The data behind the dissemination: a systematic review of trauma-focused cognitive behavioral therapy for use with children and youth

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CRD summary
The review found that trauma-focused cognitive behavioural therapy was effective for treating post-traumatic stress syndrome in young people. These findings should be interpreted with caution due to limitations in the review including the small amount of evidence available, high drop-out rates in individual trials and lack of assessment of statistical variation between the studies.

Authors' objectives
To evaluate the effectiveness of trauma-focused cognitive behavioural therapy for treating symptoms of post-traumatic stress, depression and behaviour problems in young trauma survivors.

Searching
Eight databases including MEDLINE and PsycINFO were searched for studies completed from 1990 to 2011 in any language, apparently without limitation by publication status. Search terms were reported. References on a specialist web site were checked and treatment developers were consulted.

Study selection
Eligible studies were randomised controlled trials (RCTs) of trauma-focused cognitive behavioural therapy or a highly similar intervention versus any comparator to treat participants (younger than 18 years) who had survived a traumatic event. The primary outcome (which trials were required to report) was symptoms of post-traumatic stress disorder. Other outcomes of interest were depression and behaviour problems. The intervention could comprise the manualised (branded) version of trauma-focused cognitive behavioural therapy (Cohen 2006), or versions that included at least four of its key components.

Participants were aged three to 18 years (where reported). In most included trials, the participants had been exposed to sexual abuse, violence or trauma, and had symptoms of post-traumatic stress. Some of the trials used branded trauma-focused cognitive behavioural therapy, but most used a similar intervention with at least four of its components. The interventions were delivered to individuals and/or their parents and caregivers by university-trained or community clinicians, school counsellors or teachers (where reported). The treatment regime ranged from eight to 20 weeks, with weekly sessions of 50 to 90 minutes. Control groups received a non-active comparison of waiting list control, standard community care, or attention control (child-centred therapy or non-directive supportive therapy); some control groups received an active comparison (child cognitive behavioural therapy). No trials of the branded intervention included an active comparison. Outcomes were reported at the end of treatment or at 12 months follow-up using a wide range of assessment instruments.

Two reviewers independently selected the studies.

Assessment of study quality
Trial quality was assessed using criteria for design, selection methods, potential confounding, data collection, missing data, intervention integrity and statistical analysis.

The authors did not state how many reviewers conducted the assessment.

Data extraction
Data were extracted to calculate effect sizes (standardised mean differences, Hedges g) based on the difference between mean end-scores in the two groups, along with 95% confidence intervals (CIs). Trial authors were contacted to request additional data, but missing end scores and/or standard deviations were estimated from the data available if necessary.
The authors did not state how many reviewers extracted the data.

**Methods of synthesis**

Trials were pooled using an inverse variance random-effects model to calculate pooled effect sizes with 95% confidence intervals. Three separate analyses were conducted according to the definition of the intervention (branded trauma-focused cognitive behavioural therapy only, branded cognitive behavioural therapy plus interventions including all five key components, branded cognitive behavioural therapy plus interventions including at least four key components).

**Results of the review**

Ten trials with 881 participants were included in the review. Sample sizes ranged from 24 to 183. All trials were rated as high quality. All the trials used widely-used measurement scales and appropriate analytic methods and took steps to ensure intervention integrity. However, drop-out rates ranged from 22% to over 70% in seven trials. One trial did not blind outcomes assessment. It was unclear whether assessment was blinded in four trials.

Pooled estimates were similar regardless of the criteria used to define the cognitive behavioural therapy intervention; the authors focused on the analyses that used the most inclusive definition of the intervention. When all trials were pooled, the intervention was associated with significant reduction in post-traumatic stress symptoms compared with all control conditions, immediately after treatment (moderate effect size: 0.671, 95% CI 0.527 to 0.815; 10 RCTs) and at 12-month follow-up (modest effect size: 0.389, 95% CI 0.149 to 0.630; three RCTs).

Findings for depression and behaviour problems showed a small positive effect from the intervention immediately after treatment (10 RCTs), but findings were no longer significant at 12 months (three RCTs).

When trauma-focused cognitive behavioural therapy was compared with an active comparison immediately after treatment, there was no significant difference between the groups for any outcome (two RCTs).

**Authors’ conclusions**

Trauma-focused cognitive behavioural therapy was effective for treating post-traumatic stress syndrome in young people.

**CRD commentary**

The review objectives and inclusion criteria were clear. Relevant sources were searched for studies with no restriction by language or (apparently) publication status. The risk of publication bias was not formally assessed. It was unclear whether quality assessment and data extraction were carried out with sufficient attempts (independent duplicate processes) to minimise reviewer bias and error.

High drop-out rates and lack of detailed information about individual trial quality made it difficult to assess the reliability of review findings. Statistical heterogeneity was not assessed and no forest plot was presented, so it was difficult to determine whether the trials were sufficiently similar to justify statistical pooling. As the authors noted, the review was limited by the small number of trial available, low sample sizes, potential confounding due to common core elements in the intervention and active control treatments, and variation between the trials for treatment and session length.

The authors’ findings should be interpreted with caution due to limitations in the review including the small amount of evidence available, high drop-out rates in individual trials and lack of assessment of statistical variation between the trials.

**Implications of the review for practice and research**

**Practice:** The authors stated that trauma-focused cognitive behavioural therapy may be effective for depression and problem behaviour in young traumatised people, as well as reducing symptoms of post-traumatic stress syndrome. They also stated that interventions that were highly similar to branded trauma-focused cognitive behavioural therapy were likely to produce similar results.

**Research:** The authors stated that trauma-focused cognitive behavioural therapy should be compared with other interventions popular with clinicians, such as Eye Movement Desensitisation and Reprocessing and manualised forms of
play therapy. They also recommended research on the effects of the individual components of trauma-focused cognitive behavioural therapy.

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