Australian Guidelines for the Prevention and Treatment of Acute Stress Disorder, Posttraumatic Stress Disorder, and Complex Posttraumatic Stress Disorder

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Summary of recommendations

Introduction (including guidance for use of MAGICApp)

Children and adolescents pre-incident preparedness

Children and adolescents within the first three months of exposure to a traumatic event

Early psychosocial prevention interventions for children

Conditional recommendation (against)

Individual psychological debriefing For children and adolescents within the first three months after trauma exposure, we suggest providing information, emotional support, and practical assistance in preference to individual psychological debriefing.

Remark: Psychological debriefing aims to normalise reactions and promote emotional processing of the traumatic event through a structured process. The debriefing interventions are single-session and based on critical incident stress debriefing (CISD); individuals are asked to provide detailed facts about their traumatic experience, their thoughts, reactions and symptoms before being provided with psychoeducation about symptoms and how to deal with them.
The terms psychological debriefing and critical incident stress debriefing are often used interchangeably. The former describes a class of interventions delivered shortly following a trauma (usually between 24 and 72 hours) that aim to relieve distress and facilitate a rapid return to normal functioning, thereby mediating or avoiding long-term trauma symptoms. Psychological debriefing operates on the principles of ventilation (an opportunity to talk about the experience), normalisation of distress, and psychoeducation regarding potential symptoms. CISD, on the other hand, is a specific form of debriefing developed in the 1980s. It centres predominantly around group-based interventions for secondary victims such as emergency services personnel, rather than primary victims. While generally group-based, it also advocates individual (or one-on-one) interventions as an acceptable and expected variant. It relies heavily on processes of reconstruction of the traumatic event, ventilation, and normalisation, and includes a structured education component. Over time, CISD has been amalgamated within a framework of self-help activities and structured organisational processes, called critical incident stress management (CISM).
It should be noted that CISD and psychological debriefing differ from operational debriefing, a group process undertaken in high risk industries to review a particular operation or activity. The aim of operational debriefing is to review the events and processes of the operation and to apply the lessons learnt to future events. Operational debriefing is considered good practice in high risk industries as a method of improving service quality and is not a focus of these Guidelines.

Self-directed online psychoeducation for caregivers and children
RESEARCH RECOMMENDATION

For children and adolescents within the first three months after exposure to a potentially traumatic event, we suggest continuation of treatment as usual in preference to self-directed online psychoeducation for caregivers and children.

There is emerging evidence for self-directed online psychoeducation in caregivers and children following traumatic physical injury, and this could be used in a research context.

Remark: Psychoeducation provides individuals (in this context, caregivers and/or their children) with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies. One study included psychoeducation more broadly with strategies such as (1) promoting adaptive cognitive appraisals, (2) decreasing excessive early avoidance coping, and (3) promoting use of social support. Psychoeducation for caregivers can include information regarding common child reactions to trauma, their likely time course, and how best they can assist their child's emotional recovery (e.g., such as offer their child the opportunity to talk, not avoiding talking about the accident, and encouraging normal routine).

Self-directed online psychoeducation intervention for children only RESEARCH RECOMMENDATION

For children and adolescents within the first three months after exposure to a potentially traumatic event, we suggest continuation of treatment as usual in preference to self-directed online psychoeducation for children.

There is emerging evidence for self-directed online psychoeducation in children following an acute medical event, and

this could be used in a research context.

Remark:
Psychoeducation provides individuals (in this context, children) with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies.

Psychoeducation
For children and adolescents within the first three months after exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on psychoeducation as a stand-alone intervention. However, psychoeducation should be routinely provided as part of usual care.

Remark:
Psychoeducation provides individuals (in this context, children) with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies.

Self-directed online psychoeducation for caregivers only For children and adolescents within the first three months after exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on self-directed online psychoeducation for caregivers only.

Remark: Psychoeducation provides individuals with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies.

Early psychosocial treatment interventions for children

Conditional recommendation

Child and Family Traumatic Stress Intervention (CFTSI)

For children and adolescents within the first three months after trauma exposure where symptoms of PTSD are present, we suggest offering child and family traumatic stress intervention (CFTSI) in preference to supportive counselling.

Remark: The Child and Family Traumatic Stress Intervention (CFTSI) is a four-session caregiver-child model designed for early intervention and secondary prevention for children aged 7-17.*[19]* The CFTSI focusses on two PTSD risk factors of poor social or familial support and poor coping skills and aims to ameliorate these risks by (1) increasing communication between the affected child and their caregivers about feelings, symptoms and behaviors with the goal of increasing the caregivers' support of the child and (2) providing specific behavioural skills that are taught both to the caregiver and child to assist in coping with symptoms.

Brief trauma-focused CBT

For children and adolescents within the first three months after exposure to a traumatic event where symptoms of PTSD are present, there was insufficient evidence to make a recommendation on brief TF-CBT.

Remark:
Trauma-focussed CBT is intended to help an individual come to terms with trauma through exposure to and emotional processing of memories of the event. This two session model of TF-CBT is delivered to children aged 7-16, with at least one caregiver present during each session. The intervention includes event reconstruction using drawing and toys for children aged 7-11 or less childlike items (small model cars and simple wooden figures) for adolescents, modification of unhelpful appraisals of the event, psychoeducation, and development of general age-appropriate coping strategies (e.g., talking about the accident, relaxation skills, exposure strategies).

Brief trauma-focused CBT for caregiver and child

For children and adolescents within the first three months after exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on Brief TF-CBT for caregiver and child

Remark:
Brief trauma-focused CBT is delivered to children between 1-6 years old and their caregiver. To ensure that the children could benefit from the intervention, the caregivers were primarily addressed. This aimed to support the child's practice and mastery of skills as well as enhance positive parenting and parental support. The intervention includes event reconstruction using drawing and toys (with the assistance for the caregiver, e.g., the caregiver led the reconstruction while the child watched), modification of unhelpful appraisals of the event, psychoeducation, and development of parental coping strategies (e.g., parents were instructed on how to cope with their child's stress reactions, including sleeping problems and temper tantrums). One study also included two optional brief (5-15 minute) follow-up contacts (in person or via phone).

Narrative Exposure Therapy for children (kidNET)

For children and adolescents within the first three months after exposure to a traumatic event where symptoms of PTSD are present, there was insufficient evidence to make a recommendation on Narrative Exposure Therapy (NET).

Remark:
KidNET is a modified version of narrative exposure therapy (NET) which has been developed for use with children. NET is a standardised short-term intervention adapted from testimony therapy (traditionally used with survivors of torture and civilian casualties of war), as well as from standard exposure approaches. It was originally developed both to treat survivors and to document human rights violations. In NET, the person is asked to develop and describe a narrative of their life from early childhood to present, focussing in detail on the traumatic events and elaborating on the associated thoughts and emotions. It is proposed that NET works in two ways: promoting habituation to traumatic memories through exposure, and reconstructing the individual's autobiographic memory.

Stepped/collaborative care

For children and adolescents within the first three months after exposure to a traumatic event where symptoms of PTSD are present, there was insufficient evidence to make a recommendation on preventative interventions within a stepped care service model

Remark: Preventative interventions within a stepped care service model aim to matches each child's needs to appropriate levels of intervention, including psychoeducation for parents. This study evaluated the delivery and effectiveness of a targeted preventive pediatric intervention based on best practice recommendations and integrated within acute medical care.*[20]*

New

Modified Written Exposure Therapy (m-WET)

For children and adolescents within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on modified written exposure therapy.

Remark:
Modified Written Exposure Therapy (m-WET) is a low-intensity variant of written exposure therapy, with the intervention delivered in groups by community facilitators with minimal training. The intervention is delivered over five sessions with participants completing a 30-minute writing task in each session.

New

Trauma-Focused CBT

For children and adolescents within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on trauma-focused CBT.

Remark:
Trauma-focussed cognitive-behavioural therapy (TF-CBT) is a broad term that encompasses any treatment that employs the standard principles of CBT combined with some form of trauma processing. Generally, TF-CBT involves the integration of CBT

principles with components of exposure therapy, including imaginal exposure and graded in vivo exposure. Across most studies from the systematic review that underpins these Guidelines, the typical format of TF-CBT involves psychoeducation, breathing/ relaxation training (arousal reduction strategies), imaginal exposure, in vivo exposure, and cognitive restructuring.

New

Memory Training for Recovery-Adolescent (METRA)

For children and adolescents within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on memory training for recovery-adolescent.

Remark:
Memory Training for Recovery-Adolescent (METRA) is a manualized group training intervention designed to enhance memory recall and processing of traumatic experiences. It includes psychoeducation sessions and memory recall exercises where participants engage in recalling memories in response to different cues, generating specific memories for homework assignments. Additionally, participants write about their experiences related to a traumatic event for 30 minutes in multiple sessions, supported by facilitators who ensure a structured and safe environment for this process.

Early pharmacological interventions for children

Propranolol For children and adolescents within the first three months after exposure to a traumatic event where symptoms of PTSD are present, there was insufficient evidence to make a recommendation on propranolol.

Remark:
Propranolol, sold in Australia under the trade name Inderal, is a medication from the beta blocker class.

Children and adolescents with clinically relevant post-traumatic stress symptoms

Psychological interventions for children and adolescents with PTSD

Strong recommendation

Trauma-focused CBT (TF-CBT) for child

For children and adolescents with symptoms of PTSD, we recommend TF-CBT.

Remark:
Trauma-focused CBT is intended to help an individual come to terms with trauma through exposure to and emotional processing of memories of the event. Trauma-focused CBT for children is typically delivered by a trained practitioner to children or adolescents over six to 12 sessions, and more if clinically indicated. The intervention should be adapted to the child or young person's age or development. Trauma-focused CBT generally includes psychoeducation about reactions to trauma, affect regulation skills, elaboration and processing of the trauma memories, processing of trauma-related emotions (such as shame, guilt, and anger), restructuring of unhelpful trauma-related thoughts and meanings for the individual and strategies to overcome avoidance.

Strong recommendation

Trauma-focussed CBT for caregiver and child
For children and adolescents with symptoms of PTSD, we recommend TF-CBT for caregiver and child.

Remark: This is a trauma-focussed CBT intervention delivered to the child/adolescent and their caregiver. When possible, parents or caregivers are included throughout treatment to support the child or adolescent's practice and mastery of skills and to enhance positive parenting and parental support.

Conditional recommendation

Eye movement desensitisation and reprocessing (EMDR)

For children and adolescents with symptoms of PTSD, we suggest offering EMDR where TF-CBT is unavailable or unacceptable.

Remark: Eye Movement Desensitisation and Reprocessing (EMDR) was originally developed by Francine Shapiro to treat traumatic memories in adults with PTSD. For use with children, modifications of the EMDR protocol are made to adjust for child age and developmental level. For example, whenever needed, the eye movements can be replaced by tapping and face-figures can be used to assess the child's emotional state.

EMDR is a standardised, eight-phase, trauma-focussed therapy involving the use of bilateral physical stimulation (eye movements, taps, or tones). EMDR is based on the assumption that, during a traumatic event, overwhelming emotions or dissociative processes may interfere with information processing. This leads to the experience being stored in an 'unprocessed' way, disconnected from existing memory networks. In EMDR the person is asked to focus on the trauma-related imagery, and the associated thoughts, emotions, and body sensations while bilateral physical stimulation, such as moving their eyes back and forth, occurs. Processing targets may involve past events, present triggers and adaptive future functioning. It is proposed that this dual attention facilitates the processing of the traumatic memory into existing knowledge networks, although the precise mechanism involved is not known.

Parent-child relationship enhancement (play therapy) RESEARCH RECOMMENDATION

For children and adolescents with symptoms of PTSD we suggest continuation of treatment as usual in preference to parent-child relationship enhancement (play therapy).

There is emerging evidence for parent-child relationship enhancement (play therapy) for children with symptoms with PTSD and this could be used in a research context.

Remark: Child play interventions are guided by the unfolding child–caregiver interactions (if the parent is present in the session) and by the child's play with developmentally and culturally appropriate toys selected to elicit trauma play or enable children to communicate their thoughts and feelings. Regular child play sessions are interspersed with individual parent sessions.

Narrative Exposure Therapy for children (kidNET) RESEARCH RECOMMENDATION

For children and adolescents with symptoms of PTSD we suggest continuation of treatment as usual in preference to narrative exposure therapy for children (kidNET).

There is emerging evidence for kidNET following exposure to traumatic events, and this could be used in a research context.

Remark: KidNET is a modified version of narrative exposure therapy (NET) which has been developed for use with children. NET is a standardised short-term intervention adapted from testimony therapy (traditionally used with survivors of torture and civilian casualties of war), as well as from standard exposure approaches. It was originally developed both to treat survivors and to document human rights violations. In NET, the person is asked to develop and describe a narrative of their life from early childhood to present, focussing in detail on the traumatic events and elaborating on the associated thoughts and emotions. It is proposed that NET works in two ways: promoting habituation to traumatic memories through exposure, and reconstructing the individual's autobiographic memory.

Trauma-focussed CBT for child (group)

RESEARCH RECOMMENDATION

For children and adolescents with symptoms of PTSD, we suggest doing TF-CBT in preference to group trauma-focussed CBT for child.

There is emerging evidence for group TF-CBT for child following exposure to traumatic events, and this could be used in a research context.

Remark: This is a CBT intervention with a trauma focus delivered in a group setting. The specific interventions included in the systematic review studies involve six to eight modules delivered by facilitators and include psychoeducation on trauma, dual attention tasks (such as knee tapping while thinking of traumatic events), controlled breathing, progressive muscle relaxation, identifying thoughts and feelings, reframing unhelpful thoughts, graded exposure techniques and trauma processing using artwork or sharing written trauma narratives with the group.

Trauma-focussed CBT for caregiver and child (Individual and group)

RESEARCH RECOMMENDATION

For children and adolescents with symptoms of PTSD, we suggest doing TF-CBT in preference to individual and group trauma-focussed CBT for caregiver and child.

There is emerging evidence for Individual and group TF-CBT for caregiver and child following exposure to traumatic events, and this could be used in a research context.

Remark: A trauma-focussed CBT intervention with a combination of group sessions, caregiver education sessions, and individual sessions. Interventions include psychoeducation, relaxation training, cognitive restructuring, social problem solving, and trauma-focussed intervention strategies, including graded exposure and trauma processing using narrative techniques.

Family therapy For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on family therapy.

Remark:
A one day (four-session) family group treatment model to reduce PTSD symptoms in adolescent survivors of childhood cancer. Treatment used cognitive behavioural techniques to reduce distress. Two sessions were conducted in separate groups (survivors, mothers, fathers, and siblings) and two sessions included all family members.

Neurofeedback

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on neurofeedback.

Remark:
Neurofeedback involves real-time displays of brain activity that are used to help individuals train (self-regulate) their brain activity. In neurofeedback training, neural activity is recorded from scalp electrodes and fed back to participants in a readily understood, visual format (such as simple computer games). Neurofeedback training is hypothesised to help individuals with PTSD acquire self-regulation skills by stabilising EEG activity, thereby improving focus and attention.*[585]*

Non-directive counselling For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on non-directive counselling.

Remark: Non-directive counselling involves active, empathic listening to the patient who is usually provided with unconditional positive regard. The therapist helps the patient to explore and clarify issues, may provide advice, reflect and confirm appropriate reactions, and introduce problem-solving techniques.

Psychoeducation (group)

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on

group psychoeducation.

Remark: Group Psychoeducation provides individuals with information about traumatic stress reactions, PTSD and how to manage them in a group format.

Reminder-focussed positive psychiatry (RFPP)

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on Reminder-focussed positive psychiatry (RFPP).

Remark:
Reminder-focussed positive psychiatry (RFPP) comprises of group therapy for children focussing on contextual discrimination and emotional regulation through the promotion of adaptive coping strategies (e.g., focus on positive feelings, thoughts, goals and choices) in response to trauma reminders. Psychoeducation is also provided to caregivers using the RFPP modules.

Trauma-focussed CBT for caregiver and child (group)

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on group TF-CBT for caregiver and child.

Remark:
A trauma-focussed CBT intervention with a combination of group sessions for caregivers and children. Interventions include psychoeducation, coping strategies, communication, behaviour management, and trauma-focussed intervention strategies, including graded exposure and trauma processing using narrative techniques.

Trauma-focussed CBT for caregiver
For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on TF-CBT for caregiver.

Remark: Trauma-focussed CBT for caregiver is a specific, phase-based model of CBT-T delivered to a child/adolescent caregiver. Caregivers are trained to serve as the child/adolescent's therapeutic agent. Caregivers are taught skills for responding to their child's behaviours and needs through modeling, gradual exposure and processing exercises. Caregivers are also trained in analysing their own behaviour in relation to their children and child management skills.

New

Unified Protocol for the Treatment of Emotional Disorders in Adolescents (UP-A)

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on Unified Protocol for the Treatment of Emotional Disorders in Adolescents.

Remark:
The UP-A program consists of 12 sessions aimed at enhancing emotion regulation and reducing reactivity. Sessions include time with parents alone or conjoint sessions with adolescents, depending on preference. Core modules focus on understanding emotions, increasing cognitive flexibility, emotion-focused exposure, and relapse prevention. Additional modules address present-focused awareness, reducing emotional avoidance, physical sensation awareness, safety, and parenting training.

Pharmacological interventions for children and adolescents with PTSD

Sertraline For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on sertraline.

Remark: Sertraline, sold in Australia under the trade name Zoloft, is an antidepressant from the class of selective serotonin reuptake inhibitors (SSRIs).

Ifenprodil tartrate

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on ifenprodil tartrate.

Remark:
Ifenprodil tartrate is a neuroprotective agent that acts as a selective NMDA receptor antagonist, modulating glutamatergic activity with potential therapeutic benefit for symptoms of PTSD

Non-psychological and non-pharmacological treatments/interventions for children with PTSD

Mind-body skills group **RESEARCH RECOMMENDATION**

For children and adolescents with symptoms of PTSD we suggest continuation of treatment as usual in preference to mind-body skills group.

There is emerging evidence for mind-body skills group in refugee populations exposed to war-related traumatic events, and it could be used in a research context.

Remark: “Mind-body” techniques used in the studies in the systematic review include guided imagery, relaxation techniques, meditation, autogenic training, and biofeedback. In addition to these modalities, a variety of forms of self-expression may be offered, such as art therapy and written exercises. In refugee populations exposed to war-related traumatic events there is emerging evidence for the delivery of these mind-body techniques in small groups.

Trauma-focussed expressive art therapy For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on trauma-focussed expressive art therapy.

Remark: In the treatment intervention used in this study, adolescent participants completed at least 13 collages or drawings and compiled them in a hand-made book format to express a narrative of their 'life story'. The 16 session protocol on art and discussion topics focussed on enhancing the adolescent's capacity to monitor and regulate feelings of safety and danger, and to share trauma-related experiences and describe coping responses.

Adults pre-incident preparedness

Attention bias modification training (ABMT) **RESEARCH RECOMMENDATION**

For adults who are likely to be exposed to trauma, we suggest usual practice in preference to pre-incident attention bias modification training (ABMT).

There is emerging evidence for pre-incident ABMT in military populations and this could be used in a research context.

Remark: Attention bias modification training (ABMT) involves the delivery of brief (approximately 20 minute), computerised tasks. Attentional avoidance of negative information is encouraged through use of a modified dot-probe task where probes always appear in the location opposite negative stimuli. This procedure is designed to ‘train’ an individual’s attention away from or toward negative or threatening information. The immediate effects of ABMT appear to be most prominent when applied prior to exposure to a potentially traumatic event. ABMT has been delivered to soldiers immediately prior to combat deployment in order to attenuate the association between combat exposure and PTSD-related symptoms.

Attention control training **RESEARCH RECOMMENDATION**

For adults who are likely to be exposed to trauma, we suggest usual practice in preference to preincident attention control training.

There is emerging evidence for preincident attention control training and this could be used in a research context.

Remark: Attention control training uses the same format as ABMT but presents equal numbers of targets in the locations of threat and neutral attention stimuli (such as words). It is not designed to shift attention patterns (to favour neutral or threat stimuli) but rather to

balance attention between neutral and threat stimuli.

Heart rate variability biofeedback (HRVB) RESEARCH RECOMMENDATION

For adults who are likely to be exposed to trauma, we suggest usual practice in preference to heart rate variability biofeedback (HRVB).

There is emerging evidence for heart rate variability biofeedback (HRVB) and this could be used in a research context.

Remark: Heart rate variability biofeedback (HRVB) is a form of cardiorespiratory intervention that consists of feeding back beat-by-beat heart rate data to the participant who tries to maximise respiratory sinus arrhythmia (RSA). RSA is the heart pattern that occurs when heart rate increases during inhalation and decreases during exhalation.

This intervention has been tested in the context of pre-combat deployment in order to prevent subsequent PTSD.

Cognitive bias modification for interpretation (CBM-I) For adults who are likely to be exposed to trauma, there was insufficient evidence to make a recommendation on cognitive bias modification for interpretation (CBM-I).

Remark: CBM-I is a computer-based training that aims to promote less negative appraisal of post-event retrospection using software that presents emotionally ambiguous deployment-related scenarios in sentence format. The last word of each sentence is presented as a word fragment which the participant is asked to complete. These word fragments gradually increase the proportion of neutral or non-negative interpretations of the scenario.

Disaster Worker Resiliency Training Program

For adults who are likely to be exposed to trauma, there was insufficient evidence to make a recommendation on the Disaster Worker Resiliency Training Program

Remark:
The Disaster Worker Resiliency Training (DWRT) Program is a single 4-hour workshop for emergency response personnel with three objectives: (1) Recognize signs and symptoms of disaster work-related stress, (2) Obtain support through employer and community resources, and (3) Build resilience by using stress reduction and coping strategies. The program consists of four sections. First, there are discussions around types of disasters, stress and resilience. Next, participants learn how to define acute and chronic stress and the symptoms of PTSD and learn about the impact of disasters. Third, participants learn about factors that help build resilience, including social support and help-seeking behaviours. Finally, techniques based on motivational interviewing, including relaxation, are used to engage participants in self-assessment and goal setting.

Mental Agility and Psychological Strength (MAPS) resilience training For adults who are likely to be exposed to trauma, there was insufficient evidence to make a recommendation on MAPS resilience training.

Remark: The Mental Agility and Psychological Strength (MAPS) training program aims to build knowledge and practical skills for psychological wellbeing and PTSD. It includes cognitive re-structuring, support seeking, and self-soothing or self-moderating through mindfulness and relaxation training.

Stress inoculation training (SIT) For adults who are likely to be exposed to trauma, there was insufficient evidence to make a recommendation on stress inoculation training (SIT).

Remark: Stress inoculation training (SIT) is a non-trauma-focussed anxiety management program that involves teaching coping skills to manage stress and anxiety (Meichenbaum, 1974). SIT consists of three phases. The first phase, conceptualization, includes education about stress, development of a collaborative relationship between the provider and the patient, and assessment and conceptualization of the stressors the patient is facing. The second phase, skill acquisition and rehearsal, includes teaching the patient coping skills that are tailored to the needs of the patient. These can include relaxation training, cognitive restructuring, problem-solving training, and positive self-statements. The final phase, application and follow-through, includes practicing coping skills and applying them to real life stressful situations through guided imagery, as well as relapse prevention (Meichenbaum & Deffenbacher, 1988).

These studies investigate the effectiveness of a predeployment SIT program of relaxation breathing to lessen the mental health consequences of combat stress.

Adults within the first three months of a traumatic event

Single session early prevention interventions for adults

Conditional recommendation (against)

Psychological debriefing (group)

For adults within the first three months after trauma exposure, we suggest providing information, emotional support, and practical assistance in preference to group psychological debriefing.

Remark: Group psychological debriefing is a single-session, semi-structured intervention, applied shortly after exposure to a PTE, during which groups are guided through a seven-stage discussion soon after exposure to a severe stressor. Facts, thoughts and impressions are explored and education is provided on how to cope with possible stress reactions. Several methods of group debriefing have been proposed, most notably by Mitchell (1983) called Critical Incident Stress Debriefing (CISD). The goals of CISD following work-related exposure to a PTE are: (1) prevention and mitigation of the symptoms of traumatic stress and (2) promotion of recovery and acceleration of return to normal functioning.

The terms psychological debriefing and CISD are often used interchangeably. The former describes a class of interventions delivered shortly following a trauma (usually between 24 and 72 hours) that aim to relieve distress and facilitate a rapid return to normal functioning, thereby mediating or avoiding long-term psychopathology. Psychological debriefing operates on the principles of ventilation (an opportunity to talk about the experience), normalisation of distress, and psychoeducation regarding potential symptoms. CISD, on the other hand, is a specific form of debriefing developed in the 1980s which centres predominantly around group-based interventions for secondary victims such as emergency services personnel, rather than primary victims. While generally group-based, it also advocates individual (or one-on-one) interventions as an acceptable and expected variant. It relies heavily on processes of reconstruction of the traumatic event, ventilation, and normalisation, and includes a structured education component. Over time, CISD has been amalgamated within a framework of self-help activities and structured organisational processes, called critical incident stress management (CISM).

It should be noted that CISD and psychological debriefing differ from operational debriefing, a group process undertaken in high risk industries to review a particular operation or activity. The aim of operational debriefing is to review the events and processes of the operation and to apply the lessons learnt to future events. Operational debriefing is considered good practice in high risk industries as a method of improving service quality and is not a focus of these Guidelines.

Conditional recommendation (against)

Psychological debriefing (individual)

For adults within the first three months after trauma exposure, we suggest providing information, emotional support, and practical assistance in preference to individual psychological debriefing.

Remark: Individual psychological debriefing is the application of Critical Incident Stress Debriefing (CISD) in an individual setting. The intervention generally comprises an hour's debriefing combining a review of the traumatic experience, encouragement of emotional expression, and promotion of cognitive processing of the experience.

The terms psychological debriefing and CISD are often used interchangeably. The former describes a class of interventions delivered shortly following a trauma (usually between 24 and 72 hours) that aim to relieve distress and facilitate a rapid return to normal functioning, thereby mediating or avoiding long-term psychopathology. Psychological debriefing operates on the principles of ventilation (an opportunity to talk about the experience), normalisation of distress, and psychoeducation regarding potential symptoms. CISD, on the other hand, is a specific form of debriefing developed in the 1980s which centres predominantly around group-based interventions for secondary victims such as emergency services personnel, rather than primary victims. While generally group-based, it also advocates individual (or one-on-one) interventions as an acceptable and expected variant. It relies heavily on processes of reconstruction of the traumatic event, ventilation, and normalisation, and includes a structured education component. Over time, CISD has been amalgamated within a framework of self-help activities and structured organisational processes, called critical incident stress management (CISM).

It should be noted that CISD and psychological debriefing differ from operational debriefing, a group process undertaken in high risk industries to review a particular operation or activity. The aim of operational debriefing is to review the events and processes of the operation and to apply the lessons learnt to future events. Operational debriefing is considered good practice in high risk

industries as a method of improving service quality and is not a focus of these Guidelines.

Group 512 PIM

RESEARCH RECOMMENDATION

For adults within the first three months following exposure to a potentially traumatic event, we suggest usual practice in preference to Group 512 PIM.

There is emerging evidence for Group 512 PIM in Chinese military populations exposed to natural disaster and this could be used in a research context.

Remark: Group 512 PIM is an intervention tested on Chinese military rescuers and based on the standard principles of critical incident stress debriefing (CISD) developed by Mitchell (1983). Group 512 PIM involves four stages including introduction, discussing the facts, thoughts, reactions and symptoms related to the trauma followed by stress management tips. Group 512 PIM differs from standard CISD by including a final stage of cohesion training, where participants play games requiring team cooperation to foster military unit cohesion. This is a critical part of Group 512 PIM, as cohesion is thought to have protective effects in preventing stress.[163]

Computerised visuospatial task For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on computerised visuospatial task.

Remark:
Participants played a computerised visuospatial task (Tetris) on a computer or Nintendo DS for 10 to 20 minutes within 6 hours of experiencing a PTE (e.g., emergency caesarean or accident). It has been suggested that a playing computer game with high visuospatial demands following a PTE will disrupt the consolidation of sensory elements of the trauma memory, so reducing the experience of intrusive memories or flashbacks.

EMDR (single session)

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on delivering a single session of EMDR.

Remark: Single session EMDR follows the EMDR Protocol for Recent Critical Incidents (EMDR-PRECI). EMDR-PRECI is a modified version of Shapiro's Recent Traumatic Events Protocol (R-TEP) [162] which is specially designed for victims of recent traumatic events. EMDR-PRECI involves identifying the worst fragment of the client's trauma memory, followed by the remaining difficult fragments of the memory. Desensitising occurs by having the client focus on each memory fragment whilst simultaneously engaging in dual attention stimulation using eye movements, until all fragments have been processed and the client no longer experiences emotional, cognitive or somatic distress. In this study the EMDR sessions were delivered in the context of ER patients in a hospital.*[150]*

Prolonged Exposure (Single session)

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on single session Prolonged Exposure (PE).

Remark:
Exposure therapy is long established as an effective treatment for a range of anxiety disorders. The key objective of exposure therapy is to help the person confront the object of their anxieties. A fundamental principle underlying the process of exposure is that of habituation, the notion that if people can be kept in contact with the anxiety-provoking stimulus for long enough, their anxiety will inevitably reduce. This may occur within an exposure session (within-session habituation) or across a series of sessions (between-session habituation). More contemporary models emphasise information processing as a key mechanism.

The single session Prolonged Exposure involved intervention introduction, imaginal exposure (repeated recounting of trauma memories during sessions and listening to recordings of the recounting made during therapy sessions), processing (discussion of thoughts and feelings related to the exposure exercises), identifying in vivo exposures (approaching safe situations that patients avoided due to trauma-related fear), normal reactions to trauma and identification of self-care, breathing retraining, and assignment of homework.

Psychoeducation/self-help (individual)

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on individual psychoeducation/self-help.

Remark:
Psychoeducation provides individuals (in this context adults) with information about traumatic stress reactions, PTSD and how to manage symptoms in an individual, self-help format. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies.

Reassurance For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on reassurance.

Remark:
The 15-minute reassurance intervention comprised of education around the response to stressful medical events and challenging any cognitive distortions (e.g., unrealistic beliefs about being responsible for their injury).

Stress management (group)

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on group stress management.

Remark:
A single session group stress management workshop delivered via PowerPoint combining didactic instruction and group discussion. Topics included how to recognise and manage stress, potential long-term effects of stress on individuals, and adaptive coping strategies for reducing the effects of stress.

Trauma-focussed counselling For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on trauma-focussed counselling.

Remark:
Brief trauma-focussed counselling comprised of a single session of individual counselling within 48 hours of experiencing a PTE (e.g., traumatic birth or myocardial infarction), covering techniques for managing anxiety, social skills and problem solving, relaxation, cognitive coping.

New

Psychological first aid - ABCDE

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on the psychological first aid - ABCDE intervention.

Remark:
The PFA-ABCDE intervention integrates elements from the World Health Organizations' definition of PFA and core actions. It consists of active listening, breathing retraining, needs categorization, referral to social support networks, and psychoeducation

New

Post-coercion review session

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on the post-coercion review session intervention

Remark:
A post-coercion review session follows a coercive intervention (e.g., mechanical restraint, seclusion, forced medication) during hospitalization. The patient and an involved staff member share their perception of the events leading to the coercive intervention, with the moderator (a non-involved staff member) asking open-ended questions about the reasons for the use of coercion, alternatives to coercion and personal wishes, that can be included in a joint crisis plan for the future

Multiple session early prevention interventions for adults

Brief dyadic therapy

RESEARCH RECOMMENDATION

For adults within the first three months following exposure to a potentially traumatic event, we suggest usual practice in preference to brief dyadic therapies.

There is emerging evidence for brief dyadic therapies and this could be used in a research context.

Remark: These are brief (e.g. two - three session) CBT-based therapies delivered dyadically with the aim of improving communication and fostering a shared approach to addressing psychological and practical difficulties. For example, brief dyadic therapy as described by Brunet and colleagues*[186]* aims to target social support process following trauma exposure, and involves elements of psychoeducation and motivational interviewing to enhance communication between the patient and their significant other. It involves two sessions, which aim to promote disclosure of thoughts and emotions relating to the trauma while attempting to reduce social constraints on disclosure and negative interactions between the dyad.*[186]*

Brief individual trauma processing therapy

RESEARCH RECOMMENDATION

For adults within the first three months following exposure to a potentially traumatic event, we suggest usual practice in preference to brief individual trauma processing therapy.

There is emerging evidence for brief individual trauma processing therapy for adults within the first three months following exposure to a potentially traumatic event, and this could be used in a research context.

Remark:
A range of interventions are included in this grouping: memory restructuring, adapted CISD, counselling, brief PE and midwife led counselling.

Internet-based CBT

RESEARCH RECOMMENDATION

For adults within the first three months following exposure to a potentially traumatic event, we suggest usual practice in preference to internet-based CBT.

There is emerging evidence for internet-based CBT and this could be used in a research context.

Remark: 'Trauma TIPS', an internet-based self-guided intervention, is based on CBT principles of psychoeducation, stress/relaxation techniques, and in vivo exposure. Trauma TIPS aims to decrease levels of distress and anxiety by providing information on successful coping, instructions and guidance for in vivo exposure, and stress management techniques.*[199]*

Brief Interpersonal Counselling For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on brief IPT.

Remark:
Brief interpersonal counselling is an attachment-based treatment that focuses on current interpersonal problems and the resolution of these to improve symptoms. This included the impact of the injury on interpersonal issues pre-dating the injury as well as interpersonal issues arising after the trauma.

Brief Prolonged Exposure

For adults within the first three months following exposure to a potentially traumatic event, we suggest usual practice in preference to brief prolonged exposure.

There is emerging evidence for brief prolonged exposure and this could be used in a research context.

Remark:
Exposure therapy is long established as an effective treatment for a range of anxiety disorders. The key objective of exposure therapy is to help the person confront the object of their anxieties. A fundamental principle underlying the process of exposure is that of habituation, the notion that if people can be kept in contact with the anxiety-provoking stimulus for long enough, their anxiety will inevitably reduce. This may occur within an exposure session (within-session habituation) or across a series of sessions (between-session habituation). More contemporary models emphasise information processing as a key mechanism.

Prolonged Exposure is a manualised therapy (Foa, Hembree & Rothbaum, 2007). It consists of psychoeducation about common reactions to trauma, breathing retraining, in vivo exposure (approaching safe situations that patients avoided due to trauma-related fear), imagery exposure (repeated recounting of trauma memories during sessions and listening to recordings of the recounting made during therapy sessions), and processing (discussion of thoughts and feelings related to the exposure exercises).

Brief Prolonged Exposure is a variant with treatment conducted over three 60 minute sessions. Between session homework involves listening to the recorded session daily and in vivo exposure.

Collaborative care For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on collaborative care.

Remark:
The collaborative care intervention combined continuous medical support services with active follow-up and shared treatment decision making. Patients were assigned trauma support specialists who followed patients for 4 months through primary care outpatient appointments and community rehabilitation. The trauma support specialists assisted patients in contributing to their treatment decisions, as well as delivered a psychotherapy module targeting post-traumatic distress and substance use.

Communication facilitator in an intensive care setting For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on communication facilitator in an intensive care setting.

Remark:
The intervention used a communication facilitator to increase families' and clinicians' self efficacy expectations about communication in the intensive care unit. The intervention included interviews by facilitators with families, meetings with medical personnel to convey families' concerns, providing emotional support to family members and a follow-up with families following discharge.

Intensive care diaries For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on intensive care diaries.

Remark:
Intensive care diaries interventions involved healthcare staff and family members writing diaries for patients while they were in critical care. Entries included a daily record of the patients ICU stay (e.g., ward events, treatments, details about visitors) and photos. Diaries were given to the patient or a family member before discharge from the intensive care unit. It is suggested that the dairies are therapeutic for caregivers during hospitalization, help ICU survivors' understand the support that was present during their intensive care stay.

Nurse-led intensive care recovery program For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on nurse-led intensive care recovery program.

Remark:
The recovery program consisted of three consultations conducted by nurses. The first consultation was conducted in person with the nurse, patient and a family member, and focused on constructing an illness narrative. The second and third consultations took place by phone and focused on issues the patient had experienced.

PE Coach App

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on PE Coach App.

Remark:
PE Coach is a smart-phone app used for self-directed symptom management. The app consists of four primary modules: psychoeducation, symptom monitoring, CBT tools to manage symptoms and information on available crisis support services.

Supported psychoeducational intervention For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on supported psychoeducational intervention.

Remark:
Psychoeducation provides individuals (in this context, caregivers) with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies. The psychoeducational tool consisted of a handbook. Caregivers also received a phone call to discuss their post-PICU experience, reinforce the material in the handbook and provide support.

Three step early intervention for mothers of infants born prematurely For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on three step early intervention for mothers of infants born prematurely.

Remark:
The intervention program comprised of 3 phases (33 weeks after conception, 42 weeks after conception, 4 months after conception) following a therapeutic treatment model that incorporates principles of a family system theory into a transactional preventive intervention. Phase 1 consisted of joint observation by mother, nurse and therapist of infants reactions and interactions in the NICU, which lasted 30-60 minutes and was videotaped. Phase 2 included a videotaped assessment using the Neonatal Behavioural Assessment Scale and a semi-structured interview with the parents (Clinical Interview for Parents of High-Risk Infants). The final phase consisted of 3 videotaped sessions, one week apart, of a 10-min mother–infant free play, followed by a Interaction Guidance phase.

Telephone-based CBT For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on telephone-based CBT.

Remark:
Cognitive-behavioural therapy (CBT) is a broad term that encompasses any treatment that employs the standard principles of CBT combined with some form of trauma processing. Generally, CBT is trauma-focused and involves the integration of CBT principles with components of exposure therapy, including imaginal exposure and graded in vivo exposure, psychoeducation, breathing/ relaxation training (arousal reduction strategies), and cognitive restructuring. In these interventions, CBT was delivered over 6 to 8 weeks via telephone (rather than face to face).

New

Post-stroke preventative intervention for PTSD

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation for the post-stroke preventative intervention for PTSD.

Remark:
The post-stroke preventive intervention for PTSD involves one health education session per week (average 2 hours in total) focused on coping and treatment after stroke, while encouraging emotional release through observation, active communication, and psychological debriefing.

Early psychosocial treatment interventions for adults

Strong recommendation

Stepped/collaborative care

For adults with PTSD symptoms in the first three months following trauma, we recommend a stepped/collaborative care model, in which individuals receive evidence-based care commensurate with the severity and complexity of their need.

Remark: A stepped care model recognises that not all those exposed to potentially traumatic events will develop a diagnosable disorder; many will experience only sub-threshold symptoms and others will not experience significant symptomatology at all. Stepped care aims to ensure that individuals receive care commensurate with the severity and complexity of their need. The approach involves ongoing monitoring of people who are more distressed and/or at heightened risk of poor psychological adjustment, with increasingly intensive interventions delivered as indicated. Interventions are generally CBT-based, but sometimes based on other psychological approaches (e.g. motivational interviewing) and may include components of case management and prescription of pharmacological intervention.

The collaborative care model by Zatzick and colleagues[267][268][269] is a stepped care model where injury patients are screened for high levels of PTSD symptoms. Those with risk factors are offered integrated care including pharmacotherapy, motivational interviewing targeting problematic alcohol use, and CBT targeting depression and PTSD symptoms. Elements of the treatment are provided in a stepped fashion such that those with greater ease of delivery such as psychoeducation and problem solving are given initially, followed later by more complex elements such as activity scheduling. Patient symptoms are repeatedly measured and higher-intensity care is initiated if the person requires it. The stepped care model proposed by O'Donnell and colleagues[259] aimed to address a comprehensive range of posttrauma psychopathology beyond PTSD. In a two-stage screening process, patients were screened for high risk symptoms of PTSD, depression and anxiety, and treated with an evidence-based modular CBT manual that allowed treatment to be tailored to the patient's individual symptom-cluster profiles.

Conditional recommendation

Trauma-focussed CBT (TF-CBT)

For adults with PTSD symptoms in the first three months following trauma, we suggest offering TF-CBT (includes prolonged exposure, cognitive processing therapy, cognitive therapy) in preference to doing nothing.

Remark: Trauma-focussed CBT is intended to help an individual come to terms with trauma through exposure to and emotional processing of memories of the event. This includes prolonged exposure, cognitive restructuring, cognitive processing therapy and cognitive therapy. Typically, TF-CBT involves homework and includes psycho-education, exposure work, cognitive work and more general relaxation/stress management; the relative contribution of these elements varies between different forms of TF-CBT.

Conditional recommendation

Brief EMDR For adults with PTSD symptoms in the first three months following trauma, we suggest offering brief Eye Movement Desensitisation and Reprocessing (EMDR) in preference to doing nothing.

Remark: Brief EMDR can range from one to three sessions and involves clients focusing on fragments of their trauma memory whilst simultaneously engaging in dual attention stimulation using eye movements.

Internet-based guided self-help RESEARCH RECOMMENDATION

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, we recommend offering TF-CBT, PE, CT or Brief EMDR in preference to internet-based guided self-help.

There is emerging evidence for Internet-based guided self-help and it could be used in a research context.

Remark: Internet-based guided self-help uses internet-based programs to treat individuals with PTSD using CBT approaches. Use of the intervention is guided by a therapist. Patients receive guidance and feedback on homework assignments from the therapist.

Helping to Overcome PTSD through Empowerment (HOPE)

RESEARCH RECOMMENDATION

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, we recommend offering TF-CBT, PE, CT, or Brief EMDR in preference to Helping to Overcome PTSD through Empowerment (HOPE).

There is emerging evidence for HOPE and it could be used in a research context.

Remark: Helping to Overcome PTSD through Empowerment (HOPE[255]) is a present-centred cognitive behavioural therapy and empowerment-based individual treatment created to address PTSD in the context of intimate partner violence (IPV) and the clinical challenges of residents of women's shelters who have ongoing safety issues. HOPE is informed by Herman's (1992) multistage model of recovery that views recovery from chronic trauma, including IPV, as occurring in three stages: (a) establishing safety, (b) remembrance and mourning, and (c) reconnection. HOPE incorporates many of the traditional components of CBT for PTSD (e.g., cognitive-restructuring, skill building) with a focus on helping women realistically appraise the degree of threat they are under and to learn how to manage their PTSD symptoms without increasing them or risking their safety. HOPE also incorporates empowerment strategies, helping women to identify aspects of their situation that are under their control and providing them with the skills (e.g., assertiveness with safety planning) that aim to empower them.[256]

Structured writing therapy

RESEARCH RECOMMENDATION

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, we recommend offering TF-CBT, PE, CT or Brief EMDR in preference to structured writing therapy.
There is emerging evidence for Structured writing therapy and this could be used in a research context.

Remark: Structured writing is a broad term that encompasses interventions that rely exclusively on writing assignments. Of the two studies that employed structured writing interventions, one study[264] adapted their structured writing therapy program from the Interapy program, which is an internet-based 10-session structured writing intervention. The other study conducted by Bugg and colleagues[247] adapted the Pennebaker (1988) writing paradigm, which requires participants to write about the feelings and emotions associated with their traumatic experience once a day for three consecutive days. Across these two studies, participants were individuals with ASD or PTSD who sustained a traumatic injury such as a traffic accident or a sexual or non-sexual assault.

Behavioural activation For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on behavioural activation.

Remark: Behavioural activation aims to help the individual to learn to manage negative feelings through activity planning. Core features of the intervention include psychoeducation, behavioural analysis, activity planning, goal identification, trouble shooting, homework and relapse prevention.

Computerised neurobehavioural training For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on computerised neurobehavioural training.

Remark: Computerised Neurobehavioral Training aims to teach participants skills in order to improve neurocognitive functioning through an online program. Participants are encouraged to practice new skills through regular practice.

Nurse-led psychological intervention For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on nurse-led psychological intervention.

Remark:
The nurse led-psychological intervention was based on cognitive behavioural methods, whereby patients described their traumatic experience and cognitive restructuring was performed on dysfunctional behaviour, restrictive thoughts, generalization and avoidant behaviour.

Supportive counselling For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on supportive counselling.

Remark: SC involves active, empathic listening to the patient who is usually provided with unconditional positive regard. The therapist helps the patient to explore and clarify issues, may provide advice, reflect and confirm appropriate reactions, and introduce problem-solving techniques. SC has been used as a non-trauma focused control condition in several trials and focused attention to

the index trauma event is usually avoided.

New

Supportive therapy

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation supportive therapy.

Remark:
The supportive therapy intervention involves weekly sessions for 12 weeks focused on providing support and encouragement, and helping patients adjust their perceptions of their condition, accept unpredictable events, make use of available resources, adapt to their new reality, change their living environment if necessary, and regain confidence and hope in their recovery process.

New

Internet delivered CBT

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation for internet delivered CBT.

Remark:
This intervention delivers Cognitive Behaviour Therapy (CBT) via a secure online platform. The intervention includes psychoeducation for PTSD, symptom identification and recognition, breathing retraining, in vivo exposure exercises, expressive writing, imaginal exposure, identifying hot spots, promoting recovery, and emphasizing progress maintenance and relapse prevention.

New

Interpersonal Psychotherapy

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation for interpersonal psychotherapy.

Remark:
IPT is an attachment-based treatment that focuses on current interpersonal problems and the resolution of these to improve symptoms.

New

EMDR via telehealth (videoconferencing)

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation for EMDR via telehealth (videoconferencing).

Remark:
Eye movement desensitisation and reprocessing (EMDR) is a trauma-focussed therapy involving the use of bilateral physical stimulation (eye movements, taps or tones). EMDR is based on the assumption that, during a traumatic event, overwhelming emotions or dissociative processes may interfere with information processing. This leads to the experience being stored in an 'unprocessed' way, disconnected from existing memory networks.

In EMDR the person is asked to focus on the trauma-related imagery, and the associated thoughts, emotions, and body sensations while bilateral physical stimulation, such as moving their eyes back and forth, occurs. Processing targets may involve past events, present triggers and adaptive future functioning. It is proposed that this dual attention facilitates the processing of the traumatic memory into existing knowledge networks, although the precise mechanism involved is not known.

New

THRIVE m-health app

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation for the THRIVE m-health app.

Remark:
The THRIVE intervention is a mobile health early intervention designed for recent survivors of sexual assault, combining a cognitive behavioral app and weekly telephone coaching over 21 days. The app includes modules for cognitive restructuring and activity scheduling, which users engage with daily, and a relationships module for as-needed use. The intervention aims to address posttraumatic stress symptoms and alcohol misuse by providing daily exercises, self-monitoring tools, supportive elements like encouraging messages and resource lists, and weekly coaching calls to enhance engagement and provide support.

Early pharmacological interventions for adults

Hydrocortisone RESEARCH RECOMMENDATION

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, we recommend offering TF-CBT, PE, CT or Brief EMDR in preference to hydrocortisone.

There is emerging evidence for hydrocortisone and this could be used in a research context.

Remark: Hydrocortisone is the synthetic form of the adrenal gland-produced hormone cortisol. It has been used to try to bring about homeostasis (stability) to the hypothalamic-pituitary-adrenal axis by inhibiting further release of adrenaline and noradrenaline.

Docosahexaenoic acid For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on docosahexaenoic acid.

Remark:
Docosahexaenoic acid is an omega-3 fatty acid.

Escitalopram For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on escitalopram.

Remark:
Escitalopram, sold in Australia under the trade name Lexapro, is an antidepressant of the selective serotonin reuptake inhibitor (SSRI) class.

Gapapentin For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on gabapentin.

Remark:
Gabapentin, sold in Australia under the trade name Aspen, is an anticonvulsant medication.

Oxytocin For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on oxytocin.

Remark:
Oxytocin is a hormone produced in the hypothalamus and is released by the posterior pituitary.

Propranolol For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on propranolol.

Remark:
Propranolol, sold in Australia under the trade name Inderal, is a medication from the beta blocker class.

New

Dexmedetomidine

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on dexmedetomidine.

Remark:
Dexmedetomidine is a selective α2-adrenergic agonist that reduces sympathetic nervous system activity. Its value as a preventive intervention by reducing early consolidation of fear memory in trauma patients undergoing surgery was tested.

Early non-psychological and non-pharmacological treatment interventions for adults

Attention control therapy (ACT)

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on Attention control therapy (ACT).

Remark:
Attention control therapy involves six internet-delivered, word-based dot-probe tasks. It presents equal numbers of targets in the locations of threat and neutral attention stimuli. It is not designed to shift attention patterns (to favour neutral or threat stimuli) but rather to balance attention between neutral and threat stimuli.

New

Mindfulness based stress reduction (MBSR)

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make on mindfulness based stress reduction.

Remark:
Mindfulness-Based Stress Reduction (MSBR) is a meditative based intervention where individuals learn self-awareness of their mental state and practice focusing on different ways of thinking, with an emphasis on accepting experiences without judgment

Adults with clinically relevant post-traumatic stress symptoms

Psychological interventions for adults with PTSD

Strong recommendation

Cognitive processing therapy (CPT) For adults with PTSD, we recommend cognitive processing therapy (CPT).

Remark: Cognitive processing therapy (CPT) is a form of cognitive therapy refined specifically for the treatment of PTSD. CPT is a 12-session cognitive-behavioural manualised treatment for PTSD that systematically addresses key posttraumatic themes, including safety, trust, power and control, self-esteem and intimacy. The primary goal of treatment is to create more balanced, adaptive, multi-faceted trauma appraisals and beliefs (both looking back on the traumatic experience and in the present).
Treatment helps the person to identify unhelpful thoughts and beliefs ('stuck points'), challenge them, and replace them with rational alternatives in an adaptation of standard cognitive therapy approaches. It has a smaller exposure component than imaginal exposure therapy (restricted to writing an account of the experience). It also helps to address associated problems such as depression, guilt and anger.

Strong recommendation

Cognitive therapy (CT)

For adults with PTSD, we recommend cognitive therapy (CT).

Remark: CT is a variant of trauma-focussed CBT in which the therapist and patient collaboratively develop an individualised version of Ehlers and Clark's model of PTSD, which serves as the framework for therapy. Ehlers and Clark (2000) suggested that PTSD

becomes persistent when individuals process the trauma in a way that leads to a sense of serious, current threat. The sense of threat is hypothesised to arise as a consequence of excessively negative appraisals of the trauma and/or its sequelae, and a disturbance of the autobiographical memory for the trauma which leads to involuntary re-experiencing of aspects of the trauma. The problem is maintained by unhelpful behavioral and cognitive strategies that are intended to control the symptoms and perceived threat. Accordingly, CT for PTSD aims to modify excessively negative appraisals, correct the autobiographical memory disturbance, and remove the problematic behavioural and cognitive strategies. CT is generally administered for 12 weekly treatment sessions (of 90 minuntes for the initial sessions, and 60 minutes for the following sessions.[381]

Strong recommendation

Eye movement desensitisation and reprocessing (EMDR)

For adults with PTSD, we recommend eye movement desensitisation and reprocessing (EMDR).

Remark: Eye movement desensitisation and reprocessing (EMDR) is a standardised, eight-phase, trauma-focussed therapy involving the use of bilateral physical stimulation (eye movements, taps or tones). EMDR is based on the assumption that, during a traumatic event, overwhelming emotions or dissociative processes may interfere with information processing. This leads to the experience being stored in an 'unprocessed' way, disconnected from existing memory networks.

In EMDR the person is asked to focus on the trauma-related imagery, and the associated thoughts, emotions, and body sensations while bilateral physical stimulation, such as moving their eyes back and forth, occurs. Processing targets may involve past events, present triggers and adaptive future functioning. It is proposed that this dual attention facilitates the processing of the traumatic memory into existing knowledge networks, although the precise mechanism involved is not known.

Strong recommendation

Prolonged exposure (PE) For adults with PTSD we recommend prolonged exposure (PE).

Remark: Exposure therapy is long established as an effective treatment for a range of anxiety disorders. The key objective of exposure therapy is to help the person confront the object of their anxieties. A fundamental principle underlying the process of exposure is that of habituation, the notion that if people can be kept in contact with the anxiety-provoking stimulus for long enough, their anxiety will inevitably reduce. This may occur within an exposure session (within-session habituation) or across a series of sessions (between-session habituation). More contemporary models emphasise information processing as a key mechanism.

Prolonged Exposure is a manualised therapy (Foa, Hembree & Rothbaum, 2007). It consists of psychoeducation about common reactions to trauma, breathing retraining, in vivo exposure (approaching safe situations that patients avoided due to trauma-related fear), imagery exposure (repeated recounting of trauma memories during sessions and listening to recordings of the recounting made during therapy sessions), and processing (discussion of thoughts and feelings related to the exposure exercises).

Strong recommendation

Trauma-focussed CBT (TF-CBT) For adults with PTSD we recommend trauma-focussed CBT.

Remark: Trauma-focussed cognitive-behavioural therapy (TF-CBT) is a broad term that encompasses any treatment that employs the standard principles of CBT combined with some form of trauma processing. Generally, TF-CBT involves the integration of CBT principles with components of exposure therapy, including imaginal exposure and graded in vivo exposure. Across most studies from the systematic review that underpins these Guidelines, the typical format of TF-CBT involves psychoeducation, breathing/ relaxation training (arousal reduction strategies), imaginal exposure, in vivo exposure, and cognitive restructuring.

Conditional recommendation

Guided internet-based trauma-focussed CBT

For adults with PTSD where TF-CBT or EMDR are unavailable or unacceptable, we suggest guided internet-based TF-CBT.

Remark: Most internet-based interventions for PTSD commence with psychoeducation, and then present the rationale for CBT-based

treatment. These programs incorporate cognitive techniques, with the aim of identifying and modifying unhelpful patterns of cognition. Usually, behavioural components are included; generally encompassing imaginal and in vivo exposure.[415] Internet-based interventions vary in the level of therapist assistance provided. Guided internet-based programs can be delivered by a specialist therapist who provides input and feedback on homework, and encourages engagement with the program[403][415], or by a non-specialist mental health professional who intervenes to check on progress or provides input on demand, often by telephone or by email. [418] An example of the latter is DESTRESS-PC, a variant of CBT and stress inoculation training designed for symptoms resulting from military trauma.[418]

Conditional recommendation

Narrative Exposure Therapy (NET)

For adults with PTSD where trauma is linked to genocide, civil conflict, torture, political detention or displacement, we suggest Narrative Exposure Therapy (NET)

Remark: NET allows PTSD sufferers to describe and develop a coherent, chronological, autobiographical narrative of their life that includes their traumatic experiences (a testimony). The therapist facilitates emotional processing through the use of cognitive-behavioural techniques.

Narrative exposure therapy (NET) is a standardised short-term intervention adapted from testimony therapy (traditionally used with survivors of torture and civilian casualties of war), as well as from mainstream exposure approaches. It was originally developed both to treat survivors and to document human rights violations. In NET, the person is asked to construct a narrative of their life from early childhood to present, focussing in detail on the traumatic events and elaborating on the associated thoughts and emotions. It is proposed that NET works in two ways: promoting habituation to traumatic memories through exposure, and reconstructing the individual's autobiographic memory.

A number of RCTs have successfully been conducted in a variety of cultural settings, demonstrating NET's applicability in both western and non-western countries. e.g.[404][456]

Conditional recommendation

Present-centred therapy (PCT)

For adults with PTSD where TF-CBT or EMDR are unavailable or unacceptable, we suggest present-centred therapy (PCT) .

Remark:
Present-centred therapy is designed to target daily challenges that PTSD sufferers encounter as a result of their symptoms. It includes psychoeducation about the impact of PTSD symptoms, the development of effective strategies to deal with day-to-day challenges and homework to practice newly developed skills.

Present-centred therapy is a variant of supportive counselling. These approaches are often used as comparison conditions in randomised controlled trials. PCT is a non-trauma focussed manualised intervention designed to target daily challenges that PTSD sufferers encounter. It includes psychoeducation about the impact of PTSD symptoms, the development of effective strategies to deal with day-to-day challenges and homework to practice newly developed skills. Typically 10 group sessions of 90 minutes are delivered by therapists who help participants identify stressors and discuss them in a supportive, nondirective manner.

Conditional recommendation

Stress inoculation training (SIT)

For adults with PTSD where TF-CBT or EMDR are unavailable or unacceptable, we suggest stress inoculation training (SIT).

Remark: The stress inoculation training (SIT) used in these studies is an anxiety management program for use with rape victims adapted from Veronen and Kilpatrick (1983). The nine sessions include breathing retraining, and 'coping strategies' such as muscle relaxation, thought stopping, cognitive restructuring and role play.[386]

Conditional recommendation

Trauma-focused CBT (group)

For adults with PTSD where individual TF-CBT or EMDR are unavailable or unacceptable, we suggest group trauma-focussed CBT.

Remark: Trauma-focussed CBT has been previously described as an early psychosocial treatment intervention for adults. In the group context, typically up to 16 sessions are delivered and run for 60-90 minutes each. Group interventions in the included studies encompass CPT [454][444], Beck's CBT and other protocols[371]. All treatment interventions require (to varying degrees) engagement with the traumatic memory, opportunities for cognitive restructuring, and skills aiming to reduce avoidance.

Meta-cognitive therapy

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to meta-cognitive therapy.

There is emerging evidence for meta-cognitive therapy and this could be used in a research context.

Remark: Meta-cognitive therapy, a form of non-trauma focussed CBT, targets the disrupted thinking style characteristic of PTSD (threat monitoring, worry, and rumination) rather than focussing on trauma-processing.*[462]*

Non-trauma-focused CBT (affect regulation)

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to non-TF-CBT (affect regulation).

There is emerging evidence for non-trauma-focused CBT (affect regulation) and this could be used in a research context.

Remark:
The non-trauma-focused CBT interventions included in the systematic review use a variety of non-trauma focused affect regulation techniques.*[466][391]*

Reconsolidation of Traumatic Memories (RTM)

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to Reconsolidation of Traumatic Memories (RTM).

There is emerging evidence for RTM and this could be used in a research setting.

Remark: RTM is a brief intervention that involves activation of a traumatic memory. The participant's trauma narrative is ended as soon as autonomic arousal is observed. A procedure follows that includes imagining a black and white movie of the event, dissociating from its content, and re-winding it when fully-associating over two seconds. This is designed to change the perspective from which the memory is recalled. RTM is administered in three sessions of up to 120 minutes each.[459][396]

Trauma-focused CBT (couples)

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to couples TF-CBT .

There is emerging evidence for couples TF-CBT and this could be used in a research context.

Remark: The relevant study delivered 15 sessions of manualised cognitive-behavioral conjoint therapy (CBCT) which is designed to treat PTSD and enhance intimate relationships in couples where one partner has been diagnosed with PTSD.[426]

Trauma-focused CBT (combined group and individual)

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to group and individual (combined) TF-CBT.

There is emerging evidence for group and individual (combined) TF-CBT and this could be used in a research context.

Remark: The treatment intervention used in this study was CPT-SA, an adaptation of Resick and Schnicke's (1993) cognitive processing therapy for rape victims. The intervention consisted of 17 weeks of a manual-based group and individual therapy, with participants attending a 90 minutes group each week and a 60 minute individual therapy session for the first nine weeks and the 17th week.[372]

Trauma-focussed CBT (single-session)

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to single-session TF-CBT.

There is emerging evidence for single-session TF-CBT and it could be used in a research context.

Remark: These studies delivered a single session of modified behavioural treatment to earthquake survivors. The 60 minute treatment session focusses on reduction of fear and avoidance through exposure to simulated tremors in an earthquake simulator and self-exposure instructions. [358][357]

Virtual Reality Therapy

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, CPT, or EMDR in preference to Virtual Reality Therapy.

There is emerging evidence for Virtual Reality Therapy and this could be used in a research context.

Remark: Virtual Reality therapies, such as virtual reality exposure (VRE[441]) and VR-graded exposure therapy (VR-GET[423]) are exposure therapies which integrate real-time computer graphics with other sensory input devices to immerse a participant in a virtual environment and facilitate the processing of memories associated with the traumatic event. Typically up to 12 graded sessions of virtual reality are administered, with the first session(s) focusing on psychoeducation and anxiety management techniques.

Written exposure therapy RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to written exposure therapy.

There is emerging evidence for written exposure therapy and this could be used in a research context.

Remark: Written exposure therapy is a brief trauma-focussed intervention of five, 30 minute sessions which include psychoeducation and confronting the trauma memory through the use of writing tasks. Participants are given scripted instructions to write about the same trauma memory each session.

3MDR

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT, or EMDR in preference to 3MDR.

There is emerging evidence for 3MDR and this could be used in a research context.

Remark:
3MDR is a virtual reality based therapy administered on a treadmill and a synchronized virtual reality environment (with sound and visuals). Patients 'walk' through the purpose-built environment, personalised for each patient. Prior to 3MDR, patients select 10-20 images that remind them of their deployment-related trauma, with seven pictures used in session. Patients also choose two pieces of music: one piece that reminded them of their time of deployment and one piece that reminded patients of the here and now.

Each session begins with a warm up, while the deployment related music plays. Patients enter a virtual tunnel, and describe the first picture and recall the traumatic memory, with phrases of their narrative shown over the picture. While focusing on these phrases, participants track a ball moving from left to right over the image. Patients call out numbers that appear on the ball. This is repeated 7 times for different images. Following the final task, the contemporary music is played to bring the patients back to the here and now, which is followed by a discussion about experiences the patient had during the session.

Acceptance and Commitment Therapy (ACT)

For adults with PTSD there was insufficient evidence to make a recommendation on acceptance and commitment therapy (ACT).

Remark:
Acceptance and commitment therapy consists of six core processes: acceptance, cognitive defusion, being present, self as context, values and committed action. In this four session protocol, experiential avoidance was targeted through using didactics, experiential exercises, and metaphor. Emphasis was placed the present moment and on skills related to the decentralizing of trauma and broadening of the self-concept.

Behavioural activation

For adults with PTSD there was insufficient evidence to make a recommendation on Behavioural activation.

Remark:
Behavioural activation aims to help the individual to learn to manage negative feelings through activity planning. Core features of the intervention include psychoeducation, behavioural analysis, activity planning, goal identification, trouble shooting, homework and relapse prevention.

Brief Eclectic Psychotherapy For adults with PTSD there was insufficient evidence to make a recommendation on Brief Eclectic Psychotherapy.

Remark: Brief Eclectic Psychotherapy draws on elements of TF-CBT and psychodynamic therapy, including the relationship between the patient and the therapist. It includes exposure to traumatic memories, therapeutic letter writing and consideration of how the individual has been affected by their experience(s). It usually ends with a farewell ritual.

Cognitive behavioural social rhythm group therapy

For adults with PTSD there was insufficient evidence to make a recommendation on Cognitive behavioural social rhythm group therapy.

Remark:
Cognitive Behavioural Social Rhythm Therapy (CBSRT) is grounded in the social rhythm model of mood disruption, whereby dysregulation in mood occurs in individuals who have experienced PTE that are disrupting to their social rhythms (daily routine or lifestyle). It is suggested that CBSRT reorients veterans to their post-deployment lives through the development of a consistent social rhythm. The cognitive therapy component of CBSRT is used to help veterans address dysfunctional cognitions that contribute to their disrupted social rhythms.

Dialectical Behaviour Therapy (DBT)

For adults with PTSD there was insufficient evidence to make a recommendation on Dialectical Behaviour Therapy (DBT).

Remark:

Dialectical Behaviour Therapy is a multicomponent phase-based program incorporating specific techniques from trauma-focused cognitive-behavioural interventions, compassion-focused therapy and acceptance and commitment therapy. It is comprised of 7 treatment phases, whereby patients learn to identify their typical escape strategies in response to trauma-related stimuli, focuses on skills-assisted exposure to traumatic memories, practice acceptance of the past and grief, and discuss how to improve psychosocial functioning.

Dialogical exposure therapy (DET) For adults with PTSD there was insufficient evidence to make a recommendation on dialogical exposure therapy (DET).

Remark: DET uses CBT techniques (with and without a trauma focus) and a Gestalt based exposure method (chair work) in a dialogical framework. Supported by the therapist, the individual enters into a dialogue with aspect of the traumatic experience.

Interpersonal therapy (IPT) For adults with PTSD there was insufficient evidence to make a recommendation on interpersonal therapy.

Remark: IPT is an attachment-based treatment that focuses on current interpersonal problems and the resolution of these to improve symptoms.

Imagery rescripting

For adults with PTSD there was insufficient evidence to make a recommendation on Imagery rescripting.

Remark:
Imagery rescripting is a trauma-focused intervention where a patient imagines different outcomes related to their trauma experiences. Patients recall the memory from their child-self perspective, and imagine a different ending, with someone stopping the abuse (either the therapist or the patient's adult-self).

It is suggested that the intervention facilitates changing meaning the patients give the trauma memory, which may lead to changes in the patient's core beliefs systems and behaviours.

Interpersonal therapy (IPT) (group)

For adults with PTSD there was insufficient evidence to make a recommendation on group interpersonal therapy (IPT).

Remark: IPT is an attachment-based treatment that focuses on current interpersonal problems and the resolution of these to improve symptoms.

Observed and experiential integration (OEI) For adults with PTSD there was insufficient evidence to make a recommendation on observed and experiential integration (OEI).

Remark: OEI involves alternately covering and uncovering the eyes ("switching") and the eyes tracking different locations in the visual field ("glitch-work") while experiencing a disturbing thought, feeling or memory. It also includes observation of differences between the two eyes' perceptions.

Present Centred Therapy (group)

For adults with PTSD there was insufficient evidence to make a recommendation on Group Present Centred Therapy.

Remark:
Present-centred therapy is designed to target daily challenges that PTSD sufferers encounter as a result of their symptoms. It includes psychoeducation about the impact of PTSD symptoms, the development of effective strategies to deal with day-to-day challenges and homework to practice newly developed skills.

Present-centred therapy is a variant of supportive counselling. These approaches are often used as comparison conditions in randomised controlled trials. PCT is a non-trauma focussed manualised intervention designed to target daily challenges that PTSD sufferers encounter. It includes psychoeducation about the impact of PTSD symptoms, the development of effective strategies to

deal with day-to-day challenges and homework to practice newly developed skills. Typically 10 group sessions of 90 minutes are delivered by therapists who help participants identify stressors and discuss them in a supportive, nondirective manner.

Psychodynamic therapy For adults with PTSD there was insufficient evidence to make a recommendation on psychodynamic therapy.

Remark: Psychodynamic therapy uses psychoanalytic theories and practices to help individuals understand and resolve their problems by increasing awareness of their inner world and its influences over current and past relationships.

Relaxation training For adults with PTSD there was insufficient evidence to make a recommendation on Relaxation training.

Remark:
Relaxation training comprises of recognising early signals of anxiety and applying techniques to activate the body's relaxation response, which is suggested to ease symptoms of PTSD.

Resilience Oriented Treatment

For adults with PTSD there was insufficient evidence to make a recommendation on Resilience Oriented Treatment

Stress Inoculation Training (SIT) for couples

For adults with PTSD there was insufficient evidence to make a recommendation on SIT for couples

Remark:
This intervention is organised within the stress inoculation therapy (SIT) framework. It is delivered in a couples context and consists of psychoeducation, skills training, and an application phase to practice new coping skills.

Supportive counseling (SC) For adults with PTSD there was insufficient evidence to make a recommendation on supportive counseling.

Remark: SC involves active, empathic listening to the patient who is usually provided with unconditional positive regard. The therapist helps the patient to explore and clarify issues, may provide advice, reflect and confirm appropriate reactions, and introduce problem-solving techniques.

Stabilising group treatment

For adults with PTSD there was insufficient evidence to make a recommendation on stabilising group treatment.

Remark: Stabilizing group treatment is based on psycho-education and cognitive behavioural therapy. The program is based on Zlotnick's protocol *[466]* with additional sessions on assertiveness, bodily experiences and sexuality, distrust, guilt and shame, saying goodbye and future.

Trial-based cognitive therapy (TBCT)

For adults with PTSD there was insufficient evidence to make a recommendation on Trial-based cognitive therapy (TBCT).

Remark:
Trial-based cognitive therapy (TBCT) is a transdiagnostic intervention that approaches cognitive restructuring in an organised and systematic way to address dysfunctional core beliefs. The main distinctive technique of TBCT, as compared to conventional cognitive-behavioural therapies, is that it simulates a legal trial. For example, a courtroom metaphor is used whereby patients role-play multiple internal characters (e.g., the investigated party, the defendant, the prosecutor, the defence attorney, the juror) to challenge core beliefs. The intervention also comprises of psychoeducation and homework tasks

Trauma-focused CBT (brief)

For adults with PTSD there was insufficient evidence to make a recommendation on brief TF-CBT

Attention Bias Modification Training (AMBT)

For adults with PTSD there was insufficient evidence to make a recommendation on Attention Bias Modification Training (AMBT)

Remark:
Attention bias modification training (ABMT) involves the delivery of brief (approximately 20 minute), computerised tasks. Attentional avoidance of negative information is encouraged through use of a modified dot-probe task where probes always appear in the location opposite negative stimuli. This procedure is designed to 'train' an individual's attention away from or toward negative or threatening information. The immediate effects of ABMT appear to be most prominent when applied prior to exposure to a potentially traumatic event. ABMT has been delivered to soldiers immediately prior to combat deployment in order to attenuate the association between combat exposure and PTSD-related symptoms.

Pharmacological interventions for adults with PTSD

Conditional recommendation

Selective Serotonin Reuptake Inhibitors (SSRIs) For adults with PTSD, we suggest SSRIs (sertraline, paroxetine, or fluoxetine) in circumstances where any of the following applies:

- The person is unwilling or not in a position to engage in or access recommended psychological therapy (TF-CBT, PE, CT, CPT or EMDR).
- The person has a comorbid condition or associated symptoms (e.g., clinically significant depression and high levels of dissociation) where SSRIs are indicated.
- The person's circumstances are not sufficiently stable to commence recommended psychological therapy (as a result, for example, of significant ongoing life stress such as domestic violence).
- The person has not gained significant benefit from recommended psychological therapy.
- There is a significant wait time before psychological treatment is available.

Remark: The most common approach to the pharmacological treatment of PTSD is through prescription of a selective serotonin reuptake inhibitor (SSRI). This class of drugs is widely prescribed for depression and anxiety and includes fluoxetine, paroxetine, and sertraline, each of which are conditionally recommended for use in the pharmacological treatment of PTSD.

Conditional recommendation

Venlafaxine

For adults with PTSD, we suggest venlafaxine in circumstances where any of the following applies:

- The person is unwilling or not in a position to engage in or access recommended psychological therapy (TF-CBT, PE, CT, CPT or EMDR).
- The person has a comorbid condition or associated symptoms (e.g., clinically significant depression and high levels of dissociation) where SNRIs are indicated.
- The person's circumstances are not sufficiently stable to commence recommended psychological therapy (as a result, for example, of significant ongoing life stress such as domestic violence).
- The person has not gained significant benefit from recommended psychological therapy.
- There is a significant wait time before psychological treatment is available.

Remark: Venlafaxine is an antidepressant from the Serotonin and Noradrenaline Reuptake Inhibitor (SNRI) class. Two studies included in the review suggest that venlafaxine is generally well tolerated and may be of benefit in the treatment of patients with PTSD.[504][505]

Ketamine
RESEARCH RECOMMENDATION

Where medication is indicated for the treatment of PTSD we suggest an SSRI or SNRI antidepressant in preference to

ketamine. There is emerging evidence for the use of ketamine in the treatment of PTSD and it could be used in a research context.

Remark: Ketamine is an antagonist of the glutamate N-methyl-D-aspartate (NMDA) receptor.

Quetiapine
RESEARCH RECOMMENDATION

Where medication is indicated for the treatment of PTSD we suggest an SSRI or SNRI antidepressant in preference to quetiapine. There is emerging evidence for the use of quetiapine in the treatment of PTSD and it could be used in a research context.

Remark: Quetiapine is an atypical antipsychotic that is used for individuals with significant agitation.

Amitriptyline For adults with PTSD there was insufficient evidence to make a recommendation on amitriptyline.

Remark:
Amitriptyline is of the tricyclic antidepressant class.

Brofaromine For adults with PTSD there was insufficient evidence to make a recommendation on brofaromine.

Remark:
Brofaromine is a reversible, and selective type-A monoamine oxidase inhibitor that also has serotonin reuptake inhibitory properties.

Divalproex For adults with PTSD there was insufficient evidence to make a recommendation on divalproex.

Ganaxolone For adults with PTSD there was insufficient evidence to make a recommendation on ganaxolone.

Remark:
Ganaxolone is a GABAA receptor modulator.

Imipramine For adults with PTSD there was insufficient evidence to make a recommendation on imipramine.

Remark:
Imipramine is of the tricyclic antidepressant class.

Lamotrigine For adults with PTSD there was insufficient evidence to make a recommendation on lamotrigine.

Remark:
Lamotrigine is an anticonvulsant medication.

Mirtazapine For adults with PTSD there was insufficient evidence to make a recommendation on mirtazapine.

Remark:
Mirtazapine is of the atypical antidepressants class.

Neurokinin-1 antagonist For adults with PTSD there was insufficient evidence to make a recommendation on neurokinin-1 antagonist.

Olanzapine For adults with PTSD there was insufficient evidence to make a recommendation on olanzapine.

Remark:
Olanzapine is an atypical antipsychotic.

Phenelzine For adults with PTSD there was insufficient evidence to make a recommendation on phenelzine.

Remark:
Phenelzine is a non-selective and irreversible monoamine oxidase inhibitor of the hydrazine class.

Tiagabine For adults with PTSD there was insufficient evidence to make a recommendation on tiagabine.

Remark:
Tiagabine is an anticonvulsant medication.

Topiramate For adults with PTSD there was insufficient evidence to make a recommendation on topiramate.

Remark:
Topiramate is a carbonic anhydrase inhibitor medication.

Non-psychological and non-pharmacological interventions for adults with PTSD

Acupuncture **RESEARCH RECOMMENDATION**

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to acupuncture.

There is emerging evidence for acupuncture and this could be used in a research context.

Remark: Acupuncture involves the insertion of fine needles at specific points on the body (acupressure points) to reduce symptoms of PTSD.

Mindfulness-based stress reduction (MBSR)

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to mindfulness-based stress reduction (MBSR).

There is emerging evidence for MBSR and it could be used in a research context.

Remark: Therapeutic applications of mindfulness are commonly called mindfulness-based interventions (MBIs). The first MBI, Mindfulness-Based Stress Reduction (MBSR), was developed in 1979 by Professor Jon Kabat-Zinn from the University of Massachusetts Medical Centre. The original intent of MBSR was to help outpatients attending a stress reduction clinic to relieve the suffering associated with stress, pain, and illness. Since then, other programs based on the foundational and structural approach of MBSR have been developed.[589]
MBSR is a program that uses a variety of techniques to cultivate the state of mindfulness (i.e., nonjudgmental present-moment awareness; Kabat–Zinn, 1994). It is typically delivered in a series of weekly 2.5-hour group meetings in the context of a day-long retreat. Mindfulness training delivered via telehealth (2 sessions in person and 6 by telephone) showed a positive effect for veterans when compared with psychoeducation.[594] This brief treatment was based on MBSR principles but was delivered in individual sessions and did not include the full program.

Neurofeedback

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to neurofeedback.

There is emerging evidence for neurofeedback and it could be used in a research context.

Remark: Neurofeedback involves real-time displays of brain activity that are used to help individuals train (self-regulate) their brain activity. In neurofeedback training, neural activity is recorded from scalp electrodes and fed back to participants in a readily understood, visual format (such as simple computer games). Neurofeedback training is hypothesised to help individuals with PTSD

acquire self-regulation skills by stabilising EEG activity, thereby improving focus and attention.*[585]*

Repetitive Transcranial Magnetic Stimulation (rTMS) RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to repetitive transcranial magnetic stimulation (rTMS).

There is emerging evidence for rTMS and this could be used in a research context.

Remark: Repetitive TMS (rTMS) is a non-invasive procedure that involves the application of electrical current pulses, induced by a strong pulsating electromagnetic field. Electromagnetic energy passes through the scalp and skull without inducing pain or injury. rTMS aims to stimulate nerve cells in targeted areas of the brain which can lead to an increase or decrease in brain activity in specific regions. It is thought that the dorsolateral prefrontal cortex may be implicated in PTSD symptoms, and that interventions such as rTMS that can target this area of the brain might ameliorate symptoms of PTSD.

Transcendental Meditation (TM) RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to transcendental meditation (TM).

There is emerging evidence for Transcendental Meditation and this could be used in a research context.

Remark: TM is a specific type of silent meditation developed by Maharishi Mahesh Yogi that involves repetition of a sound (a mantra) to facilitate a settled state of restful alertness. TM differs from mindfulness practice in that mindfulness involves focusing on the present moment in a specifically recommended way, whereas TM is taught as the effortless thinking of a mantra without concentration or contemplation.

Yoga

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to yoga.

There is emerging evidence for yoga and it could be used in a research context.

Remark: Yoga is a mind-body practice that typically combines physical postures, regulation of the breath, and techniques to cultivate attention. The emphasis on each of these factors varies according to the type of practice.
The studies providing evidence for yoga are largely pilot studies. The populations studied include veterans and women, with the types of yoga investigated including Sudarshan Kriya (SKY) yoga,*[592][583]* Kripalu,*[576][580]* and trauma-informed yoga*[586]*.

Good practice statement

Physical exercise

The Guideline Development Group supports the use of exercise to promote general wellbeing.

Remark: The physical exercise consisted of a 12-week intervention with a weekly supervised exercise session, two unsupervised home-based exercise sessions, and a walking program facilitated by the provision of a pedometer and exercise diary.*[581]* In the integrated exercise study, veteran participants attended three one hour group sessions each week for 12 weeks, for a total of 36 sessions.*[573]* Exercise sessions included aerobic exercise, strength training with weights and resistance bands, and yoga movements and poses presented within a framework of mindfulness principles.

Angling

For adults with PTSD there was insufficient evidence to make a recommendation on Angling.

Remark:
Angling is a method of fishing using a rod and line.

Attentional bias modification For adults with PTSD there was insufficient evidence to make a recommendation on attentional bias modification.

Remark: ABM is a treatment designed for the management of anxiety disorders based on the finding that patients with anxiety disorders selectively attend to threatening information. It involves computer-based training to keep attention away from threatening information.

Attention Control Training

For adults with PTSD there was insufficient evidence to make a recommendation on attentional control training.

Basic body awareness therapy

For adults with PTSD there was insufficient evidence to make a recommendation on basic body awareness therapy.

Remark:
Basic body awareness therapy (BBAT) is a mild, body-awareness-oriented physiotherapeutic method. BBAT is comprised of slow, guided movements to improve balance, muscle tension, free breathing and awareness while standing, sitting and lying down.

Cognitive Bias Modification training

For adults with PTSD there was insufficient evidence to make a recommendation on Cognitive bias modification training.

Remark:
Cognitive bias modification training is a treatment designed for the management of anxiety disorders based on the finding that biased cognitive processes are causally linked to symptoms of psychopathology, and that modification of these biases can lead to a reduction in symptoms. It involves computer-based training to appraise ambiguous, trauma-relevant information in a positive or negative way.

Electroacupuncture For adults with PTSD there was insufficient evidence to make a recommendation on electroacupuncture.

Remark: Electroacupuncture combines traditional Chinese acupuncture with modern electrotherapy. Acupuncture points are stimulated via needles connected to electrodes that deliver a continuous 100Hz wave.

Healing Touch intervention

For adults with PTSD there was insufficient evidence to make a recommendation on Healing Touch intervention.

Remark:
Healing Touch is a energy based healing intervention. It is suggested that Healing Touch will breakup blockages of trauma-included congested energy and clear the field of toxins and debris.

Hypnotherapy For adults with PTSD there was insufficient evidence to make a recommendation on hypnotherapy.

Remark: Hypnotherapy uses hypnosis to induce an altered state of consciousness before undertaking therapeutic work.

Intermittent theta-burst stimulation (iTBS)

For adults with PTSD there was insufficient evidence to make a recommendation on Intermittent theta-burst stimulation (iTBS).

Remark:
Theta-burst stimulation (TBS) is a non-invasive Transcranial Magnetic Stimulation (TMS) protocol rapidly inducing synaptic plasticity. Short bursts of high-frequency (50 Hz) stimulation are repeated intermittently at 5 Hz (200 ms interval) to the right dorsolateral prefrontal cortex.

Mantram repetition For adults with PTSD there was insufficient evidence to make a recommendation on mantram repetition.

Remark: Mantrum repetition involves repeating a holy word(s) or phrase(s).

Music therapy (group)

For adults with PTSD there was insufficient evidence to make a recommendation on group music therapy.

Remark: Group music therapy includes a combination of active and receptive musical activities with percussion instruments that emphasizes improvisation. Instrumental support is provided by music therapists.

Nature adventure therapy For adults with PTSD there was insufficient evidence to make a recommendation on nature adventure therapy.

Remark: Nature adventure therapy is a group-based rehabilitation intervention based upon the theoretical framework of experiential learning. It uses activity-based interventions such as sailing, to provide opportunity for personal growth.

Somatic experiencing For adults with PTSD there was insufficient evidence to make a recommendation on somatic experiencing.

Remark: Somatic Experiencing involves a focus on perceived body sensations and to learn how to regulate these with the aim of resolving symptoms.

Saikokaishikankyoto For adults with PTSD there was insufficient evidence to make a recommendation on Saikokaishikankyoto.

Remark: This is a traditional Japanese herbal medicine.

Stellate Ganglion Block (SGB) For adults with PTSD there was insufficient evidence to make a recommendation on stellate ganglion block (SGB).

Remark: The stellate ganglion is a structure in the sympathetic chain commonly found at the level of the seventh cervical vertebra. Injecting local anesthetic around the stellate ganglion (stellate ganglion block [SGB]) has been shown to inhibit both efferent sympathetic effects and visceral pain fibers to the upper extremity and face. The SGB is now commonly used for the treatment of hypersympathetic activity influencing the upper extremity, such as Raynaud phenomena, or in sympathetically maintained pain as observed in complex regional pain syndrome.

Transcranial direct current stimulation (tDCS)

For adults with PTSD there was insufficient evidence to make a recommendation on Transcranial direct current stimulation (tDCS).

Remark:
Transcranial direct current stimulation (tDCS) is a non-invasive brain stimulation intervention. Scalp electrodes (anodal and cathodal) are used to transfer a weak (0.5–2 mA) direct current which alters cortical tissue excitability (rather than directly triggering action potentials in neurons).

Comorbid interventions

Conditional recommendation

Trauma-focused CBT for adults with comorbid PTSD and Substance Use Disorder

For adults with comorbid PTSD and Substance Use Disorder, we suggest TF-CBT in preference to treatment as usual.

Remark:
Trauma-focused CBT for adults with comorbid PTSD and Substance Use Disorder consisted of the following interventions:

1. Concurrent Treatment for PTSD and Substance Use Disorder Using Prolonged Exposure (COPE) is an integrated PTSD and substance

use disorder treatment that augments prolonged exposure with cognitive behavioural relapse prevention for substance use
2. Modified Prolonged Exposure consisted of 60 minutes of manualised Prolonged Exposure with psychoeducation about the relationship between PTSD and substance use symptoms and weekly check-ins about substance use.
3. Integrated CBT consisted of manualised CBT for Alcohol Use Disorder and exposure-based CBT for PTSD (incorporating exposure therapy and cognitive restructuring).

Conditional recommendation

Non-Trauma-focused CBT for adults with comorbid PTSD and Substance Use Disorder

For adults with comorbid PTSD and Substance Use Disorder, where TF-CBT is unavailable or unacceptable, we suggest non-TF-CBT (Seeking Safety or Integrated CBT).

Remark:
Non-trauma-focused CBT for adults with comorbid PTSD and Substance Use Disorder consisted of the following interventions:

1. Seeking safety is an integrated non-trauma-focused, present-focused intervention for PTSD and substance use disorder. It consists of 24 modules teaching cognitive behavioural and interpersonal techniques, as well as case management.
2. Integrated CBT focuses on PTSD symptoms and substance use. It is designed to be used in routine community addiction treatment programs and consists of 8 modules.

Trauma-focused CBT for adults with comorbid PTSD and severe mental illness

RESEARCH RECOMMENDATION

There is emerging evidence for TF-CBT for adults with comorbid PTSD and severe mental illness, and this could be used in a research context.

Remark:
Trauma-focused CBT for adults with comorbid PTSD and severe mental illness consisted of the following interventions:

1. Integrated CBT for PTSD in persons with severe mental illness
2. Narrative Exposure Therapy (NET) for PTSD in persons with borderline personality disorder

Treatment delivery modalities

Early psychosocial prevention intervention for children and adolescents within the first three months of exposure to a traumatic event

Self-directed online psychoeducation for caregivers and children

RESEARCH RECOMMENDATION

For children and adolescents within the first three months after exposure to a potentially traumatic event, we suggest continuation of treatment as usual in preference to self-directed online psychoeducation for caregivers and children.

There is emerging evidence for self-directed online psychoeducation in caregivers and children following traumatic physical injury, and this could be used in a research context.

Remark:
Psychoeducation provides individuals (in this context, caregivers and/or their children) with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies. One study included psychoeducation more broadly with strategies such as (1) promoting adaptive cognitive appraisals, (2) decreasing excessive early avoidance coping, and (3) promoting use of social support. Psychoeducation for caregivers can include information regarding common child reactions to trauma, their likely time course, and how best they can assist their child's emotional recovery (e.g., such as offer their child the opportunity to talk, not avoiding talking about the accident, and encouraging normal routine).

Self-directed online psychoeducation intervention for children only

RESEARCH RECOMMENDATION

For children and adolescents within the first three months after exposure to a potentially traumatic event, we suggest continuation of treatment as usual in preference to self-directed online psychoeducation for children.

There is emerging evidence for self-directed online psychoeducation in children following an acute medical event, and this could be used in a research context.

Remark:
Psychoeducation provides individuals (in this context, children) with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies.

Self-directed online psychoeducation for caregivers only

For children and adolescents within the first three months after exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on self-directed online psychoeducation for caregivers only.

Remark:
Psychoeducation provides individuals with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies.

Psychological intervention for children and adolescents with clinically relevant PTSD symptoms

Early psychosocial prevention intervention for adults within the first three months of exposure to a traumatic event

Internet-based guided self-help

RESEARCH RECOMMENDATION

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, we recommend offering TF-CBT, PE, CT or Brief EMDR in preference to internet-based guided self-help.

There is emerging evidence for Internet-based guided self-help and it could be used in a research context.

Remark:
Internet-based guided self-help uses internet-based programs to treat individuals with PTSD using CBT approaches. Use of the intervention is guided by a therapist. Patients receive guidance and feedback on homework assignments from the therapist.

Internet-based CBT

RESEARCH RECOMMENDATION

For adults within the first three months following exposure to a potentially traumatic event, we suggest usual practice in preference to internet-based CBT.

There is emerging evidence for internet-based CBT and this could be used in a research context.

Remark:
'Trauma TIPS', an internet-based self-guided intervention, is based on CBT principles of psychoeducation, stress/relaxation techniques, and in vivo exposure. Trauma TIPS aims to decrease levels of distress and anxiety by providing information on successful

coping, instructions and guidance for in vivo exposure, and stress management techniques.*[199]*

Telephone-based CBT

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on telephone-based CBT.

Psychological intervention for adults with clinically relevant PTSD symptoms

Conditional recommendation

Guided internet-based trauma-focused CBT

For adults with PTSD where TF-CBT or EMDR are unavailable or unacceptable, we suggest guided internet-based TF-CBT.

Remark:
Most internet-based interventions for PTSD commence with psychoeducation, and then present the rationale for CBT-based treatment. These programs incorporate cognitive techniques, with the aim of identifying and modifying unhelpful patterns of cognition. Usually, behavioural components are included; generally encompassing imaginal and in vivo exposure.*[415]* Internet-based interventions vary in the level of therapist assistance provided. Guided internet-based programs can be delivered by a specialist therapist who provides input and feedback on homework, and encourages engagement with the program*[403][415]*, or by a non-specialist mental health professional who intervenes to check on progress or provides input on demand, often by telephone or by email. *[418]* An example of the latter is DESTRESS-PC, a variant of CBT and stress inoculation training designed for symptoms resulting from military trauma.*[418]*

Conditional recommendation

Trauma-focused CBT (TF-CBT) via telehealth (videoconferencing)

For adults with PTSD where face-to-face TF-CBTor EMDR are unavailable or unacceptable, we suggest offering TF-CBTdelivered via telehealth.

RESEARCH RECOMMENDATION

Further research is needed to better understand the factors affecting patient preferences for delivery of face-to-face TF-CBTversus telehealth.

Remark:
Trauma-focused cognitive-behavioural therapy (TF-CBT) is a broad term that encompasses any treatment that employs the standard principles of CBT combined with some form of trauma processing. Generally, TF-CBT involves the integration of CBT principles with components of exposure therapy, including imaginal exposure and graded in vivo exposure. Across most studies from the systematic review that underpins these Guidelines, TF-CBT was delivered via telehealth (videoconferencing using computers or smart phones) and involved psychoeducation, breathing/relaxation training (arousal reduction strategies), imaginal exposure, in vivo exposure, and cognitive restructuring.

Virtual Reality Therapy

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, CPT, or EMDR in preference to Virtual Reality Therapy .

There is emerging evidence for Virtual Reality Therapy and this could be used in a research context.

Remark:
Virtual Reality therapies, such as virtual reality exposure (VRE*[441]*) and VR-graded exposure therapy (VR-GET*[423]*) are exposure therapies which integrate real-time computer graphics with other sensory input devices to immerse a participant in a virtual

environment and facilitate the processing of memories associated with the traumatic event. Typically up to 12 graded sessions of virtual reality are administered, with the first session(s) focusing on psychoeducation and anxiety management techniques.

Behavioural Activation and Therapeutic Exposure telehealth (videoconferencing)

For adults with PTSD, there was insufficient evidence to make a recommendation on Behavioural Activation and Therapeutic Exposure delivered via telehealth (videoconferencing).

Remark:
Behavioural Activation and Therapeutic Exposure comprises of psychoeducation, behaviour activation, in vivo exposure, and imaginal exposure.

Group non-trauma-focussed CBT telehealth (videoconferencing)

For adults with PTSD, there was insufficient evidence to make a recommendation on Group non-TF-CBT delivered via telehealth (videoconferencing).

Remark:
The non-trauma-focussed CBT interventions included in the systematic review included Social and Emotional Rehabilitation and the cognitive only version of Cognitive processing therapy.

Self-directed internet-based trauma-focussed CBT

For adults with PTSD and comorbid Substance Use Disorder, there was insufficient evidence to make a recommendation on self-directed internet-based TF-CBT.

Remark:
This internet-based self-directed intervention for comorbid PTSD and Substance Use disorder contained 24 modules. These program incorporated cognitive techniques, including identifying and challenging negative automatic thoughts and doing a functional analysis of problematic alcohol or other drug use.

Seeking Safety (peer-led)

For adults with comorbid PTSD and Alcohol Use Disorder there was insufficient evidence to make a recommendation on Seeking Safety delivered by peers.

Remark:
Seeking safety is an integrated non-trauma-focused, present-focused intervention for PTSD and substance use disorder. It consists of 24 modules teaching cognitive behavioural and interpersonal techniques, as well as case management.

Non-psychological intervention for adults with clinically relevant PTSD symptoms

Telephone based mindfulness-based stress reduction

For adults with PTSD, there was insufficient evidence to make a recommendation on telephone based mindfulness-based stress reduction

Remark:
Therapeutic applications of mindfulness are commonly called mindfulness-based interventions (MBIs). The first MBI, Mindfulness-Based Stress Reduction (MBSR), was developed in 1979 by Professor Jon Kabat-Zinn from the University of Massachusetts Medical Centre. The original intent of MBSR was to help outpatients attending a stress reduction clinic to relieve the suffering associated with stress, pain, and illness. Since then, other programs based on the foundational and structural approach of MBSR have been developed.*[589]*

MBSR is a program that uses a variety of techniques to cultivate the state of mindfulness (i.e., nonjudgmental present-moment awareness; Kabat–Zinn, 1994). Mindfulness training delivered via telehealth (2 sessions in person and 6 by telephone) showed a positive effect for veterans when compared with psychoeducation.*[594]* This brief treatment was based on MBSR principles but was delivered in individual sessions and did not include the full program.

Development of the Guidelines

Guideline Development Group

Introduction (including guidance for use of MAGICApp)

Introduction to the Guidelines

The Guidelines have been designed to be used by: a) the range of general and mental health practitioners planning and providing treatment across clinical settings; b) people affected by trauma making decisions about their treatment; and c) funding bodies making service purchasing decisions. The intended outcome of the Guidelines is increased recognition of ASD, PTSD, and CPTSD, increased uptake of evidence-based care, and ultimately, better outcomes for people affected by trauma.

Importantly, the Guidelines are intended to guide practice rather than be used prescriptively. Each person's unique circumstances and their overall mental health care needs must be considered. The Guidelines do not substitute for the knowledge and skill of competent individual practitioners and are designed to guide appropriate interventions in the context of each person's unique circumstances and their overall mental health care needs. Practitioners should be enabled to interpret and implement treatment recommendations in the context of good clinical judgement, not as rigid rules.

The Guidelines were developed by a team of Australia's leading trauma experts, a methodologist, specialist practitioners working with people affected by trauma, and individuals with lived experience of trauma, supported by the Phoenix Australia project team. Recommendations were based on best practice evidence found through a systematic review of the Australian and international trauma literature. The recommendations and evidence are contained in this online platform, while the supporting chapters are available on the Guidelines website.

The supporting chapters are as follows:
Chapter 1 **Introduction** provides an overview of the Guidelines development process and details their objectives and scope.
Chapter 2 **Trauma and Trauma Reactions** provides background information on trauma and trauma reactions.
Chapter 3 General Considerations when **Working with Children and Adolescents** outlines key issues for younger people with PTSD
Chapter 4 **Interventions** presents descriptions of all of the interventions in the Guidelines on which strong, conditional, or research recommendations were made.
Chapter 5 **Methodology** provides an overview of the systematic review of evidence that underpins the Guideline treatment recommendations. In the main, that Chapter is reproduced below in 'Methodology'.
Chapter 6 **Treatment Recommendations** presents the Guideline treatment recommendations alongside issues for consideration in implementation.
Chapter 7 **Complex PTSD** provides a narrative review of the disorder, including a discussion of conceptual, diagnostic, assessment, management and treatment issues.
Chapter 8 **Economic Considerations** highlights the economic impact of PTSD. PTSD has been found to be associated with greater individual disability than other mental or physical disorders, and have higher healthcare costs than depression and anxiety.
Chapter 9 **Specific Populations and Trauma Types** provides guidance on issues to be considered when applying the Guidelines to particular populations who develop PTSD following trauma, and to particular trauma types.

The special populations covered in Chapter 9 are:

- Aboriginal and Torres Strait Islander peoples
- Refugees and asylum seekers
- Military and ex-military personnel
- Emergency services personnel
- Older people with PTSD.

The categories of traumatic event covered in the chapter are:

- Motor vehicle accidents
- Crime
- Sexual assault
- Natural disasters
- Terrorism
- Interpersonal violence

Guidance for use of MAGICApp

MagicApp works in 'layers', with the first layer outlining the recommendation (and description of the intervention) and the second layer setting out the basis for the recommendation.

Recommendations are made for or against a treatment option, with the strength of the recommendation as **strong** (clinicians should provide the intervention to all or almost all people in all or almost all circumstances), **conditional** (clinicians should provide the intervention to most people, but not all), or as **insufficient evidence** to make a recommendation. These areas that require further research are noted as **research** recommendations.

The basis for the recommendation is set out in tabs located under each recommendation. These are as follows:

Research evidence: The study details, overall effect estimates and detailed description of the certainty of the evidence criteria ratings for each outcome, that support each recommendation. The Grading of Recommendations, Assessment, Development and Evaluations (GRADE) system was used to assess the certainty of the evidence and inform the recommendation strength. The GRADE rating system is described in Chapter 5 - Methodology.

Evidence to decision: Captures key information relating to the benefits and harms of the intervention, certainty of the evidence, values and preferences of the target population, resources and other considerations.

The **forest plots** for the meta-analysis that inform each comparison, and risk of bias assessments for each included study are linked in the **certainty of evidence** section of the **key info** tab.

Where **harms** have been reported in any study informing a recommendation, these are detailed in the **benefits and harms** section of the key info tab.

The following cut-offs were used to define clinical importance:

- For interventions delivered within 3 months of exposure to trauma, SMD >0.5 for treatment comparisons and SMD >0.2 for prevention comparisons for continuous outcomes and RR <0.8 or >1.20 for binary outcomes
- For interventions delivered 3 or more months post-trauma, SMD >0.8 for waitlist comparisons, SMD>0.5 for treatment attention control comparisons, SMD >0.4 for placebo control comparisons and SMD >0.2 for active treatment control comparisons for continuous outcomes and RR <0.65 for binary outcomes
- For pre-incident preparedness interventions SMD > 0.2

NOTE: where multiple comparisons inform a recommendation, the comparison in which the experimental intervention is compared to waitlist or treatment as usual was considered to be the most critical comparison and the certainty of evidence for this comparison inform the overall GRADE certainty of evidence ratings for the body of evidence in this section. Comparisons of interventions with other treatments were included to inform recommendations.

Rationale: Description of how the Guideline Development Group synthesised the above elements with expert opinion and clinical expertise in order to agree upon the the current recommendation direction and strength.

References: Provides the full citations for the interactive references used in the meta-analyses used to make each recommendation, and the associated meta-analysis forest plots.

Please note that some tabs, such as Practical Information, and Adaptation, have not been populated.

These Guidelines provide recommendations on the best interventions for children, adolescents and adults who have been exposed to potentially traumatic events as well as those who have developed acute stress disorder (ASD) or posttraumatic stress disorder (PTSD). The Guidelines also recognise the new diagnosis of complex posttraumatic stress disorder (CPTSD) in the World Health Organisation's 11th revision of the International Classification of Diseases (ICD-11). Chapter 7 focuses on this new diagnosis and management and treatment issues.

Publication Approval

Australian Government
National Health and Medical Research Council

These Guideline recommendations were first approved by the Chief Executive Officer of the National Health and Medical Research Council (NHMRC) on 23 June 2020 under section 14A of the *National Health and Medical Research Council Act 1992*. NHMRC is satisfied that the

guideline recommendations are systematically derived, based on identification and synthesis of the best available scientific evidence and are developed for health professionals practicing in an Australian health care setting.

These guidelines are under continual review and updating of recommendations in response to new evidence. On 22 December 2021, as part of the continual review process, **new and updated recommendations** were approved. In approving the recommendations, NHMRC considers that they meet the NHMRC standard for clinical practice guidelines. Each approval is valid for a period of up to five years, and will lapse on 22 December 2026.

This publication reflects the views of the authors and not necessarily the views of the Australian Government.

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Children and adolescents pre-incident preparedness

"For children and adolescents exposed to trauma, do pre-incident preparedness interventions improve outcomes compared to no pre-incident preparedness interventions?"

This was included in the systematic review of the literature but no studies were identified.

Children and adolescents within the first three months of exposure to a traumatic event

Early psychosocial prevention interventions for children

"For children and adolescents within the first three months of a traumatic event, do psychosocial interventions when compared to intervention as usual, waiting list or no intervention, result in a clinically important reduction/prevention of symptoms, or presence of disorder?"

"For children and adolescents within the first three months of a traumatic event, do psychosocial interventions when compared to other psychosocial interventions, result in a clinically important reduction/prevention of symptoms, or presence of disorder?"

Individual psychological debriefing

Conditional recommendation (against)

For children and adolescents within the first three months after trauma exposure, we suggest providing information, emotional support, and practical assistance in preference to individual psychological debriefing.

Psychological debriefing aims to normalise reactions and promote emotional processing of the traumatic event through a structured process. The debriefing interventions are single-session and based on critical incident stress debriefing (CISD); individuals are asked to provide detailed facts about their traumatic experience, their thoughts, reactions and symptoms before being provided with psychoeducation about symptoms and how to deal with them.
The terms psychological debriefing and critical incident stress debriefing are often used interchangeably. The former describes a class of interventions delivered shortly following a trauma (usually between 24 and 72 hours) that aim to relieve distress and facilitate a rapid return to normal functioning, thereby mediating or avoiding long-term trauma symptoms. Psychological debriefing operates on the principles of ventilation (an opportunity to talk about the experience), normalisation of distress, and psychoeducation regarding potential symptoms. CISD, on the other hand, is a specific form of debriefing developed in the 1980s. It centres predominantly around group-based interventions for secondary victims such as emergency services personnel, rather than primary victims. While generally group-based, it also advocates individual (or one-on-one) interventions as an acceptable and expected variant. It relies heavily on processes of reconstruction of the traumatic event, ventilation, and normalisation, and includes a structured education component. Over time, CISD has been amalgamated within a framework of self-help activities and structured organisational processes, called critical incident stress management (CISM).
It should be noted that CISD and psychological debriefing differ from operational debriefing, a group process undertaken in high risk industries to review a particular operation or activity. The aim of operational debriefing is to review the events and processes of the operation and to apply the lessons learnt to future events. Operational debriefing is considered good practice in high risk industries as a method of improving service quality and is not a focus of these Guidelines.

Evidence to decision

Benefits and harms

Evidence from 2 RCTs *[10][11]* suggests that individual psychological debriefing has no clinically important benefit and a trend toward increased PTSD symptom severity in children aged 7-18 who received medical treatment after a motor vehicle accident, relative to neutral discussion or usual care.

Certainty of the evidence

Certainty of the evidence is MODERATE due to serious imprecision (low number of participants).

The evidence analyses and risk of bias assessments for this intervention can be found here

Values and preferences

Unfortunately there is no intervention that is supported by the literature on what care should be provided to children and adolescents exposed to a potentially traumatic event. We recognise that parents value quality care for children and will likely seek advice on what they should do in these circumstances. For those parents who seek advice, rather than just advising *not* to use psychological debriefing, we suggest providing information, emotional support and practical assistance, consistent with the set of interventions collectively referred to as psychological first aid.

We also recognise that some parents will not seek care for children and adolescents exposed to a potentially traumatic event, but will rely on their own resources and natural recovery.

Resources and other considerations

The content of information provided to assist children following traumatic events, should be of high quality and tailored to the traumatic event type and the target audience. Information given following traumatic events may include: a) information about likely outcomes (most frequently positive); b) reinforcement of existing and new positive coping; c) advice on avenues for seeking further assistance if required; and d) possible indicators of a need for further assistance.
Information following traumatic events may also include a recognition of the role of, and impact on, caregivers, siblings and teachers.

The provision of information, emotional support and practical assistance should be provided in a developmentally appropriate way depending on the age and developmental stage of the child.

This support may require specific resourcing depending on the context of the potentially traumatic event. For example in a disaster setting, significant additional resources may be required whereas in incidents involving a single child or small number of children, this support could reasonably be provided by caregivers, teachers or usual treating practitioners (e.g., family doctor).

Clinicians should be aware of the potential for parents' own distress or other factors to compromise their capacity to provide a protective/buffering function for the child.

Rationale

Individual psychological debriefing has not been found to be effective in preventing PTSD in children and young people aged 7-18 following motor vehicle accident. Further, the evidence suggests that it may cause harm for some (there was a trend toward increased PTSD symptom severity in the treatment group). Although the population was quite specific in these studies, when combined with evidence that psychological debriefing confers no benefit and may cause harm in adults, the Guideline Development Group felt that it was appropriate to suggest that individual psychological debriefing not be provided. Instead, children and adolescents should be offered comfort, information, emotional support and practical assistance.

Self-directed online psychoeducation for caregivers and children

RESEARCH RECOMMENDATION

For children and adolescents within the first three months after exposure to a potentially traumatic event, we suggest continuation of treatment as usual in preference to self-directed online psychoeducation for caregivers and children.

There is emerging evidence for self-directed online psychoeducation in caregivers and children following traumatic physical injury, and this could be used in a research context.

Psychoeducation provides individuals (in this context, caregivers and/or their children) with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies. One study included psychoeducation more broadly with strategies such as (1) promoting adaptive cognitive appraisals, (2) decreasing excessive early avoidance coping, and (3) promoting use of social support. Psychoeducation for caregivers can include information regarding common child reactions to trauma, their likely time course, and how best they can assist their child's emotional recovery (e.g., such as offer their child the opportunity to talk, not avoiding talking about the accident, and encouraging normal routine).

Evidence to decision

Benefits and harms

Evidence from a single RCT suggests a clinically important benefit on self-rated PTSD symptom severity at 4-6 weeks post-trauma from a self-administered online psychoeducation intervention for

	children aged 7-16 who had experienced an unintentional injury and an information booklet for their parents *[9]*.
Certainty of the evidence	The certainty of the evidence is LOW due to serious risk of bias, and serious imprecision The evidence analyses and risk of bias assessments for this intervention can be found here
Values and preferences	
Resources and other considerations	

Rationale

On the basis of research to date, there is not enough evidence to recommend the use of this self-directed online psychoeducation intervention for children, combined with information for caregivers. The evidence is limited to a single trial in a specific population of children following accidental injury which showed a benefit on PTSD symptom severity. In light of this study's promising findings and the absence of harm to participants, together with the potential reach of online treatment for those who would not otherwise have access to treatment due to geographical or financial barriers, the Guideline Development Group agreed that the intervention warranted further research in a range of child and adolescent trauma populations.

Self-directed online psychoeducation intervention for children only

RESEARCH RECOMMENDATION

For children and adolescents within the first three months after exposure to a potentially traumatic event, we suggest continuation of treatment as usual in preference to self-directed online psychoeducation for children.

There is emerging evidence for self-directed online psychoeducation in children following an acute medical event, and this could be used in a research context.

Psychoeducation provides individuals (in this context, children) with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies.

Evidence to decision

Benefits and harms	Evidence from a single RCT *[13]* suggests benefit on self-rated PTSD symptom severity from an online game-format intervention "Coping Coach" in children age 8 to 12 years, admitted to hospital for acute medical events. No harms were reported in this study
Certainty of the evidence	Certainty of the evidence was LOW due to serious risk of bias and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here
Values and preferences	

Resources and other considerations

Rationale

On the basis of research to date, there is not enough evidence to recommend the use of this self-directed online psychoeducation intervention for children. The evidence is limited to a single trial in a specific population of children aged 8-12 years following medical emergency events which showed a benefit on PTSD symptom severity. In light of these promising findings and the absence of harm to participants, together with the potential reach of online treatment for those who would not otherwise have access to treatment due to geographical or financial barriers, the Guideline Development Group agreed that the intervention warranted further research in a range of child trauma populations.

Psychoeducation

For children and adolescents within the first three months after exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on psychoeducation as a stand-alone intervention. However, psychoeducation should be routinely provided as part of usual care.

Psychoeducation provides individuals (in this context, children) with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies.

Self-directed online psychoeducation for caregivers only

For children and adolescents within the first three months after exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on self-directed online psychoeducation for caregivers only.

Psychoeducation provides individuals with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies.

Early psychosocial treatment interventions for children

"For children and adolescents within the first three months of a traumatic event, do psychosocial interventions when compared to intervention as usual, waiting list or no intervention, result in a clinically important reduction/prevention of symptoms, or presence of disorder?"

"For children and adolescents within the first three months of a traumatic event, do psychosocial interventions when compared to other psychosocial interventions, result in a clinically important reduction/prevention of symptoms, or presence of disorder?"

Child and Family Traumatic Stress Intervention (CFTSI)

Conditional recommendation

For children and adolescents within the first three months after trauma exposure where symptoms of PTSD are present, we suggest offering child and family traumatic stress intervention (CFTSI) in preference to supportive counselling.

The Child and Family Traumatic Stress Intervention (CFTSI) is a four-session caregiver-child model designed for early intervention and secondary prevention for children aged 7-17.[19] The CFTSI focusses on two PTSD risk factors of poor social or familial support and poor coping skills and aims to ameliorate these risks by (1) increasing communication between the affected child and their caregivers about feelings, symptoms and behaviors with the goal of increasing the caregivers' support of the child and (2) providing specific behavioural skills that are taught both to the caregiver and child to assist in coping with symptoms.

Evidence to decision

Benefits and harms	Evidence from a single RCT *[19]* suggests clinically important benefits of Child and Family Traumatic Stress Intervention (CFTSI) relative to a supportive intervention including psychoeducation and relaxation on reducing self-rated PTSD symptom severity No harms were reported in this study
Certainty of the evidence	Certainty of the evidence is LOW due to serious risk of bias and serious imprecision The evidence analyses and risk of bias assessments for this intervention can be found here
Values and preferences	Children and their caregivers will likely value information about the intervention, including its aim, content, duration and mode of delivery, expectations during the intervention and that recovery is more likely if the individual stays engaged with treatment.
Resources and other considerations	This approach is not well disseminated and therefore it is not likely to be available widely in Australia. This approach is for school-aged children only.

Rationale

The Guideline Development Group made a conditional recommendation for the use of CFTSI, in preference to supportive counselling despite low certainty of the evidence. Drawing on their clinical expertise, the group judged the intervention unlikely to pose a risk and likely to provide some clinical benefit for children and adolescents with symptoms of PTSD.

Brief trauma-focused CBT

For children and adolescents within the first three months after exposure to a traumatic event where symptoms of PTSD are present, there was insufficient evidence to make a recommendation on brief TF-CBT.

Trauma-focussed CBT is intended to help an individual come to terms with trauma through exposure to and emotional processing of memories of the event. This two session model of TF-CBT is delivered to children aged 7-16, with at least one caregiver present during each session. The intervention includes event reconstruction using drawing and toys for children aged 7-11 or less childlike items (small model cars and simple wooden figures) for adolescents, modification of unhelpful appraisals of the event, psychoeducation, and development of general age-appropriate coping strategies (e.g., talking about the accident, relaxation skills, exposure strategies).

Brief trauma-focused CBT for caregiver and child

For children and adolescents within the first three months after exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on Brief TF-CBT for caregiver and child

Brief trauma-focused CBT is delivered to children between 1-6 years old and their caregiver. To ensure that the children could benefit from the intervention, the caregivers were primarily addressed. This aimed to support the child's practice and mastery of skills as well as enhance positive parenting and parental support. The intervention includes event reconstruction using drawing and toys (with the assistance for the caregiver, e.g., the caregiver led the reconstruction while the child watched), modification of unhelpful appraisals of the event, psychoeducation, and development of parental coping strategies (e.g., parents were instructed on how to cope with their child's stress reactions, including sleeping problems and temper tantrums). One study also included two optional brief (5-15 minute) follow-up contacts (in person or via phone).

Narrative Exposure Therapy for children (kidNET)

For children and adolescents within the first three months after exposure to a traumatic event where symptoms of PTSD are present, there was insufficient evidence to make a recommendation on Narrative Exposure Therapy (NET).

KidNET is a modified version of narrative exposure therapy (NET) which has been developed for use with children. NET is a standardised short-term intervention adapted from testimony therapy (traditionally used with survivors of torture and civilian casualties of war), as well as from standard exposure approaches. It was originally developed both to treat survivors and to document human rights violations. In NET, the person is asked to develop and describe a narrative of their life from early childhood to present, focussing in detail on the traumatic events and elaborating on the associated thoughts and emotions. It is proposed that NET works in two ways: promoting habituation to traumatic memories through exposure, and reconstructing the individual's autobiographic memory.

Stepped/collaborative care

For children and adolescents within the first three months after exposure to a traumatic event where symptoms of PTSD are present, there was insufficient evidence to make a recommendation on preventative interventions within a stepped care service model

Preventative interventions within a stepped care service model aim to matches each child's needs to appropriate levels of intervention, including psychoeducation for parents. This study evaluated the delivery and effectiveness of a targeted preventive pediatric intervention based on best practice recommendations and integrated within acute medical care.[20]

Modified Written Exposure Therapy (m-WET)

New

For children and adolescents within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on modified written exposure therapy.

Modified Written Exposure Therapy (m-WET) is a low-intensity variant of written exposure therapy, with the intervention delivered in groups by community facilitators with minimal training. The intervention is delivered over five sessions with participants completing a 30-minute writing task in each session.

Trauma-Focused CBT

New

For children and adolescents within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on trauma-focused CBT.

Trauma-focussed cognitive-behavioural therapy (TF-CBT) is a broad term that encompasses any treatment that employs the standard principles of CBT combined with some form of trauma processing. Generally, TF-CBT involves the integration of CBT principles with components of exposure therapy, including imaginal exposure and graded in vivo exposure. Across most studies from the systematic review that underpins these Guidelines, the typical format of TF-CBT involves psychoeducation, breathing/relaxation training (arousal reduction strategies), imaginal exposure, in vivo exposure, and cognitive restructuring.

Memory Training for Recovery-Adolescent (METRA)

New

For children and adolescents within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on memory training for recovery-adolescent.

Memory Training for Recovery-Adolescent (METRA) is a manualized group training intervention designed to enhance memory recall and processing of traumatic experiences. It includes psychoeducation sessions and memory recall exercises where participants engage in recalling memories in response to different cues, generating specific memories for homework assignments. Additionally, participants write about their experiences related to a traumatic event for 30 minutes in multiple sessions, supported by facilitators who ensure a structured and safe environment for this process.

Early pharmacological interventions for children

"For children and adolescents within the first three months of a traumatic event, do pharmacological interventions when compared to placebo result in a clinically important reduction/prevention of symptoms, or presence of disorder?"

"For children and adolescents within the first three months of a traumatic event, do pharmacological interventions when compared to other pharmacological or psychosocial interventions, result in a clinically important reduction/prevention of symptoms, or presence of disorder?"

Propranolol

For children and adolescents within the first three months after exposure to a traumatic event where symptoms of PTSD are present, there was insufficient evidence to make a recommendation on propranolol.

Propranolol, sold in Australia under the trade name Inderal, is a medication from the beta blocker class.

Evidence to decision

Values and preferences	
Resources and other considerations	

Children and adolescents with clinically relevant post-traumatic stress symptoms

Psychological interventions for children and adolescents with PTSD

"For children and adolescents with clinically relevant post-traumatic stress symptoms, do psychological treatments when compared to treatment as usual, waiting list or no treatment, result in clinically important reduction/prevention of symptoms?"

"For children and adolescents with clinically relevant post-traumatic stress symptoms, do psychological treatments when compared to other psychological treatments, result in clinically important reduction/prevention of symptoms?"

Trauma-focused CBT (TF-CBT) for child

Strong recommendation

For children and adolescents with symptoms of PTSD, we recommend TF-CBT.

Trauma-focused CBT is intended to help an individual come to terms with trauma through exposure to and emotional processing of memories of the event. Trauma-focused CBT for children is typically delivered by a trained practitioner to children or adolescents over six to 12 sessions, and more if clinically indicated. The intervention should be adapted to the child or young person's age or development. Trauma-focused CBT generally includes psychoeducation about reactions to trauma, affect regulation skills, elaboration and processing of the trauma memories, processing of trauma-related emotions (such as shame, guilt, and anger), restructuring of unhelpful trauma-related thoughts and meanings for the individual and strategies to overcome avoidance.

Evidence to decision

Benefits and harms

Evidence from 17 RCTs *[51][52][56][60][61][63][71][74][78][82][83][85][86][88][95][96][708][800]* suggests large clinically important benefits of CBT-T (child) on PTSD symptomology in children and adolescents relative to waitlist or usual care.

Evidence from 6 RCTs *[56][68][69][70][89][90]* suggest large clinically important benefits of TF-CBT (child) on PTSD symptomology relative to non-directive counselling

Evidence from a single RCT *[80]* suggests small clinically important benefit of TF-CBT (child) relative to psychoeducation.

Evidence from 2 RCTs *[61][73]* suggests that EMDR has a greater clinically important benefit on PTSD symptom severity than TF-CBT (child)

Moderate quality evidence from 2 RCTs *[62]][[78]* suggests that TF-CBT for caregiver and child has a slightly greater clinically unimportant benefit on PTSD symptom severity than TF-CBT for child only.

Low quality evidence from a single RCT *[62]* suggest no difference between TF-CBT for caregiver only and TF-CBT for child only on PTSD symptom severity.

Evidence from a single RCT *[637]* suggests a large clinically important benefit of TF-CBT (child) relative to Reminder-Focused Positive Psychiatry.

No harms were reported in these studies

Certainty of the evidence

Overall certainty of the evidence was MODERATE

Certainty of evidence for TF-CBT (child) vs waitlist/usual care was MODERATE due to serious risk of bias

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for TF-CBT (child) vs non-directive counselling was LOW due to serious imprecision and serious risk of bias.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for TF-CBT (child) vs psychoeducation was LOW due to serious risk of bias, and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for TF-CBT (child) vs EMDR was LOW due to serious risk of bias, and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for TF-CBT (child) vs TF-CBT (caregiver and child) was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for TF-CBT (child) vs TF-CBT (caregiver) was LOW due to very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for TF-CBT (child) vs Reminder-Focused Positive Psychiatry was VERY LOW due to very serious imprecision and serious risk of bias.

The evidence analyses and risk of bias assessments for this intervention can be found here

Values and preferences

Most caregivers would choose trauma-focused CBT for children given the benefits and no reported harms. The treatment should be delivered by appropriately trained and qualified practitioners with ongoing supervision.

Children and their caregivers will likely value information about the intervention, its aim, content, duration and mode of delivery, expectations during the intervention and that recovery is more likely if the child stays engaged with treatment. Children and their caregivers may have various preferences regarding intensity and pace of treatment. Given t concept of the child talking about their trauma is of concern to some parents, an initial parent-only therapy information session is advised. During that session it may be helpful to let the parents know that a temporary increase in symptoms a commencement of treatment is not uncommon and is not a cause for concern.

Patient preferences - including experience with any previous treatment - should determine the choice between TF-CBT fo child and TF-CBT for child and caregiver as both interventions are recommended.

Resources and other considerations

It is important that those delivering TF-CBT for children are appropriately trained with an understanding of child development and family functioning so that the psychotherapy can be delivered in a developmentally sensitive way. Access to specialist service providers with evidence based training is limited in some areas. However, there is high quality online training available for TF-CBT, as well as face-to-face training. Ideally a manualised approach would be used.

Most of the evidence for trauma-focused CBT comes from children aged over 7 years; delivery of the

intervention to children younger than this needs to be adapted to the age and developmental stage of the child.

Rationale

The Guideline development group considered the evidence that trauma-focussed CBT is effective in reducing PTSD symptom severity in children and adolescents relative to waitlist or treatment as usual and relative to non-directive counselling and psychoeducation. The benefits have been shown in a diverse range of children and adolescents from Western countries as well as China, Jordan, Iran, Thailand, South Africa and Mexico. They also include a broad range of trauma types including incarcerated adolescents, girls in child welfare, girls involved in delinquency, street children in Mexico, Chinese youths who lost parents in an earthquake, survivors of the tsunami in Thailand, sexually abused children and adolescents, war exposed adolescents, former child soldiers, and war-affected Congalese girls. This leads to confidence that the intervention will be helpful in most circumstances.

The Guideline Development Group noted that limited evidence showed no benefit of trauma-focussed CBT relative to EMDR. However, the Group agreed that the breadth and strength of the evidence base for TF-CBT was considerably greater than that of EMDR, and that a strong recommendation for TF-CBT was justified while a conditional recommendation was most appropriate for EMDR at this stage in the absence of adequate evidence scope.

The Guideline Development Group noted the statistically significant but clinically unimportant trend indicating that CBT-T for caregiver and child was more effective than CBT-T for child alone. The Group agreed that as both CBT-T for caregiver and child and CBT-T for child alone had strong evidence for benefits, both forms of the intervention be strongly recommended and the option to include caregivers in treatment should be offered to patients in clinical practice where appropriate based on patient preference and clinicians judgment of the individual cases.

Given the breadth of culture and trauma type represented in the studies, the Guideline Development Group was confident in making a strong recommendation for the use of trauma focussed CBT for children. The group did note, however, the absence of children and adolescents of Aboriginal and Torres Strait Islander background and those from a refugee or asylum seeker background in studies to date. Our confidence in the applicability of the findings to these groups is less certain but in the absence of alternative evidence-based treatments, trauma focussed CBT is still recommended. Research with these populations should be prioritised.

The group also noted that only one study (Scheeringa et al. 2011) included pre-school aged children. In the absence of a strong body of evidence for the treatment of PTSD in pre-school age children specifically, trauma focussed CBT adapted to the developmental stage of the child is still recommended.

Trauma-focussed CBT for caregiver and child

Strong recommendation

For children and adolescents with symptoms of PTSD, we recommend TF-CBT for caregiver and child.

This is a trauma-focussed CBT intervention delivered to the child/adolescent and their caregiver. When possible, parents or caregivers are included throughout treatment to support the child or adolescent's practice and mastery of skills and to enhance positive parenting and parental support.

Evidence to decision

Benefits and harms Evidence from 7 RCTs suggests large clinically important benefit of CBT-T for caregiver and child relative to waitlist or usual care *[54][63][62][72][75][78][84][93]*, and evidence from 4 RCTs suggest a

small clinically important benefit relative to non-directive counselling *[57][59]* and CBT-T for child only *[62][78]*.

Evidence from a single RCT (n=53) suggests no important difference between CBT-T for caregiver and child and stepped care CBT-T for caregiver and child *[92]*.

Evidence from a single RCT (n=48) suggests no important difference between CBT-T for caregiver and child and EMDR *[65]*.

Evidence from a single RCT (n=12) suggests a moderate clinically important benefot of CBT-T for caregiver and child relative to Dyadic client centered therapy (CCT) *[798]*

No harms were reported in these studies.

Certainty of the evidence

Overall certainty of the evidence for Trauma-focused CBT for caregiver and child is MODERATE

Certainty for Trauma-focused CBT for caregiver and child vs waitlist/treatment as usual was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty for Trauma-focused CBT for caregiver and child vs non-directive counselling was LOW due to serious risk of bias, and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty for Trauma-focused CBT for caregiver and child vs EMDR was VERY LOW due to serious risk of bias, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty for Trauma-focused CBT for caregiver and child vs Trauma-focused CBT for child was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty for Trauma-focused CBT for caregiver and child vs stepped care trauma-focused CBT for caregiver and child was VERY LOW due to serious risk of bias, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty for Trauma-focused CBT for caregiver and child vs Dyadic client centered therapy was VERY LOW due to very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Values and preferences

Most caregivers would choose trauma-focussed CBT for caregiver and child given the benefits and no reported harms.

Children and their caregivers will likely value information about the intervention, its aim, content, duration and mode of delivery, expectations during the intervention and that recovery is more likely if the child stays engaged with treatment. Children and their caregivers may have various preferences regarding intensity and pace of treatment. Given the concept of the child talking about their trauma is of concern to some parents, an initial parent-only therapy information session is advised. During that session it may be helpful to let the parents know that a temporary increase in symptoms at the

	commencement of treatment is not uncommon and is not a cause for concern. Patient preferences - including experience with any previous treatment - should determine the choice between TF-CBT for child and TF-CBT for child and caregiver as both interventions are recommended.
Resources and other considerations	It is important that those delivering TF-CBT for child are appropriately trained with an understanding of child development and family functioning so that the psychotherapy can be delivered in a developmentally sensitive way. Access to specialist service providers with evidence based training is limited in some areas. However, there is high quality online training available for TF-CBT, as well as face-to-face training. Ideally a manualised approach would be used. Most of the evidence for trauma-focussed CBT comes from children aged over 7 years; delivery of the intervention to children younger than this needs to be adapted to the age and developmental stage of the child.

Rationale

The Guideline development group considered the evidence that trauma focussed CBT for caregiver and child is effective in reducing PTSD symptom severity in children and adolescents relative to waitlist or treatment as usual, non-directive counselling of TF-CBT for child only. The benefits have been shown in young people with mixed trauma types, including sexual abuse, and have been conducted in both western and non-western countries. This leads to confidence that the intervention will be helpful in most circumstances.

The group did note, however, the absence of children and adolescents of Aboriginal and Torres Strait Islander background and those from a refugee or asylum seeker background in studies to date. Our confidence in the applicability of the findings to these groups is less certain but in the absence of alternative evidence-based treatments, trauma focussed CBT for caregiver and child is still recommended. Research with these populations should be prioritised.

The group also noted that only one study (Salloum et al. 2016) included pre-school aged children. In the absence of a strong body of evidence for the treatment of PTSD in pre-school age children specifically, trauma focussed CBT for caregiver and child, adapted to the developmental stage of the child is still recommended.

The Guideline Development Group noted the statistically significant but clinically unimportant trend indicating that CBT-T for caregiver and child was more effective than CBT-T for child alone. The Group agreed that as both CBT-T for caregiver and child and CBT-T for child alone had strong evidence for benefits, both forms of the intervention be strongly recommended and the option to include caregivers in treatment should be offered to patients in clinical practice where appropriate based on patient preference and clinicians judgment of the individual cases.

Eye movement desensitisation and reprocessing (EMDR)

Conditional recommendation

For children and adolescents with symptoms of PTSD, we suggest offering EMDR where TF-CBT is unavailable or unacceptable.

Eye Movement Desensitisation and Reprocessing (EMDR) was originally developed by Francine Shapiro to treat traumatic memories in adults with PTSD. For use with children, modifications of the EMDR protocol are made to adjust for child age and developmental level. For example, whenever needed, the eye movements can be replaced by tapping and face-figures can be used to assess the child's emotional state.

EMDR is a standardised, eight-phase, trauma-focussed therapy involving the use of bilateral physical stimulation (eye movements, taps, or tones). EMDR is based on the assumption that, during a traumatic event, overwhelming emotions or dissociative processes may interfere with information processing. This leads to the experience being stored in an 'unprocessed' way, disconnected from existing memory networks. In EMDR the person is asked to focus on the trauma-related imagery, and the associated thoughts, emotions, and body sensations while bilateral physical stimulation, such as moving their eyes back and forth, occurs. Processing targets may involve past events, present triggers and adaptive future functioning. It is proposed that this dual attention facilitates the processing of the traumatic memory into existing knowledge networks, although the precise mechanism involved is not known.

Evidence to decision

Benefits and harms

Evidence from 6 RCTs suggests a moderate, clinically unimportant benefit of EMDR for PTSD symptom severity post treatment relative to waitlist or usual care. Two of these studies show strong clinically important benefit (*[55][61]*, n=93). One study suggests a moderate unimportant benefit (*[796]*, n = 61). Another study suggests a small unimportant benefit (*[50]*, n=33) and two studies (*[97][795]*, n=89) suggests very small unimportant harm.

Evidence from 2 RCTs (*[61][73]*, n=99) suggests EMDR to be more beneficial than CBT-T for children for reducing PTSD symptom severity.

Evidence from 1 RCT (*[65]*, n=48) suggests no important difference between EMDR and CBT-T for caregiver and child on PTSD symptom severity.

Certainty of the evidence

Overall certainty of the evidence was LOW.

Certainty of evidence for EMDR vs waitlist/treatment as usual was LOW due to serious imprecision, and serious inconsistency.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for EMDR vs trauma-focused CBT for child was LOW due to serious risk of bias, and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Values and preferences

Given possible benefits of EMDR on PTSD symptoms in children older than 7 years, caregivers are likely to consider EMDR if their child does not benefit from, or engage with, trauma-focussed CBT or if it is not available.

Children and their caregivers will likely value information about the intervention, including its aim, content, duration and mode of delivery, expectations during the intervention and that recovery is

	more likely if the individual stays engaged with treatment. Children and their caregivers may have various preferences regarding intensity and pace of treatment.

Resources and other considerations	Delivery of EMDR is restricted to practitioners who have undertaken accredited training. This may limit the availability of EMDR in the community. The delivery of EMDR should be based on a validated manual (only available for practitioners through EMDR-training) and delivered by practitioners trained to deliver EMDR for PTSD in children. When working with children, EMDR practitioners should also be trained in child development and family functioning in order to deliver the psychotherapy in a developmentally sensitive way.

Rationale

The Guideline Development Group considered the limited evidence and the absence of a clinically important benefit for EMDR for children and adolescents with PTSD relative to usual care. The Guideline Development Group also noted the evidence suggesting a greater benefit from EMDR than TF-CBT on PTSD symptom severity. The Group agreed that in light of the stronger evidence base for TF-CBT, a weaker recommendation for EMDR was warranted. The Guideline Development Group recommends that EMDR be offered when TF-CBT is unavailable or unacceptable.

Parent-child relationship enhancement (play therapy)

RESEARCH RECOMMENDATION

For children and adolescents with symptoms of PTSD we suggest continuation of treatment as usual in preference to parent-child relationship enhancement (play therapy).

There is emerging evidence for parent-child relationship enhancement (play therapy) for children with symptoms with PTSD and this could be used in a research context.

Child play interventions are guided by the unfolding child–caregiver interactions (if the parent is present in the session) and by the child's play with developmentally and culturally appropriate toys selected to elicit trauma play or enable children to communicate their thoughts and feelings. Regular child play sessions are interspersed with individual parent sessions.

Evidence to decision

Benefits and harms	Evidence from a single RCT (*[81]*, n=65) suggests a large clinically important benefit of play therapy relative to case management plus individual treatment for parent. Evidence from a single small RCT (*[94]*, n=26) showed no important difference between play therapy and CBT-T for caregiver and child. There were no harms reported in these studies

Certainty of the evidence	Overall certainty of evidence for parent-child relationship enhancement (play therapy) was MODERATE Certainty of evidence for parent-child relationship enhancement (play therapy) vs case management plus individual treatment for parent was MODERATE due to serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for parent-child relationship enhancement (play therapy) vs trauma-focused CBT for caregiver and child was VERY LOW due to serious risk of bias, and very serious imprecision The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group noted that two studies showed clinically important benefit of parent-child relationship enhancement (play therapy) for children with symptoms of PTSD, and has no associated harm. The Group noted that the evidence is limited in breadth in terms of the study populations which included refugees and children exposed to marital violence. Although the Guideline Development Group noted that it is widely accepted to be good practice to work with families and children's carers in the context of trauma, the Group recommended that further research with a broader range of trauma types is needed before a stronger recommendation can be made to offer this specific intervention.

Narrative Exposure Therapy for children (kidNET)

RESEARCH RECOMMENDATION

For children and adolescents with symptoms of PTSD we suggest continuation of treatment as usual in preference to narrative exposure therapy for children (kidNET).

There is emerging evidence for kidNET following exposure to traumatic events, and this could be used in a research context.

KidNET is a modified version of narrative exposure therapy (NET) which has been developed for use with children. NET is a standardised short-term intervention adapted from testimony therapy (traditionally used with survivors of torture and civilian casualties of war), as well as from standard exposure approaches. It was originally developed both to treat survivors and to document human rights violations. In NET, the person is asked to develop and describe a narrative of their life from early childhood to present, focussing in detail on the traumatic events and elaborating on the associated thoughts and emotions. It is proposed that NET works in two ways: promoting habituation to traumatic memories through exposure, and reconstructing the individual's autobiographic memory.

Evidence to decision

Benefits and harms	Evidence from 3 RCTs suggests a large, clinically important benefit from kidNET for PTSD symptom severity in former child soldiers *[66]*, traumatised refugees *[91]* and children and adolescents with multiple traumas *[709]* Evidence from a single RCT suggests no important difference between kidNET and non-directive counselling for PTSD symptom severity in former child soldiers aged 12-25 years *[66]*.

Certainty of the evidence	Overall certainty of evidence for Narrative Exposure Therapy for children (kidNET) was MODERATE. Certainty of evidence for Narrative Exposure Therapy for children (kidNET) vs waitlist/treatment as usual was MODERATE due to serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for Narrative Exposure Therapy for children (kidNET) vs non-directive counselling was LOW due to very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guidelines development group noted large clinically important benefits on PTSD symptom severity in two trials of kidNET - Narrative Exposure Therapy for children. The Group noted the limited breadth of the evidence with studies conducted with refugee children and former child soldiers. The Guideline Development Group agreed that while the results are promising and no harms have been associated with the intervention, there is not yet sufficient evidence to make a treatment recommendation. Given the promising results in these specific trauma populations, the Guideline Development Group recommended that investment in further research is warranted.

Trauma-focussed CBT for child (group)

RESEARCH RECOMMENDATION

For children and adolescents with symptoms of PTSD, we suggest doing TF-CBT in preference to group trauma-focussed CBT for child.

There is emerging evidence for group TF-CBT for child following exposure to traumatic events, and this could be used in a research context.

This is a CBT intervention with a trauma focus delivered in a group setting. The specific interventions included in the systematic review studies involve six to eight modules delivered by facilitators and include psychoeducation on trauma, dual attention tasks (such as knee tapping while thinking of traumatic events), controlled breathing, progressive muscle relaxation, identifying thoughts and feelings, reframing unhelpful thoughts, graded exposure techniques and trauma processing using artwork or sharing written trauma narratives with the group.

Evidence to decision

Benefits and harms	Evidence from 2 RCTs *[87][98]* suggests a large clinically important benefit of Group CBT-T for PTSD symptom severity relative to usual care in children who have been exposed to trauma. Evidence from a single RCT *[86]* suggests no important difference between Group CBT-T for child and a group resilience-based intervention (child friendly spaces) in Congolese youth exposed to multiple traumas.
Certainty of the evidence	Overall certainty of evidence for group trauma-focused CBT for child was LOW. Certainty of evidence for group trauma-focused CBT for child vs waitlist/treatment as usual was LOW due to serious risk of bias, and serious imprecision The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for group trauma-focused CBT for child vs group resilience building intervention was LOW due to very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here
Resources and other considerations	

Rationale

The results of two randomised controlled trials have shown benefit of group TF-CBT for reducing PTSD symptom severity in children and adolescents with PTSD. There is not enough evidence to recommend this treatment yet but given the promising results and the potential for group based treatment to increase the accessibility of TF-CBT for those who are unable to access individual treatment, the Guideline Development Group considered that further research into group-based TF-CBT for children and adolescents was warranted.

Trauma-focussed CBT for caregiver and child (Individual and group)

RESEARCH RECOMMENDATION

For children and adolescents with symptoms of PTSD, we suggest doing TF-CBT in preference to individual and group trauma-focussed CBT for caregiver and child.

There is emerging evidence for Individual and group TF-CBT for caregiver and child following exposure to traumatic events, and this could be used in a research context.

A trauma-focussed CBT intervention with a combination of group sessions, caregiver education sessions, and individual sessions. Interventions include psychoeducation, relaxation training, cognitive restructuring, social problem solving, and trauma-focussed intervention strategies, including graded exposure and trauma processing using narrative techniques.

Evidence to decision

Benefits and harms	Evidence from a single RCT *[79]* suggests a large clinically important benefit from an individual and group CBT-T intervention for children in grades 1-5 and caregivers ("Bounce Back program") for reducing PTSD symptom severity in children who have been exposed to trauma. No harms were reported in this study
Certainty of the evidence	Certainty of the evidence was MODERATE due to serious imprecision The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group noted the large clinically important benefit of a school based individual and group TF-CBT for caregivers and children for PTSD symptom severity. The Group noted the limited evidence base of a single RCT for this intervention and agreed that there is not yet enough evidence to recommend this intervention but given the promising results and the potential for such an intervention to increase access to care, the Guideline Development Group recommended that further research into a school-based individual and group TF-CBT intervention for caregivers and children is warranted.

Family therapy

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on family therapy.

A one day (four-session) family group treatment model to reduce PTSD symptoms in adolescent survivors of childhood cancer. Treatment used cognitive behavioural techniques to reduce distress. Two sessions were conducted in separate groups (survivors, mothers, fathers, and siblings) and two sessions included all family members.

Neurofeedback

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on neurofeedback.

Neurofeedback involves real-time displays of brain activity that are used to help individuals train (self-regulate) their brain activity. In neurofeedback training, neural activity is recorded from scalp electrodes and fed back to participants in a readily understood, visual format (such as simple computer games). Neurofeedback training is hypothesised to help individuals with PTSD acquire self-regulation skills by stabilising EEG activity, thereby improving focus and attention.[585]

Non-directive counselling

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on non-directive counselling.

Non-directive counselling involves active, empathic listening to the patient who is usually provided with unconditional positive regard. The therapist helps the patient to explore and clarify issues, may provide advice, reflect and confirm appropriate reactions, and introduce problem-solving techniques.

Psychoeducation (group)

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on group psychoeducation.

Group Psychoeducation provides individuals with information about traumatic stress reactions, PTSD and how to manage them in a group format.

Reminder-focussed positive psychiatry (RFPP)

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on Reminder-focussed positive psychiatry (RFPP).

Reminder-focussed positive psychiatry (RFPP) comprises of group therapy for children focussing on contextual discrimination and emotional regulation through the promotion of adaptive coping strategies (e.g., focus on positive feelings, thoughts, goals and choices) in response to trauma reminders. Psychoeducation is also provided to caregivers using the RFPP modules.

Trauma-focussed CBT for caregiver and child (group)

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on group TF-CBT for caregiver and child.

A trauma-focussed CBT intervention with a combination of group sessions for caregivers and children. Interventions include psychoeducation, coping strategies, communication, behaviour management, and trauma-focussed intervention strategies, including graded exposure and trauma processing using narrative techniques.

Trauma-focussed CBT for caregiver

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on TF-CBT for caregiver.

Trauma-focussed CBT for caregiver is a specific, phase-based model of CBT-T delivered to a child/adolescent caregiver. Caregivers are trained to serve as the child/adolescent's therapeutic agent. Caregivers are taught skills for responding to their child's behaviours and needs through modeling, gradual exposure and processing exercises. Caregivers are also trained in analysing their own behaviour in relation to their children and child management skills.

Unified Protocol for the Treatment of Emotional Disorders in Adolescents (UP-A)

New

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on Unified Protocol for the Treatment of Emotional Disorders in Adolescents.

The UP-A program consists of 12 sessions aimed at enhancing emotion regulation and reducing reactivity. Sessions include time with parents alone or conjoint sessions with adolescents, depending on preference. Core modules focus on understanding emotions, increasing cognitive flexibility, emotion-focused exposure, and relapse prevention. Additional modules address present-focused awareness, reducing emotional avoidance, physical sensation awareness, safety, and parenting training.

Pharmacological interventions for children and adolescents with PTSD

"For children and adolescents with clinically relevant post-traumatic stress symptoms, do pharmacological treatments when compared to placebo, result in clinically important reduction/prevention of symptoms?"

"For children and adolescents with clinically relevant post-traumatic stress symptoms, do pharmacological treatments when compared to other pharmacological or psychosocial interventions, result in clinically important reduction/prevention of symptoms?"

Note: There is further discussion of pharmacological treatments for children in the 'Pharmacotherapy for children and adolescents' section in Chapter 7 (Treatment recommendations) of the supporting chapters.

Sertraline

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on sertraline.

Sertraline, sold in Australia under the trade name Zoloft, is an antidepressant from the class of selective serotonin reuptake inhibitors (SSRIs).

Ifenprodil tartrate

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on ifenprodil tartrate.

Ifenprodil tartrate is a neuroprotective agent that acts as a selective NMDA receptor antagonist, modulating glutamatergic activity with potential therapeutic benefit for symptoms of PTSD

Non-psychological and non-pharmacological treatments/interventions for children with PTSD

"For children and adolescents with clinically relevant post-traumatic stress symptoms, do non-psychological and non-pharmacological treatments/interventions when compared to treatment as usual, waiting list or no treatment, result in clinically important reduction/ prevention of symptoms?"

"For children and adolescents with clinically relevant post-traumatic stress symptoms, do non-psychological and non-pharmacological treatments/interventions when compared to other treatment, result in clinically important reduction/prevention of symptoms?"

Mind-body skills group

RESEARCH RECOMMENDATION

For children and adolescents with symptoms of PTSD we suggest continuation of treatment as usual in preference to mind-body skills group.

There is emerging evidence for mind-body skills group in refugee populations exposed to war-related traumatic events, and it could be used in a research context.

"Mind-body" techniques used in the studies in the systematic review include guided imagery, relaxation techniques, meditation, autogenic training, and biofeedback. In addition to these modalities, a variety of forms of self-expression may be offered, such as art therapy and written exercises. In refugee populations exposed to war-related traumatic events there is emerging evidence for the delivery of these mind-body techniques in small groups.

Evidence to decision

Benefits and harms	Evidence from a single RCT *[103]* suggests large clinically important benefit of Mind body skills group in 14-18 year old Kosovar adolescents who witnessed war, on self-rated PTSD symptom severity relative to waitlist.

Certainty of the evidence	The certainty in the evidence is LOW due to serious imprecision and serious risk of bias. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group noted the large clinically important benefit of a mind-body skills group intervention on PTSD symptom severity in adolescents with PTSD following exposure to the war in Kosovo. The group noted that while results suggest a large benefit and no harms, they are based on a single RCT and, as such, it would be premature to make a treatment recommendation. Given the promising results in this specific trauma population, the Guideline Development Group recommended that further research is warranted.

Trauma-focussed expressive art therapy

For children and adolescents with symptoms of PTSD there was insufficient evidence to make a recommendation on trauma-focussed expressive art therapy.

In the treatment intervention used in this study, adolescent participants completed at least 13 collages or drawings and compiled them in a hand-made book format to express a narrative of their 'life story'. The 16 session protocol on art and discussion topics focussed on enhancing the adolescent's capacity to monitor and regulate feelings of safety and danger, and to share trauma-related experiences and describe coping responses.

Adults pre-incident preparedness

"For adults exposed to trauma, do pre-incident preparedness interventions improve outcomes compared to no pre-incident preparedness interventions?"

Attention bias modification training (ABMT)

RESEARCH RECOMMENDATION

For adults who are likely to be exposed to trauma, we suggest usual practice in preference to pre-incident attention bias modification training (ABMT).

There is emerging evidence for pre-incident ABMT in military populations and this could be used in a research context.

Attention bias modification training (ABMT) involves the delivery of brief (approximately 20 minute), computerised tasks. Attentional avoidance of negative information is encouraged through use of a modified dot-probe task where probes always appear in the location opposite negative stimuli. This procedure is designed to 'train' an individual's attention away from or toward negative or threatening information. The immediate effects of ABMT appear to be most prominent when applied prior to exposure to a potentially traumatic event. ABMT has been delivered to soldiers immediately prior to combat deployment in order to attenuate the association between combat exposure and PTSD-related symptoms.

Evidence to decision

Benefits and harms

Evidence from a single RCT suggests clinically important benefit of 4 sessions of predeployment ABMT relative to no training control on PTSD diagnosis in Israeli soldiers, and a clinically unimportant benefit on PTSD symptom severity *[125]*.

Evidence suggests a clinically important benefit of 4 sessions of ABMT on PTSD diagnosis relative to attention control training (ACT) *[125]* but no difference in effect on PTSD symptom severity between ABMT and ACT after either a single session *[126]* or 4 sessions *[125]*.

Certainty of the evidence

Overall certainty of evidence for Attention bias modification training (ABMT) was LOW for PTSD diagnosis, and MODERATE for PTSD symptom severity.

Certainty of evidence for Attention bias modification training (ABMT) vs no training control was LOW due to very serious imprecision for PTSD diagnosis, and MODERATE due to serious imprecision for PTSD symptom severity.

The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD diagnosis, and here for PTSD symptom severity.

Certainty of evidence for Attention bias modification training (ABMT) vs Attention Control Training (ACT) was LOW due to very serious imprecision for PTSD diagnosis, and LOW due to very serious imprecision for PTSD symptom severity.

The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD diagnosis, and here for PTSD symptom severity.

Certainty of evidence for Single session Attention bias modification training (ABMT) vs Attention Control Training (ACT) was LOW due to serious imprecision, and serious risk of bias for PTSD symptom severity.

The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group noted the reduced risk of developing PTSD in Israeli soldiers delivered four 10-minute sessions of Attention Bias Modification Training (ABMT) prior to combat exposure. The group recommended that while this is a potentially very important finding, given limited evidence in general for pre-incident preparedness and the very specific context of the single available study, further research is needed before a recommendation in favour of the intervention can be made.

Attention control training

RESEARCH RECOMMENDATION

For adults who are likely to be exposed to trauma, we suggest usual practice in preference to preincident attention control training.

There is emerging evidence for preincident attention control training and this could be used in a research context.

Attention control training uses the same format as ABMT but presents equal numbers of targets in the locations of threat and neutral attention stimuli (such as words). It is not designed to shift attention patterns (to favour neutral or threat stimuli) but rather to balance attention between neutral and threat stimuli.

Evidence to decision

Benefits and harms

Evidence from a single RCT *[125]* suggests clinical important benefit of 4 sessions of predeployment attention control training for Israeli soldiers relative to no training on PTSD diagnosis and clinically unimportant benefit on PTSD symptom severity.

Evidence suggests attention control training is not as effective as ABMT on PTSD diagnosis *[125]* and suggests no difference in effect on PTSD symptom severity between ABMT and attention control training after either a single session *[126]*or 4 sessions *[125]*.

Certainty of the evidence

Overall certainty of evidence for Attention control training was LOW for PTSD diagnosis, and MODERATE for PTSD symptom severity.

Certainty of evidence for Attention control training vs no training control was LOW due to very serious imprecision for PTSD diagnosis, and MODERATE due to serious imprecision for PTSD symptom severity.

The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD diagnosis, and here for PTSD symptom severity.

Certainty of evidence for Attention control training vs Attention bias modification Training (AMBT) was LOW due to very serious imprecision for PTSD diagnosis, and LOW due to very serious imprecision for PTSD symptom severity.

The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD diagnosis, and here for PTSD symptom severity.

Certainty of evidence for Attention control training vs Single session Attention Bias Modification Training (ABMT) was LOW due to serious imprecision, and serious risk of bias for PTSD symptom severity.

The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group noted the reduced risk of developing PTSD in Israeli soldiers delivered four 10-minute sessions of Attention Control Training prior to combat exposure, albeit with lower clinical effect than Attention Bias Modification Training (ABMT). The group recommended that while this is a potentially very important finding, given limited evidence in general for pre-incident preparedness and the very specific context of the single available study, further research is needed before a recommendation in favour of the intervention can be made.

Heart rate variability biofeedback (HRVB)

RESEARCH RECOMMENDATION

For adults who are likely to be exposed to trauma, we suggest usual practice in preference to heart rate variability biofeedback (HRVB).

There is emerging evidence for heart rate variability biofeedback (HRVB) and this could be used in a research context.

Heart rate variability biofeedback (HRVB) is a form of cardiorespiratory intervention that consists of feeding back beat-by-beat heart rate data to the participant who tries to maximise respiratory sinus arrhythmia (RSA). RSA is the heart pattern that occurs when heart rate increases during inhalation and decreases during exhalation.

This intervention has been tested in the context of pre-combat deployment in order to prevent subsequent PTSD.

Evidence to decision

Benefits and harms	Evidence from a single RCT of U.S. soldiers suggest clinically important benefit of HRVB on PTSD diagnosis, and clinically important benefit on PTSD symptom severity, relative to controls who received no extra training *[123]*. Evidence from this study suggests clinically important benefit of HRVB relative to cognitive bias modification for interpretation (CBM-I) on PTSD diagnosis and no important difference in PTSD symptom severity.
Certainty of the evidence	The overall certainty of evidence for heart rate variability biofeedback was LOW Certainty of evidence for heart rate variability biofeedback vs control was LOW for PTSD symptom severity due to serious risk of bias and serious imprecision, and VERY LOW for PTSD diagnosis due to serious risk of bias and very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD diagnosis, and here for PTSD symptom severity. Certainty of evidence for heart rate variability biofeedback vs Cognitive bias modification for interpretation was LOW for PTSD symptom severity due to serious risk of bias and serious imprecision, and LOW for PTSD diagnosis due to serious risk of bias and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD diagnosis, and here for PTSD symptom severity.

Resources and other considerations	Soldiers in this study reported multiple challenges related to iPod use in a combat zone. Restrictions on iPod use in deployment settings may limit feasibility of this intervention.

Rationale

The Guideline Development Group noted that a single RCT has examined the effectiveness of heart rate variability biofeedback (HRVB) as a PTSD preventative intervention delivered to US soldiers pre-deployment. The Group noted that while the study found no clinically important benefit overall, it was found to benefit the subgroup of older soldiers. As the intervention was found to be acceptable and feasible pre-deployment, and conferred benefit on a subgroup of participants, the Guideline Development Group recommended that further research is undertaken.

Cognitive bias modification for interpretation (CBM-I)

For adults who are likely to be exposed to trauma, there was insufficient evidence to make a recommendation on cognitive bias modification for interpretation (CBM-I).

CBM-I is a computer-based training that aims to promote less negative appraisal of post-event retrospection using software that presents emotionally ambiguous deployment-related scenarios in sentence format. The last word of each sentence is presented as a word fragment which the participant is asked to complete. These word fragments gradually increase the proportion of neutral or non-negative interpretations of the scenario.

Disaster Worker Resiliency Training Program

For adults who are likely to be exposed to trauma, there was insufficient evidence to make a recommendation on the Disaster Worker Resiliency Training Program

The Disaster Worker Resiliency Training (DWRT) Program is a single 4-hour workshop for emergency response personnel with three objectives: (1) Recognize signs and symptoms of disaster work-related stress, (2) Obtain support through employer and community resources, and (3) Build resilience by using stress reduction and coping strategies. The program consists of four sections. First, there are discussions around types of disasters, stress and resilience. Next, participants learn how to define acute and chronic stress and the symptoms of PTSD and learn about the impact of disasters. Third, participants learn about factors that help build resilience, including social support and help-seeking behaviours. Finally, techniques based on motivational interviewing, including relaxation, are used to engage participants in self-assessment and goal setting.

Mental Agility and Psychological Strength (MAPS) resilience training

For adults who are likely to be exposed to trauma, there was insufficient evidence to make a recommendation on MAPS resilience training.

The Mental Agility and Psychological Strength (MAPS) training program aims to build knowledge and practical skills for psychological wellbeing and PTSD. It includes cognitive re-structuring, support seeking, and self-soothing or self-moderating through mindfulness and relaxation training.

Stress inoculation training (SIT)

For adults who are likely to be exposed to trauma, there was insufficient evidence to make a recommendation on stress inoculation training (SIT).

Stress inoculation training (SIT) is a non-trauma-focussed anxiety management program that involves teaching coping skills to manage stress and anxiety (Meichenbaum, 1974). SIT consists of three phases. The first phase, conceptualization, includes education about stress, development of a collaborative relationship between the provider and the patient, and assessment and conceptualization of the stressors the patient is facing. The second phase, skill acquisition and rehearsal, includes teaching the patient coping skills that are tailored to the needs of the patient. These can include relaxation training, cognitive restructuring, problem-solving training, and positive self-statements. The final phase, application and follow-through, includes practicing coping skills and applying them to real life stressful situations through guided imagery, as well as relapse prevention (Meichenbaum & Deffenbacher, 1988).

These studies investigate the effectiveness of a predeployment SIT program of relaxation breathing to lessen the mental health consequences of combat stress.

Adults within the first three months of a traumatic event

Single session early prevention interventions for adults

"For adults within the first three months of a traumatic event, do psychosocial interventions when compared to intervention as usual, waiting list or no intervention, result in clinically important reduction/prevention of symptoms, or presence of disorder?"

"For adults within the first three months of a traumatic event, do psychosocial interventions when compared to other psychosocial interventions, result in clinically important reduction/prevention of symptoms, or presence of disorder?"

Psychological debriefing (group)

Conditional recommendation (against)

For adults within the first three months after trauma exposure, we suggest providing information, emotional support, and practical assistance in preference to group psychological debriefing.

Group psychological debriefing is a single-session, semi-structured intervention, applied shortly after exposure to a PTE, during which groups are guided through a seven-stage discussion soon after exposure to a severe stressor. Facts, thoughts and impressions are explored and education is provided on how to cope with possible stress reactions. Several methods of group debriefing have been proposed, most notably by Mitchell (1983) called Critical Incident Stress Debriefing (CISD). The goals of CISD following work-related exposure to a PTE are: (1) prevention and mitigation of the symptoms of traumatic stress and (2) promotion of recovery and acceleration of return to normal functioning.

The terms psychological debriefing and CISD are often used interchangeably. The former describes a class of interventions delivered shortly following a trauma (usually between 24 and 72 hours) that aim to relieve distress and facilitate a rapid return to normal functioning, thereby mediating or avoiding long-term psychopathology. Psychological debriefing operates on the principles of ventilation (an opportunity to talk about the experience), normalisation of distress, and psychoeducation regarding potential symptoms. CISD, on the other hand, is a specific form of debriefing developed in the 1980s which centres predominantly around group-based interventions for secondary victims such as emergency services personnel, rather than primary victims. While generally group-based, it also advocates individual (or one-on-one) interventions as an acceptable and expected variant. It relies heavily on processes of reconstruction of the traumatic event, ventilation, and normalisation, and includes a structured education component. Over time, CISD has been amalgamated within a framework of self-help activities and structured organisational processes, called critical incident stress management (CISM).

It should be noted that CISD and psychological debriefing differ from operational debriefing, a group process undertaken in high risk industries to review a particular operation or activity. The aim of operational debriefing is to review the events and processes of the operation and to apply the lessons learnt to future events. Operational debriefing is considered good practice in high risk industries as a method of improving service quality and is not a focus of these Guidelines.

Evidence to decision

Benefits and harms

Evidence from 3 RCTs suggests that Group debriefing has no effect on PTSD symptom severity relative to waitlist *[163][159][144]*.

Evidence from 2 RCTs suggests that Group debriefing has no effect on PTSD symptom severity relative to Group stress management *[159][144]*.

Certainty of the evidence

The overall certainty of the evidence for Group debriefing was MODERATE.

The certainty of the evidence for Group debriefing vs waitlist is MODERATE due to serious risk of bias.

The evidence analyses and risk of bias assessments for this intervention can be found here

The certainty of the evidence for Group debriefing vs Group stress management is MODERATE due to serious risk of bias.

The evidence analyses and risk of bias assessments for this intervention can be found here

Values and preferences

Although no longer considered best practice, group psychological debriefing is still widely used in many occupational settings. This can be valued by work groups as an organisational acknowledgement of the difficult event they have experienced.

Unfortunately, there is no intervention that is supported by the literature on what care should be provided to adults exposed to a potentially traumatic event. However, we recognise that both organisations and individuals value quality care and will likely seek advice on what they should do in these circumstances. Rather than just advising *not* to use psychological debriefing, we suggest providing information, emotional support and practical assistance, consistent with the set of interventions collectively referred to as psychological first aid. These interventions are likely to help and importantly, do no harm.

Adults exposed to a potentially traumatic event who wish to discuss the experience, and demonstrate a capacity to tolerate associated distress, should be supported in doing so. In doing this the practitioner should keep in mind the potential adverse effects of excessive ventilation in those who are very distressed.

We also recognise that some people will not seek care but will rely on their own resources and natural recovery.

Resources and other considerations

In a workplace context, the distinction between an operational debrief and a psychological debrief is not always clearly understood or maintained.

The provision of information, emotional support and practical assistance may require specific resourcing depending on the context of the potentially traumatic event. For example, in a disaster setting significant additional resources may be required whereas in incidents involving an individual this support could reasonably be provided by usual social supports or treating practitioners (e.g., family doctor), or in a workplace context, by welfare staff or appropriately trained managers or supervisors.

Rationale

The Guideline Development Group noted the non-significant effect of group psychological debriefing on PTSD severity. This evidence alone would have led to no recommendation, but the Guideline Development Group also considered the broader evidence of increased PTSD diagnosis following individual debriefing, which shares several features with group debriefing. In light of this potential harm, the Group agreed that a conditional recommendation against the use of group debriefing was appropriate.

Psychological debriefing (individual)

Conditional recommendation (against)

For adults within the first three months after trauma exposure, we suggest providing information, emotional support, and practical assistance in preference to individual psychological debriefing.

Individual psychological debriefing is the application of Critical Incident Stress Debriefing (CISD) in an individual setting. The intervention generally comprises an hour's debriefing combining a review of the traumatic experience, encouragement of emotional expression, and promotion of cognitive processing of the experience.

The terms psychological debriefing and CISD are often used interchangeably. The former describes a class of interventions delivered shortly following a trauma (usually between 24 and 72 hours) that aim to relieve distress and facilitate a rapid return to normal functioning, thereby mediating or avoiding long-term psychopathology. Psychological debriefing operates on the principles of ventilation (an opportunity to talk about the experience), normalisation of distress, and psychoeducation regarding potential symptoms. CISD, on the other hand, is a specific form of debriefing developed in the 1980s which centres predominantly around group-based interventions for secondary victims such as emergency services personnel, rather than primary victims. While generally group-based, it also advocates individual (or one-on-one) interventions as an acceptable and expected variant. It relies heavily on processes of reconstruction of the traumatic event, ventilation, and normalisation, and includes a structured education component. Over time, CISD has been amalgamated within a framework of self-help activities and structured organisational processes, called critical incident stress management (CISM).

It should be noted that CISD and psychological debriefing differ from operational debriefing, a group process undertaken in high risk industries to review a particular operation or activity. The aim of operational debriefing is to review the events and processes of the operation and to apply the lessons learnt to future events. Operational debriefing is considered good practice in high risk industries as a method of improving service quality and is not a focus of these Guidelines.

Evidence to decision

Benefits and harms

Evidence from 3 RCTs suggests that individual debriefing may slightly increase PTSD diagnosis *[145][148][156]*.

Evidence from 7 ~~6~~ RCTs suggests that individual debriefing may have no effect on PTSD symptom severity relative to waitlist, usual treatment *[145][148][151][155][156][599] [747]* or brief cognitive behavioural counselling *[599]*.

Note: A single RCT *[747]* included two variations of psychological debriefing (educational debriefing & emotional debriefing) which were compared against waitlist, usual treatment separately.

Certainty of the evidence

Overall certainty of the evidence is VERY LOW

Certainty of evidence for individual debriefing vs waitlist/treatment as usual for PTSD diagnosis is VERY LOW due to serious risk of bias and very serious imprecision

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for individual debriefing vs waitlist/treatment as usual for PTSD symptom severity is VERY LOW due to serious risk of bias and very serious imprecision

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for individual debriefing vs brief cognitive behavioural counselling for PTSD symptom severity is LOW due to very serious imprecision

The evidence analyses and risk of bias assessments for this intervention can be found here

Values and preferences

Unfortunately there is no intervention that is supported by the literature on what care should be provided to adults exposed to a potentially traumatic event. We recognise that people value quality care and will likely seek advice on what they should do in these circumstances. For this reason, rather than just advising not to use psychological debriefing, we suggest providing information, emotional support and practical assistance, consistent with the set of interventions collectively referred to as psychological first aid. These interventions are likely to help and do no harm.

Adults exposed to a potentially traumatic event who wish to discuss the experience, and demonstrate a capacity to tolerate associated distress, should be supported in doing so. In doing this the practitioner should keep in mind the potential adverse effects of excessive ventilation in those who are very distressed.

We also recognise that some people will not seek care but will rely on their own resources and natural remission.

Resources and other considerations

The provision of information, emotional support and practical assistance may require specific resourcing depending on the context of the potentially traumatic event. For example in a disaster setting significant additional resources may be required whereas in incidents involving an individual this support could reasonably be provided by usual social supports or treating practitioners (e.g., family doctor), or in a workplace context, by welfare staff or appropriately trained managers or supervisors.

Rationale

*The Guideline Development Group noted the evidence showed an increase in the risk of PTSD diagnosis following individual debriefing. The Group discussed that any indication of an intervention being associated with patient harm should be taken very seriously and on this basis, the Guideline Development Group agreed to make a conditional recommendation against the use of individual debriefing despite **very** low certainty of evidence.*

Group 512 PIM

RESEARCH RECOMMENDATION

For adults within the first three months following exposure to a potentially traumatic event, we suggest usual practice in preference to Group 512 PIM.

There is emerging evidence for Group 512 PIM in Chinese military populations exposed to natural disaster and this could be used in a research context.

Group 512 PIM is an intervention tested on Chinese military rescuers and based on the standard principles of critical incident stress debriefing (CISD) developed by Mitchell (1983). Group 512 PIM involves four stages including introduction, discussing the facts, thoughts, reactions and symptoms related to the trauma followed by stress management tips. Group 512 PIM differs from standard CISD by including a final stage of cohesion training, where participants play games requiring team cooperation to foster military unit cohesion. This is a critical part of Group 512 PIM, as cohesion is thought to have protective effects in preventing stress.[163]

Evidence to decision

Benefits and harms	Evidence from a single RCT suggests clinically important benefit of Group 512 PIM debriefing of Chinese military rescuers after an earthquake relative to no debriefing or group debriefing on PTSD symptom severity *[163]*.

Certainty of the evidence	Overall certainty of evidence for Group 512 PIM was LOW Certainty of evidence for Group 512 PIM vs waitlist/treatment as usual was LOW due to serious risk of bias, and serious indirectness. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for Group 512 PIM vs Group debriefing was LOW due to serious risk of bias, and serious indirectness. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group noted that Group 512 PIM has been tested in a single RCT with Chinese military rescuers following an earthquake and showed a clinically important benefit. The Group discussed the uncertainty in the acceptability of the intervention, which combines group debriefing with cohesion building activities such as playing games which need team cooperation, with participants "asked to tell in private or shout in public the words they most want to say", to workers in an Australian context. The Guideline Development Group recommended that further research was warranted. 'Usual practice' in the context of this recommendation means stabilisation and provision of information, emotional support and practical assistance as needed.

Computerised visuospatial task

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on computerised visuospatial task.

Participants played a computerised visuospatial task (Tetris) on a computer or Nintendo DS for 10 to 20 minutes within 6 hours of experiencing a PTE (e.g., emergency caesarean or accident). It has been suggested that a playing computer game with high visuospatial demands following a PTE will disrupt the consolidation of sensory elements of the trauma memory, so reducing the experience of intrusive memories or flashbacks.

EMDR (single session)

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on delivering a single session of EMDR.

Single session EMDR follows the EMDR Protocol for Recent Critical Incidents (EMDR-PRECI). EMDR-PRECI is a modified version of Shapiro's Recent Traumatic Events Protocol (R-TEP) [162] which is specially designed for victims of recent traumatic events. EMDR-PRECI involves identifying the worst fragment of the client's trauma memory, followed by the remaining difficult fragments of the memory. Desensitising occurs by having the client focus on each memory fragment whilst simultaneously engaging in dual attention stimulation using eye movements, until all fragments have been processed and the client no longer experiences emotional, cognitive or somatic distress. In this study the EMDR sessions were delivered in the context of ER patients in a hospital.[150]

Evidence to decision

Benefits and harms	Evidence from 1 RCT *[150]* suggests a clinically important benefit of a single session of EMDR relative to wait list or usual care for PTSD diagnosis Evidence from 1 RCT *[150]* suggests a clinically important benefit of EMDR relative to reassurance for PTSD diagnosis. No harms were reported in this study
Certainty of the evidence	Overall certainty of evidence for single session EMDR is VERY LOW. Certainty of evidence for single session EMDR vs waitlist is VERY LOW due to serious risk of bias and very serious imprecision for PTSD diagnosis. Certainty of evidence for single session EMDR vs reassurance is VERY LOW due to serious risk of bias and very serious imprecision for PTSD diagnosis.
Values and preferences	Most individuals would value a single session of EMDR given the potential benefit and no reported harms. The treatment should be delivered by appropriately trained and qualified practitioners with ongoing supervision. When discussing this treatment option, information should be provided about the proposed intervention, including its aim, content, duration and mode of delivery, Patient preferences will influence whether this treatment is appropriate.
Resources and other considerations	There may be accessibility issues in the delivery of single session EMDR which should be based on a validated protocol (only available for practitioners through EMDR-training) and delivered by trained practitioners. Access to psychological treatments can be slow to procur and those patients less committed to obtaining help can get lost in the process. Many GPs struggle with Medicare's process of ATAPs and Better Access and triage of these services through the Primary Health Networks to mental health professionals they deem most suitable, without being able to easily refer directly to the professional of the GP's choosing. Increased clarity regarding which psychologists are offering which therapies would make referrals from GPs more relevant and useful for the patient's condition.

Prolonged Exposure (Single session)

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on single session Prolonged Exposure (PE).

Exposure therapy is long established as an effective treatment for a range of anxiety disorders. The key objective of exposure therapy is to help the person confront the object of their anxieties. A fundamental principle underlying the process of exposure is that of habituation, the notion that if people can be kept in contact with the anxiety-provoking stimulus for long enough, their anxiety will inevitably reduce. This may occur within an exposure session (within-session habituation) or across a series of sessions (between-session habituation). More contemporary models emphasise information processing as a key mechanism.

The single session Prolonged Exposure involved intervention introduction, imaginal exposure (repeated recounting of trauma memories during sessions and listening to recordings of the recounting made during therapy sessions), processing (discussion of thoughts and feelings related to the exposure exercises), identifying in vivo exposures (approaching safe situations that patients avoided due to trauma-related fear), normal reactions to trauma and identification of self-care, breathing retraining, and assignment of homework.

Psychoeducation/self-help (individual)

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on individual psychoeducation/self-help.

Psychoeducation provides individuals (in this context adults) with information about traumatic stress reactions, PTSD and how to manage symptoms in an individual, self-help format. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies.

Reassurance

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on reassurance.

The 15-minute reassurance intervention comprised of education around the response to stressful medical events and challenging any cognitive distortions (e.g., unrealistic beliefs about being responsible for their injury).

Stress management (group)

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on group stress management.

A single session group stress management workshop delivered via PowerPoint combining didactic instruction and group discussion. Topics included how to recognise and manage stress, potential long-term effects of stress on individuals, and adaptive coping strategies for reducing the effects of stress.

Trauma-focussed counselling

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on trauma-focussed counselling.

Brief trauma-focussed counselling comprised of a single session of individual counselling within 48 hours of experiencing a PTE (e.g., traumatic birth or myocardial infarction), covering techniques for managing anxiety, social skills and problem solving, relaxation, cognitive coping.

Psychological first aid - ABCDE

New

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on the psychological first aid - ABCDE intervention.

The PFA-ABCDE intervention integrates elements from the World Health Organizations' definition of PFA and core actions. It consists of active listening, breathing retraining, needs categorization, referral to social support networks, and psychoeducation

Post-coercion review session

New

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on the post-coercion review session intervention

A post-coercion review session follows a coercive intervention (e.g., mechanical restraint, seclusion, forced medication) during hospitalization. The patient and an involved staff member share their perception of the events leading to the coercive intervention, with the moderator (a non-involved staff member) asking open-ended questions about the reasons for the use of coercion, alternatives to coercion and personal wishes, that can be included in a joint crisis plan for the future

Multiple session early prevention interventions for adults

"For adults within the first three months of a traumatic event, do psychosocial interventions when compared to intervention as usual, waiting list or no intervention, result in a clinically important reduction/prevention of symptoms, or presence of disorder?"

"For adults within the first three months of a traumatic event, do psychosocial interventions when compared to other psychosocial interventions, result in clinically important reduction/prevention of symptoms, or presence of disorder?"

Brief dyadic therapy

RESEARCH RECOMMENDATION

For adults within the first three months following exposure to a potentially traumatic event, we suggest usual practice in preference to brief dyadic therapies.

There is emerging evidence for brief dyadic therapies and this could be used in a research context.

These are brief (e.g. two - three session) CBT-based therapies delivered dyadically with the aim of improving communication and fostering a shared approach to addressing psychological and practical difficulties. For example, brief dyadic therapy as described by Brunet and colleagues[186] aims to target social support process following trauma exposure, and involves elements of psychoeducation and motivational interviewing to enhance communication between the patient and their significant other. It involves two sessions, which aim to promote disclosure of thoughts and emotions relating to the trauma while attempting to reduce social constraints on disclosure and negative interactions between the dyad.[186]

Evidence to decision

Benefits and harms	Evidence from 2 RCTs *[186][196]* suggests small, clinically important benefit of brief dyadic therapy on PTSD symptom severity for adults within the first three months of a traumatic event.
Certainty of the evidence	Certainty of the evidence is LOW due to serious risk of bias and serious imprecision The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group noted the small clinical benefit shown in two trials of brief dyadic therapy on PTSD symptom severity with no associated harm. The Group agreed that the body of evidence was too limited to make a recommendation in favour of brief dyadic therapy but they recommended that this intervention warranted further research. 'Usual practice' in the context of this recommendation means stabilisation and provision of information, emotional support and practical assistance as needed.

Brief individual trauma processing therapy

RESEARCH RECOMMENDATION

For adults within the first three months following exposure to a potentially traumatic event, we suggest usual practice in preference to brief individual trauma processing therapy.

There is emerging evidence for brief individual trauma processing therapy for adults within the first three months following exposure to a potentially traumatic event, and this could be used in a research context.

A range of interventions are included in this grouping: memory restructuring, adapted CISD, counselling, brief PE and midwife led counselling.

Evidence to decision

Benefits and harms

Evidence from 7 ~~6~~ RCTs *[185][188][198][200][602][603] [751]* suggests a small important benefit of brief individual trauma processing therapy on PTSD symptom severity relative to waitlist or usual treatment for adults within the first three months of a traumatic event.

Evidence from 3 RCTs *[188][198][200]* suggests a clinically important benefit of brief individual trauma processing therapy on PTSD diagnosis relative to waitlist or usual treatment for adults within the first three months of a traumatic event.

Evidence from 2 RCTs *[190][191]* suggests a small important benefit of brief individual trauma processing therapy on PTSD symptom severity relative to supportive listening for adults within the first three months of a traumatic event.

Certainty of the evidence

Overall certainty of evidence for Brief individual trauma processing therapy is VERY LOW.

Certainty of evidence for brief individual trauma processing therapy vs waitlist/TAU is VERY LOW due to serious risk of bias, serious inconsistency, and serious imprecision for PTSD symptom severity.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for brief individual trauma processing therapy vs waitlist/TAU is LOW due to serious risk of bias and serious imprecision for PTSD diagnosis.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Certainty of evidence for brief individual trauma processing therapy vs supportive listening is VERY LOW due to serious risk of bias, serious inconsistency, and very serious imprecision for PTSD symptom severity.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Rationale

The Guideline Development Group agreed to consider these interventions as a group as, despite their heterogeneity, all interventions in the grouping involve brief, trauma focused therapy early on following trauma. 'Usual practice' in the context of this recommendation means stabilisation and provision of information, emotional support and practical assistance as needed.

Internet-based CBT

RESEARCH RECOMMENDATION

For adults within the first three months following exposure to a potentially traumatic event, we suggest usual practice in preference to internet-based CBT.

There is emerging evidence for internet-based CBT and this could be used in a research context.

'Trauma TIPS', an internet-based self-guided intervention, is based on CBT principles of psychoeducation, stress/relaxation techniques, and in vivo exposure. Trauma TIPS aims to decrease levels of distress and anxiety by providing information on successful coping, instructions and guidance for in vivo exposure, and stress management techniques.[199]

Evidence to decision

Benefits and harms	Evidence from a single study *[199]* suggests a small, clinically important benefit of internet-based CBT on PTSD diagnosis and symptom severity in adults in the first 3 months following serious injury.
Certainty of the evidence	Overall certainty of the evidence is LOW due to serious imprecision. Certainty of the evidence LOW due to very serious imprecision for PTSD symptom severity. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of the evidence is MODERATE due to serious imprecision for PTSD diagnosis. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group noted the small benefit of an internet-based CBT on PTSD diagnosis and symptom severity, with no associated harms. The Group noted that the evidence consists of a single study of injury survivors and so the extent to which the results can be generalised to all adults in the first 3 months following trauma is not known. The Guideline Development Group agreed that there is not yet enough evidence to make a recommendation in favour of internet-based CBT. The Group noted the potential for this intervention to increase the availability of treatment for individuals who are unable to access face-to-face treatment due to availability, access, or cost, barriers and the Group, therefore, recommend further research into internet-based CBT in other populations and trauma types. 'Usual practice' in the context of this recommendation means stabilisation and provision of information, emotional support and practical assistance as needed.

Brief Interpersonal Counselling

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on brief IPT.

Brief interpersonal counselling is an attachment-based treatment that focuses on current interpersonal problems and the resolution of these to improve symptoms. This included the impact of the injury on interpersonal issues pre-dating the injury as well as interpersonal issues arising after the trauma.

Brief Prolonged Exposure

For adults within the first three months following exposure to a potentially traumatic event, we suggest usual practice in preference to brief prolonged exposure.

There is emerging evidence for brief prolonged exposure and this could be used in a research context.

Exposure therapy is long established as an effective treatment for a range of anxiety disorders. The key objective of exposure therapy is to help the person confront the object of their anxieties. A fundamental principle underlying the process of exposure is that of habituation, the notion that if people can be kept in contact with the anxiety-provoking stimulus for long enough, their anxiety will inevitably reduce. This may occur within an exposure session (within-session habituation) or across a series of sessions (between-session habituation). More contemporary models emphasise information processing as a key mechanism.

Prolonged Exposure is a manualised therapy (Foa, Hembree & Rothbaum, 2007). It consists of psychoeducation about common reactions to trauma, breathing retraining, in vivo exposure (approaching safe situations that patients avoided due to trauma-related fear), imagery exposure (repeated recounting of trauma memories during sessions and listening to recordings of the recounting made during therapy sessions), and processing (discussion of thoughts and feelings related to the exposure exercises).

Brief Prolonged Exposure is a variant with treatment conducted over three 60 minute sessions. Between session homework involves listening to the recorded session daily and in vivo exposure.

Rationale

The Guideline Development Group noted the small clinical benefit shown in two trials of brief dyadic therapy on PTSD symptom severity with no associated harm. The Group agreed that the body of evidence was too limited to make a recommendation in favour of brief dyadic therapy but they recommended that this intervention warranted further research. 'Usual practice' in the context of this recommendation means stabilisation and provision of information, emotional support and practical assistance as needed.

Collaborative care

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on collaborative care.

The collaborative care intervention combined continuous medical support services with active follow-up and shared treatment decision making. Patients were assigned trauma support specialists who followed patients for 4 months through primary care outpatient appointments and community rehabilitation. The trauma support specialists assisted patients in contributing to their treatment decisions, as well as delivered a psychotherapy module targeting post-traumatic distress and substance use.

Communication facilitator in an intensive care setting

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on communication facilitator in an intensive care setting.

The intervention used a communication facilitator to increase families' and clinicians' self efficacy expectations about communication in the intensive care unit. The intervention included interviews by facilitators with families, meetings with medical personnel to convey families' concerns, providing emotional support to family members and a follow-up with families following discharge.

Intensive care diaries

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on intensive care diaries.

Intensive care diaries interventions involved healthcare staff and family members writing diaries for patients while they were in critical care. Entries included a daily record of the patients ICU stay (e.g., ward events, treatments, details about visitors) and photos. Diaries were given to the patient or a family member before discharge from the intensive care unit. It is suggested that the dairies are therapeutic for caregivers during hospitalization, help ICU survivors' understand the support that was present during their intensive care stay.

Nurse-led intensive care recovery program

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on nurse-led intensive care recovery program.

The recovery program consisted of three consultations conducted by nurses. The first consultation was conducted in person with the nurse, patient and a family member, and focused on constructing an illness narrative. The second and third consultations took place by phone and focused on issues the patient had experienced.

PE Coach App

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on PE Coach App.

PE Coach is a smart-phone app used for self-directed symptom management. The app consists of four primary modules: psychoeducation, symptom monitoring, CBT tools to manage symptoms and information on available crisis support services.

Supported psychoeducational intervention

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on supported psychoeducational intervention.

Psychoeducation provides individuals (in this context, caregivers) with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies. The psychoeducational tool consisted of a handbook. Caregivers also received a phone call to discuss their post-PICU experience, reinforce the material in the handbook and provide support.

Three step early intervention for mothers of infants born prematurely

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on three step early intervention for mothers of infants born prematurely.

The intervention program comprised of 3 phases (33 weeks after conception, 42 weeks after conception, 4 months after conception) following a therapeutic treatment model that incorporates principles of a family system theory into a transactional preventive intervention. Phase 1 consisted of joint observation by mother, nurse and therapist of infants reactions and interactions in the NICU, which lasted 30-60 minutes and was videotaped. Phase 2 included a videotaped assessment using the Neonatal Behavioural Assessment Scale and a semi-structured interview with the parents (Clinical Interview for Parents of High-Risk Infants). The final phase consisted of 3 videotaped sessions, one week apart, of a 10-min mother–infant free play, followed by a Interaction Guidance phase.

Telephone-based CBT

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on telephone-based CBT.

Cognitive-behavioural therapy (CBT) is a broad term that encompasses any treatment that employs the standard principles of CBT combined with some form of trauma processing. Generally, CBT is trauma-focused and involves the integration of CBT principles with components of exposure therapy, including imaginal exposure and graded in vivo exposure, psychoeducation, breathing/relaxation training (arousal reduction strategies), and cognitive restructuring. In these interventions, CBT was delivered over 6 to 8 weeks via telephone (rather than face to face).

Post-stroke preventative intervention for PTSD

New

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation for the post-stroke preventative intervention for PTSD.

The post-stroke preventive intervention for PTSD involves one health education session per week (average 2 hours in total) focused on coping and treatment after stroke, while encouraging emotional release through observation, active communication, and psychological debriefing.

Early psychosocial treatment interventions for adults

"For adults within the first three months of a traumatic event, do psychosocial interventions when compared to intervention as usual, waiting list or no intervention, result in a clinically important reduction/prevention of symptoms, or presence of disorder?"

"For adults within the first three months of a traumatic event, do psychosocial interventions when compared to other psychosocial interventions, result in clinically important reduction/prevention of symptoms, or presence of disorder?"

Stepped/collaborative care

Strong recommendation

For adults with PTSD symptoms in the first three months following trauma, we recommend a stepped/collaborative care model, in which individuals receive evidence-based care commensurate with the severity and complexity of their need.

A stepped care model recognises that not all those exposed to potentially traumatic events will develop a diagnosable disorder; many will experience only sub-threshold symptoms and others will not experience significant symptomatology at all. Stepped care aims to ensure that individuals receive care commensurate with the severity and complexity of their need. The approach involves ongoing monitoring of people who are more distressed and/or at heightened risk of poor psychological adjustment, with increasingly intensive interventions delivered as indicated. Interventions are generally CBT-based, but sometimes based on other psychological approaches (e.g. motivational interviewing) and may include components of case management and prescription of pharmacological intervention. The collaborative care model by Zatzick and colleagues[267][268][269] is a stepped care model where injury patients are screened for high levels of PTSD symptoms. Those with risk factors are offered integrated care including pharmacotherapy, motivational interviewing targeting problematic alcohol use, and CBT targeting depression and PTSD symptoms. Elements of the treatment are provided in a stepped fashion such that those with greater ease of delivery such as psychoeducation and problem solving are given initially, followed later by more complex elements such as activity scheduling. Patient symptoms are repeatedly measured and higher-intensity care is initiated if the person requires it. The stepped care model proposed by O'Donnell and colleagues[259] aimed to address a comprehensive range of posttrauma psychopathology beyond PTSD. In a two-stage screening process, patients were screened for high risk symptoms of PTSD, depression and anxiety, and treated with an evidence-based modular CBT manual that allowed treatment to be tailored to the patient's individual symptom-cluster profiles.

Evidence to decision

Benefits and harms

Evidence from 4 RCTs *[259][267][268][269]* suggests a small unimportant benefit on symptom severity and a clinically important benefit of a stepped/collaborative care model on PTSD diagnosis in adults within 3 months of trauma exposure.

Certainty of the evidence

Overall certainty of the evidence was MODERATE

Certainty of evidence for a stepped care model was MODERATE due to serious imprecision for PTSD symptom severity.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for a stepped care model was LOW due to very serious imprecision for PTSD diagnosis.

The evidence analyses and risk of bias assessments for this intervention can be found here

Values and preferences

Most patients would value a stepped care approach in which each level of care is evidence based, and the level of care provided is matched with their need.

Resources and other considerations	In Australia, the principle of stepped care has been adopted nationally and is an explicit policy of the Primary Health Network (PHN) initiative. The implementation of stepped care, however, can be challenging. It requires monitoring of patient symptoms, targeting of those patients who require escalation of care, and connected systems which can provide continuity of care across different practitioners. In mental health the application of stepped care can be particularly challenging. The guideline development group observed that there is organisational and systemic demarcation between acute preventative and early intervention care and stepped up intermediate and higher level care that does not facilitate a stepped or collaborative care process. It was considered that overall prioritisation is given to physical versus mental health care in spite of the overwhelming evidence for an integrated and interdisciplinary care approach. A systems level change to mental health models of care that includes care coordination across time would be required to fully implement this recommendation. This may be challenging from a health policy and resourcing perspective.

Rationale

The Guideline Development Group considered the fact that a stepped care model is regarded as best practice in the field and is highly valued by patients. They agreed that is it a pragmatic approach to patient care that maximises the use of scare resources for the benefit of the greatest number and therefore, the Group agreed to make a strong recommendation for the use of a model of stepped care in which the care that is provided at each level is evidence based, despite the mixed certainty of evidence and strength of effect across outcomes.

Trauma-focussed CBT (TF-CBT)

Conditional recommendation

For adults with PTSD symptoms in the first three months following trauma, we suggest offering TF-CBT (includes prolonged exposure, cognitive processing therapy, cognitive therapy) in preference to doing nothing.

Trauma-focussed CBT is intended to help an individual come to terms with trauma through exposure to and emotional processing of memories of the event. This includes prolonged exposure, cognitive restructuring, cognitive processing therapy and cognitive therapy. Typically, TF-CBT involves homework and includes psycho-education, exposure work, cognitive work and more general relaxation/ stress management; the relative contribution of these elements varies between different forms of TF-CBT.

Evidence to decision

Benefits and harms	Evidence from 17 RCTs suggests a clinically important benefit of TFCBT on PTSD symptom severity and diagnosis, relative to WL/TAU *[241][246][250][251][260][262][263][264][773]*, supportive counselling *[242][243][244][245][252][257][258]*, and relaxation *[249]*. Evidence from a single RCT *[264]* suggests that TFCBT was not as effective as structured writing therapy in reducing PTSD diagnosis but showed similar benefit on symptom severity. Evidence from a subgroup analysis of brief PE-based interventions *[242][243][244][245][251][252]* suggest clinically important benefit on PTSD diagnosis

and symptom severity relative to supportive counselling.

Evidence from a subgroup analysis of brief CPT-based interventions suggest a clinically important effect on PTSD diagnosis *[257]* and unimportant benefit on PTSD symptom severity *[257][258]* relative to supportive counselling.

Certainty of the evidence

Overall certainty of evidence for Trauma-focused CBT was LOW

Certainty of evidence for Trauma-focused CBT vs waitlist/treatment as usual was LOW due to serious risk of bias, and serious imprecision for PTSD symptom severity, and VERY LOW due to serious risk of bias, serious inconsistency, and serious imprecision for PTSD diagnosis.

The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD symptom severity, and here for PTSD diagnosis

Certainty of evidence for Trauma-focused CBT vs Supportive counselling was LOW due to serious risk of bias, and serious imprecision for PTSD symptom severity, and VERY LOW due to serious risk of bias, serious inconsistency, and serious imprecision for PTSD diagnosis.

The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD symptom severity, and here for PTSD diagnosis

Certainty of evidence for Brief prolonged exposure-based interventions vs supportive counselling was LOW due to serious risk of bias, and serious imprecision for PTSD symptom severity and VERY LOW due to serious risk of bias, serious inconsistency, and serious imprecision for PTSD diagnosis.

The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD symptom severity, and here for PTSD diagnosis

Certainty of evidence for Brief CPT-based interventions vs Supportive counselling was LOW due to serious risk of bias, and serious imprecision for PTSD symptom severity, and VERY LOW due to serious risk of bias, and serious imprecision for PTSD diagnosis.

The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD symptom severity, and here for PTSD diagnosis

Certainty of evidence for Trauma-focused CBT vs relaxation was VERY LOW due to serious risk of bias, and serious imprecision for PTSD symptom severity and VERY LOW due to serious risk of bias, and very serious imprecision for PTSD diagnosis.

The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD symptom severity, and here for PTSD diagnosis

Certainty of evidence for Trauma-focused CBT vs Structured writing therapy was VERY LOW due to serious risk of bias, and very serious imprecision for PTSD symptom severity, and VERY LOW due to serious risk of bias, and very serious imprecision for PTSD diagnosis.

The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD symptom severity, and here for PTSD diagnosis

Certainty of evidence for Trauma-focused CBT vs Self-help program was VERY LOW due to serious risk of bias, and very serious imprecision for PTSD symptom severity, and LOW due to very serious imprecision for PTSD diagnosis.

The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD symptom severity, and here for PTSD diagnosis

Values and preferences

Given possible benefits of trauma-focussed CBT on PTSD symptoms within the first 3 months following exposure to a traumatic event, and the absence of any alternative treatment with a strong recommendation for its use, patients are likely to consider this treatment.

Trauma-focussed CBT within the first three months of trauma may involve one or a combination of approaches including prolonged exposure, cognitive processing therapy and cognitive therapy. Patients would value information about each treatment in order to make an informed choice between them.
Patient preferences and the availability of each treatment are likely to guide selection of TF-CBT vs EMDR, which are both conditionally recommended treatments for adults with PTSD symptoms in the first three months after exposure to a traumatic event.

Based on the evidence gathered through real world effectiveness trials of trauma focused treatments, a proportion of patients may be expected to drop out of treatment. Adequate preparation including providing a rationale for treatment and a realistic preview of what treatment will involve is likely to minimise drop out.

We recognise that in the first few months after experiencing a traumatic event, some people will prefer to delay treatment to see if their symptoms remit.

Resources and other considerations

For patients with work-related PTSD, treatment will be funded by third party insurers. For others with private health insurance, psychology sessions may be partially reimbursed. For patients relying on Medicare, the number of sessions on a mental health plan referral from a GP is limited to 10 per year. This can often be inadequate for comprehensive PTSD assessment and treatment. As such, patient's access to psychological treatment varies according to funding sources including their capacity to pay for their own treatment.

From the perspective of the GP, access to psychological treatments can be slow to procure and those patients less committed to obtaining help can get lost in the process. Further, the requirement to access ATAPS and Better Access via the Primary Health Networks limits GPs capacity to refer directly to a practitioner of choice. Increased clarity regarding which psychologists are offering which therapies would assist GPs to make relevant and useful referrals via the Medicare mental health care plan process.

Rationale

The Guideline Development Group considered the evidence showing benefits of trauma focussed CBT for adults with PTSD symptoms within the first three months of exposure to a potentially traumatic event relative to waitlist or usual treatment, supportive counselling and relaxation. The Group considered evidence for clinically important benefits across subgroup analyses of brief interventions relative to supportive counselling. The group noted the low to very low certainty of evidence across the body of evidence.

The Guideline Development Group noted the weak evidence from a single study indicating that structured writing therapy was more effective than CBT-T for PTSD prevention and judged it inappropriate to amend the recommendation based on this study due to the very low certainty of this evidence.

The Group agreed to make a conditional recommendation that CBT-T should be offered to adults with symptoms of PTSD within the first three months of a traumatic event in preference to supportive counselling, relaxation or no intervention, despite the low certainty in the evidence, in light of the beneficial effects in addition to drawing on the broader evidence that CBT-T has demonstrated efficacy in reducing PTSD symptom severity after the first three months, and is associated with no harm.

Brief EMDR

Conditional recommendation

For adults with PTSD symptoms in the first three months following trauma, we suggest offering brief Eye Movement Desensitisation and Reprocessing (EMDR) in preference to doing nothing.

Brief EMDR can range from one to three sessions and involves clients focusing on fragments of their trauma memory whilst simultaneously engaging in dual attention stimulation using eye movements.

Evidence to decision

Benefits and harms

Evidence from 7 small RCTs *[158][253][254][261][270][600][769]* suggests large clinically important benefit of 1-3 sessions of brief EMDR on PTSD symptom severity relative to waitlist in adults who have experienced a community critical incident e.g. workplace violence, earthquake, factory explosion, missile attack, intense rocket attacks or traumatic childbirth.

Evidence from one RCT *[158]* suggests a large, clinically important benefit of brief EMDR on PTSD symptom severity and diagnosis relative to critical incident stress debriefing (CISD) in adults who had experienced workplace violence.

Certainty of the evidence

Overall certainty of evidence for Brief EMDR was LOW

Certainty of evidence for Brief EMDR vs waitlist/treatment as usual was LOW due to serious risk of bias and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Brief EMDR vs Critical Incident Stress Debriefing (CSID) was LOW due to very serious imprecision for PTSD diagnosis, and PTSD symptom severity.

The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD symptom severity, and here for PTSD diagnosis

Values and preferences

Given possible benefits of EMDR on PTSD symptoms within the first 3 months following exposure to a traumatic event, and the absence of any alternative treatment with a strong recommendation for its use, patients are likely to consider this treatment.

Patient preferences and the availability of each treatment are likely to guide selection of EMDR vs TF-CBT, which are both conditionally recommended treatments for adults with PTSD symptoms in the first three months after exposure to a traumatic event.

EMDR may suit patients who value a shorter course of treatment, prefer a less 'cognitive' treatment, and who prefer not to engage in homework assignments.

We recognise that in the first few months after experiencing a traumatic event, some people will prefer to delay treatment to see if their symptoms remit.

Resources and other considerations

Delivery of EMDR is restricted to practitioners who have undertaken accredited training. This may limit the availability of EMDR in the community. The delivery of EMDR should be based on a validated manual (only available for practitioners through EMDR-training) and delivered by

practitioners trained to deliver EMDR for PTSD in adults.

Brief EMDR is likely to be advantageous in circumstances where there are limited resources and/or time available as the course of treatment could be completed within the 10 rebated sessions allowable through Medicare on a mental health care plan.

From the perspective of the GP, access to psychological treatments can be slow to procure and those patients less committed to obtaining help can get lost in the process. Further, the requirement to access ATAPS and Better Access via the Primary Health Networks limits GPs capacity to refer directly to a practitioner of choice. Increased clarity regarding which psychologists are offering which therapies would assist GPs to make relevant and useful referrals via the Medicare mental health care plan process.

Rationale

The Guideline Development Group considered the evidence showing a benefit of EMDR for adults with PTSD symptoms within the first three months of exposure to a potentially traumatic event relative to waitlist or usual treatment or critical incident stress debriefing. The group discussed the evidence from the broader evidence base that EMDR is beneficial for PTSD symptom severity after 3 months post-trauma exposure. It was the Group's expert opinion that it was unlikely that effects would differ in the 3 months post-trauma exposure time period. Despite the narrow breadth of trauma type included in the studies (critical incidents in the workplace or community), the Guideline Development Group agreed to make a conditional recommendation that brief EMDR should be offered in preference to no intervention in the first three months after exposure, in light of the evidence of benefit and no harm and drawing from the broader evidence that EMDR is beneficial in adults after 3 moths post-trauma exposure.

Internet-based guided self-help

RESEARCH RECOMMENDATION

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, we recommend offering TF-CBT, PE, CT or Brief EMDR in preference to internet-based guided self-help.

There is emerging evidence for Internet-based guided self-help and it could be used in a research context.

Internet-based guided self-help uses internet-based programs to treat individuals with PTSD using CBT approaches. Use of the intervention is guided by a therapist. Patients receive guidance and feedback on homework assignments from the therapist.

Evidence to decision

Benefits and harms	Evidence from a single RCT *[248]* suggests clinically important benefit from internet-based guided self-help relative to waitlist for PTSD symptom severity
Certainty of the evidence	Certainty of the evidence is LOW due to serious risk of bias and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing a clinically important benefit of internet-based guided self-help on PTSD symptom severity, with no associated harms relative to waitlist. The Group noted that the study population in the single study was parents of children having cancer treatment, and they agreed that the extent to which the results can be generalised to all adults in the first 3 months following trauma is not known. The group agreed that there is currently insufficient evidence to make a recommendation in favour of internet-based guided self-help, but there is potential for this intervention to increase the availability of treatment for individuals unable to access face-to-face treatment due to availability, access or cost barriers. The group, therefore, agreed to recommend further high-quality research of internet-based guided self-help in brad

population and trauma types.

Helping to Overcome PTSD through Empowerment (HOPE)

RESEARCH RECOMMENDATION

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, we recommend offering TF-CBT, PE, CT, or Brief EMDR in preference to Helping to Overcome PTSD through Empowerment (HOPE).

There is emerging evidence for HOPE and it could be used in a research context.

Helping to Overcome PTSD through Empowerment (HOPE[255]) is a present-centred cognitive behavioural therapy and empowerment-based individual treatment created to address PTSD in the context of intimate partner violence (IPV) and the clinical challenges of residents of women's shelters who have ongoing safety issues. HOPE is informed by Herman's (1992) multistage model of recovery that views recovery from chronic trauma, including IPV, as occurring in three stages: (a) establishing safety, (b) remembrance and mourning, and (c) reconnection. HOPE incorporates many of the traditional components of CBT for PTSD (e.g., cognitive-restructuring, skill building) with a focus on helping women realistically appraise the degree of threat they are under and to learn how to manage their PTSD symptoms without increasing them or risking their safety. HOPE also incorporates empowerment strategies, helping women to identify aspects of their situation that are under their control and providing them with the skills (e.g., assertiveness with safety planning) that aim to empower them.[256]

Evidence to decision

Benefits and harms	Evidence from 2 RCTs *[407] [406]* suggests clinically important benefit of PCT for PTSD symptom severity in women who have recently experienced intimate partner violence (IPV).
Certainty of the evidence	Certainty of the evidence is MODERATE due to serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing clinically important benefit of a HOPE intervention on PTSD symptom severity and no associated harms relative to waitlist. The group noted that the study populations in the 2 available RCTs were women who had recently experienced intimate partner violence (IPV) and they agreed that the extent to which the results can be generalised to all adults in the first 3 months following trauma is not known. The group agreed that there is not yet enough evidence to make a recommendation in favour of HOPE but the Guideline Development Group considered that it was a promising intervention in this target population and recommended further research to add strength to the evidence base.

Structured writing therapy

RESEARCH RECOMMENDATION

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, we recommend offering TF-CBT, PE, CT or Brief EMDR in preference to structured writing therapy.
There is emerging evidence for Structured writing therapy and this could be used in a research context.

Structured writing is a broad term that encompasses interventions that rely exclusively on writing assignments. Of the two studies that employed structured writing interventions, one study[264] adapted their structured writing therapy program from the Interapy program, which is an internet-based 10-session structured writing intervention. The other study conducted by Bugg and colleagues[247] adapted the Pennebaker (1988) writing paradigm, which requires participants to write about the feelings and emotions associated with their traumatic experience once a day for three consecutive days. Across these two studies, participants were individuals with ASD or PTSD who sustained a traumatic injury such as a traffic accident or a sexual or non-sexual assault.

Evidence to decision

Benefits and harms

Evidence from a single RCT suggests clinically important benefit from structured writing therapy on PTSD diagnosis and symptom severity relative to waitlist *[264][218][231]*.

Evidence from this RCT suggests structured writing therapy is more beneficial than CBT-T for decreasing PTSD diagnosis and no that there is important difference between CBT-T and structured writing therapy on PTSD symptom severity *[264][208]*.

Evidence from another RCT suggests no difference between structured writing intervention and psychoeducation on PTSD symptom severity *[247][232]*.

Certainty of the evidence

Overall certainty of evidence for Structured writing therapy was VERY LOW.

Certainty of evidence for Structured writing therapy vs waitlist/treatment as usual was VERY LOW due to serious risk of bias, and very serious imprecision for PTSD symptom severity, and VERY LOW due to serious risk of bias, and serious imprecision for PTSD diagnosis.

The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD symptom severity, and here for PTSD diagnosis

Certainty of evidence for Structured writing therapy vs Trauma-focused CBT was VERY LOW due to serious risk of bias, and very serious imprecision for PTSD symptom severity and VERY LOW due to serious risk of bias, and very serious imprecision for PTSD diagnosis.

The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD symptom severity, and here for PTSD diagnosis

Certainty for evidence for Structured writing therapy vs Psychoeducation was LOW due to serious risk of bias, and serious imprecision for PTSD symptom severity.

The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the clinically important benefit on PTSD diagnosis and symptom severity, and no associated harms from a single study of structured writing therapy relative to waitlist and the clinically important benefit on PTSD diagnosis relative to TF-CBT. The Group agreed that there is not yet enough evidence to make a recommendation in favour of structured writing therapy but that there is potential for this intervention to increase the availability of treatment for individuals who are unable to access face to face treatment due to availability, access or cost, barriers. The Group therefore recommend

further research of the intervention in broader population and trauma types.

Behavioural activation

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on behavioural activation.

Behavioural activation aims to help the individual to learn to manage negative feelings through activity planning. Core features of the intervention include psychoeducation, behavioural analysis, activity planning, goal identification, trouble shooting, homework and relapse prevention.

Computerised neurobehavioural training

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on computerised neurobehavioural training.

Computerised Neurobehavioral Training aims to teach participants skills in order to improve neurocognitive functioning through an online program. Participants are encouraged to practice new skills through regular practice.

Nurse-led psychological intervention

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on nurse-led psychological intervention.

The nurse led-psychological intervention was based on cognitive behavioural methods, whereby patients described their traumatic experience and cognitive restructuring was performed on dysfunctional behaviour, restrictive thoughts, generalization and avoidant behaviour.

Supportive counselling

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on supportive counselling.

SC involves active, empathic listening to the patient who is usually provided with unconditional positive regard. The therapist helps the patient to explore and clarify issues, may provide advice, reflect and confirm appropriate reactions, and introduce problem-solving techniques. SC has been used as a non-trauma focused control condition in several trials and focused attention to the index trauma event is usually avoided.

Supportive therapy

New

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation supportive therapy.

The supportive therapy intervention involves weekly sessions for 12 weeks focused on providing support and encouragement, and helping patients adjust their perceptions of their condition, accept unpredictable events, make use of available resources, adapt to their new reality, change their living environment if necessary, and regain confidence and hope in their recovery process.

Internet delivered CBT

New

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation for internet delivered CBT.

This intervention delivers Cognitive Behaviour Therapy (CBT) via a secure online platform. The intervention includes psychoeducation for PTSD, symptom identification and recognition, breathing retraining, in vivo exposure exercises, expressive writing, imaginal exposure, identifying hot spots, promoting recovery, and emphasizing progress maintenance and relapse prevention.

Interpersonal Psychotherapy

New

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation for interpersonal psychotherapy.

IPT is an attachment-based treatment that focuses on current interpersonal problems and the resolution of these to improve symptoms.

EMDR via telehealth (videoconferencing)

New

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation for EMDR via telehealth (videoconferencing).

Eye movement desensitisation and reprocessing (EMDR) is a trauma-focussed therapy involving the use of bilateral physical stimulation (eye movements, taps or tones). EMDR is based on the assumption that, during a traumatic event, overwhelming emotions or dissociative processes may interfere with information processing. This leads to the experience being stored in an 'unprocessed' way, disconnected from existing memory networks.

In EMDR the person is asked to focus on the trauma-related imagery, and the associated thoughts, emotions, and body sensations while bilateral physical stimulation, such as moving their eyes back and forth, occurs. Processing targets may involve past events, present triggers and adaptive future functioning. It is proposed that this dual attention facilitates the processing of the traumatic memory into existing knowledge networks, although the precise mechanism involved is not known.

THRIVE m-health app

New

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation for the THRIVE m-health app.

The THRIVE intervention is a mobile health early intervention designed for recent survivors of sexual assault, combining a cognitive behavioral app and weekly telephone coaching over 21 days. The app includes modules for cognitive restructuring and activity scheduling, which users engage with daily, and a relationships module for as-needed use. The intervention aims to address posttraumatic stress symptoms and alcohol misuse by providing daily exercises, self-monitoring tools, supportive elements like encouraging messages and resource lists, and weekly coaching calls to enhance engagement and provide support.

Early pharmacological interventions for adults

Early pharmacological interventions for all
This section addresses the provision of pharmacological interventions for all those exposed – not only those who are presenting with adjustment problems.

"For adults within the first three months of a traumatic event, do pharmacological interventions when compared to placebo result in a clinically significant reduction/prevention of symptoms, or presence of disorder?"

"For adults within the first three months of a traumatic event, do pharmacological interventions when compared to other pharmacological or psychosocial interventions, result in a clinically significant reduction/prevention of symptoms, or presence of disorder?"

Hydrocortisone

RESEARCH RECOMMENDATION

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, we recommend offering TF-CBT, PE, CT or Brief EMDR in preference to hydrocortisone.

There is emerging evidence for hydrocortisone and this could be used in a research context.

Hydrocortisone is the synthetic form of the adrenal gland-produced hormone cortisol. It has been used to try to bring about homeostasis (stability) to the hypothalamic-pituitary-adrenal axis by inhibiting further release of adrenaline and noradrenaline.

Evidence to decision

Benefits and harms	Evidence from 3 RCTs *[282][293][294]* suggests clinically important benefit from hydrocortisone on PTSD diagnosis and symptom severity in adults with symptoms of PTSD within three months following exposure to a traumatic event No adverse events were reported in these studies but the Guideline Development Group made note of the potential harms of hydrocortisone, particularly in longer term use.

Certainty of the evidence	Certainty of the evidence is VERY LOW due to serious risk of bias and very serious imprecision for PTSD symptom severity and PTSD diagnosis. The evidence analyses and risk of bias assessments for this intervention can be found here for PTSD symptom severity and here for PTSD diagnosis.

Rationale

The Guideline Development Group considered the evidence from 3 RCTs suggesting clinically important benefit of hydrocortisone on PTSD diagnosis and symptom severity in adults with symptoms of PTSD, relative to placebo, within three months following exposure to a traumatic event. The Guideline Development Group noted that the existing studies involved different dosages and timings and could effectively be considered 3 different interventions. No adverse events were reported in these studies. The Guideline Development Group made note of the very low certainty of evidence from these studies as well as evidence of the potential harms of hydrocortisone in the broader literature and expert opinion, particularly in longer-term use. The Group agreed that it would, therefore, be inappropriate to recommend hydrocortisone and instead recommend further research to strengthen the evidence base and refine optimal administration and dosage details.

Docosahexaenoic acid

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on docosahexaenoic acid.

Docosahexaenoic acid is an omega-3 fatty acid.

Escitalopram

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on escitalopram.

Escitalopram, sold in Australia under the trade name Lexapro, is an antidepressant of the selective serotonin reuptake inhibitor (SSRI) class.

Gapapentin

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on gabapentin.

Gabapentin, sold in Australia under the trade name Aspen, is an anticonvulsant medication.

Oxytocin

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on oxytocin.

Oxytocin is a hormone produced in the hypothalamus and is released by the posterior pituitary.

Propranolol

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on propranolol.

Propranolol, sold in Australia under the trade name Inderal, is a medication from the beta blocker class.

Dexmedetomidine

New

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on dexmedetomidine.

Dexmedetomidine is a selective α2-adrenergic agonist that reduces sympathetic nervous system activity. Its value as a preventive intervention by reducing early consolidation of fear memory in trauma patients undergoing surgery was tested.

Early non-psychological and non-pharmacological treatment interventions for adults

"For adults within the first three months of a traumatic event, do non-psychological, non-pharmacological interventions when compared to treatment as usual, waiting list, or no treatment result in a clinically significant reduction/prevention of symptoms, or presence of disorder?"

"For adults within the first three months of a traumatic event, do non-psychological, non-pharmacological interventions when compared to other treatments, result in a clinically significant reduction/prevention of symptoms, or presence of disorder?"

Attention control therapy (ACT)

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, there was insufficient evidence to make a recommendation on Attention control therapy (ACT).

Attention control therapy involves six internet-delivered, word-based dot-probe tasks. It presents equal numbers of targets in the locations of threat and neutral attention stimuli. It is not designed to shift attention patterns (to favour neutral or threat stimuli) but rather to balance attention between neutral and threat stimuli.

Mindfulness based stress reduction (MBSR)

New

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make on mindfulness based stress reduction.

Mindfulness-Based Stress Reduction (MSBR) is a meditative based intervention where individuals learn self-awareness of their mental state and practice focusing on different ways of thinking, with an emphasis on accepting experiences without judgment

Adults with clinically relevant post-traumatic stress symptoms

Psychological interventions for adults with PTSD

"For adults with PTSD, do psychological treatments when compared to treatment as usual, waiting list or no treatment, result in a reduction of symptoms?"

"For adults with PTSD, do psychological treatments when compared to other psychological treatments, result in a reduction of symptoms?"

Cognitive processing therapy (CPT)

Strong recommendation

For adults with PTSD, we recommend cognitive processing therapy (CPT).

Cognitive processing therapy (CPT) is a form of cognitive therapy refined specifically for the treatment of PTSD. CPT is a 12-session cognitive-behavioural manualised treatment for PTSD that systematically addresses key posttraumatic themes, including safety, trust, power and control, self-esteem and intimacy. The primary goal of treatment is to create more balanced, adaptive, multi-faceted trauma appraisals and beliefs (both looking back on the traumatic experience and in the present).
Treatment helps the person to identify unhelpful thoughts and beliefs ('stuck points'), challenge them, and replace them with rational alternatives in an adaptation of standard cognitive therapy approaches. It has a smaller exposure component than imaginal exposure therapy (restricted to writing an account of the experience). It also helps to address associated problems such as depression, guilt and anger.

Evidence to decision

Benefits and harms

Evidence from 4 RCTs *[390][393][425][442]* suggests a large clinically important benefit of CPT for PTSD symptom severity relative to waitlist or usual treatment (including CBT, psychoeducation, supportive counselling, non-trauma focused symptom management).

Evidence from a single RCT *[442]* suggests no important difference in benefit between CPT and prolonged exposure.

Evidence from a single RCT *[367]* suggests CPT is more beneficial than Dialogical Exposure Therapy for PTSD symptom severity.

Evidence from a single RCT *[610]* suggests that Dialectical Behaviour Therapy (DBT) is more beneficial than CPT for PTSD symptom severity

Evidence from a single RCT *[457]* suggests that CPT is more beneficial than PCT for PTSD symptom severity.

Certainty of the evidence

Overall certainty of evidence for Cognitive processing therapy (CPT) was MODERATE.

Certainty of evidence for Cognitive processing therapy (CPT) vs waitlist/treatment as usual was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Cognitive processing therapy (CPT) vs Prolonged exposure (PE) was LOW due to serious imprecision, and serious risk of bias.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Trauma-focused CBT (CPT) vs Dialogical exposure therapy (DET) was LOW due to serious risk of bias, and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Dialectical Behaviour Therapy (DBT) vs Cognitive processing therapy (CPT) was VERY LOW due to serious risk of bias, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Cognitive Processing Therapy (CPT) vs Present Centered Therapy (PCT) was LOW due to very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here .

Values and preferences

Most patients would be willing to undergo Cognitive Processing Therapy, given the benefits and no reported harms.

Patient preferences and the availability of specific treatments are likely to guide selection of one of the recommended treatments (TF-CBT, CPT, CT, PE, EMDR) for adults with PTSD.

Based on the evidence gathered through real world effectiveness trials of trauma focused treatments, a proportion of patients may be expected to drop out of treatment. Adequate preparation including providing a rationale for treatment and a realistic preview of what treatment will involve is likely to minimise drop out.

Resources and other considerations

For patients with work-related PTSD, treatment will be funded by third party insurers. For others with private health insurance, psychology sessions may be partially reimbursed. For patients relying on Medicare, the number of sessions on a mental health plan referral from a GP is limited to 10 per year. This can often be inadequate for comprehensive PTSD assessment and treatment. As such, patient's access to psychological treatment varies according to funding sources including their capacity to pay for their own treatment.

From the perspective of the GP, access to psychological treatments can be slow to procure and those patients less committed to obtaining help can get lost in the process. Further, the requirement to access ATAPS and Better Access via the Primary Health Networks limits GPs capacity to refer directly to a practitioner of choice. Increased clarity regarding which psychologists are offering which therapies would assist GPs to make relevant and useful referrals via the Medicare mental health care plan process.

Rationale

The Guideline Development Group agreed to make a strong recommendation for the use of CPT for adults with PTSD on the basis of large, clinically important benefits, with no associated harms, and the fact that CPT has been widely used in clinical practice over several years.

Cognitive therapy (CT)

Strong recommendation

For adults with PTSD, we recommend cognitive therapy (CT).

CT is a variant of trauma-focussed CBT in which the therapist and patient collaboratively develop an individualised version of Ehlers and Clark's model of PTSD, which serves as the framework for therapy. Ehlers and Clark (2000) suggested that PTSD becomes persistent when individuals process the trauma in a way that leads to a sense of serious, current threat. The sense of threat is hypothesised to arise as a consequence of excessively negative appraisals of the trauma and/or its sequelae, and a disturbance of the autobiographical memory for the trauma which leads to involuntary re-experiencing of aspects of the trauma. The problem is maintained by unhelpful behavioral and cognitive strategies that are intended to control the symptoms and perceived threat. Accordingly, CT for PTSD aims to modify excessively negative appraisals, correct the autobiographical memory disturbance, and remove the problematic behavioural and cognitive strategies. CT is generally administered for 12 weekly treatment sessions (of 90 minuntes for the initial sessions, and 60 minutes for the following sessions.[381]

Evidence to decision

Benefits and harms

Evidence from 5 4 RCTs *[378][380][381][382]* suggests large clinically important benefit of Cognitive Therapy for PTSD symptom severity relative to waitlist

Evidence from 2 RCTs *[382]* suggests a moderate clinically important benefit of Cognitive Therapy for PTSD symptom severity relative to Supportive Counselling.

Note: one RCT *[382]* included a standard cognitive therapy arm, and a separate intensive cognitive therapy arm. Separate comparisons were conducted for each intervention against the waitlist intervention (i.e., CT vs WL, and CT intensive vs WL), and the Supportive Counselling intervention (CT vs SC, and CT intensive vs SC) in this analysis.

Evidence from a single RCT *[745]* suggests no clinically important benefit of Cognitive Therapy for PTSD symptom severity relative to Prolonged Exposure.

Certainty of the evidence

Overall certainty of Cognitive Therapy was LOW.

The certainty of the evidence for Cognitive Therapy vs waitlist/control is LOW due to serious risk of bias and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here.

The certainty of evidence for Cognitive Therapy vs Supportive Counselling is MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here.

The certainty of evidence for Cognitive Therapy vs Prolonged Exposure is LOW due to serious risk of bias, and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Values and preferences

Most patients would be willing to undergo Cognitive Therapy, given the benefits and no reported harms.

Patient preferences and the availability of specific treatments are likely to guide selection of one of the recommended treatments (TF-CBT, CPT, CT, PE, EMDR) for adults with PTSD.

Resources and other considerations

For patients with work-related PTSD, treatment will be funded by third party insurers. For others with private health insurance, psychology sessions may be partially reimbursed. For patients relying on

Medicare, the number of sessions on a mental health plan referral from a GP is limited to 10 per year. This can often be inadequate for comprehensive PTSD assessment and treatment. As such, patient's access to psychological treatment varies according to funding sources including their capacity to pay for their own treatment.

From the perspective of the GP, access to psychological treatments can be slow to procure and those patients less committed to obtaining help can get lost in the process. Further, the requirement to access ATAPS and Better Access via the Primary Health Networks limits GPs capacity to refer directly to a practitioner of choice. Increased clarity regarding which psychologists are offering which therapies would assist GPs to make relevant and useful referrals via the Medicare mental health care plan process.

Rationale

The Guideline Development Group (GDG) agreed to make a strong recommendation for the use of cognitive therapy for adults with PTSD, despite the uncertainty in the evidence for its benefits. This was based on three factors: 1) the judgement of the GDG that cognitive therapy has shown large clinically important benefits, has no associated harms, and has been widely used in clinical practice over several years; 2) the GDG's expert opinion that the current uncertainty in the evidence would be removed by future research into this intervention giving strength to the evidence base; and 3) the GDG also considered the recommendations of other PTSD treatment guidelines internationally. The only other guidelines to name CT as an intervention in its own right (rather than within the broad category of TR-CBT) were the ISTSS and American Psychological Association Guidelines. CT received a strong recommendation for adults with PTSD in both of these guidelines.

Eye movement desensitisation and reprocessing (EMDR)

Strong recommendation

For adults with PTSD, we recommend eye movement desensitisation and reprocessing (EMDR).

Eye movement desensitisation and reprocessing (EMDR) is a standardised, eight-phase, trauma-focussed therapy involving the use of bilateral physical stimulation (eye movements, taps or tones). EMDR is based on the assumption that, during a traumatic event, overwhelming emotions or dissociative processes may interfere with information processing. This leads to the experience being stored in an 'unprocessed' way, disconnected from existing memory networks.

In EMDR the person is asked to focus on the trauma-related imagery, and the associated thoughts, emotions, and body sensations while bilateral physical stimulation, such as moving their eyes back and forth, occurs. Processing targets may involve past events, present triggers and adaptive future functioning. It is proposed that this dual attention facilitates the processing of the traumatic memory into existing knowledge networks, although the precise mechanism involved is not known.

Evidence to decision

Benefits and harms

Evidence from 12 RCTs *[352][354][370][375][400][405][419][438][445][446][460][617]* suggests a large clinically important benefit of EMDR on PTSD symptom severity relative to wait list or usual treatment.

Evidence suggests small to moderate, clinically important benefits relative to trauma focused CBT *[368][376][402][413][414][434][438][446][458][460]*, supportive counselling *[448]*, relaxation training *[369][370][458][460]*, Fluoxetine *[533]* and imagery rescripting *[611]*.

Evidence suggests trivial unimportant differences between EMDR and EFT *[408]* or REM desensitisation *[353]*.

In 2021 one new study *[617]* was added, which reduces the GRADE from moderate to low certainty.

Certainty of the evidence	Overall certainty of evidence for EMDR was MODERATE. Certainty of evidence for EMDR vs waitlist/treatment as usual was LOW due to serious risk of bias and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for EMDR vs Trauma-focused CBT was VERY LOW due to serious risk of bias, serious inconsistency, and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for EMDR vs Supportive counselling was MODERATE due to serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for EMDR vs Emotional freedom techniques (EFT) was VERY LOW due to serious risk of bias, and very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for EMDR vs Relaxation training was MODERATE due to serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for EMDR vs REM desensitization was VERY LOW due to serious risk of bias, and very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for EMDR vs Fluoxetine was MODERATE due to serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for EMDR vs imagery rescripting was LOW due to serious indirectness and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here
Values and preferences	Most patients would be willing to undergo EMDR, given the benefits and no reported harms. Patient preferences and the availability of specific treatments are likely to guide selection of one of the recommended treatments (TF-CBT, CPT, CT, PE, EMDR) for adults with PTSD. EMDR may suit patients who prefer a less 'cognitive' treatment, and who prefer not to engage in homework assignments.
Resources and other considerations	For patients with work-related PTSD, treatment will be funded by third party insurers. For others with private health insurance, psychology sessions may be partially reimbursed. For patients relying on Medicare, the number of sessions on a mental health plan referral from a GP is limited to 10 per year. This can often be inadequate for comprehensive PTSD assessment and treatment. As such, patient's access to psychological treatment varies according to funding sources including their capacity to pay for their own treatment. From the perspective of the GP, access to psychological treatments can be slow to procure and those

patients less committed to obtaining help can get lost in the process. Further, the requirement to access ATAPS and Better Access via the Primary Health Networks limits GPs capacity to refer directly to a practitioner of choice. Increased clarity regarding which psychologists are offering which therapies would assist GPs to make relevant and useful referrals via the Medicare mental health care plan process.

Rationale

The Guideline Development Group agreed to make a strong recommendation for EMDR due to the evidence that EMDR is effective in reducing PTSD symptom severity and has no associated harms. This evidence shows benefit for individuals that have experienced a range of traumas such as combat trauma, sexual assault, refugee-related trauma and occupational trauma, from a range of locations including USA, Australia, Sweden, Turkey, Iran, and Scotland.

In the 2021 update the Guideline Development Group considered a new trial *[617]* added to the research, but agreed it was not sufficiently compelling to change the recommendation.

Prolonged exposure (PE)

Strong recommendation

For adults with PTSD we recommend prolonged exposure (PE).

Exposure therapy is long established as an effective treatment for a range of anxiety disorders. The key objective of exposure therapy is to help the person confront the object of their anxieties. A fundamental principle underlying the process of exposure is that of habituation, the notion that if people can be kept in contact with the anxiety-provoking stimulus for long enough, their anxiety will inevitably reduce. This may occur within an exposure session (within-session habituation) or across a series of sessions (between-session habituation). More contemporary models emphasise information processing as a key mechanism.

Prolonged Exposure is a manualised therapy (Foa, Hembree & Rothbaum, 2007). It consists of psychoeducation about common reactions to trauma, breathing retraining, in vivo exposure (approaching safe situations that patients avoided due to trauma-related fear), imagery exposure (repeated recounting of trauma memories during sessions and listening to recordings of the recounting made during therapy sessions), and processing (discussion of thoughts and feelings related to the exposure exercises).

Evidence to decision

Benefits and harms

Evidence from 14 ~~2~~ RCTs *[355][385][386][387][388][389][429][435][441][442][446][462] [384] [731]* suggests a large clinically important benefit from PE on PTSD symptom severity in adults with PTSD.

Evidence from a single RCT *[433]* suggests a small unimportant difference between PE and a group psychoeducation intervention on PTSD symptom severity in adult veterans with PTSD.

Evidence from a single RCT *[442]* suggests no important difference in benefit between PE and CPT on PTSD symptom severity in adults with PTSD.

Evidence from a single RCT *[614]* suggests a small clinically important difference between PE and trial-based cognitive therapy on PTSD symptom severity in adults with PTSD.

Evidence from a single RCT suggests no clinically important difference between PE and Transcendental meditation on PTSD symptom severity *[433]*.

Evidence from 2 RCTs suggests no clinically important difference between PE and Stress inoculation training (SIT) on PTSD symptom severity *[385][386]*.

Evidence from a single RCT suggests a large clinically important benefit of meta-cognitive therapy on PTSD symptom severity relative to PE *[462]*.

Evidence from 4 RCTs suggest a moderate clinically important benefit of PE on PTSD symptom severity relative to Relaxation *[420] [295] [458] [712]* .

Evidence from 2 RCTs suggest a moderate clinically important benefit of PE on PTSD symptom severity relative to Supportive counselling *[244] [385]*

Evidence from a single RCT suggests a large clinically important benefit of PE on PTSD symptom severity relative to Sertraline *[736]* .

Evidence from a single RCT suggests no clinically important difference between PE and Paroxetine on PTSD symptom severity *[738]*

Evidence from 3 RCTs suggests a small clinically important benefit of PE on PTSD symptom severity relative to PCT *[388] [439] [450]* .

Certainty of the evidence

Overall certainty of evidence for Prolonged Exposure was MODERATE.

Certainty of evidence for Prolonged Exposure vs waitlist/treatment as usual was MODERATE due to serious risk of bias.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Prolonged Exposure vs Health Education was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Cognitive processing therapy (CPT) vs Prolonged exposure was LOW due to serious imprecision, and serious risk of bias.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Prolonged exposure vs trial-based cognitive therapy was VERY LOW due to very serious imprecision, and serious risk of bias.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Transcendental meditation vs Prolonged Exposure was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Prolonged Exposure vs Stress inoculation training (SIT) was VERY LOW due to serious risk of bias, very serious imprecision and serious inconsistency.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for meta-cognitive therapy vs PE is VERY LOW due to serious risk of bias, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for PE vs Relaxation was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Certainty of evidence for PE vs Supportive counselling was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Certainty of evidence for PE vs Sertraline was LOW due to very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Certainty of evidence for PE vs Paroxetine was LOW due to serious risk of bias and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Certainty of Evidence for PE vs CPT was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here .

Values and preferences

Most patients would be willing to undergo Cognitive Processing Therapy, given the benefits and no reported harms.

Patient preferences and the availability of specific treatments are likely to guide selection of one of the recommended treatments (TF-CBT, CPT, CT, PE, EMDR) for adults with PTSD.

Based on the evidence gathered through real world effectiveness trials of trauma focused treatments, a proportion of patients may be expected to drop out of treatment. Adequate preparation including providing a rationale for treatment and a realistic preview of what treatment will involve is likely to minimise drop out.

Resources and other considerations

For patients with work-related PTSD, treatment will be funded by third party insurers. For others with private health insurance, psychology sessions may be partially reimbursed. For patients relying on Medicare, the number of sessions on a mental health plan referral from a GP is limited to 10 per year. This can often be inadequate for comprehensive PTSD assessment and treatment. As such, patient's access to psychological treatment varies according to funding sources including their capacity to pay for their own treatment.

From the perspective of the GP, access to psychological treatments can be slow to procure and those patients less committed to obtaining help can get lost in the process. Further, the requirement to access ATAPS and Better Access via the Primary Health Networks limits GPs capacity to refer directly to a practitioner of choice. Increased clarity regarding which psychologists are offering which therapies would assist GPs to make relevant and useful referrals via the Medicare mental health care plan process.

Rationale

The Guideline Development Group agreed to make a strong recommendation for the use of PE for adults with PTSD. There was a large body of moderate certainty evidence suggesting that PE reduces PTSD symptom severity relative to waitlist or usual treatment and is not associated with harms. These benefits have been shown in a variety of trauma types including active and ex-serving military, sexual assault, people living with HIV, and physical assault.

Trauma-focussed CBT (TF-CBT)

Strong recommendation

For adults with PTSD we recommend trauma-focussed CBT.

Trauma-focussed cognitive-behavioural therapy (TF-CBT) is a broad term that encompasses any treatment that employs the standard principles of CBT combined with some form of trauma processing. Generally, TF-CBT involves the integration of CBT principles with components of exposure therapy, including imaginal exposure and graded in vivo exposure. Across most studies from the systematic review that underpins these Guidelines, the typical format of TF-CBT involves psychoeducation, breathing/relaxation training (arousal reduction strategies), imaginal exposure, in vivo exposure, and cognitive restructuring.

Evidence to decision

Benefits and harms

Evidence from 13 ~~8~~ RCTs suggests clinically important benefit of TF-CBT on PTSD symptom severity relative to waitlist or usual care *[361] [363] [365] [612] [469] [718] [398] [411] [412] [422] [438] [460] [719]* .

Note: a brief version of TF-CBT was utilised in one RCT *[718]* . ~~(including supportive counselling and relaxation training) ([244] [365] [379] [421] [422] [438] [469] [612]).~~

Evidence from a single RCT suggests a small clinically important benefit from acupuncture for PTSD symptom severity relative to acupuncture ~~TF-CBT~~ *[467]*.

Evidence from 3 RCTs suggest clinically important benefit of TF-CBT on PTSD symptom severity relative to supportive counselling *[361] [244] [365]* .

Evidence from a single RCT suggests a small clinically important benefit of TF-CBT on PTSD symptom severity relative to psychodynamic therapy *[568]* .

Evidence from 3 RCTs suggests a moderate clinically important benefit of TF-CBT on PTSD symptom severity relative to relaxation training *[379] [295] [460]* .

Evidence from 2 RCTs suggests a small clinically important benefit of TF-CBT on PTSD symptom severity relative to prolonged exposure *[244] [295]* .

Certainty of the evidence

Overall certainty of evidence for Trauma-focussed CBT was MODERATE.

Certainty of evidence for Trauma-focussed CBT vs waitlist/treatment as usual was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Acupuncture vs Trauma-focus s ed CBT was LOW due to very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Trauma-focussed CBT vs supportive counselling was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Certainty of evidence for Trauma-focussed CBT vs psychodynamic therapy was VERY LOW due to serious risk of bias and very serious imprecision

The evidence analyses and risk of bias assessment for this intervention can be found here.

Certainty of evidence for Trauma-focussed CBT vs relaxation training was MODERATE due to serious imprecision

The evidence analyses and risk of bias assessment for this intervention can be found here.

Certainty of evidence for Trauma-focussed CBT vs prolonged exposure was MODERATE due to serious imprecision

The evidence analyses and risk of bias assessment for this intervention can be found here.

Values and preferences

Most patients would be willing to undergo trauma-focussed CBT, given the benefits and no reported harms.

Patient preferences and the availability of specific treatments are likely to guide selection of one of the recommended treatments (TF-CBT, CPT, CT, PE, EMDR) for adults with PTSD.

Patients may also have various preferences regarding intensity and pace of treatment.

Based on the evidence gathered through real world effectiveness trials of trauma focused treatments, a proportion of patients may be expected to drop out of treatment. Adequate preparation including providing a rationale for treatment and a realistic preview of what treatment will involve is likely to minimise drop out.

Resources and other considerations

For patients with work-related PTSD, treatment will be funded by third party insurers. For others with private health insurance, psychology sessions may be partially reimbursed. For patients relying on Medicare, the number of sessions on a mental health plan referral from a GP is limited to 10 per year. This can often be inadequate for comprehensive PTSD assessment and treatment. As such, patient's access to psychological treatment varies according to funding sources including their capacity to pay for their own treatment.

From the perspective of the GP, access to psychological treatments can be slow to procure and those patients less committed to obtaining help can get lost in the process. Further, the requirement to access ATAPS and Better Access via the Primary Health Networks limits GPs capacity to refer directly to a practitioner of choice. Increased clarity regarding which psychologists are offering which therapies would assist GPs to make relevant and useful referrals via the Medicare mental health care plan process.

Rationale

The Guideline Development Group were confident in making a strong recommendation for TF-CBT based on extensive evidence that TF-CBT reduces PTSD symptom severity relative to waitlist or usual tretament (including supportive counselling and relaxation training) in adults with PTSD, that it is not associated with any harms and has been widely used in clinical practice over several years. The Group noted that the benefit of TF-CBT was shown in a variety of trauma types including military, motor vehicle accident, sexual and physical assault and terrorist attack.

Guided internet-based trauma-focussed CBT

Conditional recommendation

For adults with PTSD where TF-CBT or EMDR are unavailable or unacceptable, we suggest guided internet-based TF-CBT.

Most internet-based interventions for PTSD commence with psychoeducation, and then present the rationale for CBT-based treatment. These programs incorporate cognitive techniques, with the aim of identifying and modifying unhelpful patterns of cognition. Usually, behavioural components are included; generally encompassing imaginal and in vivo exposure.[415] Internet-based interventions vary in the level of therapist assistance provided. Guided internet-based programs can be delivered by a specialist therapist who provides input and feedback on homework, and encourages engagement with the program[403][415], or by a non-specialist mental health professional who intervenes to check on progress or provides input on demand, often by telephone or by email. [418] An example of the latter is DESTRESS-PC, a variant of CBT and stress inoculation training designed for symptoms resulting from military trauma.[418]

Evidence to decision

Benefits and harms

Evidence from 3 RCTs suggests large clinically important benefit from guided internet-based CBT-T relative to waitlist *[415][468]* or attention control *[403]*.

Evidence from a single RCT suggests a small clinically important benefit of guided internet-based CBT-T above that of internet-based supportive counseling without a trauma focus *[418]*.

Evidence from a single RCT suggests no important difference between guided internet-based CBT-T and internet-based psychotherapy *[417]*.

Evidence from a single RCT suggests a moderate clinically important benefit from Present-Centred Therapy delivered in-person relative to guided internet-based PE *[620]*

Certainty of the evidence

Overall certainty of evidence for Guided internet-based trauma focussed CBT was LOW

Certainty of evidence for Guided internet-based trauma focussed CBT vs waitlist/treatment as usual was LOW due to serious imprecision, and serious inconsistency.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Guided internet-based trauma focussed CBT vs Attention Control was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Guided internet-based trauma focussed CBT vs Internet-based non-trauma-focussed supportive counselling was VERY LOW due to serious risk of bias, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Guided internet-based trauma focused CBT vs Internet-based psychoeducation was VERY LOW due to serious risk of bias, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Guided internet-based PE vs Present-Centred Therapy delivered in-person was VERY LOW due to serious risk of bias, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Values and preferences

Given possible benefits of guided internet-based trauma-focused CBT, patients are likely to consider this if individual trauma-focussed CBT is not available.

Although not a frontline recommended treatment, some patients may have a preference for guided internet-based treatment in addition to, or instead of, individual treatment.
This may be due to a number of factors including cost, convenience, ability to pace the treatment, and PTSD-related avoidance.

As noted in relation to face-to-face trauma-focussed CBT, it is possible that elements of the guided internet based trauma-focussed CBT will lead to a temporary increase in distress. Patient drop-out rates for guided internet based trauma-focussed CBT have been reported as variable.

Resources and other considerations

There are a number of online programs available with differing costs and degree of therapist contact to guide the process.

Access to psychological treatments can be slow to procure and those patients less committed to obtaining help can get lost in the process. With online services, accessibility is less of an issue, with this treatment readily available to the majority. However language barriers, literacy/technology barriers, and physical inability to use a computer, still exist for some.

Rationale

The Guideline Development Group considered the evidence showing benefits of guided internet-based TF-CBT for adults with PTSD relative to waitlist, attention control and internet-based supportive counseling without a trauma focus. The Guideline Development Group agreed to make a conditional recommendation despite low certainty of the evidence to offer guided internet-based TF-CBT for adults with PTSD to those who are unwilling to undertake first-line treatment or unable to access it for reasons of availability or cost.

Narrative Exposure Therapy (NET)

Conditional recommendation

For adults with PTSD where trauma is linked to genocide, civil conflict, torture, political detention or displacement, we suggest Narrative Exposure Therapy (NET)

NET allows PTSD sufferers to describe and develop a coherent, chronological, autobiographical narrative of their life that includes their traumatic experiences (a testimony). The therapist facilitates emotional processing through the use of cognitive-behavioural techniques.

Narrative exposure therapy (NET) is a standardised short-term intervention adapted from testimony therapy (traditionally used with survivors of torture and civilian casualties of war), as well as from mainstream exposure approaches. It was originally developed both to treat survivors and to document human rights violations. In NET, the person is asked to construct a narrative of their life from early childhood to present, focussing in detail on the traumatic events and elaborating on the associated thoughts and emotions. It is proposed that NET works in two ways: promoting habituation to traumatic memories through exposure, and reconstructing the individual's autobiographic memory.

A number of RCTs have successfully been conducted in a variety of cultural settings, demonstrating NET's applicability in both western and non-western countries. *e.g.[404][456]*

Evidence to decision

Benefits and harms

Evidence from 8 RCTs *[353][360][404][427][432][456][464][465][622]* suggests clinically important benefit of NET relative to waitlist or treatment as usual for PTSD symptom severity in adults who have experienced genocide, civil conflict, torture, political detention, displacement or natural disaster.

Evidence from a single RCT *[618]* suggests a large clinically important benefit of present-centred therapy relative to NET for older adults with PTSD.

Evidence from a single RCT suggests a small clinically important benefit of NET on PTSD symptom severity relative to Stress inoculation training (SIT) *[397]*.

Evidence from two RCTs suggests no clinically important difference between NET and supportive counselling on PTSD symptom severity *[430][431]*.

Evidence from a single RCT suggests no clinically important difference between NET and psychoeducation on PTSD symptom severity *[430]*.

Certainty of the evidence

Overall certainty of evidence for NET was LOW.

Certainty of the evidence for NET vs waitlist/treatment as usual is LOW due to serious risk of bias, and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of the evidence for NET vs present-centred therapy is VERY LOW due to serious indirectness, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for NET vs Stress inoculation training (SIT) was LOW due to very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Certainty of evidence for NET vs supportive counselling was LOW due to very serious imprecision.

	The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for NET vs psychoeducation was LOW due to very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Values and preferences	Given possible benefits of Narrative Exposure Therapy (NET) in the context of refugee trauma, refugees are likely to consider this treatment. NET has been developed and predominantly applied in the context of low-resource crisis regions but is also used in resettlement environments. The acceptability of NET amongst refugee populations who have resettled in Australia is less clear. The written biography received at the end of treatment, that serves to recapture the individual's self-respect and acknowledges their human rights, may be an incentive for treatment completion.

Resources and other considerations	A number of people who have developed PTSD following refugee experiences (i.e., genocide, civil conflict, torture, political detention, displacement, or natural disaster) will be seen through specialised treatment and support services. Some may be eligible for Medicare funded services but others will not. Interpreters are an integral part of the work with many refugees. Delivering treatment through an interpreter, provided the interpreter is appropriately accredited and the clinician is skilled in working with interpreters, poses no barrier to effective treatment. In fact, the presence of an interpreter is often an asset in building rapport and in bringing a cultural understanding to the therapeutic relationship

Rationale

The Guideline Development Group considered the evidence showing benefits of Narrative Exposure Therapy (NET) for PTSD symptom severity. The Group noted the low certainty of the evidence and discussed the specificity of NET for adults with PTSD following experiences of genocide, civil conflict, torture, political detention, displacement or natural disaster. The group agreed to suggest that NET be offered to refugees and asylum seekers with PTSD.

Present-centred therapy (PCT)

Conditional recommendation

For adults with PTSD where TF-CBT or EMDR are unavailable or unacceptable, we suggest present-centred therapy (PCT) .

Present-centred therapy is designed to target daily challenges that PTSD sufferers encounter as a result of their symptoms. It includes psychoeducation about the impact of PTSD symptoms, the development of effective strategies to deal with day-to-day challenges and homework to practice newly developed skills.

Present-centred therapy is a variant of supportive counselling. These approaches are often used as comparison conditions in randomised controlled trials. PCT is a non-trauma focussed manualised intervention designed to target daily challenges that PTSD sufferers encounter. It includes psychoeducation about the impact of PTSD symptoms, the development of effective strategies to deal with day-to-day challenges and homework to practice newly developed skills. Typically 10 group sessions of 90 minutes are delivered by therapists who help participants identify stressors and discuss them in a supportive, nondirective manner.

Evidence to decision

Benefits and harms

Evidence from 3 RCTs suggests moderate clinically important benefit of PCT on PTSD symptom severity relative to waitlist *[391][422]* and no difference between PCT and non-trauma-focused CBT *[391]*.

Evidence from 5 RCTs suggests CBT-T is more beneficial than PCT on PTSD symptom severity *[388][422][439][450][457]*.

Evidence from a single RCT *[440]* found moderate clinically important benefit of virtual reality therapy relative to present centered therapy (PCT) in veterans.

Evidence from a single RCT *[618]* suggests a large clinically important benefit of present-centred therapy relative to NET for older adults with PTSD.

Evidence from a single RCT suggests a moderate clinically important benefit from Present-Centred Therapy delivered in-person relative to guided internet-based PE *[620]*

Certainty of the evidence

Overall certainty of evidence for Present Centred Therapy was MODERATE.

Certainty of evidence for Present Centred Therapy vs waitlist/treatment as usual was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Present Centred Therapy vs Trauma-focused CBT was LOW due to serious inconsistency and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Present Centred Therapy vs Non-trauma-focused CBT was LOW due to very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Virtual Reality Therapy vs Present centred therapy was LOW due to very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of the evidence for present-centred therapy vs NET is VERY LOW due to serious risk of bias, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Guided internet-based PE vs Present-Centred Therapy delivered in-person was VERY LOW due to serious risk of bias, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Values and preferences

Given possible benefits of Present Centred Therapy, patients are likely to consider this if trauma-focussed CBT or EMDR are not available.

Although TF-CBT and EMDR have a stronger evidence base, people who do not want to talk about traumatic experiences may actually prefer present-centred therapy.

	There is some evidence that individuals who receive PCT as treatment for PTSD demonstrate less drop out than for trauma-focussed therapies.

Resources and other considerations	Not all interventions are approved for use in government programs. For example, the Medicare Benefits Schedule specifies that only cognitive behaviour therapy and interpersonal therapy (and narrative therapy for Aboriginal and Torres Strait Islander people) are eligible interventions under the Better Access to Mental Health Care initiative.

Rationale

The Guideline Development Group considered the evidence showing benefits of present-centred therapy (PCT) on PTSD symptom severity relative to waitlist or usual treatment for adults with PTSD. The group noted the evidence that CBT-T showed a greater benefit than PCT in this population and agreed that while the certainty of this evidence was low, PCT should not be used in preference to trauma focused CBT but could be offered to individuals when first line treatments are not available or not acceptable.

Stress inoculation training (SIT)

Conditional recommendation

For adults with PTSD where TF-CBT or EMDR are unavailable or unacceptable, we suggest stress inoculation training (SIT).

The stress inoculation training (SIT) used in these studies is an anxiety management program for use with rape victims adapted from Veronen and Kilpatrick (1983). The nine sessions include breathing retraining, and 'coping strategies' such as muscle relaxation, thought stopping, cognitive restructuring and role play.[386]

Evidence to decision

Benefits and harms	Evidence from 2 RCTs suggests large clinically important benefit of SIT on PTSD symptom severity relative to waitlist *[385][386]* or supportive counselling *[385]*. Evidence from 2 RCTs suggests no clinically important difference between PE and SIT on PTSD symptom severity *[385][386]*. Evidence from a single RCT suggests a small clinically important benefit of NET on PTSD symptom severity relative to SIT *[397]*

Certainty of the evidence	Overall certainty of evidence for Stress inoculation training (SIT) was LOW. Certainty of evidence for Stress inoculation training vs waitlist/treatment as usual was LOW due to serious risk of bias, and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for Stress inoculation training vs Supportive counselling was VERY LOW due to serious risk of bias, and very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Prolonged Exposure vs Stress inoculation training (SIT) was VERY LOW due to serious risk of bias, very serious imprecision and serious inconsistency.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Certainty of evidence for NET vs Stress inoculation training (SIT) was LOW due to very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Values and preferences

Given possible benefits of stress inoculation training for PTSD, patients are likely to consider this if trauma-focussed CBT or EMDR are not available.

Although TF-CBT and EMDR have a stronger evidence base, as stress inoculation training (SIT) does not have a trauma focus, people who do not want to talk about their traumatic experiences may prefer SIT.

Resources and other considerations

Not all interventions are approved for use in government programs. For example, the Medicare Benefits Schedule specifies that only cognitive behaviour therapy and interpersonal therapy (and narrative therapy for Aboriginal and Torres Strait Islander people) are eligible interventions under the Better Access to Mental Health Care initiative.

Rationale

The Guideline Development Group considered the evidence showing benefits of stress innoculation training for PTSD symptom severity relative to waitlist or supportive counselling for adults with PTSD. The Group noted the low certainty of this evidence and agreed that stress innoculation training should not be provided in preference to a first line treatment for PTSD, but could be offered to those who are unwilling to undertake first line treatment or when this treatment is not available.

Trauma-focused CBT (group)

Conditional recommendation

For adults with PTSD where individual TF-CBT or EMDR are unavailable or unacceptable, we suggest group trauma-focussed CBT.

Trauma-focussed CBT has been previously described as an early psychosocial treatment intervention for adults. In the group context, typically up to 16 sessions are delivered and run for 60-90 minutes each. Group interventions in the included studies encompass CPT [454][444], Beck's CBT and other protocols[371]. All treatment interventions require (to varying degrees) engagement with the traumatic memory, opportunities for cognitive restructuring, and skills aiming to reduce avoidance.

Evidence to decision

Benefits and harms

Evidence from 6 RCTs suggests large clinically important benefit from group CBT-T on PTSD symptom severity relative to waitlist or usual care *[355][359][371][383][467]* or applied muscle relaxation *[399]*.

Evidence from 3 RCTs found no important difference between group CBT-T and Group CPT *[443][449][454]*.

Evidence from a single RCT found individual CBT-T had a small important benefit above that of Group CBT-T *[444]*.

Evidence from a single RCT found group TF-CBT had no clinically important benefit compared to Supportive Group Therapy *[392]*

Certainty of the evidence

Overall certainty of evidence for Group Trauma-Focused CBT was LOW.

Certainty of evidence for Group Trauma-Focused CBT vs waitlist/treatment as usual was LOW due to serious risk of bias, and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Group Trauma-Focused CBT vs Group present centred therapy was LOW due to serious risk of bias, and serious imprecision

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Group Trauma-Focused CBT vs Individual trauma-focused CBT was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Group Trauma-Focused CBT vs Supportive Group Therapy was LOW due to serious risk of bias and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Values and preferences

Given possible benefits of group trauma-focused CBT, patients are likely to consider this if individual trauma-focussed CBT is not available.

Although not a frontline recommended treatment, some patients may have a preference for group based treatment in addition to, or instead of, individual treatment.
Potential additive benefits are validation of the traumatic experience and responses through sharing with others, provision of mutual support, feeling accepted by others and reducing isolation.

Given possible benefits of Present Centred Therapy, patients are likely to consider this if trauma-focussed CBT or EMDR are not available.

Although TF-CBT and EMDR have a stronger evidence base, people who do not want to talk about traumatic experiences may actually prefer present-centred therapy.

There is some evidence that individuals who receive PCT as treatment for PTSD demonstrate less drop out than for trauma-focussed therapies.

Resources and other considerations

Under Medicare, group sessions are available in addition to individual sessions, and in this context group therapy can be used as an adjunct.

However, there may be limited availability of practitioners offering group trauma-focused CBT available through Medicare.

Not all interventions are approved for use in government programs. For example, the Medicare Benefits Schedule specifies that only cognitive behaviour therapy and interpersonal therapy (and narrative therapy for Aboriginal and Torres Strait Islander people) are eligible interventions under the Better Access to Mental Health Care initiative.

Rationale

The Guideline Development Group considered the limited evidence showing benefits of group trauma focused CBT for PTSD symptom severity relative to waitlist or applied muscle relaxation for adults with PTSD. The Group noted the low certainty of this evidence. The Group also discussed the evidence that individual CBT-T was more beneficial in this population that group CBT-T and they agreed that group trauma focused CBT should not be provided in preference to individual CBT-T or EMDR, but could be offered when these first line treatments are not available, not feasible, or not acceptable to the individual, or in addition to individual treatment.

Meta-cognitive therapy

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to meta-cognitive therapy.

There is emerging evidence for meta-cognitive therapy and this could be used in a research context.

Meta-cognitive therapy, a form of non-trauma focussed CBT, targets the disrupted thinking style characteristic of PTSD (threat monitoring, worry, and rumination) rather than focussing on trauma-processing.[462]

Evidence to decision

Benefits and harms	Evidence from 2 RCTs suggests a large clinically important benefit of meta-cognitive therapy on PTSD symptom severity relative to waitlist *[461][462]*. Evidence from a single RCT suggests a large clinically important benefit of meta-cognitive therapy on PTSD symptom severity relative to PE *[462]*.

Certainty of the evidence	Overall certainty of evidence for meta-cognitive therapy was VERY LOW Certainty of evidence for meta-cognitive therapy vs WL is VERY LOW due to serious risk of bias, and very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for meta-cognitive therapy vs PE is VERY LOW due to serious risk of bias, and very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing clinically important benefit of meta-cognitive therapy on PTSD symptom severity and no associated harms relative to waitlist. The group noted that certainty of the evidence was very low and limited to 2 RCTs with a combined sample size of just 40 participants and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown.The group agreed that there is not yet enough evidence to recommend offering meta-cognitive therapy but the Guideline Development Group considered that it was a promising intervention and recommended further research in broader population and trauma types to add strength to the evidence base.

Non-trauma-focused CBT (affect regulation)

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to non-TF-CBT (affect regulation).

There is emerging evidence for non-trauma-focused CBT (affect regulation) and this could be used in a research context.

The non-trauma-focused CBT interventions included in the systematic review use a variety of non-trauma focused affect regulation techniques.[466][391]

Evidence to decision

Benefits and harms	Evidence from 2 RCTs suggests large clinically important benefit of Non-trauma-focussed CBT on PTSD symptom severity relative to waitlist *[391][466]*. No clinically important difference was found between Non-trauma-focussed CBT and PCT *[391]*.
Certainty of the evidence	Overall certainty of evidence for non-trauma-focused CBT was LOW. Certainty of evidence for non-trauma-focused CBT vs waitlist was LOW due to serious imprecision, and serious risk of bias. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for non-trauma-focused CBT vs Present centred therapy (PCT) was LOW due to very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing clinically important benefit of affect regulation, a form of non-trauma focussed CBT on PTSD symptom severity and no associated harms relative to waitlist. The group noted that certainty of the evidence was low and limited to 2 RCTs in females who had experienced sexual abuse or victimisation and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown.The group agreed that there is not yet enough evidence to recommend offering affect regulation but the Guideline Development Group considered that it was a promising intervention and recommended further research in broader population and trauma types to add strength to the evidence base.

Reconsolidation of Traumatic Memories (RTM)

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to Reconsolidation of Traumatic Memories (RTM).

There is emerging evidence for RTM and this could be used in a research setting.

RTM is a brief intervention that involves activation of a traumatic memory. The participant's trauma narrative is ended as soon as autonomic arousal is observed. A procedure follows that includes imagining a black and white movie of the event, dissociating from its content, and re-winding it when fully-associating over two seconds. This is designed to change the perspective from which the memory is recalled. RTM is administered in three sessions of up to 120 minutes each.[459][396]

Evidence to decision

Benefits and harms	Evidence from 3 RCTs *[396][459][615]* suggest a large clinically important benefit of RTM for PTSD symptom severity relative to waitlist.
Certainty of the evidence	Certainty of the evidence is MODERATE due to serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing clinically important benefit of Reconsolidation of Trauma Memories (RTM) on PTSD symptom severity and no associated harms relative to waitlist. The group noted that certainty of the evidence was moderate but limited to 2 RCTs in male veterans and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown.The group agreed that there is not yet enough evidence to recommend offering Reconsolidation of Trauma Memories (RTM) but they considered that it was a promising intervention and recommended further research in broader population and trauma types to add strength to the evidence base.

Trauma-focused CBT (couples)

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to couples TF-CBT .

There is emerging evidence for couples TF-CBT and this could be used in a research context.

The relevant study delivered 15 sessions of manualised cognitive-behavioral conjoint therapy (CBCT) which is designed to treat PTSD and enhance intimate relationships in couples where one partner has been diagnosed with PTSD.[426]

Evidence to decision

Benefits and harms	Evidence from a single RCT *[426]* suggests large clinically important benefit from couples TF-CBT on PTSD symptom severity relative to waitlist.

Certainty of the evidence	Certainty of evidence is LOW due to very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing clinically important benefit of Couples TF-CBTon PTSD symptom severity and no associated harms relative to waitlist. The group noted that evidence was limited to a single RCT in couples where one partner had PTSD and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown. The group agreed that there is not yet enough evidence to make a recommendation in favour of Couples TF-CBT but the Guideline Development Group considered that it was a promising intervention for this target population and recommended further research to add strength to the evidence base.

Trauma-focused CBT (combined group and individual)

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to group and individual (combined) TF-CBT.

There is emerging evidence for group and individual (combined) TF-CBT and this could be used in a research context.

The treatment intervention used in this study was CPT-SA, an adaptation of Resick and Schnicke's (1993) cognitive processing therapy for rape victims. The intervention consisted of 17 weeks of a manual-based group and individual therapy, with participants attending a 90 minutes group each week and a 60 minute individual therapy session for the first nine weeks and the 17th week.[372]

Evidence to decision

Benefits and harms	Evidence from a single RCT suggests a large, clinically important benefit of group and individual TF-CBT on PTSD symptom severity compared to waitlist controls *[372]*.

Certainty of the evidence	Certainty of the evidence is LOW due to serious risk of bias and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing clinically important benefit of combined group and individual TF-CBT on PTSD symptom severity and no associated harms relative to waitlist. The group noted that evidence was limited to a single RCT in females who had experienced rape and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown. The group agreed that there is not yet enough evidence to recommend offering combined group and individual TF-CBT but the Guideline Development Group considered that it was a promising intervention and recommended further research in broader population and trauma types to add strength to the evidence base.

Trauma-focussed CBT (single-session)

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to single-session TF-CBT.

There is emerging evidence for single-session TF-CBT and it could be used in a research context.

These studies delivered a single session of modified behavioural treatment to earthquake survivors. The 60 minute treatment session focusses on reduction of fear and avoidance through exposure to simulated tremors in an earthquake simulator and self-exposure instructions. [358][357]

Evidence to decision

Benefits and harms	Evidence from 2 RCTs *[357][358]* suggests small unimportant benefit of a single session of TF-CBT on PTSD symptom severity relative to waitlist or usual treatment
Certainty of the evidence	Certainty of the evidence is LOW due to serious risk of bias and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing clinically important benefit of a single session of TF-CBT on PTSD symptom severity and no associated harms relative to waitlist. The group noted that certainty of the evidence was low and limited to 2 RCTs in earthquake survivors in Turkey and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown. The group agreed that there is not yet enough evidence to recommend offering single session TF-CBT but they considered that it was a promising intervention and recommended further research in broader population and trauma types to add strength to the evidence base.

Virtual Reality Therapy

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, CPT, or EMDR in preference to Virtual Reality Therapy.

There is emerging evidence for Virtual Reality Therapy and this could be used in a research context.

Virtual Reality therapies, such as virtual reality exposure (VRE[441]*) and VR-graded exposure therapy (VR-GET*[423]*) are exposure therapies which integrate real-time computer graphics with other sensory input devices to immerse a participant in a virtual environment and facilitate the processing of memories associated with the traumatic event. Typically up to 12 graded sessions of virtual reality are administered, with the first session(s) focusing on psychoeducation and anxiety management techniques.*

Evidence to decision

Benefits and harms	Evidence from three RCTs *[394][423][441]* suggest small clinically unimportant benefit of virtual reality therapy on PTSD symptoms in active military soldiers relative to waitlist. Evidence from 2 RCTs *[441][424]* found no difference between virtual reality therapy and control exposure.

Evidence from a single RCT *[440]* found moderate clinically important benefit of virtual reality therapy relative to present centered therapy (PCT) in veterans.

Certainty of the evidence

Overall certainty of evidence for Virtual Reality Therapy was LOW.

Certainty of evidence for Virtual Reality Therapy vs waitlist/treatment as usual was LOW due to serious risk of bias, and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Virtual Reality Therapy vs Control exposure was VERY LOW due to serious inconsistency, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Virtual Reality Therapy vs Present centred therapy was LOW due to very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing small but clinically unimportant benefit of Virtual Reality Therapy on PTSD symptom severity relative to waitlist, but no difference with control exposure and a moderate benefit compared to PCT. The group noted that certainty of the evidence was low to very low and limited to RCTs in active and veteran military populations and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown.The group agreed that there is not yet enough evidence to recommend offering Virtual Reality Therapy but they considered that it was a promising intervention and recommended further research in broader population and trauma types to add strength to the evidence base.

Written exposure therapy

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to written exposure therapy.

There is emerging evidence for written exposure therapy and this could be used in a research context.

Written exposure therapy is a brief trauma-focussed intervention of five, 30 minute sessions which include psychoeducation and confronting the trauma memory through the use of writing tasks. Participants are given scripted instructions to write about the same trauma memory each session.

Evidence to decision

Benefits and harms

Evidence from a single RCT *[452]* suggests a large clinically important benefit from written exposure therapy on PTSD symptom severity relative to waitlist.

Evidence from a single RCT *[454]* found no clinically important difference between written exposure therapy and TF-CBT.

Certainty of the evidence	Overall certainty of evidence for Written Exposure Therapy was LOW. Certainty of evidence for Written exposure therapy vs waitlist/treatment as usual was LOW due to very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for Written exposure therapy vs Trauma-focused CBT was LOW due to very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing large clinically important benefit of written exposure therapy on PTSD symptom severity relative to waitlist, and no difference with TF-CBT. The group noted that certainty of the evidence was low and limited to 2 RCTs in veterans and motor vehicle accident survivors and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown. The group agreed that there is not yet enough evidence to recommend offering written exposure therapy but they considered that it was a promising intervention and recommended further research in broader population and trauma types to add strength to the evidence base.

3MDR

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT, or EMDR in preference to 3MDR.

There is emerging evidence for 3MDR and this could be used in a research context.

3MDR is a virtual reality based therapy administered on a treadmill and a synchronized virtual reality environment (with sound and visuals). Patients 'walk' through the purpose-built environment, personalised for each patient. Prior to 3MDR, patients select 10-20 images that remind them of their deployment-related trauma, with seven pictures used in session. Patients also choose two pieces of music: one piece that reminded them of their time of deployment and one piece that reminded patients of the here and now.

Each session begins with a warm up, while the deployment related music plays. Patients enter a virtual tunnel, and describe the first picture and recall the traumatic memory, with phrases of their narrative shown over the picture. While focusing on these phrases, participants track a ball moving from left to right over the image. Patients call out numbers that appear on the ball. This is repeated 7 times for different images. Following the final task, the contemporary music is played to bring the patients back to the here and now, which is followed by a discussion about experiences the patient had during the session.

Evidence to decision

Benefits and harms	Evidence from two RCTs *[609][623]* suggests a moderate but clinically unimportant benefit from 3MDR on PTSD symptom severity relative to waitlist/TAU.

Certainty of the evidence	Certainty of evidence for 3MDR vs waitlist/treatment as usual was LOW due to serious indirectness and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group agreed that there is currently insufficient evidence to recommend 3MDR but the intervention shows promise and warrants further research.

Acceptance and Commitment Therapy (ACT)

For adults with PTSD there was insufficient evidence to make a recommendation on acceptance and commitment therapy (ACT).

Acceptance and commitment therapy consists of six core processes: acceptance, cognitive defusion, being present, self as context, values and committed action. In this four session protocol, experiential avoidance was targeted through using didactics, experiential exercises, and metaphor. Emphasis was placed the present moment and on skills related to the decentralizing of trauma and broadening of the self-concept.

Behavioural activation

For adults with PTSD there was insufficient evidence to make a recommendation on Behavioural activation.

Behavioural activation aims to help the individual to learn to manage negative feelings through activity planning. Core features of the intervention include psychoeducation, behavioural analysis, activity planning, goal identification, trouble shooting, homework and relapse prevention.

Brief Eclectic Psychotherapy

For adults with PTSD there was insufficient evidence to make a recommendation on Brief Eclectic Psychotherapy.

Brief Eclectic Psychotherapy draws on elements of TF-CBT and psychodynamic therapy, including the relationship between the patient and the therapist. It includes exposure to traumatic memories, therapeutic letter writing and consideration of how the individual has been affected by their experience(s). It usually ends with a farewell ritual.

Cognitive behavioural social rhythm group therapy

For adults with PTSD there was insufficient evidence to make a recommendation on Cognitive behavioural social rhythm group therapy.

Cognitive Behavioural Social Rhythm Therapy (CBSRT) is grounded in the social rhythm model of mood disruption, whereby dysregulation in mood occurs in individuals who have experienced PTE that are disrupting to their social rhythms (daily routine or lifestyle). It is suggested that CBSRT reorients veterans to their post-deployment lives through the development of a consistent social rhythm. The cognitive therapy component of CBSRT is used to help veterans address dysfunctional cognitions that contribute to their disrupted social rhythms.

Dialectical Behaviour Therapy (DBT)

For adults with PTSD there was insufficient evidence to make a recommendation on Dialectical Behaviour Therapy (DBT).

Dialectical Behaviour Therapy is a multicomponent phase-based program incorporating specific techniques from trauma-focused cognitive-behavioural interventions, compassion-focused therapy and acceptance and commitment therapy. It is comprised of 7 treatment phases, whereby patients learn to identify their typical escape strategies in response to trauma-related stimuli, focuses on skills-assisted exposure to traumatic memories, practice acceptance of the past and grief, and discuss how to improve psychosocial functioning.

Dialogical exposure therapy (DET)

For adults with PTSD there was insufficient evidence to make a recommendation on dialogical exposure therapy (DET).

DET uses CBT techniques (with and without a trauma focus) and a Gestalt based exposure method (chair work) in a dialogical framework. Supported by the therapist, the individual enters into a dialogue with aspect of the traumatic experience.

Interpersonal therapy (IPT)

For adults with PTSD there was insufficient evidence to make a recommendation on interpersonal therapy.

IPT is an attachment-based treatment that focuses on current interpersonal problems and the resolution of these to improve symptoms.

Imagery rescripting

For adults with PTSD there was insufficient evidence to make a recommendation on Imagery rescripting.

Imagery rescripting is a trauma-focused intervention where a patient imagines different outcomes related to their trauma experiences. Patients recall the memory from their child-self perspective, and imagine a different ending, with someone stopping the abuse (either the therapist or the patient's adult-self).

It is suggested that the intervention facilitates changing meaning the patients give the trauma memory, which may lead to changes in the patient's core beliefs systems and behaviours.

Interpersonal therapy (IPT) (group)

For adults with PTSD there was insufficient evidence to make a recommendation on group interpersonal therapy (IPT).

IPT is an attachment-based treatment that focuses on current interpersonal problems and the resolution of these to improve symptoms.

Observed and experiential integration (OEI)

For adults with PTSD there was insufficient evidence to make a recommendation on observed and experiential integration (OEI).

OEI involves alternately covering and uncovering the eyes ("switching") and the eyes tracking different locations in the visual field ("glitch-work") while experiencing a disturbing thought, feeling or memory. It also includes observation of differences between the two eyes' perceptions.

Present Centred Therapy (group)

For adults with PTSD there was insufficient evidence to make a recommendation on Group Present Centred Therapy.

Present-centred therapy is designed to target daily challenges that PTSD sufferers encounter as a result of their symptoms. It includes psychoeducation about the impact of PTSD symptoms, the development of effective strategies to deal with day-to-day challenges and homework to practice newly developed skills.

Present-centred therapy is a variant of supportive counselling. These approaches are often used as comparison conditions in randomised controlled trials. PCT is a non-trauma focussed manualised intervention designed to target daily challenges that PTSD sufferers encounter. It includes psychoeducation about the impact of PTSD symptoms, the development of effective strategies to deal with day-to-day challenges and homework to practice newly developed skills. Typically 10 group sessions of 90 minutes are delivered by therapists who help participants identify stressors and discuss them in a supportive, nondirective manner.

Psychodynamic therapy

For adults with PTSD there was insufficient evidence to make a recommendation on psychodynamic therapy.

Psychodynamic therapy uses psychoanalytic theories and practices to help individuals understand and resolve their problems by increasing awareness of their inner world and its influences over current and past relationships.

Evidence to decision

Benefits and harms	Evidence from a single RCTs *[568]* suggests a large clinically important benefit of Psychodynamic Therapy as compared to waitlist/treatment as usual on PTSD symptom severity in adults with PTSD. Evidence from a single RCT *[568]* suggests no clinically important difference between Psychodynamic Therapy and Hypnotherapy on PTSD symptom severity in adults with PTSD.
Certainty of the evidence	Overall certainty of evidence for Psychodynamic Therapy was LOW. Certainty of evidence for Psychodynamic Therapy vs waitlist/treatment as usual was LOW due to serious risk of bias and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for Psychodynamic Therapy vs Hypnotherapy was LOW due to serious risk of bias and serious imprecision The evidence analyses and risk of bias assessments for this intervention can be found here

Relaxation training

For adults with PTSD there was insufficient evidence to make a recommendation on Relaxation training.

Relaxation training comprises of recognising early signals of anxiety and applying techniques to activate the body's relaxation response, which is suggested to ease symptoms of PTSD.

Resilience Oriented Treatment

For adults with PTSD there was insufficient evidence to make a recommendation on Resilience Oriented Treatment

Stress Inoculation Training (SIT) for couples

For adults with PTSD there was insufficient evidence to make a recommendation on SIT for couples

This intervention is organised within the stress inoculation therapy (SIT) framework. It is delivered in a couples context and consists of psychoeducation, skills training, and an application phase to practice new coping skills.

Evidence to decision

Benefits and harms	Evidence from a single RCT suggests a large clinically important benefit of SIT on PTSD sympmtom severity relative to PTSD Family Education *[447]*

Certainty of the evidence	Certainty of evidence for SIT (couples) vs PTSD Family Education was LOW due to serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here.

Supportive counseling (SC)

For adults with PTSD there was insufficient evidence to make a recommendation on supportive counseling.

SC involves active, empathic listening to the patient who is usually provided with unconditional positive regard. The therapist helps the patient to explore and clarify issues, may provide advice, reflect and confirm appropriate reactions, and introduce problem-solving techniques.

Stabilising group treatment

For adults with PTSD there was insufficient evidence to make a recommendation on stabilising group treatment.

Stabilizing group treatment is based on psycho-education and cognitive behavioural therapy. The program is based on Zlotnick's protocol [466] with additional sessions on assertiveness, bodily experiences and sexuality, distrust, guilt and shame, saying goodbye and future.

Trial-based cognitive therapy (TBCT)

For adults with PTSD there was insufficient evidence to make a recommendation on Trial-based cognitive therapy (TBCT).

Trial-based cognitive therapy (TBCT) is a transdiagnostic intervention that approaches cognitive restructuring in an organised and systematic way to address dysfunctional core beliefs. The main distinctive technique of TBCT, as compared to conventional cognitive-behavioural therapies, is that it simulates a legal trial. For example, a courtroom metaphor is used whereby patients role-play multiple internal characters (e.g., the investigated party, the defendant, the prosecutor, the defence attorney, the juror) to challenge core beliefs. The intervention also comprises of psychoeducation and homework tasks

Trauma-focused CBT (brief)

For adults with PTSD there was insufficient evidence to make a recommendation on brief TF-CBT

Attention Bias Modification Training (AMBT)

For adults with PTSD there was insufficient evidence to make a recommendation on Attention Bias Modification Training (AMBT)

Attention bias modification training (ABMT) involves the delivery of brief (approximately 20 minute), computerised tasks. Attentional avoidance of negative information is encouraged through use of a modified dot-probe task where probes always appear in the location opposite negative stimuli. This procedure is designed to 'train' an individual's attention away from or toward negative or threatening information. The immediate effects of ABMT appear to be most prominent when applied prior to exposure to a potentially traumatic event. ABMT has been delivered to soldiers immediately prior to combat deployment in order to attenuate the association between combat exposure and PTSD-related symptoms.

Pharmacological interventions for adults with PTSD

"For adults with PTSD, do pharmacological treatments when compared to placebo result in a clinically important reduction of symptoms?"

"For adults with PTSD, do pharmacological treatments when compared to other pharmacological or psychosocial interventions, result in a clinically important reduction of symptoms?"

Selective Serotonin Reuptake Inhibitors (SSRIs)

Conditional recommendation

For adults with PTSD, we suggest SSRIs (sertraline, paroxetine, or fluoxetine) in circumstances where any of the following applies:

- The person is unwilling or not in a position to engage in or access recommended psychological therapy (TF-CBT, PE, CT, CPT or EMDR).
- The person has a comorbid condition or associated symptoms (e.g., clinically significant depression and high levels of dissociation) where SSRIs are indicated.
- The person's circumstances are not sufficiently stable to commence recommended psychological therapy (as a result, for example, of significant ongoing life stress such as domestic violence).
- The person has not gained significant benefit from recommended psychological therapy.
- There is a significant wait time before psychological treatment is available.

The most common approach to the pharmacological treatment of PTSD is through prescription of a selective serotonin reuptake inhibitor (SSRI). This class of drugs is widely prescribed for depression and anxiety and includes fluoxetine, paroxetine, and sertraline, each of which are conditionally recommended for use in the pharmacological treatment of PTSD.

Evidence to decision

Benefits and harms

Evidence from 18 RCTs suggest a small, statistically significant but clinically unimportant benefit from SSRIs for PTSD symptom severity relative to placebo.

This evidence is drawn from RCTs on 3 different SSRIs;

Evidence from 5 RCTs suggests a small, clinically unimportant benefit from Fluoxetine for PTSD symptoms relative to placebo *[500][513][519][520][533]*. Evidence from a single RCT suggests a moderate clinically important benefit of EMDR relative to Fluoxetine for PTSD symptoms *[533]*.

Evidence from 4 RCTs suggests a small, clinically important benefit from Paroxetine for PTSD symptoms relative to placebo *[517][518][530][528]*.

Evidence from 9 RCTs suggests a small, clinically unimportant benefit from Sertraline for PTSD symptoms relative to placebo *[496][497][502][504][511][516][523][536][524]*. Evidence from a single RCT suggests that sertraline was more effective than citalopram in reducing PTSD symptoms *[531]* while evidence from 2 RCTs found a small unimportant difference in favour of Nefazadone relative to Sertraline *[522][526]*. Evidence from a single RCT found a trivial difference between Sertraline and Venlafaxine *[504]*.

Certainty of the evidence

Overall certainty of the evidence for SSRIs was LOW.

Certainty of the evidence for SSRI's vs placebo was LOW due to serious risk of bias and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Sertraline vs Citalopram was VERY LOW due to serious publication bias, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Sertraline vs Nefazadone was LOW due to serious risk of bias, and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Sertraline vs Venlafaxine was VERY LOW due to serious imprecision, serious publication bias, and serious risk of bias.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for EMDR vs Fluoxetine was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Values and preferences

Although psychological treatments are recommended as the first line treatment for PTSD, in clinical practice, medication is often the first if not the only treatment offered for PTSD. This arises where TF-CBT or EMDR is not available, not readily accessible, or not acceptable to the individual. Further, for those who receive psychological therapy, it is often delivered in conjunction with pharmacological therapy as it can improve patients' ability to engage in and benefit from evidence-based psychological treatments.

Where medication is indicated, the choice between sertraline, paroxetine, fluoxetine and venlafaxine will be made by the prescribing doctor in collaboration with the patient, and in light of their treatment response and side effect profile. The dosage will be tailored to individual needs. The maximum benefit from medication depends upon adequate dosages and duration of treatment. Ensuring treatment adherence is therefore key to successful pharmacotherapy for PTSD.

Resources and other considerations

Sertraline, paroxetine and fluoxetine are also commonly used to treat a range of conditions such as depression and anxiety disorders. This makes them a familiar and accessible treatment for GPs to commence, noting that there is often considerable delay before psychological therapy can be arranged.

Rationale

The Guideline Development Group considered the evidence suggesting a small, statistically significant but clinically unimportant benefit from SSRIs for PTSD symptom severity relative to placebo for adults with PTSD. The specific SSRIs tested include fluoxetine (5 RCTs), paroxetine (4 RCTs) and sertraline (9 RCTs). The Guideline Development Group discussed the low certainty of this evidence and drawing upon their expert opinion agreed on the important role SSRIs have to play in the treatment of PTSD for some adults. The Group agreed to make a conditional recommendation for the use of SSRIs for adults with PTSD in circumstances where the person's preference is for medication rather than psychological treatment, where they are not sufficiently stable to commence psychological therapy or where it is not available.

Venlafaxine

Conditional recommendation

For adults with PTSD, we suggest venlafaxine in circumstances where any of the following applies:

- The person is unwilling or not in a position to engage in or access recommended psychological therapy (TF-CBT, PE, CT, CPT or EMDR).
- The person has a comorbid condition or associated symptoms (e.g., clinically significant depression and high levels of dissociation) where SNRIs are indicated.
- The person's circumstances are not sufficiently stable to commence recommended psychological therapy (as a result, for example, of significant ongoing life stress such as domestic violence).
- The person has not gained significant benefit from recommended psychological therapy.
- There is a significant wait time before psychological treatment is available.

Venlafaxine is an antidepressant from the Serotonin and Noradrenaline Reuptake Inhibitor (SNRI) class. Two studies included in the review suggest that venlafaxine is generally well tolerated and may be of benefit in the treatment of patients with PTSD.[504][505]

Evidence to decision

Benefits and harms	Evidence from 3 RCTs suggest a small, statistically significant but clinically unimportant effect of Venlafaxine on PTSD symptom severity relative to placebo *[505] [504]* and no difference between venlafaxine and sertraline *[504]*.
Certainty of the evidence	Overall certainty of evidence for Venlafaxine was MODERATE. Certainty of evidence for Venlafaxine vs Placebo was MODERATE due to serious risk of bias. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for Venlafaxine vs Sertraline was VERY LOW due to serious imprecision, serious publication bias, and serious risk of bias. The evidence analyses and risk of bias assessments for this intervention can be found here
Values and preferences	Although psychological treatments are recommended as the first line treatment for PTSD, in clinical practice, medication is often the first if not the only treatment offered for PTSD. This arises where TF-CBT or EMDR is not available, not readily accessible, or not acceptable to the individual. Further, for those who receive psychological therapy, it is often delivered in conjunction with pharmacological therapy as it can improve patients' ability to engage in and benefit from evidence-based psychological treatments. Where medication is indicated, the choice between sertraline, paroxetine, fluoxetine and venlafaxine will be made by the prescribing doctor in collaboration with the patient, and in light of their treatment response and side effect profile. The dosage will be tailored to individual needs. The maximum benefit from medication depends upon adequate dosages and duration of treatment. Ensuring treatment adherence is therefore key to successful pharmacotherapy for PTSD.

Resources and other considerations	Venlafaxine is commonly used to treat a range of conditions such as depression and anxiety disorders. This makes it a familiar and accessible treatment for GPs to commence, noting that there is often considerable delay before psychological therapy can be arranged.

Rationale

The Guideline Development Group considered the evidence suggesting a small, statistically significant but clinically unimportant benefit from venlafaxine for PTSD symptom severity relative to placebo for adults with PTSD. The Guideline Development Group agreed that while evidence was limited, the available evidence was of moderate certainty and, drawing on expert opinion the Group agreed that venlafaxine has an important part to play in the treatment of PTSD for some adults. The Group agreed to make a conditional recommendation for the use of SSRI's for adults with PTSD in circumstances where the person's preference is for medication rather than psychological treatment, where they are not sufficiently stable to commence psychological therapy or where it is not available.

Ketamine

RESEARCH RECOMMENDATION

Where medication is indicated for the treatment of PTSD we suggest an SSRI or SNRI antidepressant in preference to ketamine. There is emerging evidence for the use of ketamine in the treatment of PTSD and it could be used in a research context.

Ketamine is an antagonist of the glutamate N-methyl-D-aspartate (NMDA) receptor.

Evidence to decision

Benefits and harms	Evidence from a single RCT suggests a moderate, clinically important benefit from ketamine on PTSD symptom severity relative to placebo *[510]*. Ketamine administration was associated with several adverse events and numerous side effects. One participant discontinued treatment likely due to dissociative effects. Several patients experienced elevation in blood pressure requiring acute treatment with β-blockers. Side effects included blurred vision, dry mouth, restlessness, fatigue, nausea/vomiting, poor coordination, and headache.
Certainty of the evidence	Certainty of the evidence is VERY LOW due to serious risk of bias, publication bias and very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing moderate clinically important benefit of ketamine on PTSD symptom severity relative to placebo. The group noted that certainty of the evidence was very low and limited to a single RCT with a small sample size of 41 participants and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown.The group discussed the evidence that ketamine was associated in this study with adverse events including elevated blood pressure, blurred vision, dry mouth, restlessness, fatigue, nausea/vomiting, poor coordination, and headache. The group agreed that it would not be appropriate to recommend offering ketamine at this stage but they considered that it was a promising intervention due to the fact that as an antagonist to the N-methyl-D-aspartate-type glutamate (NMDA) receptor, ketamine has the potential to reduce PTSD symptoms through its anxiolytic properties. The group agreed to recommend further research in broader population and trauma types to add strength to the evidence base.

Quetiapine

RESEARCH RECOMMENDATION

Where medication is indicated for the treatment of PTSD we suggest an SSRI or SNRI antidepressant in preference to quetiapine. There is emerging evidence for the use of quetiapine in the treatment of PTSD and it could be used in a research context.

Quetiapine is an atypical antipsychotic that is used for individuals with significant agitation.

Evidence to decision

Benefits and harms	Evidence from a single RCT suggests a moderate, clinically important benefit of quetiapine on PTSD symptom severity *[534]*.
Certainty of the evidence	Certainty of the evidence is VERY LOW due to serious risk of bias, serious publication bias and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here
Values and preferences	Patients prefer to have a clear "treatment strategy" with confidence in the doctor and the strategy, but they don't usually want medication as the first step – they would like to try other strategies first.

Rationale

The Guideline Development Group considered the evidence showing moderate clinically important benefit of quetiapine on PTSD symptom severity relative to placebo. The group noted that certainty of the evidence was very low and limited to a single RCT with a small sample size of 80 participants and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown.The group agreed that it would not be appropriate to recommend offering quetiapine at this stage but they considered that it was a promising intervention in particular considering the potential benefit of quetiapine for reducing agitation. The group agreed to recommend further research in broader population and trauma types to add strength to the evidence base.

Amitriptyline

For adults with PTSD there was insufficient evidence to make a recommendation on amitriptyline.

Amitriptyline is of the tricyclic antidepressant class.

Brofaromine

For adults with PTSD there was insufficient evidence to make a recommendation on brofaromine.

Brofaromine is a reversible, and selective type-A monoamine oxidase inhibitor that also has serotonin reuptake inhibitory properties.

Divalproex

For adults with PTSD there was insufficient evidence to make a recommendation on divalproex.

Ganaxolone

For adults with PTSD there was insufficient evidence to make a recommendation on ganaxolone.

Ganaxolone is a GABAA receptor modulator.

Imipramine

For adults with PTSD there was insufficient evidence to make a recommendation on imipramine.

Imipramine is of the tricyclic antidepressant class.

Lamotrigine

For adults with PTSD there was insufficient evidence to make a recommendation on lamotrigine.

Lamotrigine is an anticonvulsant medication.

Mirtazapine

For adults with PTSD there was insufficient evidence to make a recommendation on mirtazapine.

Mirtazapine is of the atypical antidepressants class.

Neurokinin-1 antagonist

For adults with PTSD there was insufficient evidence to make a recommendation on neurokinin-1 antagonist.

Olanzapine

For adults with PTSD there was insufficient evidence to make a recommendation on olanzapine.

Olanzapine is an atypical antipsychotic.

Phenelzine

For adults with PTSD there was insufficient evidence to make a recommendation on phenelzine.

Phenelzine is a non-selective and irreversible monoamine oxidase inhibitor of the hydrazine class.

Tiagabine

For adults with PTSD there was insufficient evidence to make a recommendation on tiagabine.

Tiagabine is an anticonvulsant medication.

Topiramate

For adults with PTSD there was insufficient evidence to make a recommendation on topiramate.

Topiramate is a carbonic anhydrase inhibitor medication.

Non-psychological and non-pharmacological interventions for adults with PTSD

"For adults with PTSD, do non-psychological and non-pharmacological treatments/interventions, when compared to waitlist, treatment as usual or no treatment, result in reduction of symptoms?"

"For adults with PTSD, do non-psychological and non-pharmacological treatments/interventions, when compared to other treatments, result in reduction of symptoms?"

Acupuncture

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to acupuncture.

There is emerging evidence for acupuncture and this could be used in a research context.

Acupuncture involves the insertion of fine needles at specific points on the body (acupressure points) to reduce symptoms of PTSD.

Evidence to decision

Benefits and harms	Evidence from a single RCT suggests clinically important benefit from acupuncture for PTSD symptom severity relative to waitlist and TF-CBT *[467]*.
Certainty of the evidence	Overall certainty of evidence for Acupuncture was LOW. Certainty of evidence for Acupuncture vs waitlist/treatment as usual was LOW due to very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of evidence for Acupuncture vs Trauma-focused CBT was LOW due to very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing large clinically important benefit of acupuncture on PTSD symptom severity relative to waitlist, and TF-CBT. The group noted that certainty of the evidence was low and limited to a single RCT and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown. The group agreed that there is not yet enough evidence to recommend offering acupuncture but they considered that it was a promising intervention and recommended further research in broader population and trauma types to add strength to the evidence base.

Mindfulness-based stress reduction (MBSR)

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to mindfulness-based stress reduction (MBSR).

There is emerging evidence for MBSR and it could be used in a research context.

Therapeutic applications of mindfulness are commonly called mindfulness-based interventions (MBIs). The first MBI, Mindfulness-Based Stress Reduction (MBSR), was developed in 1979 by Professor Jon Kabat-Zinn from the University of Massachusetts Medical Centre. The original intent of MBSR was to help outpatients attending a stress reduction clinic to relieve the suffering associated with stress, pain, and illness. Since then, other programs based on the foundational and structural approach of MBSR have been developed.[589]
MBSR is a program that uses a variety of techniques to cultivate the state of mindfulness (i.e., nonjudgmental present-moment awareness; Kabat–Zinn, 1994). It is typically delivered in a series of weekly 2.5-hour group meetings in the context of a day-long retreat. Mindfulness training delivered via telehealth (2 sessions in person and 6 by telephone) showed a positive effect for veterans when compared with psychoeducation.[594] This brief treatment was based on MBSR principles but was delivered in individual sessions and did not include the full program.

Evidence to decision

Benefits and harms

Evidence from 2 RCTs suggests a small clinically unimportant benefit from MBSR for PTSD symptom severity relative to placebo *[575][587]*.

Evidence from 3 RCTs suggests no difference in benefit between MBSR and group PCT on PTSD symptom severity *[593][579][567]*.

Evidence from a single RCT suggests a large, clinically important benefit of MBSR relative to psychoeducation on PTSD symptom severity *[594]*.

Certainty of the evidence

Overall certainty of evidence for Mindfulness-based stress reduction was LOW.

Certainty of evidence for Mindfulness-based stress reduction vs waitlist/treatment as usual was LOW due to serious imprecision, and serious risk of bias.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Mindfulness-based stress reduction vs group Present centred therapy was VERY LOW due to serious risk of bias, serious inconsistency, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Mindfulness-based stress reduction vs Psychoeducation was VERY LOW due to serious risk of bias, serious inconsistency, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing small clinically unimportant benefit of mindfulness-based stress reduction (MBSR) on PTSD symptom severity relative to waitlist, equivalent benefit compared to PCT and a greater benefit than psychoeducation. The group noted that certainty of the evidence was low to very low and agreed that with mixed effects and high level of uncertainty it is not appropriate at this stage to recommend offering mindfulness based stress reduction (MBSR). The

Group agreed that it was a promising intervention and recommended further research in broader population and trauma types to add strength to the evidence base.

Neurofeedback

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to neurofeedback.

There is emerging evidence for neurofeedback and it could be used in a research context.

Neurofeedback involves real-time displays of brain activity that are used to help individuals train (self-regulate) their brain activity. In neurofeedback training, neural activity is recorded from scalp electrodes and fed back to participants in a readily understood, visual format (such as simple computer games). Neurofeedback training is hypothesised to help individuals with PTSD acquire self-regulation skills by stabilising EEG activity, thereby improving focus and attention.[585]

Evidence to decision

Benefits and harms	Evidence from 3 RCTs suggests large clinically important benefit of Neurofeedback for PTSD symptom severity relative to waitlist or usual care *[585][584][595]*.
Certainty of the evidence	Certainty of the evidence is MODERATE due to serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing large clinically important benefit of neurofeedback on PTSD symptom severity relative to waitlist or usual care. The group noted that while the certainty of the evidence was moderate, it was limited to 3 small RCTs and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown.The group agreed that there is not yet enough evidence to recommend offering neurofeedback but they considered that it was a promising intervention and recommended further research in broader population and trauma types to add strength to the evidence base.

Repetitive Transcranial Magnetic Stimulation (rTMS)

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to repetitive transcranial magnetic stimulation (rTMS).

There is emerging evidence for rTMS and this could be used in a research context.

Repetitive TMS (rTMS) is a non-invasive procedure that involves the application of electrical current pulses, induced by a strong pulsating electromagnetic field. Electromagnetic energy passes through the scalp and skull without inducing pain or injury. rTMS aims to stimulate nerve cells in targeted areas of the brain which can lead to an increase or decrease in brain activity in specific regions. It is thought that the dorsolateral prefrontal cortex may be implicated in PTSD symptoms, and that interventions such as rTMS that can target this area of the brain might ameliorate symptoms of PTSD.

Evidence to decision

Benefits and harms	Evidence from 3 RCTs suggest a small clinically unimportant benefit of low frequency rTMS (1Hz) for PTSD symptom severity relative to sham *[571][630][591]* Evidence from 3 RCTs suggest a large clinically important benefit of high frequency rTMS (greater than 10Hz) for PTSD symptom severity relative to sham *[571][630][564]*
Certainty of the evidence	Overall certainty of evidence for Repetitive Transcranial Magnetic Stimulation (rTMS) was VERY LOW. Certainty of the evidence for low frequency rTMS (1Hz) vs sham is LOW due to serious imprecision and serious risk of bias The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of the evidence for high frequency rTMS (greater than 10Hz) vs sham is VERY LOW due to serious imprecision, serious risk of bias and very serious inconsistency The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing large clinically important benefit of repetitive transcranial magnetic stimulation (rTMS) on PTSD symptom severity relative to waitlist. The Group noted that certainty of the evidence was moderate but limited to 3 small RCTs and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown. The Group agreed that there is not yet enough evidence to recommend offering rTMS but they considered that it was a promising intervention and recommended further research in broader population and trauma types to add strength to the evidence base.

Transcendental Meditation (TM)

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to transcendental meditation (TM).

There is emerging evidence for Transcendental Meditation and this could be used in a research context.

TM is a specific type of silent meditation developed by Maharishi Mahesh Yogi that involves repetition of a sound (a mantra) to facilitate a settled state of restful alertness. TM differs from mindfulness practice in that mindfulness involves focusing on the present moment in a specifically recommended way, whereas TM is taught as the effortless thinking of a mantra without concentration or contemplation.

Evidence to decision

Benefits and harms	Evidence from a single RCT suggests a small, clinically important benefit of TM relative to health education and no clinically important difference between TM and PE on PTSD symptom severity *[433]*.
Certainty of the evidence	Overall certainty of evidence for Transcendental meditation was MODERATE. Certainty of evidence for Transcendental meditation vs Prolonged Exposure was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Transcendental meditation vs Psychoeducation was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing small clinically important benefit of transcendental Meditation (TM) on PTSD symptom severity relative to health education and equivalent outcomes compared to prolonged exposure, however the group noted that in this trial, the effect of prolonged exposure was not as strong as reported in several other studies. The Group noted that certainty of the evidence was moderate but limited to a single RCT in military veterans, and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown. The Group agreed that there is not yet enough evidence to recommend offering TM but they considered that it was a promising intervention and recommended further research in broader population and trauma types to add strength to the evidence base.

Yoga

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, PE, CT, CPT or EMDR in preference to yoga.

There is emerging evidence for yoga and it could be used in a research context.

Yoga is a mind-body practice that typically combines physical postures, regulation of the breath, and techniques to cultivate attention. The emphasis on each of these factors varies according to the type of practice.
The studies providing evidence for yoga are largely pilot studies. The populations studied include veterans and women, with the types of yoga investigated including Sudarshan Kriya (SKY) yoga,[592][583] Kripalu,[576][580] and trauma-informed yoga[586].

Evidence to decision

Benefits and harms

Evidence from 4 RCTs suggests a small, clinically unimportant benefit from yoga on PTSD symptom severity relative to waitlist or treatment as usual *[576][580][592][583]*.

Evidence from a 2 RCTs suggests a small, clinically unimportant benefit of yoga on PTSD symptom severity relative to attention control interventions *[627][586]*.

Certainty of the evidence

The overall certainty of evidence for Yoga was LOW.

Certainty of the evidence for Yoga vs waitlist/treatment as usual is LOW due to serious risk of bias and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Yoga vs attention control is LOW due to serious risk of bias and serious imprecision

The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing small statistically important but clinically unimportant benefit of yoga on PTSD symptom severity relative to waitlist. The Group noted that certainty of the evidence was low but also discussed

that it was not associated with any harms. The Group agreed that there is not yet enough evidence to recommend offering yoga but they considered that it was a promising intervention and recommended further research in broader population and trauma types to add strength to the evidence base.

Physical exercise

Good practice statement

The Guideline Development Group supports the use of exercise to promote general wellbeing.

The physical exercise consisted of a 12-week intervention with a weekly supervised exercise session, two unsupervised home-based exercise sessions, and a walking program facilitated by the provision of a pedometer and exercise diary.[581] In the integrated exercise study, veteran participants attended three one hour group sessions each week for 12 weeks, for a total of 36 sessions.[573] Exercise sessions included aerobic exercise, strength training with weights and resistance bands, and yoga movements and poses presented within a framework of mindfulness principles.

Evidence to decision

Benefits and harms	Evidence from 4 RCTs *[573][581][628][631]* suggests trivial unimportant differences between physical exercise and waitlist/treatment as usual for PTSD symptom severity. Evidence from a single RCT suggests trivial unimportant difference between physical exercise and basic body awareness therapy for PTSD symptom severity *[631]*. In the absence of medical contraindications for exercise, the guideline development group was not aware of any negative effects of exercise on PTSD symptoms.
Certainty of the evidence	Certainty of the evidence for physical exercise vs WL/TAU was MODERATE due to serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of the evidence for physical exercise and basic body awareness therapy was LOW due to very serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here
Values and preferences	Exercise is often recommended in the context of good overall health in addition to PTSD treatment. It is not associated with the stigma of standard mental health treatment and has high acceptability for individuals.
Resources and other considerations	Aerobic exercise is a low-cost, widely accessible activity known to provide multiple health benefits, including cardiovascular health and musculoskeletal health, as well as reduced rates of co-morbidity and mortality.

Rationale

In 2019, the Guideline Development Group considered the evidence showing small, statistically significant but clinically unimportant benefit of physical exercise on PTSD symptom severity relative to waitlist. The Group noted that certainty of the evidence was low and limited to a 2 RCTs in military and police veterans and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown. In 2021 on the basis of two new studies the certainty of the evidence that physical exercise has no effect on PTSD symptoms increased from low to moderate. The Group agreed that further research is unlikely to show that exercise is effective in reducing symptoms of PTSD. While the Guideline Development Group agreed to

remove the research recommendation for physical exercise the group it recognised there are benefits of exercise beyond treatment of symptoms of PTSD. As a consequence the the group replaced the previous research recommendation with this practice statement.

Angling

For adults with PTSD there was insufficient evidence to make a recommendation on Angling.

Angling is a method of fishing using a rod and line.

Attentional bias modification

For adults with PTSD there was insufficient evidence to make a recommendation on attentional bias modification.

ABM is a treatment designed for the management of anxiety disorders based on the finding that patients with anxiety disorders selectively attend to threatening information. It involves computer-based training to keep attention away from threatening information.

Attention Control Training

For adults with PTSD there was insufficient evidence to make a recommendation on attentional control training.

Basic body awareness therapy

For adults with PTSD there was insufficient evidence to make a recommendation on basic body awareness therapy.

Basic body awareness therapy (BBAT) is a mild, body-awareness-oriented physiotherapeutic method. BBAT is comprised of slow, guided movements to improve balance, muscle tension, free breathing and awareness while standing, sitting and lying down.

Cognitive Bias Modification training

For adults with PTSD there was insufficient evidence to make a recommendation on Cognitive bias modification training.

Cognitive bias modification training is a treatment designed for the management of anxiety disorders based on the finding that biased cognitive processes are causally linked to symptoms of psychopathology, and that modification of these biases can lead to a reduction in symptoms. It involves computer-based training to appraise ambiguous, trauma-relevant information in a positive or negative way.

Electroacupuncture

For adults with PTSD there was insufficient evidence to make a recommendation on electroacupuncture.

Electroacupuncture combines traditional Chinese acupuncture with modern electrotherapy. Acupuncture points are stimulated via needles connected to electrodes that deliver a continuous 100Hz wave.

Healing Touch intervention

For adults with PTSD there was insufficient evidence to make a recommendation on Healing Touch intervention.

Healing Touch is a energy based healing intervention. It is suggested that Healing Touch will breakup blockages of trauma-included congested energy and clear the field of toxins and debris.

Hypnotherapy

For adults with PTSD there was insufficient evidence to make a recommendation on hypnotherapy.

Hypnotherapy uses hypnosis to induce an altered state of consciousness before undertaking therapeutic work.

Intermittent theta-burst stimulation (iTBS)

For adults with PTSD there was insufficient evidence to make a recommendation on Intermittent theta-burst stimulation (iTBS).

Theta-burst stimulation (TBS) is a non-invasive Transcranial Magnetic Stimulation (TMS) protocol rapidly inducing synaptic plasticity. Short bursts of high-frequency (50 Hz) stimulation are repeated intermittently at 5 Hz (200 ms interval) to the right dorsolateral prefrontal cortex.

Mantram repetition

For adults with PTSD there was insufficient evidence to make a recommendation on mantram repetition.

Mantrum repetition involves repeating a holy word(s) or phrase(s).

Music therapy (group)

For adults with PTSD there was insufficient evidence to make a recommendation on group music therapy.

Group music therapy includes a combination of active and receptive musical activities with percussion instruments that emphasizes improvisation. Instrumental support is provided by music therapists.

Nature adventure therapy

For adults with PTSD there was insufficient evidence to make a recommendation on nature adventure therapy.

Nature adventure therapy is a group-based rehabilitation intervention based upon the theoretical framework of experiential learning. It uses activity-based interventions such as sailing, to provide opportunity for personal growth.

Somatic experiencing

For adults with PTSD there was insufficient evidence to make a recommendation on somatic experiencing.

Somatic Experiencing involves a focus on perceived body sensations and to learn how to regulate these with the aim of resolving symptoms.

Saikokaishikankyoto

For adults with PTSD there was insufficient evidence to make a recommendation on Saikokaishikankyoto.

This is a traditional Japanese herbal medicine.

Stellate Ganglion Block (SGB)

For adults with PTSD there was insufficient evidence to make a recommendation on stellate ganglion block (SGB).

The stellate ganglion is a structure in the sympathetic chain commonly found at the level of the seventh cervical vertebra. Injecting local anesthetic around the stellate ganglion (stellate ganglion block [SGB]) has been shown to inhibit both efferent sympathetic effects and visceral pain fibers to the upper extremity and face. The SGB is now commonly used for the treatment of hypersympathetic activity influencing the upper extremity, such as Raynaud phenomena, or in sympathetically maintained pain as observed in complex regional pain syndrome.

Evidence to decision

Benefits and harms	Evidence from 2 RCTs suggests a small clinically unimportant benefit from Stellate Ganglion Block (SGB) for PTSD symptom severity relative to sham procedures *[597][633]*
Certainty of the evidence	Certainty of evidence for Stellate Ganglion Block (SGB) vs sham was LOW due to serious risk of bias and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Transcranial direct current stimulation (tDCS)

For adults with PTSD there was insufficient evidence to make a recommendation on Transcranial direct current stimulation (tDCS).

Transcranial direct current stimulation (tDCS) is a non-invasive brain stimulation intervention. Scalp electrodes (anodal and cathodal) are used to transfer a weak (0.5–2 mA) direct current which alters cortical tissue excitability (rather than directly triggering action potentials in neurons).

Comorbid interventions

Given that comorbidity is a critical issue in the treatment of PTSD, in the 2021 update the Guideline Development Group decided to highlight comorbidity studies in a separate section.

Trauma-focused CBT for adults with comorbid PTSD and Substance Use Disorder

Conditional recommendation

For adults with comorbid PTSD and Substance Use Disorder, we suggest TF-CBT in preference to treatment as usual.

Trauma-focused CBT for adults with comorbid PTSD and Substance Use Disorder consisted of the following interventions:

1. Concurrent Treatment for PTSD and Substance Use Disorder Using Prolonged Exposure (COPE) is an integrated PTSD and substance use disorder treatment that augments prolonged exposure with cognitive behavioural relapse prevention for substance use
2. Modified Prolonged Exposure consisted of 60 minutes of manualised Prolonged Exposure with psychoeducation about the relationship between PTSD and substance use symptoms and weekly check-ins about substance use.
3. Integrated CBT consisted of manualised CBT for Alcohol Use Disorder and exposure-based CBT for PTSD (incorporating exposure therapy and cognitive restructuring).

Evidence to decision

Benefits and harms	Evidence from 3 RCTs suggests a small clinically unimportant benefit of trauma-focused CBT on PTSD symptom severity relative to TAU/attention control in adults with comorbid PTSD and Alcohol/Substance Use Disorder *[694][698][700]*. Evidence from a single RCT suggests a moderate clinically important benefit of trauma-focused CBT on PTSD symptom severity relative to non-trauma-focused CBT in adults with comorbid PTSD and Alcohol/ Substance Use Disorder *[670]*.
Certainty of the evidence	The overall certainty of evidence for trauma-focused CBT for adults with comorbid PTSD and Alcohol/ Substance Use Disorder was LOW. Certainty of evidence for trauma-focused CBT vs TAU/attention control was LOW due to serious risk of bias and serious imprecision. The evidence analyses and risk of bias assessment for this intervention can be found here Certainty of evidence for trauma-focused CBT vs non-trauma-focused CBT was LOW due to serious risk of bias and serious imprecision. The evidence analyses and risk of bias assessment for this intervention can be found here

Rationale

The Guideline Development Group noted the four studies, with overall low certainty of evidence for TF-CBT for adults with comorbid PTSD and Substance Use Disorder having small clinically unimportant benefit. The group considered whether the clinical importance threshold should be lower for comorbid studies, on the basis that the threshold for clinical importance may be more difficult to reach in studies treating patients with both PTSD and comorbid mental health problems. Instead, it was agreed that as a small effect is hard to achieve in comorbid populations it was sufficient to make a conditional recommendation in favour of the intervention on the basis of a small clinically unimportant benefit. In making this recommendation, the GDG also considered the evidence that TF-CBT is effective for adults with PTSD.

Non-Trauma-focused CBT for adults with comorbid PTSD and Substance Use Disorder

Conditional recommendation

For adults with comorbid PTSD and Substance Use Disorder, where TF-CBT is unavailable or unacceptable, we suggest non-TF-CBT (Seeking Safety or Integrated CBT).

Non-trauma-focused CBT for adults with comorbid PTSD and Substance Use Disorder consisted of the following interventions:

1. Seeking safety is an integrated non-trauma-focused, present-focused intervention for PTSD and substance use disorder. It consists of 24 modules teaching cognitive behavioural and interpersonal techniques, as well as case management.
2. Integrated CBT focuses on PTSD symptoms and substance use. It is designed to be used in routine community addiction treatment programs and consists of 8 modules.

Evidence to decision

Benefits and harms

Evidence from 5 RCTs suggests a small clinically unimportant benefit of non-trauma-focused CBT on PTSD symptom severity relative to TAU/attention control in adults with comorbid PTSD and Alcohol/ Substance Use Disorder *[693][695][696][697][707]*.

Evidence from a single RCT suggests a moderate clinically important benefit of trauma-focused CBT on PTSD symptom severity relative to non-trauma-focused CBT in adults with comorbid PTSD and Alcohol/ Substance Use Disorder *[670]*.

Certainty of the evidence

The overall certainty of evidence for trauma-focused CBT for adults with comorbid PTSD and Alcohol/ Substance Use Disorder was MODERATE.

Certainty of evidence for non-trauma-focused CBT vs TAU/attention control was MODERATE due to serious risk of bias.

The evidence analyses and risk of bias assessment for this intervention can be found here

Certainty of evidence for trauma-focused CBT vs non-trauma-focused CBT was LOW due to serious risk of bias and serious imprecision.

The evidence analyses and risk of bias assessment for this intervention can be found here

Rationale

Two interventions for adults with comorbid PTSD and Alcohol/Substance Use Disorder were grouped together as non-trauma-focused CBT: Seeking Safety and Integrated CBT. The Guideline Development Group considered that rather than labelling these interventions as 'non-trauma-focused CBT) in order to provide more specific guidance the two interventions should be named. noted that based on the six studies, there was overall moderate certainty of evidence for non TF-CBT for adults with comorbid PTSD and Substance Use Disorder having a small, clinically unimportant benefit. The GDG noted that a similar small clinically unimportant benefit was found as with TF-CBT for adults with comorbid PTSD and alcohol/substance use disorder, but here the certainty of evidence was moderate rather than low. The GDG decided that it was hard to justify the argument that more research is needed, given six studies exist. Accordingly they decided that a conditional recommendation is warranted. Given evidence that TF-CBT is more effective than non-TF-CBT for adults with PTSD, the recommendation was made conditional on TF-CBT being unavailable or unacceptable.

Trauma-focused CBT for adults with comorbid PTSD and severe mental illness

RESEARCH RECOMMENDATION

There is emerging evidence for TF-CBT for adults with comorbid PTSD and severe mental illness, and this could be used in a research context.

Trauma-focused CBT for adults with comorbid PTSD and severe mental illness consisted of the following interventions:

1. *Integrated CBT for PTSD in persons with severe mental illness*
2. *Narrative Exposure Therapy (NET) for PTSD in persons with borderline personality disorder*

Evidence to decision

Benefits and harms	Evidence from 2 RCTs suggests a small clinically unimportant benefit of trauma-focused CBT on PTSD symptom severity relative to TAU/attention control in adults with comorbid PTSD and severe mental illnesses *[699][701]*.

Certainty of the evidence	The certainty of evidence for trauma-focused CBT vs TAU/attention control in adults with comorbid PTSD and severe mental illnesses is LOW due to serious risk of bias and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group noted the two studies, one using Integrated CBT for PTSD in people with severe mental illness (borderline personality disorder, major mood disorder, schizophrenia, or schizoaffective disorder), and the other using Narrative Exposure Therapy for PTSD in people with borderline personality disorder. There was overall low certainty of evidence for a small, clinically unimportant benefit. The Guideline Development Group considered that there is not enough evidence to conclude that these interventions are not helpful. As this is a population in particular need of effective treatment, it was decided that obtaining more evidence is important.

Treatment delivery modalities

"Which service delivery models are effective in preventing PTSD or reducing PTSD symptom severity in adults, children and adolescents within the first three months of exposure to a traumatic event or with clinically important post-traumatic stress symptoms?"

Early psychosocial prevention intervention for children and adolescents within the first three months of exposure to a traumatic event

"For children and adolescents within the first three months of exposure to a traumatic event, do psychosocial interventions delivered via telehealth, the internet or virtual reality compared to intervention as usual, waiting list or no intervention, result in clinically important reduction/prevention of symptoms, or presence of disorder?"

"For children and adolescents within the first three months of exposure to a traumatic event, do psychosocial interventions delivered via telehealth, the internet or virtual reality, when compared to the standard delivery mode or other psychosocial interventions, result in clinically important reduction/prevention of symptoms or presence of disorder?"

Self-directed online psychoeducation for caregivers and children

RESEARCH RECOMMENDATION

For children and adolescents within the first three months after exposure to a potentially traumatic event, we suggest continuation of treatment as usual in preference to self-directed online psychoeducation for caregivers and children.

There is emerging evidence for self-directed online psychoeducation in caregivers and children following traumatic physical injury, and this could be used in a research context.

Psychoeducation provides individuals (in this context, caregivers and/or their children) with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies. One study included psychoeducation more broadly with strategies such as (1) promoting adaptive cognitive appraisals, (2) decreasing excessive early avoidance coping, and (3) promoting use of social support. Psychoeducation for caregivers can include information regarding common child reactions to trauma, their likely time course, and how best they can assist their child's emotional recovery (e.g., such as offer their child the opportunity to talk, not avoiding talking about the accident, and encouraging normal routine).

Evidence to decision

Benefits and harms	Evidence from a single RCT suggests a clinically important benefit on self-rated PTSD symptom severity at 4-6 weeks post-trauma from a self-administered online psychoeducation intervention for children aged 7-16 who had experienced an unintentional injury and an information booklet for their parents *[9]*.
Certainty of the evidence	The certainty of the evidence is LOW due to serious risk of bias, and serious imprecision The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

On the basis of research to date, there is not enough evidence to recommend the use of this self-directed online psychoeducation intervention for children, combined with information for caregivers. The evidence is limited to a single trial in a specific population of children following accidental injury which showed a benefit on PTSD symptom severity. In light of this study's promising findings and the absence of harm to participants, together with the potential reach of online treatment for those who would not otherwise have access to treatment due to geographical or financial barriers, the Guideline Development Group agreed that the intervention warranted further research in a range of child and adolescent trauma populations.

Self-directed online psychoeducation intervention for children only

RESEARCH RECOMMENDATION

For children and adolescents within the first three months after exposure to a potentially traumatic event, we suggest continuation of treatment as usual in preference to self-directed online psychoeducation for children.

There is emerging evidence for self-directed online psychoeducation in children following an acute medical event, and this could be used in a research context.

Psychoeducation provides individuals (in this context, children) with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies.

Evidence to decision

Benefits and harms	Evidence from a single RCT *[13]* suggests benefit on self-rated PTSD symptom severity from an online game-format intervention "Coping Coach" in children age 8 to 12 years, admitted to hospital for acute medical events. No harms were reported in this study
Certainty of the evidence	Certainty of the evidence was LOW due to serious risk of bias and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

On the basis of research to date, there is not enough evidence to recommend the use of this self-directed online psychoeducation intervention for children. The evidence is limited to a single trial in a specific population of children aged 8-12 years following medical emergency events which showed a benefit on PTSD symptom severity. In light of these promising findings and the absence of harm to participants, together with the potential reach of online treatment for those who would not otherwise have access to treatment due to geographical or financial barriers, the Guideline Development Group agreed that the intervention warranted further research in a range of child trauma populations.

Self-directed online psychoeducation for caregivers only

For children and adolescents within the first three months after exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on self-directed online psychoeducation for caregivers only.

Psychoeducation provides individuals with information about the reactions that commonly follow a trauma, when those reactions are consistent with a diagnosis of PTSD, and information about what maintains PTSD. The information is aimed at normalising and relieving trauma reactions by providing basic coping and resilience strategies.

Psychological intervention for children and adolescents with clinically relevant PTSD symptoms

"For children and adolescents with PTSD, do psychological interventions delivered via telehealth, the internet or virtual reality compared to intervention as usual, waiting list or no intervention, result in clinically important reduction/prevention of symptoms?"

"For children and adolescents with PTSD, do psychological interventions delivered via telehealth, the internet or virtual reality, when compared to the standard delivery mode or other psychological interventions, result in clinically important reduction/prevention of symptoms?"

This was included in the systematic review of the literature but no studies were identified.

Early psychosocial prevention intervention for adults within the first three months of exposure to a traumatic event

"For adults within the first three months of exposure to a traumatic event, do psychosocial interventions delivered via telehealth, the internet or virtual reality compared to intervention as usual, waiting list or no intervention, result in clinically important reduction/ prevention of symptoms, or presence of disorder?"

"For adults within the first three months of exposure to a traumatic event, do psychosocial interventions delivered via telehealth, the internet or virtual reality, when compared to the standard delivery mode or other psychosocial interventions, result in clinically important reduction/prevention of symptoms or presence of disorder?"

Internet-based guided self-help

RESEARCH RECOMMENDATION

For adults with PTSD symptoms in the first three months after exposure to a traumatic event, we recommend offering TF-CBT, PE, CT or Brief EMDR in preference to internet-based guided self-help.

There is emerging evidence for Internet-based guided self-help and it could be used in a research context.

Internet-based guided self-help uses internet-based programs to treat individuals with PTSD using CBT approaches. Use of the intervention is guided by a therapist. Patients receive guidance and feedback on homework assignments from the therapist.

Evidence to decision

Benefits and harms	Evidence from a single RCT *[248]* suggests clinically important benefit from internet-based guided self-help relative to waitlist for PTSD symptom severity
Certainty of the evidence	Certainty of the evidence is LOW due to serious risk of bias and serious imprecision. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing a clinically important benefit of internet-based guided self-help on PTSD symptom severity, with no associated harms relative to waitlist. The Group noted that the study population in the single study was parents of children having cancer treatment, and they agreed that the extent to which the results can be generalised to all adults in the first 3 months following trauma is not known. The group agreed that there is currently insufficient evidence to make a recommendation in favour of internet-based guided self-help, but there is potential for this intervention to increase the availability of treatment for individuals unable to access face-to-face treatment due to availability, access or cost barriers. The group, therefore, agreed to recommend further high-quality research of internet-based guided self-help in brad population and trauma types.

Internet-based CBT

RESEARCH RECOMMENDATION

For adults within the first three months following exposure to a potentially traumatic event, we suggest usual practice in preference to internet-based CBT.

There is emerging evidence for internet-based CBT and this could be used in a research context.

'Trauma TIPS', an internet-based self-guided intervention, is based on CBT principles of psychoeducation, stress/relaxation techniques, and in vivo exposure. Trauma TIPS aims to decrease levels of distress and anxiety by providing information on successful coping, instructions and guidance for in vivo exposure, and stress management techniques.[199]

Evidence to decision

Benefits and harms	Evidence from a single study *[199]* suggests a small, clinically important benefit of internet-based CBT on PTSD diagnosis and symptom severity in adults in the first 3 months following serious injury.
Certainty of the evidence	Overall certainty of the evidence is LOW due to serious imprecision. Certainty of the evidence LOW due to very serious imprecision for PTSD symptom severity. The evidence analyses and risk of bias assessments for this intervention can be found here Certainty of the evidence is MODERATE due to serious imprecision for PTSD diagnosis. The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group noted the small benefit of an internet-based CBT on PTSD diagnosis and symptom severity, with no associated harms. The Group noted that the evidence consists of a single study of injury survivors and so the extent to which the results can be generalised to all adults in the first 3 months following trauma is not known. The Guideline Development Group agreed that there is not yet enough evidence to make a recommendation in favour of internet-based CBT. The Group noted the potential for this intervention to increase the availability of treatment for individuals who are unable to access face-to-face treatment due to availability, access, or cost, barriers and the Group, therefore, recommend further research into internet-based CBT in other populations and trauma types.

Telephone-based CBT

For adults within the first three months following exposure to a potentially traumatic event, there was insufficient evidence to make a recommendation on telephone-based CBT.

Psychological intervention for adults with clinically relevant PTSD symptoms

"For adults with PTSD, do psychological interventions delivered via telehealth, the internet or virtual reality compared to intervention as usual, waiting list or no intervention, result in clinically important reduction/prevention of symptoms?"

"For adults with PTSD, do psychological interventions delivered via telehealth, the internet or virtual reality, when compared to the standard delivery mode or other psychological interventions, result in clinically important reduction/prevention of symptoms?"

Guided internet-based trauma-focused CBT

Conditional recommendation

For adults with PTSD where TF-CBT or EMDR are unavailable or unacceptable, we suggest guided internet-based TF-CBT.

Most internet-based interventions for PTSD commence with psychoeducation, and then present the rationale for CBT-based treatment. These programs incorporate cognitive techniques, with the aim of identifying and modifying unhelpful patterns of cognition. Usually, behavioural components are included; generally encompassing imaginal and in vivo exposure.[415] Internet-based interventions vary in the level of therapist assistance provided. Guided internet-based programs can be delivered by a specialist therapist who provides input and feedback on homework, and encourages engagement with the program[403][415], or by a non-specialist mental health professional who intervenes to check on progress or provides input on demand, often by telephone or by email. [418] An example of the latter is DESTRESS-PC, a variant of CBT and stress inoculation training designed for symptoms resulting from military trauma.[418]

Evidence to decision

Benefits and harms

Evidence from 3 RCTs suggests large clinically important benefit from guided internet-based TF-CBT relative to waitlist *[415][468]* or attention control *[403]*.

Evidence from a single RCT suggests a small clinically important benefit of guided internet-based TF-CBT above that of internet-based supportive counseling without a trauma focus *[418]*.

Evidence from a single RCT suggests no important difference between guided internet-based TF-CBT and internet-based psychotherapy *[417]*.

Evidence from a single RCT suggests a moderate clinically important benefit from Present-Centred Therapy delivered in-person relative to guided internet-based PE *[620]*

Certainty of the evidence

Overall certainty of evidence for Guided internet-based trauma focused CBT was LOW

Certainty of evidence for Guided internet-based trauma focused CBT vs waitlist/treatment as usual was LOW due to serious imprecision, and serious inconsistency.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Guided internet-based trauma focused CBT vs Attention Control was MODERATE due to serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Guided internet-based trauma focused CBT vs Internet-based non-trauma-focussed supportive counselling was VERY LOW due to serious risk of bias, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Guided internet-based trauma focused CBT vs Internet-based psychoeducation was VERY LOW due to serious risk of bias, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Guided internet-based PE vs Present-Centred Therapy delivered in-person was VERY LOW due to serious risk of bias, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Values and preferences

Given possible benefits of guided internet-based trauma-focused CBT, patients are likely to consider this if individual trauma-focused CBT is not available.

Although not a frontline recommended treatment, some patients may have a preference for guided internet-based treatment in addition to, or instead of, individual treatment.
This may be due to a number of factors including cost, convenience, ability to pace the treatment, and PTSD-related avoidance.

As noted in relation to face-to-face trauma-focussed CBT, it is possible that elements of the guided internet based trauma-focused CBT will lead to a temporary increase in distress. Patient drop-out rates for guided internet based trauma-focused CBT have been reported as variable.

Resources and other considerations

There are a number of online programs available with differing costs and degree of therapist contact to guide the process.

Access to psychological treatments can be slow to procure and those patients less committed to obtaining help can get lost in the process. With online services, accessibility is less of an issue, with this treatment readily available to the majority. However language barriers, literacy/technology barriers, and physical inability to use a computer, still exist for some.

Rationale

The Guideline Development Group considered the evidence showing benefits of guided internet-based TF-CBT for adults with PTSD relative to waitlist, attention control and internet-based supportive counseling without a trauma focus. The Guideline Development Group agreed to make a conditional recommendation despite low certainty of the evidence to offer guided internet-based TF-CBT for adults with PTSD to those who are unwilling to undertake first-line treatment or unable to access it for reasons of availability or cost.

Trauma-focused CBT (TF-CBT) via telehealth (videoconferencing)

Conditional recommendation

For adults with PTSD where face-to-face TF-CBTor EMDR are unavailable or unacceptable, we suggest offering TF-CBTdelivered via telehealth.

RESEARCH RECOMMENDATION

Further research is needed to better understand the factors affecting patient preferences for delivery of face-to-face TF-CBTversus telehealth.

Trauma-focused cognitive-behavioural therapy (TF-CBT) is a broad term that encompasses any treatment that employs the standard principles of CBT combined with some form of trauma processing. Generally, TF-CBT involves the integration of CBT principles with components of exposure therapy, including imaginal exposure and graded in vivo exposure. Across most studies from the systematic review that underpins these Guidelines, TF-CBT was delivered via telehealth (videoconferencing using computers or smart phones) and involved psychoeducation, breathing/relaxation training (arousal reduction strategies), imaginal exposure, in vivo exposure, and cognitive restructuring.

Evidence to decision

Benefits and harms

Evidence from 5 RCTs suggests no clinically important difference between TF-CBT delivered via telehealth (videoconferencing) and in-person TF-CBT on PTSD symptoms. The comparison comprised of two studies assessing Prolonged exposure (PE) *[678][681]* and three studies assessing Cognitive processing therapy *[675][676][619]*.

Evidence from 1 RCT suggests no clinically important difference between home-based PE delivered via telehealth (videoconferencing) and office-based PE delivered via telehealth (videoconferencing) on PTSD symptoms *[621]*.

Evidence from 1 RCT suggests no clinically important difference between home-based PE delivered via telehealth (videoconferencing) and home-based in-person PE on PTSD symptoms *[621]*.

Evidence from 1 RCT suggests no clinically important difference between office-based PE delivered via telehealth (videoconferencing) and home-based in-person PE on PTSD symptoms *[621]*.

Evidence from 1 RCT suggests a small clinically important benefit of PE delivered via videoconferencing on a computer and PE delivered via videoconferencing on an iPhone on PTSD symptoms *[673]*.

Certainty of the evidence

Overall certainty of evidence for TF-CBT delivered via telehealth (videoconferencing) was LOW

Certainty of evidence for TF-CBT telehealth (videoconferencing) vs TF-CBT in-person was LOW due to serious risk of bias and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Certainty of evidence for home-based PE telehealth (videoconferencing) vs office-based PE telehealth (videoconferencing) was LOW due to very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Certainty of evidence for home-based PE telehealth (videoconferencing) vs home-based in-person PE was LOW due to very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Certainty of evidence for office-based PE telehealth (videoconferencing) vs home-based in-person PE was LOW due to very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Certainty of evidence for PE telehealth (videoconferencing on a computer) vs PE telehealth (videoconferencing on an iPhone) was VERY LOW due to serious risk of bias and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here.

Values and preferences

Some patients may prefer in vivo interaction with their treating therapist. Convenience factors associated with the video conferencing format, such as evening sessions and remote access to treatment in one's own home, may compensate for the absence of in vivo interaction for some patients.

Telehealth treatment of adults with PTSD may suit those who have difficulty accessing services in person due to health concerns, finances, location, or stigma.

Rationale

The Guideline Development Group considered the evidence showing benefits of TF-CBT delivered in person as compared to via telehealth with the findings suggesting little or no difference in outcomes. The Guideline Development Group agreed to make a conditional recommendation despite low overall certainty of the evidence. The group noted the access advantages of telehealth especially for those in remote areas, while acknowledging there is variability in patient preferences for this method of treatment delivery. More research is needed to understand the factors affecting patient preferences on method of treatment delivery.

Virtual Reality Therapy

RESEARCH RECOMMENDATION

For adults with PTSD we recommend offering TF-CBT, CPT, or EMDR in preference to Virtual Reality Therapy .

There is emerging evidence for Virtual Reality Therapy and this could be used in a research context.

Virtual Reality therapies, such as virtual reality exposure (VRE[441]) and VR-graded exposure therapy (VR-GET[423]) are exposure therapies which integrate real-time computer graphics with other sensory input devices to immerse a participant in a virtual environment and facilitate the processing of memories associated with the traumatic event. Typically up to 12 graded sessions of virtual reality are administered, with the first session(s) focusing on psychoeducation and anxiety management techniques.

Evidence to decision

Benefits and harms

Evidence from three RCTs *[394][423][441]* suggest small clinically unimportant benefit of virtual reality therapy on PTSD symptoms in active military soldiers relative to waitlist.

Evidence from 2 RCTs *[441][424]* found no difference between virtual reality therapy and control exposure.

Evidence from a single RCT *[440]* found moderate clinically important benefit of virtual reality therapy relative to present centered therapy (PCT) in veterans.

Certainty of the evidence

Overall certainty of evidence for Virtual Reality Therapy was LOW.

Certainty of evidence for Virtual Reality Therapy vs waitlist/treatment as usual was LOW due to serious risk of bias, and serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Virtual Reality Therapy vs Control exposure was VERY LOW due to serious inconsistency, and very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Certainty of evidence for Virtual Reality Therapy vs Present centred therapy was LOW due to very serious imprecision.

The evidence analyses and risk of bias assessments for this intervention can be found here

Rationale

The Guideline Development Group considered the evidence showing small but clinically unimportant benefit of Virtual Reality Therapy on PTSD symptom severity relative to waitlist, but no difference with control exposure and a moderate benefit compared to PCT. The group noted that certainty of the evidence was low to very low and limited to RCTs in active and veteran military populations and they agreed that the extent to which the results can be generalised to all adults with PTSD is unknown. The group agreed that there is not yet enough evidence to recommend offering Virtual Reality Therapy but they considered that it was a promising intervention and recommended further research in broader population and trauma types to add strength to the evidence base.

Behavioural Activation and Therapeutic Exposure telehealth (videoconferencing)

For adults with PTSD, there was insufficient evidence to make a recommendation on Behavioural Activation and Therapeutic Exposure delivered via telehealth (videoconferencing).

Behavioural Activation and Therapeutic Exposure comprises of psychoeducation, behaviour activation, in vivo exposure, and imaginal exposure.

Group non-trauma-focussed CBT telehealth (videoconferencing)

For adults with PTSD, there was insufficient evidence to make a recommendation on Group non-TF-CBT delivered via telehealth (videoconferencing).

The non-trauma-focussed CBT interventions included in the systematic review included Social and Emotional Rehabilitation and the cognitive only version of Cognitive processing therapy.

Self-directed internet-based trauma-focussed CBT

For adults with PTSD and comorbid Substance Use Disorder, there was insufficient evidence to make a recommendation on self-directed internet-based TF-CBT.

This internet-based self-directed intervention for comorbid PTSD and Substance Use disorder contained 24 modules. These program incorporated cognitive techniques, including identifying and challenging negative automatic thoughts and doing a functional analysis of problematic alcohol or other drug use.

Seeking Safety (peer-led)

For adults with comorbid PTSD and Alcohol Use Disorder there was insufficient evidence to make a recommendation on Seeking Safety delivered by peers.

Seeking safety is an integrated non-trauma-focused, present-focused intervention for PTSD and substance use disorder. It consists of 24 modules teaching cognitive behavioural and interpersonal techniques, as well as case management.

Non-psychological intervention for adults with clinically relevant PTSD symptoms

"For adults with PTSD, do non-psychological interventions delivered via telehealth, the internet or virtual reality compared to intervention as usual, waiting list or no intervention, result in clinically important reduction/prevention of symptoms?"

"For adults with PTSD, do non-psychological interventions delivered via telehealth, the internet or virtual reality, when compared to the standard delivery mode, other non-psychological or psychological interventions, result in clinically important reduction/prevention of symptoms?"

Telephone based mindfulness-based stress reduction

For adults with PTSD, there was insufficient evidence to make a recommendation on telephone based mindfulness-based stress reduction

Therapeutic applications of mindfulness are commonly called mindfulness-based interventions (MBIs). The first MBI, Mindfulness-Based Stress Reduction (MBSR), was developed in 1979 by Professor Jon Kabat-Zinn from the University of Massachusetts Medical Centre. The original intent of MBSR was to help outpatients attending a stress reduction clinic to relieve the suffering associated with stress, pain, and illness. Since then, other programs based on the foundational and structural approach of MBSR have been developed.[589]

MBSR is a program that uses a variety of techniques to cultivate the state of mindfulness (i.e., nonjudgmental present-moment awareness; Kabat–Zinn, 1994). Mindfulness training delivered via telehealth (2 sessions in person and 6 by telephone) showed a positive effect for veterans when compared with psychoeducation.[594] This brief treatment was based on MBSR principles but was delivered in individual sessions and did not include the full program.

Development of the Guidelines

The development of the Guidelines is described in the Plain Language Statement, Executive Summary, and Chapter 1 - Introduction.

Detailed methodology is presented in Chapter 1 - Introduction, in Chapter 5, and below.

Methodology

Approach to the original systematic review

The evidence review that informed these Guidelines comprised the following:

1. Existing systematic reviews of the evidence conducted by the International Society for Traumatic Stress Studies (ISTSS) for their 2018 PTSD Prevention and Treatment Guidelines (research published up to 10 October 2018)
2. An update of the ISTSS systematic reviews to identify and incorporate new trials published subsequent to the last search (conducted by Phoenix Australia; research published up to 6 June 2019)
3. A systematic review of evidence addressing an additional question on pre-incident preparedness (conducted by Phoenix Australia; research published up to 6 June 2019)
4. Preparation of GRADE evidence profiles, in which a summary of findings from the body of evidence for each clinical question and an assessment of the certainty of evidence for each critical outcome was presented.

The methodology for these evidence reviews is outlined in Figure 1, Chapter 1.and described in more detail below. For completeness, the description of the systematic review methods as reported in the ISTSS guidelines is included as Appendix 1 (below). and Appendix 3 (also below) sets out the detailed search strategies used.

Approach to the 2021 update

A search was conducted in CENTRAL (Cochrane), Medline, psycINFO and PILOTS databases to identify trials published between June 2019 and 31 December 2020.

For the treatment modalities research question asearch was conducted in Medline and Cochrane databases to identify systematic reviews that addressed the research question

Formulating clinical questions and determining outcomes

The Guideline Development Group (GDG) formed for the current guideline, discussed and agreed to use the clinical questions from the recently completed ISTSS evidence review. In reviewing the questions, the GDG identified pre-incident preparedness as a priority question that had not been included in the ISTSS evidence review and agreed that this should be addressed in the Australian guidelines. The GDG also considered whether to specify questions for a systematic review of evidence on treatments for Complex PTSD (CPTSD) for adults, and children and adolescents. However, the GDG decided against this because there is currently no direct evidence about the treatment of people with CPTSD. Instead a chapter (Chapter 7) is included on considerations for the care of people with CPTSD, current issues and future research. The chapter is informed by research, but not based on a systematic review.

Across all questions, two outcomes (PTSD symptom severity and diagnosis) were prioritised as being critical for making recommendations about prevention and treatment of PTSD in the ISTSS guideline. The Guideline Development Group (GDG) for the current guideline agreed that these outcomes were critical for decision making and of importance to the expected end users of the guideline.

In line with recommendations in the Guideline, evidence was reviewed separately for adults, and for children and adolescents for each of the following:

- pre-incident preparedness
- intervention within the first 3 months of a traumatic event
- treatment for those with clinically relevant post-traumatic stress symptoms
- Treatment for individuals with comorbid PTSD and other disorders
- Treatment delivered utilising alternative modalities to face-to-face treatment

Psychosocial, pharmacological and non-psychosocial and non-pharmacological interventions were considered.

Criteria for selecting studies

For each clinical question, criteria for selecting studies ('eligibility criteria') were specified using the Population, Interventions, Comparators, and Outcomes (PICO) framework. The final list of 25 questions is presented in Table 1 below and a summary of PICO criteria are provided in Table 2.

For the 2021 update, one criterion (duration of PTSD symptoms required to be three months or more) was removed as it was considered by the Guideline Development Group to be overly restrictive. New studies were identified under the category of non-psychological, non-pharmacological interventions for adults within the first three months of exposure to a traumatic event. An additional question was added on treatment delivery modalities.

Table 1: Clinical Questions

Pre-incident preparedness
Q 1: For **children and adolescents** exposed to trauma do pre-incident preparedness interventions improve outcomes compared to no pre-incident preparedness interventions?
Q 2: For **adults** exposed to trauma, do pre-incident preparedness interventions improve outcomes compared to no pre-incident preparedness interventions?
For children and adolescents within the first three months of a traumatic event:
Q 3: do psychosocial interventions, when compared to intervention as usual, waiting list, no intervention, or other treatment, result in a clinically important improvement of outcomes?
Q 4: do psychosocial interventions, when compared to other psychosocial interventions, result in a clinically important improvement of outcomes?
Q 5: do pharmacological interventions, when compared to placebo, or other pharmacological or psychosocial interventions, result in a clinically important improvement of outcomes?
Q 6: do pharmacological interventions, when compared to other pharmacological or psychosocial interventions, result in a clinically important improvement of outcomes?
For children and adolescents with PTSD:
Q 7: do psychological treatments, when compared to treatment as usual, waiting list, or no treatment, result in a clinically important improvement of outcomes?
Q 8: do psychological treatments, when compared to other psychological treatments, result in a clinically important improvement of outcomes?
Q 9: do pharmacological treatments, when compared to placebo or other treatments, result in a clinically important improvement of outcomes?
Q 10: do pharmacological treatments, when compared to other pharmacological or psychosocial interventions, result in a clinically important improvement of outcomes?
Q 11: do non-psychological and non-pharmacological treatments/interventions, when compared to treatment as usual, waiting list, no treatment, or other treatment, result in a clinically important improvement of outcomes?
Q 12: do non-psychological and non-pharmacological treatments/interventions, when compared to other treatments, result in a clinically important improvement of outcomes?
For adults within the first three months of a traumatic event:
Q 13: do psychosocial interventions, when compared to intervention as usual, waiting list, or no intervention, result in a clinically important improvement of outcomes?
Q 14: do psychosocial interventions, when compared to other psychosocial interventions, result in a clinically important improvement of outcomes?
Q 15: do pharmacological interventions, when compared to placebo or other pharmacological or psychosocial interventions, result in a clinically important improvement of outcomes?
Q 16: do pharmacological interventions when compared to placebo or other pharmacological or psychosocial interventions result in a clinically important improvement of outcomes?

Q 17: do non-psychological, non-pharmacological interventions when compared to treatment as usual, waiting list, or no treatment result in a clinically significant reduction/prevention of symptoms, or presence of disorder?

Q 18:do non-psychological, non-pharmacological interventions when compared to other treatments, result in a clinically significant reduction/prevention of symptoms, or presence of disorder?

For adults with PTSD:
Q 19: do psychological treatments, when compared to treatment as usual, waiting list, or no treatment, result in a clinically important improvement of outcomes?
Q20: do psychological treatments, when compared to other psychological treatments, result in a clinically important improvement of outcomes?
Q 21: do pharmacological treatments, when compared to placebo, result in a clinically important improvement of outcomes?
Q 22: do pharmacological treatments, when compared to other pharmacological or psychosocial interventions, result in a clinically important improvement of outcomes?
Q 23: do non-psychological and non-pharmacological treatments/interventions, when compared to treatment as usual, waiting list or no treatment, result in a clinically important improvement of outcomes?
Q 24: do non-psychological and non-pharmacological treatments/interventions, when compared to other treatments, result in a clinically important improvement of outcomes?

Q 25: which service delivery models are effective in preventing PTSD or reducing PTSD symptom severity in adults, children and adolescents within the first three months of exposure to a traumatic event or with clinically important post-traumatic stress symptoms?

Studies were screened on title and abstract by two independent reviewers against the eligibility criteria, which were consistent with the inclusion criteria used in the ISTSS Guidelines, to determine eligibility for a full-text assessment. Studies meeting the eligibility criteria or for which eligibility criteria remained unclear were included in full text screening. Screening at the title and abstract level was performed independently by both reviewers. Any disagreements were resolved by discussion. Full-text assessment was also performed independently by both reviewers. Disagreement were resolved by discussion.

Table 2: PICO Eligibility Criteria

	Pre-incident preparedness	Early intervention	Treatment
Types of studies	Any randomised controlled trial (including cluster and cross-over trials)	Any randomised controlled trial (including cluster and cross-over trials) • not solely a dismantling study • no minimum sample size • unpublished studies were eligible Exclusions: • editorials, letters to the editor, reviews, dissertations, and protocol papers	
Types of participants	Adults or children/adolescents exposed to a traumatic event as specified by PTSD diagnostic criteria for DSM-III, DSM-III-R, DSM-IV, DSM-5, ICD-9, ICD-10 or ICD-11.		Adults: • At least 70% of participants required to be diagnosed with PTSD according to DSM or ICD criteria by means of a structured interview or diagnosis by a clinician Children and adolescents: • At least 70% diagnosed with partial or full DSM or ICD PTSD by means of a structured interview or diagnosis by a clinician • Partial PTSD is defined as at least one symptom per cluster and presence of impairment PTSD diagnosis

			• No restrictions on the basis of comorbidity, but PTSD required to be the primary diagnosis. • No restriction on the basis of severity of PTSD symptoms or the type of traumatic event.
Types of interventions	Pre-incident preparedness interventions delivered before trauma exposure, aimed at preventing symptoms of PTSD	Any intervention aimed at preventing, treating or reducing symptoms of PTSD which • was not provided pre-trauma, and • began no later than 3 months after the traumatic event. Eligible interventions included: • psychosocial prevention (e.g. psychological debriefing, psychoeducation) • psychosocial treatment (e.g. brief trauma-focussed CBT) • pharmacological treatment	Any psychological interventions aimed at reducing symptoms of PTSD • Delivered by any mode, including to individuals, groups or couples Eligible interventions included • psychosocial (e.g. cognitive processing therapy) • pharmacological treatments • non-psychosocial and non-pharmacological treatments (e.g. mindfulness-based stress reduction)
Types of comparators	Other pre-incident preparedness interventions or no pre-incident preparedness intervention	For psychosocial interventions: • waitlist, treatment as usual, symptom monitoring, repeated assessment, other minimal attention control group • alternative psychological treatment. For pharmacological interventions: • placebo, • other pharmacological intervention • psychosocial intervention.	
Types of outcomes	Critical: ASD or PTSD symptom change Important: ASD or PTSD diagnosis Excluded: does not report data on PTSD symptoms or PTSD diagnosis		

	Pre-incident preparedness	**Early intervention**	**Treatment**
Types of studies	Any randomised controlled trial (including cluster and cross-over trials)	Any randomised controlled trial (including cluster and cross-over trials) • not solely a dismantling study • no minimum sample size • unpublished studies were eligible Exclusions: • editorials, letters to the editor, reviews, dissertations, and protocol papers	
Types of participants	Adults or children/adolescents exposed to a traumatic event as specified by PTSD diagnostic criteria for DSM-III, DSM-III-R, DSM-IV, DSM-5, ICD-9, ICD-10 or ICD-11.		Adults: • At least 70% of participants required to be diagnosed with PTSD according to DSM or ICD criteria by means of a structured interview or diagnosis by a clinician Children and adolescents: • At least 70% diagnosed with partial or full DSM or

			ICD PTSD by means of a structured interview or diagnosis by a clinician • Partial PTSD is defined as at least one symptom per cluster and presence of impairment PTSD diagnosis • Duration of PTSD symptoms required to be three months or more • No restrictions on the basis of comorbidity, but PTSD required to be the primary diagnosis. • No restriction on the basis of severity of PTSD symptoms or the type of traumatic event.
Types of interventions	Pre-incident preparedness interventions delivered before trauma exposure, aimed at preventing symptoms of PTSD	Any intervention aimed at preventing, treating or reducing symptoms of PTSD which • was not provided pre-trauma, and • began no later than 3 months after the traumatic event. Eligible interventions included: • psychosocial prevention (e.g. psychological debriefing, psychoeducation) • psychosocial treatment (e.g. brief trauma-focussed CBT) • pharmacological treatment	Any psychological interventions aimed at reducing symptoms of PTSD • Delivered by any mode, including to individuals, groups or couples Eligible interventions included • psychosocial (e.g. cognitive processing therapy) • pharmacological treatments • non-psychosocial and non-pharmacological treatments (e.g. mindfulness-based stress reduction)
Types of comparators	Other pre-incident preparedness interventions or no pre-incident preparedness intervention	For psychosocial interventions: • waitlist, treatment as usual, symptom monitoring, repeated assessment, other minimal attention control group • alternative psychological treatment. For pharmacological interventions: • placebo, • other pharmacological intervention • psychosocial intervention.	
Types of outcomes	Critical: ASD or PTSD symptom change Important: ASD or PTSD diagnosis Excluded: does not report data on PTSD symptoms or PTSD diagnosis		

Across all questions, the following additional eligibility criteria were used:

- Date of publication- All studies included in these Guidelines were published within the dates of the search, i.e. **January 2008 to 31 December 2020**
- Language- All included studies were published in English

Treatment delivery modalities selection criteria

Table3: Treatment modalities search selection criteria

	Include	Exclude
Study type	Any systematic review or RCT (including cluster and cross-over trials)	Dismantling studies, editorials, letters to the editor, dissertations, protocol papers
Intervention/exposure	Psychological interventions delivered via telehealth, web-based/online platforms, digital technologies, apps, VR	
Comparator	Standard delivery of same intervention, Face-to-face delivery of same intervention, alternative delivery mode of same intervention	Any intervention that is not standard delivery (i.e., Wait-list, treatment as usual), or other psychological, pharmacological, or alternative intervention
Condition/s	PTSD symptom severity, PTSD diagnosis	
Publication date	No time limits	
Population	**Early Intervention:** Adults, children/adolescents exposed to a traumatic event as specified by PTSD diagnostic criteria for DSM-III, DSM-III-R, DSM-IV, DSM-5, ICD-9, ICD-10 or ICD-11 **Treatment:** Adults: At least 70% of participants required to be diagnosed with PTSD according to DSM or ICD criteria by means of a structured interview or diagnosis by a clinician Children and adolescents: At least 70% diagnosed with partial or full DSM or ICD PTSD by means of a structured interview or diagnosis by a clinician Partial PTSD is defined as at least one symptom per cluster and presence of impairment	
Language	English	

Search methods

Literature sources

For the ISTSS systematic reviews, systematic reviews developed through the Cochrane Collaboration, the UK National Institute for Health and Care Excellence (NICE) and the World Health Organisation (WHO) were identified. RCTs from these reviews were used as the initial set of studies and re-evaluated by the ISTSS review team. Searches were conducted by the ISTSS team to update the identified systematic reviews, in addition to asking experts in the field to identify missing studies. The ISTSS searches were then updated by Phoenix Australia for the period of October 2018 to 6 June 2019. A subsequent update was conducted for the period of June 2019 to 31 December 2020.In addition, searching was conducted for the two new scoping questions between the period of 2008 and 6 June 2019. These searches were conducted in the CENTRAL (Cochrane), Medline, PSYCInfo, and PILOTS databases and were also updated to 31 December 2020 in the 2020 update. Systematic reviews that addressed the additional question on treatment modalities were identified through a search of the Medline and Cochrane databases to June 2021. Individual trials identified in the reviews were subject to a full text screen by two reviewers to identify eligible trials. These trials were added to those identified in the 2020 update search

Search strategy

The ISTSS systematic reviews, the updates to these reviews, and the searches for the two new questions involved the same search strategy. The search terms 'PTSD', 'posttrauma*', 'post-trauma*', 'post trauma*', 'combat disorder*', 'stress disorder*' were used to be as broad as possible and ensure that all relevant RCTs were captured.

For the treatment delivery modalities question the following criteria were used:

1. (PTSD or posttrauma* or post-trauma* or "post trauma*" or "combat disorder*" or "stress disorder*").ab,kw,ti.
2. (modality or telehealth or telemed* or telepsych* or teletherap* or "tele*communication*" or "office*based" or "home*based" or digital or "web*based" or "internet" or computer* or "e*therpa*" or "video*conferenc*" or virtual or "technology*based" or "video*sharing technology" or "app" or telephone or "cell phone" or mobile or "mobile phone" or "smart phone" or "mobile*health").ab,kw,ti.
3. ("systematic review" or "meta*analysis").ab,kw,ti.
4. 1 and 2 and 3

Data extraction and analysis

Evidence tables were used to guide the extraction of data from the individual studies and summarise results. Two researchers independently extracted data from included studies.

Studies that fulfilled the inclusion criteria were further scrutinised to determine if data were available to use in the meta-analyses. If sufficient data were not available, requests were made to authors for data that could be used. All available data addressing specific scoping questions were meta-analyzed using Revman (Version 5.3) software (The Nordic Cochrane Centre, 2014)[1] using a fixed-effects model where statistical heterogeneity, as indicated by I^2, was less than 30%), where heterogeneity was > 30% or higher, a random-effects model was used.

Appraisal of individual studies: risk of bias assessment

Individual studies were summarised and appraised independently by two people using version one of the Cochrane Collaboration's risk of bias tool [2] Inter-rater reliability was calculated and disagreements were resolved by discussion. Assessment involved judging whether there was a low, uncertain or high risk of bias for each of the following domains: Random sequence generation (selection bias); Allocation concealment (selection bias); Blinding of participants and personnel (performance bias); Blinding of outcome assessment (detection bias); Incomplete outcome data (attrition bias); Selective reporting (reporting bias); and Other bias.

Assessment of the certainty of the body of evidence

The Grading of Recommendations, Assessment, Development and Evaluations (GRADE) system was used to assess the certainty of the evidence base.[3] The GRADE rating provides an indication of confidence in the estimates of the effect of an intervention.[4] Evidence from RCTs starts at high certainty and may be downgraded for serious or very serious concerns relating to each of the following domains.

1. **Risk of bias**: based on the overall risk of bias (methodological limitations) of the trials contributing to each result. For the purpose of grading the evidence, an overall judgement of risk of bias was first made across studies for each risk bias domain, and then across domains. This judgment considered the extent to which studies at high or unclear risk of bias influenced the meta-analysis (i.e. weight).
2. **Indirectness**: the extent to which the PICO characteristics of the body of evidence adequately address the clinical questions (PICO) for the guideline.
3. **Imprecision**: whether the confidence interval includes both appreciable benefit and harm (or vice versa) and whether the optimal information size was met (based on a rule of thumb of >400 participants for continuous outcomes; > 300 events for binary). Judgments of appreciable benefit (or harm) were based on the thresholds below.
4. **Inconsistency**: the extent to which there is unexplained inconsistency in results across studies. Judgements were based on visual inspection of data (overlap in confidence intervals, the direction and magnitude of effect) and statistical measures and tests of heterogeneity.
5. **Publication bias**. The likelihood of small study effect or other evidence of publication bias.

A body of evidence is rated as being of high quality (i.e., further research is very unlikely to change our confidence in the estimate of effect), moderate quality (i.e. further research is likely to have an important impact on our confidence in the estimate effect and may change the estimate), low quality (i.e. further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate) or very low quality (i.e. we are very uncertain about the estimate).

The following thresholds were used for judging the clinical importance of effects on symptom severity (reported as standardised mean difference) and for judging imprecision:

- for interventions delivered 3 or more months post trauma, >0.8 for waitlist comparisons, >0.5 for treatment attention control comparisons, >0.4 for placebo control comparisons and >0.2 for active treatment control comparisons for continuous outcomes and <0.65 for binary outcomes
- for interventions delivered within 3 months, >0.5 for treatment comparisons and >0.2 for prevention comparisons for continuous outcomes and <0.8 for binary outcomes
- for the pre-incident preparedness, 0.2 for any control comparison

Evidence profiles reporting relative and absolute effects, the GRADE of evidence for each outcome, and the rationale for GRADE judgements were prepared in MAGICApp.

Development of recommendations

The GRADE Evidence to Decision (EtD) framework was used by the Guideline Development Group (GDG) to develop recommendations. The framework, as implemented in MAGICApp, prompts guideline developers to consider the following criteria for each intervention option.

The **balance of benefits and harms**. The GDG considered whether the balance between desirable and undesirable effects favoured the intervention, and whether the effects were clinically important.

The **certainty of evidence**. The GDG judged the overall certainty of evidence across the critical outcomes. In general, strong recommendations were underpinned by high or moderate certainty evidence.

Patients' values and preferences. The GDG considered whether all patients would feel that the desirable effects of the intervention outweighed the harms. Input from the consumer representatives on the GDG informed discussion during the GDG meeting and the summary of values and preferences presented in MAGICApp.

Resources, equity, acceptability and feasibility. The GDG considered each of these factors in relation to the implementation of each intervention. Funding and access to services were key considerations. Implications for special populations are considered in Chapter 9.

Recommendations for or against each intervention were made by the GDG after considering each of these criteria. The strength of each recommendation (strong or conditional) was determined and worded in accordance with GRADE guidelines. Decisions were made through consensus and key considerations are presented in MAGICApp.

Limitations of the review

This systematic review of the treatments for ASD and PTSD is limited by the following factors. The review:

- does not cover questions pertaining to an assessment of some additional multi-component treatments versus other multi-component treatments or versus placebo/waitlist for the populations under review
- does not assess levels of evidence lower than randomised controlled trials
- does not provide a comprehensive review of potential safety issues (i.e., studies too small to detect many adverse events, particularly rare adverse events) – this is of particular relevance to the section on pharmacological treatments

These Guidelines were based in part on the ISTSS Guidelines, which have their own limitations. In updating these Guidelines, some of these limitations must be acknowledged, despite the use of a near-identical methodology.

- Some studies that potentially met the inclusion criteria may have been missed.
- Effect sizes were calculated on the difference in post-treatment scores between the groups, the assumption being that randomisation negated any potential baseline differences between the groups. This assumption may be valid for large trials but is not necessarily correct for small trials.

Appendix 1: Methodology used for the ISTSS Guidelines

The following information has been extracted from the ISTSS Guidelines methodology and development process paper.[5]

Methodology overview

The ISTSS Guidelines recommendations were developed through a rigorous process that was overseen by the ISTSS Guidelines Committee. Scoping questions were developed and systematic reviews were undertaken to identify relevant RCTs. Meta-analyses were then conducted with usable data from included studies, and the results were used to generate recommendations for prevention and treatment interventions.

Given the limited resources available, it was not possible to commission new comprehensive systematic reviews in every area. It was, however, possible to develop a robust and replicable process that systematically gathered and considered the RCT evidence currently available for any intervention in a standardised manner. A process adapted from approaches taken by the Australian Centre for Posttraumatic Mental Health[6] (now Phoenix Australia–Centre for Posttraumatic Mental Health), the Cochrane Collaboration,[2] the United Kingdom's National Institute for Health and Care Excellence (NICE),[7] and the World Health Organization (WHO)[8] was used.

General scoping questions were agreed on by the Committee in a PICO (population, intervention, comparator, outcomes) format (e.g., "For adults with PTSD, do psychological treatments, when compared to treatment as usual, waiting list, or no treatment, result in a clinically important improvement of outcomes?") for the prevention and treatment of PTSD in children, adolescents, and adults. Prior to finalisation, the committee sought and integrated feedback from the ISTSS membership around these scoping questions.

High-quality systematic reviews developed through the Cochrane Collaboration, NICE, and the WHO were identified that addressed the

scoping questions except those pertaining to non-psychological and non-pharmacological interventions. RCTs from these reviews were used as the basis of the evidence to be considered and re-evaluated according to the criteria agreed for the ISTSS Treatment Guidelines. Existing reviews (Bisson, Andrew, Roberts, Cooper, & Lewis, 2013;[9] Hoskins et al., 2015;[10] Lewis, Roberts, Bethell, & Bisson, 2015;[11] NICE, 2018b;[12] Roberts, Kitchiner, Kenardy, & Bisson, 2009;[13] Rose, Bisson, Churchill, Wessely, 2005;[14] Sijbrandij, Kleiboer, Bisson, Barbui, & Cuijpers, 2015[15]) were supplemented with additional systematic searches for more recent RCTs and by asking experts in the field and the ISTSS membership to determine if there were any missing studies. New systematic reviews were undertaken for the non-psychological and non-pharmacological scoping questions. The Cochrane Collaboration Mental Health Disorders Group completed additional searches, using their comprehensive search strategies to identify RCTs of any intervention designed to prevent or treat PTSD.
The evidence for each of the scoping questions was summarised and its certainty assessed by two researchers using the Cochrane Collaboration's risk of bias rating tool[1] (to assess for potential methodological concerns within identified studies) and the GRADE[2] system (i.e., the level of confidence that the estimate of the effect of an intervention is correct).

Systematic reviews and meta-analyses

New systematic searches were undertaken by the Cochrane Collaboration for the period 1 January 2008 to 31 March 2018, using their comprehensive search strategies, to identify RCTs of any intervention designed to prevent or treat PTSD. Additional RCTs were identified through consultation with experts in the field, including the ISTSS Board and the entire ISTSS membership.
The new searches identified 5,500 potential new studies. These and the studies included in existing systematic reviews were assessed against the inclusion criteria agreed upon for the ISTSS Guidelines prior to the additional searches being undertaken. The inclusion criteria were designed to focus on reduction in symptoms of PTSD as the primary outcome and differed slightly for early intervention and treatment studies (i.e., as opposed to early interventions studies, treatment studies required a defined severity of PTSD symptoms to be included).
The inclusion criteria for early intervention studies were:

- Any randomised controlled trial (including cluster and cross-over trials) evaluating the efficacy of interventions aimed at preventing, treating or reducing symptoms of PTSD.
- Study participants have been exposed to a traumatic event as specified by PTSD diagnostic criteria for DSM-III, DSM-III-R, DSM-IV, DSM-5, ICD-9, ICD-10 or ICD-11.
- Intervention is not provided pre-trauma.
- Intervention begins no later than three months after the traumatic event.
- Eligible comparator interventions for psychosocial interventions: waitlist, treatment as usual, symptom monitoring, repeated assessment, other minimal attention control group, or an alternative psychological treatment.
- Eligible comparator interventions for pharmacological interventions: placebo, other pharmacological or psychosocial intervention.
- The RCT is not solely a dismantling study.
- Study outcomes include a standardised measure of PTSD symptoms (either clinician-administered or self-report).
- No restriction on the basis of severity of PTSD symptoms or the type of traumatic event.
- Individual, group and couple interventions.
- No minimum sample size.
- Only studies published in English.
- Unpublished studies eligible.

The inclusion criteria for treatment studies were:

- Any randomised controlled trial (including cluster and cross-over trials) evaluating the efficacy of psychological interventions aimed at reducing symptoms of PTSD.
- For adults, at least 70% of participants required to be diagnosed with PTSD according to DSM or ICD criteria by means of a structured interview or diagnosis by a clinician.
- For children and adolescents, at least 70% diagnosed with partial or full DSM or ICD
- PTSD by means of a structured interview or diagnosis by a clinician (partial PTSD is defined as at least one symptom per cluster and presence of impairment), or score above a standard cut-off of a validated self-report measure.
- No restrictions on the basis of comorbidity, but PTSD required to be the primary diagnosis.
- Eligible comparator interventions for psychosocial interventions: waitlist, treatment as usual, symptom monitoring, repeated assessment, other minimal attention control group, or an alternative psychological treatment.
- Eligible comparator interventions for pharmacological interventions: placebo or other pharmacological or psychosocial intervention.
- The RCT is not solely a dismantling study.
- Duration of PTSD symptoms required to be three months or more.
- No restriction on the basis of severity of PTSD symptoms or the type of traumatic event.
- Individual, group, and couple interventions.
- No minimum sample size.

- Only studies published in English.
- Unpublished studies eligible.

A total of 361 RCTs fulfilled the criteria for inclusion in the meta-analyses undertaken.
Two researchers independently extracted data from included studies. Studies that fulfilled the inclusion criteria were further scrutinised to determine if data were available to use in the meta-analyses, and to assess risk of bias according to the Cochrane Collaboration criteria. If sufficient data were not available, requests were made to authors for data that could be used. A total of 327 (91%) of the included RCTs provided data that were included in the meta-analyses.
The final meta-analyses and reference lists of all eligible studies can be found on the ISTSS website.

Appendix 2: PICOs and selection criteria

Pre-incident preparedness

PICO 1:
For children and adolescents exposed to trauma, do pre-incident preparedness interventions improve outcomes compared to no pre-incident preparedness interventions?
Selection criteria

Population	Children and adolescents exposed to trauma, including the subgroup with ASD
Intervention	Pre-incident preparedness intervention
Comparator	No pre-incident preparedness intervention
	Other pre-incident preparedness intervention
Primary outcome	Symptoms of ASD or PTSD
Secondary outcome	PTSD diagnosis

PICO 2:
For adults exposed to trauma, do pre-incident preparedness interventions improve outcomes compared to no pre-incident preparedness interventions?
Selection criteria

Population	Adults exposed to trauma, including the subgroup with ASD
Intervention	Pre-incident preparedness intervention
Comparator	No pre-incident preparedness intervention
	Other pre-incident preparedness intervention
Primary outcome	Symptoms of ASD or PTSD
Secondary outcome	PTSD diagnosis

For CHILDREN AND ADOLESCENTS

Early psychosocial interventions

PICO 3:
For children and adolescents within the first three months of a traumatic event, do psychosocial interventions, when compared to intervention as usual, waiting list, no intervention, or other treatment, result in a clinically important improvement of outcomes?
Selection criteria

Population	Children and adolescents within the first three months post traumatic event
Intervention	Psychosocial interventions
Comparator	Intervention as usual
	Waiting list or no intervention
Other treatment	
Primary outcome	ASD or PTSD symptom change
Secondary outcome	ASD or PTSD diagnosis

PICO 4:
For children and adolescents within the first three months of a traumatic event, do psychosocial interventions, when compared to other psychosocial interventions, result in a clinically important improvement of outcomes?
Selection criteria

Population	Children and adolescents within the first three months post traumatic event
Intervention	Psychosocial interventions
Comparator	Other psychosocial interventions

Primary outcome	ASD or PTSD symptom change
Secondary outcome	ASD or PTSD diagnosis

Early pharmacological interventions

PICO 5:

For children and adolescents within the first three months of a traumatic event, do pharmacological interventions, when compared to placebo, or other pharmacological or psychosocial interventions, result in a clinically important improvement of outcomes?

Selection criteria

Population	Children and adolescents within the first three months post traumatic event
Intervention	Pharmacological interventions
Comparator	Placebo Other pharmacological or psychosocial interventions
Primary outcome	ASD or PTSD symptom change
Secondary outcome	ASD or PTSD diagnosis

PICO 6:

For children and adolescents within the first three months of a traumatic event, do pharmacological interventions, when compared to other pharmacological or psychosocial interventions, result in a clinically important improvement of outcomes?

Selection criteria

Population	Children and adolescents within the first three months post traumatic event
Intervention	Pharmacological intervention
Comparator	Other pharmacological or psychosocial interventions
Primary outcome	ASD or PTSD symptom change

Psychological treatment for PTSD

PICO 7:

For children and adolescents with clinically relevant posttraumatic stress symptoms, do psychological treatments, when compared to treatment as usual, waiting list, or no treatment, result in a clinically important improvement of outcomes?

Selection criteria

Population	Children and adolescents with clinically relevant posttraumatic stress symptoms
Intervention	Psychological treatment
Comparator	Treatment as usual Wait list or no treatment
Primary outcome	PTSD symptom change

PICO 8:

For children and adolescents with clinically relevant posttraumatic stress symptoms, do psychological treatments, when compared to other psychological treatments, result in a clinically important improvement of outcomes?

Selection criteria

Population	Children and adolescents with clinically relevant posttraumatic stress symptoms
Intervention	Psychological treatments
Comparator	Other psychological treatments
Primary outcome	PTSD symptom change

Pharmacological treatments for PTSD

PICO 9:

For children and adolescents with clinically relevant posttraumatic stress symptoms, do pharmacological treatments, when compared to placebo or other treatments, result in a clinically important improvement of outcomes?

Selection criteria

Population	Children and adolescents with clinically relevant posttraumatic stress symptoms
Intervention	Pharmacological treatment
Comparator	Placebo Other treatment
Primary outcome	PTSD symptom change

PICO 10:

For children and adolescents with clinically relevant posttraumatic stress symptoms, do pharmacological treatments, when compared to other pharmacological or psychosocial interventions, result in a clinically important improvement of outcomes?

Selection criteria

Population	Children and adolescents with clinically relevant posttraumatic stress symptoms
Intervention	Pharmacological treatment
Comparator	Other pharmacological or psychosocial interventions
Primary outcome	PTSD symptom change

Non-psychological and non-pharmacological treatments/interventions:

PICO 11:
For children and adolescents with clinically relevant posttraumatic stress symptoms, do non-psychological and non-pharmacological treatments/interventions, when compared to treatment as usual, waiting list, no treatment, or other treatment, result in a clinically important improvement of outcomes?

Selection criteria

Population	Children and adolescents with clinically relevant posttraumatic stress symptoms
Intervention	Non-psychological and non-pharmacological treatments
Comparator	Treatment as usual Waiting list or no treatment Other treatment
Primary outcome	PTSD symptom change

PICO 12:
For children and adolescents with clinically relevant posttraumatic stress symptoms, do non-psychological and non-pharmacological treatments/interventions, when compared to other treatments, result in a clinically important improvement of outcomes?

Selection criteria

Population	Children and adolescents with clinically relevant posttraumatic stress symptoms
Intervention	Non-psychological and non-pharmacological treatments
Comparator	Other treatments
Primary outcome	PTSD symptom change

For ADULTS

Early psychosocial interventions

PICO 13:
For adults within the first three months of a traumatic event, do psychosocial interventions, when compared to intervention as usual, waiting list, or no intervention, result in a clinically important improvement of outcomes?

Selection criteria

Population	Adults within the first three months post traumatic event
Intervention	Psychosocial interventions
Comparator	Intervention as usual Waiting list or no intervention
Primary outcome	ASD or PTSD symptom change
Secondary outcome	ASD or PTSD diagnosis

PICO 14:
For adults within the first three months of a traumatic event, do psychosocial interventions, when compared to other psychosocial interventions, result in a clinically important improvement of outcomes?

Selection criteria

Population	Adults within the first three months post traumatic event
Intervention	Psychosocial interventions
Comparator	Other psychosocial interventions
Primary outcome	ASD or PTSD symptom change
Secondary outcome	ASD or PTSD diagnosis

Early pharmacological interventions

PICO 15:
For adults within the first three months of a traumatic event, do pharmacological interventions, when compared to placebo result in a clinically important improvement of outcomes?

Selection criteria

Population	Adults within the first three months post traumatic event
Intervention	Pharmacological intervention
Comparator	Placebo

Primary outcome	ASD or PTSD symptom change

PICO 16:
For adults within the first three months of a traumatic event, do pharmacological interventions when compared to other pharmacological or psychosocial interventions result in a clinically important improvement of outcomes?

Selection criteria

Population	Adults within the first three months post traumatic event
Intervention	Pharmacological intervention
Comparator	Other pharmacological or psychosocial interventions
Primary outcome	ASD or PTSD symptom change

Psychological treatment for PTSD

PICO 17:

For adults within the first three months of a traumatic event, do non-psychological, non-pharmacological interventions when compared to treatment as usual, waiting list, or no treatment result in a clinically significant reduction/prevention of symptoms, or presence of disorder?

Selection criteria

Population	Adults within the first three months post traumatic event
Intervention	Non-psychological and non-pharmacological treatments
Comparator	Treatment as usual, waiting list or no treatment
Primary outcome	ASD or PTSD symptom change

PICO 18:

For adults within the first three months of a traumatic event, do non-psychological, non-pharmacological interventions when compared to other treatments, result in a clinically significant reduction/prevention of symptoms, or presence of disorder?

Selection criteria

Population	Adults within the first three months post traumatic event
Intervention	Non-psychological and non-pharmacological treatments
Comparator	Other treatment
Primary outcome	ASD or PTSD symptom change

Psychological treatment for PTSD
PICO 19:
For adults with PTSD, do psychological treatments, when compared to treatment as usual, waiting list, or no treatment, result in a clinically important improvement of outcomes?

Selection criteria

Population	Adults with PTSD
Intervention	Psychological treatment
Comparator	Treatment as usual Wait list or no treatment
Primary outcome	PTSD symptom change

PICO 20:
For adults with PTSD, do psychological treatments, when compared to other psychological treatments, result in a clinically important improvement of outcomes?

Selection criteria

Population	Adults with PTSD
Intervention	Psychological treatments
Comparator	Other psychological treatments
Primary outcome	PTSD symptom change

Pharmacological treatments

PICO 21:
For adults with PTSD, do pharmacological treatments, when compared to placebo, result in a clinically important improvement of outcomes?

Selection criteria

Population	Adults with PTSD
Intervention	Pharmacological treatment

Comparator Placebo
Primary outcome PTSD symptom change

PICO 22:
For adults with PTSD, do pharmacological treatments, when compared to other pharmacological or psychosocial interventions, result in a clinically important improvement of outcomes?
Selection criteria
Population Adults with PTSD
Intervention Pharmacological treatment
Comparator Other pharmacological or psychosocial interventions
Primary outcome PTSD symptom change
Non-psychological and non-pharmacological treatments/interventions:

PICO 23:
For adults with PTSD, do non-psychological and non-pharmacological treatments/interventions, when compared to treatment as usual, waiting list or no treatment, result in a clinically important improvement of outcomes?
Selection criteria
Population Adults with PTSD
Intervention Non-psychological and non-pharmacological treatments
Comparator Treatment as usual
Waiting list or no treatment
Primary outcome PTSD symptom change

PICO 24:
For adults with PTSD, do non-psychological and non-pharmacological treatments/interventions, when compared to other treatments, result in a clinically important improvement of outcomes?
Selection criteria
Population Adults with PTSD
Intervention Non-psychological and non-pharmacological treatments
Comparator Other treatments
Primary outcome PTSD symptom change

PICO 25:
Which service delivery models are effective in preventing PTSD or reducing PTSD symptom severity in adults, children and adolescents within the first three months of exposure to a traumatic event or with clinically important post-traumatic stress symptoms?"

Selection criteria
Population Adults, children/adolescents exposed to a traumatic event, or with PTSD
Intervention Psychological interventions delivered via telehealth, web-based/online platforms, digital technologies, apps, VR
Comparator Standard delivery of same intervention, face-to-face delivery of same intervention, other delivery mode of same intervention
Primary outcome ASD or PTSD symptom change

Secondary outcome ASD or PTSD diagnosis

Appendix 3: Detailed search strategies

ISTSS Search one (6 May 2016)
CCMDCTR-Studies Register

#1	(PTSD or posttrauma* or post-trauma* or "post trauma*" or "combat disorder*" or "stress disorder*"):sco,stc
#2	(PTSD or posttrauma* or post-trauma* or "post trauma*" or "combat disorder*" or "stress disorder*"):ti,ab,kw,ky,emt,mh,mc

ISTSS Search two (3 March 2018)
The Cochrane Central Register of Controlled Trials (CENTRAL)

#1	MeSH descriptor: [Stress Disorders, Post-Traumatic] this term only
#2	(PTSD or ((posttrauma* or post-trauma* or post trauma*) near/3 (stress* or disorder* or psych* or symptom*)) or acute stress

	disorder* or combat disorder* or war neuros*)
#3	(((acute or traumatic) near/1 stress*) and (expos* or psyc*))
#4	(traumatised near/1 (victim* or survivor*))
#5	(traumatized near/1 (victim* or survivor*))
#6	(trauma* near/2 (event* or memor* or flashback* or nightmare*))
#7	((trauma* or posttrauma* or post-trauma* or victim* or survivor*) and (exposure near/3 (therap* or psychotherap* or training or counsel*)))
#8	MeSH descriptor: [Crisis Intervention] this term only
#9	(critical incident near/1 (stress or debrief* or de-brief*))
#10	(debriefing or de-briefing)
#11	(crisis intervention* or CISD)
#12	((stress or group* or psychological or crisis) near/3 (debrief* or de-brief*))
#13	(trauma* near/2 (event* or memor* or flashback* or nightmare*))
#14	(EMDR or (eye movement desensitization and reprocessing))
#15	(EMDR or (eye movement desensitisation and reprocessing))
#16	#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

Medline

#1	Stress Disorders, Post-Traumatic/
#2	(PTSD or ((posttrauma* or post-trauma* or post trauma*) adj3 (stress* or disorder* or psych* or symptom?)) or acute stress disorder* or combat disorder* or war neuros*).ti,ab,kf.
#3	(((acute or traumatic) adj stress*) and (expos* or psyc*)).ti,ab,kf.
#4	(traumati#ed adj (victim? or survivor?)).ti,ab,kf.
#5	(trauma* adj2 (event? or memor* or flashback* or nightmare?)).ti,ab,kf.
#6	((trauma* or posttrauma* or post-trauma* or victim* or survivor?) and (exposure adj3 (therap* or psychotherap* or training or counsel*))).ti,ab,kf,hw.
#7	Crisis Intervention/
#8	(critical incident adj (stress or debrief* or de-brief*)).ti,ab,kf.
#9	(debriefing or de-briefing).ti,kf.
#10	(crisis intervention? or CISD).ti,ab,kf.
#11	((stress or group? or psychological or crisis) adj3 (debrief* or de-brief*)).ti,ab,kf.
#12	(trauma* adj2 (event? or memor* or flashback* or nightmare?)).ti,kf.
#13	(EMDR or (eye movement desensiti#ation and reprocessing)).ti,ab,kf,sh.
#14	(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)
#15	randomized controlled trial.pt.
#16	controlled clinical trial.pt.
#17	randomized.ab.
#18	placebo.ab.

#19	clinical trials as topic.sh.
#20	randomly.ab.
#21	trial.ti.
#22	(15 or 16 or 17 or 18 or 19 or 20 or 21)
#23	(14 and 22)
#24	(2014* or 2015* or 2016* or 2017* or 2018*).yr,dt,ed,ep.
#25	(23 and 24)

Embase

#1	posttraumatic stress disorder/
#2	"trauma and stressor related disorders"/
#3	combat disorders/
#4	psychological trauma/
#5	stress disorders, post-traumatic/
#6	stress disorders, traumatic, acute/
#7	(PTSD or ((posttrauma* or post-trauma* or post trauma*) adj3 (stress* or disorder* or psych* or symptom?)) or acute stress disorder* or combat disorder* or war neuros*).ti,ab,kw.
#8	(((acute or traumatic) adj stress*) and (expos* or psyc*)).ti,ab,kw.
#9	(traumati#ed adj (victim? or survivor?)).ti,ab,kw.
#10	(trauma* adj2 (event? or memor* or flashback* or nightmare?)).ti,ab,kw.
#11	(EMDR or (eye movement desensiti#ation and reprocessing)).ti,kw.
#12	((trauma* or posttrauma* or post-trauma* or victim* or survivor?) and (exposure adj3 (therap* or psychotherap* or training or counsel*))).ti,ab,kw.
#13	(critical incident adj (stress or debrief* or de-brief*)).ti,ab,kw.
#14	(debriefing or de-briefing).ti,ab,kw.
#15	(crisis intervention? or CISD).ti,ab,kw.
#16	((stress or group? or psychological or crisis) adj3 (debrief* or de-brief*)).ti,ab,kw.
#17	(trauma* adj2 (event? or memor* or flashback* or nightmare?)).ti,ab,kw.
#18	(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)
#19	crossover-procedure/ or double-blind procedure/ or randomized controlled trial/ or single-blind procedure/ or (random* or factorial* or crossover* or cross over* or placebo* or (doubl* adj blind*) or (singl* adj blind*) or assign* or allocat* or volunteer*).tw.
#20	(18 and 19)
#21	(2014* or 2015* or 2016* or 2017* or 2018*).yr,dc.
#22	(20 and 21)

PsychINFO

#1	posttraumatic stress disorder/ or complex ptsd/ or desnos/ or acute stress disorder/ or combat experience/ or "debriefing (psychological)"/ or emotional trauma/ or post-traumatic stress/ or exp stress reactions/ or traumatic neurosis/

#2	exp disasters/
#3	(PTSD or ((posttrauma* or post-trauma* or post trauma*) adj3 (stress* or disorder* or psych* or symptom?)) or acute stress disorder* or combat disorder* or war neuros*).ti,ab.
#4	(((acute or traumatic) adj stress*) and (expos* or psyc*)).ti,ab.
#5	(traumati#ed adj (victim? or survivor?)).ti,ab.
#6	(trauma* adj2 (event? or memor* or flashback* or nightmare?)).ti,ab.
#7	(EMDR or (eye movement desensiti#ation and reprocessing)).ti,ab.
#8	((trauma* or posttrauma* or post-trauma* or victim* or survivor?) and (exposure adj3 (therap* or psychotherap* or training or counsel*))).ti,ab.
#9	crisis intervention/
#10	(critical incident adj (stress or debrief* or de-brief*)).ti,ab.
#11	(debriefing or de-briefing).ti,ab.
#12	(crisis intervention? or CISD).ti,ab.
#13	((stress or group? or psychological or crisis) adj3 (debrief* or de-brief*)).ti,ab.
#14	(trauma* adj2 (event? or memor* or flashback* or nightmare?)).ti,ab.
#15	(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)
#16	clinical trials.sh.
#17	(randomi#ed or randomi#ation or randomi#ing).ti,ab,id.
#18	(RCT or at random or (random* adj3 (assign* or allocat* or control* or crossover or cross-over or design* or divide* or division or number))).ti,ab,id.
#19	(control* and (trial or study or group) and (placebo or waitlist* or wait* list* or ((treatment or care) adj2 usual))).ti,ab,id,hw.
#20	((single or double or triple or treble) adj2 (blind* or mask* or dummy)).ti,ab,id.
#21	trial.ti.
#22	placebo.ti,ab,id,hw.
#23	treatment outcome.md.
#24	treatment effectiveness evaluation.sh.
#25	mental health program evaluation.sh.
#26	(16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25)
#27	(15 and 26)
#28	(2014* or 2015* or 2016* or 2017* or 2018*).yr,dc,mo.
#29	(27 and 28)

PILOTS

#1	ti((posttrauma* near/4 (stress* or disorder* or psych* or symptom*))) OR ab((posttrauma* near/4 (stress* or disorder* or psych* or symptom*)))
#2	ti((post-trauma* near/4 (stress* or disorder* or psych* or symptom*))) OR ab((post-trauma* near/4 (stress* or disorder* or psych* or symptom*)))
#3	ti((post trauma* near/4 (stress* or disorder* or psych* or symptom*))) OR ab((post trauma* near/4 (stress* or disorder* or psych* or symptom*)))
#4	ti((PTSD or acute stress disorder* or combat disorder* or war neuros*)) OR ab((PTSD or acute stress disorder* or combat

	disorder* or war neuros*))
#5	ti((((acute or traumatic) near/2 stress*) and (expos* or psyc*))) OR ab((((acute or traumatic) near/2 stress*) and (expos* or psyc*)))
#6	ti((traumatised near/2 (victim* or survivor*))) OR ab((traumatised near/2 (victim* or survivor*)))
#7	ti((trauma* near/3 (event* or memor* or flashback* or nightmare*))) OR ab((trauma* near/3 (event* or memor* or flashback* or nightmare*)))
#8	ti(((trauma* or posttrauma* or post-trauma* or victim* or survivor*) and (exposure near/4 (therap* or psychotherap* or training or counsel*)))) OR ab(((trauma* or posttrauma* or post-trauma* or victim* or survivor*) and (exposure near/4 (therap* or psychotherap* or training or counsel*))))
#9	ti((critical incident near/2 (stress or debrief* or de-brief*))) OR ab((critical incident near/2 (stress or debrief* or de-brief*)))
#10	ti((debriefing or de-briefing)) OR ab((debriefing or de-briefing))
#11	ti((crisis intervention* or CISD)) OR ab((crisis intervention* or CISD))
#12	ti(((stress or group* or psychological or crisis) near/4 (debrief* or de-brief*))) OR ab(((stress or group* or psychological or crisis) near/4 (debrief* or de-brief*)))
#13	ti((trauma* near/3 (event* or memor* or flashback* or nightmare*))) OR ab((trauma* near/3 (event* or memor* or flashback* or nightmare*)))
#14	ti((EMDR or (eye movement desensitisation and reprocessing))) OR ab((EMDR or (eye movement desensitisation and reprocessing)))
#15	ti((EMDR or (eye movement desensitiZation and reprocessing))) OR ab((EMDR or (eye movement desensitiZation and reprocessing)))
#16	(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)
#17	MAINSUBJECT.EXACT("Randomized Clinical Trial")
#18	ab((randomized or randomised or placebo or randomly))
#19	ti(trial)
#20	(S17 or S18 or S19)
#21	S16 and S20
#22	(S16 and s20) AND pd(20140101-20180301)

Phoenix Searches

Pre-incident preparedness (6 June 2019)

Databases: CENTRAL, Medline, EMBASE, PsycINFO, PILOTS

#1	PTSD.mp. or “post-traumatic stress disorder”.mp. or “posttraumatic stress disorder”.mp. or “post traumatic stress disorder”.mp.
#2	preparedness.mp. or pre-incident.mp. or inoculation or prevent*.mp. or resilien*.mp. or protect*.mp. or pre-trauma.mp. or pretrauma.mp. or plan*.mp.
#3	intervention.mp. or training.mp. or program.mp. or trial.mp.
#4	#1 AND #2 AND #3
#5	limit 21 to english language

Update to ISTSS Search (6 June 2019)

Databases: CENTRAL, Medline, EMBASE, PsycINFO, PILOTS

#1	PTSD.mp. or posttrauma*.mp. or post-trauma*.mp. or "post trauma*".mp. or "combat disorder*".mp. or "stress disorder*".mp.

#2	Limit #1 (publication date May 2018-June 2019 and english language)

2021 search update (31 December 2020)
Databases: CENTRAL, Medline, EMBASE, PsycINFO, PILOTS

#1	PTSD.mp. or posttrauma*.mp. or post-trauma*.mp. or "post trauma*".mp. or "combat disorder*".mp. or "stress disorder*".mp.
#2	Limit #1 (publication date June 2019 - December 2020 and english language)

Treatment delivery modalities search (31 December 2020)

Databases: CENTRAL, Medline

#1	(PTSD or posttrauma* or post-trauma* or "post trauma*" or "combat disorder*" or "stress disorder*").ab,kw,ti.
#2	(modality or telehealth or telemed* or telepsych* or teletherap* or "tele*communication*" or "office*based" or "home*based" or digital or "web*based" or "internet" or computer* or "e*therpa*" or "video*conferenc*" or virtual or "technology*based" or "video*sharing technology" or "app" or telephone or "cell phone" or mobile or "mobile phone" or "smart phone" or "mobile*health").ab,kw,ti.
#3	("systematic review" or "meta*analysis").ab,kw,ti.
#4	#1 AND #2 AND #3

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[1]The Cochrane Collaboration's risk of bias criteria[2] determine low, uncertain or high risk ratings for: Random sequence generation (selection bias); Allocation concealment (selection bias); Blinding of participants and personnel (performance bias); Blinding of outcome assessment (detection bias); Incomplete outcome data (attrition bias); Selective reporting (reporting bias); and Other bias.

[2] GRADE Working Group Grades of Evidence[5]
High certainty: Further research is very unlikely to change our confidence in the estimate of effect.
Moderate certainty: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
Low certainty: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
Very low certainty: We are very uncertain about the estimate.

Guideline Development Group

The members of the Guideline Development Group and the Phoenix Australia project team are listed in the Acknowledgments document on the Guidelines website.

For the 2021 update, Isabella Freijah (Research Assistant) joined the Phoenix Australia project team, and Professor Brett McDermott retired from the Guideline Development Group.

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17. FOREST PLOT Stepped Preventative Care vs WL/TAU. Website

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26. FOREST PLOT: CBT-T (Caregiver and Child) vs EMDR. Website

27. FOREST PLOT: CBT-T (Caregiver and Child) vs Non-directive Counselling. Website

28. FOREST PLOT: CBT-T (Caregiver and Child) vs WLTAU. Website

29. FOREST PLOT: CBT-T (Caregiver) vs CBT-T (Child). Website

30. FOREST PLOT: CBT-T (Caregiver) vs WL/TAU. Website

31. FOREST PLOT: CBT-T (Child) vs Psychoeducation. Website

32. FOREST PLOT: CBT-T (Child) vs WL/TAU. Website

33. FOREST PLOT: CBT-T (child) vs EMDR. Website

34. FOREST PLOT: EMDR (vs WL/TAU). Website

35. FOREST PLOT: Family Therapy vs WLTAU. Website

36. FOREST PLOT: Group TF-CBT (Caregiver and Child) vs Supportive Group Therapy. Website

37. FOREST PLOT: Individual and Group TF-CBT (Caregiver and Child) vs WL/TAU. Website

38. FOREST PLOT: kidNET vs Non-directive Counselling. Website

39. FOREST PLOT: kidNET vs WL/TAU. Website

40. FOREST PLOT: Non-directive Counselling vs WL/TAU. Website

41. FOREST PLOT: Psychoeducation vs WL/TAU. Website

42. FOREST PLOT: TF-CBT (Caregiver and Child) vs Stepped Care TF-CBT (Caregiver and Child). Website

43. FOREST PLOT: TF-CBT (Caregiver and Child) vs TF-CBT (Child). Website

44. FOREST PLOT: Group TF-CBT (Child) vs Group Non-TF-CBT(Child). Website

45. FOREST PLOT: TF-CBT (Child) vs WL/TAU. Website

46. FOREST PLOT: TF-CBT (Caregiver and Child) vs TF-CBT (Caregiver). Website

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108. FOREST PLOT: ABMT (4 sessions) vs Control (Sx). Website

109. FOREST PLOT: ACT (4 sessions) vs Control (Dx). Website

110. FOREST PLOT: ACT (4 sessions) vs Control (Sx). Website

111. FOREST PLOT: CBM-I vs Control (Dx). Website

112. FOREST PLOT: HRVB vs CBM-I (Dx). Website

113. FOREST PLOT: HRVB vs CBM-I (Sx). Website

114. FOREST PLOT: HRVB vs Control (Dx). Website

115. FOREST PLOT: HRVB vs Control (Sx). Website

116. FOREST PLOT: MAPS vs TAU (Sx). Website

117. FOREST PLOT: Single session ABMT vs ACT (Sx). Website

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131. FOREST PLOT: Group 512 PM vs Group Debriefing (Sx). Website

132. FOREST PLOT: Group 512 PM vs WLTAU (Sx). Website

133. FOREST PLOT: Group Debriefing vs WLTAU (Sx). Website

134. FOREST PLOT: Group debriefing vs Group stress management. Website

135. FOREST PLOT: Group Stress Management vs WLTAU (Sx). Website

136. FOREST PLOT: Individual Debriefing vs WLTAU (Sx). Website

137. FOREST PLOT: Psychoeducation vs WLTAU (Dx). Website

138. FOREST PLOT: Psychoeducation vs WLTAU (Sx). Website

139. FOREST PLOT: Reassurance vs WLTAU (Dx). Website

140. FOREST PLOT: Tetris vs WLTAU (Dx). Website

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167. FOREST PLOT: Three step early intervention vs WL/TAU. Website

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169. FOREST PLOT: Brief Individual Trauma Processing Therapy vs WL/TAU (Dx). Website

170. FOREST PLOT: Brief individual trauma processing therapy vs Supportive listening. Website

171. FOREST PLOT: Internet-based CBT vs WL/TAU (Sx). Website

172. FOREST PLOT: Brief Interpersonal Counselling (IPC) vs TAU (Sx). Website

173. FOREST PLOT: Brief Interpersonal Counselling (IPC) vsTAU (Dx). Website

174. FOREST PLOT: Collaborative care vs TAU. Website

175. FOREST PLOT: Communication facilitator in Intensive care unit. Website

176. FOREST PLOT: Nurse-led intensive care recovery program. Website

177. FOREST PLOT: Telephone-based CBT. Website

178. FOREST PLOT: Collaborative Care vs TAU (Dx). Website

179. FOREST PLOT: Telephone + internet-based CBT vs Critical illness education. Website

180. FOREST PLOT: Supported psychoeducational intervention vs WL/TAU. Website

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208. FOREST PLOT: CBT-T vs Structured Writing Therapy (Sx). Website

209. FOREST PLOT: PE vs WLTAU (Sx). Website

210. FOREST PLOT: PE vs WLTAU (Dx). Website

211. FOREST PLOT: CT vs WLTAU (Sx). Website

212. FOREST PLOT: CT vs WLTAU (Dx). Website

213. FOREST PLOT: Brief PE vs Supportive Counselling (Dx). Website

214. FOREST PLOT: Brief PE vs Supportive Counselling (Sx). Website

215. FOREST PLOT: Brief CPT vs Supportive Counselling (Dx). Website

216. FOREST PLOT: Brief CPT vs Supportive Counselling (Sx). Website

217. FOREST PLOT: Brief EMDR vs WLTAU. Website

218. FOREST PLOT: Structured Writing Therapy vs WL (Sx). Website

219. FOREST PLOT: Stepped Collaborative Care vs WLTAU (Dx). Website

220. FOREST PLOT: Stepped Collaborative Care vs WLTAU (Sx). Website

221. FOREST PLOT: Neurobehavioural Training vs Reading Tasks. Website

222. FOREST PLOT: CBT-T vs Supportive Counselling (Dx). Website

223. FOREST PLOT: CBT-T vs Supportive Counselling (Sx). Website

224. FOREST PLOT: CBT-T vs Relaxation (Dx). Website

225. FOREST PLOT: CBT-T vs Relaxation (Sx). Website

226. FOREST PLOT: CBT-T vs Self-help program (Dx). Website

227. FOREST PLOT: CBT-T vs Self-help program (Sx). Website

228. FOREST PLOT: Prolonged exposure vs cognitive therapy (Sx). Website

229. FOREST PLOT: Prolonged exposure vs Cognitive therapy (Dx). Website

230. FOREST PLOT: Present Centered Therapy (HOPE) vs WL/TAU. Website

231. FOREST PLOT: Structured writing therapy vs WL (Dx). Website

232. FOREST PLOT: Structured Writing Therapy vs Psychoeducation. Website

233. FOREST PLOT: Internet-based guided self-help vs WL/TAU. Website

234. FOREST PLOT: Behavioural activation vs TAU. Website

235. FOREST PLOT: Supportive counselling vs attention control (Sx). Website

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237. FOREST PLOT: Nurse-led psychological intervention vs WL/TAU (Sx). Website

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300. FOREST PLOT: CT vs WLTAU. Website

301. FOREST PLOT: EMDR vs CBT-T. Website

302. FOREST PLOT: EMDR vs Emotional freedom techniques. Website

303. FOREST PLOT: EMDR vs Relaxation training. Website

304. FOREST PLOT: EMDR vs REM Desensitization. Website

305. FOREST PLOT: EMDR vs Supportive counselling. Website

306. FOREST PLOT: EMDR vs WLTAU. Website

307. FOREST PLOT: Group and individual CPT (combined) vs WLTAU. Website

308. FOREST PLOT: Group CBT-T vs Group PCT. Website

309. FOREST PLOT: Group CPT vs Individual CPT. Website

310. FOREST PLOT: Group CBT-T vs WLTAU. Website

311. FOREST PLOT: Group IPT vs WLTAU. Website

312. FOREST PLOT: Guided internet-based CBT vs WLTAU. Website

313. FOREST PLOT: Internet-based CBT-T vs Internet based non-trauma-focused supportive counselling. Website

314. FOREST PLOT: Internet-based CBT-T vs Internet-based psychoeducation. Website

315. FOREST PLOT: IPT vs Relaxation training. Website

316. FOREST PLOT: NET vs WLTAU. Website

317. FOREST PLOT: Non-CBT-T vs PCT. Website

318. FOREST PLOT: Non-CBT-T vs WLTAU. Website

319. FOREST PLOT: OEI vs WLTAU. Website

320. FOREST PLOT: Psychodynamic therapy vs WLTAU. Website

321. FOREST PLOT: Stabilising group treatment vs WLTAU. Website

322. FOREST PLOT: Group CBT-T vs Applied muscle relaxation. Website

323. FOREST PLOT: Cognitive Therapy vs WLTAU. Website

324. FOREST PLOT: SIT vs Supportive counselling. Website

325. FOREST PLOT: Guided internet-based CBT-T vs attention control. Website

326. FOREST PLOT: CBT-T vs Supportive Counselling. Website

327. FOREST PLOT: CBT-T vs Psychodynamic Therapy. Website

328. FOREST PLOT: Prolonged Exposure vs Health Education. Website

329. FOREST PLOT: ACT + TAU vs TAU. Website

330. FOREST PLOT: CBT-T vs WLTAU. Website

331. FOREST PLOT: CBT-T vs Non-CBT-T. Website

332. FOREST PLOT: CBT-T (PE) vs IPT. Website

333. FOREST PLOT: PE vs WLTAU. Website

334. FOREST PLOT: CBT-T vs PCT. Website

335. FOREST PLOT: TF-CBT vs Relaxation Training. Website

336. FOREST PLOT: Non-CBT-T vs WLTAU. Website

337. FOREST PLOT: Present centred therapy vs WLTAU. Website

338. FOREST PLOT: Brief Eclectic Psychotherapy vs WLTAU. Website

339. FOREST PLOT: SIT vs WLTAU. Website

340. FOREST PLOT: Metacognitive Therapy vs WLTAU. Website

341. FOREST PLOT: WET vs WLTAU. Website

342. FOREST PLOT: VR-Exposure vs Present centred therapy. Website

343. FOREST PLOT: CBT-T (NET) vs Psychoeducation. Website

344. FOREST PLOT: Single session CBT vs WLTAU. Website

345. FOREST PLOT: Supportive counselling vs WLTAU. Website

346. FOREST PLOT: Supportive Counselling vs Psychoeducation. Website

347. FOREST PLOT: RTM vs WLTAU. Website

348. FOREST PLOT: Relaxation training vs WLTAU. Website

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640. FOREST PLOT: DWRT vs WL/TAU. Website

641. FOREST PLOT: Brief CBC vs WL/TAU. Website

642. FOREST PLOT: Individual Debriefing vs Brief CBC. Website

643. FOREST PLOT: Single session PE vs WL/TAU. Website

644. FOREST PLOT: Brief PE vs WL/TAU sx. Website

645. FOREST PLOT: Midwife-led brief counselling intervention v WL/TAU sx. Website

646. FOREST PLOT: PE Coach app vs WL/TAU. Website

647. Forest plot: Attention control therapy vs WL/TAU sx. Website

648. Forest plot: Attention control therapy vs WL/TAU dx. Website

649. FOREST PLOT: Dialectical behaviour therapy (DBT) vs cognitive processing therapy (CPT). Website

650. FOREST PLOT: EMDR vs imagery rescripting. Website

651. FOREST PLOT: PE vs TBCT. Website

652. FOREST PLOT: Group present centred therapy vs Cognitive behavioural social rhythm group therapy. Website

653. FOREST PLOT: NET vs PCT. Website

654. FOREST PLOT: Guided internet-based PE vs Present Centred Therapy in-person. Website

655. FOREST PLOT: Behavioural activation vs WL/TAU. Website

656. FOREST PLOT: tDCS vs Sham tDCS. Website

657. FOREST PLOT: Yoga vs attention control. Website

658. FOREST PLOT: Attentional bias modification vs attention control training. Website

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660. FOREST PLOT: rTMS (high, >10Hz) vs Sham rTMS. Website

661. FOREST PLOT: BBAT vs WL/TAU. Website

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684. FOREST PLOT: PE telehealth (videoconferencing) vs PE telehealth (iPhone). Website

685. FOREST PLOT: Behavioural Activation and Therapeutic Exposure telehealth (videoconferencing) vs Behavioural Activation and Therapeutic Exposure in-person. Website

686. FOREST PLOT: Group non-TF-CBT telehealth (videoconferencing) vs Group non-TF-CBT in-person. Website

687. FOREST PLOT: Group CPT-C telehealth (videoconferencing) vs Group CPT-C in-person. Website

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721. FOREST PLOT: Trauma-Focussed CBT vs supportive counselling (updated). Website

722. FORST PLOT: Cognitive Therapy vs Waitlist/Control (updated). Website

723. FOREST PLOT: Cognitive Therapy vs Supportive Counselling (updated). Website

724. FOREST PLOT: TF-CBT vs Psychodynamic therapy (updated). Website

725. FOREST PLOT: Psychodynamic therapy vs Hypnotherapy. Website

726. FOREST PLOT: Psychodynamic therapy vs WL (updated). Website

727. FOREST PLOT: SIT vs PTSD Family Education. Website

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804. FOREST PLOT: PE (caregiverχld) vs Dyadic CCT. Website

Annex: All evidence profiles, sorted by sections

Introduction (including guidance for use of MAGICApp)

Children and adolescents pre-incident preparedness

Children and adolescents within the first three months of exposure to a traumatic event

Early psychosocial prevention interventions for children

Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Individual psychological debriefing
Comparator: Waitlist/ usual care

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ usual care	**Intervention** Individual psychological debriefing	**Certainty of the evidence** (Quality of evidence)	**Summary**
test outcome	Relative risk		CI 95%		
test 3	Relative risk		CI 95%		
PTSD symptom severity 3 months	Lower better Based on data from 231 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.16 higher** (CI 95% 0.01 lower — 0.42 higher)	Moderate Due to serious imprecision [1]	Individual psychological debriefing probably has no effect or may increase PTSD symptom severity slightly
test2	Lower better		CI 95%		

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=231). **Publication bias: no serious.**

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Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Self-directed online psychoeducation for caregivers and children
Comparator: Waitlist/ usual care

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment usual care	**Intervention** Self-directed online psychoeducation for caregivers and children	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3 months	Lower better Based on data from 56 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.9 lower** (CI 95% 1.45 lower — 0.35 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Self-directed online psychoeducation for caregivers and children may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Due to significant group differences at baseline, completer analysis. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=56), Wide confidence intervals (CIs include important benefit and unimportant benefit). **Publication bias: no serious.**

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Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Self-directed online psychoeducation intervention for children only
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Self-directed online psychoeducation intervention for children	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 72 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.63 lower** (CI 95% 1.1 lower — 0.15 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Self-directed online psychoeducation intervention may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Due to significant group differences at baseline, Incomplete data and/or large loss to follow up (high differential attrition). **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=72),

Wide confidence intervals (CIs include important benefit and unimportant benefit) . **Publication bias: no serious.**

References

3. FOREST PLOT Self-directed Online Psychoeducation for Children vs WL/TAU. Website

13. Kassam-Adams N, Marsac ML, Kohser KL, Kenardy J, March S, Winston FK. Pilot Randomized Controlled Trial of a Novel Web-Based Intervention to Prevent Posttraumatic Stress in Children Following Medical Events. Journal of pediatric psychology 41(1):138-48 Pubmed Journal

Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Psychoeducation
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Psychoeducation	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3 months	Lower better Based on data from 52 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.12 higher** (CI 95% 0.47 lower — 0.7 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	Psychoeducation may have little or no difference on PTSD symptom severity.

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Due to significant group differences at baseline. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=56), Wide confidence intervals (CIs include important benefit and important benefit). **Publication bias: no serious.**

References

2. FOREST PLOT Psychoeducation vs WL/TAU. Website

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Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Self-directed online psychoeducation for caregivers only
Comparator: Waitlist/ usual care

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ usual care	**Intervention** Self-directed online psychoeducation for caregivers only	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3 months	Lower better Based on data from 100 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.09 lower** (CI 95% 0.48 lower — 0.3 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether self-directed online psychoeducation for caregivers only increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patient (n=100), Wide confidence intervals (CI's include important harm and benefit). **Publication bias: no serious.**

References

5. FOREST PLOT Self-directed Online Psychoeducation for Caregivers vs WL/TAU. Website

12. Marsac ML, Hildenbrand AK, Kohser KL, Winston FK, Li Y, Kassam-Adams N. Preventing posttraumatic stress following pediatric injury: a randomized controlled trial of a web-based psycho-educational intervention for parents. Journal of pediatric psychology 2013;38(10):1101-11 Pubmed Journal

Early psychosocial treatment interventions for children

Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Child and Family Traumatic Stress Intervention (CFTSI)
Comparator: Supportive care

Outcome Timeframe	**Study results and measurements**	**Comparator** Supportive care	**Intervention** Child and Family Traumatic Stress Intervention (CFTSI)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 106 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.68 lower** (CI 95% 1.07 lower — 0.29 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Child and family traumatic stress intervention (CFTSI) may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=106), Wide confidence intervals (CI includes important and unimportant benefit). **Publication bias: no serious.**

References

16. FOREST PLOT CFTSI vs Supportive Intervention. Website

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Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Brief trauma-focused CBT
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Brief trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3 months	Lower better Based on data from 51 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.02 lower** (CI 95% 0.57 lower — 0.53 higher)	Low Due to very serious imprecision [1]	Brief trauma-focused CBT may have little or no difference on PTSD symptom severity

1. **Risk of Bias: no serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n= 51), Wide confidence intervals (CIs include important benefit and important harm). **Publication bias: no serious.**

References

15. FOREST PLOT Brief CBT-T vs WL/TAU. Website

22. Kramer DN, Landolt MA. Early psychological intervention in accidentally injured children ages 2-16: a randomized controlled trial. European journal of psychotraumatology 2014;5 Pubmed Journal

Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Brief Trauma-focused CBT for caregiver and child
Comparator: Waitlist/ usual care

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ usual care	**Intervention** Brief Trauma-focused CBT for caregiver and child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 158 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.22 lower** (CI 95% 0.84 lower — 0.41 higher)	Low Due to serious inconsistency, Due to serious imprecision [1]	Brief trauma-focused CBT for caregiver and child may decrease PTSD symptom severity slightly

1. **Inconsistency: serious.** The direction of the effect is not consistent between the included studies, Point estimates vary widely, The magnitude of statistical heterogeneity was high, with I^2: 71%.. **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=158), Wide confidence intervals includes important benefit and unimportant harm.

References

22. Kramer DN, Landolt MA. Early psychological intervention in accidentally injured children ages 2-16: a randomized controlled trial. European journal of psychotraumatology 2014;5 Pubmed Journal

636. Haag A-C, Landolt MA, Kenardy JA, Schiestl CM, Kimble RM, De Young AC. Preventive intervention for trauma reactions in young injured children: results of a multi-site randomised controlled trial. Journal of child psychology and psychiatry, and allied disciplines 2020;61(9):988-997 Pubmed Journal

666. FOREST PLOT: Brief TF-CBT (carerχld) vs WL/TAU. Website

Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Narrative Exposure Therapy for children (kidNET)
Comparator: Meditation

Outcome Timeframe	**Study results and measurements**	**Comparator** Meditation	**Intervention** Narrative Exposure Therapy for children (kidNET)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3 months	Lower better Based on data from 31 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.12 lower** (CI 95% 0.82 lower — 0.59 higher)	Very low Due to very serious imprecision, Due to serious indirectness [1]	There may be little or no difference between kidNET and meditation on PTSD symptom severity.

1. **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied; children in refugee camp post-tsunami, Sri Lanka. **Imprecision: very serious.** Low number of patients (n=31), Wide confidence intervals (CIs include important benefit and important harm). **Publication bias: no serious.**

References

18. FOREST PLOT kidNET vs Meditation. Website

21. Catani C, Kohiladevy M, Ruf M, Schauer E, Elbert T, Neuner F. Treating children traumatized by war and Tsunami: a comparison between exposure therapy and meditation-relaxation in North-East Sri Lanka. BMC psychiatry 2009;9:22 Pubmed Journal

Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Stepped preventative care intervention
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Stepped preventative care intervention	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3 months	Lower better Based on data from 64 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.34 higher** (CI 95% 0.16 lower — 0.84 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	Stepped preventative care intervention may increase PTSD symptom severity slightly

1. **Risk of Bias: serious.** Due to significant group differences at baseline (in gender and recent mental health treatment). **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=64), Wide confidence intervals (CI includes important harm and unimportant benefit). **Publication bias: no serious.**

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17. FOREST PLOT Stepped Preventative Care vs WL/TAU. Website

20. Kassam-Adams N, García-España JF, Marsac ML, Kohser KL, Baxt C, Nance M, et al. A pilot randomized controlled trial assessing secondary prevention of traumatic stress integrated into pediatric trauma care. Journal of traumatic stress 2011;24(3):252-9 Pubmed Journal

Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Modified Written Exposure Therapy (m-WET)
Comparator: Waitlist/Treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/Treatment as usual	**Intervention** Modified Written Exposure Therapy (m-WET)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3 months	Lower better Based on data from 72 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.65 lower** (CI 95% 1.12 lower — 0.17 lower)	Very low Due to very serious imprecision, Due to serious risk of bias [1]	We are uncertain whether modified written exposure therapy (m-wet) increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Other bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (N = 72), Only data from one study. **Publication bias: no serious.**

References

775. Ahmadi SJ, Musavi Z, Samim N, Sadeqi M, Jobson L. Investigating the Feasibility, Acceptability and Efficacy of Using Modified-Written Exposure Therapy in the Aftermath of a Terrorist Attack on Symptoms of Posttraumatic Stress Disorder Among Afghan Adolescent Girls. Frontiers in psychiatry 2022;13:826633 Pubmed Journal

776. FOREST PLOT: m-WET vs WL. Website

Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Trauma-Focused CBT
Comparator: Waitlist/Treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/Treatment as usual	**Intervention** Trauma-Focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 78 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.39 lower** (CI 95% 0.84 lower — 0.05 higher)	Very low Due to very serious imprecision, Due to serious risk of bias [1]	We are uncertain whether modified Trauma-Focused CBT increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Other bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (N = 78), Only data from one study, Wide confidence intervals. **Publication bias: no serious.**

References

775. Ahmadi SJ, Musavi Z, Samim N, Sadeqi M, Jobson L. Investigating the Feasibility, Acceptability and Efficacy of Using Modified-Written Exposure Therapy in the Aftermath of a Terrorist Attack on Symptoms of Posttraumatic Stress Disorder Among Afghan Adolescent Girls. Frontiers in psychiatry 2022;13:826633 Pubmed Journal

777. FOREST PLOT: TF-CBT vs WL (children). Website

Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Memory Training for Recovery-Adolescent (METRA)
Comparator: Group study sessions

Outcome Timeframe	**Study results and measurements**	**Comparator** Group study sessions	**Intervention** Memory Training for Recovery-Adolescent (METRA)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 19 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 4.87 lower** (CI 95% 6.83 lower — 2.9 lower)	Very low Due to extremely serious imprecision [1]	We are uncertain whether Memory Training for Recovery-Adolescent (METRA) increases or decreases PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: extremely serious.** Low number of patients (N = 19), Only data from one study. **Publication bias: no serious.**

References

785. Ahmadi SJ, Musavi Z, Ahmadi S, Masha S, Muradi N, Samim NU, et al. Examining MEmory Training for Recovery-Adolescent among Afghan adolescent boys: a pilot randomised controlled trial. European journal of psychotraumatology 2023;14(2):2251780 Pubmed Journal

786. FOREST PLOT: METRA vs group study. Website

Early pharmacological interventions for children

Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Propranolol
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Propranolol	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3 months	Lower better Based on data from 20 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.04 higher** (CI 95% 0.84 lower — 0.92 higher)	Low Due to very serious imprecision [1]	Propranolol may have little or no difference on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n= 20), Wide confidence intervals (CIs include important benefit and important harm). **Publication bias: no serious.**

References

24. Nugent NR, Christopher NC, Crow JP, Browne L, Ostrowski S, Delahanty DL. The efficacy of early propranolol administration at reducing PTSD symptoms in pediatric injury patients: a pilot study. Journal of traumatic stress 2010;23(2):282-7 Pubmed Journal

Children and adolescents with clinically relevant post-traumatic stress symptoms

Psychological interventions for children and adolescents with PTSD

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Trauma-focused CBT for child
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Trauma-focused CBT for child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 750 participants in 17 studies. (Randomized controlled)	Difference:	**SMD 1.38 lower** (CI 95% 1.79 lower — 0.96 lower)	Moderate Due to serious risk of bias [1]	Trauma-focused CBT for child decreases PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate of blinding of participants and personnel, resulting in potential for performance bias in 1 study, Incomplete data and large loss to follow up in 1 study, Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias in 1 study, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias in 1 study. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high, with I^2 = 84% however inconsistency is almost completely between very large, large and moderate effects and is therefore not important. **Indirectness: no serious. Imprecision: no serious. Publication bias: no serious.**

References

45. FOREST PLOT: TF-CBT (Child) vs WL/TAU. Website

51. Ahrens J, Rexford L. Ahrens, J., & Rexford, L. (2002). Cognitive processing therapy for incarcerated adolescents with PTSD. Journal of Aggression, Maltreatment & Trauma, 6(1), 201-216. Website

52. Auslander W, McGinnis H, Tlapek S, Smith P, Foster A, Edmond T, et al. Adaptation and implementation of a trauma-focused cognitive behavioral intervention for girls in child welfare. The American journal of orthopsychiatry 2017;87(3):206-215 Pubmed Journal

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61. de Roos C, van der Oord S, Zijlstra B, Lucassen S, Perrin S, Emmelkamp P, et al. Comparison of eye movement desensitization and reprocessing therapy, cognitive behavioral writing therapy, and wait-list in pediatric posttraumatic stress disorder following single-incident trauma: a multicenter randomized clinical trial. Journal of child psychology and psychiatry, and allied disciplines 2017;58(11):1219-1228 Pubmed Journal

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Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Trauma-focused CBT for child
Comparator: Non-directive counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Non-directive counselling	**Intervention** Trauma-focused CBT for child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 239 participants in 6 studies. (Randomized controlled)	Difference:	**SMD 0.96 lower** (CI 95% 1.23 lower — 0.69 lower)	Low Due to serious imprecision, Due to serious risk of bias [1]	Trauma-focused CBT for child may be more effective than non-directive counselling for decreasing PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=239). **Publication bias: no serious.**

References

25. FOREST PLOT: CBT-T (Child) vs Non-directive Counselling. Website

45. FOREST PLOT: TF-CBT (Child) vs WL/TAU. Website

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Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Trauma-focused CBT for child
Comparator: Psychoeducation

Outcome Timeframe	**Study results and measurements**	**Comparator** Psychoeducation	**Intervention** Trauma-focused CBT for child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 127	Difference:	**SMD 0.46 lower** (CI 95% 0.81 lower — 0.11 lower)	Low Due to serious risk of bias, Due to	Trauma-focused CBT for child may be more effective than psychoeducation in

Outcome Timeframe	**Study results and measurements**	**Comparator** Psychoeducation	**Intervention** Trauma-focused CBT for child	**Certainty of the evidence** (Quality of evidence)	**Summary**
	participants in 1 studies. (Randomized controlled)			serious imprecision [1]	decreasing PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Incomplete data and large loss to follow up, Differences at baseline. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=127), Wide confidence intervals (CI includes important benefit and unimportant benefit).

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31. FOREST PLOT: CBT-T (Child) vs Psychoeducation. Website

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Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Trauma-focused CBT for child
Comparator: EMDR

Outcome Timeframe	**Study results and measurements**	**Comparator** EMDR	**Intervention** Trauma-focused CBT for child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 99 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.3 higher** (CI 95% 0.1 lower — 0.7 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	EMDR may be more effective than CBT-T for decreasing PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=99), Wide confidence intervals (CI includes unimportant benefit and important harm).

References

33. FOREST PLOT: CBT-T (child) vs EMDR. Website

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International Journal of Theory & Practice, 11(5), 358-368. Website

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Trauma-focused CBT for caregiver
Comparator: Trauma-focused CBT for child

Outcome Timeframe	**Study results and measurements**	**Comparator** Trauma-focused CBT for child	**Intervention** Trauma-focused CBT for caregiver	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 46 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.09 lower** (CI 95% 0.49 lower — 0.67 higher)	Low Due to very serious imprecision [1]	There may be little or no difference between CBT-T for caregiver and CBT-T for child for PTSD symptom severity

1. **Imprecision: very serious.** Low number of patients (n=46), Wide confidence intervals (CI includes important benefit and important harm).

References

63. Deblinger E, Steer RA, Lippmann J. Two-year follow-up study of cognitive behavioral therapy for sexually abused children suffering post-traumatic stress symptoms. Child abuse & neglect 1999;23(12):1371-8 Pubmed

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Trauma-focused CBT for caregiver and child
Comparator: Trauma-focused CBT for child

Outcome Timeframe	**Study results and measurements**	**Comparator** Trauma-focused CBT for child	**Intervention** Trauma-focused CBT for caregiver and child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 70 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.46 lower** (CI 95% 0.93 lower — 0.02 higher)	Moderate Due to serious imprecision [1]	CBT-T for caregiver and child is probably more effective than CBT-T for child alone in decreasing PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=70), Wide confidence

intervals (CIs include important benefit and unimportant harm). **Publication bias: no serious.**

References

43. FOREST PLOT: TF-CBT (Caregiver and Child) vs TF-CBT (Child). Website

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78. King NJ, Tonge BJ, Mullen P, Myerson N, Heyne D, Rollings S, et al. Treating sexually abused children with posttraumatic stress symptoms: a randomized clinical trial. Journal of the American Academy of Child and Adolescent Psychiatry 2000;39(11):1347-55 Pubmed

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Trauma-focussed CBT for child
Comparator: Reminder-focussed positive psychiatry (RFPP)

Outcome Timeframe	**Study results and measurements**	**Comparator** Reminder-focussed positive psychiatry (RFPP)	**Intervention** Trauma-focussed CBT for child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 8 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.84 lower** (CI 95% 2.35 lower — 0.66 higher)	Very low Due to serious risk of bias, Due to very serious imprecision, Due to serious indirectness [1]	We are uncertain if there is a difference between Trauma-Focused CBT for child and Reminder-focused positive psychiatry (RFPP) on PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias. **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied (children with ADHD). **Imprecision: very serious.** Low number of patients (n=8), Wide confidence intervals includes important benefit and important harm . **Publication bias: no serious.**

References

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667. FOREST PLOT: TF-CBT (child) vs RFPP. Website

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms

Intervention: Trauma-focused CBT for caregiver and child
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Trauma-focused CBT for caregiver and child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 660 participants in 7 studies. (Randomized controlled)	Difference:	**SMD 0.82 lower** (CI 95% 1.08 lower — 0.55 lower)	Moderate Due to serious imprecision [1]	CBT-T for caregiver and child probably decreases PTSD symptom severity

1. **Risk of Bias: no serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias in 1 study, Incomplete data and/or large loss to follow up in 2 studies. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high, with I^2 = 52% however inconsistency is mostly between studies with very high, high and moderate effects and therefore not important. **Indirectness: no serious. Imprecision: serious.** Wide confidence intervals (CI includes important benefit and unimportant benefit). **Publication bias: no serious.**

References

28. FOREST PLOT: CBT-T (Caregiver and Child) vs WLTAU. Website

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63. Deblinger E, Steer RA, Lippmann J. Two-year follow-up study of cognitive behavioral therapy for sexually abused children suffering post-traumatic stress symptoms. Child abuse & neglect 1999;23(12):1371-8 Pubmed

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93. Scheeringa MS, Weems CF, Cohen JA, Amaya-Jackson L, Guthrie D. Trauma-focused cognitive-behavioral therapy for posttraumatic stress disorder in three-through six year-old children: a randomized clinical trial. Journal of child psychology and psychiatry, and allied disciplines 2011;52(8):853-60 Pubmed Journal

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms

Intervention: Trauma-focused CBT for caregiver and child
Comparator: Non-directive counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Non-directive counselling	**Intervention** Trauma-focused CBT for caregiver and child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 206 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.37 lower** (CI 95% 0.64 lower — 0.09 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	CBT-T for caregiver and child may be more effective than non-directive counselling for decreasing PTSD symptom severity

1. **Risk of Bias: serious.** Large loss to follow up, Missing intention-to-treat analysis. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=206), Wide confidence intervals (CIs include important benefit and unimportant benefit). **Publication bias: no serious.**

References

27. FOREST PLOT: CBT-T (Caregiver and Child) vs Non-directive Counselling. Website

57. Cohen J, Mannarino A. Cohen, J. A., & Mannarino, A. P. (1998). Interventions for sexually abused children: Initial treatment outcome findings. Child Maltreatment, 3(1), 17-26. Website

59. Cohen JA, Mannarino AP, Iyengar S. Community treatment of posttraumatic stress disorder for children exposed to intimate partner violence: a randomized controlled trial. Archives of pediatrics & adolescent medicine 2011;165(1):16-21 Pubmed Journal

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Trauma-focused CBT for caregiver and child
Comparator: EMDR

Outcome Timeframe	**Study results and measurements**	**Comparator** EMDR	**Intervention** Trauma-focused CBT for caregiver and child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 48 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.05 higher** (CI 95% 0.52 lower — 0.62 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is any difference between CBT-T for caregiver and child and EMDR in decreasing PTSD symptom severity

1. **Risk of Bias: serious.** Due to inconsistencies between protocol and study measures, only 1/3 of enrolment target reached. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=48), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**

References

26. FOREST PLOT: CBT-T (Caregiver and Child) vs EMDR. Website

65. Diehle J, Opmeer BC, Boer F, Mannarino AP, Lindauer RJL. Trauma-focused cognitive behavioral therapy or eye movement desensitization and reprocessing: what works in children with posttraumatic stress symptoms? A randomized controlled trial. European child & adolescent psychiatry 2015;24(2):227-36 Pubmed Journal

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Trauma-focused CBT for caregiver and child
Comparator: Stepped care trauma-focused CBT for caregiver and child

Outcome Timeframe	**Study results and measurements**	**Comparator** Stepped care trauma-focused CBT for caregiver and child	**Intervention** Trauma-focused CBT for caregiver and child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 53 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.09 lower** (CI 95% 0.66 lower — 0.48 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	There may be no difference between CBT-T for caregiver and child and stepped care CBT-T for caregiver and child on PTSD symptom severity

1. **Risk of Bias: serious.** Due to differences at baseline. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=53), Wide confidence intervals (CI's include important benefit and important harm). **Publication bias: no serious.**

References

42. FOREST PLOT: TF-CBT (Caregiver and Child) vs Stepped Care TF-CBT (Caregiver and Child). Website

92. Salloum A, Wang W, Robst J, Murphy TK, Scheeringa MS, Cohen JA, et al. Stepped care versus standard trauma-focused cognitive behavioral therapy for young children. Journal of child psychology and psychiatry, and allied disciplines 2016;57(5):614-22 Pubmed Journal

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Trauma-Focussed CBT for caregiver and child
Comparator: Dyadic client centered therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Dyadic CCT	**Intervention** TF-CBT for caregiver and child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 12 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.63 lower** (CI 95% 1.8 lower — 0.55 higher)	Low Due to very serious imprecision [1]	TF-CBT (for caregiver and child) may be more beneficial/effective at reducing PTSD symptom Client Centered Therapy (for caregiver and child) on PTSD severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients. **Publication bias: no serious.**

References

45. FOREST PLOT: TF-CBT (Child) vs WL/TAU. Website

51. Ahrens J, Rexford L. Ahrens, J., & Rexford, L. (2002). Cognitive processing therapy for incarcerated adolescents with PTSD. Journal of Aggression, Maltreatment & Trauma, 6(1), 201-216. Website

52. Auslander W, McGinnis H, Tlapek S, Smith P, Foster A, Edmond T, et al. Adaptation and implementation of a trauma-focused cognitive behavioral intervention for girls in child welfare. The American journal of orthopsychiatry 2017;87(3):206-215 Pubmed Journal

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61. de Roos C, van der Oord S, Zijlstra B, Lucassen S, Perrin S, Emmelkamp P, et al. Comparison of eye movement desensitization and reprocessing therapy, cognitive behavioral writing therapy, and wait-list in pediatric posttraumatic stress disorder following single-incident trauma: a multicenter randomized clinical trial. Journal of child psychology and psychiatry, and allied disciplines 2017;58(11):1219-1228 Pubmed Journal

63. Deblinger E, Steer RA, Lippmann J. Two-year follow-up study of cognitive behavioral therapy for sexually abused children suffering post-traumatic stress symptoms. Child abuse & neglect 1999;23(12):1371-8 Pubmed

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78. King NJ, Tonge BJ, Mullen P, Myerson N, Heyne D, Rollings S, et al. Treating sexually abused children with posttraumatic stress symptoms: a randomized clinical trial. Journal of the American Academy of Child and Adolescent Psychiatry 2000;39(11):1347-55 Pubmed

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behavioral therapy for sexually exploited, war-affected Congolese girls. Journal of the American Academy of Child and Adolescent Psychiatry 2013;52(4):359-69 Pubmed Journal

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Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Eye Movement Desensitization and Reprocessing (EMDR)
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** EMDR	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 276 participants in 6 studies. (Randomized controlled)	Difference:	**SMD 0.57 lower** (CI 95% 1.09 lower — 0.05 lower)	Low Due to serious imprecision, Due to serious inconsistency [1]	EMDR may decrease PTSD symptom severity slightly

1. **Risk of Bias: no serious.** Incomplete data and/or large loss to follow up (unbalanced) in 1 study. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2 = 75%. **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=147), Wide confidence intervals (CI's include important benefit and unimportant benefit). **Publication bias: no serious.**

References

34. FOREST PLOT: EMDR (vs WL/TAU). Website

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Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Parent-child relationship enhancement (play therapy)
Comparator: Case management plus individual treatment for parent

Outcome Timeframe	**Study results and measurements**	**Comparator** Case management plus individual treatment for parent	**Intervention** Parent-child relationship enhancement (play therapy)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PSTD symptom severity	Lower better Based on data from 65 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.95 lower** (CI 95% 1.47 lower — 0.44 lower)	Moderate Due to serious imprecision [1]	Play therapy probably decreases PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=65). **Publication bias: no serious.**

References

81. Lieberman AF, Van Horn P, Ippen CG. Toward evidence-based treatment: child-parent psychotherapy with preschoolers exposed to marital violence. Journal of the American Academy of Child and Adolescent Psychiatry 2005;44(12):1241-8 Pubmed

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Parent-child relationship enhancement (play therapy)
Comparator: Trauma-focussed CBT for caregiver and child

Outcome Timeframe	**Study results and measurements**	**Comparator** Trauma-focussed CBT for caregiver and child	**Intervention** Parent-child relationship enhancement (play therapy)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom		Difference:	**SMD 0.11 lower**	Very low	We are uncertain whether

Outcome Timeframe	**Study results and measurements**	**Comparator** Trauma-focussed CBT for caregiver and child	**Intervention** Parent-child relationship enhancement (play therapy)	**Certainty of the evidence** (Quality of evidence)	**Summary**
severity	Lower better Based on data from 26 participants in 1 studies. (Randomized controlled)		(CI 95% 0.88 lower — 0.66 higher)	Due to serious risk of bias, Due to very serious imprecision [1]	parent-child relationship enhancement improves or worsen PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=26), Wide confidence intervals (CI included important benefit and important harm). **Publication bias: no serious.**

References

48. FOREST PLOT: Play Therapy vs CBT (Caregiver and Child). Website

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Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: kidNET
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** kidNET	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 116 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 0.83 lower** (CI 95% 1.6 lower — 0.07 lower)	Moderate Due to serious imprecision [1]	KidNET probably improves PTSD symptom severity

1. **Risk of Bias: no serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, Selective outcome reporting. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high, with I^2:72%. Some of this may be due to differences at baseline between studies in PTSD severity, mean age and suicide ideation. however inconsistency is almost completely between very large and moderate effects and is therefore not important. **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=116), Wide confidence intervals includes important benefit and unimportant benefit. **Publication bias: no serious.**

References

39. FOREST PLOT: kidNET vs WL/TAU. Website

66. Ertl V, Pfeiffer A, Schauer E, Elbert T, Neuner F. Community-implemented trauma therapy for former child soldiers in Northern Uganda: a randomized controlled trial. JAMA 2011;306(5):503-12 Pubmed Journal

91. Ruf M, Schauer M, Neuner F, Catani C, Schauer E, Elbert T. Narrative exposure therapy for 7- to 16-year-olds: a randomized controlled trial with traumatized refugee children. Journal of traumatic stress 2010;23(4):437-45 Pubmed Journal

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Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: kidNET
Comparator: Non-directive counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Non-directive counselling	**Intervention** kidNET	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 50 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.16 lower** (CI 95% 0.72 lower — 0.4 higher)	Low Due to very serious imprecision [1]	There is probably little or no difference between the effectiveness of kidNET and Non-directive counselling on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=50), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**

References

38. FOREST PLOT: kidNET vs Non-directive Counselling. Website

66. Ertl V, Pfeiffer A, Schauer E, Elbert T, Neuner F. Community-implemented trauma therapy for former child soldiers in Northern Uganda: a randomized controlled trial. JAMA 2011;306(5):503-12 Pubmed Journal

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Group trauma-focused CBT for child
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Group trauma-focused CBT for child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 216 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.83 lower** (CI 95% 1.59 lower — 0.07 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Group trauma-focused CBT for child probably decreases PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=216), Wide confidence intervals (CI includes important benefit and unimportant benefit). **Publication bias: no serious.**

References

32. FOREST PLOT: CBT-T (Child) vs WL/TAU. Website

87. Pfeiffer E, Sachser C, Rohlmann F, Goldbeck L. Effectiveness of a trauma-focused group intervention for young refugees: a randomized controlled trial. Journal of child psychology and psychiatry, and allied disciplines 2018;59(11):1171-1179 Pubmed Journal

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Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Group trauma-focused CBT for child
Comparator: Group resilience building intervention

Outcome Timeframe	**Study results and measurements**	**Comparator** Group resilience building intervention	**Intervention** Group trauma-focused CBT for child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 50 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.16 lower** (CI 95% 0.72 lower — 0.4 higher)	Low Due to very serious imprecision [1]	There is probably little or no difference between Group trauma-focused CBT for child and Group resilience building intervention on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=50), Wide confidence intervals. **Publication bias: no serious.**

References

38. FOREST PLOT: kidNET vs Non-directive Counselling. Website

87. Pfeiffer E, Sachser C, Rohlmann F, Goldbeck L. Effectiveness of a trauma-focused group intervention for young refugees: a randomized controlled trial. Journal of child psychology and psychiatry, and allied disciplines 2018;59(11):1171-1179 Pubmed Journal

98. Stein B, Jaycox L, Kataoka S, Marleen W, Tu W, Elliott M, et al. Stein, B. D., Jaycox, L. H., Kataoka, S. H., Wong, M., Tu, W., Elliott, M. N., & Fink, A. (2003). A mental health intervention for schoolchildren exposed to violence: a randomized controlled trial. Jama, 290(5), 603-611. Pubmed

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Individual and group trauma-focused CBT for caregiver and child
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Individual and group trauma-focused CBT for caregiver and child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 71 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.24 lower** (CI 95% 1.75 lower — 0.73 lower)	Moderate Due to serious imprecision [1]	Individual and group trauma-focused CBT for caregiver and child probably decreases PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=71), Wide confidence intervals (CI's include important benefit and unimportant benefit). **Publication bias: no serious.**

References

37. FOREST PLOT: Individual and Group TF-CBT (Caregiver and Child) vs WL/TAU. Website

79. Langley AK, Gonzalez A, Sugar CA, Solis D, Jaycox L. Bounce back: Effectiveness of an elementary school-based intervention for multicultural children exposed to traumatic events. Journal of consulting and clinical psychology 2015;83(5):853-65 Pubmed Journal

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Family therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Family therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 149 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.37 lower** (CI 95% 0.7 lower — 0.05 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Family therapy may decrease PTSD symptom severity slightly

1. **Risk of Bias: serious.** Large unbalanced loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=149). **Publication bias: no serious.**

References

35. FOREST PLOT: Family Therapy vs WLTAU. Website

76. Kazak AE, Alderfer MA, Streisand R, Simms S, Rourke MT, Barakat LP, et al. Treatment of posttraumatic stress symptoms in adolescent survivors of childhood cancer and their families: a randomized clinical trial. Journal of family psychology : JFP : journal of the Division of Family Psychology of the American Psychological Association (Division 43) 2004;18(3):493-504 Pubmed

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Neurofeedback training
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Neurofeedback training	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 32 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.02 lower** (CI 95% 1.76 lower — 0.28 lower)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether Neurofeedback Training improves or worsen PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=32), Wide confidence intervals includes important benefit and unimportant benefit. **Publication bias: no serious.**

References

638. Rogel A, Loomis AM, Hamlin ED, Hodgdon H, Spinazzola J, van der Kolk B. The impact of neurofeedback training on children with developmental trauma: A randomized controlled study. Psychological trauma : theory, research, practice and policy 2020;12(8):918-929 Pubmed Journal

668. FOREST PLOT: Neurofeedback training vs WL/TAU. Website

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Non-directive counselling
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Non-directive counselling	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 74 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.29 lower** (CI 95% 0.75 lower — 0.18 higher)	Moderate Due to serious imprecision [1]	Non-directive counseling probably decreases PTSD symptom severity slightly

1. **Risk of Bias: no serious.** Treatments were carried out by intensively trained local lay counselors; . **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=74). **Publication bias: no serious.**

References

56. Chen Y, Shen WW, Gao K, Lam CS, Chang WC, Deng H. Effectiveness RCT of a CBT intervention for youths who lost parents in the Sichuan, China, earthquake. Psychiatric services (Washington, D.C.) 2014;65(2):259-62 Pubmed Journal

66. Ertl V, Pfeiffer A, Schauer E, Elbert T, Neuner F. Community-implemented trauma therapy for former child soldiers in Northern Uganda: a randomized controlled trial. JAMA 2011;306(5):503-12 Pubmed Journal

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Group psychoeducation
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Group psychoeducation	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 166 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.3 lower** (CI 95% 1.64 lower — 0.96 lower)	Very low Due to serious imprecision, Due to serious risk of bias, Due to serious indirectness [1]	We are uncertain whether group psychoeducation increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** due to local volunteers conducted data collection. **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied; Children exposed to 2004 Sri Lankan tsunami. **Imprecision: serious.** Low number of patients (n=166). **Publication bias: no serious.**

References

41. FOREST PLOT: Psychoeducation vs WL/TAU. Website

53. Berger R, Gelkopf M. School-based intervention for the treatment of tsunami-related distress in children: a quasi-randomized controlled trial. Psychotherapy and psychosomatics 2009;78(6):364-71 Pubmed Journal

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Group trauma-focused CBT for caregiver and child
Comparator: Supportive group therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Group Trauma-focused CBT for caregiver and child	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 44 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.01 higher** (CI 95% 0.58 lower — 0.6 higher)	Very low Due to serious risk of bias, due to very serious imprecision [1]	We are uncertain whether group trauma-focused CBT for caregiver and child increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Selective outcome reporting. **Imprecision: very serious.** Low number of patients (n=44), Wide confidence intervals (CI includes important benefit and important harm).

References

36. FOREST PLOT: Group TF-CBT (Caregiver and Child) vs Supportive Group Therapy. Website

64. Deblinger E, Stauffer LB, Steer RA. Comparative efficacies of supportive and cognitive behavioral group therapies for young children who have been sexually abused and their nonoffending mothers. Child maltreatment 2001;6(4):332-43 Pubmed

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Trauma-focused CBT for caregiver
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Trauma-focused CBT for caregiver	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom	Lower better	Difference:	**SMD 0.61 lower** (CI 95% 1.21 lower	Low Due to very serious	Trauma-focused CBT for caregiver may decrease

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Trauma-focused CBT for caregiver	**Certainty of the evidence** (Quality of evidence)	**Summary**
severity	Based on data from 44 participants in 1 studies. (Randomized controlled)		— 0 higher)	imprecision [1]	PTSD symptom severity slightly

1. **Imprecision: very serious.** Low number of patients (n=44), Wide confidence intervals (CI includes important benefit and no effect).

References

63. Deblinger E, Steer RA, Lippmann J. Two-year follow-up study of cognitive behavioral therapy for sexually abused children suffering post-traumatic stress symptoms. Child abuse & neglect 1999;23(12):1371-8 Pubmed

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Trauma-focused CBT for caregiver
Comparator: Trauma-focused CBT for caregiver and child

Outcome Timeframe	**Study results and measurements**	**Comparator** Trauma-focused CBT for caregiver and child	**Intervention** Trauma-focused CBT for caregiver	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 44 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.61 higher** (CI 95% 0.01 higher — 1.22 higher)	Low Due to very serious imprecision [1]	Trauma-focused CBT for caregiver and child may be more beneficial than CBT-T for caregiver only for PTSD symptom severity

1. **Imprecision: very serious.** Low number of patients (n=44), Wide confidence intervals (CI includes unimportant harm and important harm).

References

46. FOREST PLOT: TF-CBT (Caregiver and Child) vs TF-CBT (Caregiver). Website

63. Deblinger E, Steer RA, Lippmann J. Two-year follow-up study of cognitive behavioral therapy for sexually abused children suffering post-traumatic stress symptoms. Child abuse & neglect 1999;23(12):1371-8 Pubmed

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Unified Protocol for the Treatment of Emotional Disorders in Adolescents (UP-A)
Comparator: Trauma-Focused CBT

Outcome Timeframe	**Study results and measurements**	**Comparator** TF-CBT	**Intervention** UP-A	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 93 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.19 lower** (CI 95% 0.6 lower — 0.22 higher)	Low Due to very serious imprecision [1]	There may be little or no difference between Unified Protocol (for adolescents) and Trauma-Focused CBT on PTSD severity

1. **Risk of Bias: no serious.** Unclear information regarding concealment of allocation during randomization process, resulting in potential for selection bias, Selective outcome reporting. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients. **Publication bias: no serious.**

References

45. FOREST PLOT: TF-CBT (Child) vs WL/TAU. Website

51. Ahrens J, Rexford L. Ahrens, J., & Rexford, L. (2002). Cognitive processing therapy for incarcerated adolescents with PTSD. Journal of Aggression, Maltreatment & Trauma, 6(1), 201-216. Website

52. Auslander W, McGinnis H, Tlapek S, Smith P, Foster A, Edmond T, et al. Adaptation and implementation of a trauma-focused cognitive behavioral intervention for girls in child welfare. The American journal of orthopsychiatry 2017;87(3):206-215 Pubmed Journal

56. Chen Y, Shen WW, Gao K, Lam CS, Chang WC, Deng H. Effectiveness RCT of a CBT intervention for youths who lost parents in the Sichuan, China, earthquake. Psychiatric services (Washington, D.C.) 2014;65(2):259-62 Pubmed Journal

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61. de Roos C, van der Oord S, Zijlstra B, Lucassen S, Perrin S, Emmelkamp P, et al. Comparison of eye movement desensitization and reprocessing therapy, cognitive behavioral writing therapy, and wait-list in pediatric posttraumatic stress disorder following single-incident trauma: a multicenter randomized clinical trial. Journal of child psychology and psychiatry, and allied disciplines 2017;58(11):1219-1228 Pubmed Journal

63. Deblinger E, Steer RA, Lippmann J. Two-year follow-up study of cognitive behavioral therapy for sexually abused children suffering post-traumatic stress symptoms. Child abuse & neglect 1999;23(12):1371-8 Pubmed

71. Goenjian AK, Karayan I, Pynoos RS, Minassian D, Najarian LM, Steinberg AM, et al. Outcome of psychotherapy among early adolescents after trauma. The American journal of psychiatry 1997;154(4):536-42 Pubmed

74. Jaycox LH, Langley AK, Stein BD, Wong M, Sharma P, Scott M, et al. Support for Students Exposed to Trauma: A Pilot Study. School mental health 2009;1(2):49-60 Pubmed

78. King NJ, Tonge BJ, Mullen P, Myerson N, Heyne D, Rollings S, et al. Treating sexually abused children with posttraumatic stress symptoms: a randomized clinical trial. Journal of the American Academy of Child and Adolescent Psychiatry 2000;39(11):1347-55 Pubmed

82. McMullen J, O'Callaghan P, Shannon C, Black A, Eakin J. Group trauma-focused cognitive-behavioural therapy with former child soldiers and other war-affected boys in the DR Congo: a randomised controlled trial. Journal of child psychology and psychiatry, and allied disciplines 2013;54(11):1231-41 Pubmed Journal

83. Meiser-Stedman R, Smith P, McKinnon A, Dixon C, Trickey D, Ehlers A, et al. Cognitive therapy as an early treatment for post-traumatic stress disorder in children and adolescents: a randomized controlled trial addressing preliminary efficacy and mechanisms of action. Journal of child psychology and psychiatry, and allied disciplines 2017;58(5):623-633 Pubmed Journal

85. O'Callaghan P, McMullen J, Shannon C, Rafferty H, Black A. A randomized controlled trial of trauma-focused cognitive behavioral therapy for sexually exploited, war-affected Congolese girls. Journal of the American Academy of Child and Adolescent

Psychiatry 2013;52(4):359-69 Pubmed Journal

88. Pityaratstian N, Piyasil V, Ketumarn P, Sitdhiraksa N, Ularntinon S, Pariwatcharakul P. Randomized Controlled Trial of Group Cognitive Behavioural Therapy for Post-Traumatic Stress Disorder in Children and Adolescents Exposed to Tsunami in Thailand. Behavioural and cognitive psychotherapy 2015;43(5):549-61 Pubmed Journal

95. Shein-Szydlo J, Sukhodolsky DG, Kon DS, Tejeda MM, Ramirez E, Ruchkin V. A Randomized Controlled Study of Cognitive-Behavioral Therapy for Posttraumatic Stress in Street Children in Mexico City. Journal of traumatic stress 2016;29(5):406-414 Pubmed Journal

96. Smith P, Yule W, Perrin S, Tranah T, Dalgleish T, Clark DM. Cognitive-behavioral therapy for PTSD in children and adolescents: a preliminary randomized controlled trial. Journal of the American Academy of Child and Adolescent Psychiatry 2007;46(8):1051-1061 Pubmed Journal

708. Rosner R, Rimane E, Frick U, Gutermann J, Hagl M, Renneberg B, et al. Effect of Developmentally Adapted Cognitive Processing Therapy for Youth With Symptoms of Posttraumatic Stress Disorder After Childhood Sexual and Physical Abuse: A Randomized Clinical Trial. JAMA psychiatry 2019;76(5):484-491 Pubmed Journal

Pharmacological interventions for children and adolescents with PTSD

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Sertraline
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Sertraline	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 129 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.19 higher** (CI 95% 0.15 lower — 0.54 higher)	Low Due to serious imprecision, Due to serious risk of bias [1]	Sertraline may increase PTSD symptom severity slightly

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up- Higher attrition in intervention and 7.5% of sertraline arm discontinued due to adverse events. Trial was stopped for futility.. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=129), Wide confidence intervals (CI includes unimportant benefit and important harm). **Publication bias: no serious.**

References

99. FOREST PLOT: Sertraline vs Placebo. Website

100. Robb AS, Cueva JE, Sporn J, Yang R, Vanderburg DG. Sertraline treatment of children and adolescents with posttraumatic stress disorder: a double-blind, placebo-controlled trial. Journal of child and adolescent psychopharmacology 2010;20(6):463-71 Pubmed Journal

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Ifenprodil tartrate
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Ifenprodil tartrate	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 10 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.23 lower** (CI 95% 2.68 lower — 0.21 higher)	Low Due to very serious imprecision [1]	Ifenprodil tartrate may decrease PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=10), Wide confidence intervals (CI includes important benefit and unimportant benefit thresholds), . **Publication bias: no serious.**

References

99. FOREST PLOT: Sertraline vs Placebo. Website

100. Robb AS, Cueva JE, Sporn J, Yang R, Vanderburg DG. Sertraline treatment of children and adolescents with posttraumatic stress disorder: a double-blind, placebo-controlled trial. Journal of child and adolescent psychopharmacology 2010;20(6):463-71 Pubmed Journal

Non-psychological and non-pharmacological treatments/interventions for children with PTSD

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Mind-body skills group
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Mind-body skills group	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 77 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.52 lower** (CI 95% 2.03 lower — 1.01 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Mind-body skills group may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of participants and personnel, resulting in potential for performance bias.

Inconsistency: no serious. Indirectness: no serious. Imprecision: serious. Low number of patients (n=77). **Publication bias: no serious.**

References

101. FOREST PLOT: Mind-Body Skills Group vs WL/TAU (Sx). Website

103. Gordon JS, Staples JK, Blyta A, Bytyqi M, Wilson AT. Treatment of posttraumatic stress disorder in postwar Kosovar adolescents using mind-body skills groups: a randomized controlled trial. The Journal of clinical psychiatry 2008;69(9):1469-76 Pubmed

Clinical question/ PICO

Population: Children and adolescents with clinically relevant post-traumatic stress symptoms
Intervention: Trauma-focused expressive art therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Trauma-focused expressive art therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 29 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.46 lower** (CI 95% 2.3 lower — 0.63 lower)	Low Due to very serious imprecision [1]	Trauma-focused expressive art therapy may decrease PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=29), Wide confidence intervals (CI includes important benefit and unimportant benefit). **Publication bias: no serious.**

References

102. FOREST PLOT: Art Therapy vs WL/TAU (Sx). Website

104. Lyshak-Stelzer F, Singer P, Patricia J, Chemtob C. Lyshak-Stelzer, F., Singer, P., Patricia, S. J., & Chemtob, C. M. (2007). Art therapy for adolescents with posttraumatic stress disorder symptoms: A pilot study. Art Therapy, 24(4), 163-169. Website

Adults pre-incident preparedness

Clinical question/ PICO

Population: Adults
Intervention: Attention bias modification training (ABMT)
Comparator: No training control

Outcome Timeframe	**Study results and measurements**	**Comparator** No training control	**Intervention** Attention bias modification training (ABMT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.32 (CI 95% 0.1 — 0.97) Based on data from 360 participants in 1 studies. (Randomized controlled)	68 per 1000 Difference:	22 per 1000 **46 fewer per 1000** (CI 95% 61 fewer — 2 fewer)	Low Due to very serious imprecision [1]	Attention bias modification may decrease PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 308 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.15 lower** (CI 95% 0.37 lower — 0.08 higher)	Moderate Due to serious imprecision [2]	Attention bias modification probably has little or no difference on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients, Wide confidence intervals. **Publication bias: no serious.**
2. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Only data from one study. **Publication bias: no serious.**

References

107. FOREST PLOT: ABMT (4 sessions) vs Control (Dx). Website

108. FOREST PLOT: ABMT (4 sessions) vs Control (Sx). Website

125. Wald I, Fruchter E, Ginat K, Stolin E, Dagan D, Bliese PD, et al. Selective prevention of combat-related post-traumatic stress disorder using attention bias modification training: a randomized controlled trial. Psychological medicine 2016;46(12):2627-36 Pubmed Journal

Clinical question/ PICO

Population: Adults
Intervention: Attention bias modification training (ABMT)
Comparator: Attention Control Training (ACT)

Outcome Timeframe	**Study results and measurements**	**Comparator** Attention Control Training (ACT)	**Intervention** Attention bias modification (ABMT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.56 (CI 95% 0.17 — 1.88) Based on data from 364 participants in 1 studies. (Randomized controlled)	39 per 1000 Difference:	22 per 1000 **17 fewer per 1000** (CI 95% 32 fewer — 34 more)	Low Due to very serious imprecision [1]	Attention bias modification (ABMT) may be more effective than ACT in decreasing PTSD diagnosis

Outcome Timeframe	**Study results and measurements**	**Comparator** Attention Control Training (ACT)	**Intervention** Attention bias modification (ABMT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 297 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.02 higher** (CI 95% 0.21 lower — 0.25 higher)	Low Due to very serious imprecision [2]	There may be little or no difference between Attention bias modification and Attention control training on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Wide confidence intervals, Low number of patients. **Publication bias: no serious.**
2. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients, Wide confidence intervals. **Publication bias: no serious.**

References

105. FOREST PLOT: ABMT (4 session) vs ACT (4 sessions) (Dx). Website

106. FOREST PLOT: AMBT (4 sessions) vs ACT (4 sessions) (Sx). Website

125. Wald I, Fruchter E, Ginat K, Stolin E, Dagan D, Bliese PD, et al. Selective prevention of combat-related post-traumatic stress disorder using attention bias modification training: a randomized controlled trial. Psychological medicine 2016;46(12):2627-36 Pubmed Journal

Clinical question/ PICO

Population: Adults
Intervention: Single session Attention Bias Modification Training (ABMT)
Comparator: Attention Control Training (ACT)

Outcome Timeframe	**Study results and measurements**	**Comparator** Attention Control Training (ACT)	**Intervention** Single session Attention Bias Modification Training (ABMT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 99 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.19 higher** (CI 95% 0.2 lower — 0.59 higher)	Low Due to serious imprecision, Due to serious risk of bias [1]	There may be little or no difference between single session ABMT and ACT on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, no. of participant randomised to each arm not reported. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Only data from one study. **Publication bias: no serious.**

References

117. FOREST PLOT: Single session ABMT vs ACT (Sx). Website

126. Wald I, Bitton S, Levi O, Zusmanovich S, Fruchter E, Ginat K, et al. Acute delivery of attention bias modification training (ABMT) moderates the association between combat exposure and posttraumatic symptoms: A feasibility study. Biological psychology 2017;122:93-97 Pubmed Journal

Clinical question/ PICO

Population: Adults
Intervention: Attention Control Training (ACT)
Comparator: No training control

Outcome Timeframe	**Study results and measurements**	**Comparator** No training control	**Intervention** Attention Control Training (ACT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.57 (CI 95% 0.23 — 1.42) Based on data from 356 participants in 1 studies. (Randomized controlled)	68 per 1000 Difference:	39 per 1000 **29 fewer per 1000** (CI 95% 52 fewer — 29 more)	Low Due to very serious imprecision [1]	Attention control training (ACT) may decrease PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 297 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.16 lower** (CI 95% 0.39 lower — 0.07 higher)	Moderate Due to serious imprecision [2]	There is probably little or no difference between Attention control training and no training control on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Wide confidence intervals, Low number of patients. **Publication bias: no serious.**
2. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients. **Publication bias: no serious.**

References

109. FOREST PLOT: ACT (4 sessions) vs Control (Dx). Website

110. FOREST PLOT: ACT (4 sessions) vs Control (Sx). Website

125. Wald I, Fruchter E, Ginat K, Stolin E, Dagan D, Bliese PD, et al. Selective prevention of combat-related post-traumatic stress disorder using attention bias modification training: a randomized controlled trial. Psychological medicine 2016;46(12):2627-36 Pubmed Journal

Clinical question/ PICO

Population: Adults
Intervention: Heart rate variability biofeedback (HRVB)
Comparator: Control

Outcome Timeframe	**Study results and measurements**	**Comparator** Control	**Intervention** Heart rate variability biofeedback (HRVB)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.33 (CI 95% 0.07 — 1.47) Based on data from 227 participants in 1 studies. (Randomized controlled)	67 per 1000 Difference:	22 per 1000 **45 fewer per 1000** (CI 95% 62 fewer — 31 more)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether heart rate variability biofeedback (HRVB) increases or decreases PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 227 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.23 lower** (CI 95% 0.49 lower — 0.04 higher)	Low Due to serious imprecision, Due to serious risk of bias [2]	Heart rate variability biofeedback (HRVB) may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to differences at baseline, issues with iPad use, adherence not monitored, Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Wide confidence intervals (CI includes important benefit and important harm), Low number of events (11). **Publication bias: no serious.**
2. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to differences at baseline, issues with iPad use, adherence not monitored, Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=227), Wide confidence intervals (CI includes important benefit and unimportant harm). **Publication bias: no serious.**

References

114. FOREST PLOT: HRVB vs Control (Dx). Website

115. FOREST PLOT: HRVB vs Control (Sx). Website

123. Pyne JM, Constans JI, Nanney JT, Wiederhold MD, Gibson DP, Kimbrell T, et al. Heart Rate Variability and Cognitive Bias Feedback Interventions to Prevent Post-deployment PTSD: Results from a Randomized Controlled Trial. Military medicine 2019;184(1-2):e124-e132 Pubmed Journal

Clinical question/ PICO

Population: Adults
Intervention: Heart rate variability biofeedback (HRVB)
Comparator: Cognitive bias modification for interpretation (CBM-I)

Outcome Timeframe	**Study results and measurements**	**Comparator** Cognitive bias modification for interpretation (CBM-I)	**Intervention** Heart rate variability biofeedback (HRVB)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.35 (CI 95% 0.07 — 1.74) Based on data from 172	63 per 1000	22 per 1000	Low Due to serious imprecision, Due to	Heart rate variability biofeedback (HRVB) may be more beneficial than CBM-I

Outcome Timeframe	**Study results and measurements**	**Comparator** Cognitive bias modification for interpretation (CBM-I)	**Intervention** Heart rate variability biofeedback (HRVB)	**Certainty of the evidence** (Quality of evidence)	**Summary**
	participants in 1 studies. (Randomized controlled)	Difference:	**41 fewer per 1000** (CI 95% 59 fewer — 47 more)	serious risk of bias [1]	for decreasing PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 172 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.06 lower** (CI 95% 0.36 lower — 0.24 higher)	Low Due to serious imprecision, Due to serious risk of bias [2]	There may be little or no difference between HRVB and CBM-I on PTSD symptom severity

1, 2. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to differences at baseline, issues with iPad use, adherence not monitored, Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Only data from one study. **Publication bias: no serious.**

References

112. FOREST PLOT: HRVB vs CBM-I (Dx). Website

113. FOREST PLOT: HRVB vs CBM-I (Sx). Website

123. Pyne JM, Constans JI, Nanney JT, Wiederhold MD, Gibson DP, Kimbrell T, et al. Heart Rate Variability and Cognitive Bias Feedback Interventions to Prevent Post-deployment PTSD: Results from a Randomized Controlled Trial. Military medicine 2019;184(1-2):e124-e132 Pubmed Journal

Clinical question/ PICO

Population: Adults
Intervention: Cognitive bias modification for interpretation (CBM-I)
Comparator: Control

Outcome Timeframe	**Study results and measurements**	**Comparator** Control	**Intervention** Cognitive bias modification for interpretation (CBM-I)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.94 (CI 95% 0.33 — 2.7) Based on data from 215 participants in 1 studies. (Randomized controlled)	67 per 1000 Difference:	63 per 1000 **4 fewer per 1000** (CI 95% 45 fewer — 114 more)	Low Due to serious imprecision, Due to serious risk of bias [1]	There may be little or no difference between CBM-I and control on PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 215 participants in 1 studies.	Difference:	**SMD 0.16 lower** (CI 95% 0.44 lower — 0.12 higher)	Low Due to serious imprecision, Due to serious risk of bias [2]	There may be little or no difference between CBM-I and control on PTSD symptom severity

Outcome Timeframe	**Study results and measurements**	**Comparator** Control	**Intervention** Cognitive bias modification for interpretation (CBM-I)	**Certainty of the evidence** (Quality of evidence)	**Summary**
	(Randomized controlled)				

1, 2. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to differences at baseline, issues with iPad use, adherence not monitored, Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Only data from one study. **Publication bias: no serious.**

References

111. FOREST PLOT: CBM-I vs Control (Dx). Website

123. Pyne JM, Constans JI, Nanney JT, Wiederhold MD, Gibson DP, Kimbrell T, et al. Heart Rate Variability and Cognitive Bias Feedback Interventions to Prevent Post-deployment PTSD: Results from a Randomized Controlled Trial. Military medicine 2019;184(1-2):e124-e132 Pubmed Journal

Clinical question/ PICO

Population: Adults
Intervention: Disaster worker resiliency training program (DWRT)
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Disaster worker resiliency training program (DWRT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 159 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.21 lower** (CI 95% 0.52 lower — 0.1 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether disaster worker resiliency training program (DWRT) improves or worsen PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n = 159), Wide confidence intervals including important benefit and unimportant harm. **Publication bias: no serious.**

References

598. Mahaffey BL, Mackin DM, Rosen J, Schwartz RM, Taioli E, Gonzalez A. The disaster worker resiliency training program: a randomized clinical trial. International archives of occupational and environmental health 2021;94(1):9-21 Pubmed Journal

640. FOREST PLOT: DWRT vs WL/TAU. Website

Clinical question/ PICO

Population: Adults
Intervention: MAPS resilience training
Comparator: Training as usual (TAU)

Outcome Timeframe	**Study results and measurements**	**Comparator** Training as usual (TAU)	**Intervention** MAPS resilience training	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 61 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.41 higher** (CI 95% 0.1 lower — 0.92 higher)	Moderate Due to serious imprecision [1]	MAPS resilience training probably increases PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Only data from one study, Low number of patients. **Publication bias: no serious.**

References

116. FOREST PLOT: MAPS vs TAU (Sx). Website

124. Skeffington PM, Rees CS, Mazzucchelli TG, Kane RT. The Primary Prevention of PTSD in Firefighters: Preliminary Results of an RCT with 12-Month Follow-Up. PloS one 2016;11(7):e0155873 Pubmed Journal

Clinical question/ PICO

Population: Adults
Intervention: Stress inoculation training (SIT)
Comparator: Control

Outcome Timeframe	**Study results and measurements**	**Comparator** Control	**Intervention** Stress inoculation training (SIT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.95 (CI 95% 0.35 — 2.52) Based on data from 454 participants in 2 studies. (Randomized controlled)	139 per 1000 Difference:	132 per 1000 **7 fewer per 1000** (CI 95% 90 fewer — 211 more)	Very low Due to serious risk of bias, Due to serious indirectness, Due to very serious imprecision [1]	We are uncertain whether stress inoculation training (SIT) increases or decreases PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 267 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.01 higher** (CI 95% 0.23 lower — 0.25 higher)	Very low Due to serious imprecision, Due to serious risk of bias, Due to serious indirectness [2]	We are uncertain if these is a difference between SIT and control on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and large loss to follow up, no. of participant randomised to each arm not reported. Contamination between group- control reported using SIT, Selective outcome reporting. **Indirectness: serious.** Differences between the population of interest and those studied, Soldiers that were randomised were never deployed due to a change in military operations in 1 study. **Imprecision: very serious.** Wide confidence intervals.
2. **Risk of Bias: serious.** Incomplete data and large loss to follow up, no. of participant randomised to each arm not reported. Contamination between group- control reported using SIT.. **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied, Soldiers that were randomised were never deployed due to a change in military operations. **Imprecision: serious.** Only data from one study. **Publication bias: no serious.**

References

118. FOREST PLOT: SIT vs SM/CBP (Dx). Website

119. FOREST PLOT: SIT vs SM (Sx). Website

121. Hourani L, Tueller S, Kizakevich P, Lewis G, Strange L, Weimer B, et al. Toward Preventing Post-Traumatic Stress Disorder: Development and Testing of a Pilot Predeployment Stress Inoculation Training Program. Military medicine 2016;181(9):1151-60 Pubmed Journal

122. Hourani L, Tueller S, Kizakevich P, Strange L, Lewis G, Weimer B, et al. Hourani, L., Tueller, S., Kizakevich, P., Strange, L., Lewis, G., Weimer, B., ... & Nelson, J. (2018). Effect of stress inoculation training with relaxation breathing on perceived stress and posttraumatic stress disorder in the military: A longitudinal study. International Journal of Stress Management, 25(S1), 124. Journal

Adults within the first three months of a traumatic event

Single session early prevention interventions for adults

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Group debriefing
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Group debriefing	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3-6 months	Lower better Based on data from 1,184 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 0.09 lower** (CI 95% 0.2 lower — 0.03 higher)	Moderate Due to serious risk of bias [1]	Group debriefing probably has little or no effect on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Missing intention-to-treat analysis, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: no serious.** N=1184. **Publication bias: no serious.**

References

133. FOREST PLOT: Group Debriefing vs WLTAU (Sx). Website

144. Adler AB, Litz BT, Castro CA, Suvak M, Thomas JL, Burrell L, et al. A group randomized trial of critical incident stress debriefing provided to U.S. peacekeepers. Journal of traumatic stress 2008;21(3):253-63 Pubmed Journal

159. Tuckey MR, Scott JE. Group critical incident stress debriefing with emergency services personnel: a randomized controlled trial. Anxiety, stress, and coping 2014;27(1):38-54 Pubmed Journal

163. Wu S, Zhu X, Zhang Y, Liang J, Liu X, Yang Y, et al. A new psychological intervention: "512 Psychological Intervention Model" used for military rescuers in Wenchuan Earthquake in China. Social psychiatry and psychiatric epidemiology 2012;47(7):1111-9 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Group debriefing
Comparator: Group stress management

Outcome Timeframe	**Study results and measurements**	**Comparator** Group stress management	**Intervention** Group debriefing	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 483 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.03 lower** (CI 95% 0.21 lower — 0.15 higher)	Moderate Due to serious risk of bias [1]	There is probably little or no difference between Group debriefing and Group stress management on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: no serious.** Wide confidence intervals includes important benefit and unimportant harm - however this arises from a very wide CI of a very small study and is borderline. **Publication bias: no serious.**

References

134. FOREST PLOT: Group debriefing vs Group stress management. Website

144. Adler AB, Litz BT, Castro CA, Suvak M, Thomas JL, Burrell L, et al. A group randomized trial of critical incident stress debriefing provided to U.S. peacekeepers. Journal of traumatic stress 2008;21(3):253-63 Pubmed Journal

159. Tuckey MR, Scott JE. Group critical incident stress debriefing with emergency services personnel: a randomized controlled trial. Anxiety, stress, and coping 2014;27(1):38-54 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Individual debriefing
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Individual debriefing	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 1.12 (CI 95% 0.78 — 1.59) Based on data from 278 participants in 3 studies. (Randomized controlled)	287 per 1000 Difference:	321 per 1000 **34 more per 1000** (CI 95% 63 fewer — 169 more)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether individual debriefing increases or decreases PTSD diagnosis
PTSD symptom severity 3-6 months	Lower better Based on data from 718 participants in 7 studies.	Difference:	**0.09 lower** 0.35 lower — 0.18 higher	Very low Due to serious risk of bias, Due to serious inconsistency, Due to very serious imprecision [2]	We are uncertain whether individual debriefing improves or worsen PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (events = 87), Wide confidence intervals (CI include important benefit and important harm). **Publication bias: no serious.**
2. **Risk of Bias: serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Incomplete data and/or large loss to follow up, Missing intention-to-treat analysis. **Inconsistency: serious.** The confidence interval of some of the studies do not overlap with those of most included studies/ the point estimate of some of the included studies., The magnitude of statistical heterogeneity was high, with I^2:75%., Point estimates vary widely, The direction of the effect is not consistent between the included studies. **Indirectness: no serious. Imprecision: very serious.** Wide confidence intervals including important benefit and important harm. **Publication bias: no serious.**

References

136. FOREST PLOT: Individual Debriefing vs WLTAU (Sx). Website

143. FOREST PLOT: Individual Debriefing vs WLTAU (Dx). Website

145. Bisson JI, Jenkins PL, Alexander J, Bannister C. Randomised controlled trial of psychological debriefing for victims of acute burn trauma. The British journal of psychiatry : the journal of mental science 1997;171:78-81 Pubmed

148. Conlon L, Fahy TJ, Conroy R. Conlon, L., Fahy, T. J., & Conroy, R. (1999). PTSD in ambulant RTA victims: A randomized controlled trial of debriefing. Journal of psychosomatic research, 46(1), 37-44. Pubmed

151. Hobbs M, Mayou R, Harrison B, Worlock P. A randomised controlled trial of psychological debriefing for victims of road traffic accidents. BMJ (Clinical research ed.) 1996;313(7070):1438-9 Pubmed

155. Lee C, Slade P, Lygo V. The influence of psychological debriefing on emotional adaptation in women following early miscarriage: a preliminary study. The British journal of medical psychology 1996;69 (Pt 1):47-58 Pubmed

156. Rose S, Brewin CR, Andrews B, Kirk M. A randomized controlled trial of individual psychological debriefing for victims of violent crime. Psychological medicine 1999;29(4):793-9 Pubmed

599. Abdollahpour S, Khosravi A, Motaghi Z, Keramat A, Mousavi SA. Effect of Brief Cognitive Behavioral Counseling and Debriefing on the Prevention of Post-traumatic Stress Disorder in Traumatic Birth: A Randomized Clinical Trial. Community mental health journal 2019;55(7):1173-1178 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Individual debriefing
Comparator: Brief cognitive behavioural counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Brief cognitive behavioural counselling	**Intervention** Individual debriefing	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 98 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.12 lower** (CI 95% 0.51 lower — 0.28 higher)	Low Due to very serious imprecision [1]	There may be little or no difference between Individual debriefing and Brief cognitive behavioural counselling on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n = 98), Wide confidence intervals including important benefit and important harm. **Publication bias: no serious.**

References

599. Abdollahpour S, Khosravi A, Motaghi Z, Keramat A, Mousavi SA. Effect of Brief Cognitive Behavioral Counseling and Debriefing on the Prevention of Post-traumatic Stress Disorder in Traumatic Birth: A Randomized Clinical Trial. Community mental health journal 2019;55(7):1173-1178 Pubmed Journal

642. FOREST PLOT: Individual Debriefing vs Brief CBC. Website

Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Group 512 PIM
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Group 512 PIM	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 758 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.54 lower** (CI 95% 0.68 lower — 0.39 lower)	Low Due to serious risk of bias, Due to serious indirectness [1]	Group 512 PIM may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Moderate loss to follow up, Missing intention-to-treat analysis. **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied; Chinese soldiers undergoing rescue after earthquake. Differences between the intervention/comparator of interest and those studied; Intervention includes components that may not be transferable to other cultures . **Imprecision: no serious.**

References

132. FOREST PLOT: Group 512 PM vs WLTAU (Sx). Website

163. Wu S, Zhu X, Zhang Y, Liang J, Liu X, Yang Y, et al. A new psychological intervention: "512 Psychological Intervention Model" used for military rescuers in Wenchuan Earthquake in China. Social psychiatry and psychiatric epidemiology 2012;47(7):1111-9 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Group 512 PIM
Comparator: Group debriefing

Outcome Timeframe	**Study results and measurements**	**Comparator** Group debriefing	**Intervention** Group 512 PIM	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3-6 months	Lower better Based on data from 739 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.42 lower** (CI 95% 0.57 lower — 0.27 lower)	Low Due to serious risk of bias, Due to serious indirectness [1]	Group 512 PM may be more effective than group debriefing in decreasing PTSD symptom severity

1. **Risk of Bias: serious.** Moderate loss to follow up, Missing intention-to-treat analysis. **Inconsistency: no serious. Indirectness: serious.** Differences between the intervention/comparator of interest and those studied; Intervention includes components that may not be transferable to other cultures. Differences between the population of interest and those studied; Chinese soldiers undergoing rescue after earthquake.. **Imprecision: no serious. Publication bias: no serious.**

References

131. FOREST PLOT: Group 512 PM vs Group Debriefing (Sx). Website

163. Wu S, Zhu X, Zhang Y, Liang J, Liu X, Yang Y, et al. A new psychological intervention: "512 Psychological Intervention Model" used for military rescuers in Wenchuan Earthquake in China. Social psychiatry and psychiatric epidemiology 2012;47(7):1111-9 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Computerised visuospatial task
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Computerised visuospatial task	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.58 (CI 95% 0.13 — 2.6) Based on data from 127 participants in 2 studies. (Randomized controlled)	164 per 1000 Difference:	92 per 1000 **72 fewer per 1000** (CI 95% 130 fewer — 74 more)	Very low Due to serious risk of bias, Due to serious inconsistency, Due to very serious imprecision [1]	We are uncertain whether computerised visuospatial task increases or decreases PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 160 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 0.14 lower** (CI 95% 0.46 lower — 0.17 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [2]	We are uncertain whether computerised visuospatial task increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2 = 53%.. **Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 16), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**
2. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Selective outcome reporting. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (N= 160), Wide confidence intervals (CI's include important harm and benefit). **Publication bias: no serious.**

References

152. Horsch A, Vial Y, Favrod C, Harari MM, Blackwell SE, Watson P, et al. Reducing intrusive traumatic memories after emergency caesarean section: A proof-of-principle randomized controlled study. Behaviour research and therapy 2017;94:36-47 Pubmed Journal

153. Iyadurai L, Blackwell SE, Meiser-Stedman R, Watson PC, Bonsall MB, Geddes JR, et al. Preventing intrusive memories after trauma via a brief intervention involving Tetris computer game play in the emergency department: a proof-of-concept randomized controlled trial. Molecular psychiatry 2018;23(3):674-682 Pubmed Journal

763. Kanstrup M, Singh L, Göransson KE, Widoff J, Taylor RS, Gamble B, et al. Reducing intrusive memories after trauma via a brief

cognitive task intervention in the hospital emergency department: an exploratory pilot randomised controlled trial. Translational psychiatry 2021;11(1):30 Pubmed Journal

764. FOREST PLOT: Visuospatial interference vs TAU. Website

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: EMDR
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** EMDR	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 0.16 (CI 95% 0.02 — 1.2) Based on data from 71 participants in 1 studies. (Randomized controlled)	189 per 1000 Difference:	30 per 1000 **159 fewer per 1000** (CI 95% 185 fewer — 38 more)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether EMDR increases or decreases PTSD diagnosis

1. **Risk of Bias: serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Moderate loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 8), Wide confidence intervals (CI includes important benefit and unimportant harm). **Publication bias: no serious.**

References

129. FOREST PLOT: EMDR vs WLTAU (Dx). Website

130. FOREST PLOT: EMDR vs WLTAU (Sx). Website

150. Gil-Jardiné C, Evrard G, Al Joboory S, Tortes Saint Jammes J, Masson F, Ribéreau-Gayon R, et al. Emergency room intervention to prevent post concussion-like symptoms and post-traumatic stress disorder. A pilot randomized controlled study of a brief eye movement desensitization and reprocessing intervention versus reassurance or usual care. Journal of psychiatric research 2018;103:229-236 Pubmed Journal

154. Jarero I, Artigas L, Luber M. Jarero, I., Artigas, L., & Luber, M. (2011). The EMDR protocol for recent critical incidents: Application in a disaster mental health continuum of care context. Journal of EMDR Practice and Research, 5(3), 82-94. Website

158. Tarquinio C, Rotonda C, Houllé WA, Montel S, Rydberg JA, Minary L, et al. Early Psychological Preventive Intervention For Workplace Violence: A Randomized Controlled Explorative and Comparative Study Between EMDR-Recent Event and Critical Incident Stress Debriefing. Issues in mental health nursing 2016;37(11):787-799 Pubmed

Clinical question/ PICO

Population: Adults within the first three months post traumatic event

Intervention: EMDR
Comparator: Reassurance

Outcome Timeframe	**Study results and measurements**	**Comparator** Reassurance	**Intervention** EMDR	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 0.19 (CI 95% 0.02 — 1.47) Based on data from 72 participants in 1 studies. (Randomized controlled)	158 per 1000 Difference:	30 per 1000 **128 fewer per 1000** (CI 95% 155 fewer — 74 more)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether EMDR increases or decreases PTSD diagnosis

1. **Risk of Bias: serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Moderate loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 7), Wide confidence intervals (CI's include important benefit and important harm). **Publication bias: no serious.**

References

128. FOREST PLOT: EMDR vs Reassurance (Dx). Website

150. Gil-Jardiné C, Evrard G, Al Joboory S, Tortes Saint Jammes J, Masson F, Ribéreau-Gayon R, et al. Emergency room intervention to prevent post concussion-like symptoms and post-traumatic stress disorder. A pilot randomized controlled study of a brief eye movement desensitization and reprocessing intervention versus reassurance or usual care. Journal of psychiatric research 2018;103:229-236 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Single session Prolonged Exposure (PE)
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Single session Prolonged Exposure (PE)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 52 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.07 lower** (CI 95% 0.66 lower — 0.52 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether single session prolonged exposure (PE) improves or worsen PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n = 52), Wide confidence intervals including important benefit and important harm.

References

603. Maples-Keller JL, Post LM, Price M, Goodnight JM, Burton MS, Yasinski CW, et al. Investigation of optimal dose of early intervention to prevent posttraumatic stress disorder: A multiarm randomized trial of one and three sessions of modified prolonged exposure. Depression and anxiety 2020;37(5):429-437 Pubmed Journal

643. FOREST PLOT: Single session PE vs WL/TAU. Website

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Individual psychoeducation/self-help
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Individual psychoeducation/ self-help	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 1.08 (CI 95% 0.68 — 1.7) Based on data from 629 participants in 2 studies. (Randomized controlled)	100 per 1000 Difference:	108 per 1000 **8 more per 1000** (CI 95% 32 fewer — 70 more)	Very low Due to very serious imprecision, Due to serious inconsistency [1]	We are uncertain whether Individual psychoeducation/self-help increases or decreases PTSD diagnosis
PTSD Severity 3-6 months	Lower better Based on data from 391 participants in 5 studies. (Randomized controlled)	Difference:	**SMD 0.02 lower** (CI 95% 0.22 lower — 0.18 higher)	Moderate Due to serious imprecision [2]	Individual psychoeducation/self-help probably has little or no effect on PTSD severity

1. **Inconsistency: serious.** The direction of the effect is not consistent between the included studies. **Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 66), Wide confidence intervals including important benefit and important harm. **Publication bias: no serious.**
2. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients, Wide confidence intervals (CI's include important benefit and unimportant harm). **Publication bias: no serious.**

References

137. FOREST PLOT: Psychoeducation vs WLTAU (Dx). Website

138. FOREST PLOT: Psychoeducation vs WLTAU (Sx). Website

149. Ehlers A, Clark D, Hackmann A, McManus F, Fennell M, Herbert C, et al. Ehlers, A., Clark, D. M., Hackmann, A., McManus, F., Fennell, M., Herbert, C., & Mayou, R. (2003). A randomized controlled trial of cognitive therapy, a self-help booklet, and repeated assessments as early interventions for posttraumatic stress disorder. Archives of general psychiatry, 60(10), 1024-1032. Pubmed

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Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Reassurance
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Reassurance	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 0.83 (CI 95% 0.31 — 2.25) Based on data from 75 participants in 1 studies. (Randomized controlled)	189 per 1000 Difference:	157 per 1000 **32 fewer per 1000** (CI 95% 130 fewer — 236 more)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether reassurance increases or decreases PTSD diagnosis

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Missing intention-to-treat analysis, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (n=75), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**

References

139. FOREST PLOT: Reassurance vs WLTAU (Dx). Website

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Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Group stress management
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Group stress management	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 458 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.05 lower** (CI 95% 0.24 lower — 0.13 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	Group stress management may have little or no effect on PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Incomplete data and/or large loss to follow up, resulting in attrition bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Wide confidence intervals include important benefit and unimportant harm. **Publication bias: no serious.**

References

135. FOREST PLOT: Group Stress Management vs WLTAU (Sx). Website

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Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Trauma-focused counselling
Comparator: Heart stress counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Heart stress counselling	**Intervention** Trauma-focused counselling	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 2.84 (CI 95% 0.12 — 68.86) Based on data from 183 participants in 1 studies. (Randomized controlled)	0 per 1000 Difference:	0 per 1000 **0 fewer per 1000** (CI 95% 0 fewer — 0 fewer)	Low Due to very serious imprecision [1]	Trauma-focused counselling may be less beneficial than heart stress counselling for PTSD diagnosis

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 1), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**

References

142. FOREST PLOT: Trauma-focused Counselling vs Heart Stress Counselling. Website

161. von Känel R, Barth J, Princip M, Meister-Langraf RE, Schmid J-P, Znoj H, et al. Early Psychological Counseling for the

Prevention of Posttraumatic Stress Induced by Acute Coronary Syndrome: The MI-SPRINT Randomized Controlled Trial. Psychotherapy and psychosomatics 2018;87(2):75-84 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Brief cognitive behavioural counselling
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Brief cognitive behavioural counselling	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 129 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.74 lower** (CI 95% 1.11 lower — 0.37 lower)	Moderate Due to serious imprecision [1]	Brief cognitive behavioural counselling probably decreases PTSD symptom severity

1. **Indirectness: no serious. Imprecision: serious.** Low number of patients (n = 129). **Publication bias: no serious.**

References

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641. FOREST PLOT: Brief CBC vs WL/TAU. Website

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: PFA-ABCDE
Comparator: Psychoeducation

Outcome Timeframe	**Study results and measurements**	**Comparator** Psychoeducation	**Intervention** PFA-ABCDE	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3-6 months	Lower better Based on data from 91 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.01 higher** (CI 95% 0.41 lower — 0.42 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	PFA-ABCDE may have little or no difference on PTSD symptom severity

Outcome Timeframe	**Study results and measurements**	**Comparator** Psychoeducation	**Intervention** PFA-ABCDE	**Certainty of the evidence** (Quality of evidence)	**Summary**

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Wide confidence intervals, Low number of patients. **Publication bias: no serious.**

References

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758. FOREST PLOT: PFA vs Psychoed. Website

Multiple session early prevention interventions for adults

Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Brief dyadic therapies
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Brief dyadic therapies	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3-6 months	Lower better Based on data from 103 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.41 lower** (CI 95% 0.81 lower — 0.02 lower)	Low Due to serious imprecision, Due to serious risk of bias [1]	Brief dyadic therapies probably decreases PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Missing intention-to-treat analysis. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=103), Wide confidence intervals (CIs include important benefit and unimportant benefit). **Publication bias: no serious.**

References

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196. Kazak AE, Simms S, Alderfer MA, Rourke MT, Crump T, McClure K, et al. Feasibility and preliminary outcomes from a pilot

study of a brief psychological intervention for families of children newly diagnosed with cancer. Journal of pediatric psychology 2005;30(8):644-55 Pubmed

Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Brief individual trauma processing therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Brief individual trauma processing therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 0.55 (CI 95% 0.36 — 0.85) Based on data from 315 participants in 3 studies. (Randomized controlled)	206 per 1000 Difference:	113 per 1000 **93 fewer per 1000** (CI 95% 132 fewer — 31 fewer)	Low Due to serious imprecision, Due to serious risk of bias [1]	Brief individual trauma processing therapy may decrease PTSD diagnosis
PTSD symptom severity 3-6 months	Lower better Based on data from 680 participants in 7 studies. (Randomized controlled)	Difference:	**SMD 0.2 lower** (CI 95% 0.58 lower — 0.18 higher)	Very low Due to serious risk of bias, Due to serious inconsistency, Due to very serious imprecision, Due to serious imprecision [2]	We are uncertain whether brief individual trauma processing therapy improves or worsen PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Missing intention-to-treat analysis, Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of events (events = 65), Wide confidence intervals (CI includes important and unimportant benefit). **Publication bias: no serious.**
2. **Risk of Bias: serious.** Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, Missing intention-to-treat analysis. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:85%, The confidence interval of some of the studies do not overlap with those of most included studies/ the point estimate of some of the included studies, The direction of the effect is not consistent between the included studies. **Indirectness: no serious. Imprecision: serious.** Wide confidence intervals (CI's include important benefit and unimportant harm). **Publication bias: no serious.**

References

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603. Maples-Keller JL, Post LM, Price M, Goodnight JM, Burton MS, Yasinski CW, et al. Investigation of optimal dose of early intervention to prevent posttraumatic stress disorder: A multiarm randomized trial of one and three sessions of modified prolonged exposure. Depression and anxiety 2020;37(5):429-437 Pubmed Journal

Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Brief individual trauma processing therapy
Comparator: Supportive listening

Outcome Timeframe	**Study results and measurements**	**Comparator** Supportive listening	**Intervention** Brief individual trauma processing therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3-6 months	Lower better Based on data from 51 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.54 lower** (CI 95% 1.42 lower — 0.34 higher)	Very low Due to serious risk of bias, Due to serious inconsistency, Due to very serious imprecision [1]	We are uncertain whether there is a difference between brief individual trauma processing therapy and supportive listening on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, not participant flowchart, due to lack of detailed reporting throughout paper. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:52%., although studies are by the same group and was a replication study. **Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=51), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**

References

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Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Guided internet-based CBT
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Guided internet-based CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 0.5 (CI 95% 0.18 — 1.45) Based on data from 185 participants in 1 studies. (Randomized controlled)	102 per 1000 Difference:	51 per 1000 **51 fewer per 1000** (CI 95% 84 fewer — 46 more)	Low Due to very serious imprecision [1]	Internet-based CBT may improve PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 300 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.27 lower** (CI 95% 0.5 lower — 0.04 lower)	Moderate Due to serious imprecision [2]	Guided internet-based CBT probably decreases PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 14), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**
2. **Imprecision: serious.** Low number of patients (n=300), CI includes important benefit and unimportant benefit.

References

171. FOREST PLOT: Internet-based CBT vs WL/TAU (Sx). Website

181. FOREST PLOT: Internet-based CBT vs WLTAU (Dx). Website

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Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Brief Interpersonal Counselling
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Brief Interpersonal Counselling	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 1.53 (CI 95% 0.38 — 6.24)	97	148	Very low Due to very serious	We are uncertain whether brief interpersonal

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Brief Interpersonal Counselling	**Certainty of the evidence** (Quality of evidence)	**Summary**
	Based on data from 58 participants in 1 studies. (Randomized controlled)	per 1000 Difference:	per 1000 **51 more per 1000** (CI 95% 60 fewer — 508 more)	risk of bias, Due to very serious imprecision [1]	counselling increases or decreases PTSD diagnosis
PTSD symptom severity 3-6 months	Lower better Based on data from 58 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.1 higher** (CI 95% 0.42 lower — 0.61 higher)	Very low Due to very serious risk of bias, Due to very serious imprecision [2]	We are uncertain whether brief interpersonal counselling increases or decreases PTSD symptom severity

1. **Risk of Bias: very serious.** Incomplete data and/or large loss to follow up: presented data for those who completed the IPT intervention (52.9%) of those allocated to this arm, although the participant flowchart suggests that 92.2% of those randomised to IPT completed the 3 month assessment and 90.2% completed the 6 month assessment. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 7), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**
2. **Risk of Bias: very serious.** Incomplete data and/or large loss to follow up: presented data for those who completed the IPT intervention (52.9%) of those allocated to this arm, although the participant flowchart suggests that 92.2% of those randomised to IPT completed the 3 month assessment and 90.2% completed the 6 month assessment. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=58), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**

References

192. Holmes A, Hodgins G, Adey S, Menzel S, Danne P, Kossmann T, et al. Trial of interpersonal counselling after major physical trauma. The Australian and New Zealand journal of psychiatry 2007;41(11):926-33 Pubmed

Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Brief Prolonged Exposure
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Brief Prolonged Exposure	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3-6 months	Lower better Based on data from 311 participants in 4 studies. (Randomized controlled)	Difference:	**SMD 0.31 lower** (CI 95% 0.54 lower — 0.09 lower)	Moderate Due to risk of bias [1]	Brief prolonged exposure probably decreases PTSD symptom severity slightly

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Missing intention-to-treat analysis. **Inconsistency: no serious.**

Indirectness: no serious. Imprecision: no serious. Publication bias: no serious.

References

200. Rothbaum BO, Kearns MC, Price M, Malcoun E, Davis M, Ressler KJ, et al. Early intervention may prevent the development of posttraumatic stress disorder: a randomized pilot civilian study with modified prolonged exposure. Biological psychiatry 2012;72(11):957-63 Pubmed Journal

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772. FOREST PLOT: Brief PE vs WLTAU.

Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Collaborative care
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Collaborative care	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 0.39 (CI 95% 0.1 — 1.58) Based on data from 26 participants in 1 studies. (Randomized controlled)	429 per 1000 Difference:	167 per 1000 **262 fewer per 1000** (CI 95% 386 fewer — 249 more)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether collaborative care increases or decreases PTSD diagnosis
PTSD symptom severity 3-6 months	Lower better Based on data from 26 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.41 higher** (CI 95% 0.37 lower — 1.19 higher)	Very low Due to serious risk of bias,Due to very serious imprecision [2]	We are uncertain whether collaborative care increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Due to compromised continuity of care, intervention unmanualised resulting in likely marked variability in implementation. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 8), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**
2. **Risk of Bias: serious.** Due to compromised continuity of care, intervention unmanualised resulting in likely marked variability in implementation. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=26), Wide confidence intervals CI includes important benefit and important harm). **Publication bias: no serious.**

References

203. Zatzick DF, Roy-Byrne P, Russo JE, Rivara FP, Koike A, Jurkovich GJ, et al. Zatzick, D. F., Roy-Byrne, P., Russo, J. E., Rivara, F. P., Koike, A., Jurkovich, G. J., & Katon, W. (2001). Collaborative interventions for physically injured trauma survivors: a pilot randomized effectiveness trial. General hospital psychiatry, 23(3), 114-123. General hospital psychiatry 23(3):114-23 Pubmed

Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Communication facilitator in an intensive care setting
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Communication facilitator in an intensive care setting	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3-6 months	Lower better Based on data from 168 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.11 lower** (CI 95% 0.41 lower — 0.19 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	Communication facilitator in an intensive care setting may have little or no effect on PTSD symptom severity

1. **Risk of Bias: serious.** Large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n= 168), Wide confidence intervals (CI includes important benefit and unimportant harm). **Publication bias: no serious.**

References

187. Curtis JR, Treece PD, Nielsen EL, Gold J, Ciechanowski PS, Shannon SE, et al. Randomized Trial of Communication Facilitators to Reduce Family Distress and Intensity of End-of-Life Care. American journal of respiratory and critical care medicine 2016;193(2):154-62 Pubmed Journal

Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Intensive care diaries
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Intensive care diaries	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.38	131	50	Very low	We are uncertain whether

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Intensive care diaries	**Certainty of the evidence** (Quality of evidence)	**Summary**
3-6 months	(CI 95% 0.17 — 0.82) Based on data from 322 participants in 1 studies. (Randomized controlled)	per 1000 Difference:	per 1000 **81 fewer per 1000** (CI 95% 109 fewer — 24 fewer)	Due to serious risk of bias, Due to very serious imprecision [1]	intensive care diaries increases or decreases PTSD diagnosis
PTSD symptom severity 3-6 months	Lower better Based on data from 794 participants in 5 studies. (Randomized controlled)	Difference:	**SMD 0.07 lower** (CI 95% 0.34 lower — 0.2 higher)	Very low Due to serious risk of bias, Due to serious inconsistency, Due to very serious imprecision [2]	We are uncertain whether intensive care diaries improves or worsen PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Incomplete data and/or large loss to follow up, Missing intention-to-treat analysis, due to more females in the control arm. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients events (events = 29), Wide confidence intervals (CI includes important benefit and unimportant benefit). **Publication bias: no serious.**
2. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Incomplete data and/or large loss to follow up, Missing intention-to-treat analysis, due to more females in the control arm. **Inconsistency: serious.** The confidence interval of some of the studies do not overlap with those of most included studies/ the point estimate of some of the included studies., The direction of the effect is not consistent between the included studies, The magnitude of statistical heterogeneity was high, with I^2:58%.. **Indirectness: no serious. Imprecision: very serious.** Wide confidence intervals includes important benefit and important harm. **Publication bias: no serious.**

References

195. Jones C, Bäckman C, Capuzzo M, Egerod I, Flaatten H, Granja C, et al. Intensive care diaries reduce new onset post traumatic stress disorder following critical illness: a randomised, controlled trial. Critical care (London, England) 2010;14(5):R168 Pubmed Journal

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606. Wang S, Xin H-N, Chung Lim Vico C, Liao J-H, Li S-L, Xie N-M, et al. Effect of an ICU diary on psychiatric disorders, quality of life, and sleep quality among adult cardiac surgical ICU survivors: a randomized controlled trial. Critical care (London, England) 2020;24(1):81 Pubmed Journal

672. Sayde GE, Stefanescu A, Conrad E, Nielsen N, Hammer R. Implementing an intensive care unit (ICU) diary program at a large academic medical center: Results from a randomized control trial evaluating psychological morbidity associated with critical illness. General hospital psychiatry 66:96-102 Pubmed Journal

765. Rice RN, Qualls BW, Carey MG. Use of Diaries for Family Members of Intensive Care Unit Patients to Reduce Long-Term PTSD: A Pilot Study. Journal of patient experience 2022;9:23743735221105681 Pubmed Journal

766. FOREST PLOT: ICU diary vs WL/TAU. Website

Clinical question/ PICO

Population: Adults within the first three months post traumatic event

Intervention: Nurse-led intensive care recovery program
Comparator: WL/TAU

Outcome Timeframe	**Study results and measurements**	**Comparator** WL/TAU	**Intervention** Nurse-led intensive care recovery program	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 215 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.02 lower** (CI 95% 0.29 lower — 0.25 higher)	Very low Due to serious risk of bias, Due to very serious imprecision, Due to serious indirectness [1]	We are uncertain whether nurse-led intensive care recovery program increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data . **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied (ICU pt.s on mechanical ventilation).. **Imprecision: very serious.** Low number of patients, Wide confidence intervals (include important benefit and harm). **Publication bias: no serious.**

Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: PE Coach App
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** PE Coach App	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 53 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.02 higher** (CI 95% 0.52 lower — 0.56 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether PE Coach App improves or worsen PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n = 53), Wide confidence intervals includes important harm and important benefit.

References

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646. FOREST PLOT: PE Coach app vs WL/TAU. Website

Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Supported psychoeducational intervention
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Supported psychoeducational intervention	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3-6 months	Lower better Based on data from 23 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.41 lower** (CI 95% 1.35 lower — 0.53 higher)	Very low Due to serious risk of bias, Due to serious indirectness, Due to very serious imprecision [1]	We are uncertain whether supported psychoeducational intervention increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up: Outcome data were assessed on an ITT basis and involved all parent–child pairs randomly assigned and providing follow-up data. However, outcome data was only available for 17 (77.8%) of the intervention group and 6 (66.6%) of the TAU group . **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied; parents of children in ICU. **Imprecision: very serious.** Low number of patients (n=23), Wide confidence intervals (CI includes important benefit and important harm).

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Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Three step early intervention for mothers of infants born prematurely
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Three step early intervention for mothers premature infants	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 55 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.08 lower** (CI 95% 0.61 lower — 0.45 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether three step early intervention for mothers premature infants improves or worsen PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious.**

Imprecision: very serious. Low number of patients (N=55), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**

References

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Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Telephone-based CBT
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Telephone-based CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 185 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.08 lower** (CI 95% 0.37 lower — 0.21 higher)	Very low Due to serious indirectness, Due to very serious imprecision [1]	We are uncertain whether telephone-based CBT increases or decreases PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: serious.** Differences between the intervention/comparator of interest and those studied, intervention was tailored to coping with the effects Implantable Cardioverter Defibrillator. **Imprecision: very serious.** Low number of patients (n=185), Wide confidence intervals (CI include important benefit and important harm). **Publication bias: no serious.**

References

177. FOREST PLOT: Telephone-based CBT. Website

193. Irvine J, Firestone J, Ong L, Cribbie R, Dorian P, Harris L, et al. A randomized controlled trial of cognitive behavior therapy tailored to psychological adaptation to an implantable cardioverter defibrillator. Psychosomatic medicine 2011;73(3):226-33 Pubmed Journal

Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Telephone + Internet-based CBT
Comparator: Critical illness educational intervention

Outcome Timeframe	**Study results and measurements**	**Comparator** Critical illness educational intervention	**Intervention** Telephone + Internet based CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 175 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.13 higher** (CI 95% 0.16 lower — 0.43 higher)	Low Due to serious indirectness, Due to serious imprecision [1]	Telephone-based CBT may have little or no difference on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied; severely ill ICU patients with expected mortality 50% . **Imprecision: serious.** Low number of patients (n=175), Wide confidence intervals (CI include unimportant benefit and important harm. **Publication bias: no serious.**

References

179. FOREST PLOT: Telephone + internet-based CBT vs Critical illness education. Website

189. Cox CE, Hough CL, Carson SS, White DB, Kahn JM, Olsen MK, et al. Effects of a Telephone- and Web-based Coping Skills Training Program Compared with an Education Program for Survivors of Critical Illness and Their Family Members. A Randomized Clinical Trial. American journal of respiratory and critical care medicine 2018;197(1):66-78 Pubmed Journal

Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Preventative Psychotherapy
Comparator: Health education

Outcome Timeframe	**Study results and measurements**	**Comparator** Health education	**Intervention** Preventative Psychotherapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3-6 months	Lower better Based on data from 154 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.14 lower** (CI 95% 0.46 lower — 0.17 higher)	Moderate Due to serious imprecision [1]	Preventative psychotherapy probably has little or no difference on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients, Wide confidence intervals. **Publication bias: no serious.**

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778. Jiang C, Li Z, Du C, Zhang X, Chen Z, Luo G, et al. Supportive psychological therapy can effectively treat post-stroke post-traumatic stress disorder at the early stage. Frontiers in neuroscience 2022;16:1007571 Pubmed Journal

779. FOREST PLOT: Preventative Psychotherapy vs Health Education. Website

Early psychosocial treatment interventions for adults

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Stepped/collaborative care
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Stepped/ collaborative care	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months post trauma	Relative risk 0.37 (CI 95% 0.1 — 1.39) Based on data from 144 participants in 2 studies. (Randomized controlled)	391 per 1000 Difference:	145 per 1000 **246 fewer per 1000** (CI 95% 352 fewer — 152 more)	Low Due to very serious imprecision [1]	Stepped/collaborative care may decrease PTSD diagnosis
PTSD symptom severity 3-6 months	Lower better Based on data from 1,005 participants in 4 studies. (Randomized controlled)	Difference:	**SMD 1.35 lower** (CI 95% 1.49 lower — 1.2 lower)	Moderate Due to serious imprecision [2]	Stepped/ collaborative care probably decreases PTSD symptom severity

1. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high, with I^2:68% however both studies showed positive effects and therefore not important. **Indirectness: no serious. Imprecision: very serious.** Low number of events (events =40), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**
2. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Wide confidence intervals (CI includes important benefit and unimportant benefit). **Publication bias: no serious.**

References

219. FOREST PLOT: Stepped Collaborative Care vs WLTAU (Dx). Website

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267. Zatzick D, Roy-Byrne P, Russo J, Rivara F, Droesch R, Wagner A, et al. A randomized effectiveness trial of stepped collaborative care for acutely injured trauma survivors. Archives of general psychiatry 2004;61(5):498-506 Pubmed

268. Zatzick D, Jurkovich G, Rivara FP, Russo J, Wagner A, Wang J, et al. A randomized stepped care intervention trial targeting posttraumatic stress disorder for surgically hospitalized injury survivors. Annals of surgery 2013;257(3):390-9 Pubmed Journal

269. Zatzick D, O'Connor SS, Russo J, Wang J, Bush N, Love J, et al. Technology-Enhanced Stepped Collaborative Care Targeting Posttraumatic Stress Disorder and Comorbidity After Injury: A Randomized Controlled Trial. Journal of traumatic stress 2015;28(5):391-400 Pubmed Journal

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762. FOREST PLOT: SCC vs TAU. Website

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Trauma-focused CBT
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.72 (CI 95% 0.5 — 1.03) Based on data from 607 participants in 7 studies. (Randomized controlled)	568 per 1000 Difference:	409 per 1000 **159 fewer per 1000** (CI 95% 284 fewer — 17 more)	Low Due to serious inconsistency, Due to serious imprecision [1]	Trauma-focused CBT may decrease PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 779 participants in 9 studies. (Randomized controlled)	Difference:	**SMD 0.43 lower** (CI 95% 0.77 lower — 0.09 lower)	Low Due to serious risk of bias, Due to serious imprecision [2]	Trauma-focused CBT may decrease PTSD symptom severity

1. **Risk of Bias: no serious.** Difference in trauma type across groups- more sexual assault in intervention group- controlled for in analysis. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:74%.. **Indirectness: no serious. Imprecision: serious.** Wide confidence intervals (CI includes important benefit and unimportant benefit). **Publication bias: no serious.**
2. **Risk of Bias: serious.** Baseline differences, assessment time-point differences. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high, with I^2:69% however all studies showed positive effects therefore not considered important. **Indirectness: no serious. Imprecision: serious.** Wide confidence intervals (CI includes important benefit and unimportant benefit). **Publication bias: no serious.**

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774. FOREST PLOT: TF-CBT vs TAU/WL. Website

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Trauma-focused CBT
Comparator: Supportive counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Supportive counselling	**Intervention** Trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.61 (CI 95% 0.36 — 1.04) Based on data from 281 participants in 6 studies. (Randomized controlled)	587 per 1000 Difference:	358 per 1000 **229 fewer per 1000** (CI 95% 376 fewer — 23 more)	Very low Due to serious risk of bias, Due to serious inconsistency, Due to serious imprecision [1]	We are uncertain whether trauma-focused CBT is more beneficial than supportive counseling for PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 333 participants in 8 studies. (Randomized controlled)	Difference:	**SMD 0.7 lower** (CI 95% 1.08 lower — 0.33 lower)	Low Due to serious risk of bias, Due to serious imprecision [2]	Trauma-focused CBT may be more effective than supportive counselling for decreasing PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to unbalanced number of treatment sessions. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:67%.. **Imprecision: serious.** Low number of events (events = 127), Wide confidence intervals (CI includes important benefit and unimportant harm).
2. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to unbalanced number of treatment sessions. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high, with I^2:65% however all studies favour TFCBT so inconsistency is not considered important. **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=331), Wide confidence intervals (CI includes important benefit and unimportant benefit). **Publication bias: no serious.**

References

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257. Nixon RDV. Cognitive processing therapy versus supportive counseling for acute stress disorder following assault: a randomized pilot trial. Behavior therapy 2012;43(4):825-36 Pubmed Journal

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Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Brief prolonged exposure-based interventions
Comparator: Supportive counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Supportive counselling	**Intervention** Brief prolonged exposure-based interventions	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.56 (CI 95% 0.29 — 1.06) Based on data from 251 participants in 5 studies. (Randomized controlled)	604 per 1000 Difference:	338 per 1000 **266 fewer per 1000** (CI 95% 429 fewer — 36 more)	Very low Due to serious risk of bias, Due to serious inconsistency, Due to serious imprecision [1]	We are uncertain if there is a difference between brief prolonged exposure-based interventions and supportive counselling on PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 262 participants in 6 studies. (Randomized controlled)	Difference:	**SMD 0.78 lower** (CI 95% 1.26 lower — 0.3 lower)	Low Due to serious risk of bias, Due to serious imprecision [2]	Brief prolonged exposure-based interventions may be more effective than supportive counselling for decreasing PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, due to differences at baseline. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:74%.. **Imprecision: serious.** Low number of events (events = 115), Wide confidence intervals (CI includes important benefit and unimportant harm).

2. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, due to differences at baseline. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high, with I^2:69% however all studies favoured brief PE with most showing very large, large or moderate effect sizes. **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=262), Wide confidence intervals (CI includes important benefit and unimportant benefit). **Publication bias: no serious.**

References

213. FOREST PLOT: Brief PE vs Supportive Counselling (Dx). Website

214. FOREST PLOT: Brief PE vs Supportive Counselling (Sx). Website

242. Bryant RA, Harvey AG, Dang ST, Sackville T, Basten C. Treatment of acute stress disorder: a comparison of cognitive-behavioral therapy and supportive counseling. Journal of consulting and clinical psychology 1998;66(5):862-6 Pubmed

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Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Brief CPT-based interventions
Comparator: Supportive counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Supportive counselling	**Intervention** Brief CPT-based interventions	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.76 (CI 95% 0.32 — 1.83) Based on data from 30 participants in 1 studies. (Randomized controlled)	462 per 1000 Difference:	351 per 1000 **111 fewer per 1000** (CI 95% 314 fewer — 383 more)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between brief CPT-based interventions and supportive counselling on PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 71 participants in 2 studies.	Difference:	**SMD 0.47 lower** (CI 95% 0.95 lower — 0 higher)	Low Due to serious risk of bias, Due to serious imprecision	Brief CPT-based interventions may be slightly more beneficial than supportive

Outcome Timeframe	**Study results and measurements**	**Comparator** Supportive counselling	**Intervention** Brief CPT-based interventions	**Certainty of the evidence** (Quality of evidence)	**Summary**
	(Randomized controlled)			2	counselling in decreasing PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 12), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**
2. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to unbalanced number of treatment sessions. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=71), Wide confidence intervals (CI includes important benefit and unimportant benefit). **Publication bias: no serious.**

References

215. FOREST PLOT: Brief CPT vs Supportive Counselling (Dx). Website

216. FOREST PLOT: Brief CPT vs Supportive Counselling (Sx). Website

257. Nixon RDV. Cognitive processing therapy versus supportive counseling for acute stress disorder following assault: a randomized pilot trial. Behavior therapy 2012;43(4):825-36 Pubmed Journal

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Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Trauma-focused CBT
Comparator: Relaxation

Outcome Timeframe	**Study results and measurements**	**Comparator** Relaxation	**Intervention** Trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.4 (CI 95% 0.1 — 1.6) Based on data from 20 participants in 1 studies. (Randomized controlled)	500 per 1000 Difference:	200 per 1000 **300 fewer per 1000** (CI 95% 450 fewer — 300 more)	Very low Due to very serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between trauma-focused CBT and relaxation on PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 20 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.79 lower** (CI 95% 1.71 lower — 0.13 higher)	Very low Due to very serious risk of bias, Due to very serious imprecision [2]	We are uncertain if there is a difference between trauma-focused CBT and relaxation on PTSD symptom severity

1. **Risk of Bias: very serious.** Inadequate sequence generation/ generation of comparable groups and Inadequate concealment of allocation during randomization process resulting in potential for selection bias, Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, due to poorly documented intervention delivery. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 7), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**
2. **Risk of Bias: very serious.** Inadequate sequence generation/ generation of comparable groups and Inadequate concealment of allocation during randomization process resulting in potential for selection bias, Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, due to poorly documented intervention delivery. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=20), Wide confidence intervals includes important benefit and unimportant harm. **Publication bias: no serious.**

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Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Trauma-focused CBT
Comparator: Structured writing therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Structured writing therapy	**Intervention** Trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 1.57 (CI 95% 0.68 — 3.65) Based on data from 43 participants in 1 studies. (Randomized controlled)	273 per 1000 Difference:	429 per 1000 **156 more per 1000** (CI 95% 87 fewer	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between trauma-focused CBT and structured writing therapy on PTSD diagnosis

Outcome Timeframe	**Study results and measurements**	**Comparator** Structured writing therapy	**Intervention** Trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
			— 723 more)		
PTSD symptom severity	Lower better Based on data from 43 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.11 lower** (CI 95% 0.7 lower — 0.49 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [2]	We are uncertain if there is a difference between trauma-focused CBT and structured writing therapy on PTSD symptom severity

1. **Risk of Bias: serious.** Due to different time intervals between time points for intervention and control arms, differences in trauma types between arms at baseline, high drop-out with differences in trauma type. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (n=15), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**
2. **Risk of Bias: serious.** Due to different time intervals between time points for intervention and control arms, differences in trauma types between arms at baseline, high drop-out with differences in trauma type. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=43), Wide confidence intervals (CI includes important benefit and unimportant harm). **Publication bias: no serious.**

References

264. van Emmerik AAP, Kamphuis JH, Emmelkamp PMG. Treating acute stress disorder and posttraumatic stress disorder with cognitive behavioral therapy or structured writing therapy: a randomized controlled trial. Psychotherapy and psychosomatics 2008;77(2):93-100 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Trauma-focused CBT
Comparator: Self-help program

Outcome Timeframe	**Study results and measurements**	**Comparator** Self-help program	**Intervention** Trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.22 (CI 95% 0.03 — 1.45) Based on data from 10 participants in 1 studies. (Randomized controlled)	167 per 1000 Difference:	37 per 1000 **130 fewer per 1000** (CI 95% 162 fewer — 75 more)	Low Due to very serious imprecision [1]	Trauma-focused CBT may be more beneficial than self-help programs for PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 37 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.39 lower** (CI 95% 1.04 lower — 0.26 higher)	Very low Due to serious risk of bias, Due to very serious imprecision	We are uncertain if there is a difference between trauma-focused CBT and self-help programs on PTSD symptom severity

Outcome Timeframe	**Study results and measurements**	**Comparator** Self-help program	**Intervention** Trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
				[2]	

1. **Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=10) , Wide confidence intervals (includes important benefit and unimportant harm). **Publication bias: no serious.**
2. **Risk of Bias: serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Incomplete data and/or large loss to follow up, due to baseline demographic differences. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=37), Wide confidence intervals (CI includes important benefit and unimportant harm). **Publication bias: no serious.**

References

266. Wu KK, Li FW, Cho VW. A randomized controlled trial of the effectiveness of brief-CBT for patients with symptoms of posttraumatic stress following a motor vehicle crash. Behavioural and cognitive psychotherapy 2014;42(1):31-47 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Brief EMDR
Comparator: Critical Incident Stress Debriefing (CISD)

Outcome Timeframe	**Study results and measurements**	**Comparator** Critical Incident Stress Debriefing (CISD)	**Intervention** Brief EMDR	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 0.03 (CI 95% 0 — 0.51) Based on data from 42 participants in 1 studies. (Randomized controlled)	783 per 1000 Difference:	23 per 1000 **760 fewer per 1000** (CI 95% 783 fewer — 384 fewer)	Low Due to very serious imprecision [1]	EMDR may be more effective than group debriefing in decreasing PTSD diagnosis
PTSD symptom severity 3-6 months	Lower better Based on data from 41 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 4.45 lower** (CI 95% 5.62 lower — 3.28 lower)	Low Due to very serious imprecision [2]	EMDR may be more effective than group debriefing in decreasing PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 18). **Publication bias: no serious.**
2. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=41). **Publication bias: no serious.**

References

127. FOREST PLOT: EMDR vs CISD (Sx). Website

158. Tarquinio C, Rotonda C, Houllé WA, Montel S, Rydberg JA, Minary L, et al. Early Psychological Preventive Intervention For Workplace Violence: A Randomized Controlled Explorative and Comparative Study Between EMDR-Recent Event and Critical Incident Stress Debriefing. Issues in mental health nursing 2016;37(11):787-799 Pubmed

204. FOREST PLOT: EMDR vs CISD (Dx). Website

Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Brief EMDR
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Brief EMDR	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 194 participants in 7 studies. (Randomized controlled)	Difference:	**SMD 1.97 lower** (CI 95% 3.08 lower — 0.87 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Brief EMDR may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Due to differences at baseline, unclear intervention/assessment methodology. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high, with I^2:88% however all studies favour EMDR with 4 studies showing very high effects and one moderate, therefore inconsistency not important. **Indirectness: no serious. Imprecision: serious.** Low number of patients. **Publication bias: no serious.**

References

154. Jarero I, Artigas L, Luber M. Jarero, I., Artigas, L., & Luber, M. (2011). The EMDR protocol for recent critical incidents: Application in a disaster mental health continuum of care context. Journal of EMDR Practice and Research, 5(3), 82-94. Website

158. Tarquinio C, Rotonda C, Houllé WA, Montel S, Rydberg JA, Minary L, et al. Early Psychological Preventive Intervention For Workplace Violence: A Randomized Controlled Explorative and Comparative Study Between EMDR-Recent Event and Critical Incident Stress Debriefing. Issues in mental health nursing 2016;37(11):787-799 Pubmed

164. Jarero, I., Uribe, S., Artigas, L., & Givaudan, M. (2015). EMDR protocol for recent critical incidents: A randomized controlled trial in a technological disaster context. Journal of EMDR Practice and Research, 9(4), 166. 2015. Website

261. Shapiro E, Laub B. Shapiro, E., & Laub, B. (2015). Early EMDR intervention following a community critical incident: A randomized clinical trial. Journal of EMDR Practice and Research, 9(1), 17. Journal

270. Shapiro, E., Laub, B., & Rosenblat, O. (2018). Early EMDR intervention following intense rocket attacks on a town: A randomised clinical trial. Clinical Neuropsychiatry: Journal of Treatment Evaluation. Website

600. Chiorino V, Cattaneo MC, Macchi EA, Salerno R, Roveraro S, Bertolucci GG, et al. The EMDR Recent Birth Trauma Protocol: a pilot randomised clinical trial after traumatic childbirth. Psychology & health 2020;35(7):795-810 Pubmed Journal

769. Covers MLV, de Jongh AD, Huntjens RJC, de Roos C, van den Hout M, Bicanic IAE. Early intervention with eye movement

desensitization and reprocessing (EMDR) therapy to reduce the severity of post-traumatic stress symptoms in recent rape victims: a randomized controlled trial. European journal of psychotraumatology 2021;12(1):1943188 Pubmed Journal

770. FOREST PLOT: Brief EMDR vs TAU. Website

Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Internet-based guided self-help
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Internet-based guided self-help	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 58 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.66 lower** (CI 95% 1.19 lower — 0.13 lower)	Low Due to serious imprecision, Due to serious risk of bias [1]	Internet-based guided self-help may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to (in many cases) both parents participated in the study. Both parents were randomised to the same intervention. This was not addressed in the analysis.. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=58), Wide confidence intervals (CI includes important benefit and unimportant benefit). **Publication bias: no serious.**

References

233. FOREST PLOT: Internet-based guided self-help vs WL/TAU. Website

248. Cernvall M, Carlbring P, Ljungman L, Ljungman G, von Essen L. Internet-based guided self-help for parents of children on cancer treatment: a randomized controlled trial. Psycho-oncology 2015;24(9):1152-8 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Present Centred Therapy (HOPE)
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Present Centred Therapy (HOPE)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better	Difference:	**SMD 0.63 lower** (CI 95% 1 lower —	Moderate Due to serious	Present centered therapy (HOPE) probably decreases

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Present Centred Therapy (HOPE)	**Certainty of the evidence** (Quality of evidence)	**Summary**
	Based on data from 119 participants in 2 studies. (Randomized controlled)		0.27 lower)	imprecision [1]	PTSD symptom severity

1. **Risk of Bias: no serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=119), Wide confidence intervals (CIs include important benefit and unimportant benefit). **Publication bias: no serious.**

References

255. Johnson D, Zlotnick C, Perez S. Johnson, D. M., Zlotnick, C., & Perez, S. (2011). Cognitive behavioral treatment of PTSD in residents of battered women's shelters: Results of a randomized clinical trial. Journal of consulting and clinical psychology, 79(4), 542. Pubmed

256. Johnson D, Johnson N, Perez S, Palmieri P, Zlotnick C. Johnson, D. M., Johnson, N. L., Perez, S. K., Palmieri, P. A., & Zlotnick, C. (2016). Comparison of adding treatment of PTSD during and after shelter stay to standard care in residents of battered women's shelters: Results of a randomized clinical trial. Journal of traumatic stress, 29(4), 365-373. Pubmed

Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Structured writing therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Structured writing therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.63 (CI 95% 0.27 — 1.43) Based on data from 45 participants in 1 studies. (Randomized controlled)	435 per 1000 Difference:	274 per 1000 **161 fewer per 1000** (CI 95% 318 fewer — 187 more)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether structured writing therapy increases or decreases PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 45 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.97 lower** (CI 95% 1.59 lower — 0.35 lower)	Very low Due to serious risk of bias, Due to very serious imprecision [2]	We are uncertain whether structured writing therapy increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Due to different time intervals between time points for intervention and control arms, differences in trauma types between arms at baseline, high drop-out with differences in trauma type. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 15), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**

2. **Risk of Bias: serious.** Due to different time intervals between time points for intervention and control arms, differences in trauma types between arms at baseline, high drop-out with differences in trauma type. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=45), Wide confidence intervals (CI includes important benefit and unimportant benefit). **Publication bias: no serious.**

References

264. van Emmerik AAP, Kamphuis JH, Emmelkamp PMG. Treating acute stress disorder and posttraumatic stress disorder with cognitive behavioral therapy or structured writing therapy: a randomized controlled trial. Psychotherapy and psychosomatics 2008;77(2):93-100 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Structured writing therapy
Comparator: Psychoeducation

Outcome Timeframe	**Study results and measurements**	**Comparator** Psychoeducation	**Intervention** Structured writing therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PSTD symptom severity	Lower better Based on data from 104 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.16 higher** (CI 95% 0.23 lower — 0.55 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	There may be little or no difference between structured writing therapy and psychoeducation on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and large loss to follow up, due to baseline differences. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (N=104), Wide confidence intervals (CI includes unimportant benefit and important harm). **Publication bias: no serious.**

References

247. Bugg A, Turpin G, Mason S, Scholes C. A randomised controlled trial of the effectiveness of writing as a self-help intervention for traumatic injury patients at risk of developing post-traumatic stress disorder. Behaviour research and therapy 2009;47(1):6-12 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Behavioural activation
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Behavioural activation	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 8 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.9 lower** (CI 95% 2.42 lower — 0.62 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether behavioural activation increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Due to arms unmatched in terms of gender, 3 males in the intervention group 0 in the control group. Sample was too small to detect differences at baseline in a statistically meaningful way. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=8), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**

References

265. Wagner A, Zatzick D, Ghesquiere A, Jurkovich G. Wagner, Amy W., et al. "Behavioral activation as an early intervention for posttraumatic stress disorder and depression among physically injured trauma survivors." Cognitive and Behavioral Practice 14.4 (2007): 341-349. Journal

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Computerised neurobehavioural training
Comparator: Computerised games control condition

Outcome Timeframe	**Study results and measurements**	**Comparator** Computerised games control condition	**Intervention** Computerised neurobehavioural training	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 59 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.17 lower** (CI 95% 0.69 lower — 0.35 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	There may be little or no difference between Computerised neurobehavioural training and Computerised games control condition on PTSD symptom severity

1. **Risk of Bias: serious.** The authors excluded participants who completed less than 60% of the practices (i.e. dropouts), under the assumption that neurocognitive modification requires repeated and extensive training “dose”. 75 of 97 participants (77.3%) contributed to analysis at the first follow-up. Discrepancies between protocol and final paper. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=59), Wide confidence intervals (CI includes important benefit and unimportant harm). **Publication bias: no serious.**

References

240. Ben-Zion Z, Fine N, Keynan N, Admon R, Green N, Halevi M, et al. Ben-Zion, Z., Fine, N. B., Keynan, J. N., Admon, R., Green, N.,

Halevi, M., ... & Halpern, P. (2018). Cognitive flexibility predicts PTSD symptoms: observational and interventional studies. Frontiers in psychiatry, 9, 477. Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Computerised neurobehavioural training
Comparator: Reading tasks control condition

Outcome Timeframe	**Study results and measurements**	**Comparator** Reading tasks control condition	**Intervention** Computerised neurobehavioural training	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 49 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.09 lower** (CI 95% 0.71 lower — 0.53 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between computerised neurobehavioural training and a reading task control condition on PTSD symptom severity

1. **Risk of Bias: serious.** The authors excluded participants who completed less than 60% of the practices (i.e. dropouts), under the assumption that neurocognitive modification requires repeated and extensive training "dose". 75 of 97 participants (77.3%) contributed to analysis at the first follow-up. Discrepancies between protocol and final paper. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=49), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**

References

240. Ben-Zion Z, Fine N, Keynan N, Admon R, Green N, Halevi M, et al. Ben-Zion, Z., Fine, N. B., Keynan, J. N., Admon, R., Green, N., Halevi, M., ... & Halpern, P. (2018). Cognitive flexibility predicts PTSD symptoms: observational and interventional studies. Frontiers in psychiatry, 9, 477. Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Nurse-led psychological intervention
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Nurse-led psychological intervention	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 256 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.05 lower** (CI 95% 0.2 lower — 0.29 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	Nurse-led psychological intervention may have little or no difference on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=256). **Publication bias: no serious.**

References

237. FOREST PLOT: Nurse-led psychological intervention vs WL/TAU (Sx). Website

271. Skogstad L, Hem E, Sandvik L, Ekeberg O. Nurse-led psychological intervention after physical traumas: a randomized controlled trial. Journal of clinical medicine research 2015;7(5):339-47 Pubmed Journal

608. Valsø Å, Rustøen T, Småstuen MC, Ekeberg Ø, Skogstad L, Schou-Bredal I, et al. Effect of Nurse-Led Consultations on Post-Traumatic Stress and Sense of Coherence in Discharged ICU Patients With Clinically Relevant Post-Traumatic Stress Symptoms-A Randomized Controlled Trial. Critical care medicine 2020;48(12):e1218-e1225 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Supportive counselling
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Supportive counselling	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 0.93 (CI 95% 0.61 — 1.39) Based on data from 59 participants in 1 studies. (Randomized controlled)	633 per 1000 Difference:	589 per 1000 **44 fewer per 1000** (CI 95% 247 fewer — 247 more)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether supportive counselling increases or decreases PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 59 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.09 lower** (CI 95% 0.42 lower — 0.6 higher)	Low Due to serious imprecision, Due to serious risk of bias [2]	Supportive counselling may have little or no difference on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to supportive counselling arm added 12 months into study, differences at baseline in type of assault. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low

number of events (events = 59), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**
2. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to supportive counselling arm added 12 months into study, differences at baseline in type of assault. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=59), Wide confidence intervals (CI includes unimportant benefit and important harm). **Publication bias: no serious.**

References

251. Foa EB, Zoellner LA, Feeny NC. An evaluation of three brief programs for facilitating recovery after assault. Journal of traumatic stress 2006;19(1):29-43 Pubmed

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Supportive Psychological Therapy
Comparator: Health Education

Outcome Timeframe	**Study results and measurements**	**Comparator** Health Education	**Intervention** Supportive Psychological Therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 17 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.54 lower** (CI 95% 2.67 lower — 0.42 lower)	Low Due to very serious imprecision [1]	Supportive psychological therapy may decrease PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=17). **Publication bias: no serious.**

References

778. Jiang C, Li Z, Du C, Zhang X, Chen Z, Luo G, et al. Supportive psychological therapy can effectively treat post-stroke post-traumatic stress disorder at the early stage. Frontiers in neuroscience 2022;16:1007571 Pubmed Journal

780. FOREST PLOT: Supportive Psychological Therapy vs Health Education. Website

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Internet based Cognitive Behaviour Therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Internet based Cognitive Behaviour Therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 266 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.01 lower** (CI 95% 0.25 lower — 0.23 higher)	Low Due to very serious imprecision [1]	Internet based Cognitive Behaviour Therapy may have little or no difference on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=266), Only data from one study. **Publication bias: no serious.**

References

781. Sjömark J, Svanberg AS, Larsson M, Viirman F, Poromaa IS, Skalkidou A, et al. Effect of internet-based cognitive behaviour therapy among women with negative birth experiences on mental health and quality of life - a randomized controlled trial. BMC pregnancy and childbirth 2022;22(1):835 Pubmed Journal

782. FOREST PLOT: iCBT vs TAU. Website

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Interpersonal Psychotherapy
Comparator: Sertraline

Outcome Timeframe	**Study results and measurements**	**Comparator** Sertraline	**Intervention** Interpersonal Psychotherapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 45 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.13 higher** (CI 95% 0.47 lower — 0.72 higher)	Low Due to very serious imprecision [1]	Interpersonal psychotherapy may have little or no difference on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=45), Wide confidence intervals, Only data from one study. **Publication bias: no serious.**

References

783. Proença CR, Markowitz JC, Coimbra BM, Cogo-Moreira H, Maciel MR, Mello AF, et al. Interpersonal psychotherapy versus sertraline for women with posttraumatic stress disorder following recent sexual assault: a randomized clinical trial. European journal of psychotraumatology 2022;13(2):2127474 Pubmed Journal

784. FOREST PLOT: IPT vs Sertraline. Website

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: THRIVE m-health app
Comparator: Control app

Outcome Timeframe	**Study results and measurements**	**Comparator** Control app	**Intervention** THRIVE m-health app	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 40 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.23 lower** (CI 95% 0.85 lower — 0.4 higher)	Low Due to very serious imprecision [1]	The THRIVE m-health app via videoconferencing may decrease PTSD symptom severity slightly

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=40), Wide confidence intervals, Only data from one study. **Publication bias: no serious.**

References

791. Dworkin ER, Schallert M, Lee CM, Kaysen D. mHealth Early Intervention to Reduce Posttraumatic Stress and Alcohol Use After Sexual Assault (THRIVE): Feasibility and Acceptability Results From a Pilot Trial. JMIR formative research 2023;7:e44400 Pubmed Journal

792. FOREST PLOT: THRIVE app vs control app. Website

Early pharmacological interventions for adults

Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Hydrocortisone
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Hydrocortisone	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 0.21 (CI 95% 0.05 — 0.89) Based on data from 88 participants in 3 studies. (Randomized controlled)	196 per 1000 Difference:	41 per 1000 **155 fewer per 1000** (CI 95% 186 fewer — 22 fewer)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether hydrocortisone improves or worsen PTSD diagnosis

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Hydrocortisone	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3-6 months	Lower better Based on data from 43 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.63 lower** (CI 95% 1.25 lower — 0.02 lower)	Very low Due to serious risk of bias, Due to very serious imprecision [2]	We are uncertain whether hydrocortisone improves or worsen PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Selective outcome reporting, due to baseline demographic differences. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 10), Wide confidence intervals (CI includes important benefit and unimportant benefit). **Publication bias: no serious.** One commercially funded study.
2. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Missing intention-to-treat analysis, baseline demographic differences. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n= 43), Wide confidence intervals (CI includes important benefit and unimportant benefit). **Publication bias: no serious.**

References

277. FOREST PLOT: Hydrocortisone vs Placebo (Dx). Website

278. FOREST PLOT: Hydrocortisone vs Placebo (Sx). Website

282. Delahanty DL, Gabert-Quillen C, Ostrowski SA, Nugent NR, Fischer B, Morris A, et al. The efficacy of initial hydrocortisone administration at preventing posttraumatic distress in adult trauma patients: a randomized trial. CNS spectrums 2013;18(2):103-11 Pubmed Journal

293. Weis F, Kilger E, Roozendaal B, de Quervain DJ-F, Lamm P, Schmidt M, et al. Stress doses of hydrocortisone reduce chronic stress symptoms and improve health-related quality of life in high-risk patients after cardiac surgery: a randomized study. The Journal of thoracic and cardiovascular surgery 2006;131(2):277-82 Pubmed

294. Zohar J, Yahalom H, Kozlovsky N, Cwikel-Hamzany S, Matar MA, Kaplan Z, et al. High dose hydrocortisone immediately after trauma may alter the trajectory of PTSD: interplay between clinical and animal studies. European neuropsychopharmacology : the journal of the European College of Neuropsychopharmacology 2011;21(11):796-809 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months of a traumatic event
Intervention: Docosahexaenoic Acid
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Docosahexaenoic Acid	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 2.15 (CI 95% 0.2 — 23.04) Based on data from 110 participants in 1 studies. (Randomized controlled)	18 per 1000 Difference:	39 per 1000 **21 more per 1000** (CI 95% 14 fewer	Low Due to very serious imprecision [1]	Docosahexaenoic acid may increase PTSD diagnosis

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Docosahexaenoic Acid	**Certainty of the evidence** (Quality of evidence)	**Summary**
			— 397 more)		
PTSD symptom severity 3-6 months	Lower better Based on data from 110 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.11 higher** (CI 95% 0.26 lower — 0.49 higher)	Moderate Due to serious imprecision [2]	Docosahexaenoic acid probably has little or no difference on PTSD symptom severity.

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 3), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**
2. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n= 110). **Publication bias: no serious.**

References

272. FOREST PLOT: Docosahexaenoic Acid vs Placebo (Dx). Website

273. FOREST PLOT: Docosahexaenoic Acid vs Placebo (Sx). Website

285. Matsuoka Y, Nishi D, Hamazaki K, Yonemoto N, Matsumura K, Noguchi H, et al. Docosahexaenoic acid for selective prevention of posttraumatic stress disorder among severely injured patients: a randomized, placebo-controlled trial. The Journal of clinical psychiatry 2015;76(8):e1015-22 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months of a traumatic event
Intervention: Escitalopram
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Escitalopram	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 1.05 (CI 95% 0.61 — 1.79) Based on data from 68 participants in 2 studies. (Randomized controlled)	314 per 1000 Difference:	330 per 1000 **16 more per 1000** (CI 95% 122 fewer — 248 more)	Very low Due to very serious risk of bias, Due to very serious imprecision [1]	Escitalopram may have little or no difference on PTSD diagnosis
PTSD symptom severity 3-6 months	Lower better Based on data from 68 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.01 lower** (CI 95% 0.49 lower — 0.47 higher)	Very low Due to very serious risk of bias, Due to serious imprecision [2]	We are uncertain whether escitalopram increases or decreases PTSD symptom severity

1. **Risk of Bias: very serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Inadequate sequence generation/ generation of comparable groups (used Equipose stratified randomisation), resulting in potential for selection bias, Due to means not reported and differences at baseline, unbalanced loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 24), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**
2. **Risk of Bias: very serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Inadequate sequence generation/ generation of comparable groups (used Equipose stratified randomisation), resulting in potential for selection bias, Due to means not reported and differences at baseline, unbalanced loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n= 68). **Publication bias: no serious.** Mostly commercially funded studies.

References

274. FOREST PLOT: Escitalopram vs Placebo (Dx). Website

275. FOREST PLOT: Escitalopram vs Placebo (Sx). Website

289. Shalev AY, Ankri Y, Israeli-Shalev Y, Peleg T, Adessky R, Freedman S. Prevention of posttraumatic stress disorder by early treatment: results from the Jerusalem Trauma Outreach And Prevention study. Archives of general psychiatry 2012;69(2):166-76 Pubmed Journal

291. Suliman S, Seedat S, Pingo J, Sutherland T, Zohar J, Stein DJ. Escitalopram in the prevention of posttraumatic stress disorder: a pilot randomized controlled trial. BMC psychiatry 2015;15:24 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Gabapentin
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Gabapentin	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 0.8 (CI 95% 0.18 — 3.59) Based on data from 26 participants in 1 studies. (Randomized controlled)	250 per 1000 Difference:	200 per 1000 **50 fewer per 1000** (CI 95% 205 fewer — 648 more)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether gabapentin increases or decreases PTSD diagnosis

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Missing intention-to-treat analysis, due to <10% of eligible participants agreed to participate. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=6), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**

References

276. FOREST PLOT: Gabapentin vs Placebo (Dx). Website

290. Stein MB, Kerridge C, Dimsdale JE, Hoyt DB. Pharmacotherapy to prevent PTSD: Results from a randomized controlled proof-of-concept trial in physically injured patients. Journal of traumatic stress 2007;20(6):923-32 Pubmed

Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Oxytocin
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Oxytocin	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3-6 months	Lower better Based on data from 107 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.24 lower** (CI 95% 0.62 lower — 0.14 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	Oxytocin may decrease PTSD symptom severity slightly

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up (34%). **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n= 107), Wide confidence intervals (CI includes important benefit and unimportant harm). **Publication bias: no serious.**

References

279. FOREST PLOT: Oxytocin vs Placebo (Sx). Website

292. van Zuiden M, Frijling JL, Nawijn L, Koch SBJ, Goslings JC, Luitse JS, et al. Intranasal Oxytocin to Prevent Posttraumatic Stress Disorder Symptoms: A Randomized Controlled Trial in Emergency Department Patients. Biological psychiatry

2017;81(12):1030-1040 Pubmed Journal

Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Propranolol
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Propranolol	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 0.72 (CI 95% 0.29 — 1.77) Based on data from 82 participants in 3 studies. (Randomized controlled)	222 per 1000 Difference:	160 per 1000 **62 fewer per 1000** (CI 95% 158 fewer — 171 more)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether propranolol increases or decreases PTSD diagnosis
PTSD symptom severity 3-6 months	Lower better Based on data from 52 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.06 higher** (CI 95% 0.49 lower — 0.61 higher)	Low Due to serious risk of bias, Due to serious imprecision [2]	Propranolol may have little or no difference on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Missing intention-to-treat analysis, due to difficulties reaching recruitment targets, poor drug adherence. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events(events = 16), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.** Some authors disclosed prior funding from pharmaceutical company.
2. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Selective outcome reporting, difficulties reaching recruitment targets, poor adrug adherence. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=52), Wide confidence intervals (CI includes unimportant benefit and important harm). **Publication bias: no serious.** Some authors reported funding from pharmacological company.

References

280. FOREST PLOT: Propranolol vs Placebo (Dx). Website

281. FOREST PLOT: Propranolol vs Placebo (Sx). Website

284. Hoge EA, Worthington JJ, Nagurney JT, Chang Y, Kay EB, Feterowski CM, et al. Effect of acute posttrauma propranolol on PTSD outcome and physiological responses during script-driven imagery. CNS neuroscience & therapeutics 2012;18(1):21-7 Pubmed Journal

286. Pitman RK, Sanders KM, Zusman RM, Healy AR, Cheema F, Lasko NB, et al. Pilot study of secondary prevention of posttraumatic stress disorder with propranolol. Biological psychiatry 2002;51(2):189-92 Pubmed

290. Stein MB, Kerridge C, Dimsdale JE, Hoyt DB. Pharmacotherapy to prevent PTSD: Results from a randomized controlled proof-of-concept trial in physically injured patients. Journal of traumatic stress 2007;20(6):923-32 Pubmed

Clinical question/ PICO

Population: Adults within the first three months post traumatic event
Intervention: Dexmedetomidine
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Dexmedetomidine	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3-6 months	Lower better Based on data from 310 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.27 lower** (CI 95% 0.49 lower — 0.04 lower)	Low Due to very serious imprecision [1]	Dexmedetomidine may decrease PTSD symptom severity slightly

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n= 310), Only data from one study. **Publication bias: no serious.**

References

279. FOREST PLOT: Oxytocin vs Placebo (Sx). Website

292. van Zuiden M, Frijling JL, Nawijn L, Koch SBJ, Goslings JC, Luitse JS, et al. Intranasal Oxytocin to Prevent Posttraumatic Stress Disorder Symptoms: A Randomized Controlled Trial in Emergency Department Patients. Biological psychiatry 2017;81(12):1030-1040 Pubmed Journal

Early non-psychological and non-pharmacological treatment interventions for adults

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Attention control therapy (ACT)
Comparator: Treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Treatment as usual	**Intervention** Attention control therapy (ACT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis	Relative risk 1.21 (CI 95% 0.83 — 1.76) Based on data from 119 participants in 1 studies. (Randomized controlled)	441 per 1000 Difference:	534 per 1000 **93 more per 1000** (CI 95% 75 fewer — 335 more)	Moderate Due to serious imprecision [1]	Attention control therapy (ACT) is probably slightly less effective than treatment as usual in reducing PTSD diagnosis

Outcome Timeframe	**Study results and measurements**	**Comparator** Treatment as usual	**Intervention** Attention control therapy (ACT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 119 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.23 higher** (CI 95% 0.13 lower — 0.59 higher)	Moderate Due to serious imprecision [2]	Attention control therapy (ACT) is probably slightly less effective than treatment as usual at reducing PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (events = 58), Wide confidence intervals includes unimportant benefit and important harm . **Publication bias: no serious.**
2. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n = 119), Wide confidence intervals includes unimportant benefit and important harm. **Publication bias: no serious.**

References

607. Segal A, Wald I, Pine DS, Halpern P, Bar-Haim Y. Attention control therapy for acute stress disorder: A randomized controlled trial. Depression and anxiety 2020;37(10):1017-1025 Pubmed Journal

647. Forest plot: Attention control therapy vs WL/TAU sx. Website

648. Forest plot: Attention control therapy vs WL/TAU dx. Website

Clinical question/ PICO

Population: Adults within the first three months post-traumatic event
Intervention: Mindfulness-Based Stress Reduction (MBSR)
Comparator: Treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Treatment as usual	**Intervention** Mindfulness-Based Stress Reduction (MBSR)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD Symptom Severity	Lower better Based on data from 60 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.59 lower** (CI 95% 1.11 lower — 0.07 lower)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether Mindfulness-Based Stress Reduction (MBSR) increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Other bias. **Imprecision: very serious.** Only data from one study, Low number of patients (N = 60).

References

767. Izadi M, Ghaedi-Heidari F, Sadeghi T, Ahmadi A, Sayadi A-R, Seyedbagheri S. The Effect of Mindfulness-Based Stress Reduction on Posttraumatic Stress of Mothers With Premature Neonates Admitted to a Neonatal Intensive Care Unit. Holistic nursing practice 36(3):149-155 Pubmed Journal

768. FOREST PLOT: MBSR vs TAU. Website

Adults with clinically relevant post-traumatic stress symptoms

Psychological interventions for adults with PTSD

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Trauma-focused CBT (CPT)
Comparator: Dialogical exposure therapy (DET)

Outcome Timeframe	**Study results and measurements**	**Comparator** Dialogical exposure therapy (DET)	**Intervention** Trauma-focused CBT (CPT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 138 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.39 lower** (CI 95% 0.73 lower — 0.05 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Trauma-focused CBT (CPT) may be more beneficial than DET for PTSD symptom severity

1. **Risk of Bias: serious.** Due to methods were poorly described, Training cases for CPT were taken from the randomised sample and subsequently excluded from analysis. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=138), Wide confidence intervals (CIs include important benefit and unimportant benefit), Only data from one study . **Publication bias: no serious.**

References

297. FOREST PLOT: CBT-T (CPT) vs DET. Website

367. Butollo W, Karl R, König J, Rosner R. A Randomized Controlled Clinical Trial of Dialogical Exposure Therapy versus Cognitive Processing Therapy for Adult Outpatients Suffering from PTSD after Type I Trauma in Adulthood. Psychotherapy and psychosomatics 2016;85(1):16-26 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Cognitive Processing Therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Cognitive Processing Therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 298 participants in 4 studies. (Randomized controlled)	Difference:	**SMD 1.03 lower** (CI 95% 1.45 lower — 0.61 lower)	Moderate Due to serious imprecision [1]	Cognitive processing therapy probably decreases PTSD symptom severity

1. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high, with I^2:65% however all studies show positive effects so not important. **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=298), Wide confidence intervals (CIs include important benefit and unimportant benefit) . **Publication bias: no serious.**

References

299. FOREST PLOT: CPT vs WLTAU. Website

390. Forbes D, Lloyd D, Nixon RDV, Elliott P, Varker T, Perry D, et al. A multisite randomized controlled effectiveness trial of cognitive processing therapy for military-related posttraumatic stress disorder. Journal of anxiety disorders 2012;26(3):442-52 Pubmed Journal

393. Galovski TE, Blain LM, Mott JM, Elwood L, Houle T. Manualized therapy for PTSD: flexing the structure of cognitive processing therapy. Journal of consulting and clinical psychology 2012;80(6):968-81 Pubmed Journal

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442. Resick PA, Nishith P, Weaver TL, Astin MC, Feuer CA. A comparison of cognitive-processing therapy with prolonged exposure and a waiting condition for the treatment of chronic posttraumatic stress disorder in female rape victims. Journal of consulting and clinical psychology 2002;70(4):867-79 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Cognitive processing therapy (CPT)
Comparator: Prolonged exposure (PE)

Outcome Timeframe	**Study results and measurements**	**Comparator** Prolonged exposure (PE)	**Intervention** Cognitive processing therapy (CPT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Based on data from 124 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.18 lower** (CI 95% 0.53 lower — 0.17 higher)	Low Due to serious imprecision, Due to serious risk of bias [1]	There may be little or no difference between Cognitive processing therapy (CPT) and PE on PTSD symptom severity.

1. **Risk of Bias: serious.** The issue of researcher allegiance cannot be ruled out. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=124), Wide confidence intervals (CIs include important benefit and unimportant harm), Only data from one study . **Publication bias: no serious.**

References

298. FOREST PLOT: CPT vs PE. Website

442. Resick PA, Nishith P, Weaver TL, Astin MC, Feuer CA. A comparison of cognitive-processing therapy with prolonged exposure and a waiting condition for the treatment of chronic posttraumatic stress disorder in female rape victims. Journal of consulting and clinical psychology 2002;70(4):867-79 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Group CPT
Comparator: Individual CPT

Outcome Timeframe	**Study results and measurements**	**Comparator** Individual CPT	**Intervention** Group CPT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 268 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.35 higher** (CI 95% 0.11 higher — 0.59 higher)	Moderate Due to serious imprecision [1]	Group trauma-focused CBT is probably not as effective as individual trauma-focused CBT on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=268), Wide confidence intervals (CIs include unimportant harm and important hard), Only data from one study. **Publication bias: no serious.**

References

309. FOREST PLOT: Group CPT vs Individual CPT. Website

444. Resick PA, Wachen JS, Dondanville KA, Pruiksma KE, Yarvis JS, Peterson AL, et al. Effect of Group vs Individual Cognitive Processing Therapy in Active-Duty Military Seeking Treatment for Posttraumatic Stress Disorder: A Randomized Clinical Trial. JAMA psychiatry 2017;74(1):28-36 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Dialectical Behaviour Therapy (DBT)
Comparator: Cognitive Processing Therapy (CPT)

Outcome Timeframe	**Study results and measurements**	**Comparator** Cognitive Processing Therapy (CPT)	**Intervention** Dialectical Behaviour Therapy (DBT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 193 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.37 lower** (CI 95% 0.65 lower — 0.08 lower)	Very low Due to serious risk of bias, serious indirectness, and serious imprecision [1]	We are uncertain if there is a difference between the effectiveness of dialectical behaviour therapy (DBT) and Cognitive Processing Therapy (CPT) on reducing PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Selective outcome reporting. **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied. **Imprecision: serious.** Low number of patients (n = 193), Wide confidence intervals includes important benefit and unimportant benefit.

References

610. Bohus M, Kleindienst N, Hahn C, Müller-Engelmann M, Ludäscher P, Steil R, et al. Dialectical Behavior Therapy for Posttraumatic Stress Disorder (DBT-PTSD) Compared With Cognitive Processing Therapy (CPT) in Complex Presentations of PTSD in Women Survivors of Childhood Abuse: A Randomized Clinical Trial. JAMA psychiatry 2020;77(12):1235-1245 Pubmed Journal

649. FOREST PLOT: Dialectical behaviour therapy (DBT) vs cognitive processing therapy (CPT). Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Cognitive processing therapy (CPT)
Comparator: Present Centered Therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Present Centered Therapy	**Intervention** Cognitive Processing Therapy (CPT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 86 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.07 lower** (CI 95% 1.53 lower — 0.61 lower)	Low Due to very serious imprecision [1]	Cognitive Processing Therapy may be more effective at reducing PTSD symptom severity than Present Centered Therapy

1. **Inconsistency: no serious.** . **Imprecision: very serious.** Low number of patients. **Publication bias: no serious.**

References

330. FOREST PLOT: CBT-T vs WLTAU. Website

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365. Bryant RA, Ekasawin S, Chakrabhand S, Suwanmitri S, Duangchun O, Chantaluckwong T. A randomized controlled effectiveness trial of cognitive behavior therapy for post-traumatic stress disorder in terrorist-affected people in Thailand. World psychiatry : official journal of the World Psychiatric Association (WPA) 2011;10(3):205-9 Pubmed

379. Echeburúa E, de Corral P, Zubizarreta I, Sarasua B. Psychological treatment of chronic posttraumatic stress disorder in victims of sexual aggression. Behavior modification 1997;21(4):433-56 Pubmed

421. Marks I, Lovell K, Noshirvani H, Livanou M, Thrasher S. Marks, I., Lovell, K., Noshirvani, H., Livanou, M., & Thrasher, S. (1998). Treatment of posttraumatic stress disorder by exposure and/or cognitive restructuring: A controlled study. Archives of general psychiatry, 55(4), 317-325. Pubmed

422. McDonagh A, Friedman M, McHugo G, Julian F, Sengupta A, Mueser K, et al. McDonagh, A., Friedman, M., McHugo, G., Ford, J., Sengupta, A., Mueser, K., ... & Descamps, M. (2005). Randomized trial of cognitive-behavioral therapy for chronic posttraumatic stress disorder in adult female survivors of childhood sexual abuse. Journal of consulting and clinical psychology, 73(3), 515. Pubmed Journal

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469. Dunne RL, Kenardy J, Sterling M. A randomized controlled trial of cognitive-behavioral therapy for the treatment of PTSD in the context of chronic whiplash. The Clinical journal of pain 28(9):755-65 Pubmed Journal

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Cognitive Therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Cognitive Therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 249 participants in 4 studies. (Randomized controlled)	Difference:	**SMD 1.31 lower** (CI 95% 1.65 lower — 0.96 lower)	Low Due to serious imprecision, Due to serious risk of bias [1]	Cognitive therapy may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Unclear if treatment adherence was measured, Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients. **Publication bias: no serious.**

References

323. FOREST PLOT: Cognitive Therapy vs WLTAU. Website

378. Duffy M, Gillespie K, Clark DM. Post-traumatic stress disorder in the context of terrorism and other civil conflict in Northern

Ireland: randomised controlled trial. BMJ (Clinical research ed.) 2007;334(7604):1147 Pubmed

380. Ehlers A, Clark DM, Hackmann A, McManus F, Fennell M, Herbert C, et al. A randomized controlled trial of cognitive therapy, a self-help booklet, and repeated assessments as early interventions for posttraumatic stress disorder. Archives of general psychiatry 2003;60(10):1024-32 Pubmed

381. Ehlers A, Clark DM, Hackmann A, McManus F, Fennell M. Cognitive therapy for post-traumatic stress disorder: development and evaluation. Behaviour research and therapy 2005;43(4):413-31 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Cognitive Therapy
Comparator: Supportive Counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Supportive Counselling	**Intervention** Cognitive Therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 121 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.6 lower** (CI 95% 0.97 lower — 0.24 lower)	Moderate Due to serious imprecision [1]	Cognitive therapy probably decreases PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients. **Publication bias: no serious.**

References

323. FOREST PLOT: Cognitive Therapy vs WLTAU. Website

378. Duffy M, Gillespie K, Clark DM. Post-traumatic stress disorder in the context of terrorism and other civil conflict in Northern Ireland: randomised controlled trial. BMJ (Clinical research ed.) 2007;334(7604):1147 Pubmed

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381. Ehlers A, Clark DM, Hackmann A, McManus F, Fennell M. Cognitive therapy for post-traumatic stress disorder: development and evaluation. Behaviour research and therapy 2005;43(4):413-31 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Cognitive Therapy
Comparator: Prolonged Exposure

Outcome Timeframe	**Study results and measurements**	**Comparator** Prolonged Exposure	**Intervention** Cognitive Therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 62 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.09 lower** (CI 95% 0.41 lower — 0.59 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	There may be little or no difference between Cognitive Therapy and Prolonged Exposure on PTSD severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Wide confidence intervals, Low number of patients. **Publication bias: no serious.**

References

333. FOREST PLOT: PE vs WLTAU. Website

356. Asukai N, Saito A, Tsuruta N, Kishimoto J, Nishikawa T. Efficacy of exposure therapy for Japanese patients with posttraumatic stress disorder due to mixed traumatic events: A randomized controlled study. Journal of traumatic stress 2010;23(6):744-50 Pubmed Journal

385. Foa EB, Rothbaum BO, Riggs DS, Murdock TB. Treatment of posttraumatic stress disorder in rape victims: a comparison between cognitive-behavioral procedures and counseling. Journal of consulting and clinical psychology 1991;59(5):715-23 Pubmed

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: EMDR
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** EMDR	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 444 participants in 12 studies. (Randomized controlled)	Difference:	**SMD 1.16 lower** (CI 95% 1.56 lower — 0.75 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	EMDR may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Incomplete data and loss to follow up unlikely to impact effect size. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high, with I^2:70% however all studies showed positive effects with the majority showing very large effect size so not important. **Indirectness: no serious. Imprecision: serious.** Wide confidence intervals include important benefit and unimportant benefit. **Publication bias: no serious.**

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306. FOREST PLOT: EMDR vs WLTAU. Website

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: EMDR
Comparator: Trauma-focused CBT

Outcome Timeframe	**Study results and measurements**	**Comparator** Trauma-focused CBT	**Intervention** EMDR	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 337 participants in 10 studies. (Randomized controlled)	Difference:	**SMD 0.21 lower** (CI 95% 0.57 lower — 0.15 higher)	Very low Due to serious risk of bias, Due to serious inconsistency, Due to serious imprecision [1]	We are uncertain if there is a difference between EMDR and CBT-T on PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias in 1 study, Incomplete data and large loss to follow up, due to [baseline differences]. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:60% . **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=337), Wide confidence intervals (CIs include important benefit and unimportant harm). **Publication bias: no serious.**

References

301. FOREST PLOT: EMDR vs CBT-T. Website

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: EMDR
Comparator: Supportive counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Supportive counselling	**Intervention** EMDR	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 57 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.75 lower** (CI 95% 1.29 lower — 0.21 lower)	Moderate Due to serious imprecision [1]	EMDR is probably more beneficial than supportive counselling on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=57), Only data from one study. **Publication bias: no serious.**

References

305. FOREST PLOT: EMDR vs Supportive counselling. Website

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: EMDR
Comparator: Emotional freedom techniques (EFT)

Outcome Timeframe	**Study results and measurements**	**Comparator** Emotional freedom techniques (EFT)	**Intervention** EMDR	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 46 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.08 higher** (CI 95% 0.5 lower — 0.65 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between EMDR and EFT on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=46), Wide confidence intervals (CIs include important benefit and important harm), Only data from one study, . **Publication bias: no serious.**

References

302. FOREST PLOT: EMDR vs Emotional freedom techniques. Website

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: EMDR
Comparator: Relaxation training

Outcome Timeframe	**Study results and measurements**	**Comparator** Relaxation training	**Intervention** EMDR	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 117 participants in 4 studies. (Randomized controlled)	Difference:	**SMD 0.24 lower** (CI 95% 0.61 lower — 0.13 higher)	Moderate Due to serious imprecision [1]	EMDR is probably more beneficial than relaxation training on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=117), Wide confidence intervals (CIs include important benefit and unimportant harm). **Publication bias: no serious.**

References

303. FOREST PLOT: EMDR vs Relaxation training. Website

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: EMDR
Comparator: REM desensitisation

Outcome Timeframe	**Study results and measurements**	**Comparator** REM desensitisation	**Intervention** EMDR	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 21 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.06 higher** (CI 95% 0.8 lower — 0.91 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between EMDR and REM desensitization on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and large loss to follow up, Participants were required to start taking medication before the start of the study.Methods and interventions poorly reported. Interventions poorly described. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=21), Wide confidence intervals (CIs include important benefit and

important harm), Only data from one study. **Publication bias: no serious.**

References

304. FOREST PLOT: EMDR vs REM Desensitization. Website

354. Ahmadi K, Mazrati M, Ahmadizadeh M, Noohi S. REM Desensitization as a New Therapeutic Method for Post- Traumatic Stress Disorder: A Randomized Controlled Trial. Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Eye Movement Desensitization and Reprocessing (EMDR)
Comparator: Imagery rescripting

Outcome Timeframe	**Study results and measurements**	**Comparator** Imagery rescripting	**Intervention** Eye Movement Desensitization and Reprocessing (EMDR)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 134 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.2 lower** (CI 95% 0.54 lower — 0.14 higher)	Low Due to serious indirectness, and serious imprecision [1]	Eye movement desensitization and reprocessing (EMDR) may be more effective than Imagery rescripting at reducing PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied. **Imprecision: serious.** Low number of patients (n = 134), Wide confidence intervals includes important benefit and unimportant harm. **Publication bias: no serious.**

References

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650. FOREST PLOT: EMDR vs imagery rescripting. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Eye Movement Desensitization and Reprocessing (EMDR)
Comparator: SSRIs- Fluoxetine

Outcome Timeframe	**Study results and measurements**	**Comparator** SSRIs- Fluoxetine	**Intervention** Eye Movement Desensitization and Reprocessing (EMDR)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 59 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.45 lower** (CI 95% 0.96 lower — 0.07 higher)	Moderate Due to serious imprecision [1]	Eye movement desensitization and reprocessing (EMDR) is probably more effective than Fluoxetine at decreasing PTSD symptom severity

1. **Risk of Bias: no serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, Selective outcome reporting. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=59), Wide confidence intervals include important benefit and unimportant harm. **Publication bias: no serious.**

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669. FOREST PLOT: EMDR vs Fluoxetine. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Prolonged Exposure
Comparator: Interpersonal Therapy (IPT)

Outcome Timeframe	**Study results and measurements**	**Comparator** Interpersonal Therapy (IPT)	**Intervention** Prolonged Exposure	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 64 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.09 lower** (CI 95% 0.58 lower — 0.41 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between Prolonged Exposure and IPT on PTSD symptom severity

1. **Risk of Bias: serious.** Due to problems with recruitment and a high number of drop outs. **Imprecision: very serious.** Low number of patients (n=64), Wide confidence intervals (CI includes important benefit and important harm), Only data from one study.

References

332. FOREST PLOT: CBT-T (PE) vs IPT. Website

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Prolonged Exposure
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Prolonged Exposure	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 749 participants in 14 studies. (Randomized controlled)	Difference:	**SMD 1.49 lower** (CI 95% 1.92 lower — 1.05 lower)	Moderate Due to serious risk of bias [1]	Prolonged exposure probably decreases PTSD symptom severity

1. **Risk of Bias: serious.** Completer data only in 2 studies, Inadequate of blinding of outcome assessors, resulting in potential for detection bias in 1 study. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high, with I^2:83% however all studies showed positive effects favouring PE. Differences were between studies with very large and moderate effect sizes so not important. **Indirectness: no serious. Imprecision: no serious. Publication bias: no serious.**

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333. FOREST PLOT: PE vs WLTAU. Website

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Prolonged exposure
Comparator: Health Education

Outcome Timeframe	**Study results and measurements**	**Comparator** Health Education	**Intervention** Prolonged exposure	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 134 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.19 lower** (CI 95% 0.53 lower — 0.15 higher)	Moderate Due to serious imprecision [1]	There is probably little or no difference between Prolonged exposure and health education on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=134), Wide confidence intervals (CIs include important benefit and unimportant harm), Only data from one study. **Publication bias: no serious.**

References

328. FOREST PLOT: Prolonged Exposure vs Health Education. Website

433. Nidich S, Mills P, Rainforth M, Heppner P, Schneider R, Rosenthal N, et al. Nidich, S., Mills, P. J., Rainforth, M., Heppner, P., Schneider, R. H., Rosenthal, N. E., ... & Rutledge, T. (2018). Non-trauma-focused meditation versus exposure therapy in veterans with post-traumatic stress disorder: a randomised controlled trial. The Lancet Psychiatry, 5(12), 975-986. Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Prolonged Exposure (PE)
Comparator: Trial-based cognitive therapy (TBCT)

Outcome Timeframe	**Study results and measurements**	**Comparator** Trial-based cognitive therapy (TBCT)	**Intervention** Prolonged Exposure (PE)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 72 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.33 higher** (CI 95% 0.14 lower — 0.79 higher)	Low Due to serious risk of bias, and serious imprecision [1]	Prolonged exposure (PE) may be less effective than Trial-based cognitive therapy (TBCT) at reducing PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n = 72), Wide confidence intervals includes unimportant benefit and important harm. **Publication bias: no serious.**

References

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651. FOREST PLOT: PE vs TBCT. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Prolonged Exposure (PE)
Comparator: Stress inoculation training (SIT)

Outcome Timeframe	**Study results and measurements**	**Comparator** Stress Inoculation Training (SIT)	**Intervention** Prolonged Exposure (PE)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 66 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.14 higher** (CI 95% 0.52 lower — 0.8 higher)	Very low Due to serious risk of bias, Due to very serious imprecision, Due to serious inconsistency [1]	We are uncertain if there is a difference between Prolonged Exposure (PE) and Stress inoculation training (SIT) on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias. **Inconsistency: serious.** The direction of the effect is not consistent between the included studies, The magnitude of statistical heterogeneity was high, with I^2: 41%.. **Indirectness: no serious.** Differences between the population of

interest and those studied (female rape victims/sexual assault victims). **Imprecision: very serious.** Low number of patients (n = 66), Wide confidence intervals include important harm and important benefit. **Publication bias: no serious.**

References

385. Foa EB, Rothbaum BO, Riggs DS, Murdock TB. Treatment of posttraumatic stress disorder in rape victims: a comparison between cognitive-behavioral procedures and counseling. Journal of consulting and clinical psychology 1991;59(5):715-23 Pubmed

386. Foa EB, Dancu CV, Hembree EA, Jaycox LH, Meadows EA, Street GP. A comparison of exposure therapy, stress inoculation training, and their combination for reducing posttraumatic stress disorder in female assault victims. Journal of consulting and clinical psychology 1999;67(2):194-200 Pubmed

714. FOREST PLOT: PE vs SIT. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Prolonged Exposure (PE)
Comparator: Meta-cognitive therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Meta-cognitive therapy	**Intervention** Prolonged Exposure (PE)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 20 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.99 higher** (CI 95% 0.05 higher — 1.93 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between Prolonged Exposure (PE) and Meta-cognitive therapy on PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Selective outcome reporting. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n = 20), Wide confidence intervals important harm and unimportant harm. **Publication bias: no serious.**

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716. FOREST PLOT: PE vs Metacognitive therapy. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Prolonged Exposure
Comparator: Relaxation

Outcome Timeframe	**Study results and measurements**	**Comparator** Relaxation	**Intervention** Prolonged Exposure	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 189 participants in 4 studies. (Randomized controlled)	Difference:	**SMD 0.58 lower** (CI 95% 0.87 lower — 0.28 lower)	Moderate Due to serious imprecision [1]	Prolonged exposure is probably more effective at reducing PTSD symptom severity than Relaxation

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Wide confidence intervals, Low number of patients. **Publication bias: no serious.**

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333. FOREST PLOT: PE vs WLTAU. Website

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Prolonged Exposure
Comparator: Supportive Counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Supportive Counselling	**Intervention** Prolonged Exposure	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 59 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.62 lower** (CI 95% 1.14 lower — 0.09 lower)	Moderate Due to serious imprecision [1]	Prolonged exposure is probably more effective at reducing PTSD symptom severity than Supportive Counselling

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Wide confidence intervals, Low number of patients. **Publication bias: no serious.**

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Prolonged Exposure
Comparator: Sertraline

Outcome Timeframe	**Study results and measurements**	**Comparator** Sertraline	**Intervention** Prolonged Exposure	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 49 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 2.67 lower** (CI 95% 3.47 lower — 1.88 lower)	Low Due to very serious imprecision [1]	Prolonged Exposure may be more beneficial/ effective at reducing PTSD symptom severity than Sertraline

1. **Risk of Bias: no serious.** Selective outcome reporting. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients. **Publication bias: no serious.**

Clinical question/ PICO

Population: Adults with PTSD

Intervention: Prolonged Exposure
Comparator: Paroxetine

Outcome Timeframe	**Study results and measurements**	**Comparator** Paroxetine	**Intervention** Prolonged Exposure	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 142 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0 lower** (CI 95% 0.34 lower — 0.34 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	There may be little or no difference between Prolonged Exposure and Paroxetine on PTSD severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients, Wide confidence intervals. **Publication bias: no serious.**

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Prolonged Exposure
Comparator: Present Centered Therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Present Centered Therapy	**Intervention** Prolonged Exposure	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 526 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 0.21 lower** (CI 95% 0.38 lower — 0.04 lower)	Moderate Due to serious imprecision [1]	Prolonged exposure is probably more effective at reducing PTSD symptom severity than Present Centered Therapy

1. **Inconsistency: no serious.** . **Imprecision: serious.** CIs often include important and unimportant benefit. **Publication bias: no serious.**

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330. FOREST PLOT: CBT-T vs WLTAU. Website

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Transcendental meditation
Comparator: Prolonged exposure

Outcome Timeframe	**Study results and measurements**	**Comparator** Prolonged exposure	**Intervention** Transcendental meditation	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 136 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.16 lower** (CI 95% 0.49 lower — 0.18 higher)	Moderate Due to serious imprecision [1]	There is probably little or no difference between Transcendental meditation and Prolonged exposure on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=136), Wide confidence intervals (CIs include important benefit and unimportant harm), Only data from one study. **Publication bias: no serious.**

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Trauma focused-CBT
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Trauma focused-CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 531 participants in 13 studies. (Randomized controlled)	Difference:	**SMD 1.44 lower** (CI 95% 1.85 lower — 1.03 lower)	Moderate Due to serious imprecision [1]	Trauma focused-CBT probably decreases PTSD symptom severity

1. **Inconsistency: no serious. Imprecision: serious.** Wide confidence intervals (CIs often include important and unimportant benefit). **Publication bias: no serious.**

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330. FOREST PLOT: CBT-T vs WLTAU. Website

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Trauma-focused CBT
Comparator: Supportive counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Supportive counselling	**Intervention** Trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 117 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 0.84 lower** (CI 95% 1.22 lower — 0.46 lower)	Moderate Due to serious imprecision [1]	Trauma-focused CBT probably decreases PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients, CIs include important and unimportant benefit. **Publication bias: no serious.**

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Trauma-focused CBT

Comparator: Psychodynamic therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Psychodynamic therapy	**Intervention** Trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 77 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.26 lower** (CI 95% 0.8 lower — 0.29 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether trauma-focused CBT is more beneficial than psychodynamic therapy on PTSD symptom severity

1. **Risk of Bias: serious.** There were no reported reasons for drop-out. There was inadequate statistical correction for these drop-outs. 13% drop out from trauma desensitization group. Inadequate reporting of baseline characteristics. Each treatment arm had its own dedicated therapists (i.e. differences in outcome may have been attributable to expertise as opposed to the intervention).. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=77), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Trauma-focused CBT
Comparator: Relaxation training

Outcome Timeframe	**Study results and measurements**	**Comparator** Relaxation training	**Intervention** Trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 83 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 0.78 lower** (CI 95% 1.24 lower — 0.32 lower)	Moderate Due to serious imprecision [1]	Trauma-focused CBT is probably more effective at reducing PTSD symptom severity than Relaxation training

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients, Wide confidence intervals. **Publication bias: no serious.**

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Trauma-focused CBT
Comparator: Prolonged Exposure

Outcome Timeframe	**Study results and measurements**	**Comparator** Prolonged Exposure	**Intervention** Trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 79 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.32 lower** (CI 95% 0.76 lower — 0.13 lower)	Moderate Due to serious imprecision [1]	Trauma-Focused CBT is probably more effective at reducing PTSD symptom severity than Prolonged Exposure

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Wide confidence intervals, Low number of patients. **Publication bias: no serious.**

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Acupuncture
Comparator: Trauma-focused CBT

Outcome Timeframe	**Study results and measurements**	**Comparator** Trauma-focused CBT	**Intervention** Acupuncture	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 49 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.35 lower** (CI 95% 0.91 lower — 0.22 higher)	Low Due to very serious imprecision [1]	Acupuncture may be more beneficial than CBT-T on PTSD symptom severity

1. **Inconsistency: no serious.** Single study. **Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=48), Wide confidence intervals (CIs include important benefit and important harm), Only one study. **Publication bias: no serious.**

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Guided internet-based trauma focused CBT
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Guided internet-based trauma focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 84 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 1.12 lower** (CI 95% 2.47 lower — 0.22 higher)	Low Due to serious imprecision, Due to serious inconsistency, Due to serious inconsistency [1]	Guided internet-based trauma focused CBT may decrease PTSD symptom severity

1. **Risk of Bias: no serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias in 1 study. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:87% however this may be explained by differences in baseline PTSD severity between studies. **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=84), Wide confidence intervals (CIs include important benefit and unimportant harm). **Publication bias: no serious.**

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Guided internet-based trauma focused CBT
Comparator: Attention control

Outcome Timeframe	**Study results and measurements**	**Comparator** Attention control	**Intervention** Guided internet-based trauma focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 62 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.05 lower** (CI 95% 1.59 lower — 0.52 lower)	Moderate Due to serious imprecision [1]	Guided internet-based trauma focused CBT is probably more beneficial than attention control for decreasing PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=62). **Publication bias: no serious.**

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325. FOREST PLOT: Guided internet-based CBT-T vs attention control. Website

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Guided internet-based trauma-focused CBT
Comparator: Internet-based non-trauma-focused supportive counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Internet-based non-trauma-focused supportive counselling	**Intervention** Guided internet-based trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 31	Difference:	**SMD 0.4 lower** (CI 95% 1.12 lower — 0.31 higher)	Very low Due to serious risk	We are uncertain if there is a difference between guided internet-based

Outcome Timeframe	**Study results and measurements**	**Comparator** Internet-based non-trauma-focused supportive counselling	**Intervention** Guided internet-based trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
	participants in 1 studies. (Randomized controlled)			of bias, Due to very serious imprecision [1]	trauma-focused CBT and Internet-based non-trauma-focused supportive counselling on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to [evaluated by originators of the intervention]. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=31), Wide confidence intervals (CIs include important benefit and important harm), Only data from one study. **Publication bias: no serious.**

References

313. FOREST PLOT: Internet-based CBT-T vs Internet based non-trauma-focused supportive counselling. Website

418. Litz BT, Engel CC, Bryant RA, Papa A. A randomized, controlled proof-of-concept trial of an Internet-based, therapist-assisted self-management treatment for posttraumatic stress disorder. The American journal of psychiatry 2007;164(11):1676-83 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Guided internet-based trauma-focused CBT
Comparator: Internet-based psychoeducation

Outcome Timeframe	**Study results and measurements**	**Comparator** Internet-based psychoeducation	**Intervention** Guided internet-based trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 51 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.11 higher** (CI 95% 0.45 lower — 0.66 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between guided internet-based trauma-focused CBT and Internet-based psychoeducation on PTSD symptom severity

1. **Risk of Bias: serious.** Lack of blinding of outcome assessors, resulting in potential for detection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Wide confidence intervals (CIs include important benefit and important harm), Low number of patients (n=51), Only data from one study. **Publication bias: no serious.**

References

314. FOREST PLOT: Internet-based CBT-T vs Internet-based psychoeducation. Website

417. Littleton H, Grills AE, Kline KD, Schoemann AM, Dodd JC. The From Survivor to Thriver program: RCT of an online therapist-

facilitated program for rape-related PTSD. Journal of anxiety disorders 2016;43:41-51 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Guided internet-based Prolonged Exposure (PE)
Comparator: Present Centred Therapy in-person

Outcome Timeframe	**Study results and measurements**	**Comparator** Present Centred Therapy in-person	**Intervention** Guided internet-based Prolonged Exposure (PE)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 25 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.57 higher** (CI 95% 0.26 lower — 1.41 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between guided internet-based Prolonged Exposure (PE) and Present Centred Therapy delivered in-person on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias. **Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=25), Wide confidence intervals includes important benefit and important harm.

References

620. McLean CP, Foa EB, Dondanville KA, Haddock CK, Miller ML, Rauch SAM, et al. The effects of web-prolonged exposure among military personnel and veterans with posttraumatic stress disorder. Psychological trauma : theory, research, practice and policy 2020. Pubmed Journal

654. FOREST PLOT: Guided internet-based PE vs Present Centred Therapy in-person. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Narrative Exposure Therapy (NET)
Comparator: Psychoeducation

Outcome Timeframe	**Study results and measurements**	**Comparator** Psychoeducation	**Intervention** Narrative Exposure Therapy (NET)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom		Difference:	**SMD 0.19 lower**	Low	There may be little or no

Outcome Timeframe	**Study results and measurements**	**Comparator** Psychoeducation	**Intervention** Narrative Exposure Therapy (NET)	**Certainty of the evidence** (Quality of evidence)	**Summary**
severity	Lower better Based on data from 27 participants in 1 studies. (Randomized controlled)		(CI 95% 0.95 lower — 0.57 higher)	Due to very serious imprecision [1]	difference between Narrative Exposure Therapy (NET) and psychoeducation on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious.** Differences between the population of interest and those studied (Sudanese refugees in Uganda). **Imprecision: very serious.** Low number of patients (n=27), Wide confidence intervals (CIs include important benefit and important harm), Only data from one study. **Publication bias: no serious.**

References

343. FOREST PLOT: CBT-T (NET) vs Psychoeducation. Website

430. Neuner F, Schauer M, Klaschik C, Karunakara U, Elbert T. Neuner, F., Schauer, M., Klaschik, C., Karunakara, U., & Elbert, T. (2004). A comparison of narrative exposure therapy, supportive counseling, and psychoeducation for treating posttraumatic stress disorder in an african refugee settlement. Journal of consulting and clinical psychology, 72(4), 579. Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Narrative Exposure Therapy (NET)
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Narrative Exposure Therapy (NET)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 340 participants in 8 studies. (Randomized controlled)	Difference:	**SMD 1.11 lower** (CI 95% 1.61 lower — 0.62 lower)	Low Due to serious risk of bias, and serious imprecision [1]	Narrative exposure therapy (NET) may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, Selective outcome reporting, unvalidated translated measures, differential follow-up duration, Inadequate/lack of blinding of participants and personnel, resulting in potential for performance bias. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high, with I^2:77% however all studies show positive effects with most showing large effect sizes. Heterogeneity is largely resulting from 1 study with very large effect size (SMD= -4.01). **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=340), Wide confidence intervals include important benefit and unimportant benefit. **Publication bias: no serious.**

References

316. FOREST PLOT: NET vs WLTAU. Website

353. Adenauer H, Catani C, Gola H, Keil J, Ruf M, Schauer M, et al. Narrative exposure therapy for PTSD increases top-down processing of aversive stimuli--evidence from a randomized controlled treatment trial. BMC neuroscience 2011;12:127 Pubmed

Journal

360. Bichescu D, Neuner F, Schauer M, Elbert T. Narrative exposure therapy for political imprisonment-related chronic posttraumatic stress disorder and depression. Behaviour research and therapy 2007;45(9):2212-20 Pubmed

404. Jacob N, Neuner F, Maedl A, Schaal S, Elbert T. Dissemination of psychotherapy for trauma spectrum disorders in postconflict settings: a randomized controlled trial in Rwanda. Psychotherapy and psychosomatics 2014;83(6):354-63 Pubmed Journal

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432. Neuner F, Kurreck S, Ruf M, Odenwald M, Elbert T, Schauer M. Can asylum-seekers with posttraumatic stress disorder be successfully treated? A randomized controlled pilot study. Cognitive behaviour therapy 2010;39(2):81-91 Pubmed Journal

456. Stenmark H, Catani C, Neuner F, Elbert T, Holen A. Treating PTSD in refugees and asylum seekers within the general health care system. A randomized controlled multicenter study. Behaviour research and therapy 2013;51(10):641-7 Pubmed Journal

465. Zang Y, Hunt N, Cox T. Adapting narrative exposure therapy for Chinese earthquake survivors: a pilot randomised controlled feasibility study. BMC psychiatry 2014;14:262 Pubmed Journal

622. Robjant K, Koebach A, Schmitt S, Chibashimba A, Carleial S, Elbert T. The treatment of posttraumatic stress symptoms and aggression in female former child soldiers using adapted Narrative Exposure therapy - a RCT in Eastern Democratic Republic of Congo. Behaviour research and therapy 2019;123:103482 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Narrative Exposure Therapy (NET)
Comparator: Present Centred Therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Present Centred Therapy	**Intervention** Narrative Exposure Therapy (NET)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 32 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.58 higher** (CI 95% 0.13 lower — 1.29 higher)	Very low Due to very serious imprecision, Due to serious indirectness [1]	We are uncertain if there is a difference between Narrative Exposure Therapy (NET) and Present Centred Therapy on PTSD symptom severity

1. **Indirectness: serious.** Differences between the population of interest and those studied. **Imprecision: very serious.** Low number of patients (n = 32), Wide confidence intervals includes unimportant benefit and important harm.

References

618. Lely JCG, Knipscheer JW, Moerbeek M, Ter Heide FJJ, van den Bout J, Kleber RJ. Randomised controlled trial comparing narrative exposure therapy with present-centred therapy for older patients with post-traumatic stress disorder. The British journal of psychiatry : the journal of mental science 2019;214(6):369-377 Pubmed Journal

653. FOREST PLOT: NET vs PCT. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Narrative Exposure Therapy (NET)
Comparator: Stress inoculation training (SIT)

Outcome Timeframe	**Study results and measurements**	**Comparator** Stress inoculation training (SIT)	**Intervention** Narrative Exposure Therapy (NET)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 28 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.25 lower** (CI 95% 0.99 lower — 0.5 higher)	Low Due to very serious imprecision [1]	Narrative Exposure Therapy (NET) may be slightly more beneficial than Stress inoculation training (SIT) on PTSD symptom severity

1. **Risk of Bias: no serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Selective outcome reporting. **Inconsistency: no serious. Indirectness: no serious.** Differences between the population of interest and those studied (asylum seekers who had experienced war and torture). **Imprecision: very serious.** Low number of patients (n = 28), Wide confidence intervals include important benefit and important harm. **Publication bias: no serious.**

References

397. Hensel-Dittmann D, Schauer M, Ruf M, Catani C, Odenwald M, Elbert T, et al. Treatment of traumatized victims of war and torture: a randomized controlled comparison of narrative exposure therapy and stress inoculation training. Psychotherapy and psychosomatics 2011;80(6):345-52 Pubmed Journal

715. FOREST PLOT: NET vs SIT. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Narrative Exposure Therapy (NET)
Comparator: Supportive counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Supportive counselling	**Intervention** Narrative Exposure Therapy (NET)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 250 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.01 higher** (CI 95% 0.24 lower — 0.26 higher)	Low Due to very serious imprecision [1]	There may be little or no difference between Narrative Exposure Therapy (NET) and Supportive counselling on PTSD symptom severity

1. **Risk of Bias: no serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, Selective outcome reporting. **Inconsistency: no serious. Indirectness: no serious.** Differences between the population of interest and those studied (Sudanese refugees in Uganda, Rwandan and Somalian refugees). **Imprecision: very serious.** Low number of patients (n = 250), Wide

confidence intervals includes important benefit and important harm. **Publication bias: no serious.**

References

430. Neuner F, Schauer M, Klaschik C, Karunakara U, Elbert T. Neuner, F., Schauer, M., Klaschik, C., Karunakara, U., & Elbert, T. (2004). A comparison of narrative exposure therapy, supportive counseling, and psychoeducation for treating posttraumatic stress disorder in an african refugee settlement. Journal of consulting and clinical psychology, 72(4), 579. Pubmed

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717. FOREST PLOT: NET vs Supportive Counselling. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Prolonged Exposure
Comparator: Present Centred Therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Present Centred Therapy	**Intervention** Prolonged Exposure	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 526 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 0.21 lower** (CI 95% 0.38 lower — 0.04 lower)	Low Due to serious inconsistency, Due to serious imprecision [1]	Prolonged exposure may be more beneficial than PCT on PTSD symptom severity

1. **Risk of Bias: no serious.** Issues with treatment fidelity in both studies. Data for one therapist excluded due to poor treatment fidelity, Excluding data from this therapist reduced the final sample to 86 participants from the original 129. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:74%.. **Imprecision: serious.** Wide confidence intervals (CI includes important benefit and unimportant benefit).

References

388. Foa EB, McLean CP, Zang Y, Rosenfield D, Yadin E, Yarvis JS, et al. Effect of Prolonged Exposure Therapy Delivered Over 2 Weeks vs 8 Weeks vs Present-Centered Therapy on PTSD Symptom Severity in Military Personnel: A Randomized Clinical Trial. JAMA 2018;319(4):354-364 Pubmed Journal

439. Rauch SAM, King AP, Abelson J, Tuerk PW, Smith E, Rothbaum BO, et al. Biological and symptom changes in posttraumatic stress disorder treatment: a randomized clinical trial. Depression and anxiety 2015;32(3):204-12 Pubmed Journal

450. Schnurr PP, Friedman MJ, Engel CC, Foa EB, Shea MT, Chow BK, et al. Cognitive behavioral therapy for posttraumatic stress disorder in women: a randomized controlled trial. JAMA 2007;297(8):820-30 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Non-trauma-focused CBT
Comparator: Present Centred Therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Present Centred Therapy	**Intervention** Non-trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 101 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.04 lower** (CI 95% 0.43 lower — 0.35 higher)	Low Due to very serious imprecision [1]	There may be little or no difference between Non-trauma focused CBT and PCT on PTSD symptom severity

1. **Risk of Bias: no serious.** Only 80% of participants had full PTSD. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=101), Wide confidence intervals (CIs include important benefit and important harm), Only data from one study. **Publication bias: no serious.**

References

317. FOREST PLOT: Non-CBT-T vs PCT. Website

391. Ford JD, Steinberg KL, Zhang W. A randomized clinical trial comparing affect regulation and social problem-solving psychotherapies for mothers with victimization-related PTSD. Behavior therapy 2011;42(4):560-78 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Present Centred Therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Present Centred Therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 138 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.97 lower** (CI 95% 1.33 lower — 0.62 lower)	Moderate Due to serious imprecision [1]	Present centred therapy probably decreases PTSD symptom severity

1. **Risk of Bias: no serious.** Only 80% of participants had full PTSD. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=138), Wide confidence intervals (CIs include important benefit and unimportant benefit). **Publication bias: no serious.**

References

391. Ford JD, Steinberg KL, Zhang W. A randomized clinical trial comparing affect regulation and social problem-solving psychotherapies for mothers with victimization-related PTSD. Behavior therapy 2011;42(4):560-78 Pubmed Journal

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Stress inoculation training (SIT)
Comparator: Supportive counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Supportive counselling	**Intervention** Stress inoculation training (SIT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 25 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.22 lower** (CI 95% 2.09 lower — 0.35 lower)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between SIT and supportive counselling on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and large loss to follow up. **Imprecision: very serious.** Low number of patients (n=25).

References

385. Foa EB, Rothbaum BO, Riggs DS, Murdock TB. Treatment of posttraumatic stress disorder in rape victims: a comparison between cognitive-behavioral procedures and counseling. Journal of consulting and clinical psychology 1991;59(5):715-23 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Stress Inoculation Therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Stress Inoculation Therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better	Difference:	**SMD 1.53 lower** (CI 95% 2.13 lower	Low Due to serious risk	Stress inoculation therapy may decrease PTSD

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Stress Inoculation Therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
	Based on data from 58 participants in 2 studies. (Randomized controlled)		— 0.93 lower)	of bias, Due to serious imprecision [1]	symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=58). **Publication bias: no serious.**

References

339. FOREST PLOT: SIT vs WLTAU. Website

385. Foa EB, Rothbaum BO, Riggs DS, Murdock TB. Treatment of posttraumatic stress disorder in rape victims: a comparison between cognitive-behavioral procedures and counseling. Journal of consulting and clinical psychology 1991;59(5):715-23 Pubmed

386. Foa EB, Dancu CV, Hembree EA, Jaycox LH, Meadows EA, Street GP. A comparison of exposure therapy, stress inoculation training, and their combination for reducing posttraumatic stress disorder in female assault victims. Journal of consulting and clinical psychology 1999;67(2):194-200 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Stress Inoculation Therapy (SIT)
Comparator: PTSD Family Education

Outcome Timeframe	**Study results and measurements**	**Comparator** PTSD Family Education	**Intervention** Stress Inoculation Therapy (SIT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 43 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 24.26 lower** (CI 95% 34.65 lower — 13.87 lower)	Moderate Due to serious risk of bias, Due to serious imprecision [1]	Stress Inoculation Therapy is probably more effective at reducing PTSD symptom severity than PTSD Family Education

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients. **Publication bias: no serious.**

References

339. FOREST PLOT: SIT vs WLTAU. Website

385. Foa EB, Rothbaum BO, Riggs DS, Murdock TB. Treatment of posttraumatic stress disorder in rape victims: a comparison between cognitive-behavioral procedures and counseling. Journal of consulting and clinical psychology 1991;59(5):715-23 Pubmed

386. Foa EB, Dancu CV, Hembree EA, Jaycox LH, Meadows EA, Street GP. A comparison of exposure therapy, stress inoculation training, and their combination for reducing posttraumatic stress disorder in female assault victims. Journal of consulting and clinical psychology 1999;67(2):194-200 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Group trauma-focused CBT
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Group trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 247 participants in 5 studies. (Randomized controlled)	Difference:	**SMD 1.01 lower** (CI 95% 1.28 lower — 0.74 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Group trauma-focused CBT may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Missing intention-to-treat analysis, due to [failure to account for clustering in analysis]. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=247), , Wide confidence intervals (CIs include important benefit and unimportant benefit). **Publication bias: no serious.**

References

355. Akbarian F, Bajoghli H, Haghighi M, Kalak N, Holsboer-Trachsler E, Brand S. The effectiveness of cognitive behavioral therapy with respect to psychological symptoms and recovering autobiographical memory in patients suffering from post-traumatic stress disorder. Neuropsychiatric disease and treatment 2015;11:395-404 Pubmed Journal

359. Beck JG, Coffey SF, Foy DW, Keane TM, Blanchard EB. Group cognitive behavior therapy for chronic posttraumatic stress disorder: an initial randomized pilot study. Behavior therapy 2009;40(1):82-92 Pubmed Journal

371. Castillo DT, Chee CL, Nason E, Keller J, C'de Baca J, Qualls C, et al. Group-delivered cognitive/exposure therapy for PTSD in women veterans: A randomized controlled trial. Psychological trauma : theory, research, practice and policy 2016;8(3):404-412 Pubmed Journal

383. Falsetti SA, Resnick HS, Davis JL. Multiple channel exposure therapy for women with PTSD and comorbid panic attacks. Cognitive behaviour therapy 2008;37(2):117-30 Pubmed Journal

467. Hollifield M, Sinclair-Lian N, Warner T, Hammerschlag R. Hollifield, M., Sinclair-Lian, N., Warner, T. D., & Hammerschlag, R. (2007). Acupuncture for posttraumatic stress disorder: a randomized controlled pilot trial. The Journal of nervous and mental disease, 195(6), 504-513. Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Group trauma-focused CBT
Comparator: Group Present Centred Therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Group Present Centred Therapy	**Intervention** Group trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 617 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 0.14 lower** (CI 95% 0.3 lower — 0.02 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	Group trauma-focused CBT may have little or no difference on PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, Incomplete data and/or large loss to follow up, differences at baseline. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:96%.. **Imprecision: serious.** Wide confidence intervals (CIs include important benefit and unimportant harm).

References

308. FOREST PLOT: Group CBT-T vs Group PCT. Website

443. Resick PA, Wachen JS, Mintz J, Young-McCaughan S, Roache JD, Borah AM, et al. A randomized clinical trial of group cognitive processing therapy compared with group present-centered therapy for PTSD among active duty military personnel. Journal of consulting and clinical psychology 2015;83(6):1058-1068 Pubmed Journal

449. Schnurr PP, Friedman MJ, Foy DW, Shea MT, Hsieh FY, Lavori PW, et al. Randomized trial of trauma-focused group therapy for posttraumatic stress disorder: results from a department of veterans affairs cooperative study. Archives of general psychiatry 2003;60(5):481-9 Pubmed

454. Sloan DM, Unger W, Lee DJ, Beck JG. A Randomized Controlled Trial of Group Cognitive Behavioral Treatment for Veterans Diagnosed With Chronic Posttraumatic Stress Disorder. Journal of traumatic stress 2018;31(6):886-898 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Group trauma-focused CBT
Comparator: Supportive Group Therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Supportive Group Therapy	**Intervention** Group trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 72 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.02 lower** (CI 95% 0.48 lower — 0.44 higher)	Low Due to serious risk of bias, Due to serious imprecision, Due to serious imprecision [1]	There may be little or no difference between Group TF-CBT and Supportive Group Therapy on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete outcome data. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients, wide confidence intervals (CIs cross threshold of important benefit for both interventions). **Publication bias: no serious.**

References

355. Akbarian F, Bajoghli H, Haghighi M, Kalak N, Holsboer-Trachsler E, Brand S. The effectiveness of cognitive behavioral therapy with respect to psychological symptoms and recovering autobiographical memory in patients suffering from post-traumatic stress disorder. Neuropsychiatric disease and treatment 2015;11:395-404 Pubmed Journal

359. Beck JG, Coffey SF, Foy DW, Keane TM, Blanchard EB. Group cognitive behavior therapy for chronic posttraumatic stress disorder: an initial randomized pilot study. Behavior therapy 2009;40(1):82-92 Pubmed Journal

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Meta-cognitive Therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Meta-cognitive Therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 40 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 2.36 lower** (CI 95% 4.22 lower — 0.51 lower)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether meta-cognitive therapy increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high, with I^2: 77% but both studies have very large positive effect size so not important. **Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=40), Wide confidence intervals (CIs include important benefit and unimportant benefit). **Publication bias: no serious.**

References

340. FOREST PLOT: Metacognitive Therapy vs WLTAU. Website

395. Gersons BP, Carlier IV, Lamberts RD, van der Kolk BA. Randomized clinical trial of brief eclectic psychotherapy for police officers with posttraumatic stress disorder. Journal of traumatic stress 2000;13(2):333-47 Pubmed

451. Schnyder U, Muller J, Maercker A, Wittmann L. Schnyder, U., Müller, J., Maercker, A., & Wittmann, L. (2011, April). Brief eclectic psychotherapy for PTSD: a randomized controlled trial. In National conference on psychotherapy, 3rd, May, 2010, Jakarta, Indonesia; Presented at the aforementioned conference, and the 20th IFP World Congress of Psychotherapy, June 16-19, 2010, Lucerne, Switzerland.. Physicians Postgraduate Press. Pubmed

461. Wells A, Colbear JS. Treating posttraumatic stress disorder with metacognitive therapy: a preliminary controlled trial. Journal of clinical psychology 2012;68(4):373-81 Pubmed Journal

462. Wells A, Walton D, Lovell K, Prcotor D. Wells, A., Walton, D., Lovell, K., & Proctor, D. (2015). Metacognitive therapy versus prolonged exposure in adults with chronic post-traumatic stress disorder: A parallel randomized controlled trial. Cognitive Therapy and Research, 39(1), 70-80. Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Non-trauma-focused CBT
Comparator: Waitlist

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist	**Intervention** Non-trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 126 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.93 lower** (CI 95% 1.3 lower — 0.56 lower)	Low Due to serious imprecision, Due to serious risk of bias [1]	Non-CBT-T may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Therapist credentials/experience is not reported. It is unclear whether or not treatment adherence was assessed. Failure to account for clustering in the analyses. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=126), Wide confidence intervals (CIs include important benefit and unimportant benefit). **Publication bias: no serious.**

References

336. FOREST PLOT: Non-CBT-T vs WLTAU. Website

391. Ford JD, Steinberg KL, Zhang W. A randomized clinical trial comparing affect regulation and social problem-solving psychotherapies for mothers with victimization-related PTSD. Behavior therapy 2011;42(4):560-78 Pubmed Journal

461. Wells A, Colbear JS. Treating posttraumatic stress disorder with metacognitive therapy: a preliminary controlled trial. Journal of clinical psychology 2012;68(4):373-81 Pubmed Journal

462. Wells A, Walton D, Lovell K, Prcotor D. Wells, A., Walton, D., Lovell, K., & Proctor, D. (2015). Metacognitive therapy versus prolonged exposure in adults with chronic post-traumatic stress disorder: A parallel randomized controlled trial. Cognitive Therapy and Research, 39(1), 70-80. Journal

466. Zlotnick C, Shea TM, Rosen K, Simpson E, Mulrenin K, Begin A, et al. An affect-management group for women with posttraumatic stress disorder and histories of childhood sexual abuse. Journal of traumatic stress 1997;10(3):425-36 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Reconsolidation of traumatic memories (RTM)

Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Reconsolidation of traumatic memories (RTM)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 128 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 2.75 lower** (CI 95% 3.63 lower — 1.88 lower)	Moderate Due to serious imprecision [1]	Reconsolidation of traumatic memories (RTM) probably decreases PTSD symptom severity

1. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high, with I^2:61% but difference is between 2 studies both with very large positive effects so not important. **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=128). **Publication bias: no serious.**

References

347. FOREST PLOT: RTM vs WLTAU. Website

396. Gray R, Budden-Potts D, Bourke F. Reconsolidation of Traumatic Memories for PTSD: A randomized controlled trial of 74 male veterans. Psychotherapy research : journal of the Society for Psychotherapy Research 2017;29(5):621-639 Pubmed Journal

459. Tylee D, Gray R, Glatt S, Bourke F. Tylee, D. S., Gray, R., Glatt, S. J., & Bourke, F. (2017). Evaluation of the reconsolidation of traumatic memories protocol for the treatment of PTSD: a randomized, wait-list-controlled trial. Journal of Military, Veteran and Family Health, 3(1), 21-33. Journal

615. Gray RM, Budden-Potts D, Schwall RJ, Bourke FF. An open-label, randomized controlled trial of the reconsolidation of traumatic memories protocol (RTM) in military women. Psychological trauma : theory, research, practice and policy 2020. Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Couples CBT with a trauma focus
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Couples CBT with a trauma focus	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 40 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.12 lower** (CI 95% 1.79 lower — 0.45 lower)	Low Due to very serious imprecision [1]	Couples CBT with a trauma focus may decrease PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=40), Wide confidence intervals (CIs include important benefit and unimportant benefit), Only data from one study, . **Publication bias: no serious.**

References

296. FOREST PLOT: Couples CBT-T vs WLTAU. Website

426. Monson CM, Fredman SJ, Macdonald A, Pukay-Martin ND, Resick PA, Schnurr PP. Effect of cognitive-behavioral couple therapy for PTSD: a randomized controlled trial. JAMA 2012;308(7):700-9 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Group and individual CBT with a trauma focus
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Group and individual CBT with a trauma focus	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 55 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 2.32 lower** (CI 95% 3.02 lower — 1.63 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Group and individual CBT with a trauma focus may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Failure to account for clustering in the analyses. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=55), Only data from one study. **Publication bias: no serious.**

References

307. FOREST PLOT: Group and individual CPT (combined) vs WLTAU. Website

372. Chard KM. An evaluation of cognitive processing therapy for the treatment of posttraumatic stress disorder related to childhood sexual abuse. Journal of consulting and clinical psychology 2005;73(5):965-71 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Single Session CBT-T
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Single Session CBT-T	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom	Lower better	Difference:	**SMD 0.57 lower** (CI 95% 1 lower —	Low Due to serious risk	Single session CBT-T may decrease PTSD symptom

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Single Session CBT-T	**Certainty of the evidence** (Quality of evidence)	**Summary**
severity	Based on data from 90 participants in 2 studies. (Randomized controlled)		0.15 lower)	of bias, Due to serious imprecision [1]	severity slightly

1. **Risk of Bias: serious.** Inadequate of blinding of outcome assessors, resulting in potential for detection bias, Incomplete data, Participants who did not complete at least one follow up were replaced. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=90), Wide confidence intervals (CIs include important benefit and unimportant benefit). **Publication bias: no serious.**

References

344. FOREST PLOT: Single session CBT vs WLTAU. Website

357. Basoglu M, Salcıoglu E, Livanou M, Kalender D, Acar G. Single-session behavioral treatment of earthquake-related posttraumatic stress disorder: A randomised waiting list controlled trial. Pubmed Journal

358. Başoglu M, Salcioglu E, Livanou M. A randomized controlled study of single-session behavioural treatment of earthquake-related post-traumatic stress disorder using an earthquake simulator. Psychological medicine 2007;37(2):203-13 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Virtual Reality Therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Virtual Reality Therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 104 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 0.43 lower** (CI 95% 0.83 lower — 0.03 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Virtual reality therapy may decrease PTSD symptom severity slightly

1. **Risk of Bias: serious.** Selective outcome reporting, Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=104), Wide confidence intervals (CIs include important benefit and unimportant benefit). **Publication bias: no serious.**

References

351. FOREST PLOT: VR-exposure vs WLTAU. Website

394. Gamito P, Oliveira J, Rosa P, Morais D, Duarte N, Oliveira S, et al. PTSD elderly war veterans: a clinical controlled pilot study. Cyberpsychology, behavior and social networking 2010;13(1):43-8 Pubmed

423. McLay RN, Wood DP, Webb-Murphy JA, Spira JL, Wiederhold MD, Pyne JM, et al. A randomized, controlled trial of virtual reality-graded exposure therapy for post-traumatic stress disorder in active duty service members with combat-related post-traumatic stress disorder. Cyberpsychology, behavior and social networking 2011;14(4):223-9 Pubmed Journal

441. Reger GM, Koenen-Woods P, Zetocha K, Smolenski DJ, Holloway KM, Rothbaum BO, et al. Randomized controlled trial of prolonged exposure using imaginal exposure vs. virtual reality exposure in active duty soldiers with deployment-related posttraumatic stress disorder (PTSD). Journal of consulting and clinical psychology 2016;84(11):946-959 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Virtual reality therapy
Comparator: Control exposure

Outcome Timeframe	**Study results and measurements**	**Comparator** Control exposure	**Intervention** Virtual reality therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 147 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.01 higher** (CI 95% 0.68 lower — 0.71 higher)	Very low Due to serious inconsistency, Due to very serious imprecision [1]	We are uncertain whether virtual reality therapy increases or decreases PTSD symptom severity

1. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:78%.. **Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=147), Wide confidence intervals (CIs include important benefit and important harm). **Publication bias: no serious.**

References

349. FOREST PLOT: VR-Exposure vs Control exposure therapy. Website

424. McLay RN, Baird A, Webb-Murphy J, Deal W, Tran L, Anson H, et al. A Randomized, Head-to-Head Study of Virtual Reality Exposure Therapy for Posttraumatic Stress Disorder. Cyberpsychology, behavior and social networking 2017;20(4):218-224 Pubmed Journal

441. Reger GM, Koenen-Woods P, Zetocha K, Smolenski DJ, Holloway KM, Rothbaum BO, et al. Randomized controlled trial of prolonged exposure using imaginal exposure vs. virtual reality exposure in active duty soldiers with deployment-related posttraumatic stress disorder (PTSD). Journal of consulting and clinical psychology 2016;84(11):946-959 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Virtual reality therapy
Comparator: Present Centred Therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Present Centred Therapy	**Intervention** Virtual reality therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 9 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.51 lower** (CI 95% 1.86 lower — 0.84 higher)	Low Due to very serious imprecision [1]	Virtual reality therapy may be more beneficial than PCT on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=9), Wide confidence intervals (CIs include important benefit and important harm), Only data from one study. **Publication bias: no serious.**

References

342. FOREST PLOT: VR-Exposure vs Present centred therapy. Website

440. Ready D, Geradi R, Backscheider A, Mascaro N, Rothbaum B. Comparing Virtual Reality Exposure Therapy to Present-Centered Therapy with 11 U.S. Vietnam Veterans with PTSD. Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Written exposure therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Written exposure therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 46 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 3.35 lower** (CI 95% 4.27 lower — 2.43 lower)	Low Due to very serious imprecision [1]	Written exposure therapy may decrease PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=46), Only data from one study. **Publication bias: no serious.**

References

341. FOREST PLOT: WET vs WLTAU. Website

452. Sloan DM, Marx BP, Bovin MJ, Feinstein BA, Gallagher MW. Written exposure as an intervention for PTSD: a randomized clinical trial with motor vehicle accident survivors. Behaviour research and therapy 2012;50(10):627-35 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Written exposure therapy
Comparator: Cognitive Processing Therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Cognitive Processing Therapy	**Intervention** Written exposure therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 126 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.13 higher** (CI 95% 0.21 lower — 0.48 higher)	Low Due to very serious imprecision [1]	There may be little or no difference between Written exposure therapy and CPT on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=126), Wide confidence intervals (CIs include important benefit and important harm), Only data from one study. **Publication bias: no serious.**

References

453. Sloan DM, Marx BP, Lee DJ, Resick PA. A Brief Exposure-Based Treatment vs Cognitive Processing Therapy for Posttraumatic Stress Disorder: A Randomized Noninferiority Clinical Trial. JAMA psychiatry 2018;75(3):233-239 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: 3MDR
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** 3MDR	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 78 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.66 lower** (CI 95% 1.12 lower — 0.2 lower)	Low Due to serious indirectness, Due to serious imprecision [1]	3MDR may decrease PTSD symptom severity slightly

1. **Risk of Bias: no serious.** Incomplete data and/or large loss to follow up, Selective outcome reporting. **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied. Only one female in 78 participants, studies are in treatment resistant veterans. Results may not be generalisable to females or non-trauma-resistant military populations. **Imprecision: serious.** Low number of patients (n = 78), Wide confidence intervals includes important benefit and unimportant benefit. **Publication bias: no serious.**

References

609. Bisson JI, van Deursen R, Hannigan B, Kitchiner N, Barawi K, Jones K, et al. Randomized controlled trial of multi-modular motion-assisted memory desensitization and reconsolidation (3MDR) for male military veterans with treatment-resistant post-traumatic stress disorder. Acta psychiatrica Scandinavica 2020;142(2):141-151 Pubmed Journal

623. van Gelderen MJ, Nijdam MJ, Haagen JFG, Vermetten E. Interactive Motion-Assisted Exposure Therapy for Veterans with Treatment-Resistant Posttraumatic Stress Disorder: A Randomized Controlled Trial. Psychotherapy and psychosomatics 2020;89(4):215-227 Pubmed Journal

639. FOREST PLOT: 3MDR vs WL/TAU. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Acceptance and commitment therapy (ACT) + TAU
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Acceptance and commitment therapy (ACT) + TAU	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 51 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.45 lower** (CI 95% 1.01 lower — 0.11 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	ACT + TAU may have little or no difference on PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=51), Wide confidence intervals (CIs include important harm and unimportant benefit). **Publication bias: no serious.**

References

329. FOREST PLOT: ACT + TAU vs TAU. Website

470. Boals A, Murrell A. I Am > Trauma: Experimentally Reducing Event Centrality and PTSD Symptoms in a Clinical Trial. Journal of Loss and Trauma 2016. Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Behavioural Activation
Comparator: Waitlist/ treatment as usual (including Trauma-focused CBT)

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual (including Trauma-focused CBT)	**Intervention** Behavioural Activation	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 54 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.64 lower** (CI 95% 1.19 lower — 0.09 lower)	Low Due to serious risk of bias, and serious imprecision [1]	We are uncertain whether Behavioural Activation improves or worsen PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=54), Wide confidence intervals include important benefit and unimportant benefit . **Publication bias: no serious.**

References

624. Wagner AW, Jakupcak M, Kowalski HM, Bittinger JN, Golshan S. Behavioral Activation as a Treatment for Posttraumatic Stress Disorder Among Returning Veterans: A Randomized Trial. Psychiatric services (Washington, D.C.) 2019;70(10):867-873 Pubmed Journal

655. FOREST PLOT: Behavioural activation vs WL/TAU. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Brief Eclectic Psychotherapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Brief Eclectic Psychotherapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 92 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 0.56 lower** (CI 95% 0.98 lower — 0.13 lower)	Moderate Due to serious imprecision [1]	Brief Eclectic Psychotherapy probably decreases PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients, Wide confidence intervals . **Publication bias: no serious.**

References

395. Gersons BP, Carlier IV, Lamberts RD, van der Kolk BA. Randomized clinical trial of brief eclectic psychotherapy for police officers with posttraumatic stress disorder. Journal of traumatic stress 2000;13(2):333-47 Pubmed

451. Schnyder U, Muller J, Maercker A, Wittmann L. Schnyder, U., Müller, J., Maercker, A., & Wittmann, L. (2011, April). Brief eclectic psychotherapy for PTSD: a randomized controlled trial. In National conference on psychotherapy, 3rd, May, 2010, Jakarta, Indonesia; Presented at the aforementioned conference, and the 20th IFP World Congress of Psychotherapy, June 16-19, 2010,

Lucerne, Switzerland.. Physicians Postgraduate Press. Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Group Present Centred Therapy
Comparator: Group Cognitive Behavioural Social Rhythm

Outcome Timeframe	**Study results and measurements**	**Comparator** Group Cognitive Behavioural Social Rhythm	**Intervention** Group Present Centred Therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 37 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.18 lower** (CI 95% 0.83 lower — 0.46 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between group Present Centred Therapy and Group Cognitive Behavioural Social Rhythm on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=37), Wide confidence intervals include important benefit and important harm. **Publication bias: no serious.**

References

616. Haynes PL, Burger SB, Kelly M, Emert S, Perkins S, Shea MT. Cognitive behavioral social rhythm group therapy versus present centered group therapy for veterans with posttraumatic stress disorder and major depressive disorder: A randomized controlled pilot trial. Journal of affective disorders 2020;277:800-809 Pubmed Journal

652. FOREST PLOT: Group present centred therapy vs Cognitive behavioural social rhythm group therapy. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Dialectical Behaviour Therapy (DBT)
Comparator: Waitlist/control

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/control	**Intervention** Dialectical Behaviour Therapy (DBT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 74 participants in 1 studies.	Difference:	**SMD 1.04 lower** (CI 95% 1.53 lower — 0.55 lower)	Low Due to serious risk of bias, serious imprecision [1]	Dialectical behaviour therapy (DBT) may decrease PTSD symptom severity

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/control	**Intervention** Dialectical Behaviour Therapy (DBT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
	(Randomized controlled)				

1. **Risk of Bias: serious.** Selective outcome reporting. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients. **Publication bias: no serious.**

References

610. Bohus M, Kleindienst N, Hahn C, Müller-Engelmann M, Ludäscher P, Steil R, et al. Dialectical Behavior Therapy for Posttraumatic Stress Disorder (DBT-PTSD) Compared With Cognitive Processing Therapy (CPT) in Complex Presentations of PTSD in Women Survivors of Childhood Abuse: A Randomized Clinical Trial. JAMA psychiatry 2020;77(12):1235-1245 Pubmed Journal

649. FOREST PLOT: Dialectical behaviour therapy (DBT) vs cognitive processing therapy (CPT). Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Trauma-focused CBT
Comparator: Dialogical exposure therapy (DET)

Outcome Timeframe	**Study results and measurements**	**Comparator** Dialogical exposure therapy (DET)	**Intervention** Trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 138 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.39 lower** (CI 95% 0.73 lower — 0.05 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Trauma-focused CBT may be more beneficial than DET on PTSD symptom severity

1. **Risk of Bias: serious.** Due to methods were poorly described, Training cases for CPT were taken from the randomised sample and subsequently excluded from analysis. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=138), Wide confidence intervals (CIs include important benefit and unimportant benefit), Only data from one study. **Publication bias: no serious.**

References

297. FOREST PLOT: CBT-T (CPT) vs DET. Website

367. Butollo W, Karl R, König J, Rosner R. A Randomized Controlled Clinical Trial of Dialogical Exposure Therapy versus Cognitive Processing Therapy for Adult Outpatients Suffering from PTSD after Type I Trauma in Adulthood. Psychotherapy and psychosomatics 2016;85(1):16-26 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Interpersonal therapy
Comparator: Relaxation training

Outcome Timeframe	**Study results and measurements**	**Comparator** Relaxation training	**Intervention** Interpersonal therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 60 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.15 lower** (CI 95% 0.67 lower — 0.38 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between interpersonal therapy and relaxation training on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to [difficulties in recruitment]. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=60), Wide confidence intervals (CIs include important benefit and important harm), Only data from one study. **Publication bias: no serious.**

References

420. Markowitz JC, Petkova E, Neria Y, Van Meter PE, Zhao Y, Hembree E, et al. Is Exposure Necessary? A Randomized Clinical Trial of Interpersonal Psychotherapy for PTSD. The American journal of psychiatry 2015;172(5):430-40 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Group interpersonal therapy (IPT)
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Group interpersonal therapy (IPT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 48 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.19 lower** (CI 95% 1.84 lower — 0.54 lower)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether group interpersonal therapy (IPT) increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=48), Wide confidence intervals (CIs include important benefit and unimportant benefit), Only data from one study. **Publication bias: no serious.**

References

311. FOREST PLOT: Group IPT vs WLTAU. Website

410. Krupnick JL, Green BL, Stockton P, Miranda J, Krause E, Mete M. Group interpersonal psychotherapy for low-income women with posttraumatic stress disorder. Psychotherapy research : journal of the Society for Psychotherapy Research 2008;18(5):497-507 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Observed and experiential integration (OEI)
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Observed and experiential integration (OEI)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 10 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 2.86 lower** (CI 95% 4.9 lower — 0.83 lower)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether observed and experiential integration (OEI) increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Lack of blinding of outcome assessors, resulting in potential for detection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=10), Only data from one study. **Publication bias: no serious.**

References

319. FOREST PLOT: OEI vs WLTAU. Website

362. Bradshaw R, McDonald M, Grace R, Detwiler L, Austin K. A Randomized Clinical Trial of Observed and Experiential Integration (OEI): A Simple, Innovative Intervention for Affect Regulation in Clients With PTSD. Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Mindfulness-based stress reduction
Comparator: Group Present Centred Therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Group Present Centred Therapy	**Intervention** Mindfulness-based stress reduction	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 324	Difference:	**SMD 0.11 lower** (CI 95% 0.53 lower — 0.32 higher)	Very low Due to serious risk of bias, Due to	We are uncertain if there is a difference between mindfulness-based stress

Outcome Timeframe	**Study results and measurements**	**Comparator** Group Present Centred Therapy	**Intervention** Mindfulness-based stress reduction	**Certainty of the evidence** (Quality of evidence)	**Summary**
	participants in 3 studies. (Randomized controlled)			serious inconsistency, Due to very serious imprecision [1]	reduction and group PCT on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to [baseline differences between groups]. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:63 %.. **Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=324) , Wide confidence intervals (CIs include important benefit and important harm). **Publication bias: no serious.**

References

558. FOREST PLOT: Mindfulness based stress reduction vs PCT. Website

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593. Davis L, Whetsell C, Hamner M, Carmody J, Rothbaum B, Allen R, et al. Davis, L. L., Whetsell, C., Hamner, M. B., Carmody, J., Rothbaum, B. O., Allen, R. S., ... & Bremner, J. D. (2018). A Multisite Randomized Controlled Trial of Mindfulness-Based Stress Reduction in the Treatment of Posttraumatic Stress Disorder. Psychiatric Research and Clinical Practice. Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Psychodynamic therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Psychodynamic therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 44 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.85 lower** (CI 95% 1.47 lower — 0.22 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Psychodynamic therapy may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up There were no reported reasons for drop-out. Inadequate statistical correction for these drop-outs. Inadequate reporting of baseline characteristics. Each treatment arm had its own dedicated therapists (i.e. differences in outcome may have been attributable to expertise as opposed to the intervention).. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=52), Wide confidence intervals (CIs include important benefit and unimportant harm), Only data from one study. **Publication bias: no serious.**

References

320. FOREST PLOT: Psychodynamic therapy vs WLTAU. Website

363. Brom D, Kleber R, Defares P. Brief psychotherapy for posttraumatic stress disorders. Journal of consulting and clinical psychology, 57(5), 607. 1989. Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Psychodynamic therapy
Comparator: Hypnotherapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Hypnotherapy	**Intervention** Psychodynamic therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 50 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.05 lower** (CI 95% 0.6 lower — 0.51 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	There may be little or no difference between Psychodynamic Therapy and Hypnotherapy on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up There were no reported reasons for drop-out. Inadequate statistical correction for these drop-outs. Inadequate reporting of baseline characteristics. Each treatment arm had its own dedicated therapists (i.e. differences in outcome may have been attributable to expertise as opposed to the intervention).. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=52), Wide confidence intervals (CIs include important benefit and unimportant harm), Only data from one study. **Publication bias: no serious.**

References

320. FOREST PLOT: Psychodynamic therapy vs WLTAU. Website

363. Brom D, Kleber R, Defares P. Brief psychotherapy for posttraumatic stress disorders. Journal of consulting and clinical psychology, 57(5), 607. 1989. Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Relaxation training
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Relaxation training	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 53 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.09 lower** (CI 95% 0.91 lower — 0.73 higher)	Low Due to serious inconsistency, Due to serious imprecision [1]	Relaxation training may have little or no difference on PTSD symptom severity

1. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:54%.. **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=53), Wide confidence intervals (CIs include important benefit and unimportant harm). **Publication bias: no serious.**

References

348. FOREST PLOT: Relaxation training vs WLTAU. Website

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Resilience Oriented Treatment
Comparator: Waitlist/treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/treatment as usual	**Intervention** Resilience Oriented Treatment	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 39 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.23 lower** (CI 95% 1.92 lower — 0.54 lower)	Low Due to very serious imprecision [1]	Resilience Oriented Treatment may decrease PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients, Wide confidence intervals. **Publication bias: no serious.**

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Supportive counselling

Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Supportive counselling	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 72 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.43 lower** (CI 95% 0.9 lower — 0.04 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	Supportive counselling may decrease PTSD symptom severity slightly

1. **Risk of Bias: serious.** Inadequate sequence generation, resulting in potential for selection bias, Incomplete data and large unbalanced loss to follow up, Missing intention-to-treat analysis. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=72), Wide confidence intervals (CIs include important benefit and unimportant harm). **Publication bias: no serious.**

References

345. FOREST PLOT: Supportive counselling vs WLTAU. Website

361. Blanchard EB, Hickling EJ, Devineni T, Veazey CH, Galovski TE, Mundy E, et al. A controlled evaluation of cognitive behavioural therapy for posttraumatic stress in motor vehicle accident survivors. Behaviour research and therapy 2003;41(1):79-96 Pubmed

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Supportive counselling
Comparator: Psychoeducation

Outcome Timeframe	**Study results and measurements**	**Comparator** Psychoeducation	**Intervention** Supportive counselling	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 25 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.13 lower** (CI 95% 0.92 lower — 0.65 higher)	Very low Due to very serious imprecision, Due to serious indirectness [1]	We are uncertain if there is a difference between supportive counselling and psychoeducation on PTSD symptom severity

1. **Risk of Bias: no serious.** Treatment adherence was not monitored. **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied (Sudanese refugees in Uganda). **Imprecision: very serious.** Low number of patients (n=25), Wide confidence intervals (CIs include important benefit and important harm), Only data from one study. **Publication bias: no serious.**

References

346. FOREST PLOT: Supportive Counselling vs Psychoeducation. Website

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: Stabilising group treatment
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Stabilising group treatment	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 71 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.11 higher** (CI 95% 0.36 lower — 0.57 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	Stabilising group treatment may have little or no difference on PTSD symptom severity

1. **Risk of Bias: serious.** Selective outcome reporting, not all outcomes in protocol were reported, heterogeneous TAU. **Inconsistency: no serious. Indirectness: no serious.** participants had complex PTSD and severe comorbidity related to child abuse. **Imprecision: serious.** Low number of patients (n=71), Only data from one study. **Publication bias: no serious.**

References

321. FOREST PLOT: Stabilising group treatment vs WLTAU. Website

377. Dorrepaal E, Thomaes K, Smit JH, van Balkom AJLM, Veltman DJ, Hoogendoorn AW, et al. Stabilizing group treatment for complex posttraumatic stress disorder related to child abuse based on psychoeducation and cognitive behavioural therapy: a multisite randomized controlled trial. Psychotherapy and psychosomatics 2012;81(4):217-25 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Brief trauma-focused CBT
Comparator: WL/TAU

Outcome Timeframe	**Study results and measurements**	**Comparator** WL/TAU	**Intervention** Brief trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 67 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.28 lower** (CI 95% 1.81 lower — 0.75 lower)	Moderate Due to serious imprecision [1]	Brief trauma-focused CBT probably increases PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n = 67), Wide confidence intervals include important benefit and unimportant benefit . **Publication bias: no serious.**

References

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713. FOREST PLOT: Brief CBT-T vs WL/TAU. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Attention bias modification training (ABMT)
Comparator: Attention Control Training (ACT)

Outcome Timeframe	**Study results and measurements**	**Comparator** Attention Control Training	**Intervention** Attention bias modification training (ABMT)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 250 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 1.47 higher** (CI 95% 0.1 lower — 3.05 higher)	Very low Due to serious imprecision, Due to serious risk of bias, Due to serious inconsistency [1]	We are uncertain if there is a difference between the effectiveness ABMT and ACT on PTSD severity

1. **Risk of Bias: serious.** Selective outcome reporting. **Inconsistency: serious.** The confidence interval of some of the studies do not overlap with those of most included studies/ the point estimate of some of the included studies.. **Imprecision: serious.** Wide confidence intervals (CIs often include important and unimportant benefit), Low number of patients. **Publication bias: no serious.**

References

330. FOREST PLOT: CBT-T vs WLTAU. Website

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Pharmacological interventions for adults with PTSD

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Eye Movement Desensitization and Reprocessing (EMDR)
Comparator: SSRIs- Fluoxetine

Outcome Timeframe	**Study results and measurements**	**Comparator** SSRIs- Fluoxetine	**Intervention** Eye Movement Desensitization and Reprocessing (EMDR)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 59 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.45 lower** (CI 95% 0.96 lower — 0.07 higher)	Moderate Due to serious imprecision [1]	Eye movement desensitization and reprocessing (EMDR) is probably more effective than Fluoxetine at decreasing PTSD symptom severity

1. **Risk of Bias: no serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, Selective outcome

reporting. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=59), Wide confidence intervals include important benefit and unimportant harm. **Publication bias: no serious.**

References

533. van der Kolk BA, Spinazzola J, Blaustein ME, Hopper JW, Hopper EK, Korn DL, et al. A randomized clinical trial of eye movement desensitization and reprocessing (EMDR), fluoxetine, and pill placebo in the treatment of posttraumatic stress disorder: treatment effects and long-term maintenance. The Journal of clinical psychiatry 2007;68(1):37-46 Pubmed

669. FOREST PLOT: EMDR vs Fluoxetine. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Selective serotonin re-uptake inhibitors (SSRIs)
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** SSRIs	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 3,185 participants in 18 studies. (Randomized controlled)	Difference:	**SMD 0.32 lower** (CI 95% 0.43 lower — 0.2 lower)	Low Due to serious imprecision, Due to serious risk of bias [1]	SSRIs may decrease PTSD symptom severity slightly

1. **Risk of Bias: serious.** Two studies reported large loss to follow up, 2 studies unpublished data, several studies unclear drop-out reporting. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was moderate, with I^2:53 %, however this is mainly due to one study with a very large effect size. All studies but 2 show positive effects with most showing small to moderate effect size. . **Indirectness: no serious. Imprecision: serious.** Wide confidence intervals (CIs include important benefit and unimportant benefit). **Publication bias: no serious.** Some commercially funded studies, but not most.

References

472. FOREST PLOT: SSRIs vs Placebo. Website

496. Brady K, Pearlstein T, Asnis GM, Baker D, Rothbaum B, Sikes CR, et al. Efficacy and safety of sertraline treatment of posttraumatic stress disorder: a randomized controlled trial. JAMA 2000;283(14):1837-44 Pubmed

497. Brady KT, Sonne S, Anton RF, Randall CL, Back SE, Simpson K. Sertraline in the treatment of co-occurring alcohol dependence and posttraumatic stress disorder. Alcoholism, clinical and experimental research 2005;29(3):395-401 Pubmed

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516. Li W, Ma Y-B, Yang QI, Li B-L, Meng Q-G, Zhang YI. Effect and safety of sertraline for treat posttraumatic stress disorder: a multicenter randomised controlled study. International journal of psychiatry in clinical practice 2017;21(2):151-155 Pubmed Journal

517. Marshall RD, Beebe KL, Oldham M, Zaninelli R. Efficacy and safety of paroxetine treatment for chronic PTSD: a fixed-dose, placebo-controlled study. The American journal of psychiatry 2001;158(12):1982-8 Pubmed

518. Marshall RD, Lewis-Fernandez R, Blanco C, Simpson HB, Lin S-H, Vermes D, et al. A controlled trial of paroxetine for chronic PTSD, dissociation, and interpersonal problems in mostly minority adults. Depression and anxiety 2007;24(2):77-84 Pubmed

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528. SKB 627. Bryson H, Lawrinson S, Edwards GJ, Grotzinger KM. A 12 week, double-blind, placebo-controlled, parallel group study to assess the efficacy and tolerability of paroxetine in patients suffering from Posttraumatic Stress Disorder (PTSD). Unpublished.

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: SSRIs- Fluoxetine
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Selective serotonin re-uptake inhibitors-Fluoxetine	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 716 participants in 5 studies. (Randomized controlled)	Difference:	**SMD 0.38 lower** (CI 95% 0.7 lower — 0.06 lower)	Low Due to serious imprecision, Due to serious inconsistency [1]	Fluoxetine may decrease PTSD symptom severity slightly

1. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:61%. **Indirectness: no serious. Imprecision: serious.** Wide confidence intervals (CIs include important benefit and unimportant benefit). **Publication bias: no serious.** Some commercially funded studies, but not most.

References

472. FOREST PLOT: SSRIs vs Placebo. Website

496. Brady K, Pearlstein T, Asnis GM, Baker D, Rothbaum B, Sikes CR, et al. Efficacy and safety of sertraline treatment of posttraumatic stress disorder: a randomized controlled trial. JAMA 2000;283(14):1837-44 Pubmed

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Clinical question/ PICO

Population: Adults with PTSD
Intervention: SSRIs- Paroxetine
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Selective serotonin re-uptake inhibitors- Paroxetine	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 1,100 participants in 4 studies. (Randomized controlled)	Difference:	**SMD 0.42 lower** (CI 95% 0.54 lower — 0.29 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Paroxetine may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to industry funded studies, unpublished data. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Wide confidence intervals (CIs include important benefit and unimportant benefit). **Publication bias: no serious.** Mostly commercially funded studies.

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517. Marshall RD, Beebe KL, Oldham M, Zaninelli R. Efficacy and safety of paroxetine treatment for chronic PTSD: a fixed-dose, placebo-controlled study. The American journal of psychiatry 2001;158(12):1982-8 Pubmed

518. Marshall RD, Lewis-Fernandez R, Blanco C, Simpson HB, Lin S-H, Vermes D, et al. A controlled trial of paroxetine for chronic PTSD, dissociation, and interpersonal problems in mostly minority adults. Depression and anxiety 2007;24(2):77-84 Pubmed

530. Tucker P, Zaninelli R, Yehuda R, Ruggiero L, Dillingham K, Pitts CD. Paroxetine in the treatment of chronic posttraumatic stress disorder: results of a placebo-controlled, flexible-dosage trial. The Journal of clinical psychiatry 2001;62(11):860-8 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: SSRIs- Sertraline
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Selective serotonin re-uptake inhibitors- Sertraline	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 1,369 participants in 9 studies. (Randomized controlled)	Difference:	**SMD 0.27 lower** (CI 95% 0.45 lower — 0.1 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Sertraline may decrease PTSD symptom severity slightly

1. **Risk of Bias: serious.** Selective outcome reporting, due to drop-outs not clearly described, commercially funded studies, unpublished data. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Wide confidence intervals (include important and unimportant benefit). **Publication bias: no serious.** Mostly commercially funded studies.

References

473. FOREST PLOT: Sertraline vs Placebo. Website

496. Brady K, Pearlstein T, Asnis GM, Baker D, Rothbaum B, Sikes CR, et al. Efficacy and safety of sertraline treatment of posttraumatic stress disorder: a randomized controlled trial. JAMA 2000;283(14):1837-44 Pubmed

497. Brady KT, Sonne S, Anton RF, Randall CL, Back SE, Simpson K. Sertraline in the treatment of co-occurring alcohol dependence and posttraumatic stress disorder. Alcoholism, clinical and experimental research 2005;29(3):395-401 Pubmed

502. Davidson JR, Rothbaum BO, van der Kolk BA, Sikes CR, Farfel GM. Multicenter, double-blind comparison of sertraline and placebo in the treatment of posttraumatic stress disorder. Archives of general psychiatry 2001;58(5):485-92 Pubmed

504. Davidson J, Rothbaum BO, Tucker P, Asnis G, Benattia I, Musgnung JJ. Venlafaxine extended release in posttraumatic stress disorder: a sertraline- and placebo-controlled study. Journal of clinical psychopharmacology 2006;26(3):259-67 Pubmed

511. Friedman MJ, Marmar CR, Baker DG, Sikes CR, Farfel GM. Randomized, double-blind comparison of sertraline and placebo for posttraumatic stress disorder in a Department of Veterans Affairs setting. The Journal of clinical psychiatry 2007;68(5):711-20 Pubmed

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523. Panahi Y, Moghaddam BR, Sahebkar A, Nazari MA, Beiraghdar F, Karami G, et al. A randomized, double-blind, placebo-controlled trial on the efficacy and tolerability of sertraline in Iranian veterans with post-traumatic stress disorder. Psychological medicine 2011;41(10):2159-66 Pubmed Journal

536. Zohar J, Amital D, Miodownik C, Kotler M, Bleich A, Lane RM, et al. Double-blind placebo-controlled pilot study of sertraline in military veterans with posttraumatic stress disorder. Journal of clinical psychopharmacology 2002;22(2):190-5 Pubmed

538. FOREST PLOT: Sertraline vs Placebo.

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Citalopram
Comparator: Sertraline

Outcome Timeframe	**Study results and measurements**	**Comparator** Sertraline	**Intervention** Citalopram	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 48 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.65 higher** (CI 95% 0.07 higher — 1.23 higher)	Very low Due to serious publication bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between citalopram and sertraline on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=48), Wide confidence intervals (CIs include unimportant harm and important harm), Only data from one study. **Publication bias: serious.** Mostly commercially funded studies.

References

531. Tucker P, Potter-Kimball R, Wyatt DB, Parker DE, Burgin C, Jones DE, et al. Can physiologic assessment and side effects tease out differences in PTSD trials? A double-blind comparison of citalopram, sertraline, and placebo. Psychopharmacology bulletin 2003;37(3):135-49 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Sertraline
Comparator: Nefazadone

Outcome Timeframe	**Study results and measurements**	**Comparator** Nefazadone	**Intervention** Sertraline	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 80 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.19 higher** (CI 95% 0.25 lower — 0.63 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	There may be little or no difference between Sertraline and Nefazadone on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large unbalanced loss to follow up (more drop outs in Nefazadone arm), Selective outcome reporting, due to [baseline differences]. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=80), Wide confidence intervals (CIs include unimportant benefit and important harm). **Publication bias: no serious.**

References

522. McRae AL, Brady KT, Mellman TA, Sonne SC, Killeen TK, Timmerman MA, et al. Comparison of nefazodone and sertraline for the treatment of posttraumatic stress disorder. Depression and anxiety 2004;19(3):190-6 Pubmed

526. Saygin M, Sungur M, Sabol E, Cetinkaya P. Sabol, E. U., & Çetinkaya, P. (2002). Nefazodone versus sertraline in treatment of posttraumatic stress disorder. Bull Clin Psychopharmacol, 12, 1-5. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Venlafaxine
Comparator: Sertraline

Outcome Timeframe	**Study results and measurements**	**Comparator** Sertraline	**Intervention** Venlafaxine	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 352 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.07 lower** (CI 95% 0.28 lower — 0.14 higher)	Very low Due to serious imprecision, Due to serious publication bias, Due to serious risk of bias [1]	We are uncertain if there is a difference between venlafaxine and sertraline on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to [unclear reporting]. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=352), Wide confidence intervals (CIs include important benefit and unimportant harm), Only data from one study,. **Publication bias: serious.** Mostly commercially funded studies.

References

504. Davidson J, Rothbaum BO, Tucker P, Asnis G, Benattia I, Musgnung JJ. Venlafaxine extended release in posttraumatic stress disorder: a sertraline- and placebo-controlled study. Journal of clinical psychopharmacology 2006;26(3):259-67 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Serotonin and nor-adrenaline re-uptake inhibitors- Venlafaxine
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Serotonin and nor-adrenaline re-uptake inhibitors-Venlafaxine	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 687 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.24 lower** (CI 95% 0.39 lower — 0.09 lower)	Moderate Due to serious risk of bias [1]	Venlafaxine probably decreases PTSD symptom severity slightly

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to [unclear reporting]. **Inconsistency: no serious. Indirectness: no serious. Imprecision: no serious. Publication bias: no serious.**

References

485. FOREST PLOT: Venlafaxine vs Placebo. Website

504. Davidson J, Rothbaum BO, Tucker P, Asnis G, Benattia I, Musgnung JJ. Venlafaxine extended release in posttraumatic stress disorder: a sertraline- and placebo-controlled study. Journal of clinical psychopharmacology 2006;26(3):259-67 Pubmed

505. Davidson J, Baldwin D, Stein DJ, Kuper E, Benattia I, Ahmed S, et al. Treatment of posttraumatic stress disorder with venlafaxine extended release: a 6-month randomized controlled trial. Archives of general psychiatry 2006;63(10):1158-65 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Ketamine
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Ketamine	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 35 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.55 lower** (CI 95% 1.23 lower — 0.13 higher)	Very low Due to very serious imprecision, Due to serious publication bias, Due to serious risk of bias [1]	We are uncertain whether ketamine increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Missing intention-to-treat analysis. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Wide confidence intervals (CIs includes important benefit and unimportant harm), Low number of patients (n= 35), Only data from one study. **Publication bias: serious.** Authors named on patent for ketamine for PTSD (would benefit financially from positive findings).

References

510. Feder A, Parides MK, Murrough JW, Perez AM, Morgan JE, Saxena S, et al. Efficacy of intravenous ketamine for treatment of

chronic posttraumatic stress disorder: a randomized clinical trial. JAMA psychiatry 2014;71(6):681-8 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Antipsychotics- Quetiapine
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Antipsychotics- Quetiapine	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 80 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.49 lower** (CI 95% 0.93 lower — 0.04 lower)	Very low Due to serious risk of bias, Due to serious imprecision, Due to serious publication bias [1]	We are uncertain whether quetiapine increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Large loss to follow up, due to [baseline differences and differential attrition]. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=80), Wide confidence intervals (CIs include important benefit and unimportant benefit), Only data from one study. **Publication bias: serious.** Mostly commercially funded studies.

References

534. Villarreal G, Hamner MB, Cañive JM, Robert S, Calais LA, Durklaski V, et al. Efficacy of Quetiapine Monotherapy in Posttraumatic Stress Disorder: A Randomized, Placebo-Controlled Trial. The American journal of psychiatry 2016;173(12):1205-1212 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Tricyclic antidepressant- Amitriptyline
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Tricyclic antidepressant- Amitriptyline	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 33 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.9 lower** (CI 95% 1.62 lower — 0.18 lower)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether amitriptyline increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Missing intention-to-treat analysis, Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=32), Wide confidence intervals (CIs include important benefit and unimportant benefit), Only data from one study. **Publication bias: no serious.**

References

501. Davidson J, Kudler H, Smith R, Mahorney SL, Lipper S, Hammett E, et al. Treatment of posttraumatic stress disorder with amitriptyline and placebo. Archives of general psychiatry 1990;47(3):259-66 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Monoamine oxidase inhibitors- Brofaromine
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Monoamine oxidase inhibitors- Brofaromine	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 178 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.22 lower** (CI 95% 0.7 lower — 0.26 higher)	Very low Due to serious risk of bias, Due to serious inconsistency, Due to serious imprecision, Due to serious publication bias [1]	We are uncertain whether brofaromine increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Selective outcome reporting, Incomplete data and/or large loss to follow up. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:59%.. **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=178), Wide confidence intervals (CIs include important benefit and unimportant harm). **Publication bias: serious.** One commercially funded study.

References

479. FOREST PLOT: Brofaromine vs Placebo. Website

495. Baker DG, Diamond BI, Gillette G, Hamner M, Katzelnick D, Keller T, et al. A double-blind, randomized, placebo-controlled, multi-center study of brofaromine in the treatment of post-traumatic stress disorder. Psychopharmacology 1995;122(4):386-9 Pubmed

514. Katz RJ, Lott MH, Arbus P, Crocq L, Herlobsen P, Lingjaerde O, et al. Pharmacotherapy of post-traumatic stress disorder with a novel psychotropic. Anxiety 1(4):169-74 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Antiepileptics- Divalproex
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Antiepileptics- Divalproex	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 82 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.03 lower** (CI 95% 0.46 lower — 0.41 higher)	Very low Due to serious publication bias, Due to very serious imprecision [1]	We are uncertain whether divalproex increases or decreases PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n= 82), Wide confidence intervals (CIs include important benefit and important harm), Only data from one study. **Publication bias: serious.** Mostly commercially funded studies.

References

508. Davis LL, Davidson JRT, Ward LC, Bartolucci AL, Bowden CL, Petty F. Divalproex in the treatment of posttraumatic stress disorder: a randomized, double-blind, placebo-controlled trial in a veteran population. Journal of clinical psychopharmacology 2008;28(1):84-8 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Ganaxolone
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Ganaxolone	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom	Lower better	Difference:	**SMD 0.12 lower** (CI 95% 0.51 lower	Low Due to serious risk	Ganaxolone may have little or no difference on PTSD

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Ganaxolone	**Certainty of the evidence** (Quality of evidence)	**Summary**
severity	Based on data from 99 participants in 1 studies. (Randomized controlled)		— 0.28 higher)	of bias, Due to serious imprecision [1]	symptom severity.

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to [unbalanced drop-out, or deviations from protocol]. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n= 99), Wide confidence intervals (CIs include important benefit and unimportant harm), Only data from one study. **Publication bias: no serious.**

References

525. Rasmusson AM, Marx CE, Jain S, Farfel GM, Tsai J, Sun X, et al. A randomized controlled trial of ganaxolone in posttraumatic stress disorder. Psychopharmacology 2017;234(15):2245-2257 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Tricyclic antidepressant- Imipramine
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Tricyclic antidepressant- Imipramine	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 41 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.24 lower** (CI 95% 0.86 lower — 0.38 higher)	Very low Due to very serious imprecision, Due to very serious risk of bias [1]	We are uncertain whether imipramine increases or decreases PTSD symptom severity

1. **Risk of Bias: very serious.** Incomplete data and/or large loss to follow up, due to [baseline differences]. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=41), Wide confidence intervals (CIs include important benefit and unimportant harm), Only data from one study. **Publication bias: no serious.**

References

478. FOREST PLOT: Imipramine vs Placebo. Website

515. Kosten TR, Frank JB, Dan E, McDougle CJ, Giller EL. Pharmacotherapy for posttraumatic stress disorder using phenelzine or imipramine. The Journal of nervous and mental disease 1991;179(6):366-70 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Antiepileptics- Lamotrigine
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Antiepileptics- Lamotrigine	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 14 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0 lower** (CI 95% 1.16 lower — 1.16 higher)	Very low Due to very serious imprecision, Due to serious publication bias, Due to serious risk of bias [1]	We are uncertain whether Lamotrigine increases or decreases PTSD symptom severity.

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to [unbalanced attrition]. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n= 14), Wide confidence intervals (CIs include important benefit and important harm), Only data from one study. **Publication bias: serious.** Mostly commercially funded studies.

References

512. Hertzberg MA, Butterfield MI, Feldman ME, Beckham JC, Sutherland SM, Connor KM, et al. A preliminary study of lamotrigine for the treatment of posttraumatic stress disorder. Biological psychiatry 1999;45(9):1226-9 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Nor-adrenergic and specific serotonin antidepressant- Mirtazapine
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Nor-adrenergic and specific serotonin antidepressant- Mirtazapin	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 82 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.41 lower** (CI 95% 0.86 lower — 0.05 higher)	Very low Due to serious publication bias, Due to serious risk of bias, Due to serious inconsistency, Due to serious imprecision [1]	We are uncertain whether Mirtazapine increases or decreases PTSD symptom severity.

1. **Risk of Bias: serious.** Due to [baseline differences], Incomplete data and/or large loss to follow up, Selective outcome reporting. **Inconsistency: serious.** The confidence interval of some of the studies do not overlap with those of most included studies/ the point

estimate of some of the included studies.. **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=82), Wide confidence intervals include important benefit and unimportant harm. **Publication bias: serious.** Mostly commercially funded studies.

References

475. FOREST PLOT: Mirtazapine vs Placebo. Website

503. Davidson JRT, Weisler RH, Butterfield MI, Casat CD, Connor KM, Barnett S, et al. Mirtazapine vs. placebo in posttraumatic stress disorder: a pilot trial. Biological psychiatry 2003;53(2):188-91 Pubmed

625. Davis LL, Pilkinton P, Lin C, Parker P, Estes S, Bartolucci AL. A Randomized, Placebo-Controlled Trial of Mirtazapine for the Treatment of Posttraumatic Stress Disorder in Veterans. The Journal of clinical psychiatry 2020;81(6) Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Neurokinin-1 antagonist
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Neurokinin-1 antagonist	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 39 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.27 lower** (CI 95% 0.9 lower — 0.36 higher)	Very low Due to serious risk of bias, Due to very serious imprecision, Due to serious publication bias [1]	We are uncertain whether Neurokinin-1 antagonist increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Missing intention-to-treat analysis. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n= 39), Wide confidence intervals (CIs includes important benefit and unimportant harm), Only data from one study. **Publication bias: serious.** Mostly commercially funded studies.

References

521. Mathew SJ, Vythilingam M, Murrough JW, Zarate CA, Feder A, Luckenbaugh DA, et al. A selective neurokinin-1 receptor antagonist in chronic PTSD: a randomized, double-blind, placebo-controlled, proof-of-concept trial. European neuropsychopharmacology : the journal of the European College of Neuropsychopharmacology 2011;21(3):221-9 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Antipsychotics- Olanzapine
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Antipsychotics- Olanzapine	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 43 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.44 lower** (CI 95% 1.51 lower — 0.63 higher)	Very low Due to serious inconsistency, Due to very serious imprecision, Due to serious publication bias, Due to serious risk of bias [1]	We are uncertain whether Olanzapine increases or decreases PTSD symptom severity.

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to [unclear reporting]. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:62%.. **Indirectness: no serious. Imprecision: very serious.** Low number of patients (n= 43), Wide confidence intervals (CIs include important benefit and important harm). **Publication bias: serious.** Mostly commercially funded studies.

References

492. FOREST PLOT: Olanzapine vs Placebo. Website

498. Butterfield MI, Becker ME, Connor KM, Sutherland S, Churchill LE, Davidson JR. Olanzapine in the treatment of post-traumatic stress disorder: a pilot study. International clinical psychopharmacology 2001;16(4):197-203 Pubmed

499. Carey P, Suliman S, Ganesan K, Seedat S, Stein DJ. Olanzapine monotherapy in posttraumatic stress disorder: efficacy in a randomized, double-blind, placebo-controlled study. Human psychopharmacology 2012;27(4):386-91 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Monoamine oxidase inhibitors- Phenelzine
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Monoamine oxidase inhibitors- Phenelzine	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 37 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.06 lower** (CI 95% 1.75 lower — 0.36 lower)	Very low Due to very serious imprecision, Due to very serious risk of bias [1]	We are uncertain whether phenelzine increases or decreases PTSD symptom severity

1. **Risk of Bias: very serious.** Incomplete data and/or large loss to follow up, due to [baseline differences]. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Wide confidence intervals (CIs include important benefit and unimportant benefit), Low number of patients (n= 37), Only data from one study. **Publication bias: no serious.**

References

515. Kosten TR, Frank JB, Dan E, McDougle CJ, Giller EL. Pharmacotherapy for posttraumatic stress disorder using phenelzine or imipramine. The Journal of nervous and mental disease 1991;179(6):366-70 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Phenelzine
Comparator: Imipramine

Outcome Timeframe	**Study results and measurements**	**Comparator** Imipramine	**Intervention** Phenelzine	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 42 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.72 lower** (CI 95% 1.34 lower — 0.09 lower)	Very low Due to very serious imprecision, Due to very serious risk of bias [1]	We are uncertain if there is a difference between phenelzine and imipramine on PTSD symptom severity

1. **Risk of Bias: very serious.** Incomplete data and/or large loss to follow up, due to [baseline differences]. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n= 41), Wide confidence intervals (CIs include important benefit and unimportant benefit), Only data from one study. **Publication bias: no serious.**

References

515. Kosten TR, Frank JB, Dan E, McDougle CJ, Giller EL. Pharmacotherapy for posttraumatic stress disorder using phenelzine or imipramine. The Journal of nervous and mental disease 1991;179(6):366-70 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Antiepileptics- Tiagabine
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Antiepileptics- Tiagabine	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 202 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.02 lower** (CI 95% 0.3 lower — 0.26 higher)	Very low Due to serious risk of bias, Due to serious publication bias, Due to serious	We are uncertain whether tiagabine increases or decreases PTSD symptom severity

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Antiepileptics- Tiagabine	**Certainty of the evidence** (Quality of evidence)	**Summary**
				imprecision [1]	

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Selective outcome reporting. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=202), Only data from one study . **Publication bias: serious.** Mostly commercially funded studies.

References

506. Davidson JRT, Brady K, Mellman TA, Stein MB, Pollack MH. The efficacy and tolerability of tiagabine in adult patients with post-traumatic stress disorder. Journal of clinical psychopharmacology 2007;27(1):85-8 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Antiepileptics- Topiramate
Comparator: Placebo

Outcome Timeframe	**Study results and measurements**	**Comparator** Placebo	**Intervention** Antiepileptics- Topiramate	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 31 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.16 lower** (CI 95% 0.87 lower — 0.55 higher)	Low Due to serious imprecision, Due to serious risk of bias [1]	Topiramate may have little or no difference on PTSD symptom severity

1. **Risk of Bias: serious.** due to [baseline differences]. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n= 69), Wide confidence intervals (CIs include important benefit and unimportant harm). **Publication bias: no serious.** One commercially funded study.

References

535. Yeh MSL, Mari JJ, Costa MCP, Andreoli SB, Bressan RA, Mello MF. A double-blind randomized controlled trial to study the efficacy of topiramate in a civilian sample of PTSD. CNS neuroscience & therapeutics 2011;17(5):305-10 Pubmed Journal

Non-psychological and non-pharmacological interventions for adults with PTSD

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Acupuncture
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Acupuncture	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 48 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.92 lower** (CI 95% 1.51 lower — 0.32 lower)	Low Due to very serious imprecision [1]	Acupuncture may decrease PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=48), Wide confidence intervals (CIs include important benefit and unimportant benefit), Only data from one study, . **Publication bias: no serious.**

References

562. FOREST PLOT: Acupuncture vs WL. Website

574. Hollifield M, Sinclair-Lian N, Warner TD, Hammerschlag R. Acupuncture for posttraumatic stress disorder: a randomized controlled pilot trial. The Journal of nervous and mental disease 2007;195(6):504-13 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Acupuncture
Comparator: Trauma-focused CBT

Outcome Timeframe	**Study results and measurements**	**Comparator** Trauma-focused CBT	**Intervention** Acupuncture	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 49 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.35 lower** (CI 95% 0.91 lower — 0.22 higher)	Low Due to very serious imprecision [1]	Acupuncture may be more beneficial than CBT-T on PTSD symptom severity

1. **Inconsistency: no serious.** Single study. **Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=48), Wide confidence intervals (CIs include important benefit and important harm), Only one study. **Publication bias: no serious.**

References

574. Hollifield M, Sinclair-Lian N, Warner TD, Hammerschlag R. Acupuncture for posttraumatic stress disorder: a randomized

controlled pilot trial. The Journal of nervous and mental disease 2007;195(6):504-13 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Mindfulness-based stress reduction
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Mindfulness-based stress reduction	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 99 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.28 lower** (CI 95% 0.67 lower — 0.12 higher)	Low Due to serious imprecision, Due to serious risk of bias [1]	Mindfulness-based stress reduction may decrease PTSD symptom severity slightly

1. **Risk of Bias: serious.** Incomplete data (completer analysis), Lack of blinding of outcome assessors, resulting in potential for detection bias.. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=99). **Publication bias: no serious.**

References

559. FOREST PLOT: Mindfulness based stress reduction vs WL. Website

575. Kearney DJ, McDermott K, Malte C, Martinez M, Simpson TL. Effects of participation in a mindfulness program for veterans with posttraumatic stress disorder: a randomized controlled pilot study. Journal of clinical psychology 2013;69(1):14-27 Pubmed Journal

587. Wahbeh H, Goodrich E, Goy E, Oken BS. Mechanistic Pathways of Mindfulness Meditation in Combat Veterans With Posttraumatic Stress Disorder. Journal of clinical psychology 2016;72(4):365-83 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Mindfulness-based stress reduction
Comparator: Group Present Centred Therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Group Present Centred Therapy	**Intervention** Mindfulness-based stress reduction	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better	Difference:	**SMD 0.11 lower** (CI 95% 0.53 lower	Very low Due to serious risk	We are uncertain if there is a difference between

Outcome Timeframe	**Study results and measurements**	**Comparator** Group Present Centred Therapy	**Intervention** Mindfulness-based stress reduction	**Certainty of the evidence** (Quality of evidence)	**Summary**
	Based on data from 324 participants in 3 studies. (Randomized controlled)		— 0.32 higher)	of bias, Due to serious inconsistency, Due to very serious imprecision [1]	mindfulness-based stress reduction and group PCT on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to [baseline differences between groups]. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:63 %.. **Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=324) , Wide confidence intervals (CIs include important benefit and important harm). **Publication bias: no serious.**

References

558. FOREST PLOT: Mindfulness based stress reduction vs PCT. Website

567. Bremner JD, Mishra S, Campanella C, Shah M, Kasher N, Evans S, et al. A Pilot Study of the Effects of Mindfulness-Based Stress Reduction on Post-traumatic Stress Disorder Symptoms and Brain Response to Traumatic Reminders of Combat in Operation Enduring Freedom/Operation Iraqi Freedom Combat Veterans with Post-traumatic Stress Disorder. Frontiers in psychiatry 2017;8:157 Pubmed Journal

579. Polusny MA, Erbes CR, Thuras P, Moran A, Lamberty GJ, Collins RC, et al. Mindfulness-Based Stress Reduction for Posttraumatic Stress Disorder Among Veterans: A Randomized Clinical Trial. JAMA 2015;314(5):456-65 Pubmed Journal

593. Davis L, Whetsell C, Hamner M, Carmody J, Rothbaum B, Allen R, et al. Davis, L. L., Whetsell, C., Hamner, M. B., Carmody, J., Rothbaum, B. O., Allen, R. S., ... & Bremner, J. D. (2018). A Multisite Randomized Controlled Trial of Mindfulness-Based Stress Reduction in the Treatment of Posttraumatic Stress Disorder. Psychiatric Research and Clinical Practice. Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Mindfulness-based stress reduction
Comparator: Psychoeducation

Outcome Timeframe	**Study results and measurements**	**Comparator** Psychoeducation	**Intervention** Mindfulness-based stress reduction	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 27 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.23 lower** (CI 95% 2.07 lower — 0.4 lower)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between mindfulness-based stress reduction and psychoeducation on PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=27), Only data from one study. **Publication bias: no serious.**

References

549. FOREST PLOT: Mindfulness based stress reduction vs Psychoeducation. Website

594. Niles B, Klunk-Gillis J, Ryngala D, Silberbogen A, Paysnick A, Wolf E. Niles, B. L., Klunk-Gillis, J., Ryngala, D. J., Silberbogen, A. K., Paysnick, A., & Wolf, E. J. (2012). Comparing mindfulness and psychoeducation treatments for combat-related PTSD using a telehealth approach. Psychological Trauma: Theory, Research, Practice, and Policy, 4(5), 538. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Neurofeedback
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Neurofeedback	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 94 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 1.55 lower** (CI 95% 2.94 lower — 0.15 lower)	Moderate Due to serious imprecision [1]	Neurofeedback probably decreases PTSD symptom severity

1. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high, with I^2: 87%, however all studies showed positive effects and heterogeneity was mainly due to one study with a very large effect size (SMD= -3.25). **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=94), Wide confidence intervals (CIs include important benefit and unimportant benefit.. **Publication bias: no serious.**

References

553. FOREST PLOT: Neurofeedback vs WL. Website

584. Tan G, Dao TK, Farmer L, Sutherland RJ, Gevirtz R. Heart rate variability (HRV) and posttraumatic stress disorder (PTSD): a pilot study. Applied psychophysiology and biofeedback 2011;36(1):27-35 Pubmed Journal

585. van der Kolk BA, Hodgdon H, Gapen M, Musicaro R, Suvak MK, Hamlin ED, et al. A Randomized Controlled Study of Neurofeedback for Chronic PTSD. PloS one 2016;11(12):e0166752 Pubmed Journal

595. Noohi S, Miraghaie A, Arabi A, Nooripour R. Noohi, S., Miraghaie, A. M., Arabi, A., & Nooripour, R. (2017). Effectiveness of neuro-feedback treatment with alpha/theta method on PTSD symptoms and their executing function. Biomedical Research, 28(5), 2019-2027. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Repetitive transcranial magnetic stimulation (rTMS; Low, 1Hz)
Comparator: Sham rTMS

Outcome Timeframe	**Study results and measurements**	**Comparator** Sham rTMS	**Intervention** Repetitive transcranial magnetic stimulation (rTMS; Low, 1Hz)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 54 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 0.24 lower** (CI 95% 0.78 lower — 0.3 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	Repetitive transcranial magnetic stimulation (rTMS; Low, 1Hz) may be more effective than sham rTMS at reducing PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious.** The magnitude of statistical heterogeneity was high (I^2:74%) however the difference was between studies with moderate and very large effects so not important. **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=54), Wide confidence intervals includes important benefit and unimportant benefit . **Publication bias: no serious.**

References

571. Cohen H, Kaplan Z, Kotler M, Kouperman I, Moisa R, Grisaru N. Repetitive transcranial magnetic stimulation of the right dorsolateral prefrontal cortex in posttraumatic stress disorder: a double-blind, placebo-controlled study. The American journal of psychiatry 2004;161(3):515-24 Pubmed

591. Watts BV, Landon B, Groft A, Young-Xu Y. A sham controlled study of repetitive transcranial magnetic stimulation for posttraumatic stress disorder. Brain stimulation 2012;5(1):38-43 Pubmed Journal

630. Leong K, Chan P, Ong L, Zwicker A, Willan S, Lam RW, et al. A Randomized Sham-controlled Trial of 1-Hz and 10-Hz Repetitive Transcranial Magnetic Stimulation (rTMS) of the Right Dorsolateral Prefrontal Cortex in Civilian Post-traumatic Stress Disorder: Un essai randomisé contrôlé simulé de stimulation magnétique transcrânienne repetitive (SMTr) de 1 Hz et 10 Hz du cortex préfrontal dorsolatéral droit dans le trouble de stress post-traumatique chez des civils. Canadian journal of psychiatry. Revue canadienne de psychiatrie 2020;65(11):770-778 Pubmed Journal

659. FOREST PLOT: rTMS (low, 1Hz) vs Sham rTMS. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Repetitive transcranial magnetic stimulation (rTMS; High, >10Hz)
Comparator: Sham rTMS

Outcome Timeframe	**Study results and measurements**	**Comparator** Sham rTMS	**Intervention** Repetitive transcranial magnetic stimulation (rTMS; High, >10Hz)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 92 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 1.11 lower** (CI 95% 2.7 lower — 0.47 higher)	Very low Due to serious risk of bias, Due to very serious inconsistency, Due to very serious imprecision [1]	We are uncertain whether transcranial magnetic stimulation (rTMS; High, >10hz) improves or worsen PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: very serious.** The confidence interval of some of the studies do not overlap with those of most included studies/ the point estimate of some of the included studies., The magnitude of statistical heterogeneity was high, with I^2: 89 %., The direction of the effect is not consistent between the included studies, Point estimates vary widely. **Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=92), Wide confidence intervals includes important benefit and important harm. **Publication bias: no serious.**

References

564. Ahmadizadeh M-J, Rezaei M. Unilateral right and bilateral dorsolateral prefrontal cortex transcranial magnetic stimulation in treatment post-traumatic stress disorder: A randomized controlled study. Brain research bulletin 2018;140:334-340 Pubmed Journal

571. Cohen H, Kaplan Z, Kotler M, Kouperman I, Moisa R, Grisaru N. Repetitive transcranial magnetic stimulation of the right dorsolateral prefrontal cortex in posttraumatic stress disorder: a double-blind, placebo-controlled study. The American journal of psychiatry 2004;161(3):515-24 Pubmed

630. Leong K, Chan P, Ong L, Zwicker A, Willan S, Lam RW, et al. A Randomized Sham-controlled Trial of 1-Hz and 10-Hz Repetitive Transcranial Magnetic Stimulation (rTMS) of the Right Dorsolateral Prefrontal Cortex in Civilian Post-traumatic Stress Disorder: Un essai randomisé contrôlé simulé de stimulation magnétique transcrânienne repetitive (SMTr) de 1 Hz et 10 Hz du cortex préfrontal dorsolatéral droit dans le trouble de stress post-traumatique chez des civils. Canadian journal of psychiatry. Revue canadienne de psychiatrie 2020;65(11):770-778 Pubmed Journal

660. FOREST PLOT: rTMS (high, >10Hz) vs Sham rTMS. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Transcendental meditation
Comparator: Prolonged exposure

Outcome Timeframe	**Study results and measurements**	**Comparator** Prolonged exposure	**Intervention** Transcendental meditation	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 136 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.16 lower** (CI 95% 0.49 lower — 0.18 higher)	Moderate Due to serious imprecision [1]	There is probably little or no difference between Transcendental meditation and Prolonged exposure on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=136), Wide confidence intervals (CIs include important benefit and unimportant harm), Only data from one study. **Publication bias: no serious.**

References

539. FOREST PLOT Transcendental meditation vs Prolonged exposure. Website

577. Nidich S, Mills PJ, Rainforth M, Heppner P, Schneider RH, Rosenthal NE, et al. Non-trauma-focused meditation versus exposure therapy in veterans with post-traumatic stress disorder: a randomised controlled trial. The lancet. Psychiatry 2018;5(12):975-986 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Transcendental meditation
Comparator: Psychoeducation

Outcome Timeframe	**Study results and measurements**	**Comparator** Psychoeducation	**Intervention** Transcendental meditation	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 134 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.35 lower** (CI 95% 0.7 lower — 0.01 lower)	Moderate Due to serious imprecision [1]	Transcendental meditation is probably more beneficial than psychoeducation on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients(n=134), Wide confidence intervals (CIs include important benefit and unimportant benefit), Only data from one study. **Publication bias: no serious.**

References

540. FOREST PLOT: Transcendental meditation vs Health education. Website

577. Nidich S, Mills PJ, Rainforth M, Heppner P, Schneider RH, Rosenthal NE, et al. Non-trauma-focused meditation versus exposure therapy in veterans with post-traumatic stress disorder: a randomised controlled trial. The lancet. Psychiatry 2018;5(12):975-986 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Yoga
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Yoga	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 98 participants in 4 studies. (Randomized controlled)	Difference:	**SMD 0.31 lower** (CI 95% 0.71 lower — 0.09 lower)	Low Due to serious imprecision, Due to serious risk of bias [1]	Yoga may decrease PTSD symptom severity slightly

1. **Risk of Bias: serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, , Incomplete data and/or large loss to follow up, due to [participants were offered financial incentives to continue each stage]. **Inconsistency: no serious. Indirectness: no serious.** Population comparable. **Imprecision: serious.** Low number of patients (n=98). **Publication bias: no serious.**

References

561. FOREST PLOT: Yoga vs WL/TAU. Website

576. Mitchell KS, Dick AM, DiMartino DM, Smith BN, Niles B, Koenen KC, et al. A pilot study of a randomized controlled trial of yoga as an intervention for PTSD symptoms in women. Journal of traumatic stress 2014;27(2):121-8 Pubmed Journal

580. Reinhardt KM, Noggle Taylor JJ, Johnston J, Zameer A, Cheema S, Khalsa SBS. Kripalu Yoga for Military Veterans With PTSD: A Randomized Trial. Journal of clinical psychology 2018;74(1):93-108 Pubmed Journal

583. Seppälä EM, Nitschke JB, Tudorascu DL, Hayes A, Goldstein MR, Nguyen DTH, et al. Breathing-based meditation decreases posttraumatic stress disorder symptoms in U.S. military veterans: a randomized controlled longitudinal study. Journal of traumatic stress 2014;27(4):397-405 Pubmed Journal

592. Carter J, Gerbarg P, Brown R, Ware R, D'Ambrosio C, Anand L, et al. Multi-Component Yoga Breath Program for Vietnam Veteran Post Traumatic Stress Disorder. Journal of Traumatic Stress Disorders & Treatment 2013. Journal Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Yoga
Comparator: Attention control

Outcome Timeframe	**Study results and measurements**	**Comparator** Attention control	**Intervention** Yoga	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 204	Difference:	**SMD 0.45 lower** (CI 95% 0.73 lower — 0.18 lower)	Low Due to serious risk of bias, and serious	Yoga may be more effective than attention control in reducing PTSD

Outcome Timeframe	**Study results and measurements**	**Comparator** Attention control	**Intervention** Yoga	**Certainty of the evidence** (Quality of evidence)	**Summary**
	participants in 2 studies. (Randomized controlled)			imprecision [1]	symptom severity slightly

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n = 204), Wide confidence intervals includes important benefit and unimportant benefit. **Publication bias: no serious.**

References

586. van der Kolk BA, Stone L, West J, Rhodes A, Emerson D, Suvak M, et al. Yoga as an adjunctive treatment for posttraumatic stress disorder: a randomized controlled trial. The Journal of clinical psychiatry 2014;75(6):e559-65 Pubmed Journal

627. Davis LW, Schmid AA, Daggy JK, Yang Z, O'Connor CE, Schalk N, et al. Symptoms improve after a yoga program designed for PTSD in a randomized controlled trial with veterans and civilians. Psychological trauma : theory, research, practice and policy 2020;12(8):904-912 Pubmed Journal

657. FOREST PLOT: Yoga vs attention control. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Physical exercise
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Physical exercise	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 366 participants in 4 studies. (Randomized controlled)	Difference:	**SMD 0.08 lower** (CI 95% 0.29 lower — 0.12 higher)	Moderate Due to serious imprecision [1]	Physical exercise probably has little or no difference on PTSD symptom severity

1. **Risk of Bias: no serious.** Missing intention-to-treat analysis, Incomplete data and/or large loss to follow up. However studies with greatest weight have mostly low risk of bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=366). **Publication bias: no serious.**

References

544. FOREST PLOT: Physical exercise vs WL. Website

573. Goldstein LA, Mehling WE, Metzler TJ, Cohen BE, Barnes DE, Choucroun GJ, et al. Veterans Group Exercise: A randomized pilot trial of an Integrative Exercise program for veterans with posttraumatic stress. Journal of affective disorders 2018;227:345-352 Pubmed Journal

581. Rosenbaum S, Sherrington C, Tiedemann A. Exercise augmentation compared with usual care for post-traumatic stress disorder: a randomized controlled trial. Acta psychiatrica Scandinavica 2015;131(5):350-9 Pubmed Journal

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631. Nordbrandt MS, Sonne C, Mortensen EL, Carlsson J. Trauma-affected refugees treated with basic body awareness therapy or mixed physical activity as augmentation to treatment as usual-A pragmatic randomised controlled trial. PloS one 2020;15(3):e0230300 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Basic body awareness therapy
Comparator: Physical exercise

Outcome Timeframe	**Study results and measurements**	**Comparator** Physical exercise	**Intervention** Basic body awareness therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 214 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.04 higher** (CI 95% 0.23 lower — 0.31 higher)	Low Due to very serious imprecision [1]	There may be little or no difference between Basic body awareness therapy and Physical exercise on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n = 209), Wide confidence intervals include important benefit and important harm. **Publication bias: no serious.**

References

631. Nordbrandt MS, Sonne C, Mortensen EL, Carlsson J. Trauma-affected refugees treated with basic body awareness therapy or mixed physical activity as augmentation to treatment as usual-A pragmatic randomised controlled trial. PloS one 2020;15(3):e0230300 Pubmed Journal

662. FOREST PLOT: BBAT vs physical exercise. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Angling
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Angling	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 18 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.14 lower** (CI 95% 2.16 lower — 0.12 lower)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether Angling improves or worsens PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n = 18), Wide confidence intervals including important benefit and unimportant benefit. **Publication bias: no serious.**

References

635. Wheeler M, Cooper NR, Andrews L, Hacker Hughes J, Juanchich M, Rakow T, et al. Outdoor recreational activity experiences improve psychological wellbeing of military veterans with post-traumatic stress disorder: Positive findings from a pilot study and a randomised controlled trial. PloS one 2020;15(11):e0241763 Pubmed Journal

665. FOREST PLOT: Angling vs WL/TAU. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Attentional bias modification
Comparator: Attention control training

Outcome Timeframe	**Study results and measurements**	**Comparator** Attention control training	**Intervention** Attentional bias modification	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 152 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.03 higher** (CI 95% 0.55 lower — 0.61 higher)	Very low Due to very serious imprecision, Due to serious inconsistency [1]	We are uncertain if there is a difference between Attentional bias modification and Attention control training on PTSD symptom severity

1. **Inconsistency: serious.** The direction of the effect is not consistent between the included studies, The magnitude of statistical heterogeneity was high, with I^2:66%.. **Indirectness: no serious.** Population comparable. **Imprecision: very serious.** Low number of patients (n = 152), Wide confidence intervals includes important harm and important benefit . **Publication bias: no serious.**

References

582. Schoorl M, Putman P, Van Der Does W. Attentional bias modification in posttraumatic stress disorder: a randomized controlled trial. Psychotherapy and psychosomatics 2013;82(2):99-105 Pubmed Journal

629. Lazarov A, Suarez-Jimenez B, Abend R, Naim R, Shvil E, Helpman L, et al. Bias-contingent attention bias modification and attention control training in treatment of PTSD: a randomized control trial. Psychological medicine 2019;49(14):2432-2440 Pubmed Journal

658. FOREST PLOT: Attentional bias modification vs attention control training. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Basic body awareness therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Basic body awareness therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 209 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.06 higher** (CI 95% 0.21 lower — 0.33 higher)	Moderate Due to serious imprecision [1]	Basic body awareness therapy probably has little or no difference on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n = 209). **Publication bias: no serious.**

References

631. Nordbrandt MS, Sonne C, Mortensen EL, Carlsson J. Trauma-affected refugees treated with basic body awareness therapy or mixed physical activity as augmentation to treatment as usual-A pragmatic randomised controlled trial. PloS one 2020;15(3):e0230300 Pubmed Journal

661. FOREST PLOT: BBAT vs WL/TAU. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Cognitive Bias Modification training
Comparator: Control training

Outcome Timeframe	**Study results and measurements**	**Comparator** Control training	**Intervention** Cognitive Bias Modification training	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better	Difference:	**SMD 0.83 lower** (CI 95% 1.23 lower	Low Due to serious	Cognitive Bias Modification training is probably more

Outcome Timeframe	**Study results and measurements**	**Comparator** Control training	**Intervention** Cognitive Bias Modification training	**Certainty of the evidence** (Quality of evidence)	**Summary**
	Based on data from 107 participants in 1 studies. (Randomized controlled)		— 0.43 lower)	imprecision, Due to serious indirectness [1]	beneficial than Control training on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied - 81% female, 79% sexual violence. **Imprecision: serious.** Low number of patients (n=107), Wide confidence intervals include important benefit and unimportant benefit. **Publication bias: no serious.**

References

710. de Kleine RA, Woud ML, Ferentzi H, Hendriks G-J, Broekman TG, Becker ES, et al. Appraisal-based cognitive bias modification in patients with posttraumatic stress disorder: a randomised clinical trial. European journal of psychotraumatology 2019;10(1):1625690 Pubmed Journal

711. FOREST PLOT: Cognitive Bias Modification training vs Control training. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Electroacupuncture
Comparator: Paroxetine

Outcome Timeframe	**Study results and measurements**	**Comparator** Paroxetine	**Intervention** Electroacupuncture	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 127 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.21 lower** (CI 95% 0.56 lower — 0.14 higher)	Moderate Due to serious imprecision [1]	Electroacupuncture is probably more beneficial than paroxetine on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=127), Wide confidence intervals (CIs include important benefit and unimportant harm), Only data from one study, . **Publication bias: no serious.**

References

588. Wang YU, Hu Y-P, Wang W-C, Pang R-Z, Zhang A-R. Clinical studies on treatment of earthquake-caused posttraumatic stress disorder using electroacupuncture. Evidence-based complementary and alternative medicine : eCAM 2012;2012:431279 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Healing touch
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Healing touch	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 39 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1 lower** (CI 95% 1.67 lower — 0.33 lower)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether Healing touch improves or worsens PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=39), Wide confidence intervals include important benefit and unimportant benefit. **Publication bias: no serious.**

References

634. Reeve K, Black PA, Huang J. Examining the impact of a Healing Touch intervention to reduce posttraumatic stress disorder symptoms in combat veterans. Psychological trauma : theory, research, practice and policy 2020;12(8):897-903 Pubmed Journal

664. FOREST PLOT: Healing touch vs WL/TAU. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Hypnotherapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Hypnotherapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 52 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.04 lower** (CI 95% 0.58 lower — 0.51 higher)	Very low Due to serious risk of bias, Due to serious imprecision, Due to serious indirectness [1]	We are uncertain whether hypnotherapy increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Incomplete data and/or large loss to follow up, Missing intention-to-treat analysis. **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied (80% of participants were bereaved). **Imprecision: serious.** Low number of

patients (n=52), Only data from one study. **Publication bias: no serious.**

References

568. Brom D, Kleber RJ, Defares PB. Brief psychotherapy for posttraumatic stress disorders. Journal of consulting and clinical psychology 1989;57(5):607-12 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Hypnotherapy
Comparator: Trauma-focused CBT

Outcome Timeframe	**Study results and measurements**	**Comparator** Trauma-focused CBT	**Intervention** Hypnotherapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 56 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.34 higher** (CI 95% 0.19 lower — 0.86 higher)	Very low Due to serious risk of bias, Due to serious imprecision, Due to serious indirectness [1]	We are uncertain if there is a difference between hypnotherapy and CBT-T on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Use of unvalidated and/or subjective outcome measures, Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied (80% of participants were bereaved). **Imprecision: serious.** Low number of patients (n=56), Wide confidence intervals (CIs include important harm and unimportant benefit), Only data from one study. **Publication bias: no serious.**

References

568. Brom D, Kleber RJ, Defares PB. Brief psychotherapy for posttraumatic stress disorders. Journal of consulting and clinical psychology 1989;57(5):607-12 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Intermittent theta-burst stimulation (iTBS)
Comparator: Sham iTBS

Outcome Timeframe	**Study results and measurements**	**Comparator** Sham iTBS	**Intervention** Intermittent theta-burst stimulation (iTBS)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 50 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.06 lower** (CI 95% 0.62 lower — 0.49 higher)	Low Due to very serious imprecision [1]	Intermittent theta-burst stimulation (iTBS) may have little or no effect on PTSD symptom severity

1. **Risk of Bias: no serious.** Uncertainty in sequence generation/ generation of comparable groups, resulting in potential for selection bias, Uncertainty in concealment of allocation during randomization process, resulting in potential for selection bias, Selective outcome reporting. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=50), Wide confidence intervals include important benefit and important harm. **Publication bias: no serious.**

References

632. Philip NS, Barredo J, Aiken E, Larson V, Jones RN, Shea MT, et al. Theta-Burst Transcranial Magnetic Stimulation for Posttraumatic Stress Disorder. The American journal of psychiatry 2019;176(11):939-948 Pubmed Journal

663. FOREST PLOT: iTBS vs Sham iTBS. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Mantram repetition
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Mantram repetition	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 175 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.27 lower** (CI 95% 0.57 lower — 0.02 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	Mantram repetition may decrease PTSD symptom severity slightly

1. **Risk of Bias: serious.** Missing intention-to-treat analysis. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=175). **Publication bias: no serious.**

References

552. FOREST PLOT: Mantrum repetition vs WL. Website

590. Bormann JE, Thorp S, Wetherell JL, Golshan S. A spiritually based group intervention for combat veterans with posttraumatic stress disorder: feasibility study. Journal of holistic nursing : official journal of the American Holistic Nurses' Association 2008;26(2):109-16 Pubmed Journal

596. Bormann J, Thorp S, Wetherell J, Golshan S, Lang A. Bormann, J. E., Thorp, S. R., Wetherell, J. L., Golshan, S., & Lang, A. J. (2013). Meditation-based mantram intervention for veterans with posttraumatic stress disorder: a randomized trial. Psychological Trauma: Theory, Research, Practice, and Policy, 5(3), 259. Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Mantram repetition
Comparator: Present Centred Therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Present Centred Therapy	**Intervention** Mantram repetition	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 173 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.37 lower** (CI 95% 0.68 lower — 0.07 lower)	Moderate Due to serious imprecision [1]	Mantram repetition is probably more beneficial than PCT on PTSD symptom severity.

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=173), Wide confidence intervals (CIs include important benefit and unimportant benefit), Only data from one study. **Publication bias: no serious.**

References

550. FOREST PLOT: Mantrum repetition vs PCT. Website

566. Bormann JE, Thorp SR, Smith E, Glickman M, Beck D, Plumb D, et al. Individual Treatment of Posttraumatic Stress Disorder Using Mantram Repetition: A Randomized Clinical Trial. The American journal of psychiatry 2018;175(10):979-988 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Group music therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Group music therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 16 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 2.12 lower** (CI 95% 3.41 lower — 0.83 lower)	Very low Due to very serious imprecision, Due to serious risk of bias [1]	We are uncertain whether group music therapy increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=16), Only data from one study. **Publication bias: no serious.**

References

548. FOREST PLOT: Group music therapy vs WL. Website

570. Carr C, d'Ardenne P, Sloboda A, Scott C, Wang D, Priebe S. Group music therapy for patients with persistent post-traumatic stress disorder--an exploratory randomized controlled trial with mixed methods evaluation. Psychology and psychotherapy 2012;85(2):179-202 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Nature adventure therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Nature adventure therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 42 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.4 lower** (CI 95% 1.01 lower — 0.22 higher)	Very low Due to serious risk of bias, Due to serious indirectness, Due to very serious imprecision [1]	We are uncertain whether nature adventure therapy increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied (Israeli veterans who had active service >5yrs previous). **Imprecision: very serious.** Low number of patients (n=42), Wide confidence intervals (CIs include important benefit and unimportant harm), Only data from one study, . **Publication bias: no serious.**

References

557. FOREST PLOT: Nature adventure therapy vs WL. Website

572. Gelkopf M, Hasson-Ohayon I, Bikman M, Kravetz S. Nature adventure rehabilitation for combat-related posttraumatic chronic

stress disorder: a randomized control trial. Psychiatry research 2013;209(3):485-93 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Somatic experiencing
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Somatic experiencing	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 60 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.75 lower** (CI 95% 1.28 lower — 0.22 lower)	Moderate Due to serious imprecision [1]	Somatic experiencing probably decreases PTSD symptom severity slightly

1. **Inconsistency: no serious.** Single study. **Indirectness: no serious. Imprecision: serious.** Wide confidence intervals (CIs include important benefit and unimportant benefit), Low number of patients (n=60), Only data from one study. **Publication bias: no serious.**

References

547. FOREST PLOT: Somatic experiencing vs WL. Website

569. Brom D, Stokar Y, Lawi C, Nuriel-Porat V, Ziv Y, Lerner K, et al. Somatic Experiencing for Posttraumatic Stress Disorder: A Randomized Controlled Outcome Study. Journal of traumatic stress 2017;30(3):304-312 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Saikokaishikankyoto
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Saikokaishikankyoto	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 43 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.91 lower** (CI 95% 1.55 lower — 0.28 lower)	Very low Due to serious risk of bias, Due to serious imprecision, Due to serious publication bias [1]	We are uncertain whether saikokaishikankyoto increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate/lack of blinding of participants and personnel, resulting in potential for performance bias, due to [baseline differences between conditions], Selective outcome reporting. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=43), Wide confidence intervals (CIs include important benefit and unimportant benefit), Only data from one study. **Publication bias: serious.** Mostly commercially funded studies.

References

556. FOREST PLOT: Saikokeishikankyoto vs WL. Website

578. Numata T, Gunfan S, Takayama S, Takahashi S, Monma Y, Kaneko S, et al. Treatment of posttraumatic stress disorder using the traditional Japanese herbal medicine saikokeishikankyoto: a randomized, observer-blinded, controlled trial in survivors of the great East Japan earthquake and tsunami. Evidence-based complementary and alternative medicine : eCAM 2014;2014:683293 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Stellate Ganglion Block
Comparator: Sham procedure

Outcome Timeframe	**Study results and measurements**	**Comparator** Sham	**Intervention** SGB	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 155 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.35 lower** (CI 95% 0.83 lower — 0.13 lower)	Low Due to serious imprecision, Due to serious risk of bias [1]	Stellate Ganglion Block may decrease PTSD symptom severity slightly

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Selective outcome reporting. **Inconsistency: no serious.** Point estimates vary widely. **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=155), Wide confidence intervals include important benefit and unimportant benefit . **Publication bias: no serious.**

References

546. FOREST PLOT SGB vs Sham procedure. Website

597. Hanling S, Hickey A, Lesnik I, Hackworth RJ, Stedje-Larsen E, Drastal CA, et al. Stellate Ganglion Block vs Sham procedure. Chronic and intervention pain 2016. Pubmed Journal

633. Rae Olmsted KL, Bartoszek M, Mulvaney S, McLean B, Turabi A, Young R, et al. Effect of Stellate Ganglion Block Treatment on Posttraumatic Stress Disorder Symptoms: A Randomized Clinical Trial. JAMA psychiatry 2020;77(2):130-138 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Transcranial direct current stimulation (tDCS)
Comparator: Sham tDCS

Outcome Timeframe	**Study results and measurements**	**Comparator** Sham tDCS	**Intervention** Transcranial direct current stimulation (tDCS)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 34 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.3 lower** (CI 95% 2.04 lower — 0.55 lower)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether transcranial direct current stimulation (tDCS) improves or worsen PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n = 34). **Publication bias: no serious.**

References

626. Ahmadizadeh MJ, Rezaei M, Fitzgerald PB. Transcranial direct current stimulation (tDCS) for post-traumatic stress disorder (PTSD): A randomized, double-blinded, controlled trial. Brain research bulletin 2019;153:273-278 Pubmed Journal

656. FOREST PLOT: tDCS vs Sham tDCS. Website

Comorbid interventions

Clinical question/ PICO

Population: Adults with PTSD and Substance Use Disorder
Intervention: Trauma-focused CBT
Comparator: TAU/attention control

Outcome Timeframe	**Study results and measurements**	**Comparator** TAU/attention control	**Intervention** Trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 235 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 0.34 lower** (CI 95% 0.59 lower — 0.08 lower)	Low Due to serious imprecision, Due to serious risk of bias [1]	Trauma-focused CBT may be more beneficial than TAU/attention control on PTSD symptom severity in adults with comorbid PTSD and Substance Use Disorder

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=135), Wide confidence intervals include important benefit and unimportant benefit. **Publication bias: no serious.**

References

694. Coffey SF, Schumacher JA, Nosen E, Littlefield AK, Henslee AM, Lappen A, et al. Trauma-focused exposure therapy for chronic posttraumatic stress disorder in alcohol and drug dependent patients: A randomized controlled trial. Psychology of addictive behaviors : journal of the Society of Psychologists in Addictive Behaviors 2016;30(7):778-790 Pubmed

698. Mills KL, Teesson M, Back SE, Brady KT, Baker AL, Hopwood S, et al. Integrated exposure-based therapy for co-occurring posttraumatic stress disorder and substance dependence: a randomized controlled trial. JAMA 2012;308(7):690-9 Pubmed Journal

700. Sannibale C, Teesson M, Creamer M, Sitharthan T, Bryant RA, Sutherland K, et al. Randomized controlled trial of cognitive behaviour therapy for comorbid post-traumatic stress disorder and alcohol use disorders. Addiction (Abingdon, England) 2013;108(8):1397-1410 Pubmed

702. FOREST PLOT: TF-CBT+TAU vs TAU/attention control. Website

Clinical question/ PICO

Population: Adults with PTSD and Substance Use Disorder
Intervention: Trauma-focused CBT
Comparator: Non-Trauma-focused CBT

Outcome Timeframe	**Study results and measurements**	**Comparator** Non-Trauma-focused CBT	**Intervention** Trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 119 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.5 lower** (CI 95% 0.87 lower — 0.13 lower)	Low Due to serious risk of bias, and serious imprecision [1]	Trauma-focused CBT may be more effective than Non-Trauma-focused CBT in reducing PTSD symptom severity in adults with comorbid PTSD and Substance Use Disorder

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=119), Wide confidence intervals includes important benefit and unimportant benefit.

References

670. Norman SB, Trim R, Haller M, Davis BC, Myers US, Colvonen PJ, et al. Efficacy of Integrated Exposure Therapy vs Integrated Coping Skills Therapy for Comorbid Posttraumatic Stress Disorder and Alcohol Use Disorder: A Randomized Clinical Trial. JAMA psychiatry 2019;76(8):791-799 Pubmed Journal

671. FOREST PLOT: TF-CBT vs non-TF-CBT. Website

Clinical question/ PICO

Population: Adults with PTSD and Substance Use Disorder
Intervention: Non-trauma-focused CBT
Comparator: TAU/Attention control

Outcome Timeframe	**Study results and measurements**	**Comparator** TAU/Attention control	**Intervention** Non-trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 794 participants in 5 studies. (Randomized controlled)	Difference:	**SMD 0.2 lower** (CI 95% 0.43 lower — 0.03 higher)	Moderate Due to serious risk of bias [1]	There is probably no difference between Non-trauma-focused CBT and TAU/Attention control on PTSD symptom severity for adults with comorbid PTSD and Substance Use Disorder

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: no serious. Publication bias: no serious.**

References

693. Zlotnick C, Johnson J, Najavits LM. Randomized controlled pilot study of cognitive-behavioral therapy in a sample of incarcerated women with substance use disorder and PTSD. Behavior therapy 2009;40(4):325-36 Pubmed Journal

695. Hien DA, Wells EA, Jiang H, Suarez-Morales L, Campbell ANC, Cohen LR, et al. Multisite randomized trial of behavioral interventions for women with co-occurring PTSD and substance use disorders. Journal of consulting and clinical psychology 2009;77(4):607-19 Pubmed Journal

696. McGovern MP, Lambert-Harris C, Xie H, Meier A, McLeman B, Saunders E. A randomized controlled trial of treatments for co-occurring substance use disorders and post-traumatic stress disorder. Addiction (Abingdon, England) 2015;110(7):1194-204 Pubmed Journal

697. McGovern MP, Lambert-Harris C, Alterman AI, Xie H, Meier A. A Randomized Controlled Trial Comparing Integrated Cognitive Behavioral Therapy Versus Individual Addiction Counseling for Co-occurring Substance Use and Posttraumatic Stress Disorders. Journal of dual diagnosis 2011;7(4):207-227 Pubmed

703. FOREST PLOT: Non-TF-CBT+TAU vs TAU/attention control. Website

707. Schäfer I, Lotzin A, Hiller P, Sehner S, Driessen M, Hillemacher T, et al. A multisite randomized controlled trial of Seeking Safety vs. Relapse Prevention Training for women with co-occurring posttraumatic stress disorder and substance use disorders. European journal of psychotraumatology 2019;10(1):1577092 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD and comorbid severe mental illness
Intervention: Trauma-focused CBT
Comparator: TAU/attention control

Outcome Timeframe	**Study results and measurements**	**Comparator** TAU/attention control	**Intervention** Trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 81 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.29 lower** (CI 95% 0.73 lower — 0.15 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	Trauma-focused CBT is probably slightly more beneficial than TAU/ attention control on PTSD symptom severity in adults with comorbid PTSD and severe mental illness

1. **Risk of Bias: serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias, Incomplete data and/ or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=81), Wide confidence intervals include important benefit and unimportant harm . **Publication bias: no serious.**

References

699. Mueser KT, Rosenberg SD, Xie H, Jankowski MK, Bolton EE, Lu W, et al. A randomized controlled trial of cognitive-behavioral treatment for posttraumatic stress disorder in severe mental illness. Journal of consulting and clinical psychology 2008;76(2):259-71 Pubmed Journal

701. Pabst A, Schauer M, Bernhardt K, Ruf-Leuschner M, Goder R, Elbert T, et al. Evaluation of Narrative Exposure Therapy (NET) for Borderline Personality Disorder with Comorbid Posttraumatic Stress Disorder. Clinical Neuropsychiatry 2014;11:108-117

704. FOREST PLOT: TF-CBT+TAU vs TAU/attention control (Severe Mental Illness). Website

Treatment delivery modalities

Early psychosocial prevention intervention for children and adolescents within the first three months of exposure to a traumatic event

Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Self-directed online psychoeducation for caregivers and children
Comparator: Waitlist/ usual care

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment usual care	**Intervention** Self-directed online psychoeducation for caregivers and children	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3 months	Lower better Based on data from 56 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.9 lower** (CI 95% 1.45 lower — 0.35 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Self-directed online psychoeducation for caregivers and children may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Due to significant group differences at baseline, completer analysis. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=56), Wide confidence intervals (CIs include important benefit and unimportant benefit). **Publication bias: no serious.**

References

4. FOREST PLOT Self-directed Online Psychoeducation for Caregiver and Child vs WL/TAU. Website

9. Cox CM, Kenardy JA, Hendrikz JK. A randomized controlled trial of a web-based early intervention for children and their parents following unintentional injury. Journal of pediatric psychology 2010;35(6):581-92 Pubmed Journal

Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Self-directed online psychoeducation intervention for children only
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Self-directed online psychoeducation intervention for children	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 72 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.63 lower** (CI 95% 1.1 lower — 0.15 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Self-directed online psychoeducation intervention may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Due to significant group differences at baseline, Incomplete data and/or large loss to follow up (high differential attrition). **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=72), Wide confidence intervals (CIs include important benefit and unimportant benefit) . **Publication bias: no serious.**

References

3. FOREST PLOT Self-directed Online Psychoeducation for Children vs WL/TAU. Website

13. Kassam-Adams N, Marsac ML, Kohser KL, Kenardy J, March S, Winston FK. Pilot Randomized Controlled Trial of a Novel Web-Based Intervention to Prevent Posttraumatic Stress in Children Following Medical Events. Journal of pediatric psychology 41(1):138-48 Pubmed Journal

Clinical question/ PICO

Population: Children and adolescents within the first three months post traumatic event
Intervention: Self-directed online psychoeducation for caregivers only
Comparator: Waitlist/ usual care

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ usual care	**Intervention** Self-directed online psychoeducation for caregivers only	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity 3 months	Lower better Based on data from 100 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.09 lower** (CI 95% 0.48 lower — 0.3 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain whether self-directed online psychoeducation for caregivers only increases or decreases PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patient (n=100), Wide confidence intervals (CI's include important harm and benefit). **Publication bias: no serious.**

References

5. FOREST PLOT Self-directed Online Psychoeducation for Caregivers vs WL/TAU. Website

12. Marsac ML, Hildenbrand AK, Kohser KL, Winston FK, Li Y, Kassam-Adams N. Preventing posttraumatic stress following pediatric injury: a randomized controlled trial of a web-based psycho-educational intervention for parents. Journal of pediatric psychology 2013;38(10):1101-11 Pubmed Journal

Psychological intervention for children and adolescents with clinically relevant PTSD symptoms

Early psychosocial prevention intervention for adults within the first three months of exposure to a traumatic event

Clinical question/ PICO

Population: Adults within the first three months post traumatic event

Intervention: Internet-based guided self-help
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Internet-based guided self-help	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 58 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.66 lower** (CI 95% 1.19 lower — 0.13 lower)	Low Due to serious imprecision, Due to serious risk of bias [1]	Internet-based guided self-help may decrease PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to (in many cases) both parents participated in the study. Both parents were randomised to the same intervention. This was not addressed in the analysis.. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=58), Wide confidence intervals (CI includes important benefit and unimportant benefit). **Publication bias: no serious.**

References

233. FOREST PLOT: Internet-based guided self-help vs WL/TAU. Website

248. Cernvall M, Carlbring P, Ljungman L, Ljungman G, von Essen L. Internet-based guided self-help for parents of children on cancer treatment: a randomized controlled trial. Psycho-oncology 2015;24(9):1152-8 Pubmed Journal

Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Guided internet-based CBT
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Guided internet-based CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD diagnosis 3-6 months	Relative risk 0.5 (CI 95% 0.18 — 1.45) Based on data from 185 participants in 1 studies. (Randomized controlled)	102 per 1000 Difference:	51 per 1000 **51 fewer per 1000** (CI 95% 84 fewer — 46 more)	Low Due to very serious imprecision [1]	Internet-based CBT may improve PTSD diagnosis
PTSD symptom severity	Lower better Based on data from 300 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.27 lower** (CI 95% 0.5 lower — 0.04 lower)	Moderate Due to serious imprecision [2]	Guided internet-based CBT probably decreases PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of events (events = 14), Wide confidence intervals (CI includes important benefit and important harm). **Publication bias: no serious.**
2. **Imprecision: serious.** Low number of patients (n=300), CI includes important benefit and unimportant benefit.

References

171. FOREST PLOT: Internet-based CBT vs WL/TAU (Sx). Website

181. FOREST PLOT: Internet-based CBT vs WLTAU (Dx). Website

199. Mouthaan J, Sijbrandij M, de Vries G-J, Reitsma JB, van de Schoot R, Goslings JC, et al. Internet-based early intervention to prevent posttraumatic stress disorder in injury patients: randomized controlled trial. Journal of medical Internet research 2013;15(8):e165 Pubmed Journal

Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Telephone-based CBT
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Telephone-based CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 185 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.08 lower** (CI 95% 0.37 lower — 0.21 higher)	Very low Due to serious indirectness, Due to very serious imprecision [1]	We are uncertain whether telephone-based CBT increases or decreases PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: serious.** Differences between the intervention/comparator of interest and those studied, intervention was tailored to coping with the effects Implantable Cardioverter Defibrillator. **Imprecision: very serious.** Low number of patients (n=185), Wide confidence intervals (CI include important benefit and important harm). **Publication bias: no serious.**

References

177. FOREST PLOT: Telephone-based CBT. Website

193. Irvine J, Firestone J, Ong L, Cribbie R, Dorian P, Harris L, et al. A randomized controlled trial of cognitive behavior therapy tailored to psychological adaptation to an implantable cardioverter defibrillator. Psychosomatic medicine 2011;73(3):226-33 Pubmed Journal

Clinical question/ PICO

Population: Adults in the first three months post traumatic event
Intervention: Telephone + Internet-based CBT
Comparator: Critical illness educational intervention

Outcome Timeframe	**Study results and measurements**	**Comparator** Critical illness educational intervention	**Intervention** Telephone + Internet based CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 175 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.13 higher** (CI 95% 0.16 lower — 0.43 higher)	Low Due to serious indirectness, Due to serious imprecision [1]	Telephone-based CBT may have little or no difference on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: serious.** Differences between the population of interest and those studied; severely ill ICU patients with expected mortality 50% . **Imprecision: serious.** Low number of patients (n=175), Wide confidence intervals (CI include unimportant benefit and important harm. **Publication bias: no serious.**

References

179. FOREST PLOT: Telephone + internet-based CBT vs Critical illness education. Website

189. Cox CE, Hough CL, Carson SS, White DB, Kahn JM, Olsen MK, et al. Effects of a Telephone- and Web-based Coping Skills Training Program Compared with an Education Program for Survivors of Critical Illness and Their Family Members. A Randomized Clinical Trial. American journal of respiratory and critical care medicine 2018;197(1):66-78 Pubmed Journal

Psychological intervention for adults with clinically relevant PTSD symptoms

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Guided internet-based Prolonged Exposure (PE)
Comparator: Present Centred Therapy in-person

Outcome Timeframe	**Study results and measurements**	**Comparator** Present Centred Therapy in-person	**Intervention** Guided internet-based Prolonged Exposure (PE)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 25 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.57 higher** (CI 95% 0.26 lower — 1.41 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between Guided internet-based Prolonged Exposure (PE) and Present Centred Therapy in-person on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias. **Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=25), Wide confidence intervals includes important benefit and important harm.

References

620. McLean CP, Foa EB, Dondanville KA, Haddock CK, Miller ML, Rauch SAM, et al. The effects of web-prolonged exposure among military personnel and veterans with posttraumatic stress disorder. Psychological trauma : theory, research, practice and policy 2020. Pubmed Journal

654. FOREST PLOT: Guided internet-based PE vs Present Centred Therapy in-person. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Guided internet-based trauma-focused CBT
Comparator: Internet-based non-trauma-focused supportive counselling

Outcome Timeframe	**Study results and measurements**	**Comparator** Internet-based non-trauma-focused supportive counselling	**Intervention** Guided internet-based trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 31 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.4 lower** (CI 95% 1.12 lower — 0.31 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between guided internet-based trauma-focused CBT and Internet-based non-trauma-focused supportive counselling on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, due to [evaluated by originators of the intervention]. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=31), Wide confidence intervals (CIs include important benefit and important harm), Only data from one study. **Publication bias: no serious.**

References

313. FOREST PLOT: Internet-based CBT-T vs Internet based non-trauma-focused supportive counselling. Website

418. Litz BT, Engel CC, Bryant RA, Papa A. A randomized, controlled proof-of-concept trial of an Internet-based, therapist-assisted self-management treatment for posttraumatic stress disorder. The American journal of psychiatry 2007;164(11):1676-83 Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Guided internet-based trauma-focused CBT
Comparator: Internet-based psychoeducation

Outcome Timeframe	**Study results and measurements**	**Comparator** Internet-based psychoeducation	**Intervention** Guided internet-based trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 51 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.11 higher** (CI 95% 0.45 lower — 0.66 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between guided internet-based trauma-focused CBT and Internet-based psychoeducation on PTSD symptom severity

1. **Risk of Bias: serious.** Lack of blinding of outcome assessors, resulting in potential for detection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Wide confidence intervals (CIs include important benefit and important harm), Low number of patients (n=51), Only data from one study. **Publication bias: no serious.**

References

314. FOREST PLOT: Internet-based CBT-T vs Internet-based psychoeducation. Website

417. Littleton H, Grills AE, Kline KD, Schoemann AM, Dodd JC. The From Survivor to Thriver program: RCT of an online therapist-facilitated program for rape-related PTSD. Journal of anxiety disorders 2016;43:41-51 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Guided internet-based trauma focused CBT
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Guided internet-based trauma focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 84 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 1.12 lower** (CI 95% 2.47 lower — 0.22 higher)	Low Due to serious imprecision, Due to serious inconsistency, Due to serious inconsistency [1]	Guided internet-based trauma focused CBT may decrease PTSD symptom severity

1. **Risk of Bias: no serious.** Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias in 1 study. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:87% however this may be explained by differences in baseline PTSD severity between studies. **Indirectness: no serious. Imprecision: serious.** Low number of patients (n=84), Wide confidence intervals (CIs include important benefit and unimportant harm). **Publication bias: no serious.**

References

312. FOREST PLOT: Guided internet-based CBT vs WLTAU. Website

415. Lewis CE, Farewell D, Groves V, Kitchiner NJ, Roberts NP, Vick T, et al. Internet-based guided self-help for posttraumatic stress disorder (PTSD): Randomized controlled trial. Depression and anxiety 2017;34(6):555-565 Pubmed Journal

468. Spence J, Titov N, Dear BF, Johnston L, Solley K, Lorian C, et al. Randomized controlled trial of Internet-delivered cognitive behavioral therapy for posttraumatic stress disorder. Depression and anxiety 2011;28(7):541-50 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Guided internet-based trauma focused CBT
Comparator: Attention control

Outcome Timeframe	**Study results and measurements**	**Comparator** Attention control	**Intervention** Guided internet-based trauma focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 62 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.05 lower** (CI 95% 1.59 lower — 0.52 lower)	Moderate Due to serious imprecision [1]	Guided internet-based trauma focused CBT is probably more beneficial than attention control for decreasing PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=62). **Publication bias: no serious.**

References

325. FOREST PLOT: Guided internet-based CBT-T vs attention control. Website

403. Ivarsson D, Blom M, Hesser H, Carlbring P, Enderby P, Nordberg R, et al. Ivarsson, D., Blom, M., Hesser, H., Carlbring, P., Enderby, P., Nordberg, R., & Andersson, G. (2014). Guided internet-delivered cognitive behavior therapy for post-traumatic stress disorder: a randomized controlled trial. Internet Interventions, 1(1), 33-40. Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Prolonged exposure telehealth (computer videoconferencing)
Comparator: Prolonged exposure telehealth (iPhone videoconferencing)

Outcome Timeframe	**Study results and measurements**	**Comparator** Prolonged exposure telehealth (iPhone videoconferencing)	**Intervention** Prolonged exposure telehealth (computer videoconferencing)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 6 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.45 higher** (CI 95% 1.21 lower — 2.11 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between prolonged exposure delivered via videoconferencing on a computer and prolonged exposure delivered via videoconferencing on an iPhone on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, Selective outcome reporting. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n = 6), Wide confidence intervals include important benefit and important harm. **Publication bias: no serious.**

References

673. Franklin CL, Cuccurullo L-A, Walton JL, Arseneau JR, Petersen NJ. Face to face but not in the same place: A pilot study of prolonged exposure therapy. Journal of trauma & dissociation : the official journal of the International Society for the Study of Dissociation (ISSD) 18(1):116-130 Pubmed Journal

684. FOREST PLOT: PE telehealth (videoconferencing) vs PE telehealth (iPhone). Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Prolonged exposure home-based telehealth (videoconferencing)
Comparator: Prolonged exposure office-based telehealth (videoconferencing)

Outcome Timeframe	**Study results and measurements**	**Comparator** Prolonged exposure office-based telehealth (videoconferencing)	**Intervention** Prolonged exposure home-based telehealth (videoconferencing)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 117 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.01 lower** (CI 95% 0.37 lower — 0.36 higher)	Low Due to very serious imprecision [1]	There may be little or no difference between prolonged exposure delivered via home-based telehealth (videoconferencing) and prolonged exposure delivered via office-based telehealth (videoconferencing) on PTSD symptom severity

1. **Risk of Bias: no serious.** Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n = 117), Wide confidence intervals includes important benefit and important harm. **Publication bias: no serious.**

References

621. Morland LA, Mackintosh M-A, Glassman LH, Wells SY, Thorp SR, Rauch SAM, et al. Home-based delivery of variable length prolonged exposure therapy: A comparison of clinical efficacy between service modalities. Depression and anxiety 2020;37(4):346-355 Pubmed Journal

688. FOREST PLOT: PE home based telehealth (videoconferencing) vs PE office based telehealth (videoconferencing). Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Prolonged exposure home-based telehealth (videoconferencing)
Comparator: Prolonged exposure home-based in-person

Outcome Timeframe	**Study results and measurements**	**Comparator** Prolonged exposure home-based in-person	**Intervention** Prolonged exposure home-based telehealth (videoconferencing)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 116 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.06 higher** (CI 95% 0.3 lower — 0.43 higher)	Low Due to very serious imprecision [1]	There may be little or no difference between prolonged exposure delivered via home-based telehealth (videoconferencing) and prolonged exposure delivered in-person (home-based) on PTSD symptom severity

1. **Risk of Bias: no serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n = 116), Wide confidence intervals include important benefit and important harm. **Publication bias: no serious.**

References

621. Morland LA, Mackintosh M-A, Glassman LH, Wells SY, Thorp SR, Rauch SAM, et al. Home-based delivery of variable length prolonged exposure therapy: A comparison of clinical efficacy between service modalities. Depression and anxiety 2020;37(4):346-355 Pubmed Journal

689. FOREST PLOT: PE home based telehealth (videoconferencing) vs PE in home in-person. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Prolonged exposure office-based telehealth (videoconferencing)
Comparator: Prolonged exposure home-based in-person

Outcome Timeframe	**Study results and measurements**	**Comparator** Prolonged exposure home-based in-person	**Intervention** Prolonged exposure office-based telehealth (videoconferencing)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 117 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.07 higher** (CI 95% 0.29 lower — 0.43 higher)	Low Due to very serious imprecision [1]	There may be little or no difference between prolonged exposure delivered via office-based telehealth (videoconferencing) and prolonged exposure delivered in-person (home-based) on PTSD symptom severity

1. **Risk of Bias: no serious.** Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n = 117), Wide confidence intervals includes important benefit and important harm. **Publication bias: no serious.**

References

621. Morland LA, Mackintosh M-A, Glassman LH, Wells SY, Thorp SR, Rauch SAM, et al. Home-based delivery of variable length prolonged exposure therapy: A comparison of clinical efficacy between service modalities. Depression and anxiety 2020;37(4):346-355 Pubmed Journal

690. FOREST PLOT: PE office based telehealth (videoconferencing) vs PE in home in-person. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: TF-CBT telehealth (videoconferencing)
Comparator: TF-CBT in-person

Outcome Timeframe	**Study results and measurements**	**Comparator** TF-CBT in-person	**Intervention** TF-CBT telehealth (videoconferencing)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 533 participants in 5 studies. (Randomized controlled)	Difference:	**SMD 0.1 lower** (CI 95% 0.07 lower — 0.27 higher)	Low Due to serious risk of bias, Due to serious imprecision [1]	There may be little or no difference between TF-CBT delivered via telehealth (videoconferencing) and TF-CBT delivered in-person on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Wide confidence intervals include unimportant benefit and important harm. **Publication bias: no serious.**

References

619. Liu L, Thorp SR, Moreno L, Wells SY, Glassman LH, Busch AC, et al. Videoconferencing psychotherapy for veterans with PTSD: Results from a randomized controlled non-inferiority trial. Journal of telemedicine and telecare 2020;26(9):507-519 Pubmed Journal

675. Maieritsch KP, Smith TL, Hessinger JD, Ahearn EP, Eickhoff JC, Zhao Q. Randomized controlled equivalence trial comparing videoconference and in person delivery of cognitive processing therapy for PTSD. Journal of telemedicine and telecare 2016;22(4):238-43 Pubmed Journal

676. Morland LA, Mackintosh M-A, Rosen CS, Willis E, Resick P, Chard K, et al. TELEMEDICINE VERSUS IN-PERSON DELIVERY OF COGNITIVE PROCESSING THERAPY FOR WOMEN WITH POSTTRAUMATIC STRESS DISORDER: A RANDOMIZED NONINFERIORITY TRIAL. Depression and anxiety 2015;32(11):811-20 Pubmed Journal

678. Yuen EK, Gros DF, Price M, Zeigler S, Tuerk PW, Foa EB, et al. Randomized Controlled Trial of Home-Based Telehealth Versus In-Person Prolonged Exposure for Combat-Related PTSD in Veterans: Preliminary Results. Journal of clinical psychology 2015;71(6):500-12 Pubmed Journal

681. Acierno R, Knapp R, Tuerk P, Gilmore AK, Lejuez C, Ruggiero K, et al. A non-inferiority trial of Prolonged Exposure for posttraumatic stress disorder: In person versus home-based telehealth. Behaviour research and therapy 2017;89:57-65 Pubmed Journal

682. FOREST PLOT: TF-CBT telehealth (videoconferencing) vs TF-CBT in-person. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Virtual reality therapy
Comparator: Present Centred Therapy

Outcome Timeframe	**Study results and measurements**	**Comparator** Present Centred Therapy	**Intervention** Virtual reality therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 9 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.51 lower** (CI 95% 1.86 lower — 0.84 higher)	Low Due to very serious imprecision [1]	Virtual reality therapy may be more beneficial than PCT on PTSD symptom severity

1. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=9), Wide confidence intervals (CIs include important benefit and important harm), Only data from one study. **Publication bias: no serious.**

References

342. FOREST PLOT: VR-Exposure vs Present centred therapy. Website

440. Ready D, Geradi R, Backscheider A, Mascaro N, Rothbaum B. Comparing Virtual Reality Exposure Therapy to Present-Centered Therapy with 11 U.S. Vietnam Veterans with PTSD. Pubmed

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Virtual Reality Therapy
Comparator: Waitlist/ treatment as usual

Outcome Timeframe	**Study results and measurements**	**Comparator** Waitlist/ treatment as usual	**Intervention** Virtual Reality Therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 104 participants in 3 studies. (Randomized controlled)	Difference:	**SMD 0.43 lower** (CI 95% 0.83 lower — 0.03 lower)	Low Due to serious risk of bias, Due to serious imprecision [1]	Virtual reality therapy may decrease PTSD symptom severity slightly

1. **Risk of Bias: serious.** Selective outcome reporting, Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n=104), Wide confidence intervals (CIs include important benefit and unimportant benefit). **Publication bias: no serious.**

References

351. FOREST PLOT: VR-exposure vs WLTAU. Website

394. Gamito P, Oliveira J, Rosa P, Morais D, Duarte N, Oliveira S, et al. PTSD elderly war veterans: a clinical controlled pilot study. Cyberpsychology, behavior and social networking 2010;13(1):43-8 Pubmed

423. McLay RN, Wood DP, Webb-Murphy JA, Spira JL, Wiederhold MD, Pyne JM, et al. A randomized, controlled trial of virtual reality-graded exposure therapy for post-traumatic stress disorder in active duty service members with combat-related post-traumatic stress disorder. Cyberpsychology, behavior and social networking 2011;14(4):223-9 Pubmed Journal

441. Reger GM, Koenen-Woods P, Zetocha K, Smolenski DJ, Holloway KM, Rothbaum BO, et al. Randomized controlled trial of prolonged exposure using imaginal exposure vs. virtual reality exposure in active duty soldiers with deployment-related posttraumatic stress disorder (PTSD). Journal of consulting and clinical psychology 2016;84(11):946-959 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Virtual reality therapy
Comparator: Control exposure

Outcome Timeframe	**Study results and measurements**	**Comparator** Control exposure	**Intervention** Virtual reality therapy	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 147 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.01 higher** (CI 95% 0.68 lower — 0.71 higher)	Very low Due to serious inconsistency, Due to very serious imprecision [1]	We are uncertain whether virtual reality therapy increases or decreases PTSD symptom severity

1. **Inconsistency: serious.** The magnitude of statistical heterogeneity was high, with I^2:78%.. **Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=147), Wide confidence intervals (CIs include important benefit and important harm). **Publication bias: no serious.**

References

349. FOREST PLOT: VR-Exposure vs Control exposure therapy. Website

424. McLay RN, Baird A, Webb-Murphy J, Deal W, Tran L, Anson H, et al. A Randomized, Head-to-Head Study of Virtual Reality Exposure Therapy for Posttraumatic Stress Disorder. Cyberpsychology, behavior and social networking 2017;20(4):218-224 Pubmed Journal

441. Reger GM, Koenen-Woods P, Zetocha K, Smolenski DJ, Holloway KM, Rothbaum BO, et al. Randomized controlled trial of prolonged exposure using imaginal exposure vs. virtual reality exposure in active duty soldiers with deployment-related posttraumatic stress disorder (PTSD). Journal of consulting and clinical psychology 2016;84(11):946-959 Pubmed Journal

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Behavioural Activation and Therapeutic Exposure telehealth (videoconferencing)
Comparator: Behavioural Activation and Therapeutic Exposure in-person

Outcome Timeframe	**Study results and measurements**	**Comparator** Behavioural Activation and Therapeutic Exposure in-person	**Intervention** Behavioural Activation and Therapeutic Exposure telehealth (VC)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 136 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.07 lower** (CI 95% 0.41 lower — 0.27 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between Behavioural Activation and Therapeutic Exposure delivered via telehealth (videoconferencing) and Behavioural Activation and Therapeutic Exposure delivered in-person on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n = 136), Wide confidence intervals includes important benefit and important harm. **Publication bias: no serious.**

References

680. Acierno R, Gros DF, Ruggiero KJ, Hernandez-Tejada BMA, Knapp RG, Lejuez CW, et al. BEHAVIORAL ACTIVATION AND THERAPEUTIC EXPOSURE FOR POSTTRAUMATIC STRESS DISORDER: A NONINFERIORITY TRIAL OF TREATMENT DELIVERED IN PERSON VERSUS HOME-BASED TELEHEALTH. Depression and anxiety 2016;33(5):415-23 Pubmed Journal

685. FOREST PLOT: Behavioural Activation and Therapeutic Exposure telehealth (videoconferencing) vs Behavioural Activation and Therapeutic Exposure in-person. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Group non-trauma-focused CBT telehealth (videoconferencing)
Comparator: Group non-trauma-focused CBT in-person

Outcome Timeframe	**Study results and measurements**	**Comparator** Group non-trauma-focused CBT in-person	**Intervention** Group non-trauma-focused CBT telehealth (videoconferencing)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 121 participants in 2 studies. (Randomized controlled)	Difference:	**SMD 0.37 higher** (CI 95% 0.8 lower — 1.55 higher)	Very low Due to serious risk of bias, Due to very serious imprecision, Due to serious inconsistency [1]	We are uncertain if there is a difference between group non-trauma-focused CBT delivered via telehealth (videoconferencing) and group non-trauma-focused CBT delivered in-person on PTSD symptom severity

1. **Risk of Bias: serious.** Incomplete data and/or large loss to follow up, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias. **Inconsistency: serious.** The direction of the effect is not consistent between the included studies, The magnitude of statistical heterogeneity was high, with I^2: 82%.. **Indirectness: no serious. Imprecision: very serious.** Low number of patients (n = 121), Wide confidence intervals include important harm and important harm. **Publication bias: no serious.**

References

674. Frueh BC, Monnier J, Yim E, Grubaugh AL, Hamner MB, Knapp RG. A randomized trial of telepsychiatry for post-traumatic stress disorder. Journal of telemedicine and telecare 2007;13(3):142-7 Pubmed

677. Morland LA, Mackintosh M-A, Greene CJ, Rosen CS, Chard KM, Resick P, et al. Cognitive processing therapy for posttraumatic stress disorder delivered to rural veterans via telemental health: a randomized noninferiority clinical trial. The Journal of clinical psychiatry 2014;75(5):470-6 Pubmed Journal

686. FOREST PLOT: Group non-TF-CBT telehealth (videoconferencing) vs Group non-TF-CBT in-person. Website

Clinical question/ PICO

Population: Adults with PTSD and comorbid Substance Use Disorder

Intervention: Self-directed internet-based trauma-focused CBT
Comparator: TAU

Outcome Timeframe	**Study results and measurements**	**Comparator** TAU	**Intervention** Self-directed internet-based trauma-focused CBT	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 162 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.02 lower** (CI 95% 0.33 lower — 0.28 higher)	Moderate Due to serious imprecision [1]	There are probably little or no differences between self-directed internet-based trauma-focused CBT and TAU on PTSD symptom severity

1. **Risk of Bias: no serious.** Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias. **Inconsistency: no serious. Indirectness: no serious. Imprecision: serious.** Low number of patients (n = 162). **Publication bias: no serious.**

References

691. Acosta MC, Possemato K, Maisto SA, Marsch LA, Barrie K, Lantinga L, et al. Web-Delivered CBT Reduces Heavy Drinking in OEF-OIF Veterans in Primary Care With Symptomatic Substance Use and PTSD. Behavior therapy 2017;48(2):262-276 Pubmed Journal

692. FOREST PLOT: Self-directed internet-based TF-CBT vs TAU. Website

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Seeking Safety (clinician-led)
Comparator: Seeking Safety (peer-led)

Outcome Timeframe	**Study results and measurements**	**Comparator** Seeking Safety (peer-led)	**Intervention** Seeking Safety (clinician-led)	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 189 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 0.04 higher** (CI 95% 0.25 lower — 0.32 higher)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between Seeking Safety delivered by a clinician and Seeking Safety delivered by a peer on PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Inadequate sequence generation/ generation of comparable groups, resulting in potential for selection bias, Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n = 189), Wide confidence intervals include important benefit and important harm. **Publication bias: no serious.**

References

613. Crisanti AS, Murray-Krezan C, Reno J, Killough C. Effectiveness of Peer-Delivered Trauma Treatment in a Rural Community: A Randomized Non-inferiority Trial. Community mental health journal 2019;55(7):1125-1134 Pubmed Journal

683. FOREST PLOT: Seeking Safety clinician- led vs Seeking Safety peer-led. Website

Non-psychological intervention for adults with clinically relevant PTSD symptoms

Clinical question/ PICO

Population: Adults with PTSD
Intervention: Mindfulness-based stress reduction
Comparator: Psychoeducation

Outcome Timeframe	**Study results and measurements**	**Comparator** Psychoeducation	**Intervention** Mindfulness-based stress reduction	**Certainty of the evidence** (Quality of evidence)	**Summary**
PTSD symptom severity	Lower better Based on data from 27 participants in 1 studies. (Randomized controlled)	Difference:	**SMD 1.23 lower** (CI 95% 2.07 lower — 0.4 lower)	Very low Due to serious risk of bias, Due to very serious imprecision [1]	We are uncertain if there is a difference between mindfulness-based stress reduction and psychoeducation on PTSD symptom severity

1. **Risk of Bias: serious.** Inadequate concealment of allocation during randomization process, resulting in potential for selection bias, Incomplete data and/or large loss to follow up. **Inconsistency: no serious. Indirectness: no serious. Imprecision: very serious.** Low number of patients (n=27), Only data from one study. **Publication bias: no serious.**

References

549. FOREST PLOT: Mindfulness based stress reduction vs Psychoeducation. Website

594. Niles B, Klunk-Gillis J, Ryngala D, Silberbogen A, Paysnick A, Wolf E. Niles, B. L., Klunk-Gillis, J., Ryngala, D. J., Silberbogen, A. K., Paysnick, A., & Wolf, E. J. (2012). Comparing mindfulness and psychoeducation treatments for combat-related PTSD using a telehealth approach. Psychological Trauma: Theory, Research, Practice, and Policy, 4(5), 538. Website

Development of the Guidelines

Guideline Development Group