What Works *for* Children's Social Care

CARDIFF UNIVERSITY
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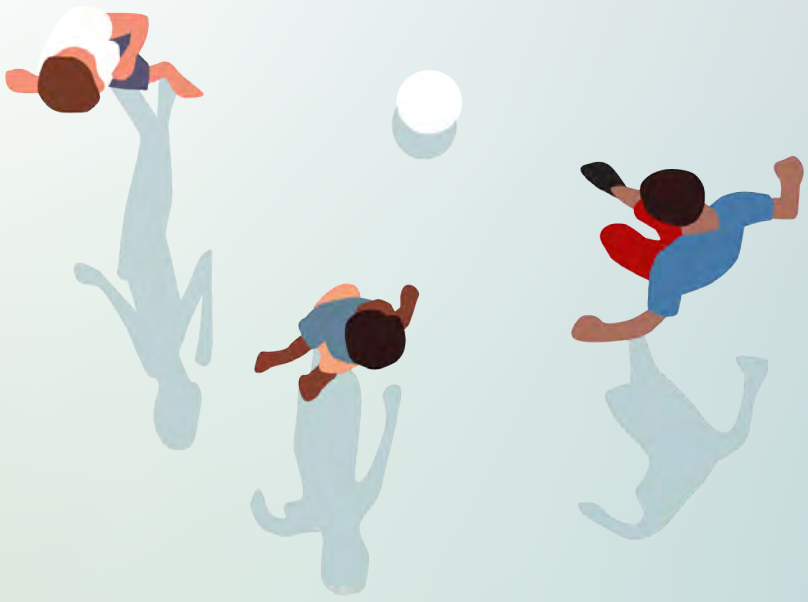
# EMMIE SUMMARY

## Psychotherapeutic treatments for children with complex Post-Traumatic Stress Disorder following childhood maltreatment



What Works *for* Children's Social Care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## This evidence summary is based on the following systematic review


Leenarts, L., Diehle, J. Doreleijers, T. A. Jansma, E. P. and Lindauer, R. J. 2012. Evidence-based treatments for children with trauma-related psychopathology as a result of childhood maltreatment: A systematic review. *European Child & Adolescent Psychiatry* 22(5), 269–283


## About What Works for Children's Social Care

What Works for Children's Social Care seeks better outcomes for children, young people and families by bringing the best available evidence to practitioners and other decision makers across the children's social care sector. We generate, collate and make accessible the best evidence for practitioners, policy makers and practice leaders to improve children's social care and the outcomes it generates for children and families.

## About CASCADE

The Children's Social Care Research and Development Centre (CASCADE) at Cardiff University is concerned with all aspects of community responses to social need in children and families, including family support services, children in need services, child protection, looked after children and adoption. It is the only centre of its kind in Wales and has strong links with policy and practice.

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# PSYCHOTHERAPEUTIC TREATMENTS FOR CHILDREN WITH COMPLEX POST-TRAUMATIC STRESS DISORDER FOLLOWING CHILDHOOD MALTREATMENT

## What is the intervention?

This is a systematic review of psychotherapeutic treatments for children which focus on a wide range of psychopathological outcomes following their exposure to abuse and/or neglect. These outcomes included a range of trauma-related psychopathology including Post-Traumatic Stress Disorder (PTSD), anxiety, depression, substance misuse in addition to reduced capacity for affective and interpersonal self-regulation. This systematic review, carried out by Leenarts and colleagues in 2012, aimed to evaluate the effectiveness of psychotherapeutic treatments including trauma-focused cognitive, behavioural, or cognitive-behavioural techniques. The review encompassed a diverse range of treatments across the 33 included studies, including:

- Child and Family Traumatic Stress Intervention
- Child-centred therapy
- Child-parent psychotherapy
- Cognitive processing therapy
- Eye Movement Desensitisation and Reprocessing
- Fostering Healthy Futures
- Imagery rehearsal therapy
- Individual/Group Coping Koala
- Life story intervention
- Mental health for immigrant therapy
- Multi-systemic therapy for child abuse and neglect
- Prolonged exposure therapy for adolescents
- Risk reduction through family therapy
- Seeking Safety
- The Sanctuary model
- Therapist-assisted web-based therapy
- Time-limited dynamic psychotherapy for adolescents
- Trauma affect regulation for education and therapy
- Trauma intervention for adjudicated and at-risk youth (SITCAP-ART)
- Trauma-focused art-therapy
- Trauma-Focused Cognitive-Behavioural Therapy
- Youth Relationships Project

Treatments varied in relation to age and status of children targeted, delivery setting and the nature of the treatment. For example, some treatments required exposure to

the traumatic event through discussion, imagining or visualisation, while others focused on talking therapies. Such variation, as well as differences in study quality, made it difficult to synthesise results. To aid clarity, this EMMIE Summary is focused on one intervention in particular, Trauma-Focused Cognitive-Behavioural Therapy, as this intervention was reported by five[1] of the 33 academic papers, comprising 778 participants. Trauma-Focused Cognitive-Behavioural Therapy is a well-established treatment for children and adolescents based on trauma-specific cognitive-behavioural techniques. Trauma-Focused Cognitive-Behavioural Therapy includes the teaching of coping skills, relaxation techniques and psychoeducation. In addition, it includes gradual exposure aimed at developing the child's management of fear and anxiety.

## Which outcomes were studied?

The review reported one main outcome:

- Psychopathological outcomes

### How strong is the evidence?

All five Trauma-Focused Cognitive-Behavioural Therapy studies had relatively small sample sizes, with some studies comprising less than 100 children in each group. With such small samples there is the risk of overestimating results. Further, the reasons for variation in effect sizes from 0.22 to 0.70 were unclear. The review authors suggest this may be due to variation across the studies regarding the use of comparison groups, attrition rates and the sensitivity of the measures used to assess PTSD.

Limitations in study reporting meant that implementation fidelity could not be ascertained and risk of bias was unclear across several items. Moreover, four of the five studies were undertaken by the developers of Trauma-Focused Cognitive-Behavioural Therapy and, as such, there is the potential for bias.

None of the five studies reported findings relating to possible side effects of Trauma-Focused Cognitive-Behavioural Therapy. The review authors highlight the need for information relating to possible increases in symptoms, the development of new symptoms and potential treatment dependency. Finally, none of the included studies assessed the measures designed to assess PTSD.

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[1] Cohen, Deblinger, Mannarino and Steer (2004); Cohen, Mannarino and Knudsen (2005); Cohen, Mannarino and Iyengar (2011); Deblinger, Mannarino, Cohen, Runyon and Steer (2011); Weiner, Schneider and Lyons (2009)

## Effectiveness: how effective are the interventions examined?

Outcome 1: Psychopathological outcomes

| | |
|---|---|
| Effect rating | + |
| Strength of Evidence rating | 2 (moderate) |

The studies varied in the measures they used to assess PTSD. For example, some studies used an instrument reflecting the diagnostic criteria of PTSD (DSM IV) and in doing so reported on the clusters that make up PTSD (i.e. re-experiencing, avoidance or numbing and hyper-arousal). Other studies merely reported a total PTSD score. This rendered it difficult to compare findings of studies. We can, however, draw useful conclusions relating to PTSD and related symptoms.

The five studies found effect sizes ranging from 0.22 to 0.70 based on a total of 778 participants. This demonstrates a low to medium effect size regarding the extent to which Trauma-Focused Cognitive-Behavioural Therapy reduced symptoms of PTSD. It must also be noted that many of the comparison treatments[2] also produced positive results, but Trauma-Focused Cognitive-Behavioural Therapy was found to be the superior model in many of the studies, on certain outcomes.

In a one-year follow up study (Cohen et al. 2005) including 82 sexually abused children and their primary caregivers, Trauma-Focused Cognitive-Behavioural Therapy was shown to be superior to non-directive supportive therapy in producing a durable improvement in depressive, anxiety, sexual concern symptoms (which includes sexual preoccupation and sexual distress sub-scales), PTSD and dissociative symptoms.

Findings for Trauma-Focused Cognitive-Behavioural Therapy (TF-CBT) with 124 children exposed to intimate partner violence and their non-offending mothers (Cohen et al. 2011) showed greater reductions for two of the PTSD cluster measures, hyper-arousal and avoidance symptoms, than Child-Centred Therapy. In a study of 229 children and their primary carers, TF-CBT demonstrated a significantly larger improvement compared with Child-Centred Therapy on measures for PTSD, depression, behaviour problems, shame and abuse-related attributions (Cohen et al. 2004). Parents also showed improvements in depression, abuse-specific distress, support of the child, and effective parenting practice. Deblinger et al. 2011 investigated the potential importance of the trauma narrative (TN) component of TF-CBT. Results based on 210 children showed some support for the use of TN within treatment.

[2] Non-directive Supportive Therapy, Child-Centered Therapy, Child-Parent Psychotherapy and Structured Psychotherapy for Adolescents Responding to Chronic Stress

## Other interventions

Three randomised controlled trials, based on 81 participants, revealed Eye Movement Desensitisation and Reprocessing to be an effective intervention in treating PTSD. Two of the studies (Ahmad et al. 2007; Shapiro 1989) reported small and medium (0.08, 0.52) between group effect sizes when compared to the untreated group and those who received CBT, respectively. The third study (Soberman et al. 2002) could not report a between group effect size but reported a trend towards a decrease in overall PTSD symptoms. The review authors note that conclusions for Eye Movement Desensitisation and Reprocessing are limited due to methodological shortcomings and small sample sizes, but findings are promising considering the short duration of the treatment.

A number of other approaches reported promising findings but due to methodological shortcomings, we must be cautious in interpreting these.

Promising results were found in seven studies that evaluated the use of diverse forms of CBT. Six of these studies found adequate between group effect sizes (Jaberghaderi et al. 2004; Kataoka et al. 2003; King et al. 2000; Runyon et al. 2010; Smith et al. 2007; Stein et al. 2003). The remaining study (Deblinger et al. 2001) showed improvements to body safety skills and several outcomes for non-offending mothers and reported a small between group effect size (0.07).

Treatments using art also showed encouraging results (Lyshak-Stelzer et al. 2007; Pretorious and Pfeiffer, 2010). Reviewers indicated its potential benefit as a non-verbal tool for children to express their feelings (Lyshak-Stelzer et al. 2007). Additionally, Pretorious and Pfeiffer (2010) found significant improvements compared to the control group, on measures for anxiety and depression in sexually abused girls. Both studies were limited by sample size.

The single study that evaluated Child Parent Psychotherapy (Weiner et al. 2009) demonstrated its potential use with minority ethnic young people, which reported small between group effect sizes.

Two studies evaluated four separate programmes that aimed to promote positive alternatives to aggressive or violent behaviour. However, between-group effect sizes could not be computed (Swenson et al. 2010; Wolfe et al. 2003). Reviewers note the need to investigate this further due to the link between chronic childhood maltreatment and aggressive behaviour.

The reviewers note that many of the other treatments included are in need of further research to be able to identify any meaningful conclusions. Reviewers also highlighted the need to recognize treatments focusing on mental health problems other than PTSD, due to the link between childhood maltreatment and a broad range of psychopathological outcomes.

## Mechanisms: How does it work?

The review focused on effect and did not explore the causal pathways that might lead to the differences found. However, the authors note that there is strong theoretical evidence supporting the use of Cognitive-Behavioural Therapy for children with trauma-related psychopathology.

## Moderators: When, where and who does it work for?

All the Trauma-Focused Cognitive-Behavioural Therapy studies were conducted in the USA. The applicability of the evidence to a UK context may be limited.

Across the studies children ranged from 3-18 years with the majority falling between 8 and 15 years old. In terms of gender, there was a combination of males and females, with 38% male. Trauma-Focused Cognitive-Behavioural Therapy has also demonstrated its efficacy with minority ethnic young people, having been trialled with a racially diverse group of young people in foster care. The authors emphasised the importance of considering cultural barriers that can disrupt treatment.

The length of treatment in the five studies ranged from 8-20 weeks. However, the findings showed that eight-sessions of Trauma-Focused Cognitive-Behavioural Therapy with a trauma narrative (TN) produced larger improvements in symptoms, child safety skills as well as parenting skills, than a comparative condition without TN. Conversely, 16-sessions of TF-CBT without TN showed greater increases in effective parenting practices and fewer externalising child behaviours than comparative treatment with TN. This may be the result of the former group dedicating more time to parenting training.

All these studies included some level of parental/caregiver involvement. Some involved joint sessions with both child and parent and others included individual sessions for both parties. One study included just non-offending mothers and children. Due to the variation in the nature of parental inclusion, it is difficult to say with any certainly the most advantageous ways in which parents should be involved in these therapies.

Reviewers note that previous research has suggested a phased approach to treatment. However, none of the treatments evaluated as part of this review explicitly adopted this approach.

## Implementation: How do you do it?

Trauma-Focused Cognitive-Behavioural Therapy is delivered by a therapist. The model involves a number of core components based on trauma-specific cognitive behavioural techniques. Techniques include: coping skills, relaxation techniques, stress-management, and psycho-education. These aim to modify negative thoughts

and behaviours and bring about a better understanding of body safety skills, for example.

Another fundamental element is gradual exposure, which involves confrontation of any memories or distressing thoughts they have of the trauma experience. This is often referred to as creating a child's trauma narrative and aims to develop the child's management of fear and anxiety. This element is gradually introduced as the programme progresses. In the early sessions, initial discussions of the traumatic event or memory is kept to a minimum and avoids thoughts that may be too anxiety provoking. As the programme progresses, discussion of the events becomes more detailed and specific. This is done via methods such as drawing and writing, for example.

Parental involvement is also considered integral to the process, though its nature can vary. This often includes individual sessions and joint sessions with the child and involves elements such as parenting skills training and psycho-education.

## Economics: What are the costs and benefits?

No economic analysis is included in the study and cost-effectiveness is not mentioned.

## What are the strengths and limitations of the review?

The systematic review is a rigorous assessment of the effectiveness of treatments aimed at children with trauma-related psychopathology as a result of childhood maltreatment. The authors were thorough in their search strategy and used the Cochrane collaboration's tool to assess individual study quality. Study quality was evaluated independently by two authors. Nonetheless, there are a number of limitations of the review and the underlying studies upon which it is based.

The heterogeneous nature and lack of quality of studies on many of the treatments meant that we could only look at one treatment in depth, which is based on five of the 33 studies. Further research should be undertaken to look at each of the other treatments in depth as some indicate promising results. Additionally, the included papers refer to a PTSD diagnostic criteria that needs further assessment and validation.

### Summary of key points

- The heterogeneity of research in this area makes it difficult to from definitive conclusions. More research is needed into the effectiveness for different forms of psychotherapeutic treatments.

- Trauma-Focused Cognitive-Behavioural Therapy has a low to medium effect in reducing the symptoms of PTSD for children who have been exposed to abuse and/or neglect.

- There were promising findings for a range of treatments including Eye Movement Desensitisation and Reprocessing, Cognitive-Behavioural Therapy, treatments using art, Child-Parent Psychotherapy, Youth Relationships Project and Systematic training for effective parenting of teens which warrant further research.

- All of the TF-CBT studies are from the USA and so we do not know how the findings relate to the UK context.

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