine/ (1999)
100	(MDMA or ecstasy).ti,ab. (6408)
101	82 or 83 or 84 or 85 or 86 or 87 or 88 or 89 or 90 or 91 or 92 or 93 or 94 or 95 or 96 or 97 or 98 or 99 or 100 (796,293)

TABLE 24 Search strategy for EMBASE via Ovid (*continued*)

102	19 and 101 (6845)
103	81 or 102 (15,327)
104	qualitative research/ (44,728)
105	unstructured interview/or semi structured interview/or interview/ (180,660)
106	ethnography/ (1859)
107	grounded theory/ (4097)
108	thematic analysis/ (6983)
109	observational method/ (1260)
110	participant observation/ (4400)
111	narrative/ (5915)
112	field study/ (2893)
113	audio recording/ (1997)
114	descriptive research/ (14,116)
115	discourse analysis/ (760)
116	hermeneutics/ (167)
117	naturalistic inquiry/ (459)
118	phenomenology/ (8633)
119	participatory research/ (3550)
120	recording/ (41,930)
121	cultural anthropology/ (48,605)
122	case stud$.ti,ab. (92,088)
123	comparative method$.ti,ab. (2818)
124	field notes.ti,ab. (1743)
125	focus group$.ti,ab. (39,224)
126	conversation$ analysis.ti,ab. (506)
127	exploratory stud$.ti,ab. (13,200)
128	open-ended.ti,ab. (12,795)
129	in-depth.ti,ab. (55,739)
130	key informant$.ti,ab. (5832)
131	narration.ti,ab. (644)
132	104 or 105 or 106 or 107 or 108 or 109 or 110 or 111 or 112 or 113 or 114 or 115 or 116 or 117 or 118 or 119 or 120 or 121 or 122 or 123 or 124 or 125 or 126 or 127 or 128 or 129 or 130 or 131 (505,231)
133	103 and 132 (1259)
134	(accept$ or adherence or attitude$ or belief$ or believ$ or choice$ or choos$ or drop out$ or experienc$ or feasib$ or opinion$ or perceiv$ or percept$ or prefer$ or uptake or view$ or withdraw$).ti. (761,456)
135	103 and 134 (637)
136	133 or 135 (1799)
137	limit 136 to yr="1992 -Current" (1749)

MEDLINE via Ovid

Search date: 1 June 2017.

Database: Ovid MEDLINE Epub Ahead of Print and In-Process & Other Non-Indexed Citations, Ovid MEDLINE Daily and Ovid MEDLINE.

Date range searched: 1946 to present.

TABLE 25 Search strategy for MEDLINE via Ovid

1	Stress Disorders, Post Traumatic/ (27,020)
2	(PTSD or CPTSD).ti,ab. (18,404)
3	posttrauma$.ti,ab. (30,457)
4	post-trauma$.ti,ab. (25,925)
5	“post trauma$”.ti,ab. (25,925)
6	post traumatic stress.ti,ab. (9454)
7	post traumatic stress.kw. (96)
8	combat stress$.ti,ab. (348)
9	combat disorder$.ti,ab. (15)
10	DESNOS.ti,ab. (30)
11	“Disorders of Extreme Distress Not Otherwise Specified”.ti,ab. (0)
12	complex trauma$.ti,ab. (409)
13	(complex adj3 trauma$).ti,ab. (1224)
14	traumatic stress.ti,ab. (10,931)
15	traumatic memor$.ti,ab. (594)
16	traumatization.ti,ab. (1004)
17	traumatisation.ti,ab. (192)
18	(trauma$ adj3 (expos$ or event$ or experienc$)).ti,ab. (16,547)
19	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 (75,969)
20	exp Cognitive Therapy/ (22,774)
21	cognitive behaviour$ therapy.ti,ab. (4058)
22	cognitive behavior$ therapy.ti,ab. (8246)
23	cognitive restructuring.ti,ab. (728)
24	cognitive rescripting.ti,ab. (0)
25	cognitive processing therapy.ti,ab. (181)
26	CPT.ti,ab. (10,875)
27	cognitive therapy.ti,ab. (2427)
28	cognitive behavioural treatment$.ti,ab. (408)
29	cognitive behavioral treatment$.ti,ab. (1406)
30	(CBT or TFCBT).ti,ab. (8178)
31	cognitive trauma therapy.ti,ab. (6)

TABLE 25 Search strategy for MEDLINE via Ovid (*continued*)

32	trauma focus$ CBT.ti,ab. (31)
33	20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 (41,296)
34	exp Behavior Therapy/ (65,175)
35	(behavior$ adj2 (therap$ or treat$ or modif$)).ti,ab. (27,210)
36	(behaviour$ adj2 (therap$ or treat$ or modif$)).ti,ab. (9995)
37	(dialectical behavio$ adj (therap$ or treat$)).ti,ab. (587)
38	biofeedback, psychology/or feedback, sensory/or neurofeedback/ (9410)
39	(biofeedback or neurofeedback or sensory feedback).ti,ab. (8547)
40	eye movement desensitization reprocessing/or implosive therapy/or virtual reality exposure therapy/ (1375)
41	(psychological adj2 desensiti$).ti,ab. (4)
42	eye movement desensiti?ation reprocessing.ti,ab. (25)
43	EMDR.ti,ab. (376)
44	(exposure adj (therap$ or treat$)).ti,ab. (2318)
45	live exposure.ti,ab. (11)
46	imaginal exposure.ti,ab. (149)
47	prolonged exposure therapy.ti,ab. (101)
48	imaginal flooding.ti,ab. (13)
49	exposure inhibition therap$.ti,ab. (0)
50	implosive therap$.ti,ab. (43)
51	image habituation.ti,ab. (3)
52	inoculation training.ti,ab. (79)
53	34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 (91,074)
54	"Acceptance and Commitment Therapy"/ (187)
55	(acceptance adj2 therap$).ti,ab. (262)
56	(commitment adj2 therap$).ti,ab. (615)
57	Hypnosis/ (8767)
58	(hypnosis or hypnotherap$).ti,ab. (7616)
59	Mindfulness/ (1406)
60	mindfulness.ti,ab. (4162)
61	supportive therap$.ti,ab. (3938)
62	(non-directive adj (counselling or counseling)).ti,ab. (100)
63	(nondirective adj (counselling or counseling)).ti,ab. (54)
64	(non directive adj (counselling or counseling)).ti,ab. (100)
65	Psychotherapy/or Psychotherapy, Brief/or Psychotherapy, Group/or Psychotherapy, Multiple/or Psychotherapy, Psychodynamic/or Psychotherapy, Rational-emotive/ (66,081)
66	psychodynamic therap$.ti,ab. (435)
67	inter personal psychotherap$.ti,ab. (1)
68	interpersonal psychotherap$.ti,ab. (788)
69	IPT.ti,ab. (1934)

continued

TABLE 25 Search strategy for MEDLINE via Ovid (*continued*)

70 (compassion adj2 therap$).ti,ab. (41)
71 accelerated resolution.ti,ab. (86)
72 sensorimotor therap$.ti,ab. (22)
73 schema therapy.ti,ab. (113)
74 (stress adj2 manag$).ti,ab. (5239)
75 supportive therap$.ti,ab. (3938)
76 Counseling/ (33,064)
77 (non-directive counsel$ or non directive counsel$ or nondirective counsel$).ti,ab. (155)
78 compassion therap$.ti,ab. (1)
79 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 or 64 or 65 or 66 or 67 or 68 or 69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 or 77 or 78 (122,833)
80 33 or 53 or 79 (212,817)
81 "hypnotics and sedatives"/or alprazolam/or amobarbital/or azaperone/or barbital/or bromisovalum/or chloral hydrate/or chloralose/or chlordiazepoxide/or chlormethiazole/or dexmedetomidine/or diazepam/or diphenhydramine/or eszopiclone/or ethchlorvynol/or etomidate/or etorphine/or flurazepam/or glutethimide/or hexobarbital/or lorazepam/or medazepam/or medetomidine/or mephobarbital/or meprobamate/or methapyrilene/or methaqualone/or midazolam/or nitrazepam/or oxazepam/or paraldehyde/or pentobarbital/or phenobarbital/or propofol/or secobarbital/or temazepam/or thiamylal/or thiopental/or xylazine/ (115,279)
82 z drugs.ti,ab. (129)
83 anti-anxiety agents/or bromazepam/or buspirone/or chlormezanone/or clorazepate dipotassium/or estazolam/or flunitrazepam/or fluvoxamine/or nordazepam/or ondansetron/or oxprenolol/or prazepam/or pregabalin/or ritanserin/or tranylcypromine/or trazodone/or triazolam/or zolazepam/ (33,247)
84 benzodiazepines/or benzodiazepinones/ (23,792)
85 sedative antihistamine$.ti,ab. (61)
86 promethazine.ti,ab. (2067)
87 antidepressive agents/or benactyzine/or clorgyline/or deanol/or desvenlafaxine succinate/or duloxetine hydrochloride/or iproniazid/or isocarboxazid/or lithium carbonate/or lithium compounds/or moclobemide/or nialamide/or phenelzine/or pizotyline/or rolipram/or sertraline/or tranylcypromine/or vilazodone hydrochloride/ (55,863)
88 Imipramine/ (9836)
89 mirtazapine.ti,ab. (1789)
90 antipsychotic agents/or acepromazine/or aripiprazole/or azaperone/or benperidol/or butaclamol/or chlorpromazine/or chlorprothixene/or clopenthixol/or clozapine/or droperidol/or etazolate/or flupenthixol/or fluphenazine/or fluspirilene/or haloperidol/or loxapine/or lurasidone hydrochloride/or mesoridazine/or methiothepin/or methotrimeprazine/or molindone/or ondansetron/or paliperidone palmitate/or penfluridol/or perazine/or perphenazine/or pimozide/or prochlorperazine/or promazine/or quetiapine fumarate/or raclopride/or remoxipride/or reserpine/or risperidone/or ritanserin/or spiperone/or sulpiride/or thioridazine/or thiothixene/or tiapride hydrochloride/or trifluoperazine/or trifluperidol/or triflupromazine/ (115,485)
91 olanzapine.ti,ab. (7626)
92 anticonvulsants/or acetazolamide/or bromides/or carbamazepine/or clonazepam/or clorazepate dipotassium/or diazepam/or dimethadione/or estazolam/or ethosuximide/or flunarizine/or lorazepam/or magnesium sulfate/or medazepam/or mephenytoin/or mephobarbital/or meprobamate/or nitrazepam/or paraldehyde/or phenobarbital/or phenytoin/or pregabalin/or primidone/or riluzole/or thiopental/or tiletamine/or trimethadione/or valproic acid/or vigabatrin/ (130,525)
93 antimanic agents/or lithium chloride/or lithium compounds/ (9289)
94 lamotrigine.ti,ab. (4677)
95 topiramate.ti,ab. (4081)

TABLE 25 Search strategy for MEDLINE via Ovid (*continued*)

96	monoamine oxidase inhibitors/or chlorphenamidine/or clorgyline/or cuprizone/or furazolidone/or harmaline/or harmine/or isocarboxazid/or moclobemide/or monocrotophos/or pargyline/or selegiline/or tranylcypromine/ (18,012)
97	Prazosin/ (7586)
98	N-Methyl-3,4-methylenedioxyamphetamine/ (3654)
99	(MDMA or ecstasy).ti,ab. (5261)
100	81 or 82 or 83 or 84 or 85 or 86 or 87 or 88 or 89 or 90 or 91 or 92 or 93 or 94 or 95 or 96 or 97 or 98 or 99 (409,556)
101	19 and 80 (5684)
102	19 and 100 (1860)
103	101 or 102 (7197)
104	Qualitative Research/ (34,279)
105	interview/ (27,920)
106	Grounded Theory/ (570)
107	Personal Narratives/ (2920)
108	Focus Groups/ (23,242)
109	Hermeneutics/ (122)
110	Anthropology, Cultural/ (5645)
111	interview$.ti,ab. (295,531)
112	ethnog$.ti,ab. (8787)
113	case stud$.ti,ab. (75,187)
114	grounded theory.ti,ab. (9150)
115	thematic analysis.ti,ab. (9942)
116	observational method$.ti,ab. (584)
117	comparative method$.ti,ab. (2606)
118	field notes.ti,ab. (1605)
119	participant observation.ti,ab. (2952)
120	narrative$.ti,ab. (26,469)
121	field stud$.ti,ab. (12,896)
122	audio recording.ti,ab. (240)
123	focus group$.ti,ab. (34,349)
124	conversation$ analysis.ti,ab. (454)
125	descriptive stud$.ti,ab. (22,097)
126	discourse analysis.ti,ab. (1338)
127	exploratory stud$.ti,ab. (11,645)
128	Hermeneutic.ti,ab. (2283)
129	naturalistic.ti,ab. (8879)
130	Phenomenolog$.ti,ab. (21,696)
131	Participatory.ti,ab. (9369)
132	Open-ended.ti,ab. (10,984)
133	in-depth.ti,ab. (49,756)

continued

TABLE 25 Search strategy for MEDLINE via Ovid (*continued*)

134	semi-structured.ti,ab. (29,761)
135	key informant$.ti,ab. (5436)
136	tape record$.ti,ab. (3069)
137	narration.ti,ab. (467)
138	104 or 105 or 106 or 107 or 108 or 109 or 110 or 111 or 112 or 113 or 114 or 115 or 116 or 117 or 118 or 119 or 120 or 121 or 122 or 123 or 124 or 125 or 126 or 127 or 128 or 129 or 130 or 131 or 132 or 133 or 134 or 135 or 136 or 137 (546,383)
139	103 and 138 (951)
140	(accept$ or adherence or attitude$ or belief$ or believ$ or choice$ or choos$ or drop out$ or experienc$ or feasib$ or opinion$ or perceiv$ or percept$ or prefer$ or uptake or view$ or withdraw$).ti. (680,726)
141	103 and 140 (344)
142	139 or 141 (1212)
143	limit 142 to yr="1992 -Current" (1151)

PsycINFO via Ovid

Search date: 1 June 2017.

Date range searched: 1987 to May Week 4 2017.

TABLE 26 Search strategy for PsycINFO via Ovid

1	exp Posttraumatic Stress Disorder/ (26,903)
2	Complex PTSD/ (130)
3	DESNOS/ (15)
4	"Disorders of Extreme Distress Not Otherwise Specified".ti,ab. (0)
5	(PTSD or CPTSD).ti,ab. (25,512)
6	posttrauma$.ti,ab. (26,670)
7	post-trauma$.ti,ab. (11,375)
8	"post trauma$".ti,ab. (11,375)
9	post traumatic stress.ti,ab. (8922)
10	post traumatic stress.id. (2822)
11	combat stress$.ti,ab. (450)
12	combat disorder$.ti,ab. (12)
13	DESNOS.ti,ab. (54)
14	complex trauma$.ti,ab. (527)
15	(complex adj2 trauma$).ti,ab. (699)
16	traumatic stress.ti,ab. (11,652)
17	traumatic memor$.ti,ab. (1271)
18	traumatization.ti,ab. (1431)
19	traumatisation.ti,ab. (155)

TABLE 26 Search strategy for PsycINFO via Ovid (*continued*)

20	(trauma adj2 (expos$ or event$ or experienc$)).ti,ab. (6690)
21	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 (46,932)
22	exp Cognitive Therapy/ (11,610)
23	cognitive behaviour$ therapy.ti,ab. (3892)
24	cognitive behavior$ therapy.ti,ab. (12,974)
25	cognitive restructuring.ti,ab. (1765)
26	cognitive rescripting.ti,ab. (0)
27	cognitive processing therapy.ti,ab. (277)
28	CPT.ti,ab. (1871)
29	cognitive therapy.ti,ab. (5079)
30	cognitive behavioural treatment$.ti,ab. (521)
31	cognitive behavioral treatment$.ti,ab. (2909)
32	(CBT or TFCBT).ti,ab. (10,696)
33	cognitive trauma therapy.ti,ab. (8)
34	trauma focus$ CBT.ti,ab. (57)
35	22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 (32,467)
36	exp Behavior Therapy/ (11,576)
37	(behavior$ adj2 (therap$ or treat$ or modif$)).ti,ab. (33,755)
38	(behaviour$ adj2 (therap$ or treat$ or modif$)).ti,ab. (6941)
39	(dialectical behavio$ therap$ or dialectical behavio$ treat$).ti,ab. (1477)
40	DBT.ti,ab. (1136)
41	biofeedback, psychology/or feedback, sensory/or neurofeedback/ (1224)
42	(biofeedback or neurofeedback or sensory feedback).ti,ab. (4469)
43	desensitization, psychologic/or eye movement desensitization reprocessing/or implosive therapy/or virtual reality exposure therapy/ (152)
44	(psychological adj2 desensiti$).ti,ab. (3)
45	Eye Movement Desensitization Therapy/ (1241)
46	eye movement desensiti?ation reprocessing.ti,ab. (61)
47	EMDR.ti,ab. (1367)
48	Exposure Therapy/ (1988)
49	(exposure adj (therap$ or treat$)).ti,ab. (2129)
50	prolonged exposure therap$.ti,ab. (153)
51	live exposure.ti,ab. (21)
52	imaginal exposure.ti,ab. (267)
53	imaginal flooding.ti,ab. (21)
54	exposure inhibition therap$.ti,ab. (1)
55	implosive therap$.ti,ab. (29)
56	image habituation.ti,ab. (5)
57	inoculation training.ti,ab. (226)

continued

TABLE 26 Search strategy for PsycINFO via Ovid (*continued*)

58	36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 (51,566)
59	(acceptance adj2 therap$).ti,ab. (347)
60	(commitment adj2 therap$).ti,ab. (1499)
61	Hypnosis/(3983)
62	(hypnosis or hypnotherap$).ti,ab. (6655)
63	Mindfulness/ (6716)
64	mindfulness.ti,ab. (8233)
65	(supportive adj (therap$ or psychotherap$)).ti,ab. (1186)
66	(non-directive adj (counselling or counseling)).ti,ab. (40)
67	(nondirective adj (counselling or counseling)).ti,ab. (52)
68	(non directive adj (counselling or counseling)).ti,ab. (40)
69	psychodynamic therap$.ti,ab. (1267)
70	inter personal psychotherap$.ti,ab. (1)
71	interpersonal psychotherap$.ti,ab. (1175)
72	interpersonal therapy.ti,ab. (502)
73	IPT.ti,ab. (963)
74	(compassion adj2 therap$).ti,ab. (107)
75	accelerated resolution.ti,ab. (9)
76	sensorimotor therap$.ti,ab. (9)
77	schema therapy.ti,ab. (321)
78	Stress Management/ (4239)
79	Supportive Psychotherapy/ (461)
80	Group Psychotherapy/ (12,925)
81	Counseling/ (15,966)
82	(non-directive counsel$ or non directive counsel$ or nondirective counsel$).ti,ab. (92)
83	compassion therap$.ti,ab. (4)
84	59 or 60 or 61 or 62 or 63 or 64 or 65 or 66 or 67 or 68 or 69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 or 77 or 78 or 79 or 80 or 81 or 82 or 83 (53,717)
85	35 or 58 or 84 (108,582)
86	21 and 85 (5589)
87	hypnotic drugs/or amobarbital/or apomorphine/or barbital/or chloral hydrate/or codeine/or flurazepam/or glutethimide/or hexobarbital/or meprobamate/or methaqualone/or nitrazepam/or pentobarbital/or phenobarbital/or secobarbital/or thalidomide/or thiopental/or triazolam/ (3430)
88	hypnotics.ti,ab. (1260)
89	hypnotic drug$.ti,ab. (286)
90	z drug$.ti,ab. (44)
91	tranquilizing drugs/or amitriptyline/or benactyzine/or doxepin/or haloperidol/or meprobamate/or minor tranquilizers/or neuroleptic drugs/or phenothiazine derivatives/or pimozide/or thiothixene/ (21,857)
92	exp benzodiazepines/ (7742)
93	sedative antihistamine$.ti,ab. (13)

TABLE 26 Search strategy for PsycINFO via Ovid (*continued*)

94 promethazine.ti,ab. (125)
95 antidepressant drugs/or bupropion/or citalopram/or fluoxetine/or fluvoxamine/or iproniazid/or isocarboxazid/or lithium carbonate/or methylphenidate/or mianserin/or moclobemide/or molindone/or nefazodone/or nialamide/or nomifensine/or paroxetine/or phenelzine/or pheniprazine/or pipradrol/or serotonin norepinephrine reuptake inhibitors/or sertraline/or sulpiride/or tranylcypromine/or trazodone/or tricyclic antidepressant drugs/or venlafaxine/or zimeldine/ (28,111)
96 Imipramine.ti,ab. (2559)
97 mirtazapine.ti,ab. (1118)
98 neuroleptic drugs/or aripiprazole/or clozapine/or molindone/or nialamide/or olanzapine/or quetiapine/or reserpine/or risperidone/or spiroperidol/or sulpiride/or tetrabenazine/ (25,765)
99 mood stabilizers/or anticonvulsive drugs/or carbamazepine/or lithium/or valproic acid/ (11,793)
100 mood stabilisers.ti,ab. (144)
101 antiepileptics.ti,ab. (281)
102 lamotrigine.ti,ab. (1802)
103 topiramate.ti,ab. (1501)
104 valproate.ti,ab. (2716)
105 monoamine oxidase inhibitors/or iproniazid/or isocarboxazid/or moclobemide/or nialamide/or pargyline/or phenelzine/or pheniprazine/or tranylcypromine/ (1627)
106 antihypertensive drugs/or alpha methylparatyrosine/or captopril/or chlorpromazine/or clonidine/or guanethidine/or hexamethonium/or hydralazine/or mecamylamine/or methyldopa/or phenoxybenzamine/or quinpirole/ (2481)
107 alpha blocker anti-hypertensive$.ti,ab. (0)
108 alpha blocker antihypertensive$.ti,ab. (0)
109 prazosin.ti,ab. (579)
110 Methylenedioxymethamphetamine/ (1926)
111 (mdma or ecstasy).ti,ab. (2879)
112 87 or 88 or 89 or 90 or 91 or 92 or 93 or 94 or 95 or 96 or 97 or 98 or 99 or 100 or 101 or 102 or 103 or 104 or 105 or 106 or 107 or 108 or 109 or 110 or 111 (83,790)
113 21 and 112 (1054)
114 86 or 113 (6545)
115 Qualitative Research/ (7366)
116 exp INTERVIEWS/ (9209)
117 exp ETHNOGRAPHY/ (7251)
118 exp Grounded Theory/ (3212)
119 exp Observation Methods/ (3079)
120 exp NARRATIVES/ (16,768)
121 exp Audiotapes/ (250)
122 exp Discourse Analysis/ (7393)
123 conversation/ (7816)
124 exp HERMENEUTICS/ (1857)
125 exp PHENOMENOLOGY/ (10,792)
126 exp Participation/ (11,842)
127 exp Informants/ (734)

continued

TABLE 26 Search strategy for PsycINFO via Ovid (*continued*)

128	anthropology/ (4659)
129	case stud$.ti,ab. (74,204)
130	thematic analysis.ti,ab. (7137)
131	comparative method$.ti,ab. (1958)
132	field notes.ti,ab. (3029)
133	audio recording.ti,ab. (214)
134	focus group$.ti,ab. (27,182)
135	conversation$ analysis.ti,ab. (1659)
136	descriptive study.ti,ab. (5331)
137	exploratory stud$.ti,ab. (12,989)
138	naturalistic.ti,ab. (11,518)
139	(open-ended or in-depth).ti,ab. (52,099)
140	semi-structured.ti,ab. (26,340)
141	key informant$.ti,ab. (2662)
142	tape record$.ti,ab. (1949)
143	narration.ti,ab. (1417)
144	115 or 116 or 117 or 118 or 119 or 120 or 121 or 122 or 123 or 124 or 125 or 126 or 127 or 128 or 129 or 130 or 131 or 132 or 133 or 134 or 135 or 136 or 137 or 138 or 139 or 140 or 141 or 142 or 143 (271,473)
145	114 and 144 (652)
146	(accept$ or adherence or attitude$ or belief$ or believ$ or choice$ or choos$ or drop out$ or experienc$ or feasib$ or opinion$ or perceiv$ or percept$ or prefer$ or uptake or view$ or withdraw$).ti. (288,349)
147	114 and 146 (346)
148	145 or 147 (947)
149	limit 148 to yr="1992 -Current" (919)

Appendix 3 List of studies excluded, with reasons

TABLE 27 Studies excluded at full-text screening stage, with reasons for exclusion

Authors (year)	Reason for exclusion
Abramowitz *et al.* (2008)[188]	Intervention did not meet criteria
Acierno *et al.* (2016)[189]	Intervention did not meet criteria
Aderka *et al.* (2013)[190]	Population did not meet criteria
Adler *et al.* (2009)[191]	Intervention did not meet criteria
Alderman *et al.* (2009)[192]	Study design did not meet criteria
Alderman *et al.* (2009)[193]	Study design did not meet criteria
Allan *et al.* (2015)[194]	Study design did not meet criteria
Allon (2015)[195]	Population did not meet criteria
Alvarez *et al.* (2011)[196]	Study design did not meet criteria
Amin *et al.* (2013)[197]	Article is a conference abstract
Angelo *et al.* (2008)[198]	Study design did not meet criteria
Arntz *et al.* (2007)[199]	Population did not meet criteria
Ayoughi *et al.* (2012)[200]	Study design did not meet criteria
Baños *et al.* (2011)[201]	Population did not meet criteria
Basharpoor *et al.* (2011)[202]	Population did not meet criteria
Bass *et al.* (2013)[203]	Population did not meet criteria
Batka *et al.* (2016)[204]	Intervention did not meet criteria
Benedek (2011)[205]	Study design did not meet criteria
Bensimon *et al.* (2012)[206]	Intervention did not meet criteria
Betancourt *et al.* (2014)[207]	Population did not meet criteria
Bisson (2003)[208]	Study design did not meet criteria
Bisson (2007)[209]	Population did not meet criteria
Blevins *et al.* (2011)[210]	Intervention did not meet criteria
Bohus *et al.* (2013)[211]	Population did not meet criteria
Bolton *et al.* (2014)[212]	Population did not meet criteria
Bomyea *et al.* (2015)[213]	Population did not meet criteria
Bormann *et al.* (2008)[214]	Intervention did not meet criteria
Bormann *et al.* (2013)[215]	Intervention did not meet criteria
Bormann *et al.* (2014)[216]	Article is a conference abstract
Bradley and Follingstad (2003)[217]	Population did not meet criteria
Brady *et al.* (2000)[218]	Population did not meet criteria
Bremner *et al.* (2004)[219]	Study design did not meet criteria

continued

TABLE 27 Studies excluded at full-text screening stage, with reasons for exclusion (*continued*)

Authors (year)	Reason for exclusion
Bremner *et al.* (2011)[220]	Article is a conference abstract
Brown *et al.* (2014)[221]	Intervention did not meet criteria
Bryan *et al.* (2016)[222]	Study design did not meet criteria
Bui *et al.* (2016)[223]	Article is a conference abstract
Byers *et al.* (2010)[224]	Study design did not meet criteria
Byers (2010)[225]	Study design did not meet criteria
Campbell *et al.* (2016)[226]	Intervention did not meet criteria
Carlson *et al.* (1998)[157]	Duplicate article
Carr *et al.* (2012)[227]	Intervention did not meet criteria
Castillo *et al.* (2016)[228]	Population did not meet criteria
Cates *et al.* (2004)[229]	Study design did not meet criteria
Celik *et al.* (2011)[65]	Duplicate article
Chemtob *et al.* (1997)[230]	Population did not meet criteria
Chen *et al.* (2013)[231]	Outcomes did not meet criteria
Chesney *et al.* (2014)[232]	Article is a conference abstract
Church *et al.* (2013)[233]	Intervention did not meet criteria
Church (2014)[234]	Study design did not meet criteria
Clark *et al.* (1999)[235]	Study design did not meet criteria
Classen *et al.* (2011)[236]	Population did not meet criteria
Cloitre and Koenen (2001)[237]	Study design did not meet criteria
Cole *et al.* (2007)[238]	Population did not meet criteria
Connolly and Sakai (2011)[239]	Intervention did not meet criteria
Cort *et al.* (2014)[240]	Study design did not meet criteria
Coulter (2010)[241]	Intervention did not meet criteria
Crespo and Arinero (2010)[242]	Population did not meet criteria
David *et al.* (2006)[243]	Study design did not meet criteria
Davidson *et al.* (1993)[244]	Study design did not meet criteria
Davidson *et al.* (2001)[245]	Population did not meet criteria
Davidson *et al.* (2001)[246]	Population did not meet criteria
Davis *et al.* (2000)[247]	Study design did not meet criteria
Davis *et al.* (2004)[73]	Duplicate article
Davis *et al.* (2008)[72]	Duplicate article
Davis *et al.* (2011)[248]	Population did not meet criteria
Dawson *et al.* (2016)[249]	Population did not meet criteria
Dempsey *et al.* (2014)[233]	Article is a conference abstract
Dieperink *et al.* (2008)[250]	Intervention did not meet criteria
Difede *et al.* (2014)[251]	Population did not meet criteria
Dorrepaal *et al.* (2012)[252]	Population did not meet criteria

TABLE 27 Studies excluded at full-text screening stage, with reasons for exclusion (*continued*)

Authors (year)	Reason for exclusion
Dorrepaal *et al.* (2013)[253]	Outcomes did not meet criteria
Doruk *et al.* (1999)[254]	Non-English language article
Dougherty (2002)[255]	Population did not meet criteria
Drozdek (1997)[256]	Study design did not meet criteria
Droždek and Bolwerk (2010)[257]	Intervention did not meet criteria
Drožđek *et al.* (2012)[258]	Intervention did not meet criteria
Duffy and Malloy (1994)[259]	Study design did not meet criteria
Duffy *et al.* (2007)[260]	Population did not meet criteria
Dunn *et al.* (2007)[261]	Population did not meet criteria
Durham *et al.* (2005)[262]	Study design did not meet criteria
Echeburúa *et al.* (1997)[263]	Population did not meet criteria
Echeburúa *et al.* (2014)[264]	Comparator did not meet criteria
Edmond *et al.* (2004)[265]	Outcomes did not meet criteria
Ekstrom *et al.* (2016)[266]	Article is a conference abstract
Ekstrom *et al.* (2016)[267]	Article is a conference abstract
Elkjaer *et al.* (2012)[268]	Article is a conference abstract
Ertl *et al.* (2011)[269]	Population did not meet criteria
Esala *et al.* (2017)[270]	Intervention did not meet criteria
Falsetti *et al.* (2003)[271]	Population did not meet criteria
Farchi and Gidron (2010)[272]	Intervention did not meet criteria
Fiorillo *et al.* (2017)[273]	Study design did not meet criteria
Foa *et al.* (1991)[274]	Population did not meet criteria
Foa *et al.* (1999)[275]	Population did not meet criteria
Foa *et al.* (2005)[276]	Population did not meet criteria
Forbes *et al.* (2001)[277]	Study design did not meet criteria
Forbes *et al.* (2008)[278]	Population did not meet criteria
Forbes *et al.* (2012)[279]	Population did not meet criteria
Ford *et al.* (2011)[280]	Population did not meet criteria
Fortney *et al.* (2015)[281]	Intervention did not meet criteria
Fortney *et al.* (2015)[282]	Intervention did not meet criteria
Frommberger *et al.* (2004)[283]	Population did not meet criteria
Galovski *et al.* (2009)[284]	Study design did not meet criteria
Galovski *et al.* (2012)[285]	Population did not meet criteria
Gamito *et al.* (2009)[286]	Study design did not meet criteria
Garfield *et al.* (2001)[287]	Study design did not meet criteria
Gatz *et al.* (2007)[288]	Population did not meet criteria
Gebler and Maercker (2007)[289]	Non-English language article

continued

TABLE 27 Studies excluded at full-text screening stage, with reasons for exclusion (*continued*)

Authors (year)	Reason for exclusion
Gelpin *et al.* (1996)[290]	Population did not meet criteria
Gillin *et al.* (2001)[291]	Study design did not meet criteria
Ginsberg (2003)[292]	Study design did not meet criteria
Ginzburg *et al.* (2009)[293]	Outcomes did not meet criteria
Glover (1993)[294]	Study design did not meet criteria
Glynn *et al.* (1999)[295]	Intervention did not meet criteria
Goldberg *et al.* (2003)[296]	Study design did not meet criteria
Gosselin *et al.* (2016)[297]	Article is a conference abstract
Graham-Bermann and Miller (2013)[298]	Intervention did not meet criteria
Gray *et al.* (2012)[299]	Study design did not meet criteria
Gros *et al.* (2011)[300]	Comparator did not meet criteria
Gros *et al.* (2011)[301]	Comparator did not meet criteria
Gutner *et al.* (2013)[302]	Population did not meet criteria
Hall *et al.* (2014)[303]	Outcomes did not meet criteria
Hamner (1996)[304]	Article is a letter to the editor
Hamner *et al.* (2003)[305]	Study design did not meet criteria
Harris *et al.* (2011)[306]	Intervention did not meet criteria
Haynes *et al.* (2012)[307]	Article is a conference abstract
Hébert and Bergeron (2007)[308]	Population did not meet criteria
Held and Owens (2015)[309]	Population did not meet criteria
Hensel-Dittmann *et al.* (2011)[310]	Population did not meet criteria
Hertzberg *et al.* (2000)[311]	Population did not meet criteria
Hertzberg *et al.* (2002)[312]	Study design did not meet criteria
Hijazi *et al.* (2013)[313]	Article is a conference abstract
Hobfoll *et al.* (2016)[314]	Population did not meet criteria
Holliday *et al.* (2015)[315]	Population did not meet criteria
Hopton and Huta (2013)[316]	Population did not meet criteria
Hughes and Rasmussen (2010)[162]	Study design did not meet criteria
Igreja *et al.* (2004)[317]	Intervention did not meet criteria
Ironson *et al.* (2002)[318]	Population did not meet criteria
Ivarsson *et al.* (2014)[319]	Population did not meet criteria
Iverson *et al.* (2011)[320]	Outcomes did not meet criteria
Jaberghaderi *et al.* (2002)[321]	Population did not meet criteria
Jain *et al.* (2012)[322]	Intervention did not meet criteria
Jenkins *et al.* (2014)[323]	Article is a conference abstract
Jerud *et al.* (2014)[324]	Population did not meet criteria
Jetly *et al.* (2015)[325]	Study design did not meet criteria
Johnson *et al.* (2011)[326]	Population did not meet criteria

TABLE 27 Studies excluded at full-text screening stage, with reasons for exclusion (*continued*)

Authors (year)	Reason for exclusion
Kaiser *et al.* (2010)[327]	Outcomes did not meet criteria
Karatzias *et al.* (2016)[328]	Study design did not meet criteria
Kaslow *et al.* (2010)[329]	Population did not meet criteria
Kelly *et al.* (2016)[330]	Article is a conference abstract
Kelly and Garland (2016)[331]	Population did not meet criteria
Khazaie *et al.* (2016)[332]	Population did not meet criteria
King *et al.* (2011)[333]	Article is a conference abstract
King *et al.* (2016)[334]	Population did not meet criteria
King *et al.* (2016)[335]	Population did not meet criteria
Kip *et al.* (2013)[336]	Population did not meet criteria
Kip *et al.* (2014)[337]	Outcomes did not meet criteria
Kluepfel *et al.* (2013)[338]	Population did not meet criteria
Koehn (2007)[339]	Study design did not meet criteria
Kozarić-Kovacić *et al.* (2005)[340]	Study design did not meet criteria
Kozaric-Kovacic and Pivac (2007)[341]	Study design did not meet criteria
Kozel *et al.* (2016)[342]	Article is a conference abstract
Krakow *et al.* (2000)[343]	Population did not meet criteria
Krakow *et al.* (2001)[344]	Population did not meet criteria
Kreidler (2005)[345]	Population did not meet criteria
Krüger *et al.* (2014)[346]	Population did not meet criteria
Krystal *et al.* (2011)[99]	Population did not meet criteria
Kuckertz *et al.* (2014)[347]	Population did not meet criteria
Labrador *et al.* (2006)[348]	Non-English language article
Lampe *et al.* (2008)[349]	Non-English language article
Lang *et al.* (2012)[350]	Article is a study protocol
Lange *et al.* (2001)[351]	Population did not meet criteria
Lange *et al.* (2003)[352]	Population did not meet criteria
Lange *et al.* (2003)[353]	Population did not meet criteria
Largo-Marsh (1996)[354]	Article is a dissertation
Liebling *et al.* (2016)[355]	Intervention did not meet criteria
Liedl *et al.* (2011)[356]	Retracted study
Lim *et al.* (2014)[357]	Article is a conference abstract
Littleton *et al.* (2016)[358]	Population did not meet criteria
Litz *et al.* (2007)[359]	Population did not meet criteria
Litz *et al.* (2012)[360]	Population did not meet criteria
Long *et al.* (2011)[361]	Study design did not meet criteria
Macdonald *et al.* (2011)[362]	Population did not meet criteria

continued

TABLE 27 Studies excluded at full-text screening stage, with reasons for exclusion (*continued*)

Authors (year)	Reason for exclusion
Macklin *et al.* (2000)[363]	Study design did not meet criteria
Manteghi *et al.* (2014)[364]	Study design did not meet criteria
Margolies *et al.* (2013)[159]	Duplicate article
Martenyi *et al.* (2002)[365]	Population did not meet criteria
Martenyi *et al.* (2006)[366]	Study design did not meet criteria
Matud *et al.* (2016)[367]	Non-English language article
Mauritz *et al.* (2016)[368]	Article is a study protocol
McFall *et al.* (2005)[369]	Intervention did not meet criteria
McGlinchey *et al.* (2014)[370]	Intervention did not meet criteria
McWhirter (2011)[371]	Population did not meet criteria
Mehling *et al.* (2016)[372]	Article is a conference abstract
Mehta *et al.* (2012)[373]	Article is a conference abstract
Mello *et al.* (2009)[374]	Article is a study protocol
Mithoefer *et al.* (2011)[375]	Population did not meet criteria
Monson *et al.* (2006)[376]	Population did not meet criteria
Monson *et al.* (2012)[377]	Intervention did not meet criteria
Morland *et al.* (2010)[378]	Comparator did not meet criteria
Morland *et al.* (2011)[379]	Comparator did not meet criteria
Morland *et al.* (2014)[380]	Comparator did not meet criteria
Morland *et al.* (2015)[381]	Comparator did not meet criteria
Moser *et al.* (2010)[382]	Comparator did not meet criteria
Mughal *et al.* (2015)[383]	Intervention did not meet criteria
Murray *et al.* (2016)[384]	Outcomes did not meet criteria
Muzik *et al.* (2015)[385]	Intervention did not meet criteria
Nacasch *et al.* (2011)[386]	Population did not meet criteria
Nagy *et al.* (1993)[387]	Study design did not meet criteria
Nakamura *et al.* (2011)[388]	Intervention did not meet criteria
Neuner *et al.* (2010)[389]	Population did not meet criteria
Neylan *et al.* (2001)[390]	Study design did not meet criteria
Neylan *et al.* (2003)[391]	Study design did not meet criteria
Nijdam *et al.* (2012)[392]	Population did not meet criteria
Niles *et al.* (2012)[160]	Article is a conference abstract
Niles *et al.* (2013)[393]	Outcomes did not meet criteria
Nishith *et al.* (1999)[394]	Population did not meet criteria
Nishith *et al.* (2015)[395]	Study design did not meet criteria
Ochsner Margolies *et al.* (2012)[396]	Article is a conference abstract
Oman and Bormann (2015)[397]	Intervention did not meet criteria
Padala (2006)[398]	Study design did not meet criteria

TABLE 27 Studies excluded at full-text screening stage, with reasons for exclusion (*continued*)

Authors (year)	Reason for exclusion
Padala *et al.* (2006)[399]	Population did not meet criteria
Paivio *et al.* (2010)[400]	Comparator did not meet criteria
Paunovic (2011)[401]	Population did not meet criteria
Peskind *et al.* (2003)[402]	Study design did not meet criteria
Petty *et al.* (2001)[403]	Study design did not meet criteria
Pigeon *et al.* (2009)[404]	Study design did not meet criteria
Pigeon *et al.* (2015)[405]	Article is a conference abstract
Pivac and Kozarić-Kovacić (2006)[406]	Study design did not meet criteria
Pokhariyal *et al.* (2012)[407]	Population did not meet criteria
Pollack *et al.* (2011)[408]	Population did not meet criteria
Possemato *et al.* (2011)[409]	Intervention did not meet criteria
Possemato *et al.* (2016)[410]	Comparator did not meet criteria
Price (2005)[411]	Intervention did not meet criteria
Price (2006)[412]	Intervention did not meet criteria
Pruiksma *et al.* (2012)[413]	Article is a conference abstract
Pruiksma *et al.* (2013)[414]	Article is a conference abstract
Ragsdale *et al.* (1996)[415]	Population did not meet criteria
Rahman *et al.* (2016)[416]	Population did not meet criteria
Randall *et al.* (1995)[417]	Study design did not meet criteria
Raskind *et al.* (2003)[418]	Study design did not meet criteria
Raskind *et al.* (2012)[419]	Article is a conference abstract
Raskind *et al.* (2013)[123]	Duplicate article
Raskind (2014)[420]	Article is a conference abstract
Rauch *et al.* (2014)[421]	Article is a conference abstract
Rauch *et al.* (2015)[422]	Population did not meet criteria
Ready *et al.* (2006)[423]	Study design did not meet criteria
Reed (2004)[424]	Article is a dissertation
Renner *et al.* (2011)[425]	Intervention did not meet criteria
Resick and Schnicke (1992)[426]	Population did not meet criteria
Resick *et al.* (2002)[427]	Population did not meet criteria
Resick *et al.* (2003)[428]	Study design did not meet criteria
Resick *et al.* (2008)[429]	Comparator did not meet criteria
Resick *et al.* (2017)[430]	Comparator did not meet criteria
Rimane and Rosner (2013)[431]	Article is a study protocol
Robert *et al.* (2009)[432]	Study design did not meet criteria
Rodgman *et al.* (2016)[433]	Study design did not meet criteria
Rosenbaum *et al.* (2015)[434]	Intervention did not meet criteria

continued

TABLE 27 Studies excluded at full-text screening stage, with reasons for exclusion (*continued*)

Authors (year)	Reason for exclusion
Rothbaum (1997)[435]	Population did not meet criteria
Rothbaum *et al.* (2001)[436]	Study design did not meet criteria
Rothbaum *et al.* (2005)[437]	Population did not meet criteria
Rothbaum *et al.* (2008)[438]	Study design did not meet criteria
Rothbaum *et al.* (2014)[129]	Study design did not meet criteria
Ryan *et al.* (2005)[439]	Intervention did not meet criteria
Sachsse *et al.* (2006)[440]	Study design did not meet criteria
Sack *et al.* (2017)[441]	Outcomes did not meet criteria
Salloum *et al.* (2015)[442]	Intervention did not meet criteria
Sautter *et al.* (2015)[443]	Intervention did not meet criteria
Schaal *et al.* (2009)[444]	Comparator did not meet criteria
Schnurr *et al.* (2003)[445]	Population did not meet criteria
Schnurr *et al.* (2007)[446]	Population did not meet criteria
Schnurr *et al.* (2009)[447]	Outcomes did not meet criteria
Schnurr and Lunney (2015)[448]	Study design did not meet criteria
Schnurr and Lunney (2016)[449]	Study design did not meet criteria
Seppälä *et al.* (2014)[450]	Intervention did not meet criteria
Sezgin and Punamäki (2008)[451]	Study design did not meet criteria
Shearing *et al.* (2011)[452]	Population did not meet criteria
Short (2005)[453]	Study design did not meet criteria
Silver *et al.* (1995)[454]	Study design did not meet criteria
Skinhoj *et al.* (2001)[455]	Study design did not meet criteria
Smith *et al.* (2012)[456]	Study design did not meet criteria
Spence *et al.* (2014)[457]	Population did not meet criteria
Spiegel *et al.* (2004)[458]	Study design did not meet criteria
Stade *et al.* (2015)[459]	Intervention did not meet criteria
Stalker and Fry (1999)[460]	Study design did not meet criteria
Steil *et al.* (2011)[461]	Article is a conference abstract
Stein *et al.* (2006)[462]	Study design did not meet criteria
Steinert *et al.* (2017)[463]	Population did not meet criteria
Steuwe *et al.* (2016)[464]	Study design did not meet criteria
Stovall-McClough and Cloitre (2003)[465]	Study design did not meet criteria
Su *et al.* (2007)[466]	Non-English language article
Sulejmanpasic-Arslanagic and Bise Srebrenka (2015)[467]	Article is a conference abstract
Surís *et al.* (2010)[468]	Intervention did not meet criteria
Surís *et al.* (2013)[469]	Population did not meet criteria
Swanson *et al.* (2009)[470]	Study design did not meet criteria
Taing *et al.* (2011)[471]	Article is a conference abstract

TABLE 27 Studies excluded at full-text screening stage, with reasons for exclusion (*continued*)

Authors (year)	Reason for exclusion
Talbot *et al.* (2011)[472]	Population did not meet criteria
Talbot *et al.* (2014)[473]	Population did not meet criteria
Tan *et al.* (2011)[474]	Comparator did not meet criteria
Tarquinio *et al.* (2012)[475]	Population did not meet criteria
Tarrier and Sommerfield (2004)[476]	Population did not meet criteria
Thomaes *et al.* (2015)[477]	Non-English language article
Thorp *et al.* (2012)[478]	Study design did not meet criteria
Tourigny *et al.* (2005)[479]	Non-English language article
Truijens and Van Emmerik (2014)[480]	Population did not meet criteria
van den Berg and van der Gaag (2012)[481]	Population did not meet criteria
van der Kolk *et al.* (2007)[482]	Population did not meet criteria
van Emmerik *et al.* (2008)[483]	Population did not meet criteria
Vera *et al.* (2011)[484]	Population did not meet criteria
Villarreal *et al.* (2007)[485]	Study design did not meet criteria
Villarreal *et al.* (2010)[486]	Study design did not meet criteria
Vitriol *et al.* (2009)[487]	Intervention did not meet criteria
Weine *et al.* (2008)[488]	Intervention did not meet criteria
Wells and Colbear (2012)[489]	Population did not meet criteria
Westbury and Tutty (1999)[490]	Intervention did not meet criteria
Wood *et al.* (2011)[491]	Study design did not meet criteria
Yeh *et al.* (2011)[492]	Population did not meet criteria
Yehua (2003)[493]	Study design did not meet criteria
Yehuda *et al.* (2015)[494]	Population did not meet criteria
Yuen *et al.* (2015)[495]	Comparator did not meet criteria
Ziemba (*et al.* 2014)[496]	Comparator did not meet criteria
Zimmermann *et al.* (2005)[497]	Non-English language article
Zimmermann *et al.* (2007)[498]	Study design did not meet criteria
Zisook *et al.* (2000)[499]	Study design did not meet criteria
Zlotnick *et al.* (2011)[500]	Population did not meet criteria
Zoellner *et al.* (1999)[501]	Population did not meet criteria
Zohar *et al.* (2002)[147]	Duplicate article

Appendix 4 Characteristics of randomised controlled trials included

TABLE 28 Intervention characteristics for the randomised controlled studies included comparing psychological interventions

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Acarturk *et al.* (2015)[53]	EMDR	EMDR; SCTF	Waitlist	Duration: NR Frequency: NR Length of sessions: seven sessions, 90 minutes each	Face to face; community/refugee camp; Turkish psychologists trained at level 1 EMDR, supervised by EMDR institute accredited trainer
Acarturk *et al.* (2016)[54]	EMDR	EMDR; SCTF	Waitlist	Duration: 5 weeks Frequency: NR Length of sessions: NR	Face to face/online; community/ refugee camp; psychologists trained in EMDR
Adenauer *et al.* (2011)[55]	NET	TFCBT; SCTF	Waitlist	Duration: NR Frequency: weekly or biweekly Length of sessions: 12 sessions, average length 108 minutes (SD 17 minutes)	Face to face; setting NR; clinical psychologists
Azad Marzabadi and Hashemi Zadeh (2014)[57]	MBSR	Mindfulness; SCNTF	Waitlist/continued treatment	Duration: 4 weeks Frequency: twice a week Length of sessions: eight sessions, 90 minutes each	Face to face; hospital; psychologist
Bichescu *et al.* (2007)[61]	NET	TFCBT; MCTF	Psychoeducation	Duration: 5 weeks Frequency: weekly or biweekly Length of sessions: 120 minutes	Face to face, individual; setting NR; trained PhD psychology student

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Beidel *et al.* (2011)[60]	Trauma management therapy with exposure	TFCBT; MCTF		Duration: 17 weeks Frequency: exposure three times per week; social and emotional rehabilitation twice a week (2 weeks), weekly for 10 weeks Length of sessions: 14 sessions of exposure, length NR. Social and emotional rehabilitation 90 minutes	Face to face, individual and group; setting NR; doctoral-level therapists
	Exposure-only therapy	Exposure only		Duration: 17 weeks Frequency: three times per week Length of sessions:14 sessions of exposure, 14 sessions of psychoeducation	
Bolton *et al.* (2014)[62]	Behavioural activation treatment for depression	NTFCBT; SCNTF	Waitlist	Duration: NR Frequency: NR Length of sessions: 12 sessions, length NR	Face to face, individual; primary health clinics and one outpatient clinic; community mental health workers (nurses, pharmacist assistants or physician assistants) with a mental health background
	CPT	TFCBT; SCTF		Duration: NR Frequency: NR Length of sessions: 12 sessions, length NR	
Buhmann *et al.* (2016)[63]	CBT	TFCBT; NA	Waitlist	Duration: 6 months Frequency: weekly Length of sessions: 16 sessions, length NR	Face to face; mental health clinic; doctors and therapists with mental health background

continued

TABLE 28 Intervention characteristics for the randomised controlled studies included comparing psychological interventions (*continued*)

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Carlson *et al.* (1997)[64]	EMDR biofeedback relaxation	EMDR; SCTF	Waitlist	Duration: 6 weeks Frequency: twice a week Length of sessions: 12 sessions, 60–75 minutes each	Face to face, individual; clinic based; experienced therapists, EMDR trained therapists with research and clinical backgrounds
	Biofeedback relaxation	NTFCBT; SCNTF		Duration: 6 weeks Frequency: twice a week Length of sessions: 12 sessions, 40 minutes each	Face to face, individual; clinic based; experienced therapists with behavioural, psychodynamic and biofeedback backgrounds
Chard (2005)[66]	CPT for sexual abuse survivors	TFCBT; MCTF	Waitlist	Duration: 17 weeks Frequency: weekly individual and group sessions Length of sessions: group sessions 90 minutes, individual sessions 60 minutes	Face to face, individual and group; Centre for Traumatic Stress Studies; graduate psychology students with background in behavioural interventions and mental health
Classen *et al.* (2001)[68]	Trauma-focused therapy	NA; NA (data were presented together)	Waitlist	Duration: 24 weeks Frequency: weekly Length of sessions: 90 minutes	Face to face, group; setting NR; experienced group leaders supervised by an expert in trauma (therapists included psychologists and one licensed MFCC)
	Present-centred therapy			Duration: 24 weeks Frequency: weekly Length of sessions: 90 minutes	

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Cloitre *et al.* (2002)[69]	STAIR-modified PE	DBT; MCTF	Minimal attention waitlist and support/exposure	Duration: 12 weeks Frequency: weekly STAIR/twice weekly modified PE Length of sessions: 16 sessions, STAIR 60 minutes, modified PE 90 minutes	Face to face, individual; setting NR; clinical psychologist
	STAIR/exposure	DBT; MCTF		Duration: 16 weeks Frequency: weekly Length of sessions: NR	Face to face, individual; setting NR; master's/doctorate psychologist/social work staff/expert clinicians with mental health backgrounds
	STAIR/support	DBT; MCNTF		Duration: 16 weeks Frequency: weekly Length of sessions: NR	Face to face, individual; setting NR; master's/doctorate psychologist/social work staff/expert clinicians with mental health backgrounds
Cook *et al.* (2010)[71]	Imagery rehearsal therapy	TFCBT; MCTF		Duration: 6 weeks Frequency: weekly Length of sessions: 90 minutes	Face to face, group; setting NR; psychologists and psychiatric nurse
	Sleep and nightmare management			Duration: 6 weeks Frequency: weekly Length of sessions: 90 minutes	

continued

TABLE 28 Intervention characteristics for the randomised controlled studies included comparing psychological interventions (*continued*)

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Devilly *et al.* (1998)[74]	EMDR	EMDR; SCTF	Standard psychiatric support	Duration: NR Frequency: NR Length of sessions: two sessions, 90 minutes	Face to face, individual; setting NR; active clinician trained by Shapiro[502]
	Reactive eye dilatation desensitisation and reprocessing	EMDR; SCTF		Duration: NR Frequency: NR Length of sessions: two sessions, 90 minutes	
Edmond *et al.* (1999)[76]	EMDR	EMDR; SCTF	Delayed treatment	Duration: 6 weeks Frequency: weekly Length of sessions: 90 minutes	Face to face; setting NR; white female master's-level therapists
	Routine individual treatment			Duration: 6 weeks Frequency: weekly Length of sessions: 90 minutes	
Engel *et al.* (2015)[78]	Delivery of self training and education for stressful situations (DESTRESS-PC)	NTFCBT; SCNTF	Optimised usual care	Duration: 6 weeks Frequency: three times per week Length of sessions: 18 sessions, log in 15–30 minutes, homework 30 minutes	Computer/telephone; remote setting; online/nurse support
Feske (2008)[79]	PE	TFCBT; SCTF	Treatment as usual	Duration: 12 weeks Frequency: weekly Length of sessions: 9–12 total sessions, PE 90 minutes, treatment as usual 60 minutes	Face to face, individual (individual and group for controls); community clinic setting; trained master's-level social workers and a nurse with a mental health background

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Franklin *et al.* (2017)[81]	PE by iPhone (Apple Inc., Cupertino, CA, USA)	TFCBT; SCTF	Treatment as usual	Duration: 10 weeks Frequency: 10 sessions within 12 weeks Length of sessions: NR	iPhone-based video chat; teleconference at community VA centre; psychologists
	PE by computer-based teleconferencing	TFCBT; SCTF	Treatment as usual	Duration: 10 weeks Frequency: 10 sessions within 12 weeks Length of sessions: NR	Computer-based teleconference; teleconference at community VA centre; psychologists
Gamito *et al.* (2010)[83]	Virtual reality exposure therapy	TFCBT; SCTF	Waitlist	Duration: NR Frequency: NR Length of sessions: 12 sessions, length NR	Face to face, individual; setting NR; professional NR
	Exposure in imagination	TFCBT; SCTF		Duration: NR Frequency: NR Length of sessions: 12 sessions, length NR	Computer-based teleconference; teleconference at community VA centre; psychologists
Germain *et al.* (2012)[84]	Behavioural sleep intervention	TFCBT; MCTF	Placebo	Duration: 8 weeks Frequency: weekly Length of sessions: eight sessions, 45 minutes each	Face to face; setting NR; master's-level therapist with mental health background
Hermenau *et al.* (2013)[86]	NET for forensic offender rehabilitation (FORNET)	TFCBT; SCTF	No intervention	Duration: 2 weeks Frequency: approximately every other day Length of sessions: 1–2 hours	Face to face (individual and group); non-governmental organisation reintegration centre for war-affected young people; therapists with a mental health background

continued

TABLE 28 Intervention characteristics for the randomised controlled studies included comparing psychological interventions (*continued*)

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Hijazi *et al.* (2014)[87]	Brief NET	TFCBT; SCTF	Waitlist	Duration: 3 weeks Frequency: weekly Length of sessions: 60–90 minutes	Face to face; private room setting according to participant preference (e.g. own home, church, community centre); therapists trained by a licensed psychologist with expertise in exposure therapies
Himmerich *et al.* (2016)[88]	Inpatient psychotherapy	EMDR; MCNTF	Outpatient clinical management	Duration: 6 weeks Frequency: NR Length of sessions: inpatient	Face to face; hospital; professionals NR, but with mental health background
Hinton *et al.* (2004)[90]	CBT	TFCBT; SCTF	Delayed treatment	Duration: 11 weeks Frequency: weekly Length of sessions: NR	Face to face, individual; setting NR; trained CBT therapist with cultural facilitators
Hinton *et al.* (2005)[89]	CBT	TFCBT; SCTF	Delayed treatment	Duration: 12 weeks Frequency: weekly Length of sessions: NR	Face to face, individual; setting NR; psychiatrist
Jensen (1994)[91]	EMDR	EMDR; SCTF	Treatment as usual with option of delayed EMDR	Duration: NR Frequency: NR Length of sessions: NR	Face to face; setting NR; trained therapist with mental health background
Jung and Steil (2013)[92]	Cognitive restructuring and imagery modification	TFCBT; MCTF	Waitlist	Duration: NR Frequency: NR Length of sessions: two sessions, treatment 90 minutes, booster 50 minutes	Face to face/use of internet; specialist PTSD outpatient centres; one at university and two at large psychiatric hospitals; therapist supervised by senior therapist (both authors)

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Katz *et al.* (2014)[93]	Holographic reprocessing	Other psychotherapy; MCNTF	Person-centred control	Duration: 10 weeks Frequency: weekly Length of sessions: NR	Face to face, individual; setting NR; psychologist, clinical social workers, psychology post-docs, marriage and family therapist trainees and psychiatry residents, with mental health backgrounds
	PE	TFCBT; SCTF	Waitlist		Face to face/use of internet; specialist PTSD outpatient centres; one at university and two at large psychiatric hospitals; therapist supervised by senior therapist (both authors)
Keane *et al.* (1989)[94]	Implosive (flooding) therapy	TFCBT; SCTF	Waitlist	Duration: NR Frequency: NR Length of sessions: 14 sessions (plus an additional two sessions if deemed appropriate by therapist), 90 minutes	Face to face (individual); VA medical centre; therapist with mental health background
Kearney *et al.* (2013)[95]	MBSR and treatment as usual	Mindfulness; SCNTF	Treatment as usual	Duration: 8 weeks Frequency: weekly Length of sessions: 2.5 hours (plus 7-hour retreat)	Face to face (group); VA medical centre; professional instructors with mental health backgrounds
King *et al.* (2013)[148]	Mindfulness-based cognitive therapy group		Treatment as usual (PTSD psychoeducation and skills group or imagery rehearsal therapy group)	Duration: 8 weeks Frequency: weekly Length of sessions: 8 hours	Face to face (group); PTSD outpatient clinic (for veterans); therapists with a mental health background, including clinical psychologists
Knaevelsrud *et al.* (2015)[96]	Internet-based CBT	TFCBT; SCTF	Waitlist	Duration: 5 weeks Frequency: twice a week Length of sessions: not fixed	Computer; remote (web-based) setting; psychotherapists or psychiatrists

continued

TABLE 28 Intervention characteristics for the randomised controlled studies included comparing psychological interventions (*continued*)

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Krupnick *et al.* (2008)[98]	IPT	IPT; SCNTF	Waitlist	Duration: 16 weeks Frequency: weekly Length of sessions: 2 hours	Face to face, group; setting NR; clinical psychologists
Kubany *et al.* (2004)[100]	Cognitive trauma therapy for battered women	TFCBT; MCTF	Waitlist	Duration: 4 weeks Frequency: NR Length of sessions: 1.5 hours, 8.5 mean total sessions	Face to face (individual); setting NR; therapist
Kubany *et al.* (2004)[101]	Cognitive trauma therapy for battered women	TFCBT; MCTF	Delayed treatment	Duration: 4–6 weeks Frequency: twice a week Length of sessions: 60 minutes, 8–11 total sessions	Face to face, individual; setting NR; professionals included clinical psychologist, advanced degree nurses, master's in counselling psychology, victim witness advocate, baccalaureate degree and several years of experience in domestic violence counselling
Lande *et al.* (2010)[102]	Biofeedback and treatment as usual	Biofeedback; NA	Treatment as usual	Duration: 3 weeks Frequency: twice a week Length of sessions: 20 minutes	Face to face (individual) via computer; specialist psychiatric outpatient clinic; computer, professional NR
Lau and Kristensen (2007)[103]	Analytic group psychotherapy Systemic group psychotherapy	Other psychotherapy; MCNTF Other psychotherapy; MCNTF	Treatment as usual	Duration: 52 weeks Frequency: weekly Length of sessions: 2.25 hours	Face to face (group); outpatient mental health services; therapists with a mental health background
Margolies *et al.* (2011)[105]	CBT for insomnia with imagery rehearsal therapy	TFCBT; MCTF	Minimal attention waitlist and waitlist	Duration: 8 weeks Frequency: NR Length of sessions: 60 minutes; four individual sessions, with break between second and third sessions	Face to face, individual; VA medical centre; clinical psychologist

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
McDonagh *et al.* (2005)[106]	CBT	TFCBT; SCTF	Minimal attention waitlist	Duration: 14 weeks Frequency: weekly Length of sessions: 2 hours for first seven sessions, 1.5 hours for final seven sessions	Face to face, individual; setting NR; psychologists and master's-level clinical social workers
	Present-centred therapy	Other psychotherapy; MCNTF		Duration: 14 weeks Frequency: weekly Length of sessions: 2 hours for first seven sessions, 1.5 hours for final seven sessions	
McLay *et al.* (2011)[107]	Virtual reality graded exposure therapy	TFCBT; SCTF	Waitlist	Duration: 10 weeks Frequency: up to twice a week, closer to weekly Length of sessions: NR	Face to face, individual; navy medical facilities; psychologist
Meffert *et al.* (2014)[108]	IPT	IPT; SCNTF	Waitlist	Duration: 3 weeks Frequency: twice a week Length of sessions: NR	Face to face; private rooms of community-based support organisation; members of Sudanese community without mental health background
Miyahira *et al.* (2012)[109]	Add-on virtual reality exposure	TFCBT; SCTF	Minimal attention	Duration: 5 weeks Frequency: twice a week Length of sessions: NR	Face to face; setting NR; therapist with training on manualised CBT treatment protocol with virtual reality exposure
Moradi *et al.* (2014)[111]	Memory specificity training	NTFCBT; SCNTF	Treatment as usual	Duration: 4 consecutive weeks Frequency: weekly Length of sessions: four sessions, one hour	Face to face/group/individual; specialist military hospital; clinical psychologist

continued

TABLE 28 Intervention characteristics for the randomised controlled studies included comparing psychological interventions (*continued*)

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Neuner *et al.* (2008)[113]	NET	TFCBT; SCTF	Monitoring	Duration: 3 weeks Frequency: twice a week Length of sessions: 2 hours	Face to face; setting NR; lay counsellors without mental health background
	Trauma counselling	TFCBT; SCTF		Duration: 3 weeks Frequency: twice a week Length of sessions: 2 hours	
Neuner *et al.* (2004)[114]	NET	TFCBT; SCTF	Psychoeducation	Duration: 3 weeks Frequency: four sessions in 3 weeks Length of sessions: 90 minutes (up to 120 minutes in exceptional circumstances)	Face to face (individual); setting NR; doctoral-level psychologists or graduate students with experience in other therapies (e.g. counselling)
	Supportive counselling	TFCBT; SCTF		Duration: 3 weeks Frequency: four sessions in 3 weeks Length of sessions: 90 minutes (up to 120 minutes in exceptional circumstances)	
Niles *et al.* (2012)[115]	Mindfulness	Mindfulness; SCNTF	Psychoeducation	Duration: 8 weeks Frequency: weekly Length of sessions: 45 minutes in-person sessions, 20 minutes telephone sessions	Remotely (individual); mostly home-based; two female clinicians with PhDs in clinical psychology served as therapists
Owens *et al.* (2001)[117]	CPT for sexual abuse	TFCBT; SCTF	Minimal attention	Duration: 17 weeks Frequency: NR Length of sessions: NR	Face to face, individual and group; setting NR; professionals NR

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Paunovic and Ost (2001)[119]	CBT	TFCBT; SCTF	Minimal attention	Duration: 4–5 months Frequency: weekly Length of sessions: NR	Face to face, individual; setting NR; clinical psychology doctoral student
	Exposure-only therapy	Exposure only; SCTF		Duration: 4–5 months Frequency: weekly Length of sessions: 20 minutes	
Polusny *et al.* (2015)[120]	MBSR	Mindfulness; SCNTF		Duration: 9 weeks Frequency: weekly Length of sessions: 2.5 hours	Face to face, group; VA medical centre; instructors and doctoral-level clinicians
	Present-centred therapy	Other psychotherapy; SCNTF		Duration: 9 weeks Frequency: weekly Length of sessions: 1.5 hours	
Possemato *et al.* (2016)[121]	Primary care brief mindfulness training	Mindfulness; SCNTF	Primary care treatment as usual	Duration: 4 weeks Frequency: weekly Length of sessions: 1.5 hours	Face to face individual/group; VA medical centre; physicians expert in MBSR practitioners and certified instructors

continued

TABLE 28 Intervention characteristics for the randomised controlled studies included comparing psychological interventions (*continued*)

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Ready *et al.* (2010)[124]	Virtual reality exposure	TFCBT; SCTF		Duration: NR Frequency: NR Length of sessions: 90 minutes, 10 sessions	Face to face, individual; setting NR; professional NR
	Present-centred therapy	Other psychotherapy; SCNTF		Duration: NR Frequency: NR Length of sessions: 90 minutes, 10 sessions	
Reed and Enright (2006)[125]	Forgiveness therapy	Other psychotherapy; SCNTF	Alternative therapy	Duration: 5–12 months Frequency: weekly Length of sessions: 1 hour, average duration 7.95 months	Face to face, individual; setting NR; trained psychiatric nurse
Reger *et al.* (2016)[126]	Virtual reality exposure	TFCBT; SCTF	Waitlist	Duration: 5 weeks Frequency: weekly or twice weekly Length of sessions: 1.5–2 hours, 10 sessions in total	Face to face (individual); army military installation; doctoral-level clinicians
	PE	TCBT; SCTF		Duration: 5 weeks Frequency: weekly or twice weekly Length of sessions: 1.5–2 hours, 10 sessions in total	

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Resick *et al.* (2015)[128]	CPT – cognitive-only version	TFCBT; SCTF		Duration: NR Frequency: twice a week Length of sessions: 90 minutes, 12 sessions in total	Face to face, group; setting NR; civilian therapists with mental health background
	Present-centred therapy	Other psychotherapy; SCNTF		Duration: NR Frequency: twice a week Length of sessions: 90 minutes, 12 sessions in total	
Rogers *et al.* (1999)[130]	EMDR	EMDR; SCTF		Duration: one session Frequency: once Length of sessions: 60–90 minutes	Face to face, individual; setting NR; trained therapist with mental health background
	Exposure (implosive flooding)	Exposure only; SCTF		Duration: one session Frequency: once Length of sessions: 60–90 minutes	
Sikkema *et al.* (2007)[131]	HIV and trauma coping group	NTFCBT; SCNTF	Waitlist	Duration: 15 weeks Frequency: weekly Length of sessions: 90 minutes	Face to face; community clinics; clinical psychologists/clinical social workers
	Support group	NTFCBT; SCNTF		Duration: 15 weeks Frequency: weekly Length of sessions: 90 minutes	

continued

TABLE 28 Intervention characteristics for the randomised controlled studies included comparing psychological interventions (*continued*)

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Sikkema *et al.* (2013)[132]	Coping skills programme	NTFCBT; SCNTF	HIV support group	Duration: 15 weeks Frequency: weekly Length of sessions: 90 minutes	Face to face (group); community health centre; therapists with a mental health background
Stenmark *et al.* (2013)[136]	NET	TFCBT; SCTF	Treatment as usual	Duration: 10 weeks Frequency: weekly Length of sessions: 90 minutes	Face to face, individual; setting NR; professionals included psychologists, psychiatrists, psychiatric nurses, occupational therapists, drama therapists, clinical social workers
Teng *et al.* (2008)[137]	Panic control treatment	NTFCBT; SCNTF	Psychoeducational supportive treatment (PE-SUP)	Duration: 10 weeks Frequency: weekly Length of sessions: 1 hour	Face to face (individual); VA hospital; master's-level clinicians
Ter Heide *et al.* (2011)[138]	EMDR	EMDR; SCTF		Duration: 11 weeks Frequency: weekly Length of sessions: 90 minutes (60 minutes dedicated to EMDR)	Face to face, individual; centre for psychotrauma; psychotherapists, psychiatrist, health-care psychologists
	Stabilisation	EMDR; SCNTF		Duration: 11 weeks Frequency: weekly Length of sessions: 60 minutes	Face to face, individual; centre for psychotrauma; clinical psychologist, physician/psychotherapist, physician, social-psychiatric nurses
Ter Heide *et al.* (2016)[139]	EMDR	EMDR; SCTF		Duration: 9 weeks Frequency: NR Length of sessions: 12 hours overall	Face to face (individual); treatment centre for CPTSD; clinical psychologists and psychotherapists
	Stabilisation as usual	Stabilisation; SCNTF		Duration: 9 weeks Frequency: NR Length of sessions: 12 hours overall	

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Ulmer *et al.* (2011)[140]	Sleep intervention for PTSD	TFCBT; MCTF	Usual care	Duration: 12 weeks Frequency: fortnightly Length of sessions: 1 hour	Face to face, individual; setting NR; clinical psychologist
Wahbeh *et al.* (2016)[142]	Mindfulness meditation	Mindfulness; SCNTF	Sitting quietly	Duration: 6 weeks Frequency: weekly Length of sessions: 20 minutes	Face to face and remote, individual; setting NR; research assistant
	Slow breathing with biofeedback device (mindfulness meditation and slow breathing)	Biofeedback; SCNTF		Duration: 6 weeks Frequency: weekly Length of sessions: 20 minutes	
	Slow breathing	Other psychological intervention; SCNTF		Duration: 6 weeks Frequency: weekly Length of sessions: 20 minutes	
Wang *et al.* (2016)[143]	Biofeedback-supported CBT and group therapy (physiotherapy and exercises)	TFCBT; MCTF	Waitlist	Duration: 10 weeks Frequency: twice a week Length of sessions: group sessions 60–90 minutes, individual sessions 90 minutes (60 minutes for CBT intervention, 15- to 20-minute period of breathing training using a biofeedback device, 10–15 minutes for reviewing and note taking)	Face to face (individual and group); rehabilitation centre (for torture victims); therapists and physiotherapists with mental health backgrounds

continued

TABLE 28 Intervention characteristics for the randomised controlled studies included comparing psychological interventions (*continued*)

Authors (year)	Intervention(s)	Intervention category; superordinate category	Control(s)	Intensity (duration, frequency and length of sessions)	Delivery (method, setting and type of professional)
Weiss *et al.* (2015), trial 1: CETA[144]	CETA	TFCBT; MCTF	Waitlist	Duration: 8–12 weeks Frequency: weekly Length of sessions: 50–60 minutes, 8–12 sessions in total	Face to face, individual; community; community mental health workers
Weiss *et al.* (2015), trial 2: CPT[144]	CPT	TFCBT; SCTF	Waitlist	Duration: 12 weeks Frequency: weekly Length of sessions: NR	Face to face, individual; community; community mental health workers
Yeomans *et al.* (2010)[145]	Workshop with psychoeducation	Other psychotherapy; MCTF	Waitlist	Duration: 4 days Frequency: 3 consecutive days and 1-month follow-up Length of sessions: day long	Face to face, group; community; local facilitators without a mental health background
	Workshop without psychoeducation	Other psychotherapy; SCTF		Duration: 4 days Frequency: 3 consecutive days and 1-month follow-up Length of sessions: day long	
Zlotnick *et al.* (1997)[146]	Affect management		Waitlist	Duration: 15 weeks Frequency: weekly Length of sessions: 2 hours	Face to face (group); setting NR; therapist with mental health background

CETA, common elements treatment approach; CPT, cognitive processing therapy; MCTF, multicomponent trauma-focused; MCNTF, multicomponent non-trauma-focused; MFCC, Marriage, Family and Child Counsellor; NTFCBT, non-trauma-focused CBT; PE, prolonged exposure; SCNTF, single-component non-trauma-focused; SCTF, single-component trauma-focused; TFCBT, trauma-focused CBT; VA, veterans' affairs.

TABLE 29 Intervention characteristics for randomised controlled studies included comparing pharmacological interventions

Author (year)	Intervention(s)	Intervention category	Control(s)	Intensity (duration, frequency and dose)
Rezaei Ardani *et al.* (2017)[56]	Rivastigmine augmented therapy	Rivastigmine	Placebo (in combination with citalopram and sodium valproate) No intervention	Rivastigmine augmented therapy of citalopram and sodium valproate Duration: 12 weeks Frequency: twice a day Dose: Weeks 1–4 1.5 mg twice a day, Week 5 3 mg twice a day in addition to citalopram 40 mg/day and sodium valproate 20 mg/kg/day
Bartzokis *et al.* (2005)[58]	Risperidone	Antipsychotic	Placebo	First 4 weeks delivered in conjunction with an inpatient psychosocial programme. The remainder of the intervention was delivered as an outpatient programme. Duration: 16 weeks Frequency: NR Dose: initiated at 1 mg, increased to 3 mg bedtime dose (over 2 weeks); maintained at 3 mg
Becker *et al.* (2007)[59]	Bupropion SR	Antidepressant	Placebo	Duration: 8 weeks Frequency: once or twice a day Dose: 100 mg/day for 2 weeks. Dose increased to 100 mg twice a day as indicated. No significant improvement at 4 weeks resulted in a maximum dose of 150 mg twice a day
Celik *et al.* (2011)[65]	Paroxetine	SSRI/antidepressant		Duration: 8 weeks Frequency: once a day Dose: initiated at 10 mg/day for Week 1, then increased to 20 mg for Weeks 2 and 3, 30 mg for Weeks 4 and 5, 40 mg for Weeks 6 and 7 and 60 mg for Weeks 8–12 (if tolerated/clinically indicated)
	Amitriptyline	Antidepressant		Duration: 8 weeks Frequency: once a day Dose: initiated at 75 mg/day for Weeks 1–3 (initial dose of 25 mg for Days 1–3, 50 mg for Days 4–7 and 75 mg for Days 8–21), then increased to 100 mg from Week 4 (as necessary) and up to 200 mg or down to 75 mg from Week 5 (as necessary)

continued

TABLE 29 Intervention characteristics for randomised controlled studies included comparing pharmacological interventions (*continued*)

Author (year)	Intervention(s)	Intervention category	Control(s)	Intensity (duration, frequency and dose)
Chung *et al.* (2004)[67]	Mirtazapine	Antidepressant		Duration: 6 weeks Frequency: daily Dose: initiated at mean dose of 19.1 ± 8.53 mg/day, Weeks 1–2 31.5 ± 9.13 mg/day, Weeks 2–6 38.5 ± 12.10 mg/day
	Sertraline	SSRI/antidepressant		Duration: 6 weeks Frequency: daily Dose: initiated at 58.2 ± 24.15 mg/day, Weeks 1–2 89.8 ± 23.89 mg/day and Weeks 2–6 115.3 ± 36.02 mg/day Mean daily dose: mirtazapine 34.1 mg, sertraline 101.5 mg
Davis *et al.* (2004)[73]	Nefazodone	Antidepressant	Placebo	Duration: 12 weeks Frequency: twice a day Dose: initiated at 100 mg, increased by 100 mg every 4 days as tolerated, up to a maximum benefit (not exceeding 600mg/day)
Davis *et al.* (2008)[72]	Divalproex	Anticonvulsant	Placebo	Duration: 8 weeks Frequency: twice a day Dose: initiated at 500 mg twice a day, increased by 500 mg as tolerated to a maximum of 3000 mg/day
Friedman *et al.* (2007)[82]	Sertraline	SSRI/antidepressant	Placebo	Duration: 12 weeks Frequency: daily Dose: initiated at 25 mg/day, Week 2 increased dose to 50 mg/day where dose-limiting adverse events did not present. Subjects who failed to respond received titrated weekly increment of 50 mg up to a maximum of 200 mg/day
Germain *et al.* (2012)[84]	Prazosin	Prazosin	Placebo	Duration: 8 weeks Frequency: daily Dose/length of sessions: initiated at 1 mg, increasing over the following weeks to 2 mg, 4 mg, 6 mg, 10 mg and 15 mg. Final mean dose 8.9 mg

TABLE 29 Intervention characteristics for randomised controlled studies included comparing pharmacological interventions (*continued*)

Author (year)	Intervention(s)	Intervention category	Control(s)	Intensity (duration, frequency and dose)
Hamner *et al.* (2003)[85]	Adjunctive risperidone	Antipsychotic	Placebo	Risperidone added to regimen of antidepressant treatment (fluoxetine, nefazadone, paroxetine, sertraline, buprioprion) Duration: 5 weeks Frequency: daily Dose: initiated at 1 mg/day, increased to a maximum of 6 mg/day
Krystal *et al.* (2011)[99]	Adjunctive risperidone	Antipsychotic	Placebo	Adjunctive risperidone with ongoing pharmacotherapy Duration: 24 weeks Frequency: daily Dose: initiated at 1 mg at night. Increased by 1 mg/week to 3 mg. After 4 weeks, a further 1 mg increase could be made if tolerated and clinically indicated
Lindley *et al.* (2007)[104]	Topiramate	Anticonvulsant	Placebo	Duration: 7 weeks Frequency: daily Dose: initiated at 25 mg, increased by 50 mg each week until maximum toleration or 200 mg/day
Monnelly *et al.* (2003)[110]	Risperidone	Antipsychotic	Placebo	Duration: 6 weeks Frequency: daily Dose: initiated at 0.5 mg, increased fortnightly to maximum 2 mg/day
Naylor *et al.* (2013)[112]	Paroxetine	SSRI/antidepressant	Placebo	Duration: 12 weeks Frequency: daily Dose: flexible dosing 10–40 mg/day depending on tolerance and response
Otto *et al.* (2003)[116]	Sertraline	SSRI/antidepressant	Compared with SSRI/antidepressant with TFCBT; see *Table 30*	Duration: NR Frequency: daily Dose/length of sessions: sertraline initiated at 25 mg, titrated 50 mg each week to maximum 200 mg. Mean final dose 125 mg/day
Panahi *et al.* (2011)[118]	Sertraline	SSRI/antidepressant	Placebo	Duration: 10 weeks Frequency: daily Dose: initiated at 50 mg/day, flexible adjustment fortnightly to a maximum of 200 mg/day

continued

TABLE 29 Intervention characteristics for randomised controlled studies included comparing pharmacological interventions (*continued*)

Author (year)	Intervention(s)	Intervention category	Control(s)	Intensity (duration, frequency and dose)
Raskind *et al.* (2007)[122]	Prazosin	Prazosin	Placebo	Duration: 8 weeks Frequency: daily Dose: initiated at 1 mg/nightly for 3 days. Days 3–7 increased to 2 mg/day based on response. Persistence of traumatic nightmares increased dose to 2 mg per week up to 10 mg/day at Day 28. Persistent lack of response allowed additional 5 mg to a maximum of 15 mg/day. Mean daily dose of prazosin was 13 (3) mg and of placebo capsules was 14 (2) mg
Raskind *et al.* (2013)[123]	Prazosin	Prazosin	Placebo	Duration: 15 weeks Frequency: once or twice daily Dose: titrated 1–2 mg/day, depending on gender. Week 2: males (AM 1 mg, PM 4 mg), females (AM 1 mg, PM 2 mg); Week 3: males (AM 2 mg, PM 6 mg), females (AM 1 mg, PM 2 mg); Week 4: males (AM 2 mg, PM 10 mg), females (AM 2 mg, PM 6 mg); Week 5: males (AM 5 mg, PM 15 mg), females (AM 2 mg, PM 10 mg); Week 6: males (AM 5 mg, PM 20 mg), females (AM 2 mg, PM 10 mg)
Reich *et al.* (2004)[127]	Risperidone	Antipsychotic	Placebo	Duration: 8 weeks Frequency: daily (can be divided into two or three doses) Dose: initiated at 0.5 mg/day, increased to 1 mg/day at 3 days, then increased by 1 mg/day for 1 week up to target dose of 4 mg/day until symptom relief reported. Dosage increased to maximum of 8 mg/day if lack of response by Week 5
Smajkic *et al.* (2001)[133]	Paroxetine	SSRI/antidepressant		Duration: 6 weeks Frequency: daily Dose: 20 mg once daily for 14 days then, if tolerated at 2 weeks, the dosage was continued
	Sertraline	SSRI/antidepressant		Duration: 6 weeks Frequency: daily Dose: 50 mg once daily for 14 days then, if tolerated at 2 weeks, 100 mg once daily
	Venlafaxine	Antidepressant		Duration: 6 weeks Frequency: twice a day Dose: 37.5 mg twice daily for 14 days then, if tolerated at 2 weeks, 75 mg twice daily

TABLE 29 Intervention characteristics for randomised controlled studies included comparing pharmacological interventions (*continued*)

Author (year)	Intervention(s)	Intervention category	Control(s)	Intensity (duration, frequency and dose)
Stein *et al.* (2002)[135]	Adjunctive olanzapine	Antipsychotic	Placebo	Adjunctive olanzapine for subjects minimally responsive to SSRIs at maximally tolerated doses Duration: 8 weeks Frequency: daily Dose: initiated at 10 mg, increased to 20 mg after 2 weeks if clinically indicated and tolerated
van der Kolk *et al.* (1994)[141]	Fluoxetine	SSRI/antidepressant	Placebo	Duration: 5 weeks Frequency: daily Dose: initiated at 20 mg/day, increased weekly to a maximum of 60 mg
Zohar *et al.* (2002)[147]	Sertraline	SSRI/antidepressant	Placebo	Duration: 10 weeks Frequency: daily Dose: initiated at 50 mg/day, flexible titration in 50 mg increments fortnightly up to a maximum of 200 mg

TABLE 30 Intervention characteristics for randomised controlled studies included comparing combined psychological and pharmacological interventions

Authors (year)	Intervention(s)	Intervention categories	Control(s)	Intensity (duration, frequency and strength of dose/length of sessions)	Delivery (method, setting and type of professional)
Buhmann *et al.* (2016)[63]	Sertraline, psychoeducation and CBT	SSRI/antidepressant and TFCBT	Waitlist	Duration: 6 months Frequency: psychoeducation and CBT weekly, sertraline daily Dose/length of sessions: 10 consultations and 16 sessions of CBT Sertraline increased by 25–50 mg to a maximum dose of 200 mg. Mianserin given at 10–30 mg, titrated weekly by 10 mg	Face to face; mental health clinic; doctors and therapists with mental health background
	Sertraline and psychoeducation	SSRI/antidepressant and other psychotherapy		Duration: 6 months Frequency: psychoeducation weekly, sertraline daily Dose/length of sessions: 10 sessions of psychoeducation, length NR	
Francišković *et al.* (2011)[80]	Tianeptine and group therapy	Antidepressant and other psychotherapy		Duration: 6 months Frequency: group therapy twice weekly, tianeptine daily Dose/length of sessions: 37.5 mg/day, NR for group therapy	Face to face; setting NR; psychiatrist and psychologist with mental health backgrounds Drugs prescribed by physician
	Fluoxetine and group therapy	SSRI/antidepressant and other psychotherapy		Duration: 6 months Frequency: group therapy twice weekly, fluoxetine daily Dose/length of sessions: 40 mg/day, NR for group therapy	

Authors (year)	Intervention(s)	Intervention categories	Control(s)	Intensity (duration, frequency and strength of dose/length of sessions)	Delivery (method, setting and type of professional)
Kosten *et al.* (1992)[97]	Phenelzine and psychotherapy	Antidepressant and TFCBT	Placebo and psychotherapy	Duration: NR Frequency: psychotherapy weekly, imipramine daily Dose/length of sessions: dose of drug and length of sessions NR. Mean maximal dose 68 ± 20 mg	Face to face; setting NR; master's-level psychologist with mental health background. Drug delivery NR
	Imipramine and psychotherapy	Antidepressant and TFCBT		Duration: NR Frequency: psychotherapy weekly, imipramine daily Dose/length of sessions: dose of drug and length of sessions NR. Mean maximal dose 225 ± 55 mg	
Otto *et al.* (2003)[116]	CBT and sertraline	SSRI/antidepressant and TFCBT	Compared with SSRI/antidepressant; see *Table 29*	Duration: NR Frequency: CBT NR, sertraline daily Dose/length of sessions: CBT 10 sessions, length NR Sertraline initiated at 25 mg, titrated by 50 mg each week to a maximum of 200 mg. Mean final dose 100 mg/day	Face to face; otherwise NR. Drug delivery NR

continued

TABLE 30 Intervention characteristics for randomised controlled studies included comparing combined psychological and pharmacological interventions (*continued*)

Authors (year)	Intervention(s)	Intervention categories	Control(s)	Intensity (duration, frequency and strength of dose/length of sessions)	Delivery (method, setting and type of professional)
Rothbaum *et al.* (2014)[129]	D-cycloserine and virtual reality exposure therapy	D-cycloserine and TFCBT	Placebo and exposure therapy	Duration: 6 weeks Frequency: weekly Dose/length of sessions: introductory session, five therapeutic sessions, 90 minutes each D-cycloserine delivered at 50 mg 30 minutes before exposure	Face to face; setting NR; doctoral-level clinicians with a mental health background. Drug delivery supervised within sessions
	Alprazolam and virtual reality exposure therapy	Benzodiazepine and TFCBT		Duration: 6 weeks Frequency: weekly Dose/length of sessions: introductory session, five therapeutic sessions, 90 minutes each Alprazolam delivered at 0.25 mg 30 minutes before exposure	

Authors (year)	Intervention(s)	Intervention categories	Control(s)	Intensity (duration, frequency and strength of dose/length of sessions)	Delivery (method, setting and type of professional)
Sonne *et al.* (2016)[134]	Venlafaxine and CBT	Antidepressant and TFCBT		Duration: 20–24 weeks Frequency: venlafaxine daily, CBT weekly Dose/length of sessions: 10 sessions with a psychiatrist, 16 sessions with a psychologist Venlafaxine initiated at 37.5–75 mg/day, increased weekly by 37.5–75 mg for 6 weeks. Rest of trial, monthly increases up to a maximum of 375 mg	Face to face; psychiatry centre; psychiatrist
	Sertraline and CBT	SSRI/antidepressant and TFCBT		Duration: 20–24 weeks Frequency: venlafaxine daily, CBT weekly Dose/length of sessions: 10 sessions with a psychiatrist, 16 sessions with a psychologist Sertraline initiated at 25–50 mg/day, increased weekly by 25–50 mg for 6 weeks. Rest of trial, monthly increases up to a maximum of 200 mg	

TFCBT, trauma-focused CBT.

Appendix 5 Population characteristics of included randomised controlled trials

TABLE 31 Population characteristics of the randomised studies of intervention effectiveness included

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Acarturk *et al.* (2015)[53]	Refugee	Turkey/Syria	I = 35.27 (13.21), C = 37.92 (9.06)	24.14	NR	NR	NR	No
Acarturk *et al.* (2016)[54]	Refugee	Turkey/Syria	I = 33.32, C = 34.04	26	NR	Syrian refugees (100%)	NR	Yes
Adenauer *et al.* (2011)[55]	Refugee	Germany	I = 30.3 (9.2), C = 36.4 (9.9)	I = 56.3, C = 55.6	I = Middle East (50%), Central East (13%), Africa (38%) C = Middle East (61%), Central East (6%), The Balkans (17%), Africa (11%)	Refugees and asylum seekers (100%)	Unclear (mention of depression)	Yes (100%)
Rezaei Ardani *et al.* (2017)[56]	Veterans	Iran	I = 50.08 (4.5), Placebo = 51.5 (6.4), No intervention = 49.08 (6.13)	100	NR	Veterans of the Iraq–Iran war (100%)	NR	Yes (100%)
Azad Marzabadi and Hashemi Zadeh (2014)[57]	War affected	Iran	Range: I = 35–45 (57.1%), 46–55 (35.8%), 56–60 (7.1%); C = 35–45 (35.7%), 46–55 (64.3%)	100	NR	War victims from the Iran–Iraq war	NR	
Bartzokis *et al.* (2005)[58]	Veteran	USA	51.6 (4.2)	100	White ($n = 44$), African American ($n = 19$), other ($n = 2$)	Veterans	NR	Yes
Becker *et al.* (2007)[59]	Veteran	USA	50.39 (7.46)	79	African American (64%), white (29%), other (7%)	War trauma (50%), domestic violence (7%), rape (3.5%), motor vehicle accident (7%), homicide (7%), medical illness (11%), death/suicide of a loved one (7%), childhood sexual or physical abuse (7%)	NR	Yes
Beidel *et al.* (2011)[60]	Veteran	USA	I = 58.93, C = 59.76	100	White (100%)	Veterans (100%)	NR	Yes (100%)
Bichescu *et al.* (2007)[61]	War affected	Romania	I = 68.9 (4.4), C = 69.8 (6.0)	I = 100, C = 88.9	NR	Former political detainees (100%)	NR	Yes (100%)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Bolton *et al.* (2014)[62]	War affected	Iraqi Kurdistan	BADT = 36.9 (12.4), CPT = 41.5 (13.7), C = 42.3 (12.5)	BADT = 43, CPT = 42, C = 41	NR	Victims of systematic violence (including physical torture, imprisonment, gas attacks, other military attacks)	Depression: 100% (was a necessary condition of inclusion)	NR
Buhmann *et al.* (2016)[63]	Refugee	Denmark	Medication + psychoeducation + CBT = 45 (10), medication + psychoeducation = 43 (9), CBT = 46 (8), waitlist = 47 (8)	59	NR	Refugees (including those who had experienced torture, a refugee camp/asylum centre or were an ex-combatant)	Of completers (217), 94% had depression, 27% had a personality change (ICD-10 code F62.0), 9% were psychotic and 36% were in treatment for somatic disorder. About one-third reported a traumatic brain injury	Yes
Carlson *et al.* (1997)[64]	Veteran	USA	EMDR = 52.7 (8.6), RXT = 46.9 (4.0), C = 45.4 (3.5)	100	EMDR = white (60%), RXT = white (54%), C = white (50%)	Veterans (100%)	NR	Yes (100%)
Celik *et al.* (2011)[65]	Veteran	Turkey	I = 32.5 (4.7), C = 29.1 (7.4)	NR	NR	Veterans (100%)	On average, both groups met the cut-off for depression and anxiety based on baseline scores	Yes
Chard (2005)[66]	Childhood sexual abuse	USA	32.77 (8.87)	0	African American (14%), white (81.4%), Hispanic, Latin or Mexican (3.5%), other (1%)	Childhood sexual abuse (100%)	Current major depression (40%)	Yes (100%)
Chung *et al.* (2004)[67]	Veteran	South Korea	I = 59.1 (6.04), C = 60.59 (6.70)	100	NR	Veterans (100%)	Major depressive disorder: I = 11 (21.6%), C = 6 (14.3%) Dysthymia: I = 37 (72.6%), C = 42 (81.6%) Major depressive disorder and dysthymia: I = 3 (6.1%), C = 1 (2.04%)	Yes

continued

TABLE 31 Population characteristics of the randomised studies of intervention effectiveness included (*continued*)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Classen *et al.* (2001)[68]	Childhood sexual abuse	USA	38.4 (11.7)	0	White/European American (64%), Hispanic/Latina (15%), black/African American (8%), native American (4%), other (10%)	Childhood sexual abuse (100%)	NR	Yes
Cloitre *et al.* (2002)[69]	Childhood sexual abuse	USA	34 (7.22)	0	White (46%), African American (20%), Hispanic (15%), other (19%)	Childhood sexual/physical abuse (100%): sexual and physical abuse (48%), sexual abuse (39%), physical abuse (13%)	Major depression (45%), anxiety disorders (79%), generalised anxiety disorder (48%)	Yes (100%)
Cloitre *et al.* (2010)[70]	Childhood sexual abuse	USA	STAIR/expsoure = 33.2, STAIR/support = 37.1, support/exposure = 38.7	0	STAIR/support = white (33–37%), African American (24%), Hispanic (30%), other (9%) STAIR/exposure = white (37%), African American (21%), Hispanic (29%), other (11%) Support/exposure = white (33%), African American (39%), Hispanic (18%), other (9%)	Childhood abuse (100%). The large majority also experienced interpersonal abuse as adults (including domestic violence, sexual abuse and other interpersonal abuse)	Axis I diagnosis: STAIR/support = 84.8%, STAIR/exposure = 92.1%, support/exposure = 87.9% Axis II diagnosis: STAIR/support = 48.5%, STAIR/exposure = 52.6%, support/exposure = 60.6%	Yes (100%)
Cook *et al.* (2010)[71]	Veteran	USA	I = 59.79 (3.18), C = 59.06 (3.86)	100	I = white (44.3%), African American (49.2%), other (6.6%) C = white (39.7%), African American (54%), other (6.4%)	Vietnam veterans (100%)	I = depressive disorder (57.4%), anxiety disorder (57.4%) C = depressive disorder (55.6%), anxiety disorder (49.2%)	Yes (100%)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Davis *et al.* (2004)[73]	Veteran	USA	I = 53.8 (8.7), C = 53.8 (7.1)	97.6	I = white (54%), African American (46%) C = white (53%), African American (47%)	Combat (97.6%), sexual trauma (2.4%) I = combat (96%), sexual trauma (4%) C = combat (100%), sexual trauma (0%)	I = major depression (42%), dysthymia (27%), panic with agoraphobia (4%) C = major depression (40%), dysthymia (27%), panic without agoraphobia (13%)	Yes (100%)
Davis *et al.* (2008)[72]	Veteran	USA	55.2 (6.8)	98	NR	Combat-related trauma (95%)	NR	Yes (100%)
Devilly *et al.* (1998)[74]	Veteran	USA	50.1 (6.48)	100	NR	Veterans (100%)	NR	Yes (100%)
Edmond *et al.* (1999);[76] Edmond and Rubin (2004)[75]	Childhood sexual abuse	USA	35; follow-up = 36 (range 18–51)	0	White (85%), follow-up = 83%	Childhood sexual abuse: 100%, childhood physical abuse 58%, adult re-victimisation (including domestic violence and rape 66%)	NR	NR
Engel *et al.* (2015)[78]	Veteran	USA	I = 36.2 (7.75), C = 36.7 (9.75)	I = 79.1, C = 83.8	I = white, not Hispanic (53.5%) C = white, not Hispanic (56.8%)	Recently deployed military service members and veterans	NR	Yes (100%)
Feske (2008)[79]	Mixed	USA	43.1 (range 29–55)	0	African American (95.2%), white (4.8%)	Multiple traumas (100%), including childhood sexual abuse (85.7%) Index traumas: adult sexual assault (47.6%), domestic violence (23.8%), child sexual abuse (19%), child physical abuse (4.8%), witnessed murder (4.8%)	Current comorbid Axis-I (95.2%) [including major depression (66.7%), panic disorder (38.1%), social phobia (28.6%), generalised anxiety disorder (23.8%), borderline personality disorder (52.4%)]	Yes (100%)

continued

TABLE 31 Population characteristics of the randomised studies of intervention effectiveness included (*continued*)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Franićišković *et al.* (2011)[80]	Mixed	Croatia	Median = 48 (range 37–60)	100	NR	Veterans with combat experience from the Homeland War in Croatia (100%), torture and imprisonment (9.3%), refugees (6.9%)	NR	Yes (100%)
Franklin *et al.* (2017)[81]	Veteran	USA	46.1 (15.5)	92.6	Euro-American (69.2%), African American (23.1%), 'other' (7.7%)	Veterans (7.4% reported as having no war zone experience)	NR	Yes (100%)
Friedman *et al.* (2007)[82]	Veteran	USA	I = 45, C = 46	I = 79, C = 81	White: I = 67%, C = 75%	Primary exposure: being in war or combat (I = men 85.3%, women 11.1%; C = men 88.1%, women 6.3%), physical or sexual assault (I = men 2.9%, women 66.7%; C = men 3%, women 62.5%)	Major depression: I = men (50%), women (56%); C = men (40%), women (56%) Anxiety disorder: I = men (22%), women (22%); C = men (13%) women (25%)	Yes
Gamito *et al.* (2010)[83]	Veteran	Portugal	NR	100	Unclear	Veterans of Portuguese Colonial War (100%)	NR	Yes (100%)
Germain *et al.* (2012)[84]	Veteran	USA	BSI = 40 (14.1), prazosin = 39.4 (11.9), C = 43.6 (14.0)	BSI = 82.4, prazosin = 88.9, placebo = 100	Caucasian: BSI = 70.6%, prazosin = 83.3%, placebo = 93.3%	Veterans of various wars (100%)	BSI = generalised anxiety disorder (5.9%), major depressive disorder (5.9%), insomnia (41.2%) Prazosin = generalised anxiety disorder (5.6%), insomnia (16.7%) Placebo = insomnia (33.3%)	Yes (BSI = 41.2%, prazosin = 72.2%, placebo = 60%)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Hamner *et al.* (2003)[85]	Veteran	USA	I = 50.8 (4.9), C = 53.7 (7.6)	100	I = white (53%), African American (47%) C = white (39%), African American (61%)	Veterans of the Vietnam war	Major depressive episodes 86%, other anxiety disorder 41%, number of psychotic symptoms: I = 3.7 (SD 1.6), C = 4.1 (SD 0.9)	Yes
Hermenau *et al.* (2013)[86]	War affected	Democratic Republic of the Congo	19 (2.02)	100	NR	Former child soldiers and ex-combatants	NR	NR
Hijazi *et al.* (2014)[87]	Refugee	USA	48.2 (8.9)	44.4	Iraqi (100%)	Oppressed because of race/ethnicity/religion (92.1%), combat exposure (92.1%), witnessed destruction of religious shrines (74.6%), witnessed murder (68.3%), witnessed someone physically harmed (66.7%), property looted/confiscated/destroyed (65.1%), murder/violent death of family or friends (65.1%), witnessed rotten corpses (60.3%), kidnapping of family/friends (58.7%), witnessed arrest/torture/execution of religious leaders (46%), witnessed torture (41.3%), physically harmed (38.1%), imprisoned arbitrarily (28.6%), witnessed mass execution (27%), kidnapped (27%), tortured (25.4%), serious physical injury from combat/mine (25.4%), taken hostage (17.5%), sexually abused/raped (6.3%)	NR	Yes

continued

TABLE 31 Population characteristics of the randomised studies of intervention effectiveness included (*continued*)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Himmerich *et al.* (2016)[88]	Veteran	Germany	I = 29 (7.62), C = 28.8 (3.4)	100	NR	Soldiers (100%)	NR	NR
Hinton *et al.* (2004)[90]	Refugee	USA	NR	I = 50, C = 50	Vietnamese (100%)	Refugees (100%). All men were ex-political detainees (former Southern Vietnamese military, police or political officials imprisoned by Northern Vietnamese)	NR	Yes (100%)
Hinton *et al.* (2005)[89]	Refugee	USA	I = 50.9 (6.11), C = 52.7 (7.43)	I = 40, C = 40	Cambodian refugees	Cambodian refugees living in the USA (100%)	NR	Yes (100%)
Jensen (1994)[91]	Veteran	USA	43.1 (2.84)	100	NR	Veterans	40% had received a recent veteran's affairs diagnosis of alcohol abuse or alcohol dependence, but owing to 88% of subjects being in current receipt of inpatient, outpatient or domiciliary services, subjects were considered to not have ingested alcohol or other non-prescribed drugs during the study	Yes
Jung and Steil (2013)[92]	Childhood sexual abuse	Germany	37.18 (range: 19–61)	0	Total sample: white (89%), Asian (11%)	Childhood sexual abuse (100%)	Major depressive disorder (57.1%), eating disorders (32.1%), borderline personality disorder (32.1%)	Yes

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Katz *et al.* (2014)[93]	Mixed	USA	HR = 45, PE = 36, C = 42	0	HR = white (41%), African American (24%), Hispanic (6%), other/missing data (29%) PE = white (41%), African American (12%), Hispanic (12%), other/missing data (35%) C (control) = white (47%), African American (24%), Hispanic (17%), other/ missing data (12%)	Sexual trauma history: veterans (100%) Military sexual trauma (HR = 82%, PE = 82%, PC = 94%) Domestic violence (HR = 76%, PE = 71%, C = 65%) Child abuse (HR = 100%, PE = 59%, C = 82%) Adult abuse (HR = 71%, PE = 47%, C = 41%)	NR	Yes (100%)
Keane *et al.* (1989)[94]	Veteran	USA	I = 34.7 (4.3), C = 34.5 (2.1)	100	I = white (91%), Hispanic (9%) C = white (69%), black (31%)	Veterans	NR	Yes
Kearney *et al.* (2013)[95]	Veteran	USA	I = 52 (13.4), C = 52 (11.7)	79	I = white (76%), African American (20%) C = white (59%), African American (9%), other (27%)	Veterans	NR	Yes
Knaevelsrud *et al.* (2015)[96]	War affected	Iraq/ Germany (remote)	28.1 (7.43)	28	Iraqi	War related (including bomb attacks and torture) and sexual abuse	Depression, anxiety	Yes
Kosten *et al.* (1992)[97]	Veteran	USA	39 (2.3)	100	Non-white (12%)	Vietnam veterans with PTSD (100%)	Minor depression (47.4%)	Yes (100%)

continued

TABLE 31 Population characteristics of the randomised studies of intervention effectiveness included (*continued*)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Krupnick *et al.* (2008)[98]	Childhood sexual abuse	USA	32.1 (10.2)	0	African American (75%), Hispanic black (4.2%), Afro-Caribbean (2.1%), Latina (8.3%), non-Hispanic white (6.2%), Asian American (4.2%)	I = mean of 6.8 (SD = 4.2), different types of interpersonal traumas C = mean of 5.7 (SD = 3.5), different types of interpersonal traumas Sexual trauma (97.1%, of which 97.9% were before 12 years of age), physical assault before 12 years of age (95.9%)	NR	Yes (100%)
Krystal *et al.* (2011)[99]	Veteran	USA	I = 54.2 (10.8), C = 54.5 (10.6)	96.6	Means (SD) White (not Hispanic): I = 84 (63.2), C = 93 (69.4) Black (not Hispanic): I = 25 (18.8), C = 25 (18.7) Hispanic: I = 16 (12.0), C = 11 (8.2) Other: I = 8 (6), C = 5 (3.7)	Combat trauma (78.3%)	NR	Yes
Kubany *et al.* (2003)[100]	Domestic violence	USA	36.4 (9.1)	0	White (*n* = 18), Asian (*n* = 10), Pacific Islander (*n* = 6), black and Puerto Rican (*n* = 3)	Battered women (physical domestic abuse)	NR	Yes
Kubany *et al.* (2004)[101]	Domestic violence	USA	42.2 (10.1)	0	White (52.8%), Native Hawaiian (8.8%), Filipino (7.2%), Japanese (6.4%), black (4.8%), Samoan (4.8%), American Indian (1.6%), other or mixed ethnicity (13.6%)	All physically, sexually and/or psychologically abused by intimate romantic partner. Physically hurt more than five times (68%), physically hurt by more than one intimate partner (51%)	NR	Yes (100%)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Lande *et al.* (2010)[102]	Veteran	USA	Range: 18–25 (35.9%), 26–35 (33.3%), ≥ 36 (30.7%)	85	NR	Veterans	NR	Yes
Lau and Kristensen (2007);[103] Elkjaer *et al.* (2014)[77]	Childhood sexual abuse	Denmark	I = 34.2 (10.5), C = 32.4 (8.8)	0	NR	Childhood sexual abuse (intrafamilial)	Females aged 30–39 years: affective disorders Females aged 40–41 years: anxiety disorders Females aged 42 and 44–49 years: other nervous diseases Females aged 50–59 years: behavioural syndromes Females aged 60–62 years: personality disorders	Yes: I = 16%, C = 29%
Lindley *et al.* (2007)[104]	Veteran	USA	I = 52.9 (0.7), C = 53.9 (0.4)	100	White (62.5%), African American (17.5%), Hispanic (16%), other (5%)	Veterans (100%)	Most patients had comorbid depression	Yes (100%)
Margolies *et al.* (2011)[105]	Veteran	USA	I = 36.43 (9.3), C = 39.11 (8.9)	I = 90, C = 90	I = white (40%), black (60%) C = white (40%), black (60%)	Operation Enduring Freedom/ Operation Iraqi Freedom veterans	NR	Yes (100%)

continued

TABLE 31 Population characteristics of the randomised studies of intervention effectiveness included (*continued*)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
McDonagh *et al.* (2005)[106]	Childhood sexual abuse	USA	CBT = 39.8 (9.9), PCT = 39.6 (9.6), C = 42 (9.8)	0	CBT = white (90%), African American (0%), Native American (10%), other (0%) PCT = white (95%), African American (5%), Native American (0%), other (0%) Waitlist = white (96%), African American (0%), Native American (0%), other (4%)	Childhood sexual abuse (100%), characteristics: CBT = life threat (34.5%), injured (41.4%), penetrated (72.4%), mean age at onset = 6.1(2) PCT = life threat (5%), injured (31.8%), penetrated (59.1%), mean age at onset = 7.6(2.8) Waitlist = life threat (26.1%), injured (27.3%), penetrated (56.5%), mean age at onset = 6.1(2.9) CBT = childhood physical abuse (82.8%), adult physical abuse (58.6%), adult sexual trauma (44.8%), mean number of trauma types = 3.3 (1) PCT = childhood physical abuse (81.8%), adult physical abuse (68.2%), adult sexual trauma (63.6%), mean number of trauma types = 3.1 (1.3) Waitlist = childhood physical abuse (73.9%), adult physical abuse (60.9%), adult sexual trauma (43.5%), mean number of trauma types = 3.4 (0.9)	NR	Yes (100%)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
McLay *et al.* (2011)[107]	Veteran	USA	I = 28 (range: 22–43), C = 28.8 (range: 21–45)	I = 90, C = 100	NR	Active duty service members with PTSD (100%) I = shot (10%), ambush (20%), improvised explosive device blast (20%), mortar attack (20%), suicide bomber (10%), firefight (10%), military medical trauma (10%) C = improvised explosive device blast (30%), close combat (10%), firefight (20%), suicide bomber (10%), civilian casualties (20%), bridge collapse (10%)	NR	Yes (100%)
Meffert *et al.* (2014)[108]	Refugee	Egypt	I = 31.3, C = 30.4	19	Sudanese	Refugees (no further detail)	NR	Yes
Miyahira *et al.* (2012)[109]	War affected	USA	NR	NR	NR	Returning war fighters from Iraq or Afghanistan	NR	Yes
Monnelly *et al.* (2003)[110]	Veteran	USA	I = 48.9 (8.3), C = 53.5 (3.0)	100	White (80%), black (13.3%), Hispanic (6.7%)	Combat (100%)	I = major depression (26.7%), dysthymic disorder (6.7%), generalised anxiety disorder (13.3%), panic disorder (6.7%) C = major depression (40%), dysthymia (6.7%), generalised anxiety disorder (6.7%)	Yes (100%)
Moradi *et al.* (2014)[111]	Veteran	Iran	I = 45.25 (3.86), C = 45.33 (3.80)	100	Iranian	War trauma (mixed)	NR	Yes

continued

TABLE 31 Population characteristics of the randomised studies of intervention effectiveness included (*continued*)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Naylor *et al.* (2013)[112]	Veteran	USA	I = 39.21 (4.7), C = 35.86 (9.69)	NR	NR	Combat-related (41.6%), non-combat related with a history of combat (41.6%) and non-combat related with no combat experience (16.7%)	C = obsessive compulsive disorder, generalised anxiety disorder and agoraphobia (8.3%), major depressive episode (8.3%), agoraphobia (8.3%)	Yes (partial PTSD = 100%)
Neuner *et al.* (2004)[114]	Refugee	Uganda	NET = 31.9 (6.7), supportive counselling = 33.8 (7.9), psychoeducation = 34.2 (6.9)	37	Sudanese	Refugees (including those who had witnessed killings and experienced torture)	NR	Yes
Neuner *et al.* (2008)[113]	Refugee	Uganda	NET = 34.4 (12.2), trauma counselling = 35.2 (12.8), C = 35.6 (14.0)	48.7	Somalian (45.1%), Rwandan (54.9%)	13.1–14.5 types of traumatic events in groups. Majority of the refugees in Nakivale fled civil conflict	NR	NR
Niles *et al.* (2012)[115]	Veteran	USA	52.0 (13.0)	100	White, not Hispanic (76%, *n* = 25), black, not Hispanic (15%, *n* = 5), white, Hispanic (6%, *n* = 2) and 'other' (3%, *n* = 1)	Veterans	NR	Yes
Otto *et al.* (2003)[116]	Refugee	USA	47.2	0	Cambodian (100%)	Refugees (100%)	High unreported psychiatric comorbidity	Yes (100%)
Owens *et al.* (2001)[117]	Childhood sexual abuse	USA	33 (9.15)	0	African American (11%), white (87%), Hispanic/ Latino/Mexican American (2%)	Childhood sexual abuse (100%). Sexual abuse events reported: vaginal and/or anal penetration, kissing, fondling and oral sexual contact	NR	Yes (100%)
Panahi *et al.* (2011)[118]	Veteran	Iran	I = 46.5 (5.4), C = 44.6 (5.1)	100	NR	Iranian Iran–Iraq war veterans (100%)	NR	Yes (100%)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Paunovic and Ost (2001)[119]	Refugee	Sweden	37.9 (7.6)	85	NR	Refugees (100%). Experienced more than one traumatic event (70%). Primary traumatic events (assumed to be based on 16 completers): torture = 6, combat = 6, physical assault in civilian life = 5, witnessing murder of significant others = 4, witnessing massacre = 3, assault with weapon in civilian life = 2, transportation accident = 2, witnessing physical assault in civilian life = 2, witnessing assault with weapon in civilian life = 2, witnessing sudden violent death = 2, witnessing murder of strangers = 2, death threats against family = 2, threat of torture = 1, sexual assault = 1, exposure to toxic substance = 1, death threats with a weapon in civilian life = 1	NR	Yes (100%)
Polusny *et al.* (2015)[120]	Veteran	USA	I = 57.6 (10.4), C = 59.4 (9.2)	MBSR = 79, PCT = 90	MBSR = white (81%), black (5%), other (4%), mixed (10%) PCT = white (86%), black (10%), other (4%), mixed (0%)	Veterans (100%), lifetime traumas: I = combat exposure (68%), sexual trauma (37%), physical assault (68%), disaster exposure (44%), serious injury event (67%), life-threatening illness/injury (60%), other (97%) C = combat exposure (80%), sexual trauma (19%), physical assault (63%), disaster exposure (43%), serious injury event (61%), life-threatening illness/injury (56%), other (93%)	I = mood disorder (44.8%) C = mood disorder (39.7%) No other comorbidities reported as measured	Yes (full PTSD = 97.4%, subthreshold PTSD = 2.6%). Per group: full PTSD (I = 98.3%, C = 96.6%), subthreshold PTSD (I = 1.7%, C = 3.4%)

continued

TABLE 31 Population characteristics of the randomised studies of intervention effectiveness included (*continued*)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Possemato *et al.* (2016)[121]	Veteran	USA	I = 46.3 (16.4), C = 47.4 (16.2)	87.1	White (82.3%)	Veterans	NR	Yes (48.4%)
Raskind *et al.* (2007)[122]	Veteran	USA	56 (9)	95	White ($n = 26$), African American ($n = 11$), Asian American ($n = 1$), Hispanic ($n = 1$) and Native American ($n = 1$) Overall (40)	Veterans	Depression	Yes
Raskind *et al.* (2013)[123]	Veteran	USA	I = 30.0 (6.6), C = 30.8 (6.5)	I = 81, C = 89	I = African American (13%), Asian (3%), Caucasian (66%), Hispanic (16%), other (3%) C = African American (14%), Caucasian (60%), Hispanic (9%), Native American (6%), other (11%)	Active duty soldiers returned from Afghanistan and Iraq (100%) I = mean number of deployments 2.6 (SD 4.0), combat experiences scale score 10.9 (SD 3.8) C = mean number of deployments 1.9 (SD 1.2), combat experiences scale score 11.9 (SD 3.6)	I = major depression (34%), C = major depression (43%)	Yes (100%)
Ready *et al.* (2010)[124]	Veteran	USA	Virtual reality exposure = 57 (range: 53–61), PCT = 58 (range: 55–62)	100	White (54.5%), African American (45.5%)	Vietnam veterans	NR	Yes (100%)
Reed and Enright (2006)[125]	Domestic violence	USA	44.95 (7.01)	100	European Americans (90%), Hispanic American (5%), Native American (5%)	Romantic partner emotional abuse: criticising (90%), ridiculing (100%), jealous control (75%), purposeful ignoring (100%), threats of abandonment (25%), threats of personal harm (30%), threats of harm to property or pets (20%), sexual abuse (30%: $n = 5$ ridicule followed by demands for sexual favours, $n = 1$ threats of physical harm combined with demands for sexual favours)	NR	NR

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Reger *et al.* (2016)[126]	Veteran	USA	Virtual reality exposure = 29.52 (6.47), PE = 30.89 (7.09), C = 30.39 (6.45)	> 95	White (59.9%), black (9.3%), Hispanic (17.3%)	Veterans	NR	Yes
Reich *et al.* (2004)[127]	Childhood sexual abuse	USA	I = 30.6, C = 24.2	0	White: I = 75%, C = 100% African American: I = 16.7%, C = 0% Asian American: I = 8.3%, C = 0%	Trauma related to childhood: emotional (I = 66.7%, C = 54.5%), verbal (I = 50%, C = 77.8%), physical (I = 50%, C = 44.4%), sexual abuse (I = 83.3%, C = 66.7%)	Major depression (I = 66.6%, C = 55.5%) Dysthymia (I = 8.3%, C = 0%) Panic disorder (I = 25%, C = 11.1%) Agoraphobia with panic disorder (I = 16.6%, C = 0%) Agoraphobia without panic disorder (I = 8.3%, C = 0%) Generalised anxiety disorder (I = 8.3%, C = 22.2%) Simple phobia (I = 25%, C = 0%) Social phobia (I = 0%, C = 11.1%) Eating disorder not otherwise specified (I = 8.3%, C = 0%) Obsessive–compulsive disorder (I = 0%, C = 11.1%) Somatisation disorder (I = 8.3%, C = 0%)	Yes

continued

TABLE 31 Population characteristics of the randomised studies of intervention effectiveness included (*continued*)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Resick *et al.* (2015)[128]	Veteran	USA	I = 31.8 (7.3), C = 32.4 (7.9)	CPT-C = 93, PCT = 92	CPT-C = black (20%), Hispanic (9%), white (63%), other (9%) PCT = black (21%), Hispanic (19%), white (52%), other (8%)	Active duty military with criterion A traumatic event (100%)	NR	Yes (100%)
Rogers *et al.* (1999)[130]	Veteran	USA	Range: 47–53	100	NR	Vietnam veterans (100%)	NR	Yes (100%)
Rothbaum *et al.* (2014)[129]	Veteran	USA	D-cycloserine + PE = 34.9, alprazolam + PE = 36.2, C = 34.3	95	Black (50.6%), white (41.6%), Hispanic (5%)	Veterans	27.5% had a comorbid mood disorder	Yes
Sikkema *et al.* (2007)[131]	Childhood sexual abuse	USA	Female = 43.18 (6.99), male = 41.75 (6.99)	46	Total sample: white (11.3%), African American (68.6%), Hispanic-Latino (16%), other (4.1%)	Primarily childhood sexual abuse. 62% of women and 43% of men also experienced rape as adults	HIV-positive sero-status; meets DSM-IV criteria for PTSD: women (37%), men (43%)	Yes
Sikkema *et al.* (2013)[132]	Childhood sexual abuse	USA	42.3 (6.8)	47	Overall: African American (68%), Hispanic (17%), white (10%)	Childhood sexual abuse	NR	Yes (40%)
Smajkic *et al.* (2001)[133]	Refugee	USA	51.34 (10.11)	Venlafaxine = 100, sertraline = 40, paroxetine = 25	Bosnian (100%)	Refugees (100%)	NR	Yes (100%)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Sonne *et al.* (2016)[134]	Refugee	Denmark	I = 43.2 (9.6), C = 44 (9.7)	Venlafaxine = 62.2, sertraline = 58.3	Origin: venlafaxine = ex-Yugoslavia (11.2%), Iran (13.3%), Iraq (34.7%), Afghanistan (10.2%), Lebanon (12.6%), other (18.4%); sertraline = ex-Yugoslavia (8.3%), Iran (13.9%), Iraq (34.4%), Afghanistan (16.7%), Lebanon (13%), other (13.9%)	Refugees (100%): venlafaxine = imprisonment (58.8%), torture (55.1%), refugee camp (22.9%); sertraline = imprisonment (48.6%), torture (41.7%), refugee camp (27.5%)	Venlafaxine = depression (97.96%), enduring personality change after catastrophic experience (41.3%), other psychiatric disorder (12.24%); sertraline = depression (99.08%), enduring personality change after catastrophic experience (40.38%), other psychiatric disorder (11.1%)	Yes (100%)
Stein *et al.* (2002)[135]	Veteran	USA	I = 55.2 (6.6), C = 51.1 (8.1)	100	NR	Military veterans (n = 3 Vietnam-related)	All subjects had depression and pronounced sleep problems	Yes
Stenmark *et al.* (2013)[136]	Refugee	Germany	I = 34.5 (11.1), C = 36.6 (11.0)	I = 67, C = 73	Region of origin: I = Afghanistan (14%), Iraq (29%), Middle East (remaining countries) (16%), Africa (25%), other countries (16%); C = Afghanistan (17%), Iraq (23%), Middle East (remaining countries) (17%), Africa (26%), other countries (17%)	Refugees and asylum seekers with PTSD (100%). Mean number of traumatic events: I = 8.3 (2.2), C = 7.9 (2.9)	NR	Yes (100%)

continued

TABLE 31 Population characteristics of the randomised studies of intervention effectiveness included (*continued*)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Teng *et al.* (2008)[137]	Veteran	USA	I = 52.00 (8.13), C = 51.87 (9.07)	86	African American (42.9%), white (42.9%), Hispanic (14.2%)	Veterans	Panic disorder (13.3%), panic disorder with agoraphobia (86.7%), specific phobia (23.3%), obsessive–compulsive disorder (13.3%), acute stress disorder (3.3%), generalised anxiety disorder (26.7%), major depressive disorder (60.0%), dysthymic disorder (30.0%)	Yes
Ter Heide *et al.* (2016)[139]	Refugee	The Netherlands	I = 43.1 (10.7), C = 39.8 (11.9)	69	The vast majority of refugees came from Iraq, Afghanistan or countries in Africa (ethnicities were NR). Other origin countries included Former Yugoslavia and other Middle-Eastern countries	Refugees (including asylum seekers and illegal immigrants)	77.8% had comorbid depression	Yes
Ter Heide *et al.* (2011)[138]	Refugee	The Netherlands	I = 40 (9.31), C = 43 (7.93)	I = 50, C = 70	Origin: Afghanistan (20%), Algeria (5%), Bosnia (20%), Iran (10%), Iraq (30%), Lebanon (5%), Turkey (5%)	Asylum seekers and refugees. Experienced 10 separate events, on average, including: murder/unnatural death of family or friend (95%), physical or psychological torture (70%)	Depression (I = 80%, C = 50%)	NR
Ulmer *et al.* (2011)[140]	Veteran	USA	I = 47.0 (9.5), C = 50.2 (11.6)	I = 66.7, C = 55.6	I = African American (33.3%), white (33.3%), other (33.3%) C = African American (33.3%), white (33.3%), other (33.3%)	Veterans with PTSD	NR	Yes (100%)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
van der Kolk *et al.* (1994)[141]	Mixed	USA	I = 40.8 (6.4), C = 39.9 (7.8)	30	NR	31/64 were veterans, 33 were non-veterans (20/33 had experienced childhood sexual abuse)	Depression (54.8%)	Yes
Wahbeh *et al.* (2016)[142]	Veteran	USA	MM = 53.3 (12.6), SB = 52.2 (12.5), MM + SB = 50 (12.8), SQ = 53 (11.8)	MM = 93, SB = 92, MM + SB = 96, SQ = 96	White (MM = 85%, SB = 88%, MM + SB = 88%, SQ = 84%)	Combat veterans with PTSD (100%) Combat exposure: MM = 24.1 (9.4), SB = 22.5 (8.5), MM + SB = 26.6 (10.3), SQ = 25.8 (9.8) Lifetime trauma (Life Events Checklist): MM = 32.2 (7.8), SB = 33.7 (5.7), MM + SB = 32.7 (6.3), SQ = 31.3 (8.1)	NR	Yes (100%)
Wang *et al.* (2016)[143]	War affected	Kosovo	I = 46.8 (10.4), C = 48.8 (10.9)	55	NR	Victims of torture and war (civilians)	Depression = 92.9%, anxiety disorders = 89.3%	Yes (50%)
Weiss *et al.* (2015), trial 1: CETA[144]	War affected	Iraq	I = 41.6 (11.3), C = 45.16 (11.1)	Male: I = (67.7), C = (32.3)	NR	Survivors of systemic violence: having witnessed or experienced physical torture or militant attacks	NR	NR
Weiss *et al.* (2015), trial 2: CPT[144]	War affected	Iraq	I = 40 (12.3), C = 41 (9.5)	I = 67.4, C = 62.5	NR	Survivors of systemic violence: having witnessed or experienced physical torture or militant attacks	NR	NR

continued

TABLE 31 Population characteristics of the randomised studies of intervention effectiveness included (*continued*)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline (yes/no)
Yeomans *et al.* (2010)[145]	War affected	Burundi	38.6 (12.8)	65.6	Hutu (52.4%), Tutsi (47.6%)	Witnessed: mixed (e.g. rape, serious injury owing to combat) Experienced: combat (98.8%), forced to hide (97.1%), unnatural death of family member (96.7%), lack of food/water (95%), narrowly escaping death (91.7%), lack of shelter (90.4%), ill health without medical care (86.2%), loss of personal property (81.9%), confined indoors owing to danger (79.5%), betrayed and placed at risk of death (41.7%), serious physical injury from combat (35%), forced to hide among the dead (27.5%), imprisonment (23.8%); other	NR	NR
Zlotnick *et al.* (1997)[146]	Childhood sexual abuse	USA	39 (9.59)	0	99% white ($n = 1$: Native American)	Childhood sexual abuse	Extreme stress (100%)	Yes
Zohar *et al.* (2002)[147]	Veteran	Israel	I = 41 (6), C = 38 (9)	I = 83, C = 95	NR	Veterans (100%)	NR	Yes (100%)

BATD, Behavioural Activation Treatment for Depression; BSI, Brief Symptom Inventory; CETA, common elements treatment approach; C, control; CPT, cognitive processing therapy; HR, holographic reprocessing; I, intervention; MM, mindfulness meditation; PCT, person-centred therapy; PE, prolonged exposure; RXT, relaxation; SB, slow breathing; SQ, sitting quietly.

Appendix 6 Characteristics of included non-randomised controlled studies

TABLE 32 Characteristics of the interventions in the non-randomised controlled studies of intervention effectiveness included

Authors (year)	Intervention(s)	Control(s)	Intensity (duration, frequency and strength of dose/length of sessions)	Delivery (method, setting and type of professional)
King *et al.* (2013)[148]	Mindfulness-based cognitive therapy	Treatment as usual	Duration: 8 weeks Frequency: weekly Dose/length of sessions: 8 hours Unclear for treatment as usual group	Face to face (group); outpatient veterans' affairs clinic; doctoral- and master's-level clinicians with mental health backgrounds
Kruse *et al.* (2009)[149]	Trauma-focused psychotherapy	Treatment as usual	Duration: NR Frequency: weekly (first 3 months), fortnightly (remainder) Dose/length of sessions: 50 minutes, 25 hours total	Face to face (individual); setting NR; trained psychotherapists
Levi *et al.* (2016)[150]	CBT		Duration: 24 weeks Frequency: weekly Dose/length of sessions: NR	Face to face (individual); army PTSD treatment centre; psychiatrists, clinical psychologists and social workers
	Psychodynamic psychotherapy		Duration: 50 weeks Frequency: weekly Dose/length of sessions: NR	
Lundqvist *et al.* (2006)[151]	Group therapy	Waitlist	Duration: 2 years (phase 1, 5 months; phase 2, 4 months; phase 3, 1 year) Frequency: twice a week (phase 1), weekly (phase 2), monthly (phase 3) Dose/length of sessions: NR	Face to face (group); hospital psychiatric outpatient unit; female group leaders, unknown training
	Short-term focused therapy		Duration: 2 years (phase 1, 5 months; phase 2, 4 months; phase 3, 1 year) Frequency: twice a week (phase 1), weekly (phase 2), monthly (phase 3) Dose/length of sessions: NR	

continued

TABLE 32 Characteristics of the interventions in the non-randomised controlled studies of intervention effectiveness included (*continued*)

Authors (year)	Intervention(s)	Control(s)	Intensity (duration, frequency and strength of dose/length of sessions)	Delivery (method, setting and type of professional)
Morgan and Cummings (1999)[152]	Group psychotherapy	No intervention	Duration: 20 weeks Frequency: weekly Dose/length of sessions: NR	Face to face (group); community social services; psychotherapists
Narimani *et al.* (2008)[153]	EMDR	Waitlist	Duration: 70 days (typically) Frequency: NR Dose/length of sessions: 90 minutes	Face to face (individual); setting NR; trained therapists
	CBT		Duration: 70 days Frequency: NR Dose/length of sessions: 60–120 minutes	
Pivac *et al.* (2004)[154]	Olanzapine		Duration: 6 weeks Frequency: once or twice daily Dose/length of sessions: 5–10 mg	Drug intervention; delivered by hospital for PTSD; psychiatrists
	Fluphenazine		Duration: 6 weeks Frequency: once or twice daily Dose/length of sessions: 5–10 mg	
Salo *et al.* (2008)[155]	Individual therapy	No intervention	Duration: 1 year Frequency: weekly Dose/length of sessions: NR	Face to face (individual); setting NR; master's-level social workers and psychologists
	Group therapy		Duration: 1 year Frequency: weekly Dose/length of sessions: NR	Face to face (group); setting NR; therapists with a baccalaureate degree in psychology and social work with mental health backgrounds
Saxe and Johnson (1999)[156]	'Victim to survivor' group therapy	Waitlist	Duration: 20 weeks Frequency: weekly Dose/length of sessions: NR	Face to face (group); community mental health agency; experienced mental health social workers

Appendix 7 Population characteristics of included non-randomised controlled studies

TABLE 33 Population characteristics of the non-randomised studies of intervention effectiveness included

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline?
King *et al.* (2013)[148]	Veteran	USA	I = 60.1 (9.7), C = 58.3 (8.3)	NR	NR	Veterans	65% of participants from the treatment group and 76% from the control had a current major depressive disorder	Yes
Kruse *et al.* (2009)[149]	Refugee	Germany	I = 44.7 (9.0), C = 44.3 (12.2)	I = 35.3%, C = 30%	Bosnian (100%)	Bosnian refugees (100%). Highly stressful war-related events: I = close to death (97%), forced separation (82.3%), murder of family/ friends (70.6%), murder of strangers (67.7%), physical torture (70.6%), combat situation (50%), rape/sexual abuse (41.2%), brainwashed (85.3%), lack of food/water (67.7%), unnatural death of friends (58.8%), lost/ kidnapped (64.7%), lack of medical care (70.6%), no shelter (79.4%), imprisoned (55.9%), serious injury (70.6%), isolation (41.2%); number of events 10.7 (SD 4.4) C = close to death (100%), forced separation (93.3%), murder of family/ friends (83.3%), murder of strangers (83.3%), physical torture (93.4%), combat situation (63.4%), rape/sexual abuse (50%), brainwashed (96.7%), lack of food/water (86.6%), unnatural death of friends (80%), lost/kidnapped (86.6%), lack of medical care (70%), no shelter (96.7%), imprisoned (80%), serious injury (90%), isolation (66.7%); number of events 13.5 (SD 3.2)	NR	Yes (100%)

Authors (year)	Trauma experience category	Country	Age of males, years (SD)	Gender (% male)	Ethnicity	Type(s) of trauma experienced	Current comorbidities	PTSD diagnosis at baseline?
Levi *et al.* (2016)[150]	Veteran	Israel	I = 30.8 (11.4), C = 33.4 (11.45)	100%	NR	Veterans	NR	Yes
Lundqvist *et al.* (2006)[151]	Childhood sexual abuse	Sweden	Group therapy = 34 (range: 20–54), short-term focused therapy = 39 (range: 25–54), C = 41 (range: 28–55)	0% (100% female)	NR	Childhood sexual abuse	NR	NR
Morgan and Cummings (1999)[152]	Childhood sexual abuse	Canada	I = 36.92 (8.01), C = 33.05 (10.27)	0% (100% female)	NR	Childhood sexual abuse	NR	NR
Narimani *et al.* (2008)[153]	War affected	Iran	Overall: 47.95 (5.07)	NR	Iranian (100%)	Combatants afflicted and hospitalised at psychiatric/psychological hospital (100%)	NR	NR
Pivac *et al.* (2004)[154]	Veteran	Croatia	I = 37.2 (4.5), C = 38.1 (4.8)	100%	NR	Veterans	All participants had comorbid psychotic symptoms: 37 (68%) had psychotic depression with auditory hallucinations or auditory and visual hallucinations; 18 (37%) had delusional paranoid symptoms	Yes
Salo *et al.* (2008)[155]	War affected	Palestine	Individual treatment = 32.36 (1.44), group treatment = 30.45 (1.40), C = 30.82 (0.72)	100%	Palestinian (100%)	Former political prisoners (100%). Most common experiences of torture/ill treatment: different types of beatings such as by gun or baton (87.8%), psychological abuse such as sham execution (75.5%); classic torture methods less common: burning with cigarettes (13.8%), pain by electricity (11%)	NR	NR
Saxe and Johnson (1999)[156]	Childhood sexual abuse	Canada	NR	0% (100% female)	NR	Childhood sexual abuse (incest)	NR	NR

C, control; I, intervention; SD, standard deviation.

Appendix 8 Risk-of-bias gradings of included randomised controlled trials

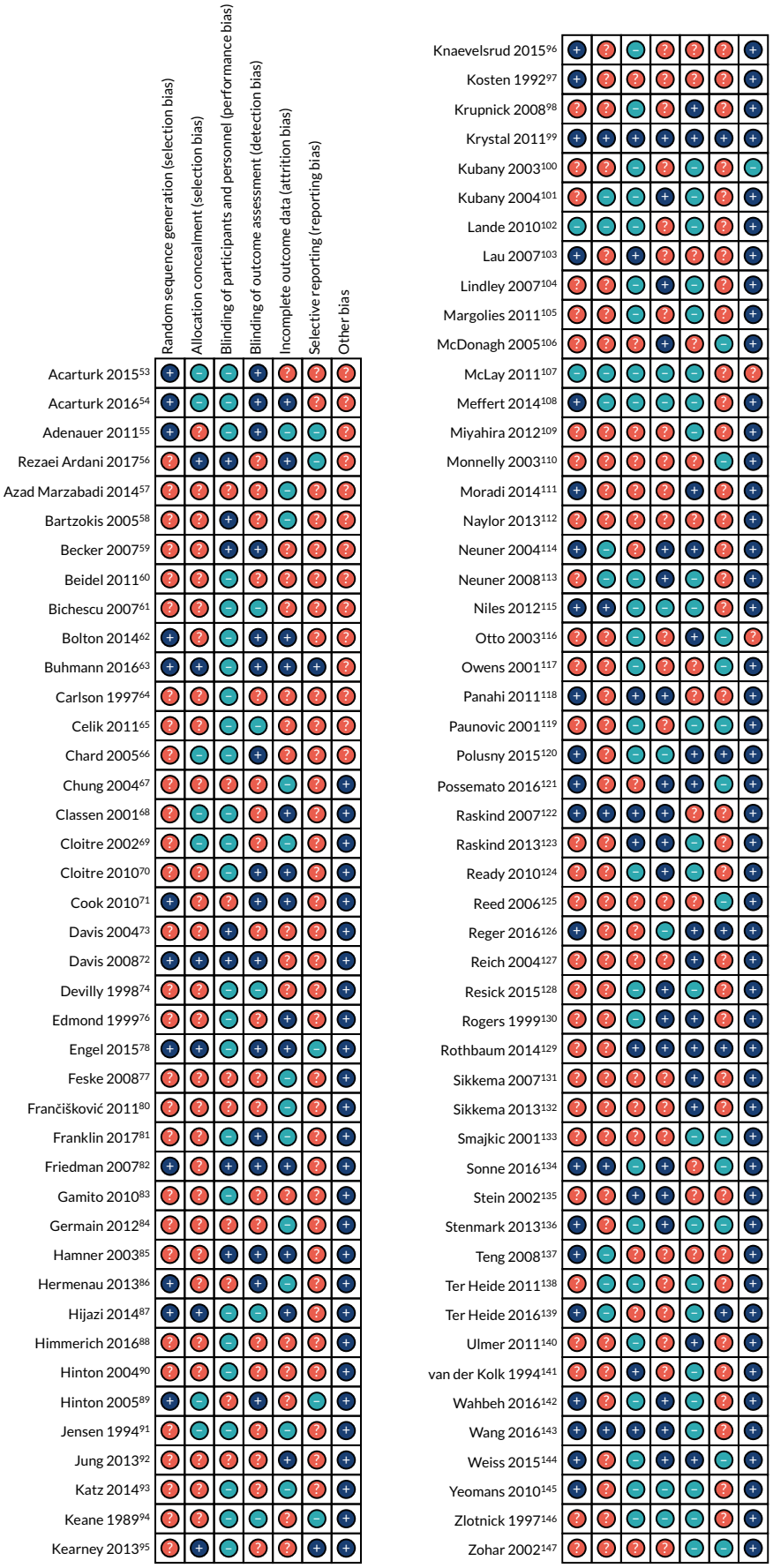

FIGURE 26 Risk-of-bias ratings across the domains of the Cochrane tool for all included RCTs.

Appendix 9 Summary tables of clinical effectiveness analyses

Effectiveness of psychological interventions across all populations

Post-traumatic stress disorder outcomes

TABLE 34 Effectiveness of psychological interventions on PTSD outcomes for all trauma populations

Psychological interventions vs. control	Control		Active control	
	Post treatment	Follow-up after < 6 months	Post treatment	Follow-up after < 6 months
All	SMD −0.90 (95% CI −1.14 to −0.66), $I^2 = 85.3\%$, number of trials = 39, $n = 2506$	SMD −0.45 (95% CI −0.82 to −0.08), $I^2 = 79.4\%$, number of trials = 10, $n = 738$	SMD −0.35 (95% CI −0.72, 0.03), $I^2 = 47.0\%$, number of trials = 6, $n = 259$	–
Trauma-focused CBT	SMD −1.09 (95% CI −1.44 to −0.75), $I^2 = 86\%$, number of trials = 21, $n = 1283$	SMD −0.64 (95% CI −1.10 to −0.18), $I^2 = 44.9\%$, number of trials = 4, $n = 206$	–	–
EMDR	SMD −1.07 (95% CI −1.65 to −0.50), $I^2 = 75.4\%$, number of trials = 7, $n = 244$	–	SMD −0.15 (95% CI −0.62, 0.32), $I^2 = 0\%$, number of trials = 2, $n = 71$	–
IPT	SMD −1.41 (95% CI −1.97 to −0.85), $I^2 = 0\%$, number of trials = 2, $n = 66$	–	–	–
Mindfulness	SMD −0.26 (95% CI −0.55, 0.04), $I^2 = 0\%$, number of trials = 3, $n = 183$	SMD −0.08 (95% CI −0.68, 0.52), $I^2 = 59\%$, number of trials = 2, $n = 109$	–	–
Non-trauma-focused CBT	SMD −0.05 (95% CI −0.23, 0.13), $I^2 = 0\%$, number of trials = 3, $n = 548$	SMD −0.02 (95% CI −0.25, 0.20), $I^2 = 0\%$, number of trials = 2, $n = 305$	–	–
Single-component and trauma-focused interventions	SMD −1.16 (95% CI −1.52 to −0.81), $I^2 = 86.2\%$, number of trials = 23, $n = 1264$	SMD −0.94 (95% CI −1.56 to −0.32), $I^2 = 77.6\%$, number of trials = 5, $n = 276$	–	–
Multicomponent and trauma-focused interventions	SMD −0.73 (95% CI −1.11 to −0.35), $I^2 = 62.3\%$, number of trials = 7, $n = 385$	–	–	–
Single-component non-trauma-focused interventions	SMD −0.39 (95% CI −0.66 to −0.12), $I^2 = 69.6\%$, number of trials = 11, $n = 936$	SMD −0.05, (95% CI −0.23, 0.14), $I^2 = 0\%$, number of trials = 5, $n = 462$	SMD −0.64 (95% CI −1.82, 0.53), $I^2 = 76.9\%$, number of trials = 2, $n = 62$	–
Phase-based interventions	Effect size −1.13 (95% CI −1.54 to −0.73), $I^2 = 35.9\%$, number of trials = 6, $n = 190$	–	–	–

TABLE 35 Effectiveness of psychological interventions on CPTSD outcomes for all trauma populations

CPTSD symptom cluster	Psychological interventions vs. control	Control		Active control	
		End of treatment	Follow-up after < 6 months	End of treatment	Follow-up after < 6 months
Emotional dysregulation	All	SMD −0.38 (95% CI −0.88 to 0.12), $I^2 = 74.5\%$, number of trials = 7, $n = 289$	SMD −0.42 (95% CI −1.53 to 0.69), $I^2 = 72.3\%$, number of trials = 2, $n = 51$	–	–
	Trauma-focused CBT	SMD −0.17 (95% CI −0.82 to 0.49), $I^2 = 60.6\%$, number of trials = 3, $n = 103$	SMD −0.42 (95% CI −1.53 to 0.69), $I^2 = 72.3\%$, number of trials = 2, $n = 51$	–	–
	Single-component and trauma-focused interventions	–	–	–	–
	Multicomponent and trauma-focused interventions	–	–	–	–
	Single-component and non-trauma-focused interventions	SMD −0.04 (95% CI −0.41 to 0.33), $I^2 = 23.9\%$, number of trials = 4, $n = 163$	–	–	–
	Phase-based interventions	SMD −0.76 (95% CI −1.79 to 0.27), $I^2 = 83.4\%$, number of trials = 3, $n = 118$	–	–	–
Interpersonal problems	All	SMD −0.59 (95% CI −1.28 to 0.11), $I^2 = 61.9\%$, number of trials = 2, $n = 94$	–	–	–
	Trauma-focused CBT	–	–	–	–
	Single-component and trauma-focused interventions	–	–	–	–
	Multicomponent and trauma-focused interventions	–	–	–	–
	Single-component and non-trauma-focused interventions	–	–	–	–
	Phase-based interventions	SMD −0.59 (95% CI −1.28 to 0.11), $I^2 = 61.9\%$, number of trials = 2, $n = 94$	–	–	–

continued

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TABLE 35 Effectiveness of psychological interventions on CPTSD outcomes for all trauma populations (*continued*)

CPTSD symptom cluster	Psychological interventions vs. control	Control		Active control	
		End of treatment	Follow-up after < 6 months	End of treatment	Follow-up after < 6 months
Negative self-concept	All	SMD 1.81 (95% CI 0.73 to 2.89), $I^2 = 90\%$, number of trials = 5, $n = 215$	–	–	–
	Trauma-focused CBT	SMD 2.22 (95% CI 0.75 to 3.70), $I^2 = 90.4\%$, number of trials = 3, $n = 145$	–	–	–
	Single-component and trauma-focused interventions	–	–	–	–
	Multicomponent and trauma-focused interventions	SMD 2.93 (95% CI 2.40 to 3.45), $I^2 = 0\%$, number of trials = 2, $n = 117$	–	–	–
	Single-component and non-trauma-focused interventions	SMD 1.14 (95% CI 0.01 to 2.27), $I^2 = 72.6\%$, number of trials = 2, $n = 70$	–	–	–
	Phase-based interventions	–	–	–	–

Depression

TABLE 36 Effectiveness of psychological interventions on depression outcomes for all trauma populations

	Control		Active control	
Psychological interventions vs. control	Post treatment	Follow-up after < 6 months	Post treatment	Follow-up after < 6 months
All	SMD −0.89 (95% CI −1.15 to −0.64), I^2 = 81.3%, number of trials = 30, n = 1793	SMD −0.51 (95% CI −0.80 to −0.22), I^2 = 48%, number of trials = 9, n = 410	SMD −0.32 (95% CI −1.23 to 0.59), I^2 = 47.8%, number of trials = 2, n = 72	–
Trauma-focused CBT	SMD −0.91 (95% CI −1.31 to −0.51), I^2 = 87.3%, number of trials = 14, n = 1042	SMD −0.72 (95% CI −1.43 to −0.01), I^2 = 56.6%, number of trials = 3, n = 104	–	–
EMDR	SMD −1.12 (95% CI −1.68 to −0.55), I^2 = 65.2%, number of trials = 5, n = 182	–	SMD −0.32 (95% CI −1.23 to 0.59), I^2 = 47.8%, number of trials = 2, n = 72	–
IPT	SMD −1.17 (95% CI −1.71 to −0.62), I^2 = 0%, number of trials = 2, n = 66	–	–	–
Mindfulness	SMD −0.43 (95% CI −0.73 to −0.13), I^2 = 0%, number of trials = 3, n = 186	SMD −0.41 (95% CI −0.79 to −0.02), I^2 = 0%, number of trials = 2, n = 109	–	–
Non-trauma-focused CBT	SMD −0.05 (95% CI −0.48 to 0.39), I^2 = 10%, number of trials = 2, n = 93	–	–	–
Single-component and trauma-focused interventions	SMD −1.14 (95% CI −1.54 to −0.74), I^2 = 86.6%, number of trials = 17, n = 1034	SMD −0.85 (95% CI −1.42 to −0.29), I^2 = 62.5%, number of trials = 4, n = 174	–	–
Multicomponent and trauma-focused interventions	SMD −0.75 (95% CI −1.22 to −0.29), I^2 = 58.6%, number of trials = 5, n = 267	–	–	–
Single-component non-trauma-focused interventions	SMD −0.48 (95% CI −0.72 to −0.25), I^2 = 42.0%, number of trials = 10, n = 594	SMD −0.30, (95% CI −0.56 to −0.04), I^2 = 0%, number of trials = 5, n = 236	–	–
Phase-based interventions	Effect size −1.03 (95% CI −1.43 to −0.63), I^2 = 10.9%, number of trials = 4, n = 133	–	–	–

Anxiety

TABLE 37 Effectiveness of psychological interventions on anxiety outcomes for all trauma populations

	Control		Active control	
Psychological interventions vs. control	**Post treatment**	**Follow-up after < 6 months**	**Post treatment**	**Follow-up after < 6 months**
All	SMD −0.81 (95% CI −1.18 to −0.46), $I^2 = 83.4\%$, number of trials = 13, $n = 1136$	–	–	–
Trauma-focused CBT	SMD −0.60 (95% CI −1.01 to −0.19), $I^2 = 85.5\%$, number of trials = 8, $n = 832$	–	–	–
EMDR	SMD −1.05 (95% CI −1.50 to −0.61), $I^2 = 9.2\%$, number of trials = 4, $n = 102$	–	–	–
IPT	–	–	–	–
Mindfulness	–	–	–	–
Non-trauma-focused CBT	–	–	–	–
Single-component and trauma-focused interventions	SMD −0.76 (95% CI −1.15 to −0.37), $I^2 = 81.5\%$, number of trials = 10, $n = 757$	–	–	–
Multicomponent and trauma-focused interventions	SMD −0.85 (95% CI −1.60 to −0.10), $I^2 = 80.4\%$, number of trials = 3, $n = 223$	–	–	–
Single-component non-trauma-focused interventions	SMD −0.18 (95% CI −0.53 to 0.17), $I^2 = 26.9\%$, number of trials = 2, $n = 225$	–	–	–
Phase-based interventions	–	–	–	–

Quality of life

TABLE 38 Effectiveness of psychological interventions on quality-of-life outcomes for all trauma populations

	Control		Active control	
Psychological interventions vs. control	**Post treatment**	**Follow-up after < 6 months**	**Post treatment**	**Follow-up after < 6 months**
All	SMD 0.28 (95% CI −0.15 to 0.71), $I^2 = 65.5\%$, number of trials = 5, $n = 307$	–	–	–
Trauma-focused CBT	SMD 0.23 (95% CI −0.33 to 0.79), $I^2 = 73.9\%$, number of trials = 4, $n = 260$	–	–	–
EMDR	–	–	–	–
IPT	–	–	–	–
Mindfulness	–	–	–	–
Non-trauma-focused CBT	–	–	–	–
Single-component and trauma-focused interventions	–	–	–	–
Multicomponent and trauma-focused interventions	–	–	–	–
Single-component non-trauma-focused interventions	–	–	–	–
Phase-based interventions	–	–	–	–

Sleep quality

TABLE 39 Effectiveness of psychological interventions on sleep quality outcomes for all trauma populations

	Control		Active control	
Psychological interventions vs. control	**Post treatment**	**Follow-up after < 6 months**	**Post treatment**	**Follow-up after < 6 months**
All	SMD −1.00 (95% CI −1.49 to −0.51), $I^2 = 28.8\%$, number of trials = 3, $n = 111$	–	–	–
Trauma-focused CBT	SMD −1.30 (95% CI −1.87 to −0.73), $I^2 = 0\%$, number of trials = 2, $n = 59$	–	–	–
EMDR	–	–	–	–
IPT	–	–	–	–
Mindfulness	–	–	–	–
Non-trauma-focused CBT	–	–	–	–
Single-component and trauma-focused interventions	–	–	–	–
Multicomponent and trauma-focused interventions	–	–	–	–
Single-component non-trauma-focused interventions	–	–	–	–
Phase-based interventions	–	–	–	–

Effectiveness of psychological interventions by trauma exposure

Veterans

TABLE 40 Effectiveness of psychological interventions for veteran populations

Outcome	Psychological interventions vs. control	Control		Active control	
		Post treatment	Follow-up after < 6 months	Post treatment	Follow-up after < 6 months
PTSD symptoms	All	SMD −0.48 (95% CI −0.72 to −0.24), I^2 = 41.7%, number of trials = 14, n = 502	SMD −0.20 (95% CI −0.72 to 0.33), I^2 = 63.1%, number of trials = 4, n = 180	SMD −0.44 (95% CI −0.98 to 0.10), I^2 = 64%, number of trials = 4, n = 188	–
	Trauma-focused CBT	SMD −0.77 (95% CI −1.20 to −0.33), I^2 = 44.6%, number of trials = 5, n = 199	–	SMD −0.26 (95% CI −0.88 to 0.35), I^2 = 51.1%, number of trials = 2, n = 126	–
	EMDR	SMD −0.58 (95% CI −1.00 to −0.16), I^2 = 11.1%, number of trials = 4, n = 106	–	–	–
	IPT	–	–	–	–
	Mindfulness	SMD −0.26 (95% CI −0.55 to 0.04), I^2 = 0%, number of trials = 3, n = 186	SMD −0.08 (95% CI −0.68 to 0.52), I^2 = 59%, number of trials = 2, n = 109	–	–
	Non-trauma-focused CBT	–	–	–	–
	Single-component and trauma-focused interventions	SMD −0.51 (95% CI −0.79 to −0.23), I^2 = 0%, number of trials = 7, n = 219	–	–	–
	Multicomponent and trauma-focused interventions	SMD −1.05 (95% CI −1.80 to −0.30), I^2 = 59.4%, number of trials = 3, n = 86	–	–	–
	Single-component non-trauma-focused interventions	SMD −0.16 (95% CI −0.42 to 0.10), I^2 = 0%, number of trials = 4, n = 244	SMD 0.01 (95% CI −0.36 to 0.36), I^2 = 28.1%, number of trials = 3, n = 167	–	–
	Phase-based interventions	–	–	–	–

continued

TABLE 40 Effectiveness of psychological interventions for veteran populations (*continued*)

Outcome	Psychological interventions vs. control	Control		Active control	
		Post treatment	Follow-up after < 6 months	Post treatment	Follow-up after < 6 months
Depression symptoms	All	SMD −0.56 (95% CI −0.84 to −0.28), $I^2 = 46.8\%$, number of trials = 11, $n = 445$	SMD −0.38 (95% CI −0.78 to 0.01), $I^2 = 42.3\%$, number of trials = 5, $n = 201$	–	–
	Trauma-focused CBT	SMD −1.02 (95% CI −1.72 to −0.32), $I^2 = 51\%$, number of trials = 3, $n = 112$	–	–	–
	EMDR	SMD −0.91 (95% CI −2.28 to 0.47), $I^2 = 77.7\%$, number of trials = 2, $n = 44$	–	–	–
	IPT	–	–	–	–
	Mindfulness	SMD −0.43 (95% CI −0.73 to −0.13), $I^2 = 0\%$, number of trials = 3, $n = 186$	SMD −0.41 (95% CI −0.79 to −0.02), $I^2 = 0\%$, number of trials = 2, $n = 109$	–	–
	Non-trauma-focused CBT	–	–	–	–
	Single-component and trauma-focused interventions	SMD −0.87 (95% CI −1.50 to −0.24), $I^2 = 56\%$, number of trials = 4, $n = 133$	–	–	–
	Multicomponent and trauma-focused interventions	SMD −0.86 (95% CI −1.89 to 0.17), $I^2 = 61.4\%$, number of trials = 2, $n = 44$	–	–	–
	Single-component non-trauma-focused interventions	SMD −0.33 (95% CI −0.61 to −0.05), $I^2 = 20.7\%$, number of trials = 5, $n = 268$	SMD −0.27 (95% CI −0.56 to 0.02), $I^2 = 0\%$, number of trials = 4, $n = 188$	–	–
	Phase-based interventions	–	–	–	–

Outcome	Psychological interventions vs. control	Control		Active control	
		Post treatment	Follow-up after < 6 months	Post treatment	Follow-up after < 6 months
Anxiety symptoms	All	SMD −0.74 (95% CI −1.29 to −0.18), $I^2 = 54\%$, number of trials = 5, $n = 153$	–	–	–
	Trauma-focused CBT	SMD −0.63 (95% CI −1.83 to 0.57), $I^2 = 71.3\%$, number of trials = 2, $n = 90$	–	–	–
	EMDR	SMD −0.89 (95% CI −1.45 to −0.33), $I^2 = 10.6\%$, number of trials = 3, $n = 63$	–	–	–
	IPT	–	–	–	–
	Mindfulness	–	–	–	–
	Non-trauma-focused CBT	–	–	–	–
	Single-component and trauma-focused interventions	–	–	–	–
	Multicomponent and trauma-focused interventions	–	–	–	–
	Single-component non trauma-focused interventions	–	–	–	–
	Phase-based interventions	–	–	–	–

War-affected populations

TABLE 41 Effectiveness of psychological interventions for war-affected populations

Outcome	Psychological interventions vs. control	Control		Active control	
		Post treatment	Follow-up after < 6 months	Post treatment	Follow-up after < 6 months
PTSD symptoms	All	SMD −0.46 (95% CI −0.68 to −0.25), $I^2 = 50.4\%$, number of trials = 8, $n = 933$	–	–	–
	Trauma-focused CBT	SMD −0.48 (95% CI −0.82 to −0.15), $I^2 = 74.8\%$, number of trials = 6, $n = 713$	–	–	–
	EMDR	–	–	–	–
	IPT	–	–	–	–
	Mindfulness	–	–	–	–
	Non-trauma-focused CBT	–	–	–	–
	Single-component and trauma-focused interventions	SMD −0.51 (95% CI −0.80 to −0.23), $I^2 = 55.9\%$, number of trials = 5, $n = 566$	–	–	–
	Multicomponent and trauma-focused interventions	SMD −0.41 (95% CI −0.80 to −0.02), $I^2 = 48.3\%$, number of trials = 3, $n = 253$	–	–	–
	Single-component non-trauma-focused interventions	–	–	–	–
	Phase-based interventions	–	–	–	–

Outcome	Psychological interventions vs. control	Control		Active control	
		Post treatment	Follow-up after < 6 months	Post treatment	Follow-up after < 6 months
Depression symptoms	All	–	–	–	–
	Trauma-focused CBT	SMD −0.48 (95% CI −0.82 to −0.15), $I^2 = 74.8\%$, number of trials = 6, $n = 827$	–	–	–
	EMDR	–	–	–	–
	IPT	–	–	–	–
	Mindfulness	–	–	–	–
	Non-trauma-focused CBT	–	–	–	–
	Single-component and trauma-focused interventions	SMD −0.47 (95% CI −0.89 to −0.05), $I^2 = 79.1\%$, number of trials = 4, $n = 536$	–	–	–
	Multicomponent and trauma-focused interventions	SMD −0.44 (95% CI −1.34 to 0.45), $I^2 = 79.1\%$, number of trials = 2, $n = 177$	–	–	–
	Single-component non-trauma-focused interventions	–	–	–	–
	Phase-based interventions	–	–	–	–
Anxiety symptoms	All	–	–	–	–
	Trauma-focused CBT	SMD −0.64 (95% CI −1.18 to −0.10), $I^2 = 90.4\%$, number of trials = 5, $n = 691$	–	–	–
	EMDR	–	–	–	–
	IPT	–	–	–	–
	Mindfulness	–	–	–	–
	Non-trauma-focused CBT	–	–	–	–
	Single-component and trauma-focused interventions	SMD −0.70 (95% CI −1.48 to 0.08), $I^2 = 94.3\%$, number of trials = 3, $n = 514$	–	–	–
	Multicomponent and trauma-focused interventions	SMD −0.52 (95% CI −1.53 to 0.50), $I^2 = 83.7\%$, number of trials = 2, $n = 177$	–	–	–
	Single-component non-trauma-focused interventions	–	–	–	–
	Phase-based interventions	–	–	–	–

Childhood sexual abuse

TABLE 42 Effectiveness of psychological interventions for childhood sexual abuse populations

Outcome	Psychological interventions vs. control	Control		Active control	
		Post treatment	Follow-up after < 6 months	Post treatment	Follow-up after < 6 months
PTSD symptoms	All	SMD −0.90 (95% CI −1.43 to −0.37), $I^2 = 89.6\%$, number of trials = 9, $n = 687$	SMD −0.27 (95% CI −0.71, 0.17), $I^2 = 53.6\%$, number of trials = 3, $n = 323$	–	–
	Trauma-focused CBT	SMD −1.22 (95% CI −2.40 to −0.05), $I^2 = 90.3\%$, number of trials = 3, $n = 153$	–	–	–
	EMDR	–	–	–	–
	IPT	–	–	–	–
	Mindfulness	–	–	–	–
	Non-trauma-focused CBT	SMD 0.01 (95% CI −0.20 to 0.21), $I^2 = 0\%$, number of trials = 2, $n = 368$	–	–	–
	Single-component and trauma-focused interventions	SMD −1.19 (95% CI −2.04 to −0.35), $I^2 = 85.5\%$, number of trials = 4, $n = 192$	–	–	–
	Multicomponent and trauma-focused interventions	–	–	–	–
	Single-component non-trauma-focused interventions	SMD −0.54 (95% CI −1.05 to −0.03), $I^2 = 83.4\%$, number of trials = 5, $n = 494$	SMD −0.08 (95% CI −0.31 to 0.15), $I^2 = 0\%$, number of trials = 2, $n = 295$	–	–
	Phase-based interventions	–	–	–	–

Outcome	Psychological interventions vs. control	Control		Active control	
		Post treatment	Follow-up after < 6 months	Post treatment	Follow-up after < 6 months
Depression symptoms	All	SMD −0.82 (95% CI −1.10 to −0.55), $I^2 = 0\%$, number of trials = 5, $n = 234$	SMD −0.52 (95% CI −0.99 to −0.04), $I^2 = 0\%$, number of trials = 2, $n = 76$	–	–
	Trauma-focused CBT	SMD −0.50 (95% CI −0.95 to −0.05), $I^2 = 0\%$, number of trials = 2, $n = 79$	–	–	–
	EMDR	–	–	–	–
	IPT	–	–	–	–
	Mindfulness	–	–	–	–
	Non-trauma-focused CBT	–	–	–	–
	Single-component and trauma-focused interventions	SMD −0.58 (95% CI −0.95 to −0.21), $I^2 = 0\%$, number of trials = 3, $n = 118$	–	–	–
	Multicomponent and trauma-focused interventions	–	–	–	–
	Single-component non-trauma-focused interventions	SMD −0.92 (95% CI −1.36 to −0.48), $I^2 = 0\%$, number of trials = 2, $n = 93$	–	–	–
	Phase-based interventions	–	–	–	–
Anxiety symptoms	All	–	–	–	–
	Trauma-focused CBT	–	–	–	–
	EMDR	–	–	–	–
	IPT	–	–	–	–
	Mindfulness	–	–	–	–
	Non-trauma-focused CBT	–	–	–	–
	Single-component and trauma-focused interventions	SMD −0.87 (95% CI −1.76 to 0.03), $I^2 = 75.2\%$, number of trials = 2, $n = 90$	–	–	–
	Multicomponent and trauma-focused interventions	–	–	–	–
	Single-component non-trauma-focused interventions	–	–	–	–
	Phase-based interventions	–	–	–	–

Refugee populations

TABLE 43 Effectiveness of psychological interventions for refugee populations

Outcome	Psychological interventions vs. control	Control		Active control	
		Post treatment	Follow-up after < 6 months	Post treatment	Follow-up after < 6 months
PTSD symptoms	All	SMD −1.84 (95% CI −2.18 to −1.49), $I^2 = 0\%$, number of trials = 6, $n = 188$	SMD −0.66 (95% CI −1.22 to −0.09), $I^2 = 72.7\%$, number of trials = 3, $n = 235$	–	–
	Trauma-focused CBT	SMD −2.12 (95% CI −2.71 to −1.53), $I^2 = 0\%$, number of trials = 3, $n = 71$	SMD −0.40 (95% CI −0.87 to 0.06), $I^2 = 40.1\%$, number of trials = 2, $n = 165$	–	–
	EMDR	SMD −1.72 (95% CI −2.19 to −1.26), $I^2 = 0\%$, number of trials = 2, $n = 99$	–	SMD −0.15 (95% CI −0.62 to 0.32), $I^2 = 0\%$, number of trials = 2, $n = 71$	SMD −0.15 (95% CI −0.80 to 0.49), $I^2 = 22.4\%$, number of trials = 2, $n = 71$
	IPT	–	–	–	–
	Mindfulness	–	–	–	–
	Non-trauma-focused CBT	–	–	–	–
	Single-component and trauma-focused interventions	SMD −1.87 (95% CI −2.24 to −1.51), $I^2 = 0\%$, number of trials = 5, $n = 170$	SMD −0.67 (95% CI −1.65 to 0.32), $I^2 = 86.3\%$, number of trials = 2, $n = 133$	–	–
	Multicomponent and trauma-focused interventions	–	–	–	–
	Single-component non-trauma-focused interventions	–	–	–	–
	Phase-based interventions	–	–	–	–

Outcome	Psychological interventions vs. control	Control		Active control	
		Post treatment	Follow-up after < 6 months	Post treatment	Follow-up after < 6 months
Depression symptoms	All	SMD −1.56 (95% CI −1.93 to −1.16), $I^2 = 0\%$, number of trials = 5, $n = 148$	SMD −0.73 (95% CI −1.57 to 0.10), $I^2 = 81.3\%$, number of trials = 2, $n = 133$	–	–
	Trauma-focused CBT	SMD −2.03 (95% CI −2.92 to −1.13), $I^2 = 0\%$, number of trials = 2, $n = 31$	SMD −0.73 (95% CI −1.57 to 0.10), $I^2 = 81.3\%$, number of trials = 2, $n = 133$	–	–
	EMDR	SMD −1.46 (95% CI −1.90 to −1.01), $I^2 = 0\%$, number of trials = 2, $n = 99$	–	SMD −0.32 (95% CI −1.23 to 0.59), $I^2 = 47.8\%$, number of trials = 2, $n = 72$	SMD −0.01 (95% CI −0.47 to 0.45), $I^2 = 0\%$, number of trials = 2, $n = 73$
	IPT	–	–	–	–
	Mindfulness	–	–	–	–
	Non-trauma-focused CBT	–	–	–	–
	Single-component and trauma-focused interventions	SMD −1.57 (95% CI −1.97 to −1.17), $I^2 = 0\%$, number of trials = 4, $n = 130$	SMD −0.73 (95% CI −1.57 to 0.10), $I^2 = 81.3\%$, number of trials = 2, $n = 133$	–	–
	Multicomponent and trauma-focused interventions	–	–	–	–
	Single-component non-trauma-focused interventions	–	–	–	–
	Phase-based interventions	–	–	–	–

continued

TABLE 43 Effectiveness of psychological interventions for refugee populations (*continued*)

Outcome	Psychological interventions vs. control	Control		Active control	
		Post treatment	Follow-up after < 6 months	Post treatment	Follow-up after < 6 months
Anxiety symptoms	All	–	–	–	–
	Trauma-focused CBT	–	–	–	–
	EMDR	–	–		
	IPT	–	–	–	–
	Mindfulness	–	–	–	–
	Non-trauma-focused CBT	–	–	–	–
	Single-component and trauma-focused interventions	–	–	–	–
	Multicomponent and trauma-focused interventions	–	–	–	–
	Single-component non-trauma-focused interventions	–	–	–	–
	Phase-based interventions	–	–	–	–

Domestic violence

TABLE 44 Effectiveness of psychological interventions for domestic violence populations

Outcome	Psychological interventions vs. control	Control		Active control	
		Post treatment	Follow-up after < 6 months	Post treatment	Follow-up after < 6 months
PTSD symptoms	All	–	–	–	–
	Trauma-focused CBT	SMD −2.92 (95% CI −3.45 to −2.39), $I^2 = 0\%$, number of trials = 2, $n = 117$	–	–	–
	EMDR	–	–	–	–
	IPT	–	–	–	–
	Mindfulness	–	–	–	–
	Non-trauma-focused CBT	–	–	–	–
	Single-component and trauma-focused interventions	–	–	–	–
	Multicomponent and trauma-focused interventions	–	–	–	–
	Single-component non-trauma-focused interventions	–	–	–	–
	Phase-based interventions	–	–	–	–
Depression symptoms	All	–	–	–	–
	Trauma-focused CBT	SMD −3.24 (95% CI −4.40 to −2.09), $I^2 = 66.6\%$, number of trials = 2, $n = 117$	–	–	–
	EMDR	–	–	–	–
	IPT	–	–	–	–
	Mindfulness	–	–	–	–
	Non-trauma-focused CBT	–	–	–	–

continued

TABLE 44 Effectiveness of psychological interventions for domestic violence populations (*continued*)

Outcome	Psychological interventions vs. control	Control		Active control	
		Post treatment	Follow-up after < 6 months	Post treatment	Follow-up after < 6 months
	Single-component and trauma-focused interventions	–	–	–	–
	Multicomponent and trauma-focused interventions	–	–	–	–
	Single-component non-trauma-focused interventions	–	–	–	–
	Phase-based interventions	–	–	–	–
Anxiety symptoms	All	–	–	–	–
	Trauma-focused CBT	–	–	–	–
	EMDR	–	–	–	–
	IPT	–	–	–	–
	Mindfulness	–	–	–	–
	Non-trauma-focused CBT	–	–	–	–
	Single-component and trauma-focused interventions	–	–	–	–
	Multicomponent and trauma-focused interventions	–	–	–	–
	Single-component non-trauma-focused interventions	–	–	–	–
	Phase-based interventions	–	–	–	–

Pharmacological interventions

All studies included in analyses were conducted in veteran populations.

Post-traumatic stress disorder

TABLE 45 Effectiveness of pharmacological interventions on PTSD outcomes for veteran populations

Pharmacological interventions vs. placebo	Placebo	
	Post treatment	Follow-up after < 6 months
All	–	–
Antidepressants	SMD −0.50 (95% CI −1.22 to 0.22), $I^2 = 87\%$, number of trials = 6, $n = 338$	–
SSRIs	SMD −0.61 (95% CI −1.64 to 0.41), $I^2 = 92.2\%$, number of trials = 4, $n = 293$	–
Antipsychotics	SMD −0.45 (95% CI −0.85 to −0.05), $I^2 = 51.2\%$, number of trials = 5, $n = 365$	–
Anticonvulsants	SMD −0.16 (95% CI −0.77 to 0.45), $I^2 = 45.5\%$, number of trials = 2, $n = 106$	–
Prazosin	SMD −0.52 (95% CI −1.03 to −0.02), $I^2 = 41.4\%$, number of trials = 3, $n = 110$	–

Depression

TABLE 46 Effectiveness of pharmacological interventions on depression outcomes for veteran populations

Pharmacological interventions vs. placebo	Placebo	
	Post treatment	Follow-up after < 6 months
All	–	–
Antidepressants	SMD 0.07 (95% CI −0.20 to 0.34), $I^2 = 0\%$, number of trials = 3, $n = 220$	–
SSRIs	–	–
Antipsychotics	SMD −0.71 (95% CI −1.44 to 0.03), $I^2 = 58.3\%$, number of trials = 2, $n = 266$	–
Anticonvulsants	SMD 0.02 (95% CI −0.37 to 0.40), $I^2 = 0\%$, number of trials = 2, $n = 106$	–
Prazosin	SMD −0.37 (95% CI −1.21 to 0.47), $I^2 = 68.5\%$, number of trials = 2, $n = 76$	–

Psychosis

TABLE 47 Effectiveness of pharmacological interventions on psychosis outcomes for veteran populations

Outcome	Pharmacological interventions vs. placebo	Placebo	
		Post treatment	Follow-up after < 6 months
PANSS-positive	All	–	–
	Antidepressants	–	–
	SSRIs	–	–
	Antipsychotics[a]	Mean difference −1.75 (95% CI −4.04 to 0.54), $I^2 = 76.9\%$, number of trials = 3, $n = 329$	–
	Anticonvulsants	–	–
	Prazosin	–	–
PANSS-negative	All	–	–
	Antidepressants	–	–
	SSRIs	–	–
	Antipsychotics[a]	Mean difference 0.54 (95% CI −0.14 to 1.22), $I^2 = 0\%$, number of trials = 2, $n = 284$	–
	Anticonvulsants	–	–
	Prazosin	–	–
PANSS: total	All	–	–
	Antidepressants	–	–
	SSRIs	–	–
	Antipsychotics[a]	Mean difference 0.04 (95% CI −2.08 to 2.16), $I^2 = 0\%$, number of trials = 2, $n = 284$	–
	Anticonvulsants	–	–
	Prazosin	–	–
PANSS: general psychopathology	All	–	–
	Antidepressants	–	–
	SSRIs	–	–
	Antipsychotics[a]	Mean difference −0.18 (95% CI −1.39 to 1.03), $I^2 = 0\%$, number of trials = 2, $n = 284$	–
	Anticonvulsants	–	–
	Prazosin	–	–

a All antipsychotics were risperidone.

Sleep quality

TABLE 48 Effectiveness of pharmacological interventions on sleep quality outcomes for veteran populations

Pharmacological interventions vs. placebo	Placebo	
	Post treatment	Follow-up after < 6 months
All	–	–
Antidepressants	–	–
SSRIs	–	–
Antipsychotics	–	–
Anticonvulsants	–	–
Prazosin	SMD −0.73 (95% CI −1.12 to −0.34), $I^2 = 0\%$, number of trials = 3, $n = 109$	–

Appendix 10 Forest plots of results of effectiveness meta-analyses

Psychological interventions versus control in all trauma populations

Post-traumatic stress disorder symptoms

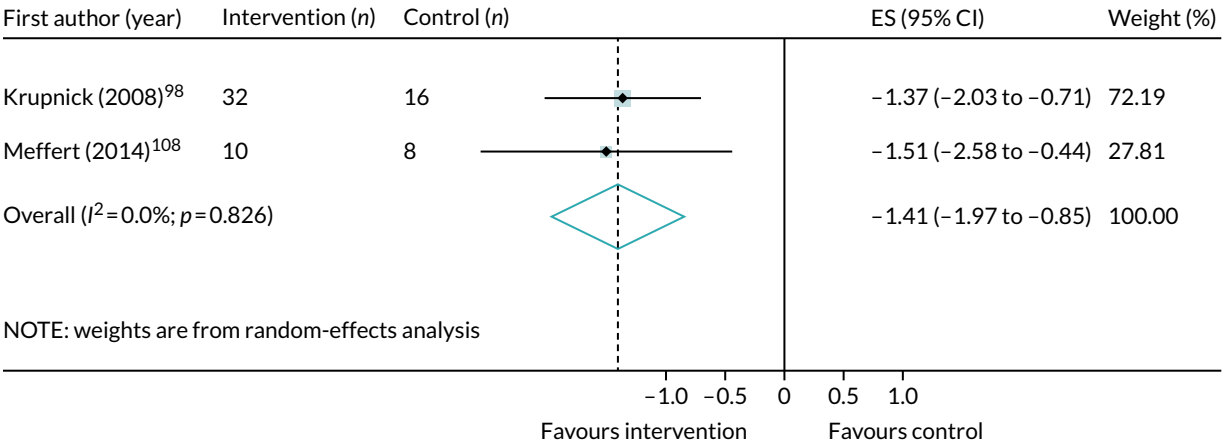

FIGURE 27 Meta-analysis of post-treatment effect size (ES) for PTSD total symptoms, comparing all IPT interventions with control.

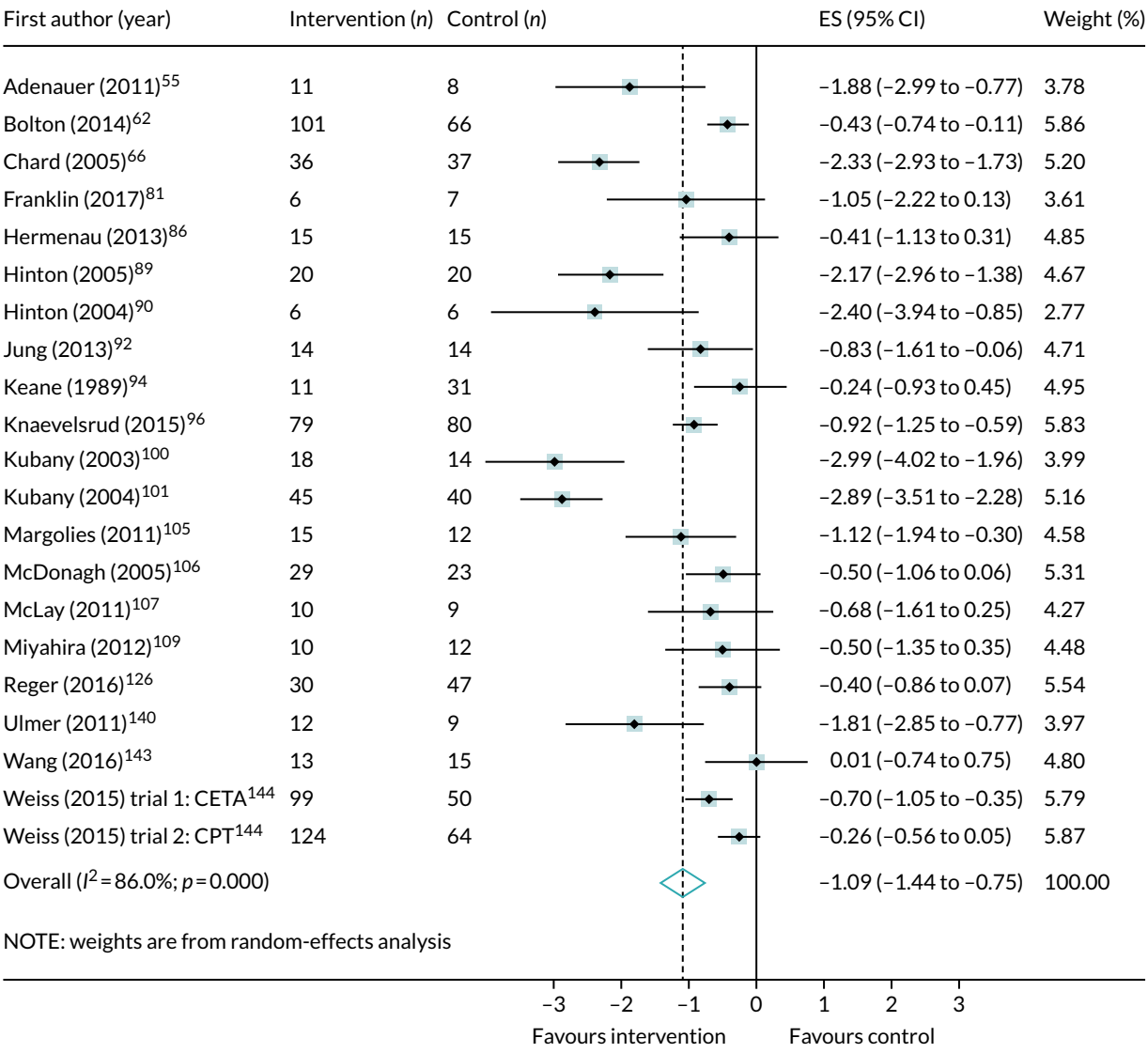

FIGURE 28 Meta-analysis of post-treatment effect size (ES) for PTSD total symptoms, comparing all trauma-focused CBT interventions with control. CETA, common elements treatment approach; CPT, cognitive treatment therapy.

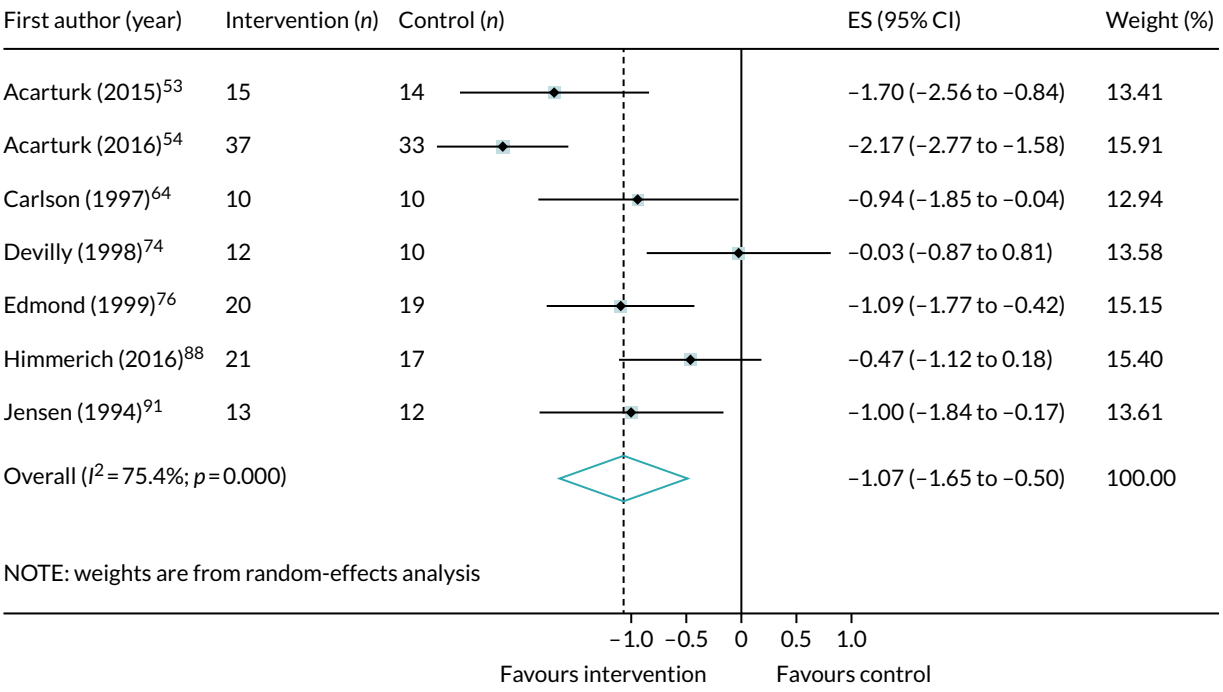

FIGURE 29 Meta-analysis of post-treatment effect size (ES) for PTSD total symptoms, comparing all EMDR interventions with control.

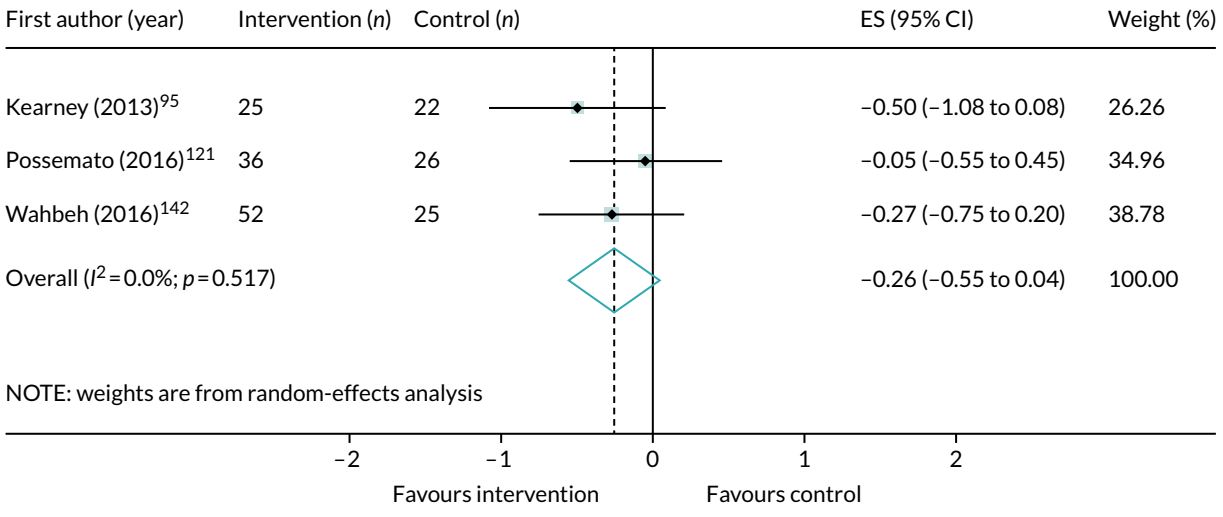

FIGURE 30 Meta-analysis of post-treatment effect size (ES) for PTSD total symptoms, comparing all mindfulness interventions with control.

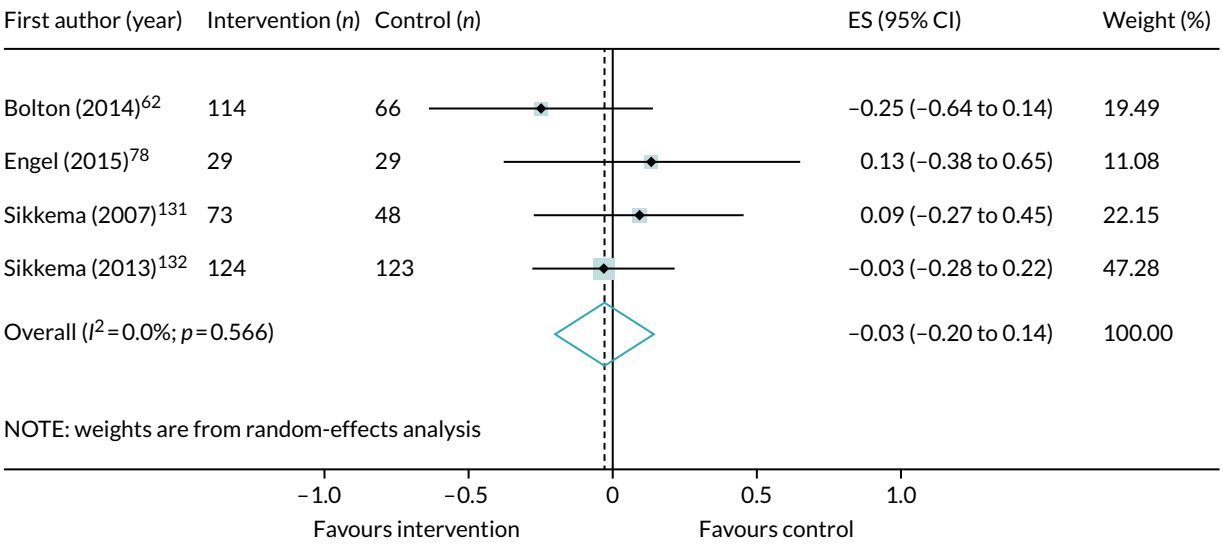

FIGURE 31 Meta-analysis of post-treatment effect size (ES) for PTSD total symptoms, comparing all non-trauma-focused CBT interventions with control.

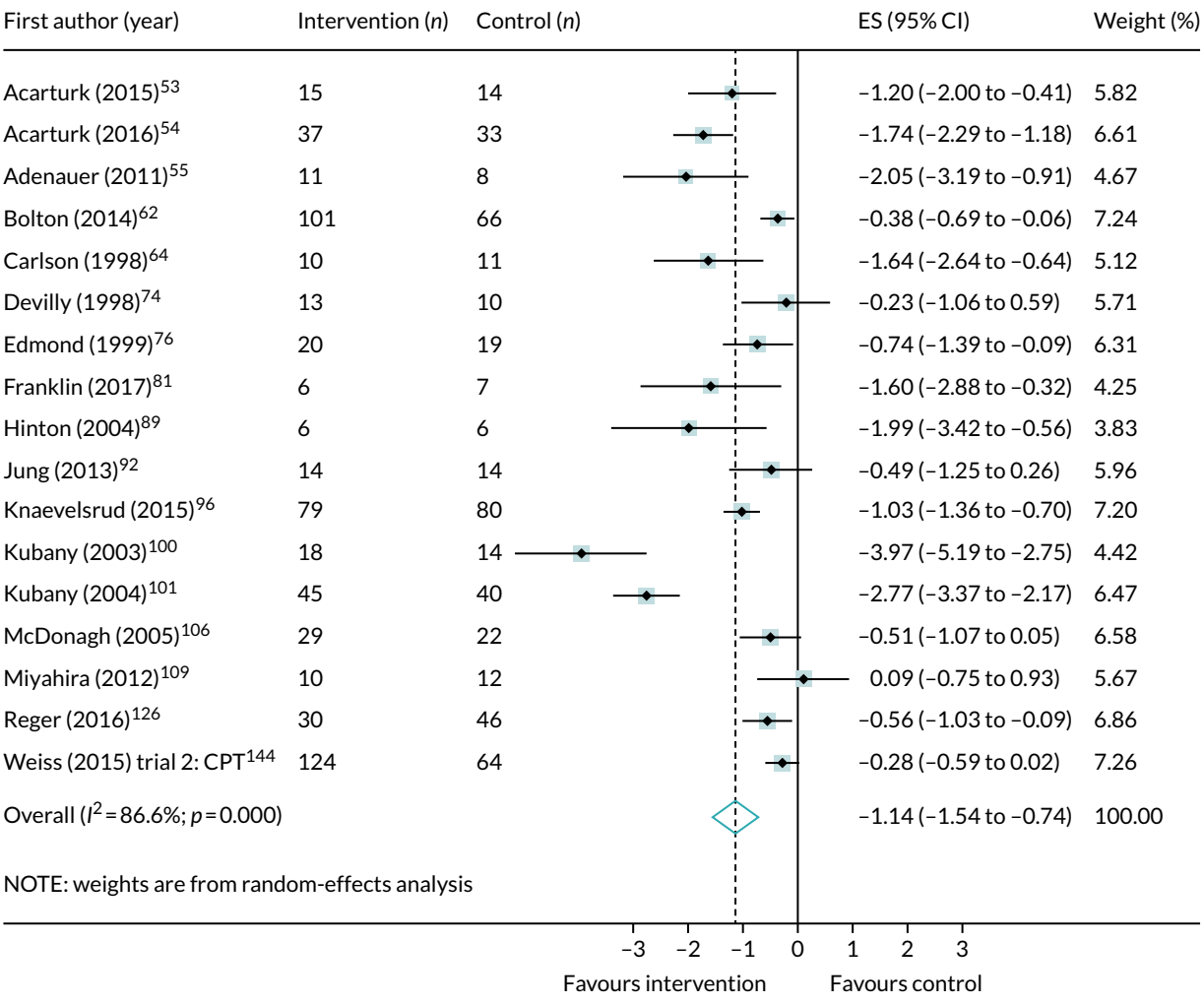

FIGURE 32 Meta-analysis of post-treatment effect size (ES) for PTSD total symptoms, comparing all single-component trauma-focused interventions with control. CPT, cognitive processing therapy.

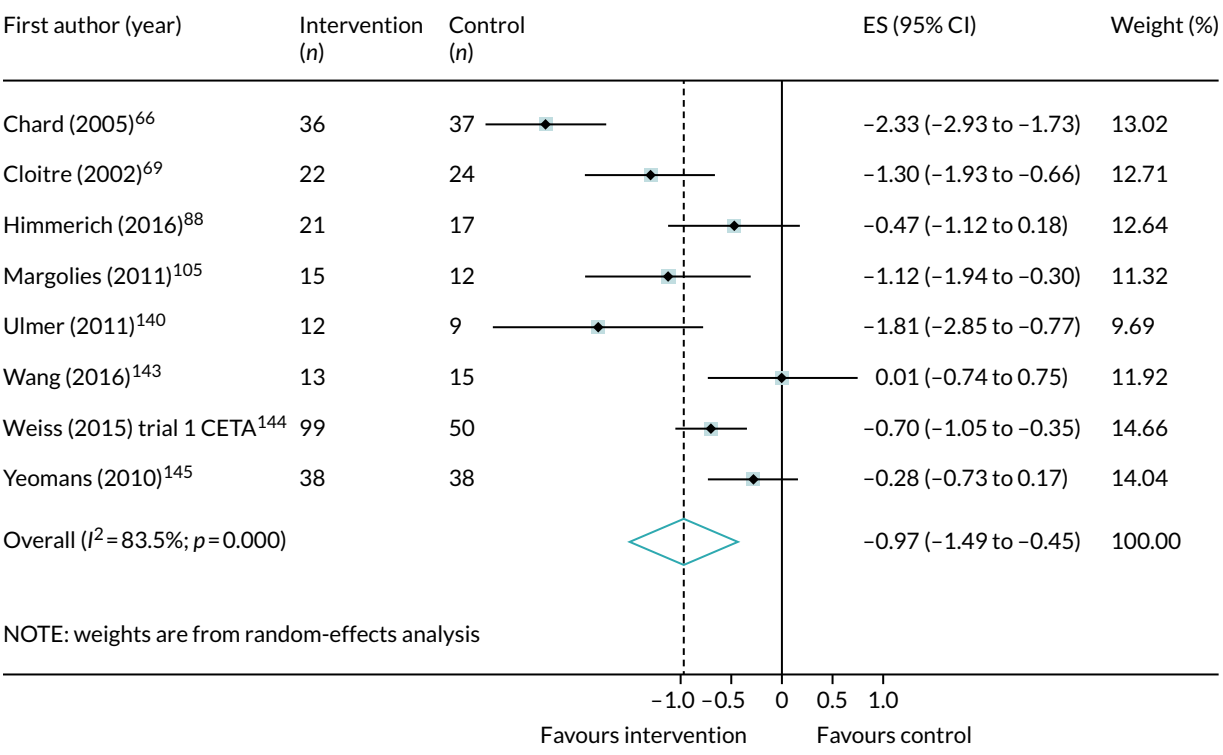

FIGURE 33 Meta-analysis of post-treatment effect size (ES) for PTSD total symptoms, comparing all multicomponent trauma-focused interventions with control. CETA, common elements treatment approach.

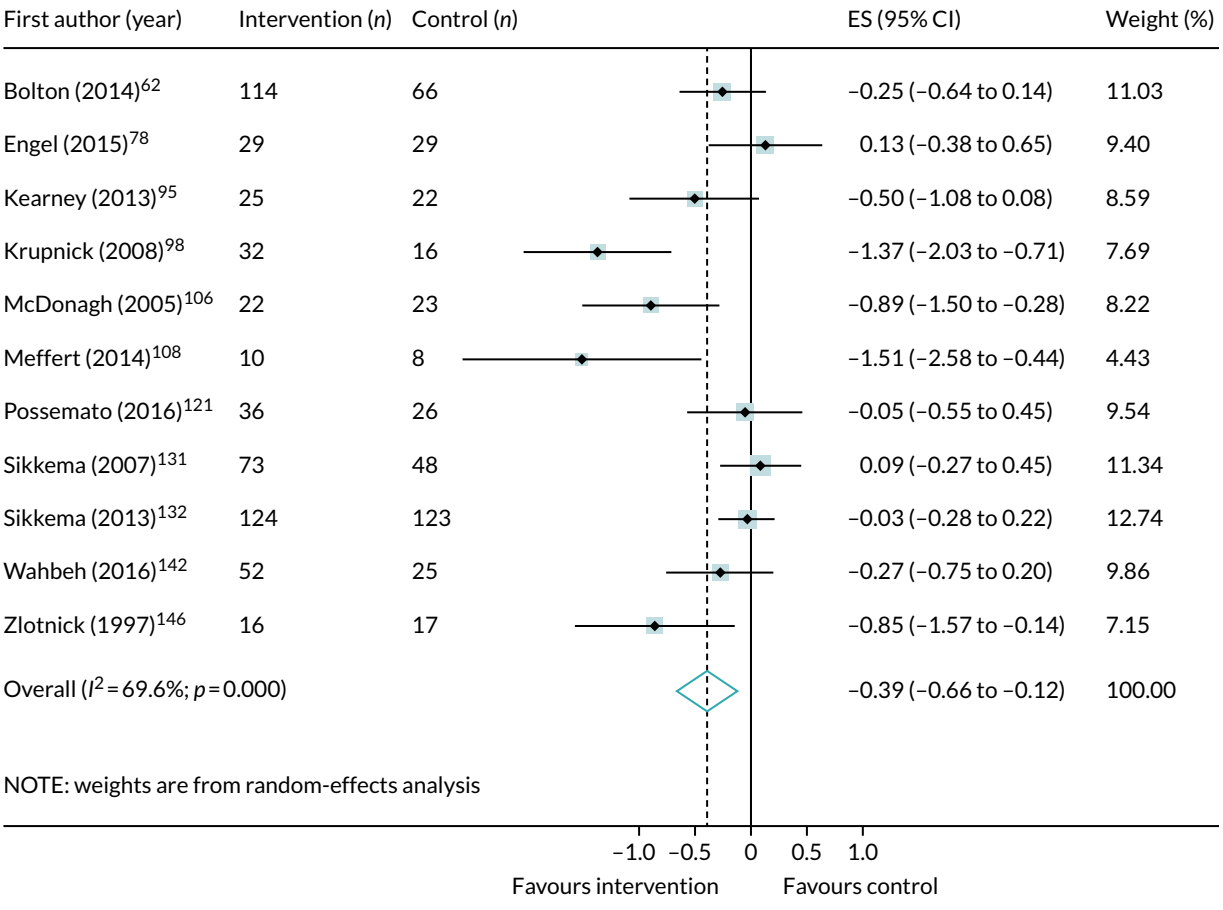

FIGURE 34 Meta-analysis of post-treatment effect size (ES) for PTSD total symptoms, comparing all single-component non-trauma-focused interventions with control.

Complex post-traumatic stress disorder symptoms

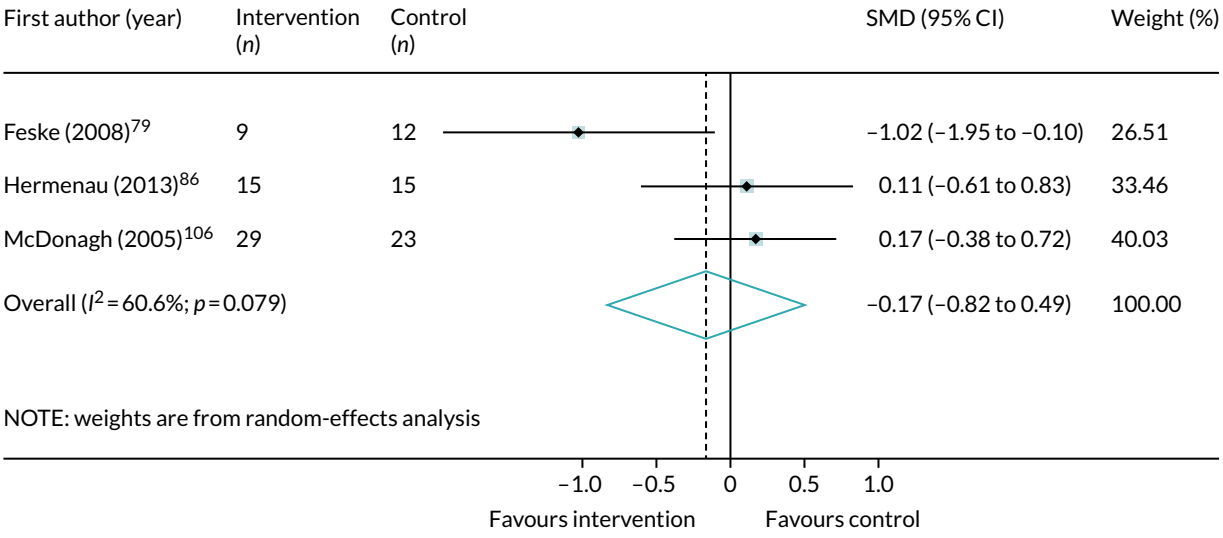

FIGURE 35 Meta-analysis of post-treatment SMD for emotional dysregulation, comparing trauma-focused CBT interventions with control.

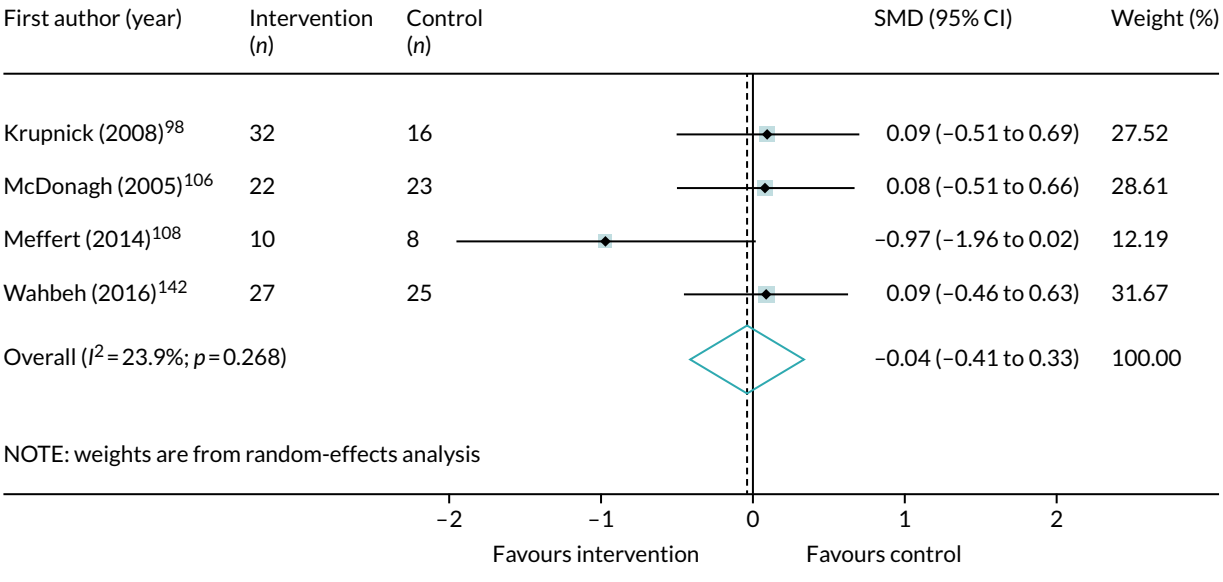

FIGURE 36 Meta-analysis of post-treatment SMD for emotional dysregulation, comparing single-component and non-trauma-focused interventions with control.

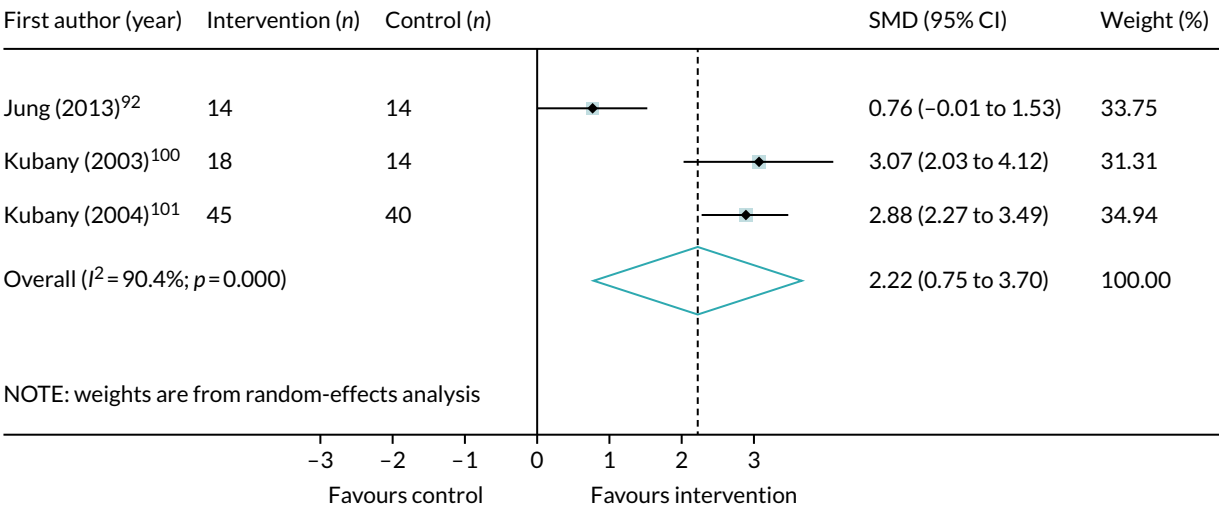

FIGURE 37 Meta-analysis of post-treatment SMD for negative self-concept, comparing all trauma-focused CBT interventions with control (positive SMD equals improvement in symptoms).

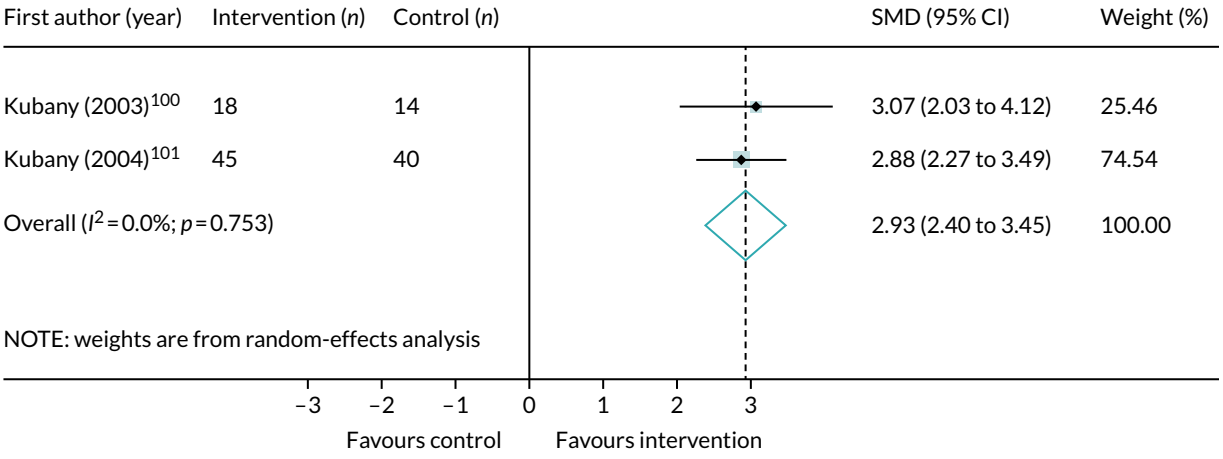

FIGURE 38 Meta-analysis of post-treatment SMD for negative self-concept, comparing all multicomponent and trauma-focused interventions with control (positive SMD equals improvement in symptoms).

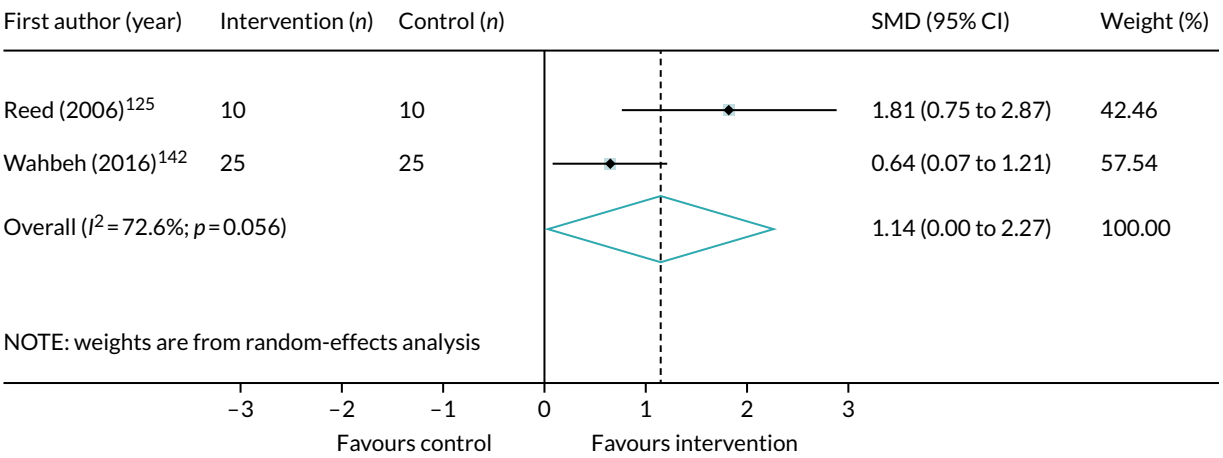

FIGURE 39 Meta-analysis of post-treatment SMD for negative self-concept, comparing all single-component and non-trauma-focused interventions with control (positive SMD equals improvement in symptoms).

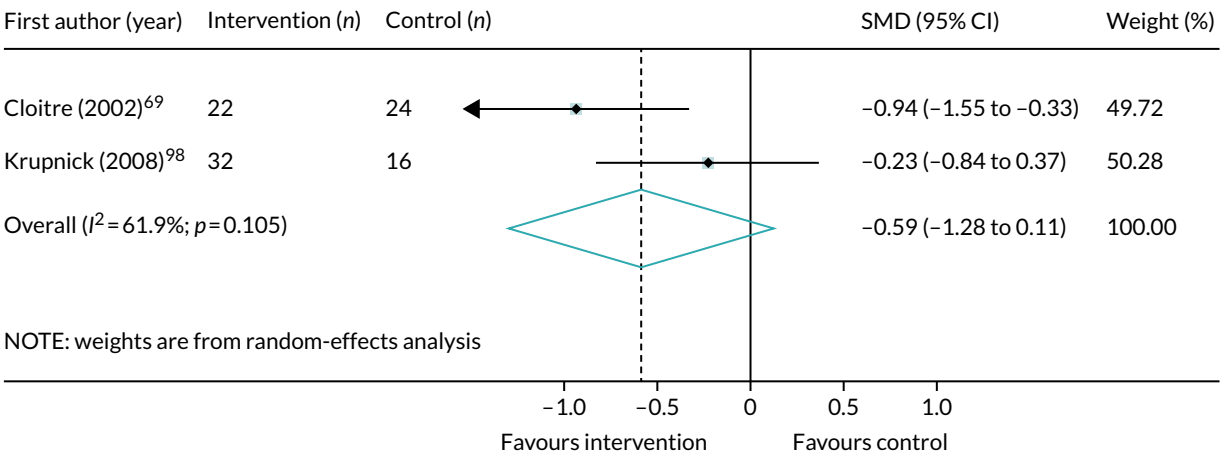

FIGURE 40 Meta-analysis of post-treatment SMD for interpersonal problems, comparing all psychological interventions with control.

Depression symptoms

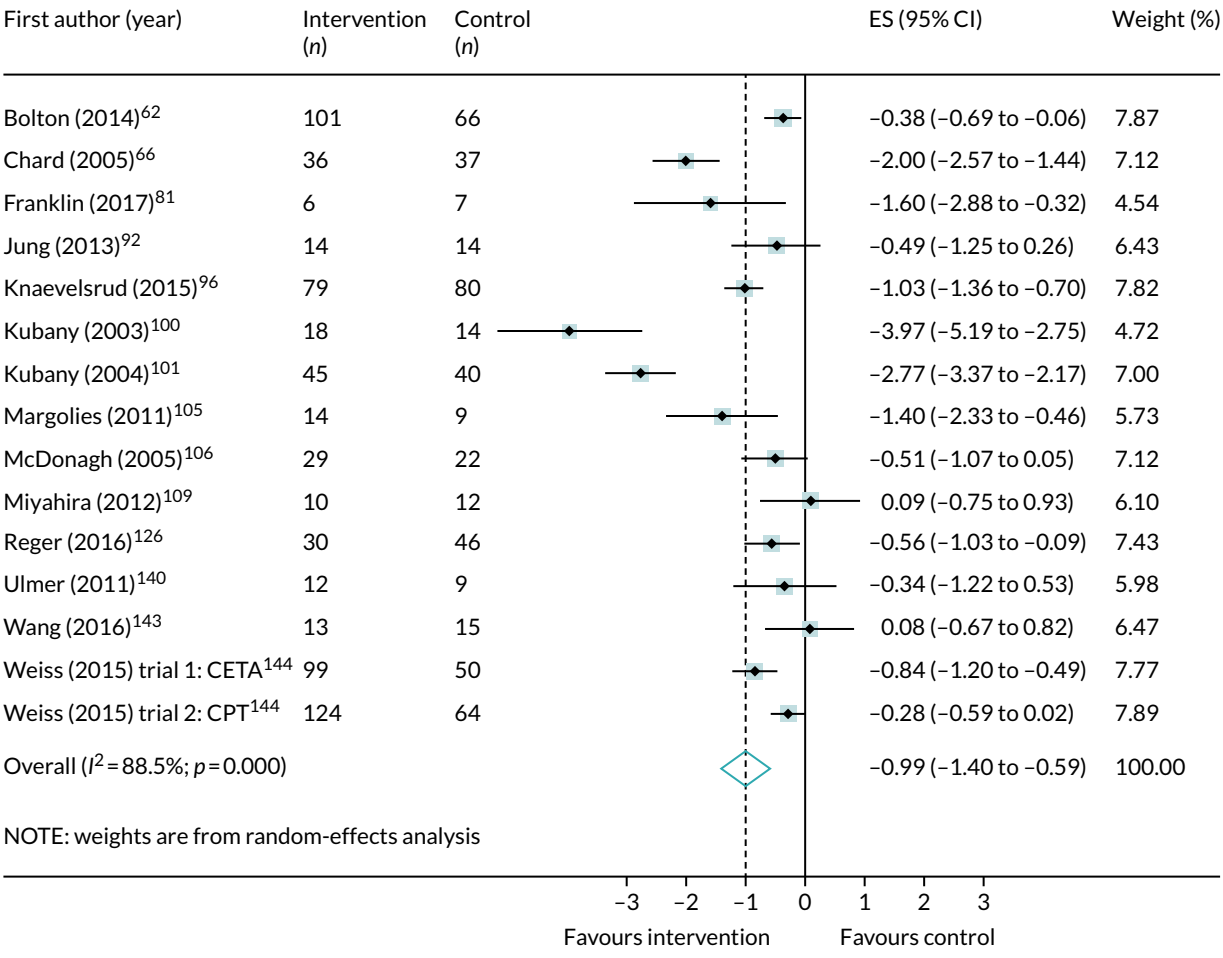

FIGURE 41 Meta-analysis of post-treatment effect size (ES) for depression symptoms, comparing all trauma-focused CBT interventions with control. CETA, common elements treatment approach; CPT, cognitive treatment therapy.

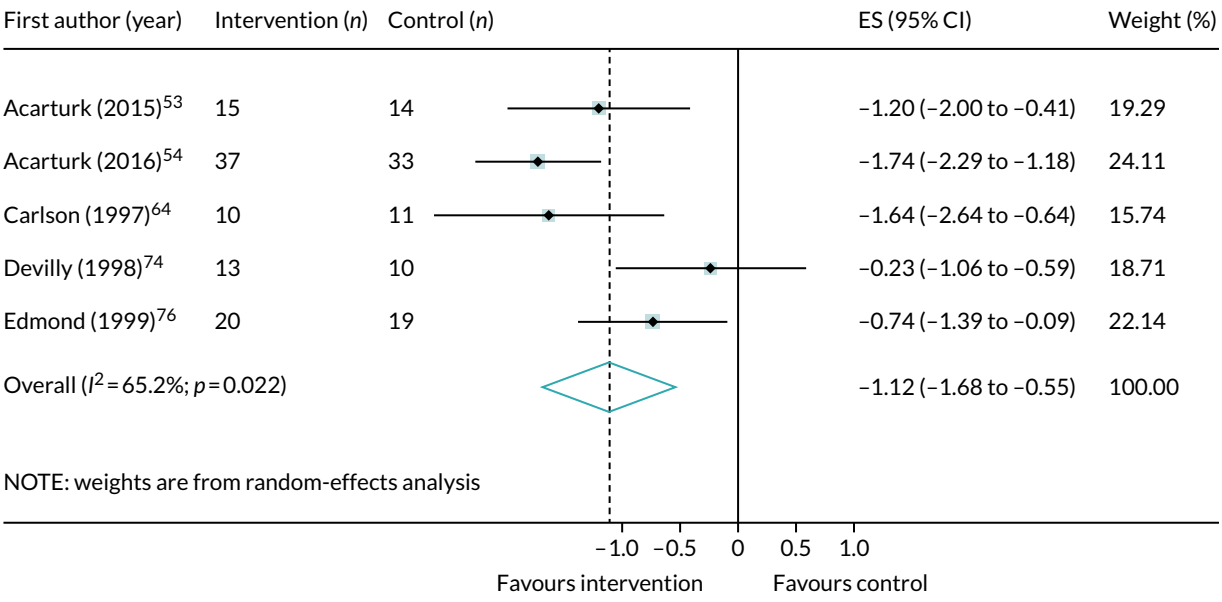

FIGURE 42 Meta-analysis of post-treatment effect size (ES) for depression symptoms, comparing all EMDR interventions with control.

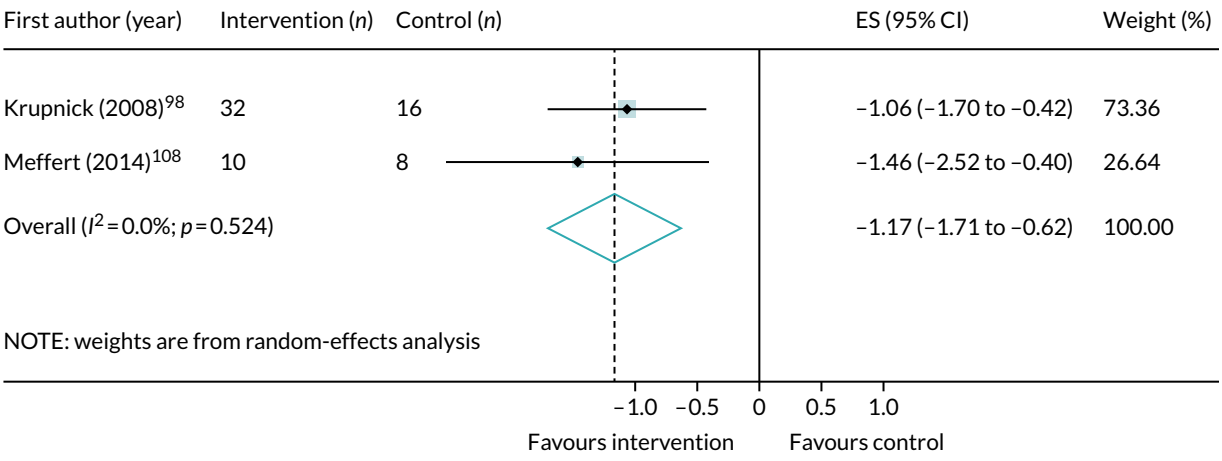

FIGURE 43 Meta-analysis of post-treatment effect size (ES) for depression symptoms, comparing all IPT interventions with control.

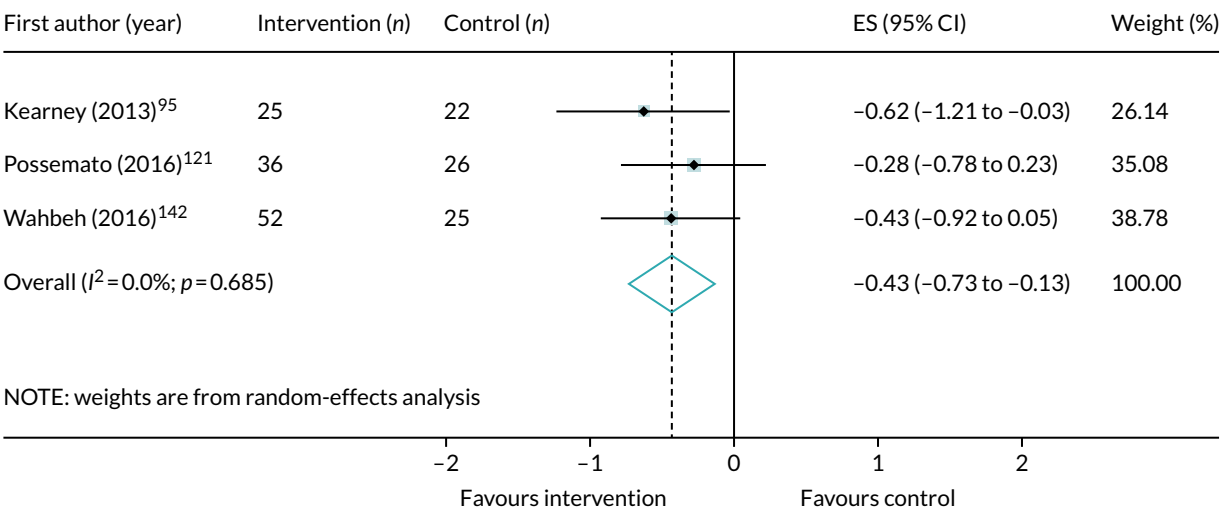

FIGURE 44 Meta-analysis of post-treatment effect size (ES) for depression symptoms, comparing all mindfulness interventions with control.

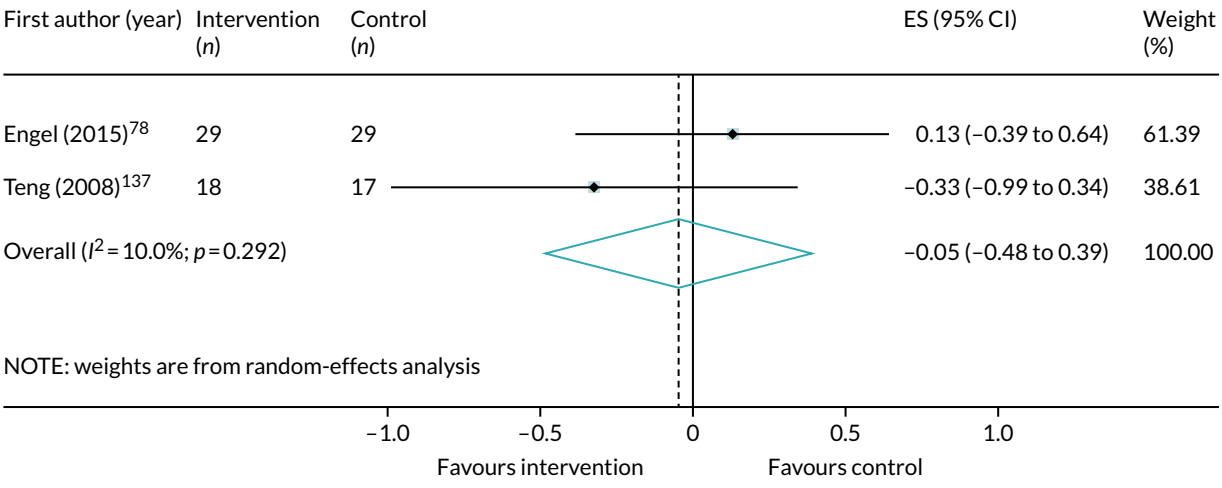

FIGURE 45 Meta-analysis of post-treatment effect size (ES) for depression symptoms, comparing all non-trauma-focused CBT interventions with control.

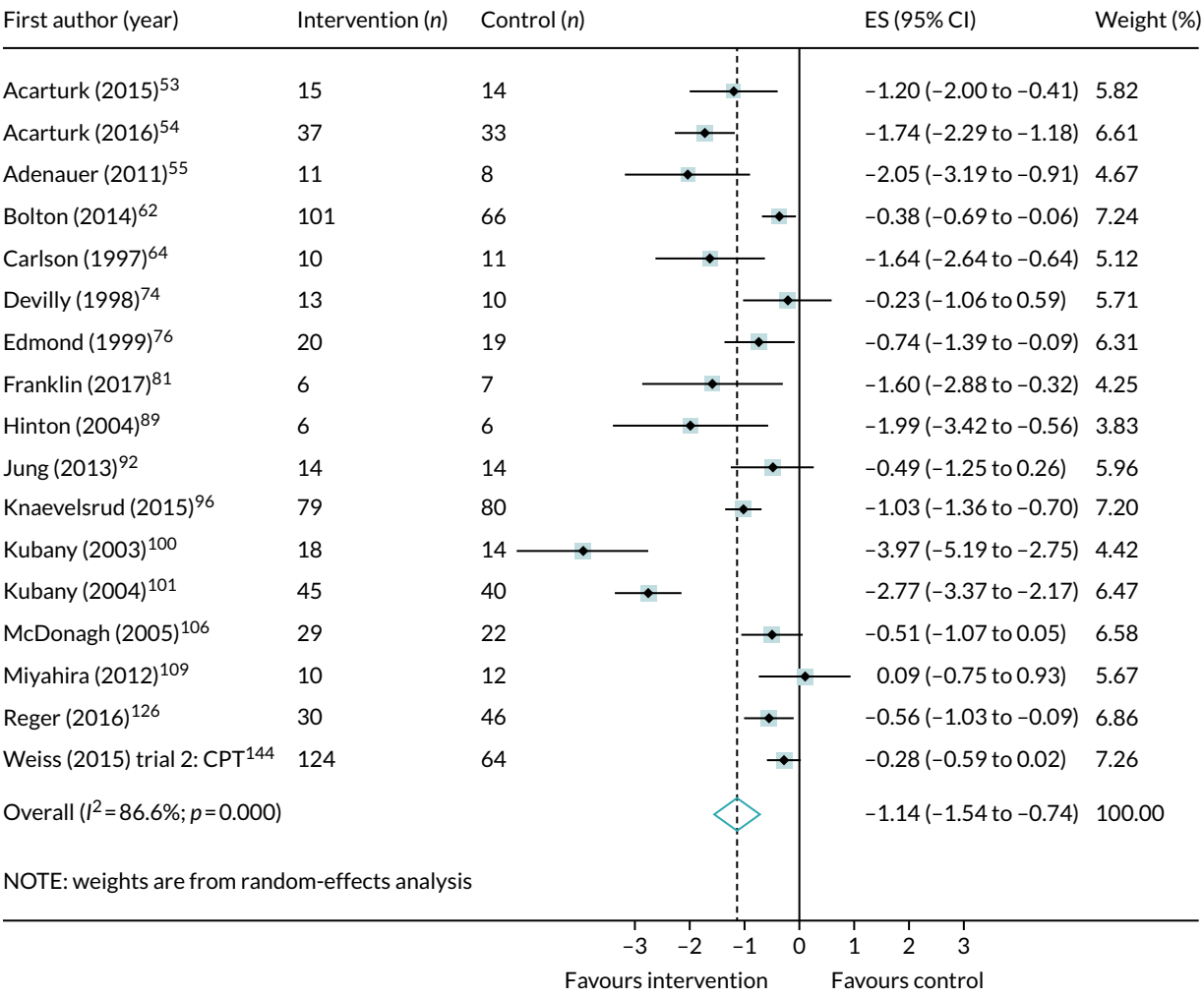

FIGURE 46 Meta-analysis of post-treatment effect size (ES) for depression symptoms, comparing all single-component and trauma-focused CBT interventions with control. CPT, cognitive processing therapy.

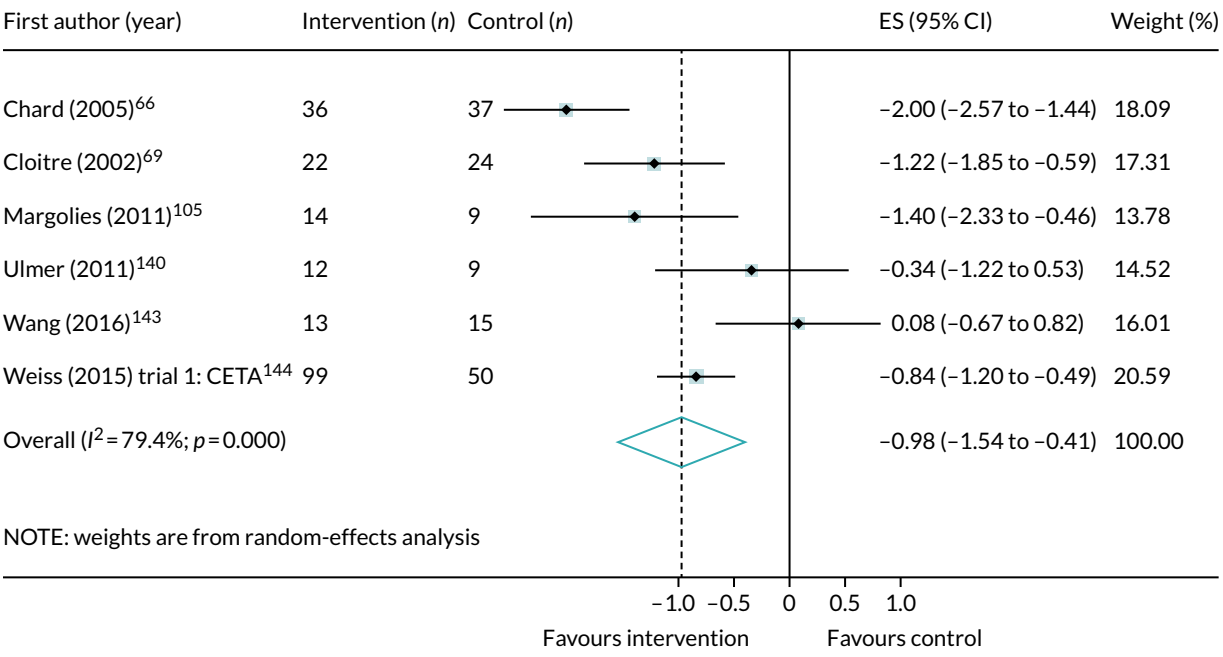

FIGURE 47 Meta-analysis of post-treatment effect size (ES) for depression symptoms, comparing all multicomponent and trauma-focused interventions with control. CETA, common elements treatment approach.

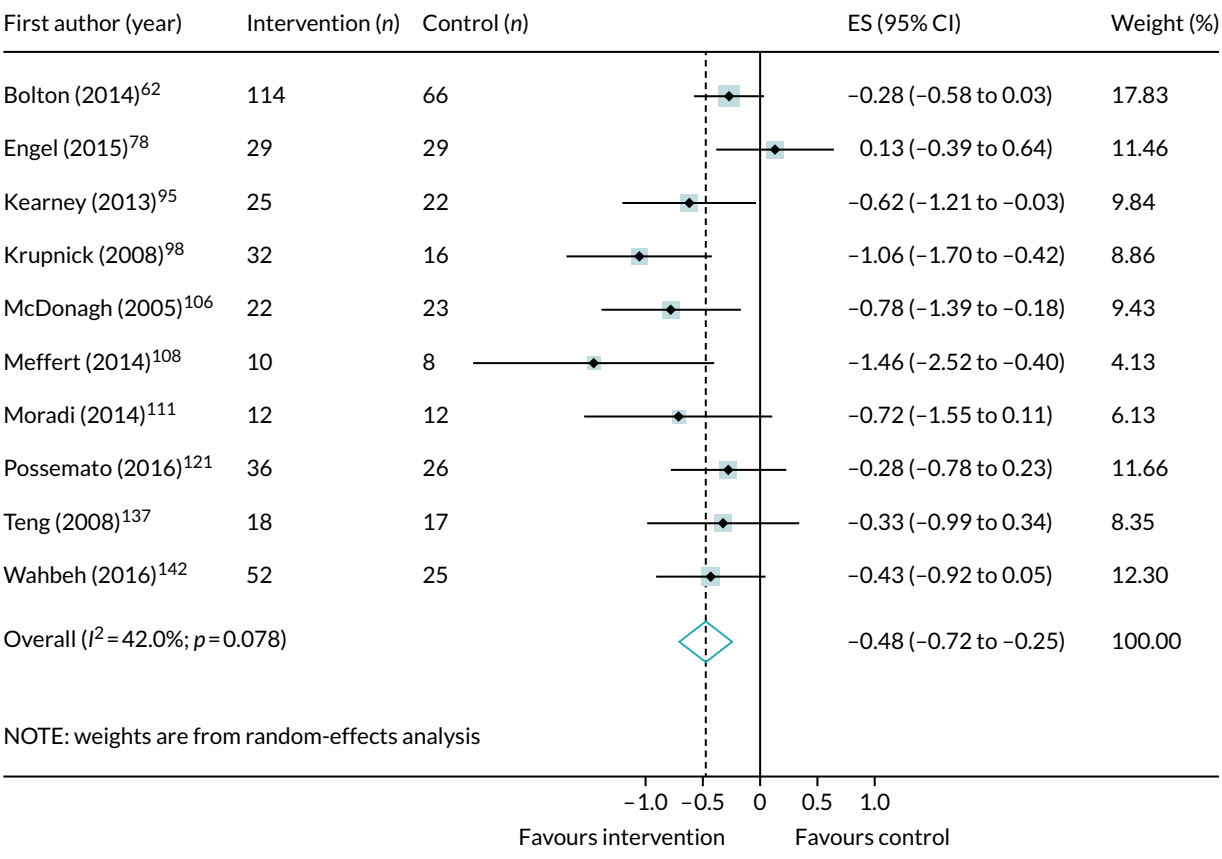

FIGURE 48 Meta-analysis of post-treatment effect size (ES) for depression symptoms, comparing all single-component and non-trauma-focused interventions with control.

Anxiety symptoms

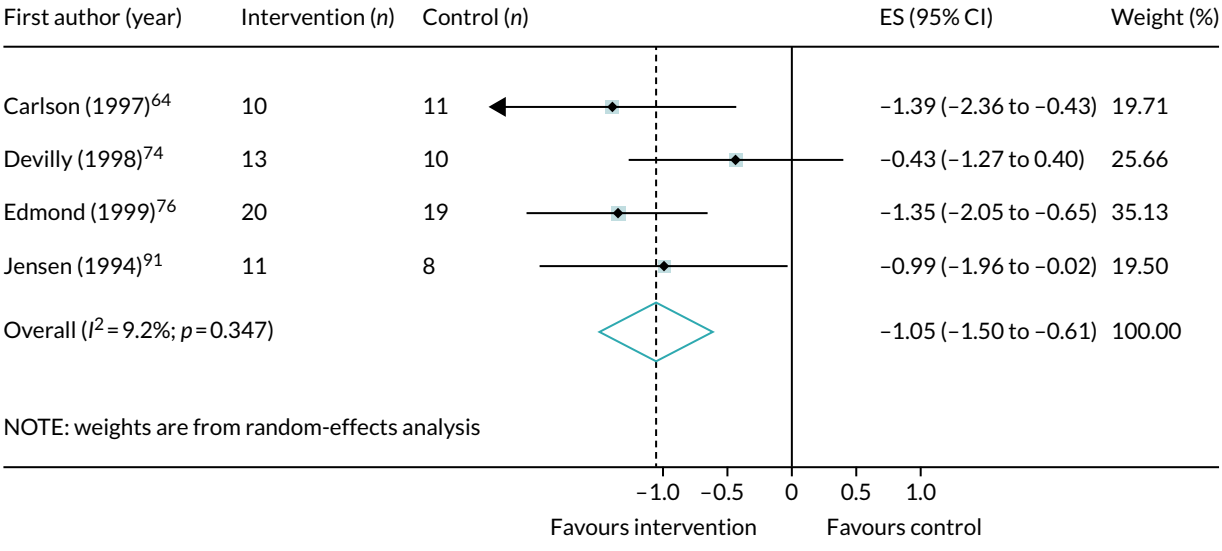

FIGURE 49 Meta-analysis of post-treatment effect size (ES) for anxiety symptoms, comparing EMDR interventions with control.

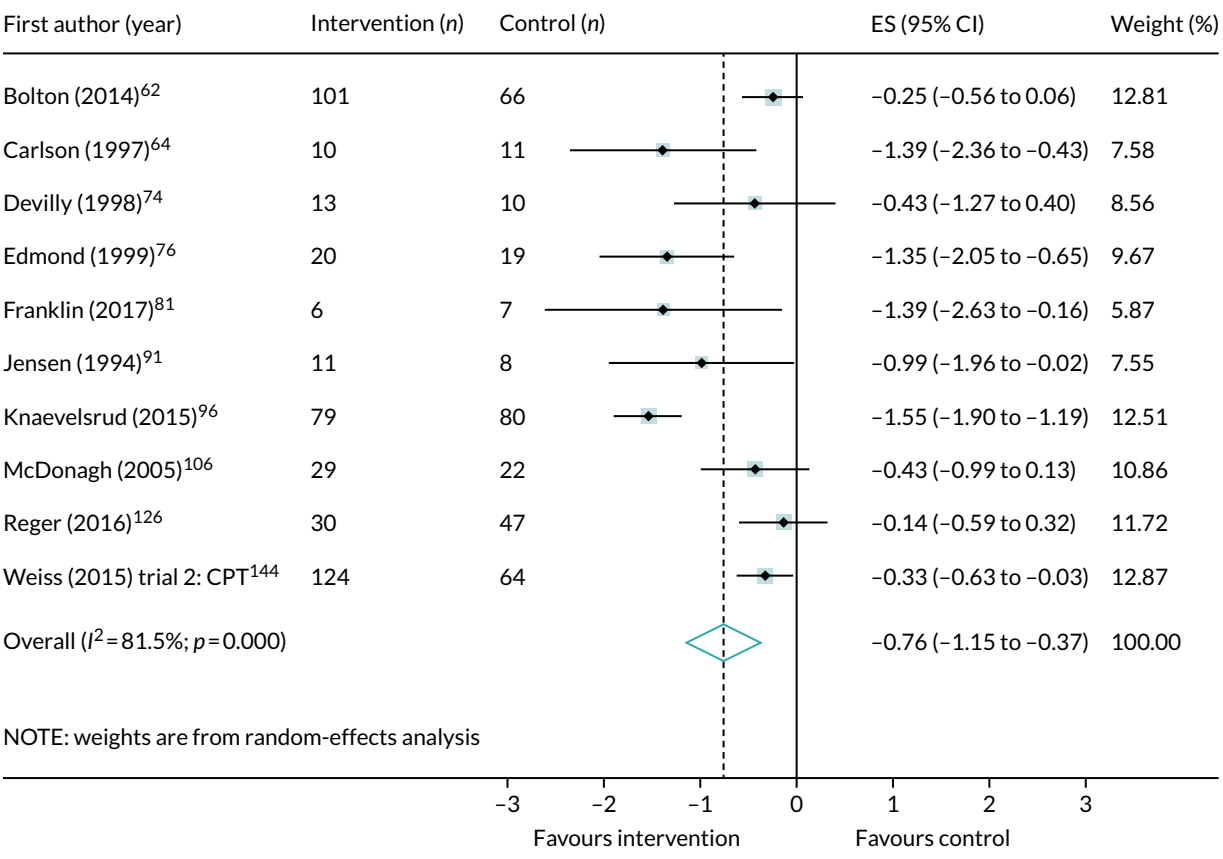

FIGURE 50 Meta-analysis of post-treatment effect size (ES) for anxiety symptoms, comparing single-component and trauma-focused interventions with control. CPT, cognitive processing therapy.

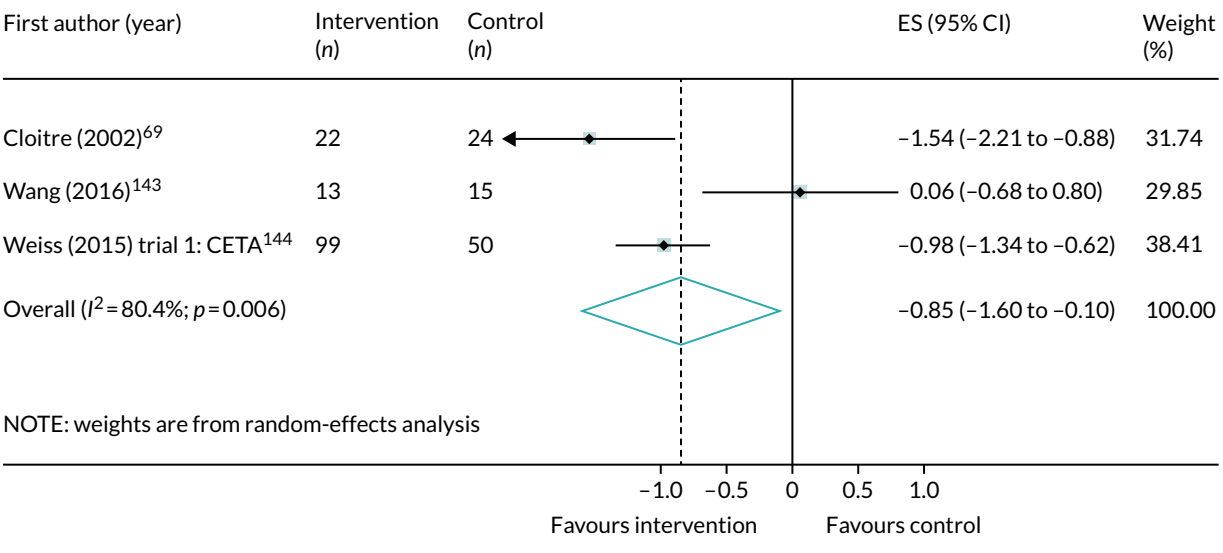

FIGURE 51 Meta-analysis of post-treatment effect size (ES) for anxiety symptoms, comparing multicomponent and trauma-focused interventions with control. CETA, common elements treatment approach.

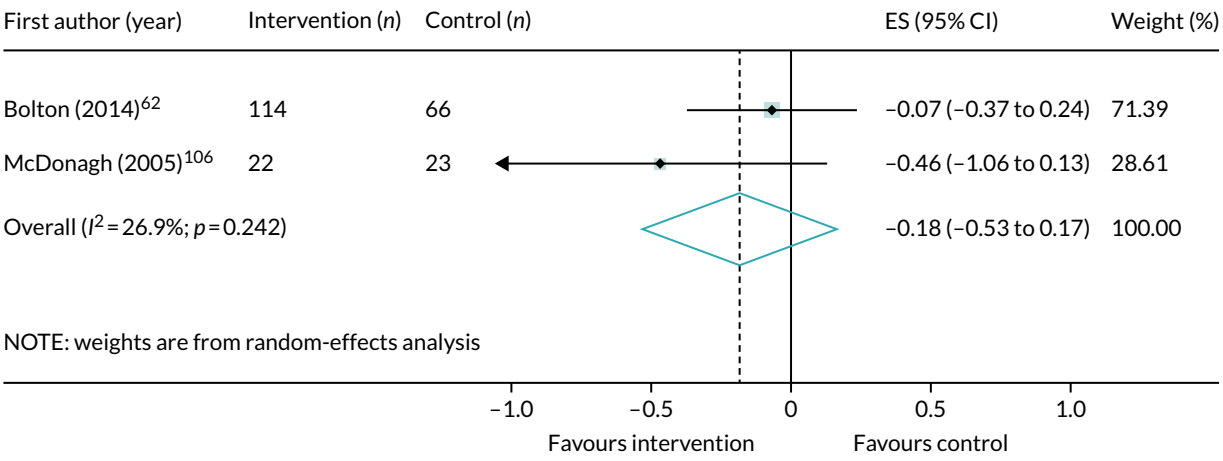

FIGURE 52 Meta-analysis of post-treatment effect size (ES) for anxiety symptoms, comparing single-component and non-trauma-focused interventions with control.

Quality of life

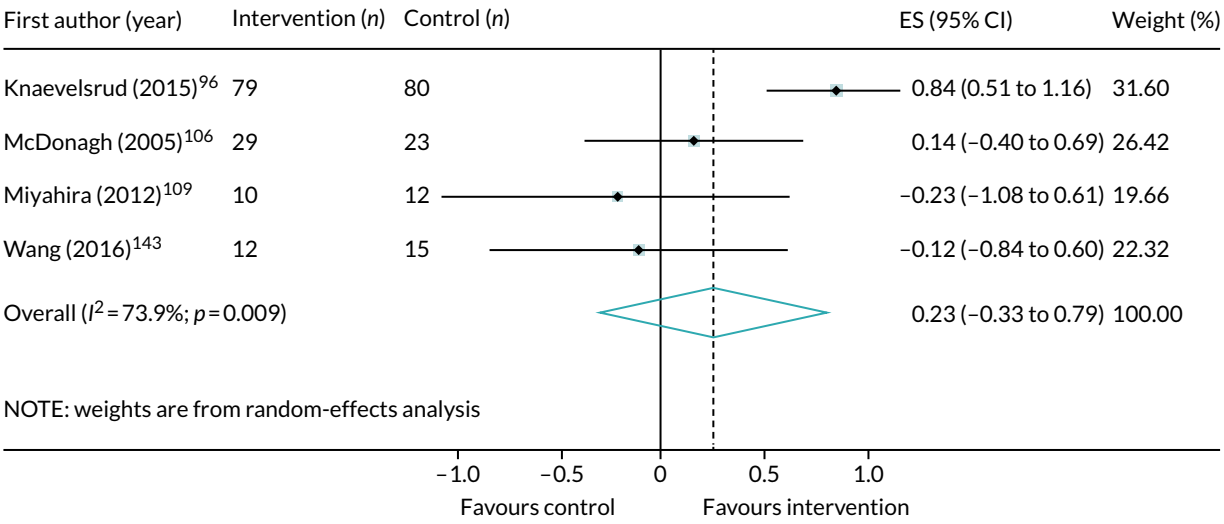

FIGURE 53 Meta-analysis of post-treatment effect size (ES) for quality of life, comparing trauma-focused CBT interventions with control (positive ES favours intervention).

Sleep quality

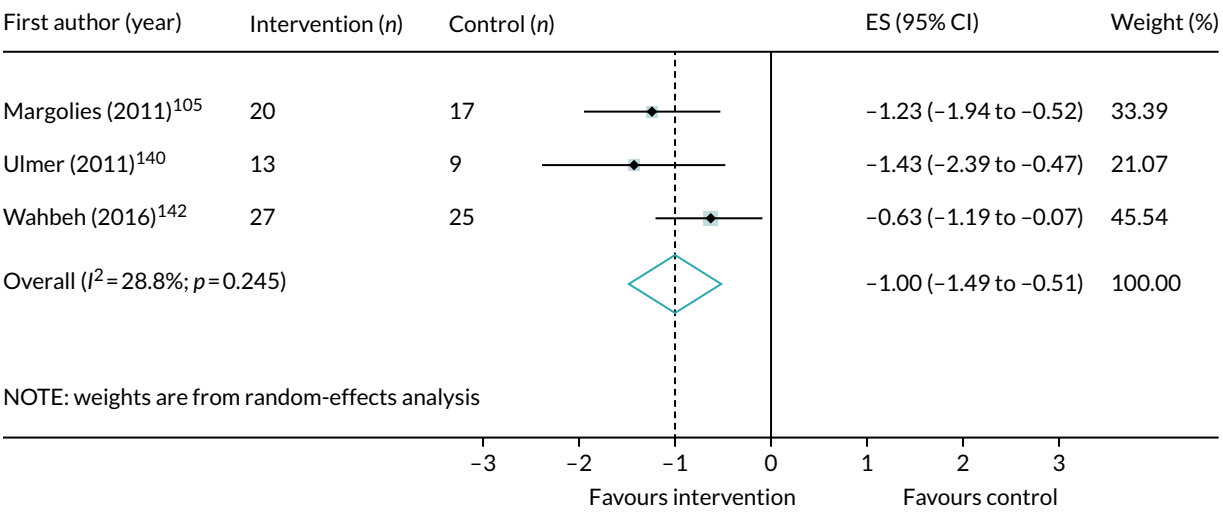

FIGURE 54 Meta-analysis of post-treatment effect size (ES) for sleep quality, comparing all psychological interventions with control.

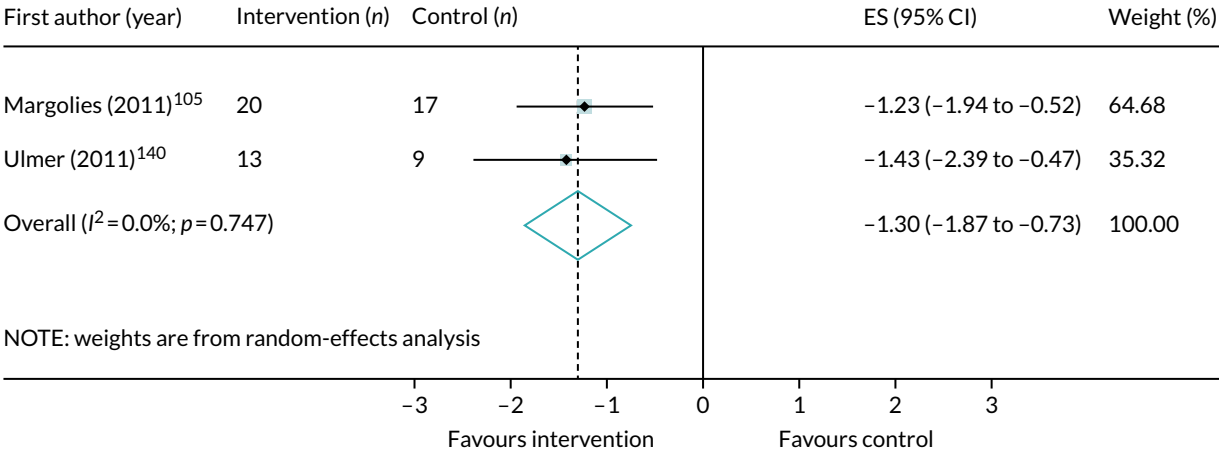

FIGURE 55 Meta-analysis of post-treatment effect size (ES) for sleep quality, comparing trauma-focused CBT interventions with control.

Psychological interventions versus control in trauma subgroups

Veterans

Post-traumatic stress disorder symptoms

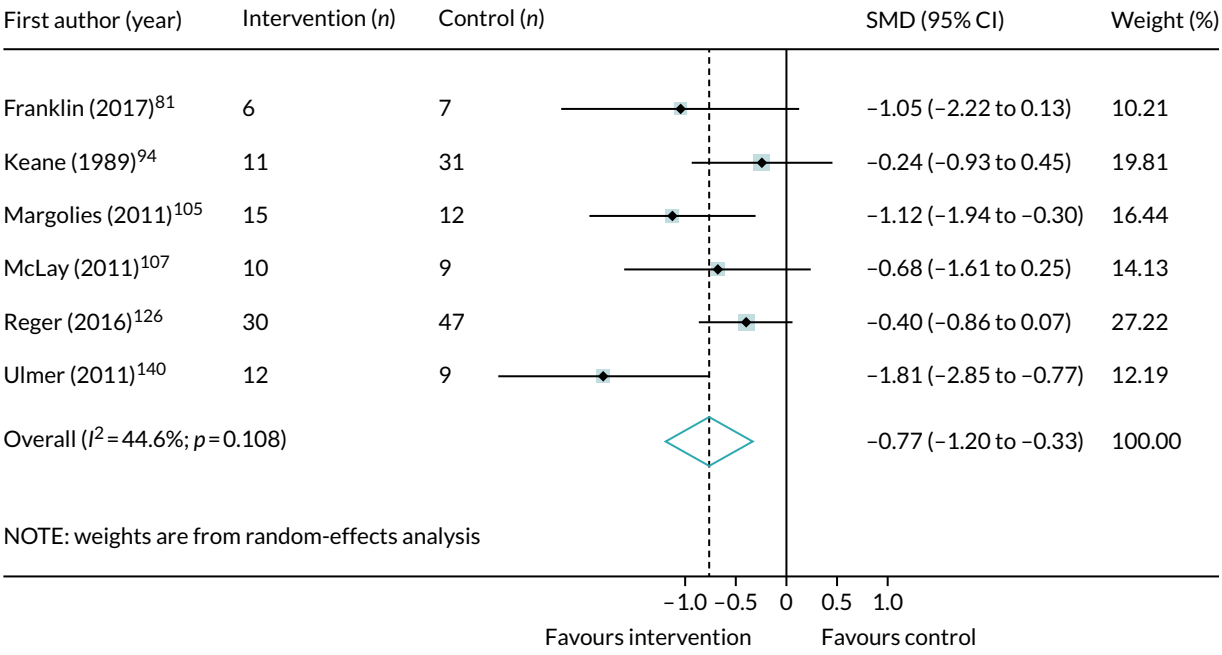

FIGURE 56 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing trauma-focused CBT interventions with control in veteran populations.

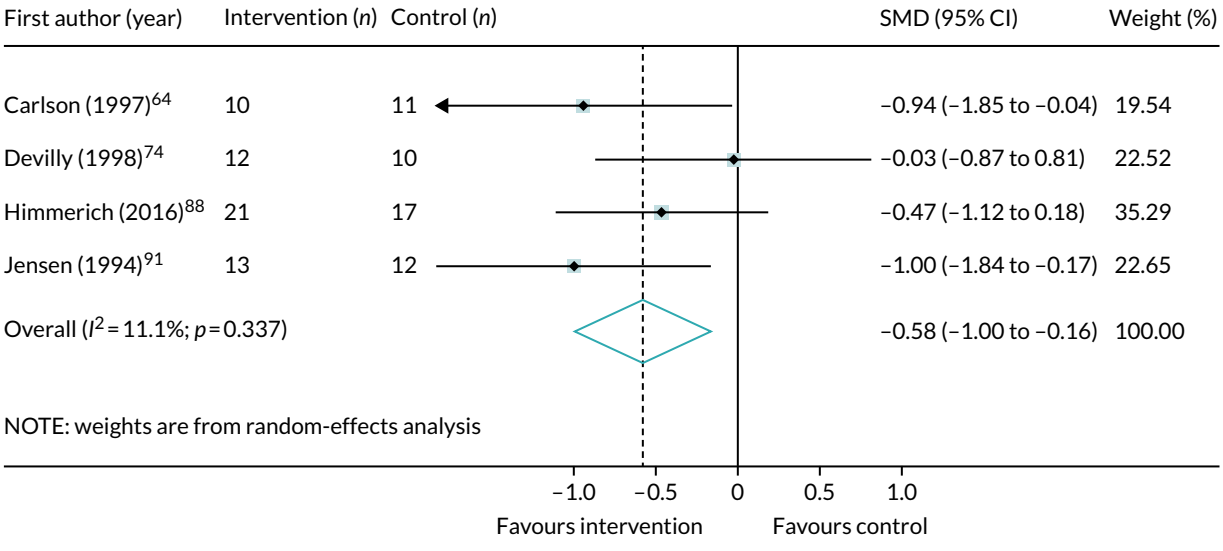

FIGURE 57 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing EMDR interventions with control in veteran populations.

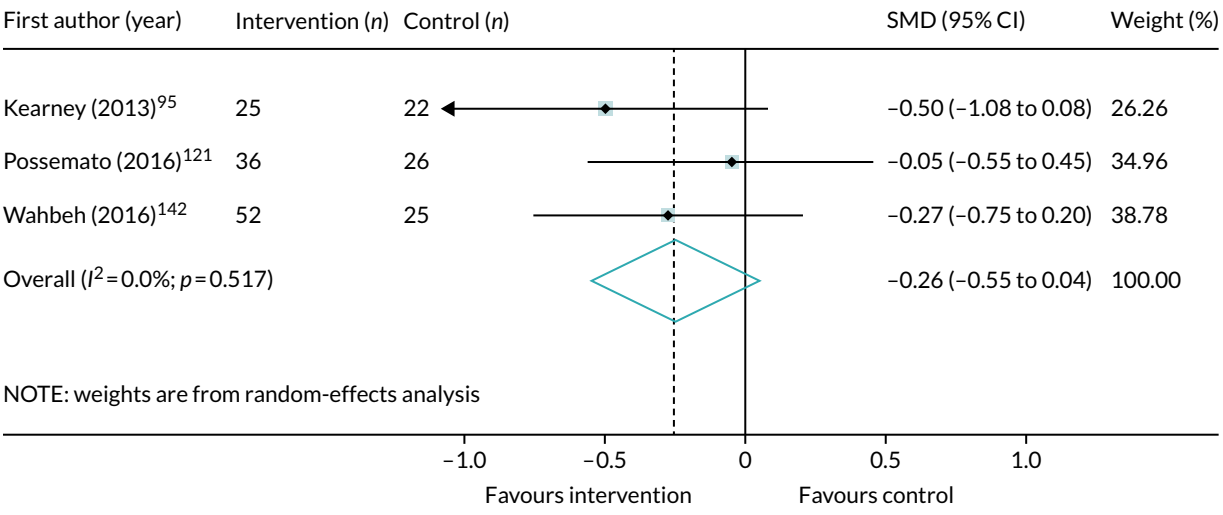

FIGURE 58 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing mindfulness interventions with control in veteran populations.

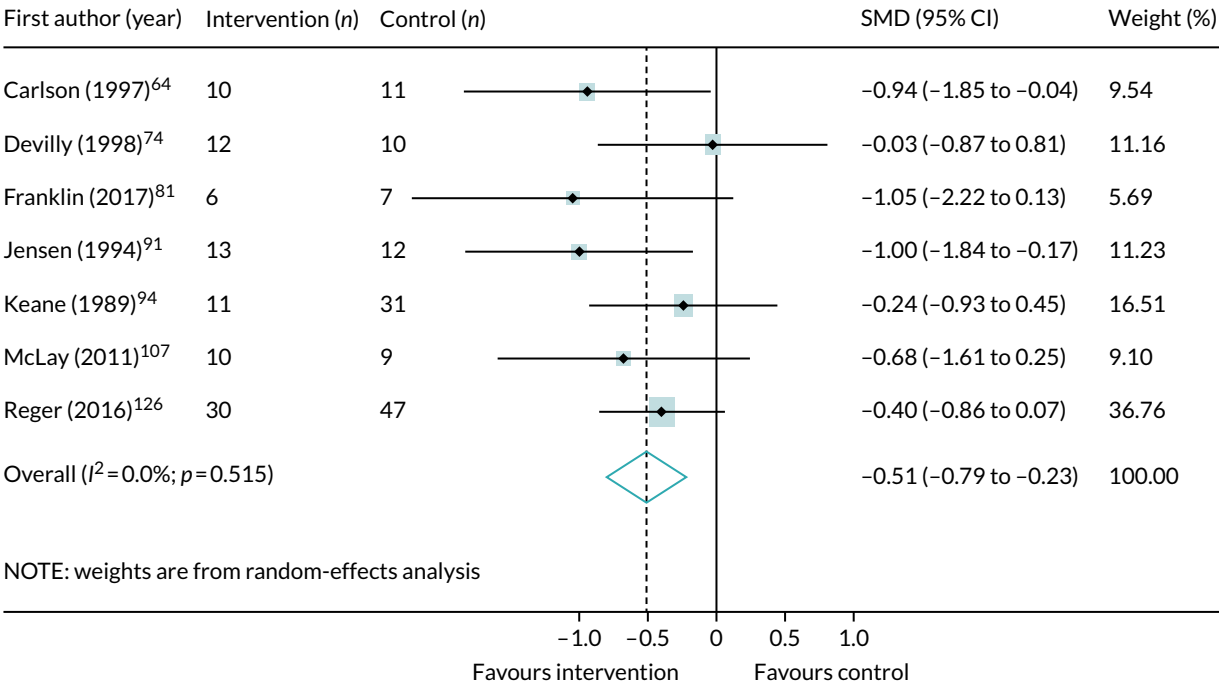

FIGURE 59 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing single-component and trauma-focused interventions with control in veteran populations.

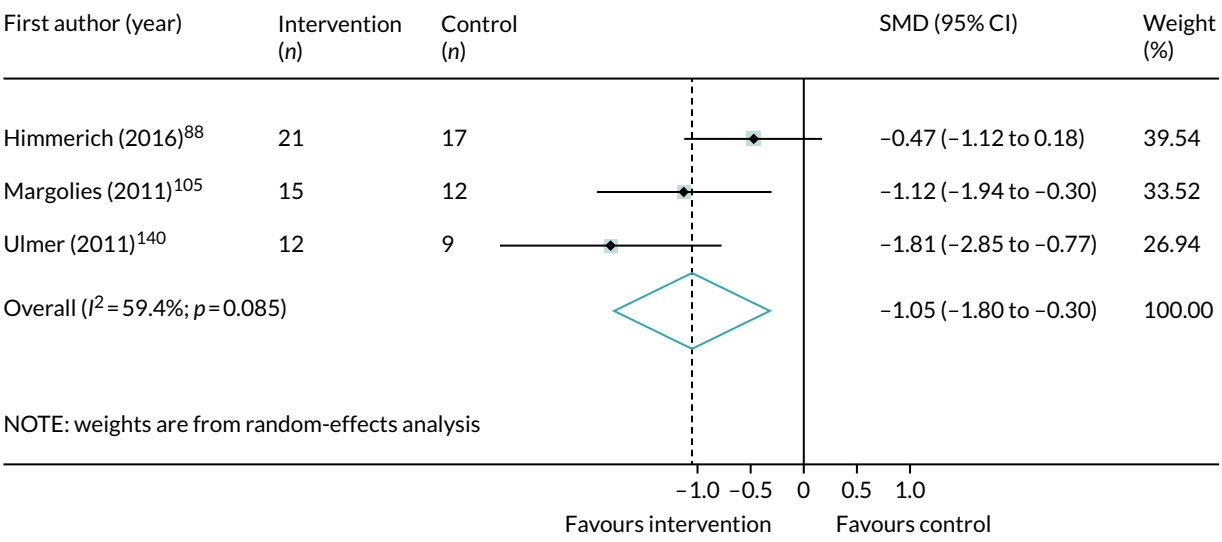

FIGURE 60 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing multicomponent and trauma-focused interventions with control in veteran populations.

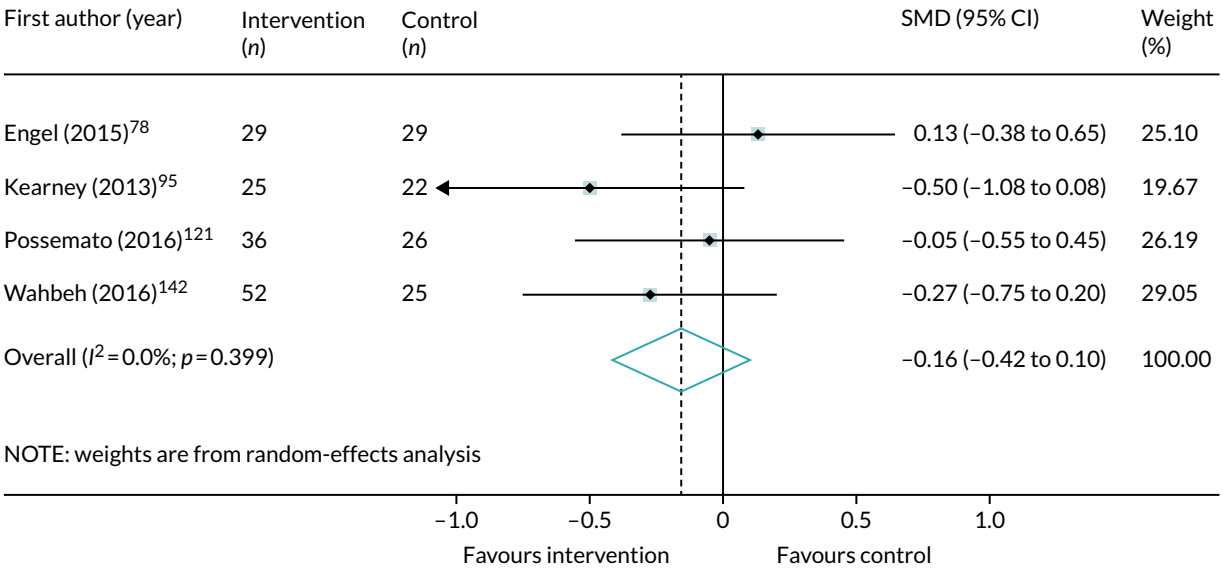

FIGURE 61 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing single-component and non-trauma-focused interventions with control in veteran populations.

Depression symptoms

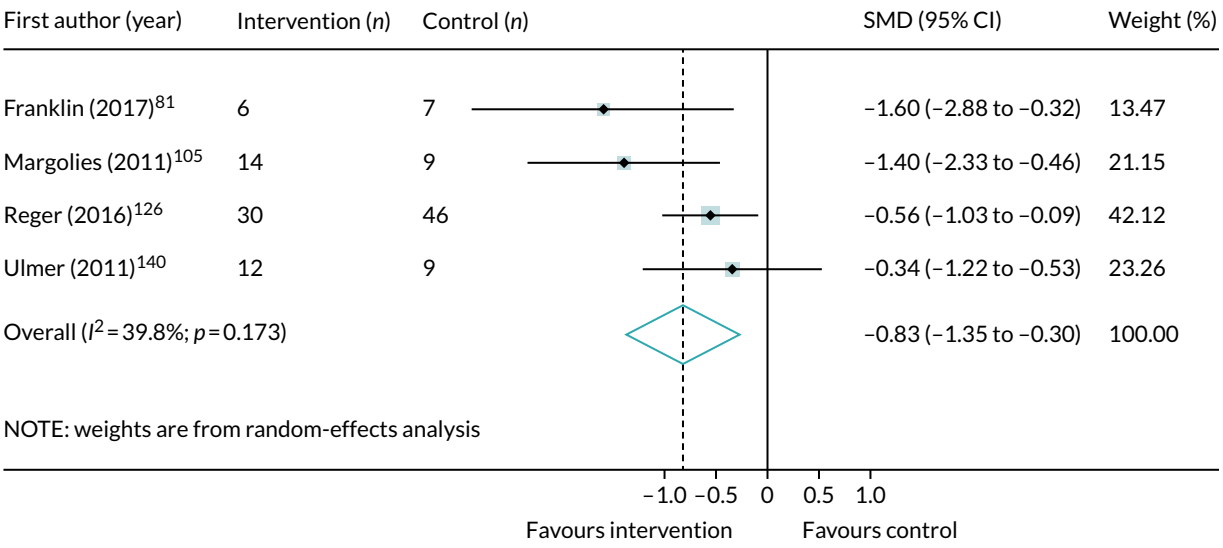

FIGURE 62 Meta-analysis of post-treatment SMD for total depression symptoms, comparing trauma-focused CBT interventions with control in veteran populations.

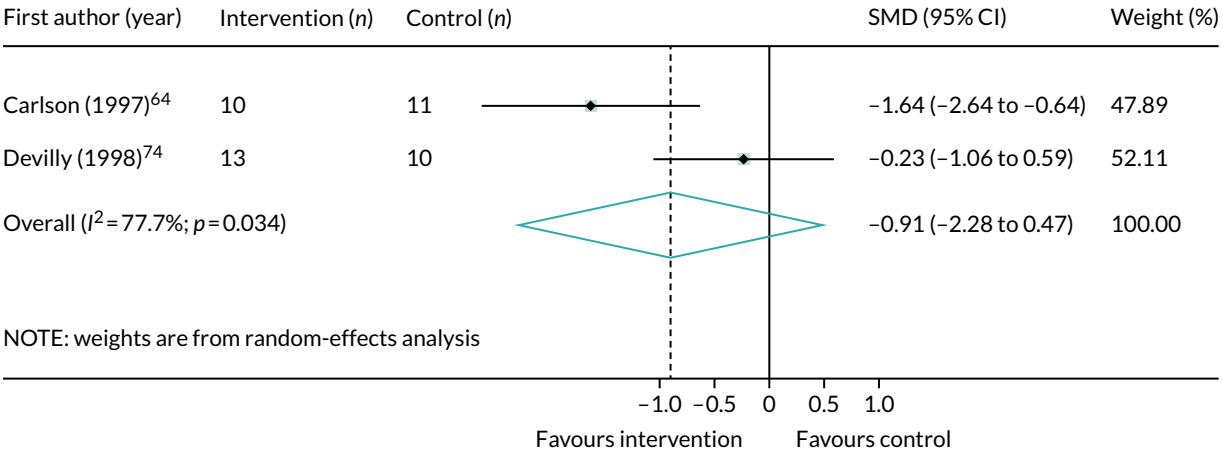

FIGURE 63 Meta-analysis of post-treatment SMD for total depression symptoms, comparing EMDR interventions with control in veteran populations.

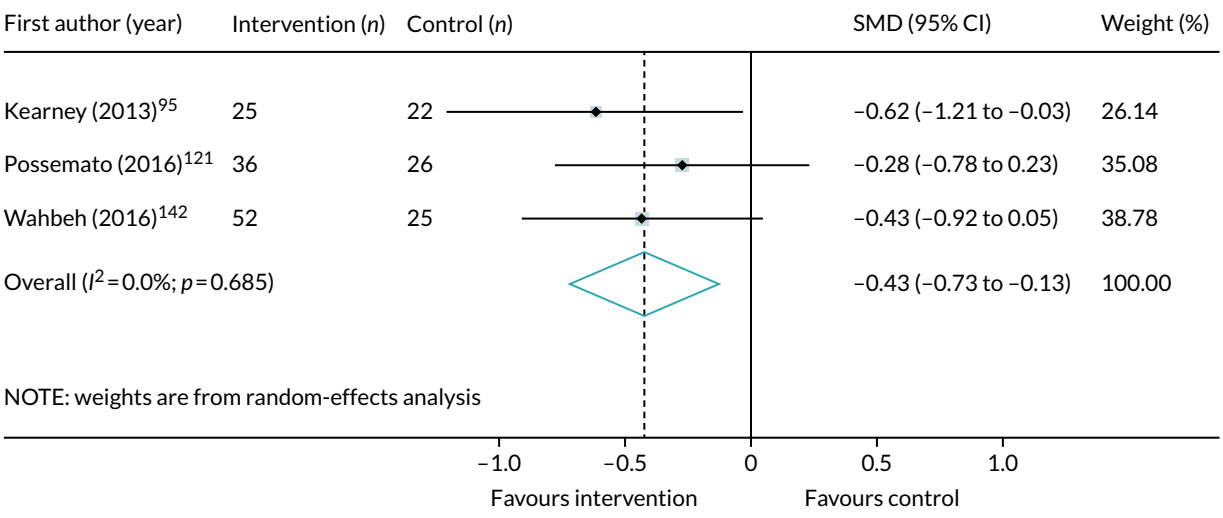

FIGURE 64 Meta-analysis of post-treatment SMD for total depression symptoms, comparing mindfulness interventions with control in veteran populations.

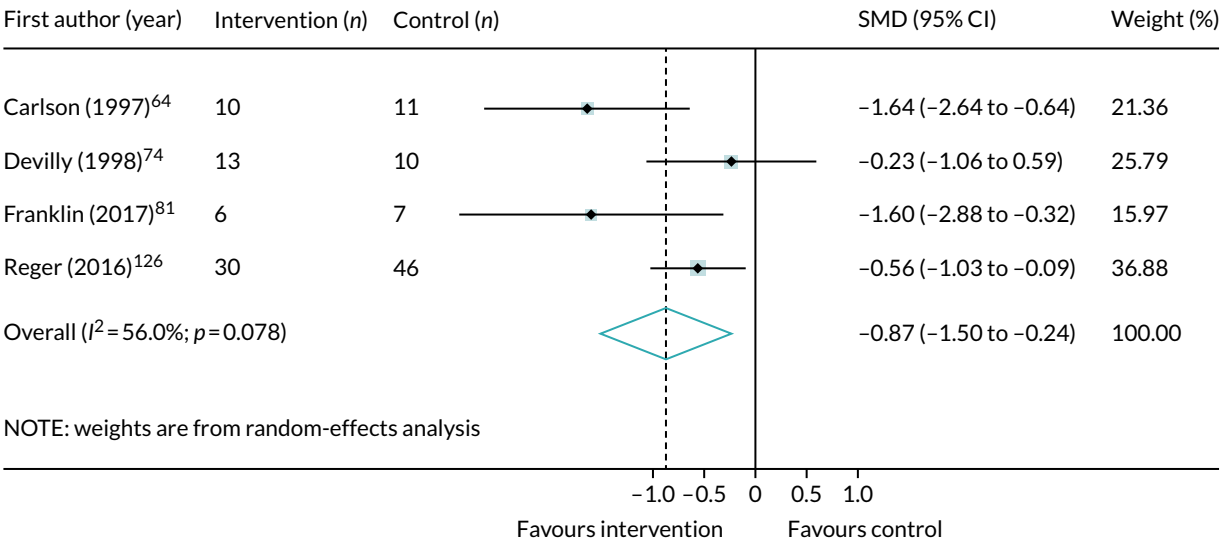

FIGURE 65 Meta-analysis of post-treatment SMD for total depression symptoms, comparing single-component and trauma-focused interventions with control in veteran populations.

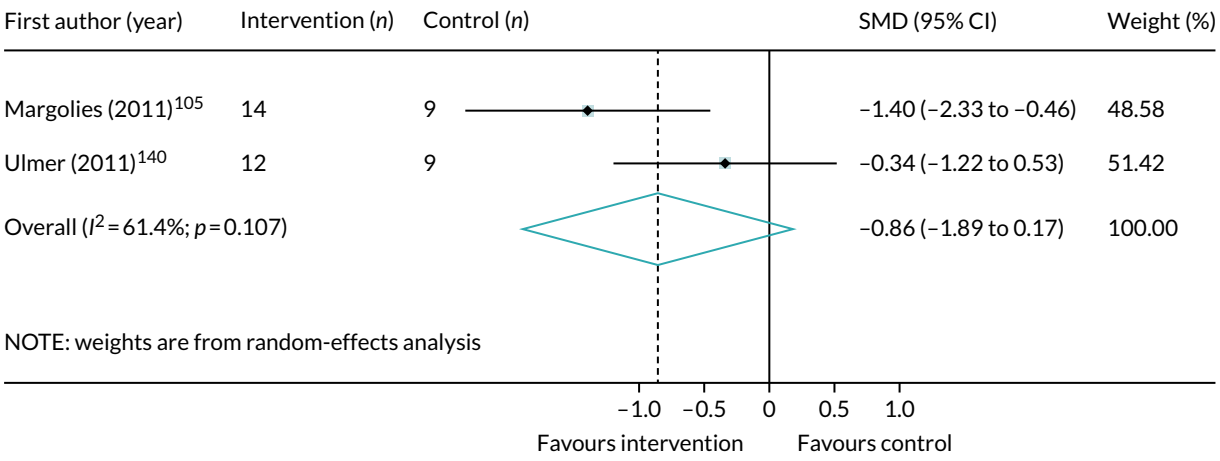

FIGURE 66 Meta-analysis of post-treatment SMD for total depression symptoms, comparing multicomponent and trauma-focused interventions with control in veteran populations.

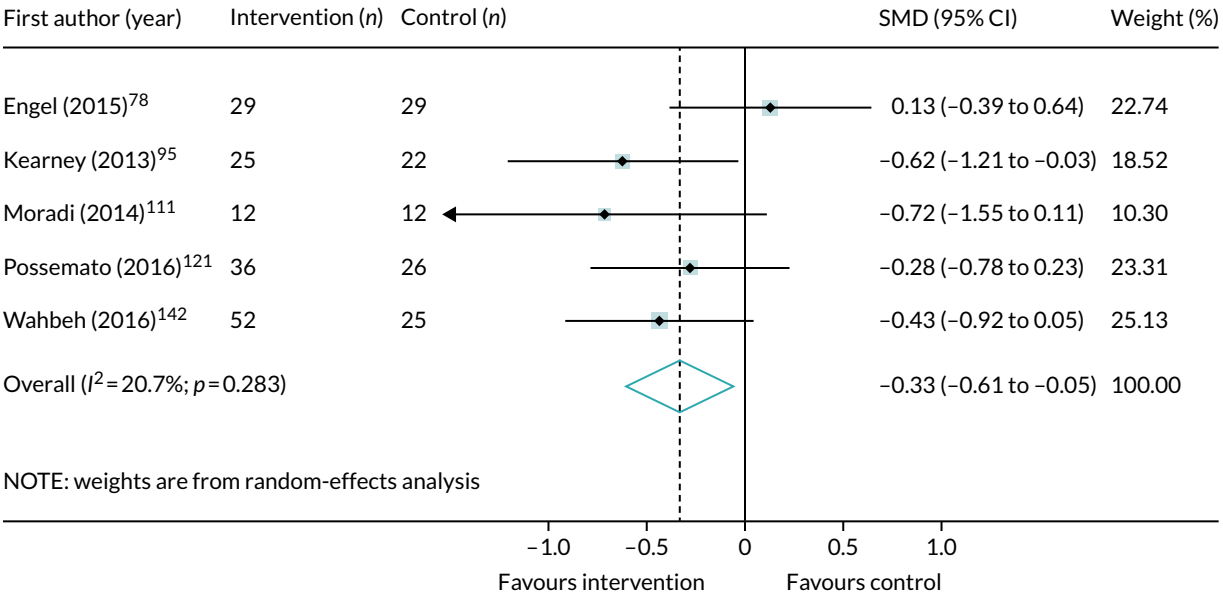

FIGURE 67 Meta-analysis of post-treatment SMD for total depression symptoms, comparing single-component and non-trauma-focused interventions with control in veteran populations.

Anxiety symptoms

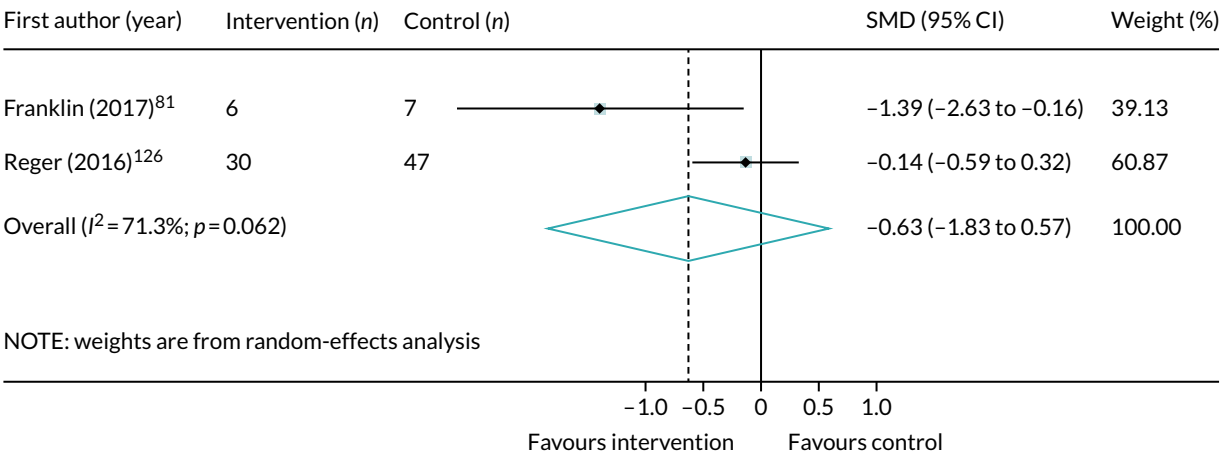

FIGURE 68 Meta-analysis of post-treatment SMD for total anxiety symptoms, comparing trauma-focused CBT interventions with control in veteran populations.

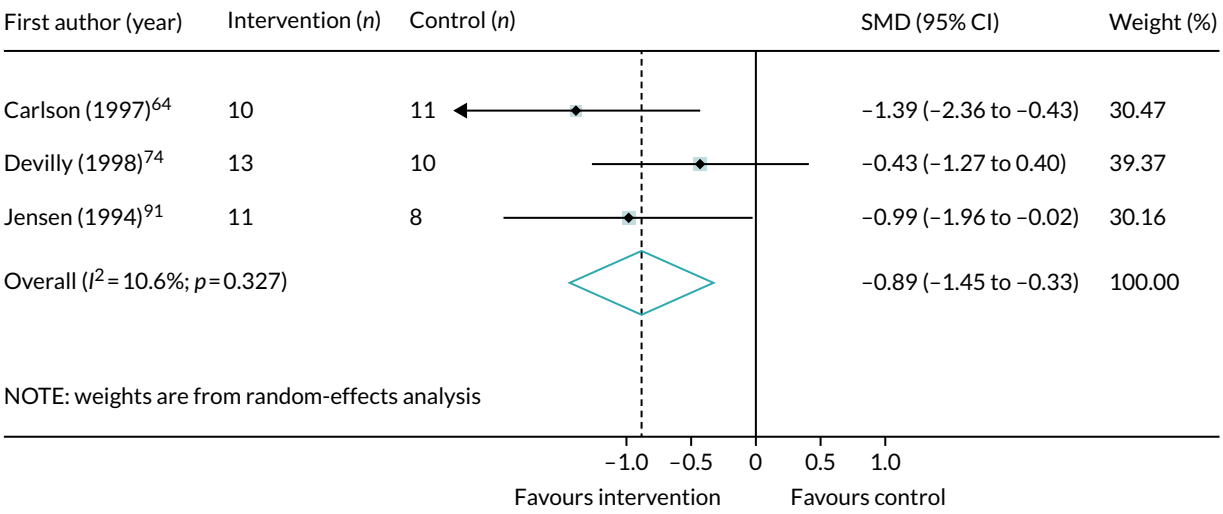

FIGURE 69 Meta-analysis of post-treatment SMD for total anxiety symptoms, comparing EMDR interventions with control in veteran populations.

War-affected populations

Post-traumatic stress disorder symptoms

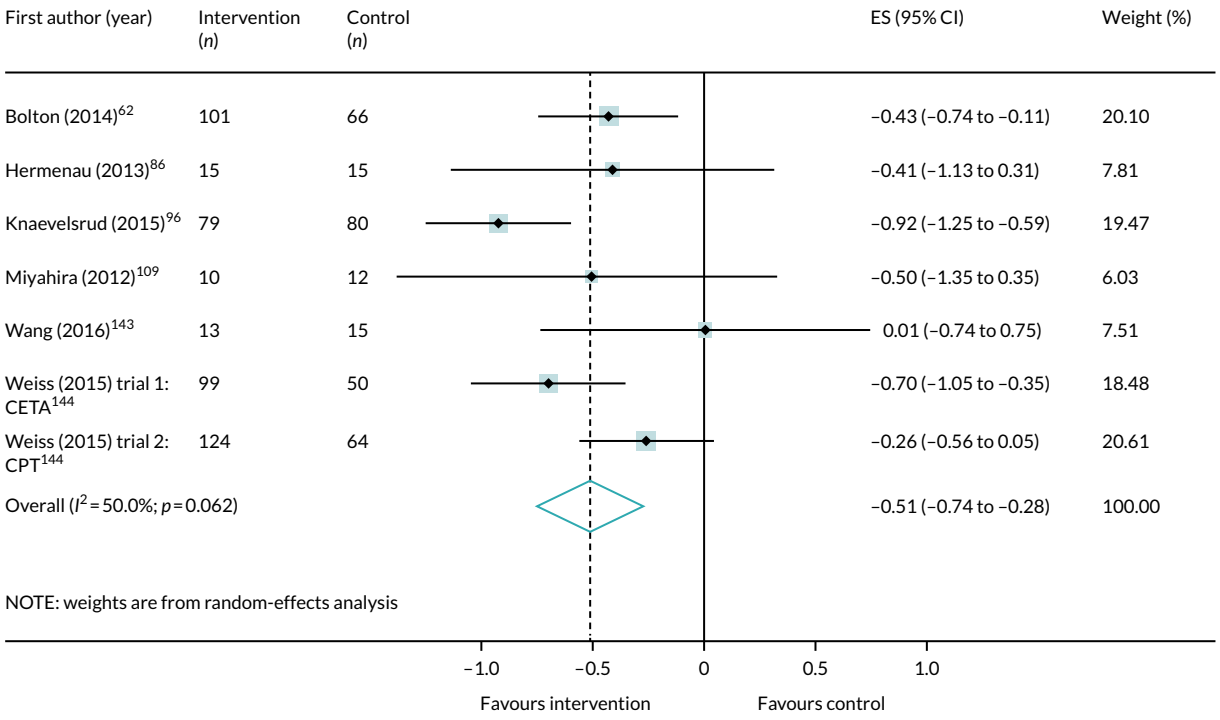

FIGURE 70 Meta-analysis of post-treatment effect size (ES) for total PTSD symptoms, comparing trauma-focused CBT interventions with control in war-affected populations. CETA, common elements treatment approach; CPT, cognitive treatment therapy.

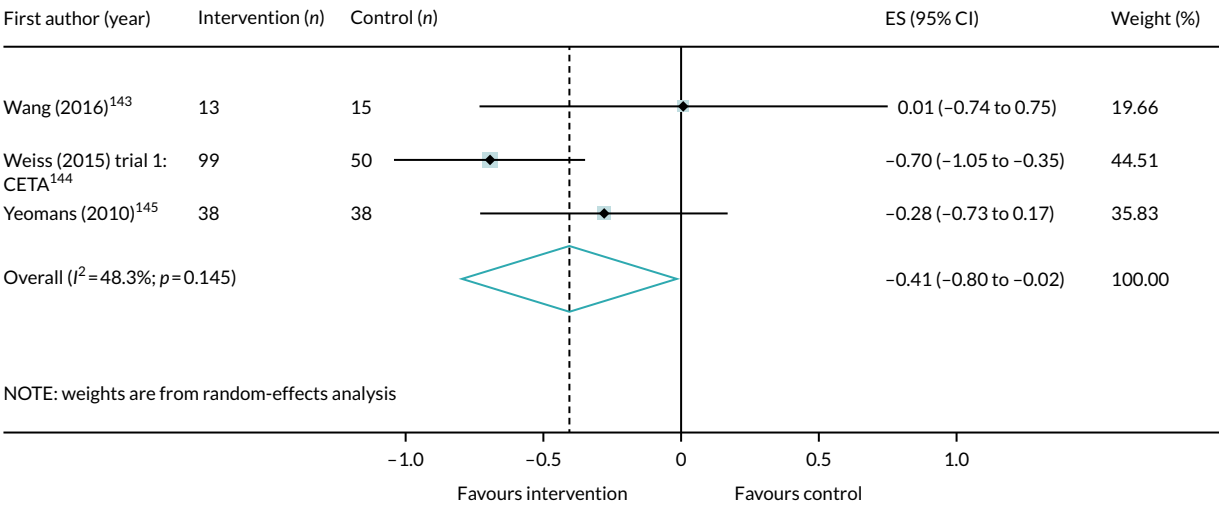

FIGURE 71 Meta-analysis of post-treatment effect size (ES) for total PTSD symptoms, comparing multicomponent trauma-focused interventions with control in war-affected populations. CETA, common elements treatment approach.

Depression symptoms

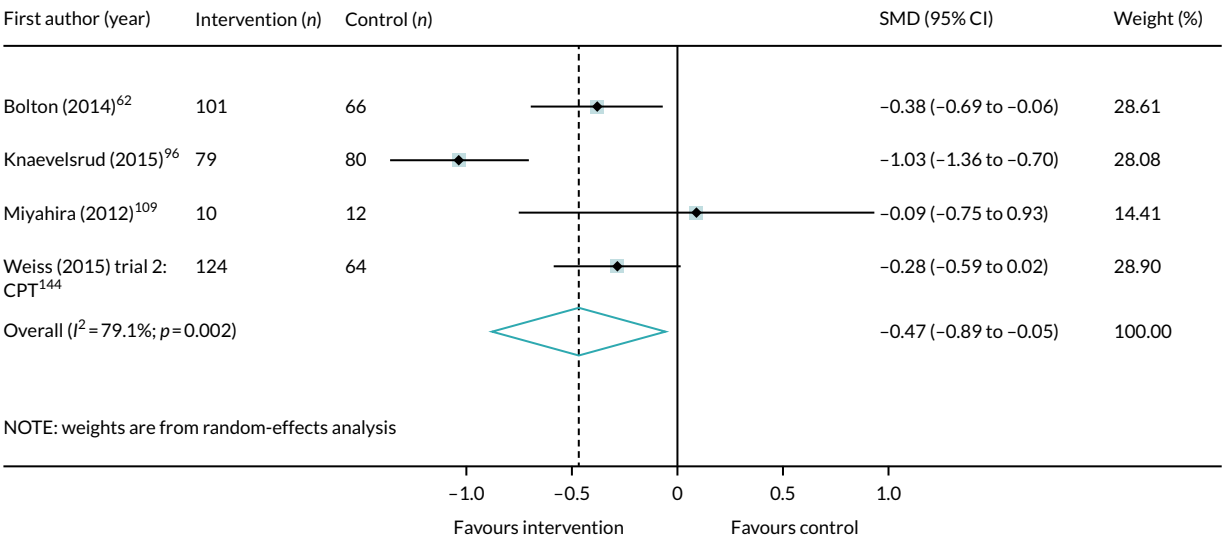

FIGURE 72 Meta-analysis of post-treatment SMD for depression symptoms, comparing single-component and trauma-focused interventions with control in war-affected populations. CPT, cognitive processing therapy.

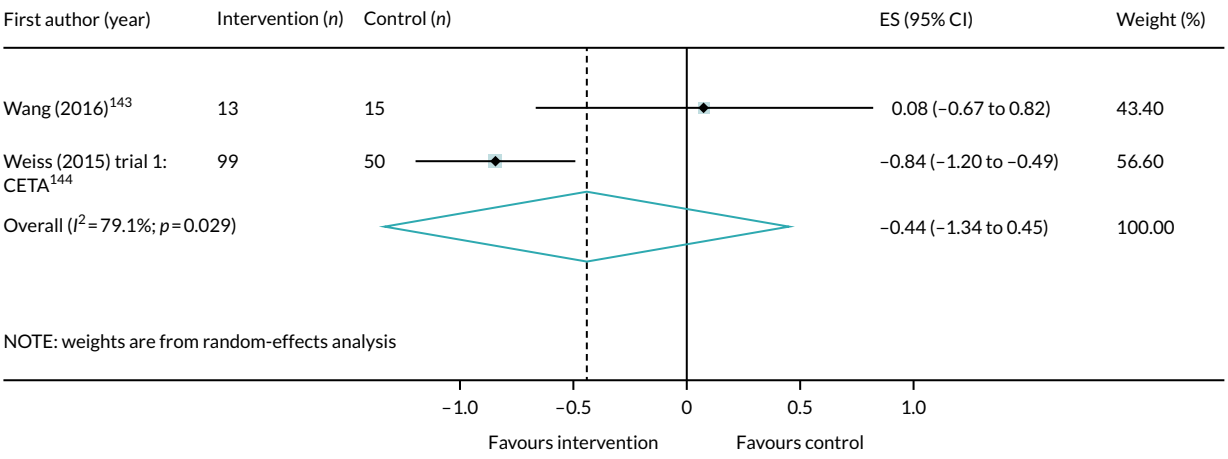

FIGURE 73 Meta-analysis of post-treatment effect size (ES) for depression symptoms, comparing multicomponent and trauma-focused interventions with control in war-affected populations. CETA, common elements treatment approach.

Anxiety symptoms

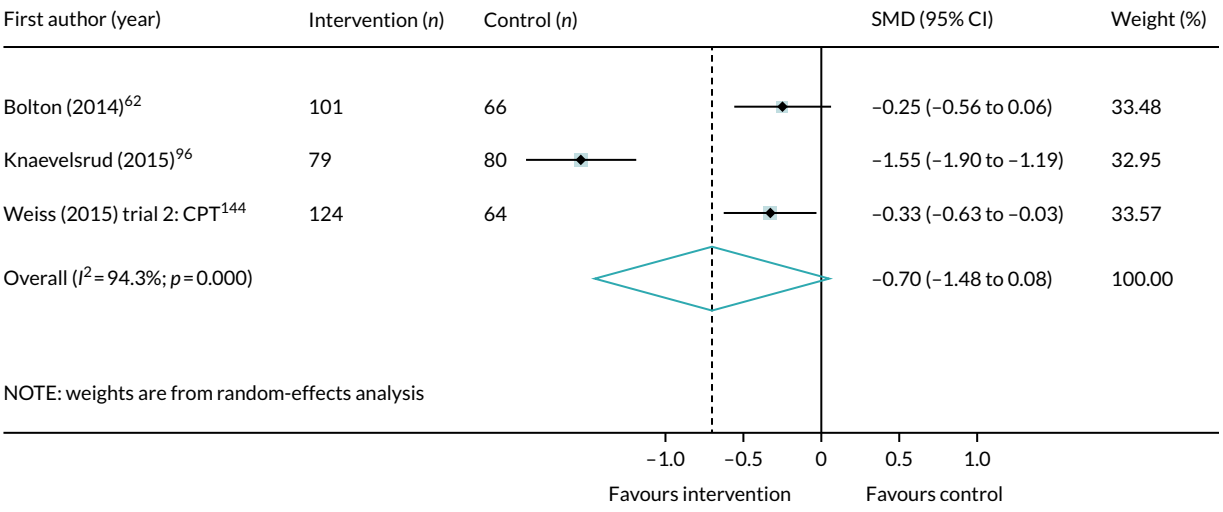

FIGURE 74 Meta-analysis of post-treatment SMD for total anxiety symptoms, comparing single-component and trauma-focused interventions with control in war-affected populations. CPT, cognitive processing therapy.

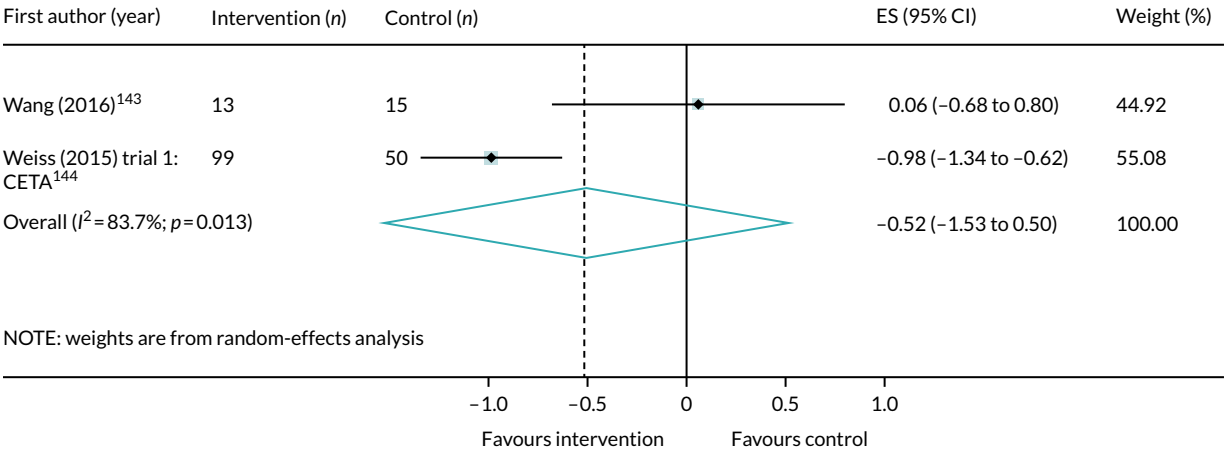

FIGURE 75 Meta-analysis of post-treatment effect size (ES) for total anxiety symptoms, comparing multicomponent and trauma-focused interventions with control in war-affected populations. CETA, common elements treatment approach.

Childhood sexual abuse populations

Post-traumatic stress disorder symptoms

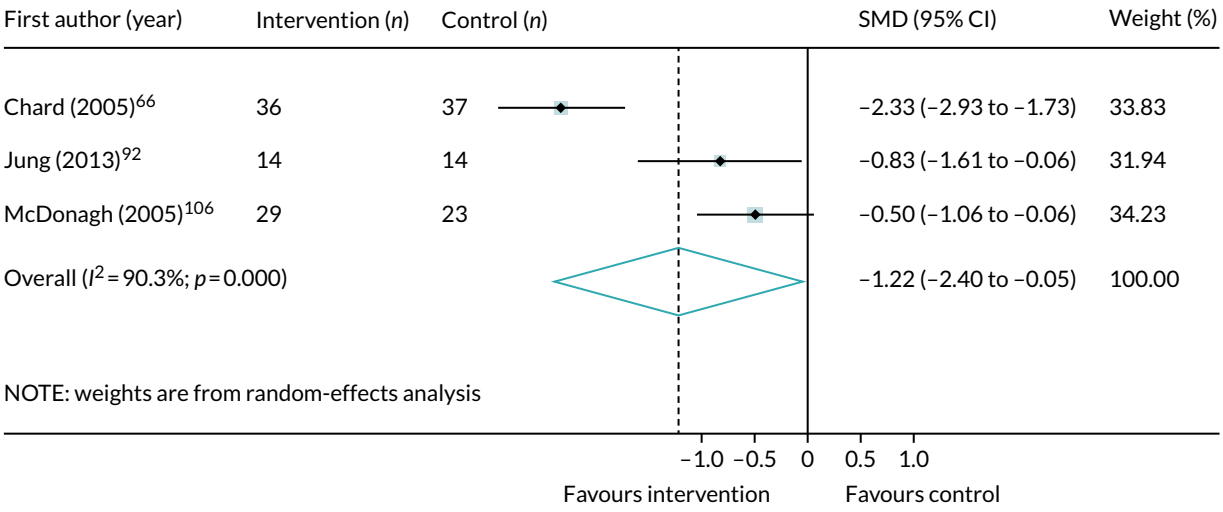

FIGURE 76 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing trauma-focused CBT interventions with control in childhood sexual abuse populations.

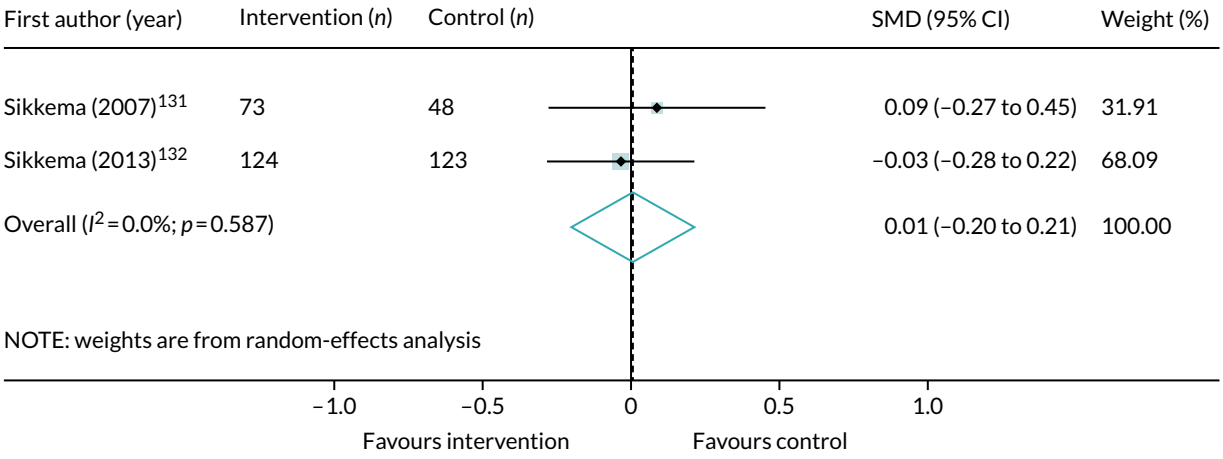

FIGURE 77 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing non-trauma-focused CBT interventions with control in childhood sexual abuse populations.

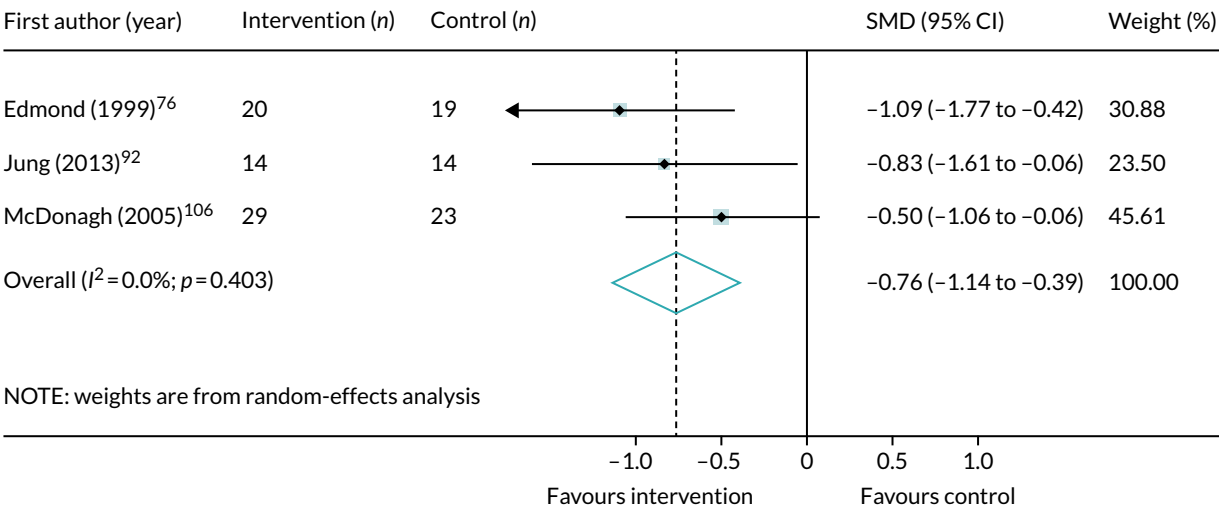

FIGURE 78 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing single-component and trauma-focused interventions with control in childhood sexual abuse populations.

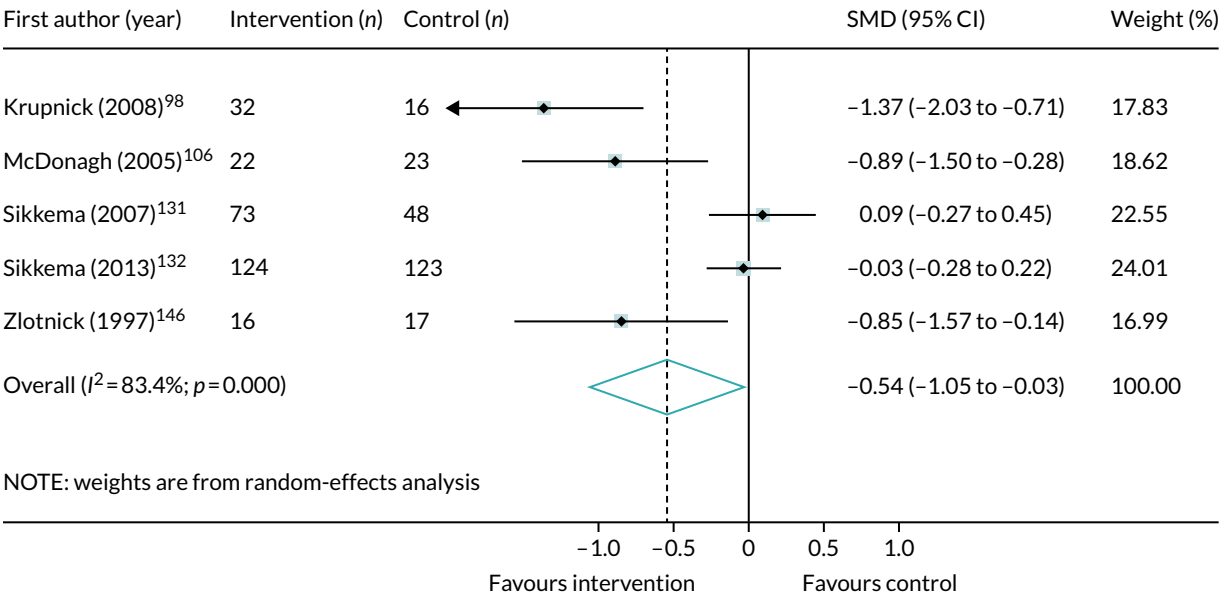

FIGURE 79 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing single-component and non-trauma-focused interventions with control in childhood sexual abuse populations.

Depression symptoms

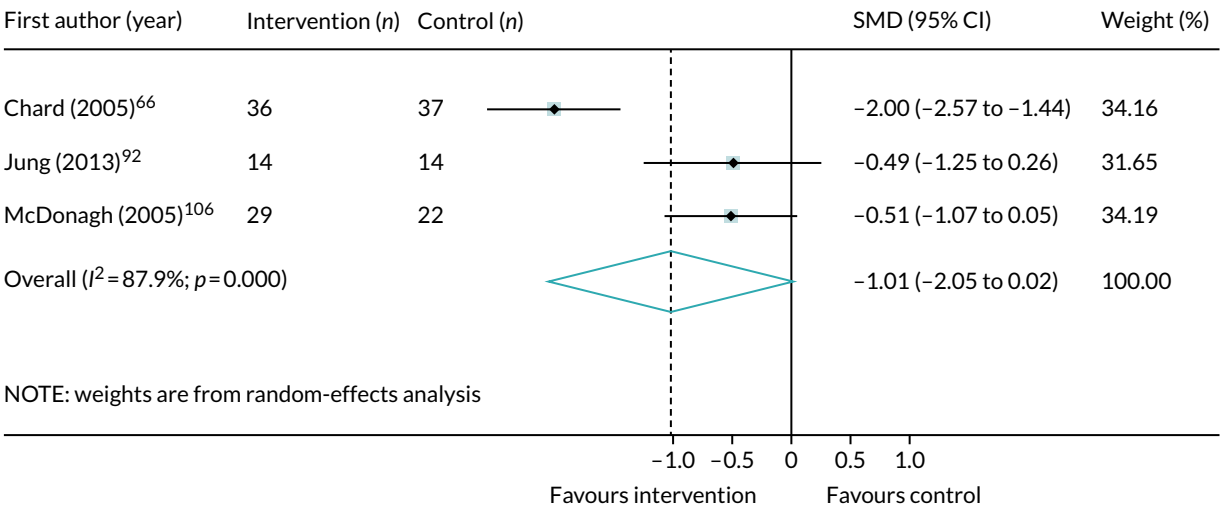

FIGURE 80 Meta-analysis of post-treatment SMD for depression symptoms, comparing trauma-focused CBT interventions with control in childhood sexual abuse populations.

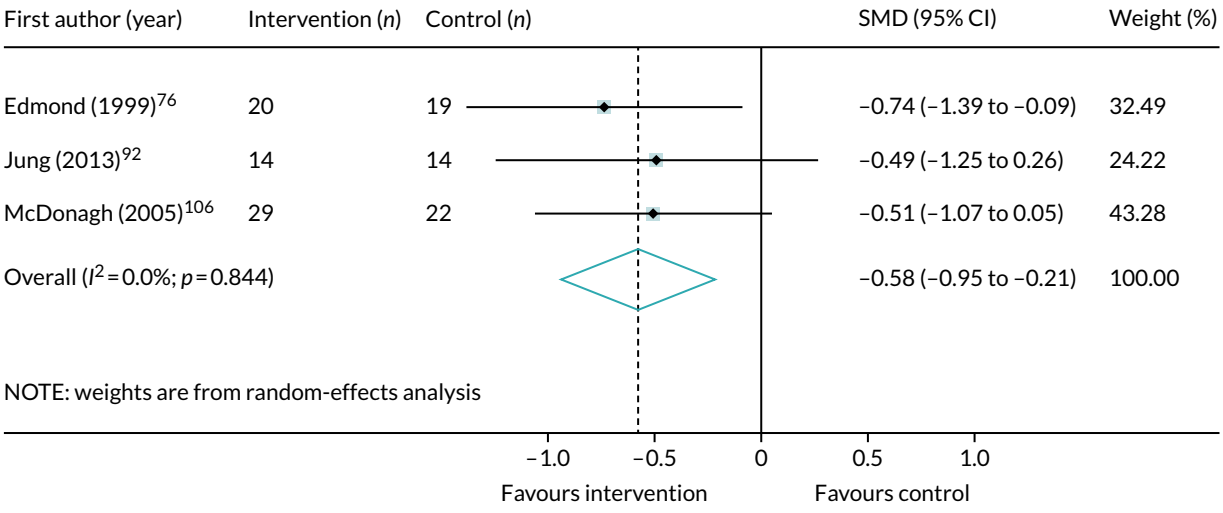

FIGURE 81 Meta-analysis of post-treatment SMD for depression symptoms, comparing single-component and trauma-focused interventions with control in childhood sexual abuse populations.

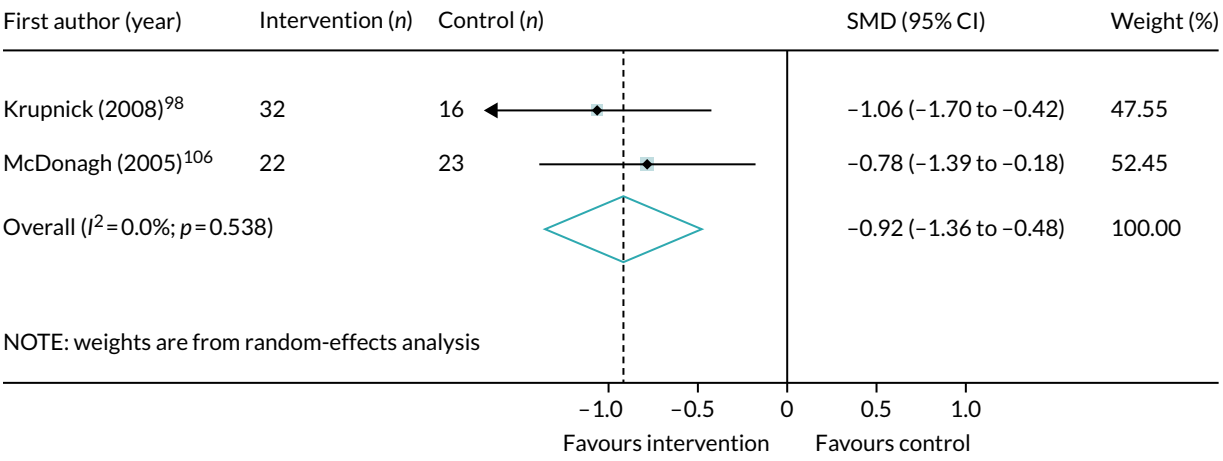

FIGURE 82 Meta-analysis of post-treatment SMD for depression symptoms, comparing single-component and non-trauma-focused interventions with control in childhood sexual abuse populations.

Anxiety symptoms

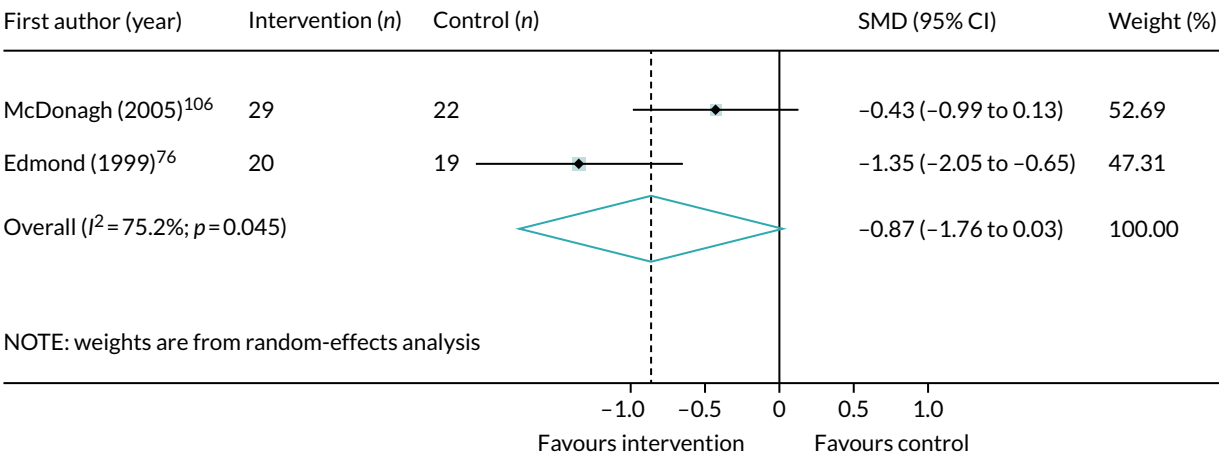

FIGURE 83 Meta-analysis of post-treatment SMD for anxiety symptoms, comparing single-component and trauma-focused interventions with control in childhood sexual abuse populations.

Refugee populations

Post-traumatic stress disorder symptoms

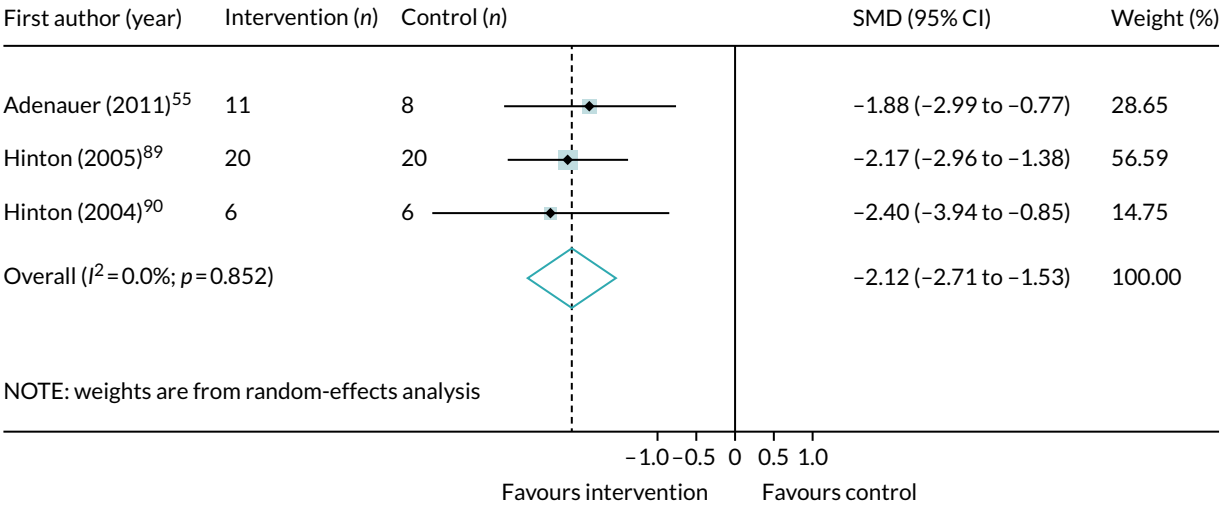

FIGURE 84 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing trauma-focused CBT interventions with control in refugee populations.

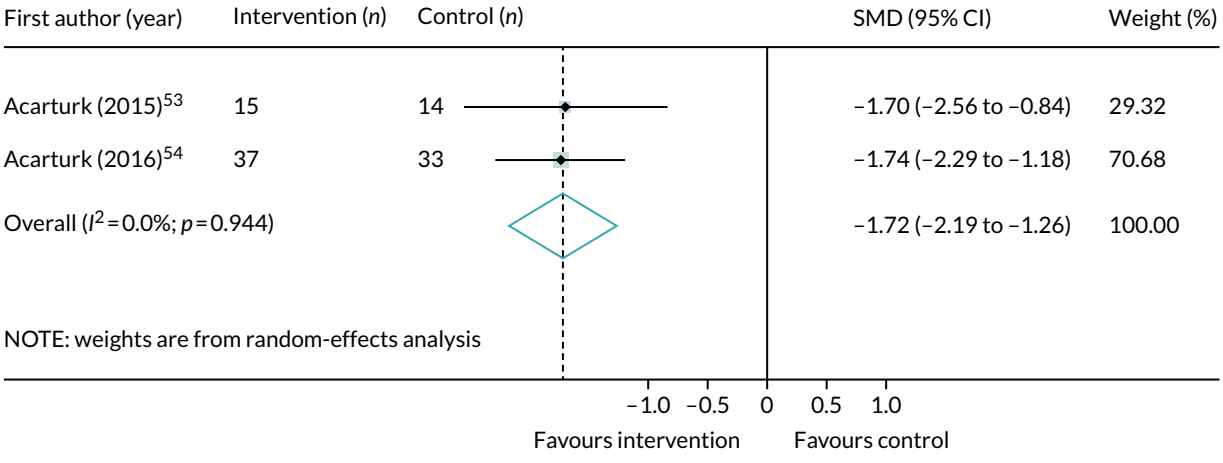

FIGURE 85 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing EMDR interventions with control in refugee populations.

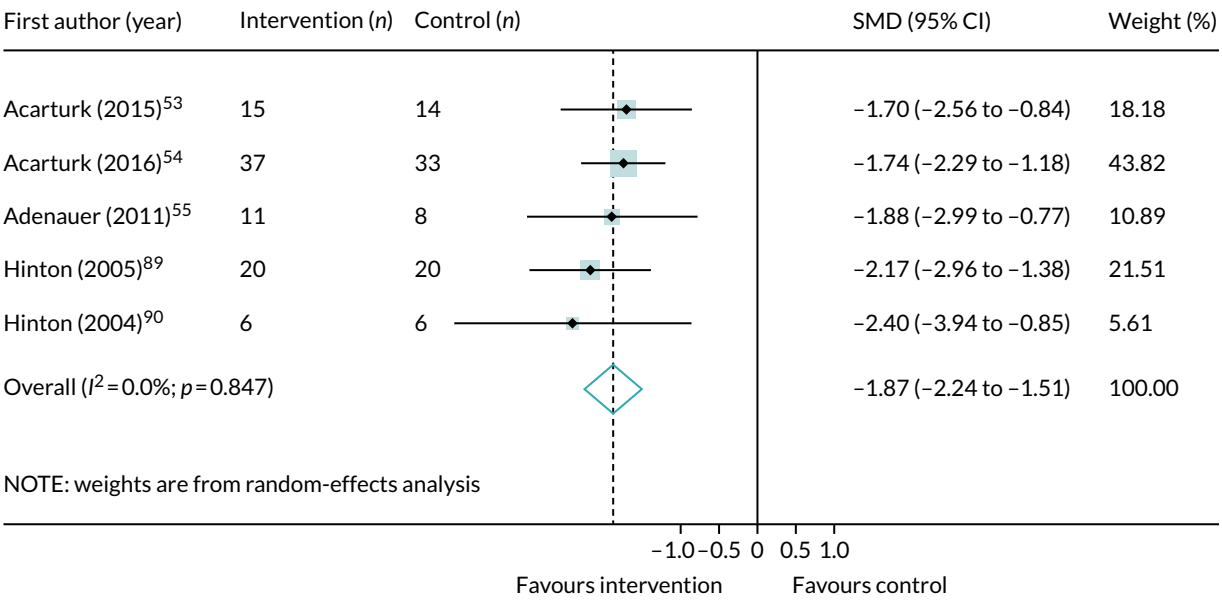

FIGURE 86 Meta-analysis of post-treatment SMD for total PTSD symptoms, comparing single-component and trauma-focused interventions with control in refugee populations.

Depression symptoms

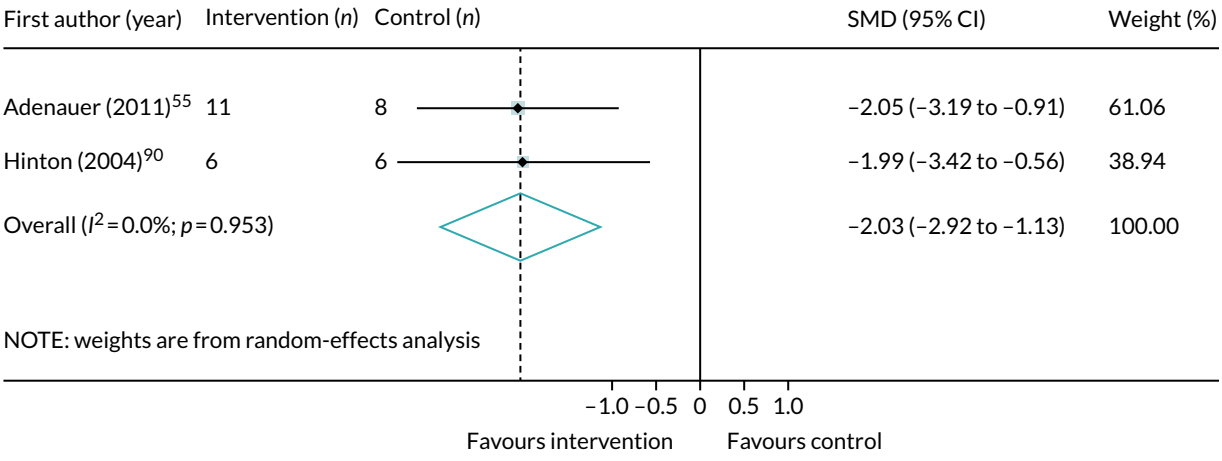

FIGURE 87 Meta-analysis of post-treatment SMD for depression symptoms, comparing trauma-focused CBT interventions with control in refugee populations.

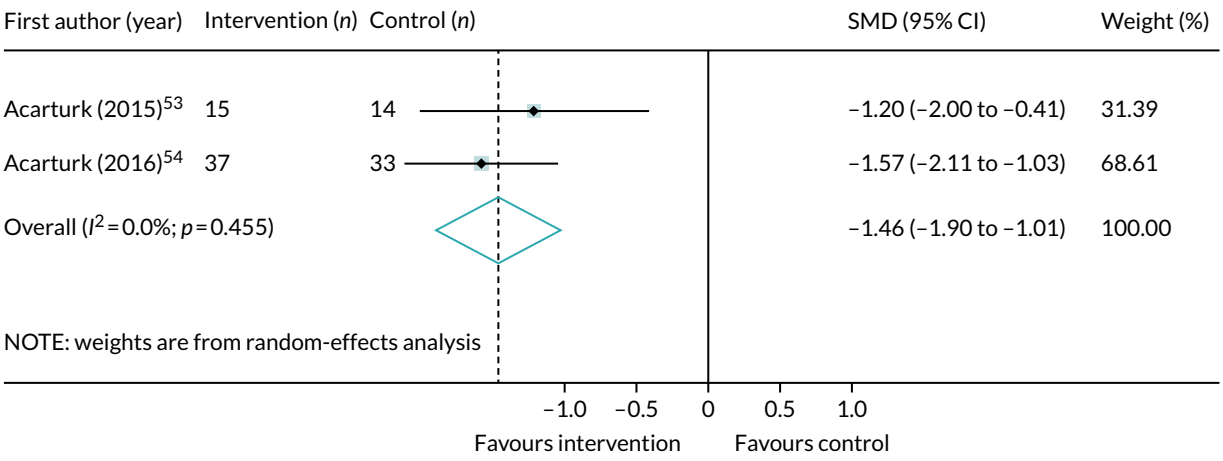

FIGURE 88 Meta-analysis of post-treatment SMD for depression symptoms, comparing EMDR interventions with control in refugee populations.

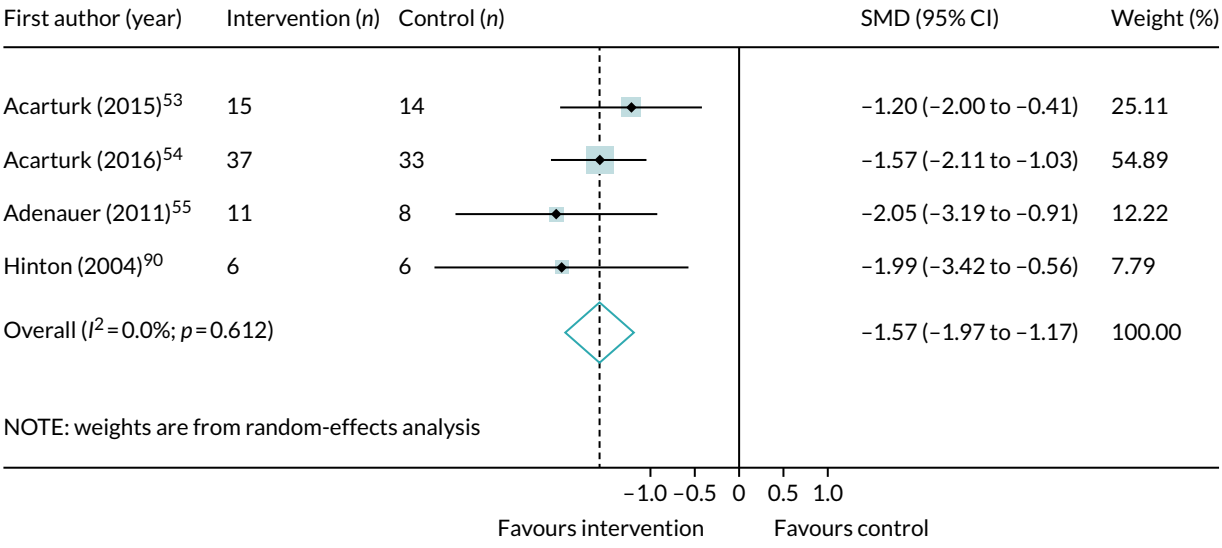

FIGURE 89 Meta-analysis of post-treatment SMD for depression symptoms, comparing single-component and trauma-focused interventions with control in refugee populations.

Pharmacological interventions versus placebo

Post-traumatic stress disorder symptoms

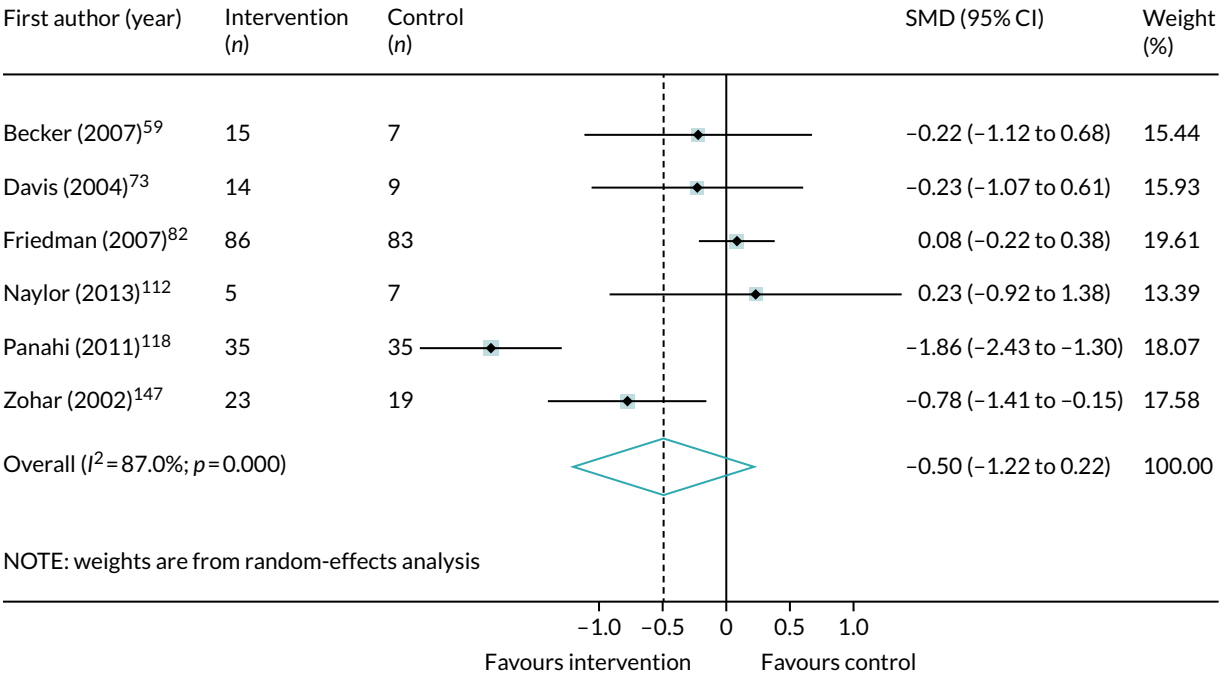

FIGURE 90 Meta-analysis of post-treatment SMD for PTSD symptoms, comparing antidepressants with placebo.

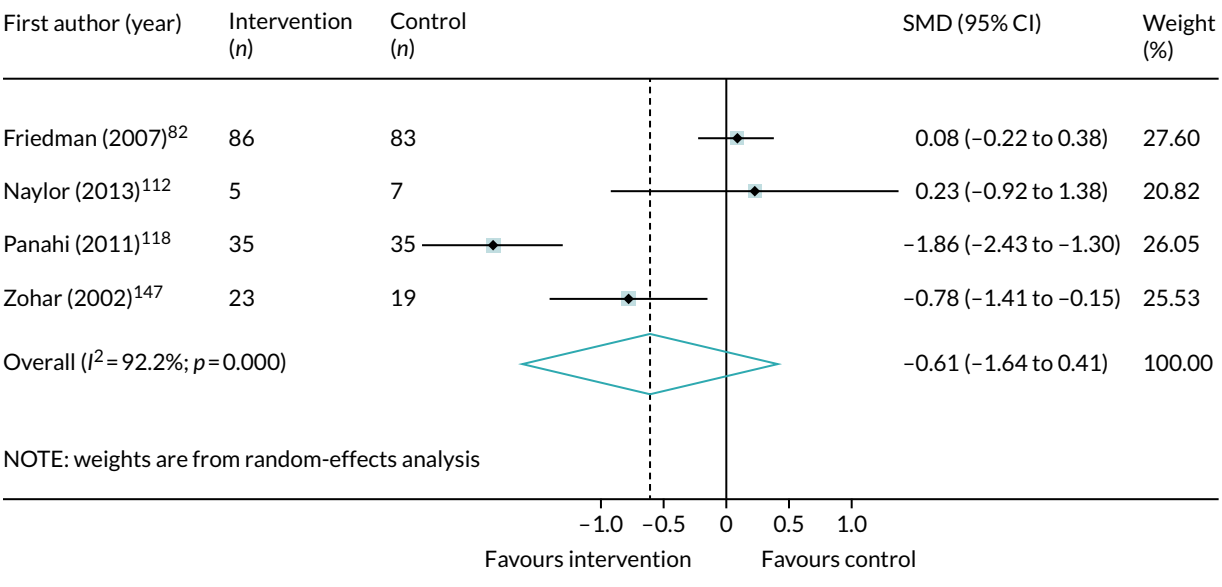

FIGURE 91 Meta-analysis of post-treatment SMD for PTSD symptoms, comparing SSRIs with placebo.

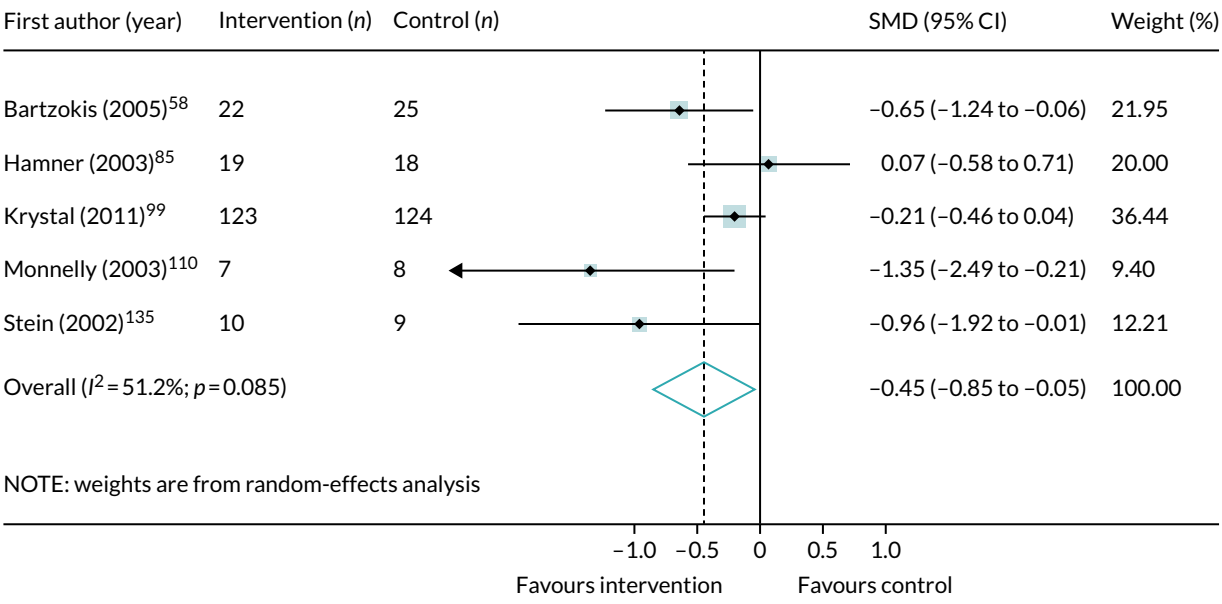

FIGURE 92 Meta-analysis of post-treatment SMD for PTSD symptoms, comparing antipsychotics with placebo.

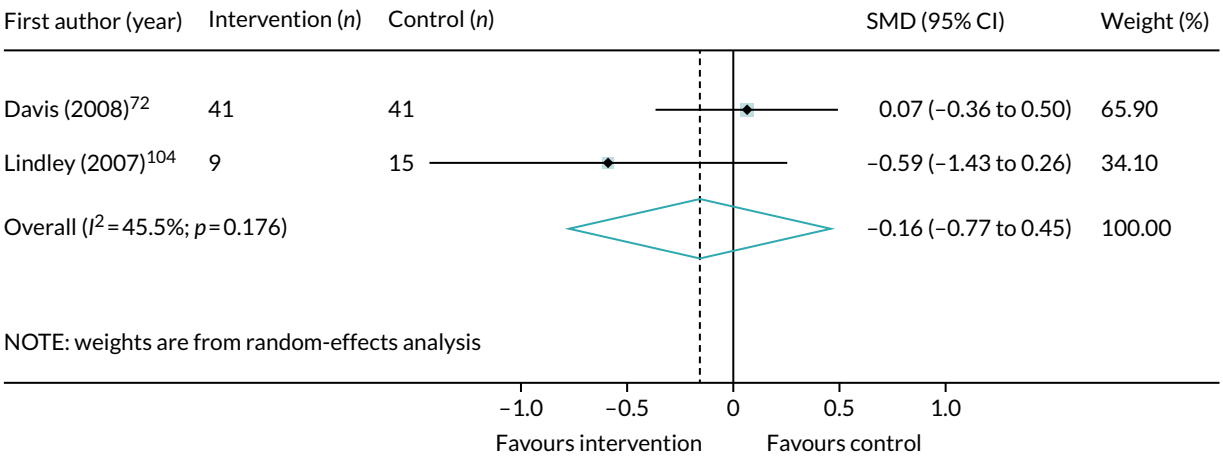

FIGURE 93 Meta-analysis of post-treatment SMD for PTSD symptoms, comparing anticonvulsants with placebo.

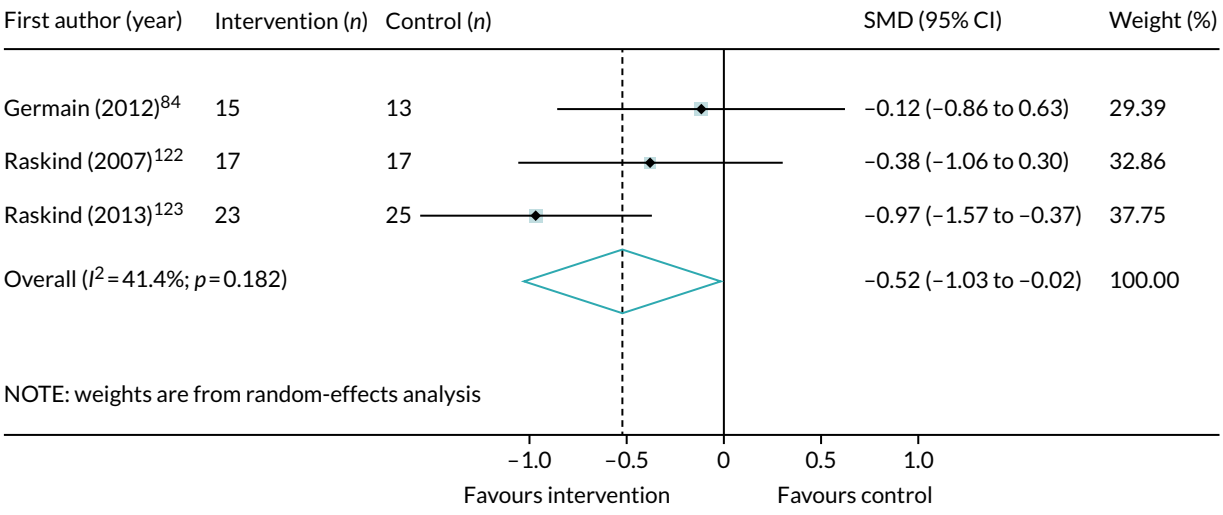

FIGURE 94 Meta-analysis of post-treatment SMD for PTSD symptoms, comparing prazosin with placebo.

Depression symptoms

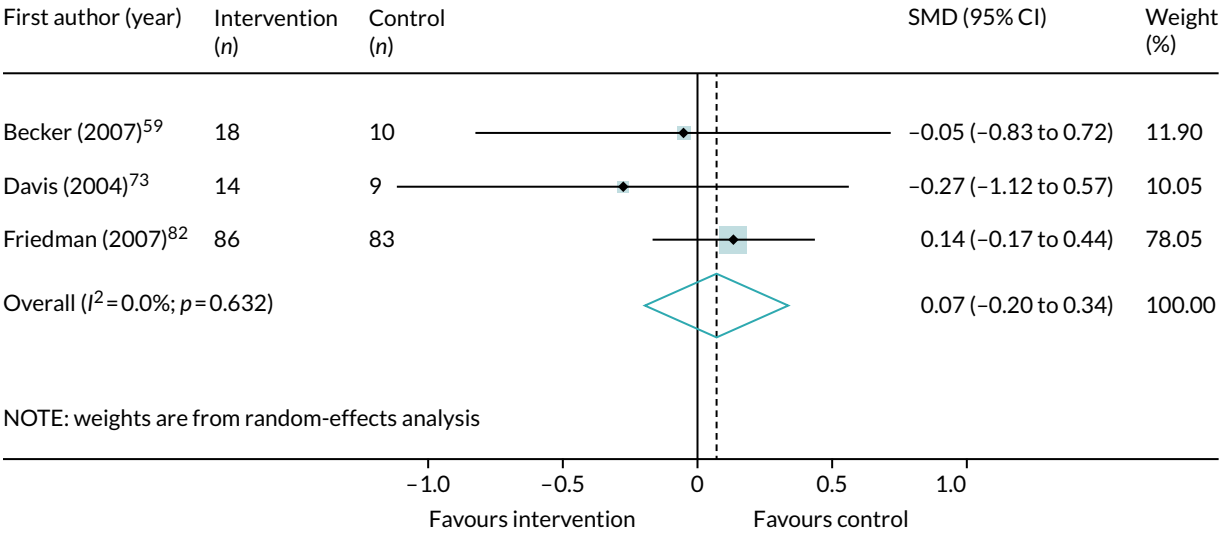

FIGURE 95 Meta-analysis of post-treatment SMD for depression symptoms, comparing antidepressants with placebo.

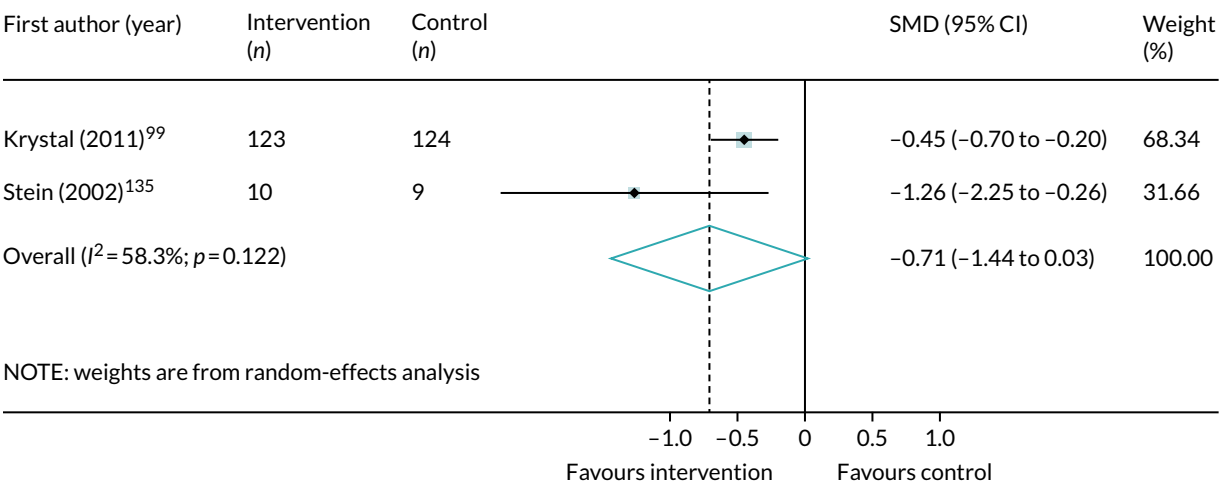

FIGURE 96 Meta-analysis of post-treatment SMD for depression symptoms, comparing antipsychotics with placebo.

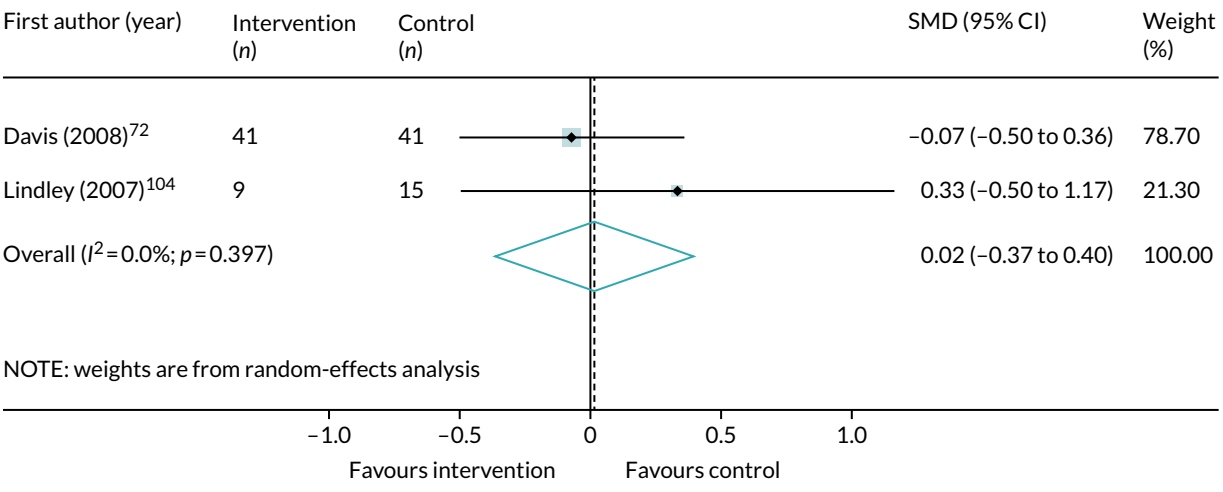

FIGURE 97 Meta-analysis of post-treatment SMD for depression symptoms, comparing anticonvulsants with placebo.

Psychosis symptoms

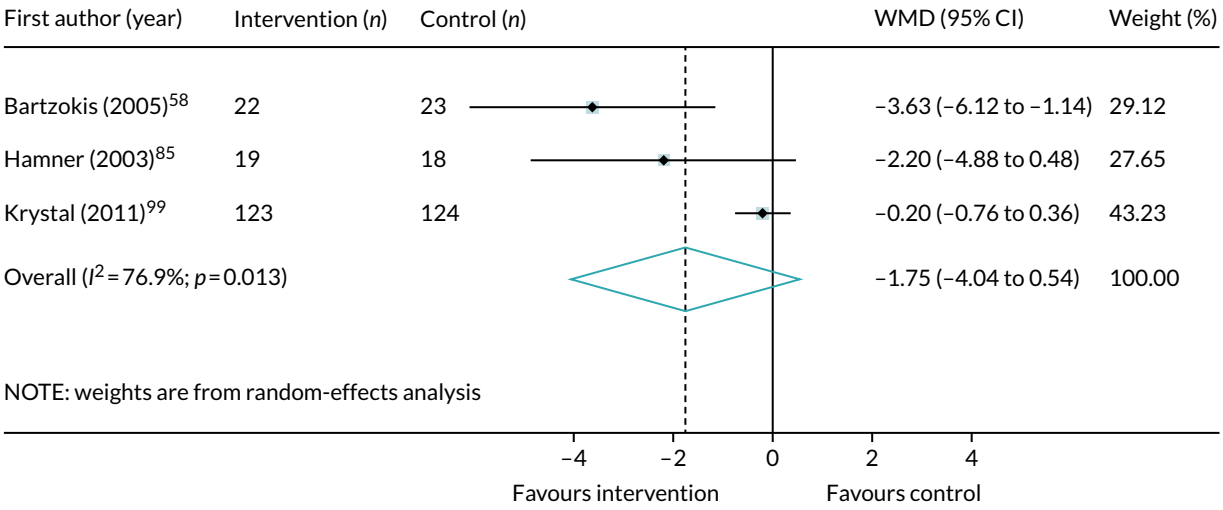

FIGURE 98 Meta-analysis of post-treatment weighted mean difference (WMD) for positive psychotic symptoms, comparing risperidone with placebo.

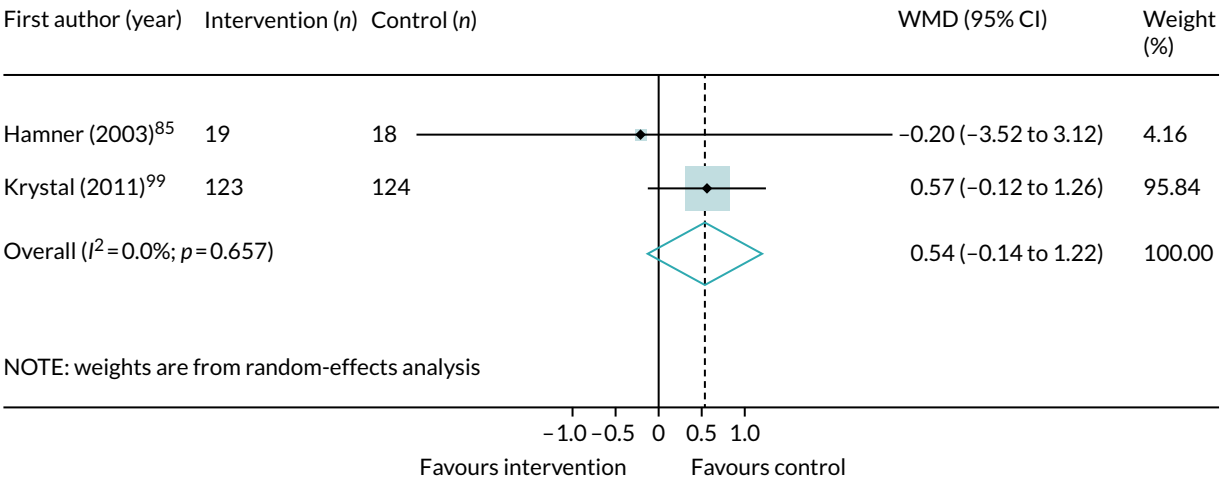

FIGURE 99 Meta-analysis of post-treatment weighted mean difference (WMD) for negative psychotic symptoms, comparing risperidone with placebo.

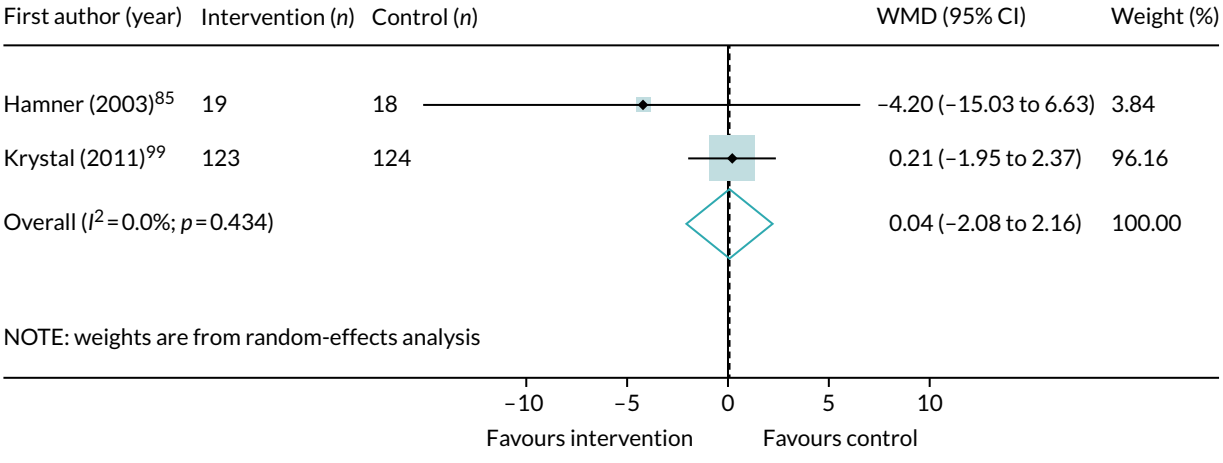

FIGURE 100 Meta-analysis of post-treatment weighted mean difference (WMD) for total psychotic symptoms, comparing risperidone with placebo.

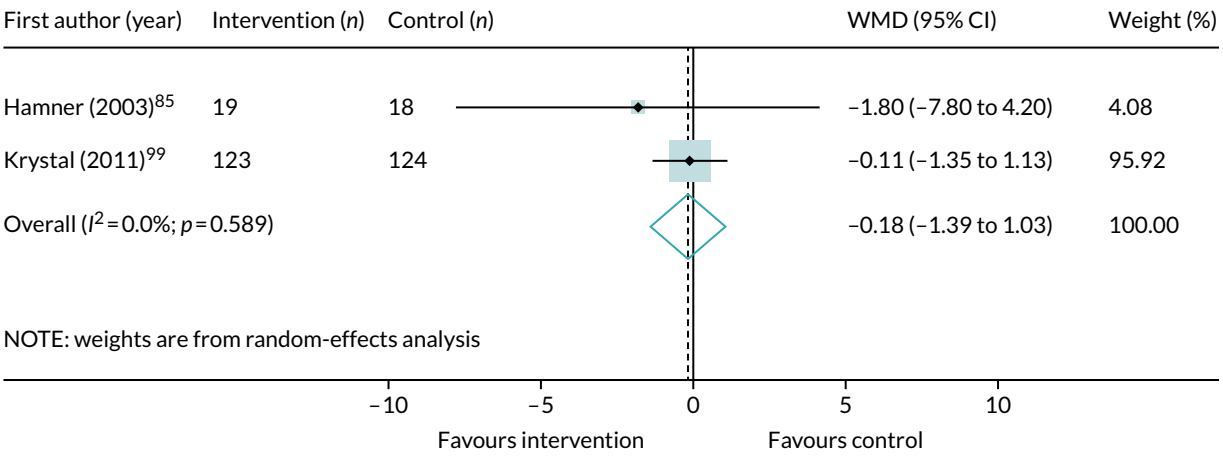

FIGURE 101 Meta-analysis of post-treatment weighted mean difference (WMD) for general psychopathology symptoms, comparing risperidone with placebo.

Attrition meta-analyses

Veterans

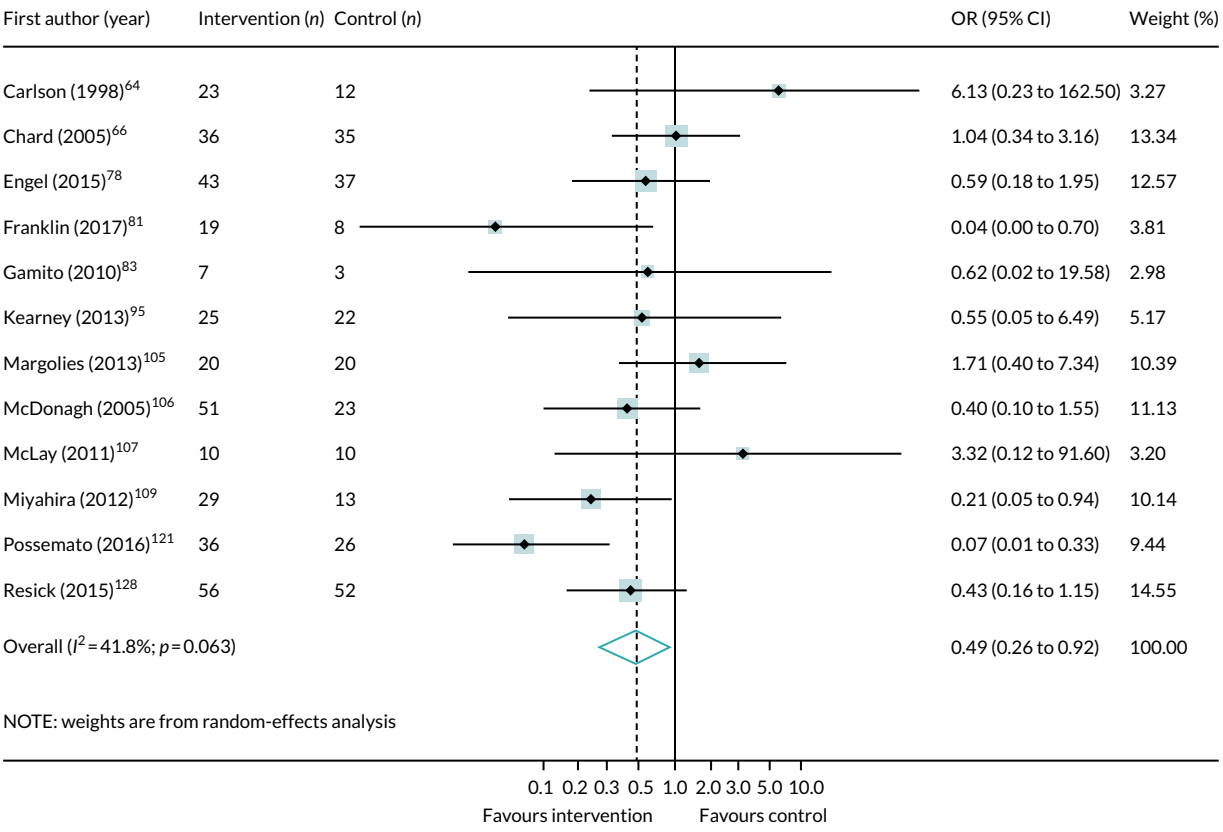

FIGURE 102 Meta-analysis of OR of attrition from all psychological interventions compared with control, among a veteran population.

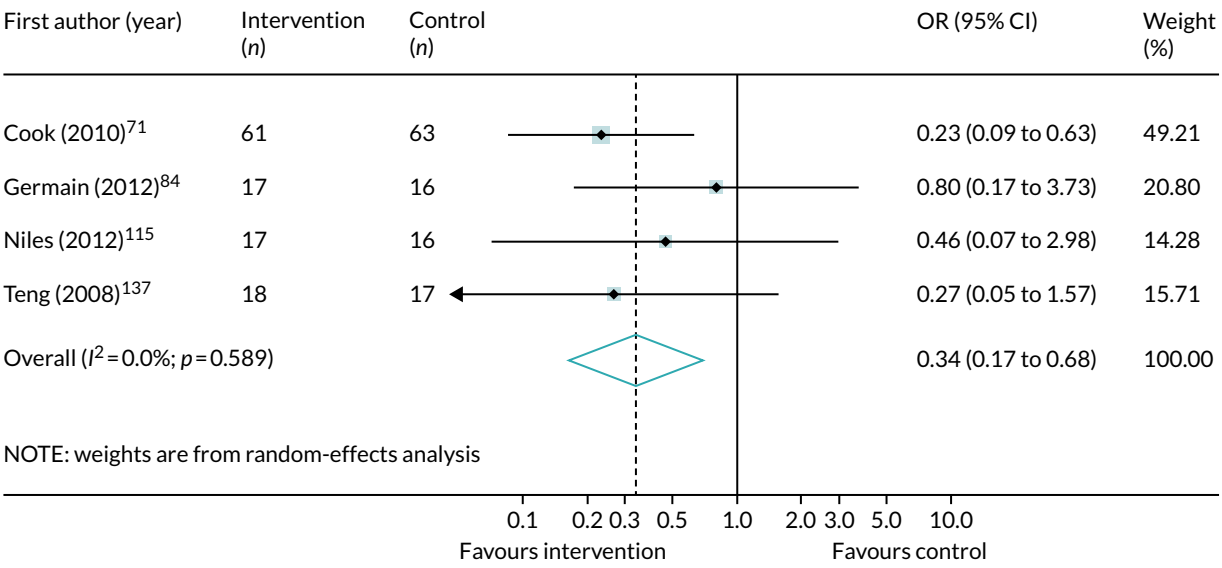

FIGURE 103 Meta-analysis of OR of attrition from all psychological interventions compared with active controls, among a veteran population.

Pharmacological interventions

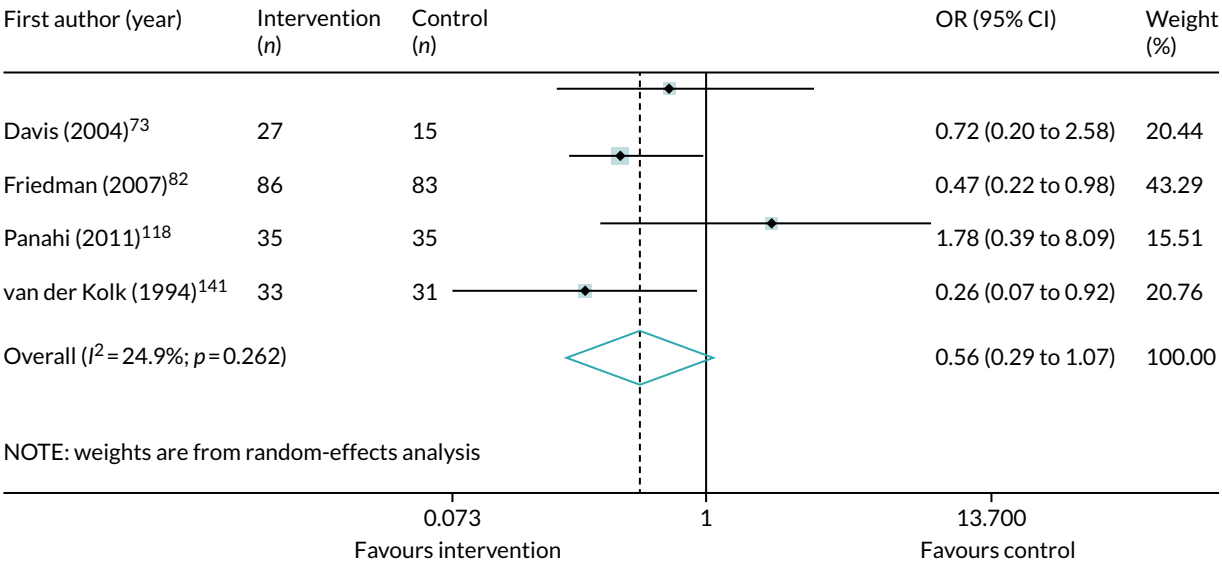

FIGURE 104 Meta-analysis of OR of attrition from antidepressants compared with placebo, among a veteran population.

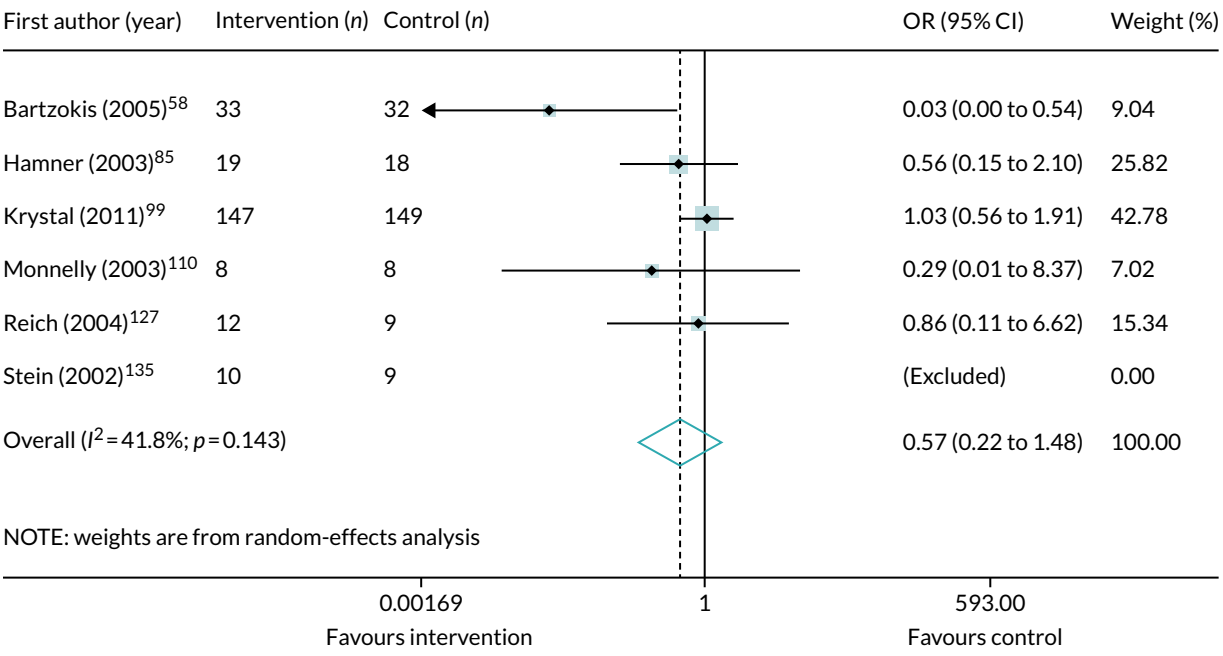

FIGURE 105 Meta-analysis of OR of attrition from antidepsychotics compared with placebo, among a veteran population.

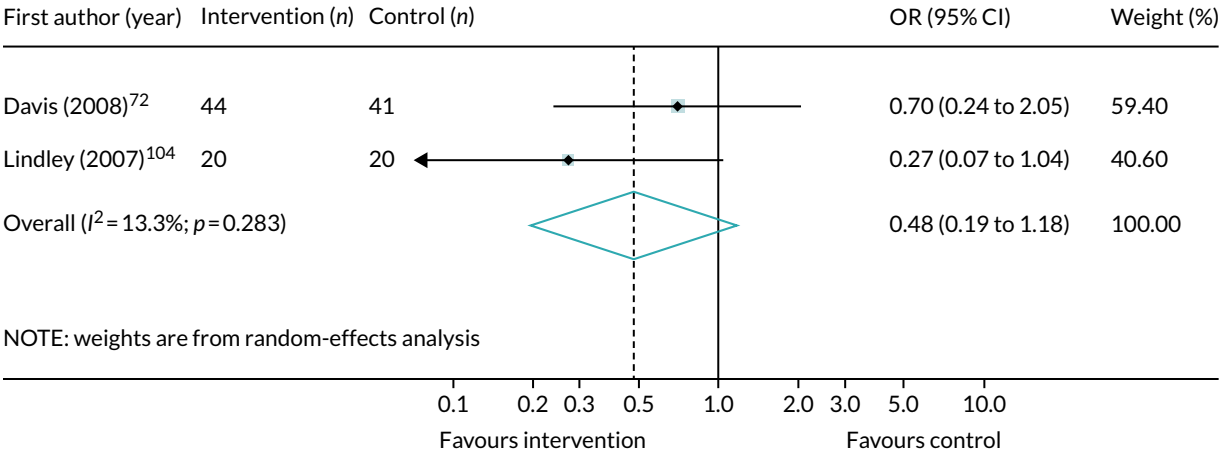

FIGURE 106 Meta-analysis of OR of attrition from anticonvulsants compared with placebo, among a veteran population.

Childhood sexual abuse populations

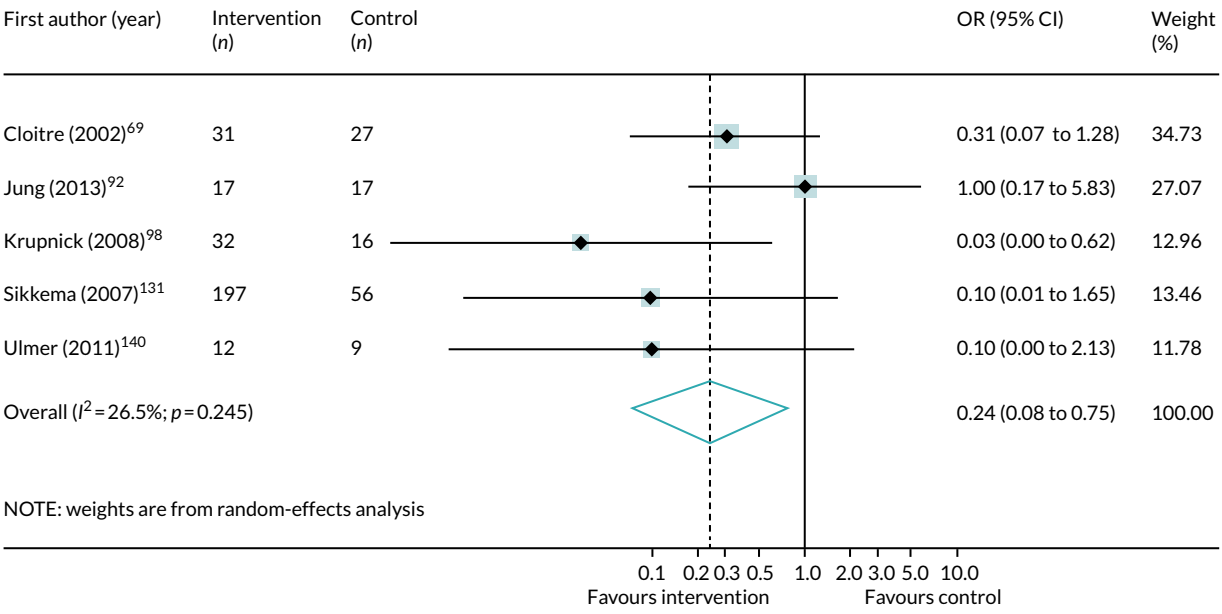

FIGURE 107 Meta-analysis of OR of attrition from all psychological interventions compared with control, among a childhood sexual abuse population.

Refugee populations

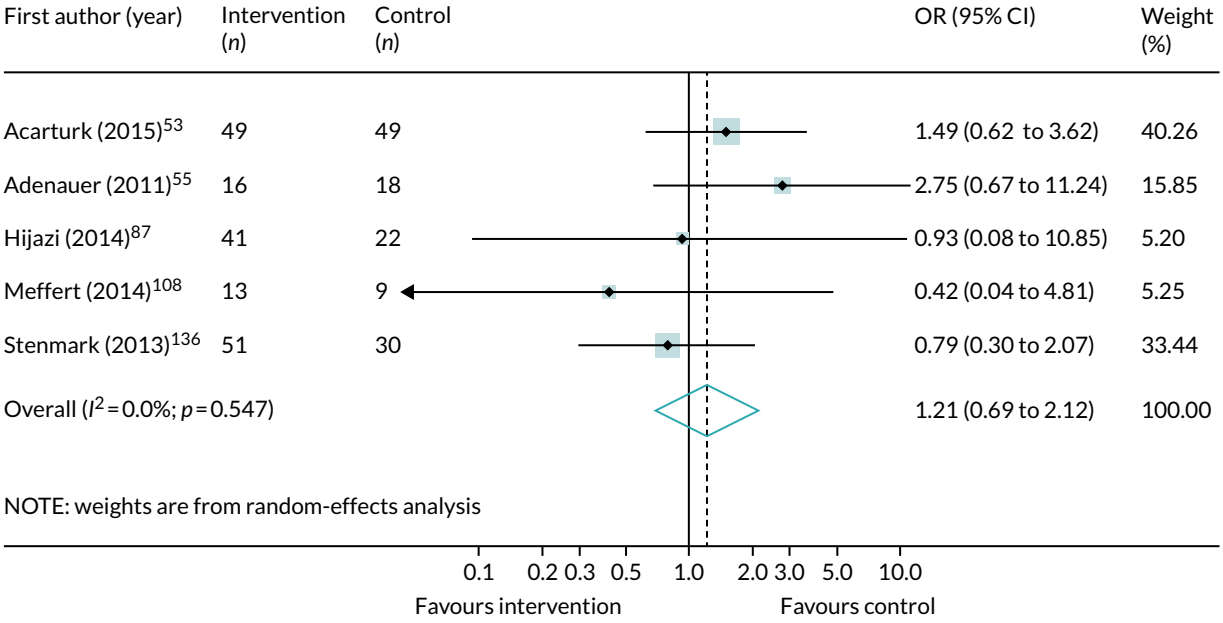

FIGURE 108 Meta-analysis of OR of attrition from all psychological interventions compared with control, among a refugee population.

Domestic violence populations

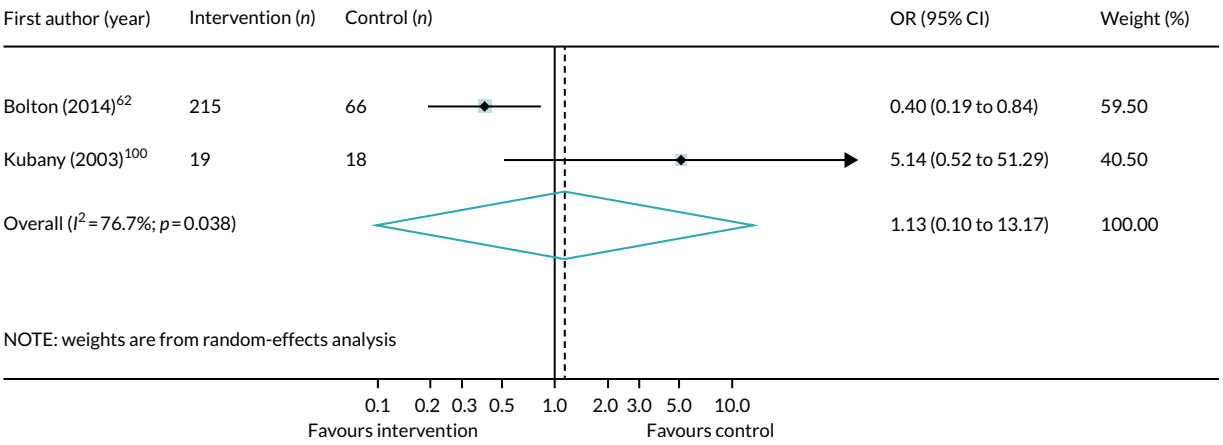

FIGURE 109 Meta-analysis of OR of attrition from all psychological interventions compared with control, among a domestic violence population.

War-affected populations

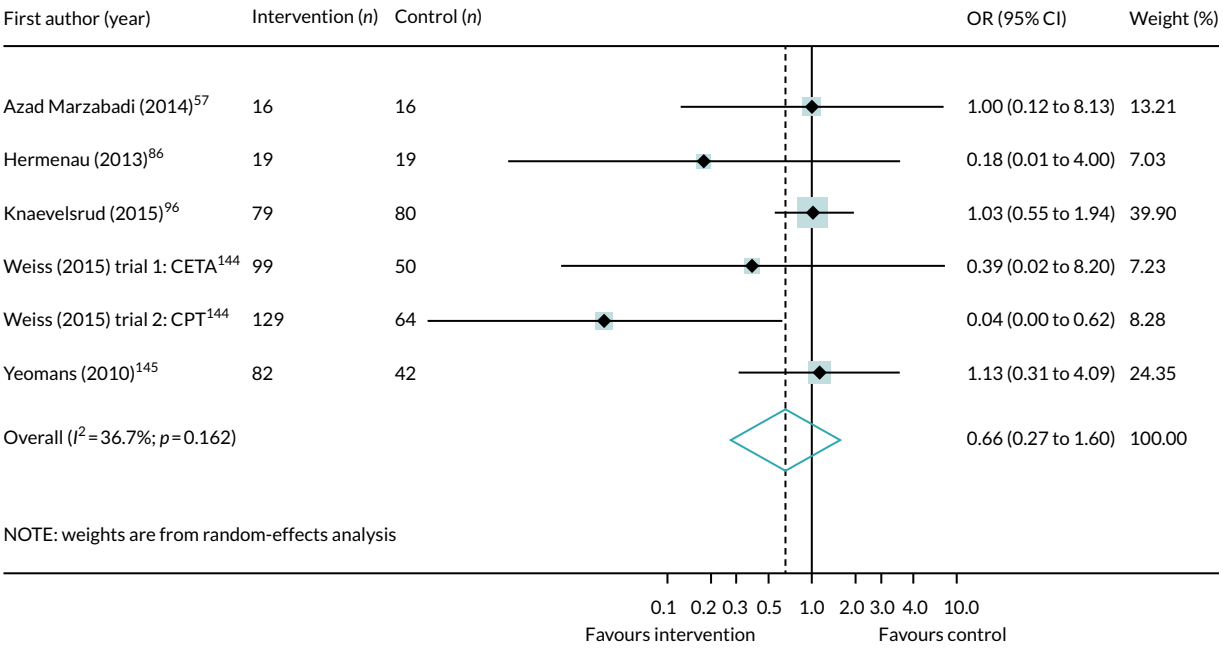

FIGURE 110 Meta-analysis of OR of attrition from all psychological interventions compared with control, among a war-affected population. CETA, common elements treatment approach; CPT, cognitive treatment therapy.

Appendix 11 Characteristics of qualitative studies included

TABLE 49 Characteristics of the qualitative studies included

Authors (year), country	Aim	Population (sample size)	Intervention(s) and delivery	Outcomes	Qualitative approach and data collection	CERQual outcome
Bermudez *et al.* (2013),[163] USA	An analysis of the perspectives of women with trauma exposure participating in mindfulness-based interventions over time	Low-income minority women with a PTSD history exposed to intimate partner violence ($n = 10$)	Group MBSR	Struggle to practise meditation, vision of growing and helping, personal and interpersonal improvement	Semistructured interviews/focus group Thematic analysis (interpretive phenomenological analysis)	Minimal concerns Contributes to existing knowledge, identifies areas of value to women experiencing intimate partner violence
Dutton *et al.* (2013),[164] USA	The use of MBSR as a community-based intervention to reduce health disparities for low-income, predominantly African American, women with a history of intimate partner violence and PTSD	Low-income minority women with a PTSD history exposed to intimate partner violence ($n = 53$)	Group MBSR	Feasibility, initial interest to participate Acceptability, congruent and relevant to participant needs Positive benefits included increased awareness; self-acceptance; self-empowerment, non-reactivity and self-care; decreased distress; increased sense of belonging and compassion	Follow-up interviews Thematic findings	Minimal concerns Description of method lacking Pilot study to inform future research. Offers insight into dropout rates and reasons for attrition, as well as effects of conflict within the groups
Hughes and Rasmussen (2010),[162] USA	Study to examine the use of motivational interviewing with women receiving services at a domestic violence shelter	Women in domestic shelters who have been exposed to domestic violence. Experimental group ($n = 10$) and control group ($n = 10$) were included in the mixed-methods study but not all were included in the qualitative review ($n = 6$)	Motivational interviewing vs. treatment as usual	Self-perception, beliefs of abuse causation, beliefs of shelter efficacy, emotions towards abuser, specific statements, beliefs of personal strength	Interviews/grounded theory Part of mixed-methods study	Minimal concerns Some qualitative methods reported; results not thematic (more difficult to pick out) Pilot study. Valuable to inform future design of full study

Authors (year), country	Aim	Population (sample size)	Intervention(s) and delivery	Outcomes	Qualitative approach and data collection	CERQual outcome
Hundt *et al.* (2017),[166] USA	Qualitative interviews to elicit first-hand accounts of veterans' experiences in these evidence-based psychotherapies	Male and female veterans ($n = 23$)	Prolonged exposure, cognitive processing therapy or both	Patient experience of intervention, perceptions of treatment mechanisms	Qualitative interviews Thematic analysis (grounded theory). Focus is qualitative	Minimal concerns Contributes to body of evidence for patient's satisfaction with prolonged exposure treatment and cognitive processing therapy
Martinez *et al.* (2015),[165] USA	Study to better understand the unique challenges that may keep veterans referred to MBSR from enrolling and completing the programme	Male and female veterans ($n = 48$)	MBSR vs. no control	Barriers to enrolment and participation	Semistructured interviews/content analysis Some qualitative methods reported and thematic findings. Focus is qualitative	Minimal concerns Provides insight into barriers to enrolment and participation by veterans in MBSR
Naved *et al.* (2009),[161] Bangladesh	Evaluation of an initiative to use paramedics as first-level mental health counsellors of abused women in rural Bangladesh (2003–2004) from the perspective of the abused women	Women in rural Bangladesh exposed to lifetime physical and sexual abuse ($n = 30$)	Paramedic-conducted mental health counselling	Includes patient experience of the intervention	In-depth interviews/ thematic/content analysis Part of mixed-methods design (survey and interviews)	Significant concerns regarding recruitment and data analysis Mixed-methods design. Value in identifying barriers to participation in low-income rural areas
Palmer *et al.* (2007),[167] Canada	Inpatient programme for traumatic stress recovery in which patients were interviewed after discharge about their experiences during treatment	Males and females exposed to childhood sexual abuse ($n = 30$)	Group 6-week inpatient programme for traumatic stress recovery. Community milieu (group healing), safety (supportive environment), addressing problematic behaviours, traumatic re-enactment	Includes patient experience of intervention	Semistructured interviews Thematic/constant comparison/ethnography. Part of a larger quantitative study	Minimal concerns Useful to inform participant screening and selection when designing group-based interventions

continued

TABLE 49 Characteristics of the qualitative studies included (*continued*)

Authors (year), country	Aim	Population (sample size)	Intervention(s) and delivery	Outcomes	Qualitative approach and data collection	CERQual outcome
Parker *et al.* (2007),[168] Canada	Qualitative study to understand how women with a history of child maltreatment experienced the 'Women Recovering from Abuse Program' (WRAP), an existing intensive group treatment programme	Women exposed to childhood sexual abuse ($n = 7$)	Group treatment	Includes patient experience of intervention	Semistructured interviews Thematic/ phenomenological approach. Focus is qualitative. Some qualitative methods reported. Thematic findings	No concerns Useful to examine the phenomenological approach to investigate the patients' perspective of the intervention in relation to their own personal lived experiences
Vincent *et al.* (2013),[169] UK	This study considers the acceptability of trauma-focused CBT for asylum seekers with PTSD by exploring their experiences of treatment	Asylum seekers exposed to trauma ($n = 7$)	Trauma-focused CBT for PTSD	Includes patient experience of the intervention – acceptability	Semistructured interviews Interpretive phenomenological analysis	Minimal concerns Useful insight into the challenges of examining the value of interventions on asylum seekers with PTSD

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