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Corresponding author:
Amber Elgee

aj_1998live@hotmail.co.uk

Author Affiliation:
Manchester Metropolitan University.

First-, second-, and third-wave Cognitive Behavioural Therapies for Complex Post-Traumatic Stress Disorder: A Systematic Review Protocol

Elgee, A[1]; Turner, M[2]; Brooks, M[3]; Williams, A[4]; Wood, A[5]; Bland, AR[6].

ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - This paper was orginally part of a Masters dissertation project. Intially, the project was not created for the purpose of publication therefore it was not registered at the time when it was first written. However, with the encouragment of the supervisors of the project and other collegues at the university, a decision was made to attempt to publish the paper. The current review it based off that masters dissertation, however, the search terms have been altered/improved apon from the initial search criteria.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 11 September 2023 and was last updated on 11 September 2023.

INTRODUCTION

Review question / Objective This systematic review will examine the evidence for first-, second- and third-wave CBT therapies for children, adolescents, and adults with CPTSD and cumulative childhood trauma by comparing them to other CBTs, non-CBT, treatment as usual (TAU) and/or waitlist control (WLC). This review will focus on PTSD and CPTSD treatment outcomes including symptoms defined in the DSM-V and the ICD-11. Conducting a systematic review investigating first-, second- and third-wave CBTs will aid in identifying gaps in the research and the generation of clearer and more robust clinical treatment recommendations for clinicians and those affected by CPTSD.

Rationale Previous research has identified CBT treatments for CPTSD, however, they failed to distinguish between the broad range of first-, second, and third-wave CBTs that encompass a generalised definition of CBT typically used by previous research. This is more than a mere academic issue, as the lack of dichotomy between treatments and waves within research prevents accurate comparisons between interventions (non-CBT and CBT). Moreover, it prevents a better understanding of the types of populations these interventions work for and analysis of the core mechanisms within these interventions. We believe the separation of first-second-and-third wave CBTs and identification of treatments effective for CPTSD adds the further understanding of the usability of CBT interventions and their effects on

CPTSD symptomology to identify more specific clinical recommendations for clinicians, clients, and organisations such as the National Institute of Health and Care Excellence.

Condition being studied In 2018, the World Health Organisation (WHO, 2020) officially recognised complex post-traumatic stress disorder (CPTSD) as distinct from posttraumatic stress disorder (PTSD) in the 11th version of the International Classification of Diseases Manual (ICD-11). Although this distinction was not made in the Diagnostic and Statistical Manual of Mental Disorders (DSM-V),the ICD-11 description for PTSD and CPTSD contains a cluster of symptoms both disorders share, including, re-experiencing of traumatic events, avoidance of cognitions, memories, experiences, and emotions related to the traumatic events, persistent hyperarousal of threat, altered mood and cognition, clinically significant distress and impaired functioning (WHO, 2020). However, in addition to PTSD symptomology, CPTSD includes severe and persistent problems in disturbances in alternations of attention/consciousness (e.g., dissociation), the meaning of life, somatisation, and disturbances in self-organization (DSO), which include emotional regulation, negative self-concept, and disturbances in interpersonal functioning (Herman, 1992; WHO, 2020). Though not a prerequisite for a diagnosis, CPTSD typically arises following prolonged and repeated adversity across the lifespan, particularly during childhood (Cloitre et al., 2019).

METHODS

Search strategy A systematic search was conducted on two electronic databases including PILOTS and EBSCOhost (AMED, Child development and Adolescent Studies, CINAHL, MEDLINE, APA PsycArticles, and APA PsycINFO). Additional papers were identified through screening relevant protocols, systematic reviews and meta-analysis reference lists. The lead author conducted the search (1992 to 2021; see Herman, 1992) using the following search terms ('Complex PTSD' or 'CPTSD' or 'Complex trauma' or 'childhood trauma' or 'complex post-traumatic stress disorder' or 'developmental trauma') AND ('Mindfulness based cognitive' or 'MBCT' or 'Mindfulness based stress reduction' or 'MBSR' or 'Acceptance and commitment' or 'ACT' or 'Cognitive behavio* analysis' or 'CBSAP' or 'Compassion focus*' or 'CFT' or 'Dialectical behavio*' or 'DBT-PTSD' or 'DBT' or 'Functional analytic' or 'FAP' or 'Behavio* activation' or 'BA' or 'schema' or 'CBT' or 'Cognitive behavio*' or 'Cognitive restructuring' or 'Cognitive processing' or 'cognitive change' or 'cognitive reappraisal' or 'Rational emotive' or 'Rational emotive behavio*' or 'REBT' or 'RET' or 'Trauma-focus*' or 'TF-CBT' or 'TIMBER' or 'cognitive' or 'behavio*' or 'CT' or 'STAIR' or 'CNIP' or 'Cognitive narrative intervention programme' or 'CRIM' or 'Cognitive restructuring and imagery modification' or 'exposure' or 'systematic desens*' or 'stress inoculation training') AND ('therapy' or 'psychological therapy' or 'psychological intervention' or 'intervention' or 'treatment' or 'psychotherapy' or 'approach').

Participant or population A wide range of participants will be examined for this review in order to understand the types of populations different CBTs are relevant to. This review will include pupulations, patients and participants of any age, race, gender, and ethnciity. However, all participants must be either diagnosised with CPTSD (ICD-11) or PTSD (DSMIV/V) with the addition of repeated interpersonal traumas. Studies conducting interventions relevant to children, adolescents, and/or adults will be clearly identified in the paper. The age and relevancy to these populations (different age groups) in regards to the CBT interventions will be identified in the results and discussion of the research paper.

Intervention Interventions in this review will include cognitive behavioural therapies (CBTs). CBTs in this review will include first (e.g., prolonged exposure), second (e.g., cogntive processing therapy), and third wave CBTs (e.g., compassion focused therapy). Relevant CBTs will include standard, developmentally adapted and/or culturally adapted interventions. First wave CBTs were defined as behaviour-based treatments which focus on fear extinction, habituation, and emotional processing of traumatic events. Second-wave CBTs include cognitive and behavioural components with or without exposure therapy that focused on the development of emotional regulation and correcting trauma-related cognitions, psychoeducation, interpersonal skills training, and meaningful change. Third-wave CBTs therapies include mindfulness, cognitive and behavioural components with or without exposure therapy that focused on creating distress tolerance, cultivating acceptance for internal cognitions and sensations, psychological flexibility, self-reliance, self-compassion, and contextual emotional regualtion. It is recongised there will be overlapping characteristics in first, second, and third wave CBT interventions, however, each therapy will be considered independently for the sake of further understanding the clinical relevance

and core mechanisms of change to the treatment for CPTSD. Ineligible interventions will include CBT interventions which integrate non-CBT techniques or therapeutic treatments, for example, treatment of usual, supoortive counselling, and person-centred therapy.

Comparator Comparator interventions will include any cognitve behavioural therapys (CBTs), non-CBTs, treatment as usual, waitlist control or minimal attention.

Study designs to be included There will be no restrictions based on study design. This review includes first, second, and third wave cognitive behavioural therapies (CBTs) that favour different types of study designs because they have a large variety of intervention methods and techniques. Moreover, each CBT wave has different underlying philosophies which effect their study design choice. A restriction on study design would led to missing or limited data in the review.

Eligibility criteria Participants were required to have an ICD-11 CPTSD diagnosis or meet the DSM IV/V PTSD criteria along with experiences of childhood or adult interpersonal trauma based on risk factors associated with CPTSD (see Cloitre et al., 2018). The inclusion criteria were expanded beyond the use of the ICD-11 diagnosis of CPTSD to include the DSM IV/V PTSD criteria with multiple experiences of interpersonal trauma, due to the contemporary nature of the ICD-11 CPTSD criterion. It is recognized that the measures for CPTSD symptoms in the included studies in this review will mainly be designed to measure PTSD symptoms, however, symptoms will be interpreted based on their use in a study and on a division of PTSD and CPTSD symptoms based on the ICD-11. To further clarify this division, though PTSD and CPTSD are separate disorders, all PTSD symptoms are included in CPTSD pathology according to the ICD-11. CPTSD pathology includes PTSD symptoms and additional DSO symptoms. PTSD and CPTSD symptoms have been divided in this manner to offer clarity on the cluster of symptoms each CBT intervention is able to treat. PTSD symptoms include re-experiencing of traumatic events, avoidance of cognitions, memories, experiences, and emotions related to the traumatic events, persistent hyperarousal of threat, altered mood and cognition, and functional impairment (WHO, 2020). In addition to the previous symptoms, CPTSD symptoms will include disturbances in alternations of attention/ consciousness (e.g., dissociation), alterations in meaning of life, somatisation, and disturbances in self-organisation (DSO), which include emotional regulation, negative self-concept, and disturbances in interpersonal functioning (WHO, 2020). Participants with co-existing conditions were included because CPTSD is associated with high levels of comorbidities. No exclusions were applied to the papers besides language (i.e., English only). Relevant papers included first-, second- and third-wave CBT interventions, or CBT interventions in combination with other CBT or pharmaceutical interventions. Relevant studies investigating CBTs were quantitative. Relevant studies will include RCTs and non-RCT reporting on individual and group-based interventions for children, adolescents and adults. Included studies reported physical, psychological, cognitive and/or emotional treatment outcomes and follow-up outcomes, drop-out rates, and the effectiveness and/or efficacy of single CBT interventions if compared to TAU, WLC, or other interventions. Excluded studies reported only cost-effectiveness, diagnostic, prognostic or prevention.

Information sources A systematic search was conducted on two electronic databases including PILOTS and EBSCOhost (AMED, Child development, and Adolescent Studies, CINAHL, MEDLINE, APA PsycArticles, and APA PsycINFO). Additional papers were identified through screening relevant protocols,, systematic reviews, and meta-analysis reference lists.

Main outcome(s) Main outcomes in this review will include physical, psychological, cognitive and/ or emotional treatment outcomes related to PTSD and CPTSD symptoms. PTSD and CPTSD symptoms will include re-experiencing of traumatic events, avoidance of cognitions, memories, experiences, and emotions related to the traumatic events, persistent hyperarousal of threat, altered mood and cognition, and functional impairment, disturbances in alternations of attention/ consciousness (e.g., dissociation), alterations in meaning of life, somatisation, and disturbances in self-organisation (DSO), which include emotional regulation, negative self-concept, and disturbances in interpersonal functioning.

Additional outcome(s) None.

Data management The literature search will be conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guideline (Page et al., 2021). For the formal intial screening of search results (including title and abstract review), data will be managed on Mendeley. Afterward, all data will be transferred to Excel in order to conduct full-text reviews. All data extraction will be done using a Word document.

Study selection and data extraction was conducted by the first author and reviewed by the second and third authors.

Quality assessment / Risk of bias analysis The Effective Public Health Practice Project Quality Assessment Tool for Quantitative Studies (EPHPP) was used by the primary researcher to independently assess quality and bias (Thomas et al., 2004).

Strategy of data synthesis The data extraction tabulation was structured by type of CBT intervention (e.g., first, second, third and combination CBT waves) to reach conclusions regarding effectiveness and quality. All outcome data were judged as statistically significant if $p \leq .05$. Four types of effect sizes were identified and used during the systematic review: Cohen's d, (2) Hedge's g, (3) Partial Eta Squared, and (4) Pearson's r correlation. Cohen's d was interpreted as small (d =.20), medium (d = .50) and large (d = .80), all based on Cohen's (1988) interpretations. Hedge's g was interpreted as small (g = .20), medium (g = .50) and large (g = .80), all based on Hedge's and Olkin's (1985) interpretations. Partial Eta Squared was interpreted as small (ηp2 =.01), medium (ηp2 =.06) and large (ηp2 =.14), all based on Cohen's (1988) interpretations. Finally, Pearson's r correlation was interpreted as small (r =.10–.30), medium (r =.30–.50) and large (r =.50–1.0).

Subgroup analysis None.

Sensitivity analysis None.

Language restriction Only studies avaliable in English will be included.

Country(ies) involved United Kingdom.

Keywords Cognitive behavioural therapy; complex post-traumatic stress disorder; PTSD;CPTSD.

Dissemination plans Given the psychiatric weight of complex post-traumatic stress disorder (CPTSD), it is important that there are clear clinical guidelines for clients and clinicians. This review has identified a range of cognitive behavioural therapies (CBTs) which can significantly improve CPTSD symptomology. Moreover, this review highlights methodological issues within CPTSD and PTSD research, criticises the inadequate CPTSD guidelines used by the National Institute for Health and Care Excellence, and suggests future research needed for under-represented groups within the current CPTSD research including refugees, non-western, LGBTQ+, and male populations.
Through the publication of this systematic review, the authors in this review would like to inform and engage clinicians, researchers, and opinion-makers in order to improve intervention and treatment standards in current clinical practice for children, adolescents, and adults diagnosed with complex post-traumatic stress disorder.

Contributions of each author
Author 1 - Amber Elgee - Author one drafted the manuscript, and conducted the study selecting/screening process, data extraction, data synthesis, and quality assessment.
Email: aj_1998live@hotmail.co.uk
Author 2 - Martin Turner - Author two helped edit and draft the manuscript, reviewed the study selection/screening process and supervised the research project.
Email: m.turner@mmu.ac.uk
Author 3 - Matt Brooks - Author two helped edit and draft the manuscript, reviewed the study selection/screening process and supervised the research project.
Email: .brooks@mmu.ac.uk
Author 4 - Amy Bland - Author 4 was Author Ones' second dissertation supervisor and helped draft and edit the manuscript as well as providing supervisor for the project.
Email: a.bland@mmu.ac.uk
Author 5 - Kate Williams - Author five helped draft and edit the manuscript and provided supervision during the project.
Email: k.williams@mmu.ac.uk
Author 6 - Andrew Wood - Author 6 was Author One's first dissertation supervisor, initially supervised the project, and came up with the original idea for the project.

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