INTEGRATIVE TREATMENT OF COMPLEX TRAUMA FOR CHILDREN AND ADOLESCENTS: A RAPID EVIDENCE ASSESSMENT

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Pursuit of Excellence in Responding to Child Abuse and Neglect, WA

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BACKGROUND

This Rapid Evidence Assessment (REA) formed part of a broader program of work for the Pursuit of Excellence in Responding to Child Abuse and Neglect initiative. The aim of this REA was to a) examine the effectiveness of Integrative Treatment for Complex Trauma (ITCT) for children and adolescents and b) assess the applicability of the ITCT evidence for children and adolescents in Australia who have experienced child abuse and neglect.

Developed in the USA, ITCT is a semi-structured, assessment-driven, multi-modal, components-based treatment model for children and adolescents who have experienced multiple traumas including sexual abuse, physical abuse, emotional abuse, neglect, domestic violence, peer violence, community violence, parental substance abuse, traumatic bereavement, and medical trauma (Lanktree & Briere, 2008; Briere & Lanktree, 2013). ITCT is a relational based model incorporating complex trauma theory, attachment theory, cognitive behavioural approaches and the self-trauma model and is designed to be culturally and contextually sensitive (Lanktree & Briere, 2008; Briere & Lanktree, 2013). The components that may be utilised by ITCT therapists are described in the available treatment manuals, but the model is designed to be flexible, allowing therapists to approach treatment based on their skills, training, sensitivity, creativity, and openness to the client (Lanktree & Briere, 2008; Briere & Lanktree, 2013). The approach to treatment is therefore adapted on a case-by-case basis to meet the client's needs. Treatment time frames are also flexible. There are two versions of ITCT, a child version (ITCT-C) and an adolescent version (ITCT-A; Lanktree & Briere, 2008; Briere & Lanktree, 2013).

According to the treatment manual for ITCT-C, components for eight- to 12-year-olds include assessment, affect regulation training, titrated exposure, cognitive therapy, and relationship processing. Sessions with primary caregivers, family therapy, group therapy, and parent education classes (where indicated) may also form part of treatment (Lanktree & Briere, 2008). The treatment manual notes that adaptations of the ITCT-C components can be made for younger children (from two years old), with stronger emphasis on symbolic and expressive play and caregiver and family sessions, along with creating shorter individual therapy sessions (Lanktree & Briere, 2008).

ITCT-C was adapted and expanded into an adolescent version for 12- to 21-year-olds, incorporating the self-trauma model (Briere & Lanktree, 2013). According to the ITCT-A treatment manual, attention to posttraumatic stress, attachment disturbance, behavioural and affect dysregulation, interpersonal difficulties, and identity-related issues are the focus of ITCT-A (Briere & Lanktree, 2013). Core components of ITCT-A include assessment, multiple treatment modalities (e.g., cognitive therapy, exposure therapy, mindfulness/meditation training, relational treatment) in individual and group therapy, sessions with primary caregivers (as necessary), family therapy, skills development (e.g., emotional regulation and problem-solving capacities), exposure and exploration of trauma, advocacy, and interventions at the system level (family, forensic/protection, school; Briere & Lanktree, 2013).

METHOD

Search Strategy

A search for peer-reviewed and grey literature was conducted in September 2022. The peer reviewed literature search comprised four academic databases: Scopus, MEDLINE, PsycINFO, and ProQuest Central. The search strategy included the phrases related to the two forms of ITCT for children and for adolescents (e.g., "integrative treatment of complex trauma for adolescents" OR "integrative treatment of complex trauma for children" OR "ITCT" OR "ITCT-A" OR "ITCT-C"). Slight variation in the search strategy occurred across the searches due to different database capabilities and requirements.

The grey literature search included Google scholar and relevant websites, including the University of Southern California Adolescent Trauma Training Center (provides training and clinical certification in ITCT) and the California Evidence-Based Clearinghouse for Child Welfare, to search for additional references. Simplified search terms (e.g., "integrative treatment of complex trauma") and find functions (e.g., "Integrative Treatment") were used to search for any documents that were relevant. Finally, key sourcing – searching for any missed documentation – from the ITCT treatment manuals and the two primary authors/developers of ITCT (John Briere and Cheryl Lanktree) were searched, including their personal websites, Google scholar pages and University of Southern California staff pages.

Eligibility Criteria

The eligibility for inclusion was defined by the aims of the REA. Publications were eligible for inclusion if they a) included children and young people (0-18) who had experienced trauma, b) included ITCT as an intervention (either primary treatment or comparison group), c) directly measured child and young person outcomes (e.g., trauma symptoms) with a minimum of two assessment points (pre- and post-intervention) to assess symptom change, and d) were primary research studies that quantitatively examined the efficacy or effectiveness of ITCT with a single group pre/post-test study design as a minimum. Systematic reviews and meta-analyses were also considered if they met all criteria for the review.

SEARCH RESULTS

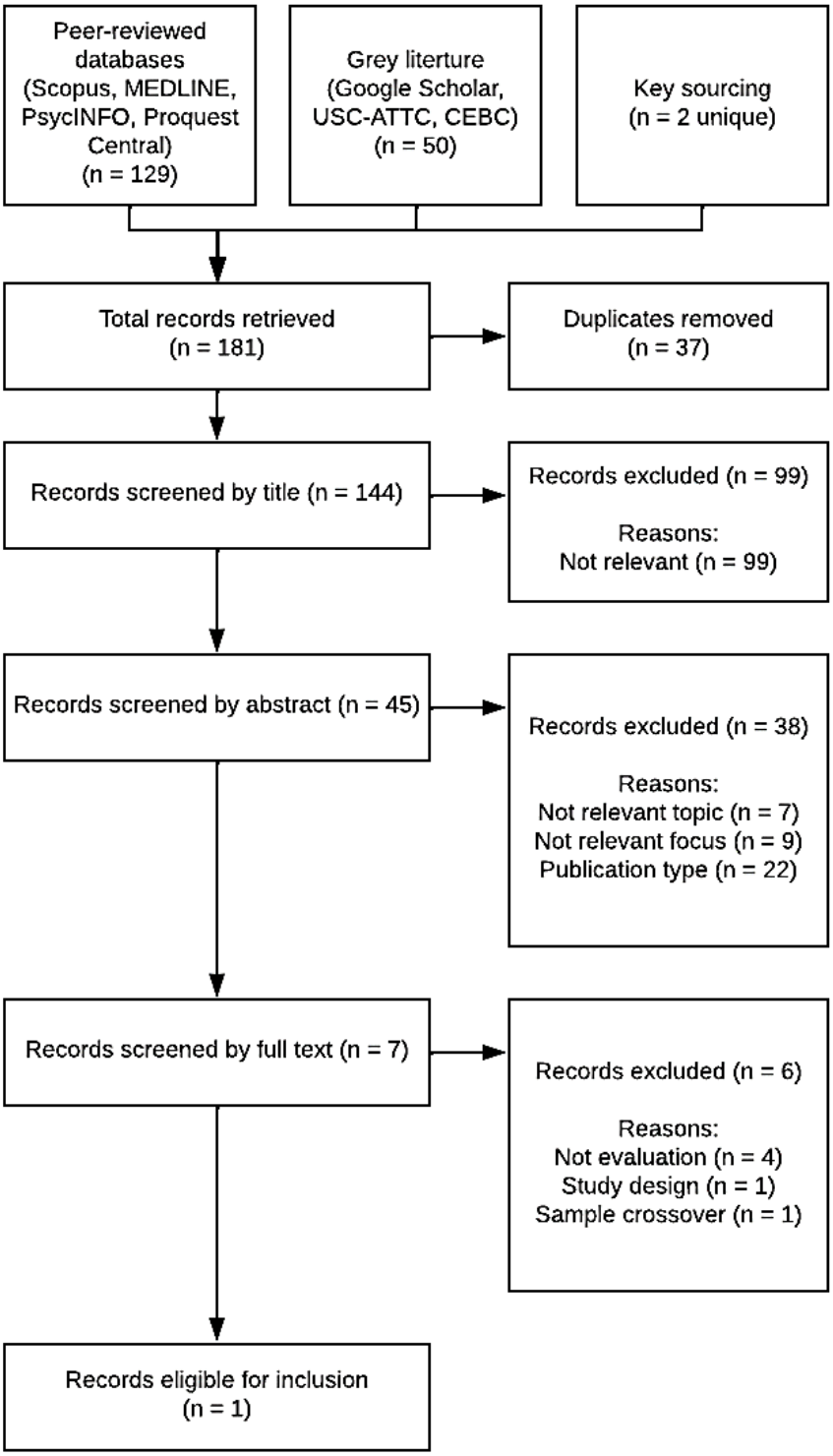
Screening

One hundred and eighty-one publications were identified through the search. Search results (RIS files) were imported into EndNote and duplicates were removed before screening was undertaken by author 2 (ET). Publications were screened at the title and abstract level against the eligibility criteria. Publications excluded at this stage were primarily due to publication type (e.g., book, governmental or research centre guiding document, or training documentation), topic (e.g., there was a large cross over with the acronyms ITCT and air quality research), or the focus of the research (e.g., non-evaluation, narrative review, scoping review for

available treatments for complex trauma only mentioning ITCT). Seven publications remained for full text screening, with one deemed eligible for inclusion (Lanktree et al., 2012a; see Figure 1 for screening flow diagram). Four publications were removed at full text due to not being evaluations and one was removed due to reporting on a single case study, reducing the applicability of the study for addressing the REA aims. Finally, one publication was removed due to sample crossover with a larger trial - this publication (Lanktree et al., (2012b) was cited in the ITCT-A treatment manual as evidence of ITCT treatment outcomes, however the sample included a subset of participants from Lanktree et al. (2012a). To avoid introducing biases regarding multiple publications reporting from the same study data (leading to potential overestimation of the weight of the evidence and intervention effects; Boutron et al., 2022), this study was not included in the current review. It is noted that the treatment manual for ITCT-C cites Lanktree et al. (2008) as evidence for ITCT-C. However, this study focuses on validation of two trauma measures and does not mention the treatment modality used with clients. Therefore, this study was excluded at abstract.

Figure 1

Screening flow diagram for the Rapid Evidence Assessment



SUMMARY OF EVIDENCE

Study Details

At the time of this REA, there was a single peer-reviewed effectiveness evaluation of ITCT (combined child and adolescent versions; Lanktree et al., 2012a) meeting the eligibility criteria outlined. This publication was a single group pre-test, post-test design, conducted in Long Beach, California by the developers of ITCT. The data for this study was generated from record review (archival data) of clients who had attended a specialised child trauma centre (the Miller Children's Abuse and Violence Intervention Center–University of Southern California) between 2001 and 2009. Clients were referred to the trauma centre by parents, other agencies or clinics, or by physicians and medical social workers at local hospitals for medically related trauma. Clients were also identified through outreach activities in the public school system. Client eligibility criteria included exposure to at least one traumatic event leading to significant psychological symptoms and to be able to read English to a level that permitted psychological testing. No exclusion criteria other than not meeting inclusion criteria were specified.

Primary Trauma Outcome Measurement

The study included the Trauma Symptom Checklist for Children (TSCC) to measure trauma symptoms. The TSCC (Briere, 1996) is a 54 item self-report (child-report) measure of posttraumatic stress and related psychological symptomatology in children and young people 8 to 16 years who have experienced traumatic events. It consists of two validity scales (underresponse and hyperresponse) and six clinical scales (anxiety, depression, anger, posttraumatic stress, dissociation, and sexual concerns). Scoring includes conversion of raw scores to T scores for interpretation. T scores ≥ 65 are considered clinically significant for all clinical scales except sexual concerns. Scores between 60 and 65 are suggestive of difficulty or may represent subclinical symptomatology. For the sexual concerns scale, scores ≥ 70 are considered clinically significant. There is an alternate form of the TSCC which omits the items related to the sexual concerns subscale. In Lanktree et al. (2012a), the alternate form was used for 5 clients. Measurement was taken, where possible, at intake, at three- to four-month intervals, and at termination however a minimum of two assessment periods was required for inclusion of data in the study.

Participant Details

A total of 151 children and young people with an average age of 11.43 years (SD = 2.69; range = 8-17 years) were included in the study. The sample were majority female (65%) and all participants resided in Long Beach, California. Race or ethnicity was reported as 48% Hispanic, 25% Black or African American, 14% non-Hispanic White, and 13% Asian or other. Regarding trauma exposure 62% experienced at least two different trauma types and 14% experienced four or more. Specific trauma experience of the sample included sexual abuse (52%), 'some other traumatic event' (e.g., neglect, psychological abuse; 39%), traumatic loss (32%), witnessing domestic violence between caretakers

(31%), physical abuse (27%), community violence (17%), and medical trauma (15%). Trauma was first experienced, on average, at 8.23 years (SD = 3.71) with 3.76 years having passed since first exposure and onset of treatment. No details of caregivers were provided other than reporting that caregiver involvement was variable.

Intervention Details

The number of treatment sessions provided was not specified but most clients were in treatment for three to eight months (M = 6.79 months, SD = 4.76 months; full range not reported - longest treatment 9 months or more). No information regarding attrition was provided, nor were any adverse events reported. Fidelity monitoring was not reported however it was reported that "ITCT represents different treatments for different children, and thus "fidelity" to a specific treatment model is harder to define or monitor" (p. 823). Clinician details were not specifically reported but an acknowledgement on the publication lists staff therapists involved in client treatment who all appear to be tertiary qualified. The authors of the publication have qualifications in clinical psychology and psychiatry. Specific language and cultural considerations were not reported but it was reported that ITCT focuses on social and cultural issues and attention is given "to the use of culturally appropriate examples and treatment resources (e.g., play therapy toys and games, books, psychoeducation materials), and treatment is adapted to the cultural milieu in which the child is embedded... Also taken into account are cultural phenomena that can assist the client's progress in therapy, such as use of the extended family as a physical, psychological, and social support system" (p. 820).

Analysis

Last Observation Carried Forward to the time of the longest treatment interval for any client (9 months or more) was used in this study. Last Observation Carried Forward is a simple method for imputing missing data. It is considered by some to be a conservative approach to missing data, and therefore a conservative approach to estimates of treatment effects. However, it is argued that this method can produce bias in both directions, an underestimation or overestimation of treatment effects (for a discussion see Mallinckrodt, 2015). Additional analyses were undertaken in the study to identify possible mediators of outcomes using pre-post change scores that were averaged and correlated with relevant variables.

Outcomes

Statistical Significance and Effect Size

Results showed that client scores on each of the trauma sub-scales of the TSCC decreased significantly from pre- to post-treatment (all p's <.001). Effect sizes ranged from medium for sexual concerns (Partial η^2 = .12) to large for posttraumatic stress (partial η^2 = .29), anxiety (partial η^2 = .23), depression (partial η^2 = .23), dissociation (partial η^2 = .16), and anger (partial η^2 = .15). The longer a child was in therapy, the greater their mean improvement in TSCC scores (3-5, 6-8, or 9 or more months; p = .01).

It is further reported that those with more severe symptoms at pre-treatment were seen for longer periods of time (3-5, 6-8, or 9 or more months; p = .019). Average pre-post change scores did not vary according to gender, age, ethnicity, or number of traumas.

Clinical Symptom Change

Regarding clinical symptom change, raw scores for the TSCC were provided, rather than T scores, meaning that any assessment of severity of trauma symptoms given here is an estimate only. Given the average age of participants was 11.43 years and a majority of participants were female, this estimate has been made based on the TSCC scoring form for females 8-12 years. Based on this estimate, it is unlikely that average scores for the sample reached clinical or sub-clinical levels at pre-treatment on any of the 6 clinical scales (anxiety, depression, anger, posttraumatic stress, dissociation, sexual concerns). Scores remained below clinical or sub-clinical levels at post-treatment.

Conclusions and Assessment of Applicability for the Australian Context

Results demonstrated that ITCT when delivered in a 'real-world' setting is effective at improving common trauma symptoms related to a range of adverse experiences in childhood and adolescence, particularly posttraumatic stress, anxiety, and depression. However, the evidence for ITCT assessed in this REA is small (single study), non-experimental, and dated (data from 2001-2009). As there was no control group or follow-up measurement period in this study, conclusions regarding the effectiveness of ITCT over another treatment cannot be made, nor can conclusions be made about the maintenance of any treatment gains. The International Society for Traumatic Stress Studies, in their guidelines position paper on complex PTSD in children and adolescents, states that there is not enough evidence to recommend a particular treatment for complex PTSD in children (ISTSS Guidelines Committee, 2018a). However, the companion position paper on adult treatment proposes that research should "evaluate the benefits of multi-component treatments where the components are selected and ordered in a flexible manner according to the salient symptoms and problems of a particular patient" (ISTSS Guidelines Committee, 2018b, p. 5). ITCT offers such an approach to treatment and a reduction in clinical scores on the TSCC following ITCT intervention is promising. However, the multi-modal approach to treatment means it is impossible to assess from the available evidence what active ingredients may have been effective in reducing symptoms. The reliance of ITCT on individual therapist skills and training also means that treatment is likely to be highly variable, or treatment may be restricted to expert therapists only meaning accessibility for clients may be limited. Given the ISTSS guidelines recommending flexible multi-component treatment, these particular limitations are unlikely to be unique to ITCT.

The trauma experiences of the clients in the included study have good overlap with the Australian population of children and adolescents who have experienced child abuse and neglect, including polyvictimisation. The program was developed to be culturally and contextually sensitive and while this is of critical importance, ITCT was developed, and implemented in the included study, in the USA. As such, the applicability of the evidence to Aboriginal and Torres Strait Islander people and the

Australian context requires further evaluation. If ITCT were to be considered for use with the Australian population, it is recommended - given the limited evidence - that this includes close examination of the program model, theory of change, and safety practices by a panel of clinical experts with relevant expertise (see Burgess & Paton, 2021 for a clinical review which is a companion piece to this REA), cultural governance, and a comparative evaluation running alongside implementation to assess the suitability of ITCT relative to other childhood trauma treatments.

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