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The effect of interventions for children who have experienced violence in close relationships

An overview of reviews

folkehelseinstituttet

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Key messages

Violence against children is an important public health concern across the world. Such violence may take many forms, including physical, sexual, emotional, neglect or deprivation. The consequences of violence are significant, including depression and anxiety. Therefore, it is important to find effective interventions for children who have experienced violence.

We conducted a systematic review evaluating the benefits and harms of interventions for children who have experienced violence in close relationships. Key findings of this overview of reviews are based on the evidence of five moderate to high quality systematic reviews. We categorized the interventions into psychotherapy and treatment foster care. The results suggest that:

- Branded version trauma focused cognitive behavioural therapy may slightly decrease post traumatic stress disorder symptoms (low certainty of evidence).

- The effects of other psychotherapeutic interventions on post traumatic stress disorder, adverse events, and caretaker and child relationship outcomes (i.e. attachment) are uncertain (very low certainty of evidence). These psychotherapeutic interventions include child parent psychotherapy, individual or group cognitive behavioural therapy, group psychotherapy, play therapy, and psychodynamic therapy.

- It is uncertain whether nurse home visiting, parent-child interaction therapy, trauma focused cognitive behavioural therapy and individual cognitive behavioural therapy prevent/improve adverse event outcomes (e.g. recurrance of maltreatment or safety) (very low certainty of evidence).

- It is uncertain whether treatment foster care interventions improve mental health, quality of life, cognition, parental and caretaker child relationship and placement outcomes. Examples of these interventions are Nurse Home Visiting, Fostering Healthy Futures, Incredible Years, Enhanced Foster Care (very low certainty of evidence).

Title:
The effect of interventions for children who have experienced violence in close relationships: an overview of reviews

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Type of publication:

Overview of reviews

Doesn't answer everything:

- No pharmacological, complementary or primary prevention interventions
- No economic impact of interventions.
- No barriers or enablers for participation in the interventions
- No violence related to bullying and cyberbulling

Who is responsible for this publication?
The Norwegian Institute of Public Health completed this report, which was commissioned by the Norwegian Directorate for Children, Youth and Family Affairs (Bufdir).

When were the literature searched?
Literature searches were conducted in September 2015.

Peer referees:
Svein Mossige, UiO
Bente Heggem Kojan, NTNU

Executive summary

Background

Violence against children is an important public health concern. Millions of children across the world experience violence. There is strong evidence linking early life violence to psychological problems (e.g. depression, anxiety) and behavioural problems (e.g. suicide attempts, self-harm, poor employment prospects).

If effective interventions can be identified, these will help children to stay healthy, enable them to live an active and productive life, contribute to society, and enjoy life.

Objective

The aim of this overview of reviews was to investigate the effect of interventions for children who have been exposed to violence in close relationships.

Method

We conducted an overview of reviews in accordance with the Knowledge Centre's handbook. We searched eleven databases up to September 2015, unrestricted by language, to identify potentially relevant systematic reviews.

Two review authors independently selected systematic reviews for inclusion. They extracted data, and assessed the quality of the body of evidence for the major outcomes (i.e. post-traumatic stress disorder, mental health, adverse events, cognition, quality of life, caretaker and child relationship, and placement) using the GRADE approach (Grading of Recommendations Assessment, Development and Evaluation).

Results

We included five moderate to high quality systematic reviews published between 2008 and 2013. The reviews included interventions targeting children from 0 to 18 years; one review included children from 0 to 14 years. We classified the interventions into psychotherapy and treatment foster care. The comparator intervention was either another active intervention or treatment as usual.

Psychotherapy interventions

Six psychotherapeutic interventions were included: child-parent psychotherapy, cognitive behavioural therapy, group psychotherapy for sexually abuse girls, play therapy, psychodynamic therapy, and trauma focused cognitive behavioural therapy.

The outcomes evaluated by these interventions were post-traumatic stress disorder (PTSD), adverse events, and the relationship between the caretaker and the child (i.e. attachment). The pooled results in one review, which concerned the effect of trauma focused cognitive behavioural therapy (TF-CBT), indicate the intervention may slightly improve symptoms of PTSD (3 trials, n=389; standardized mean difference (SMD) 0.40, 95%CI 0.20 lower to 0.60 lower) at 12 weeks post intervention. However, the remaining evidence suggests it is uncertain whether these interventions decrease symptoms or improve the relationship between the caretaker and the child because the certainty of the evidence is very low.

Treatment Foster Care interventions

Eleven treatment foster care interventions were included: attachment and biobehavioural catch up, Enhanced Foster Care, Fostering Healthy Futures, Fostering Individualized Assistance Programme, Incredible Years, Keeping Foster and Kinship Parents Trained and Supported, Middle School Success, Multidimensional Treatment Foster Care, Nurse Home Visitation, Parent Child Interaction Therapy, and Treatment Foster Care.

The outcomes evaluated by these interventions were adverse events, cognition, mental health, quality of life, caretaker and child relationship (e.g. attachment) and placement (e.g. permanency). The results of these interventions suggest it is uncertain if they improve/decrease outcomes because the certainty of the evidence is very low.

Discussion

We included five moderate to high quality systematic reviews, which in total included 37 primary studies. They concerned the effect of interventions for children exposed to violence. The results from these reviews suggest that branded TF-CBT may slightly decrease PTSD symptoms. Despite ongoing research in the area, there is uncertain evidence about the effect of other psychotherapeutic (e.g. CBT, psychodynamic, and play therapy) and treatment foster care interventions (e.g. Middle School Success, Enhanced Foster Care) for children exposed to violence. Only three reviews reported on adverse events.

Unfortunately, there is little knowledge about effective interventions for children who have experienced violence.

Conclusion

In conclusion, this overview of reviews identified and summarized information from five systematic reviews of moderate to high methodological quality. It found low to very low quality evidence of the effect of interventions for children who have experienced violence.

There were weaknesses in some of these reviews which reduce our confidence in the results and their implications for practice. Policy makers, health professionals, social workers, parents and carers working with maltreated children need to be informed of the lack of solid evidence on the effects of the aforementioned interventions when working towards improving the lives of these children.

Hovedfunn (Norwegian)

Vold mot barn er et viktig tema som vekker bekymring over hele verden. Volden kan utøves fysisk, seksuelt, emosjonelt, være forsømmende eller nedverdigende. Konsekvensene av vold mot barn er alvorlige, slik som depresjon og angst. Det er derfor viktig å finne virkningsfulle tiltak for barn som har vært utsatt for vold.

Vi utførte en systematisk oversikt som vurderte effekten av tiltak for barn som har vært utsatt for vold i nære relasjoner. Hovedfunnene i denne rapporten er basert på dokumentasjon fra fem systematiske oversikter med moderate til høy metodisk kvalitet. Tiltakene ble kategoriserte som enten psykoterapi eller fosterhjem. Resultatene viste:

- 'Branded' versjon av traumefokusert kognitiv atferdsterapi kan redusere symptomer på posttraumatisk stresslidelse litt (vi har lav tillit til dokumentasjonen).
- Effektene av andre psykoterapier på posttraumatisk stresslidelse, samt uønskede hendelser og tilknytning mellom foreldre og barn er usikker (vi har veldig lav tillit til dokumentasjonen). Andre psykoterapier inkluderer her barn-foreldre psykoterapi, individ- eller gruppebasert kognitiv atferdsterapi, gruppepsykoterapi, lek-terapi, psykodynamisk terapi.
- Det er usikkert om hjemmebesøk av sykepleier, foreldre-barn interaksjonsterapi, traumefokusert kognitiv atferdsterapi og individuell kognitiv atferdsterapi forhindrer eller forbedrer uønskede hendelser, f.eks. tilbakefall av mishandling eller sikkerhet (vi har veldig lav tillit til dokumentasjonen).
- Det er usikkert om tiltak relatert til fosterhjem forbedrer mental helse, livskvalitet, kognisjon, forhold mellom barn og foreldre eller omsorgspersoner og plasseringsutfall. Eksempler på tiltak relatert til fosterhjem er hjemmebesøk av sykepleier, 'Fostering Healthy Futures', 'Incredible Years' (vi har svært lav tillit til dokumentasjonen).

Tittel:
Effekten av tiltak for barn som har opplevd vold i nære relasjoner: en oversikt over oversikter

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Publikasjonstype:
Oversikt over oversikter

Svarer ikke på alt:

- Ingen primære, farmakologiske eller komplementære tiltak
- Ingen økonomiske konsekvenser av tiltak
- Ingen fremmende eller hindrende faktorer for deltakelse i tiltakene
- Ingen vold knyttet til mobbing og nettmobbing

Hvem står bak denne publikasjonen?
Folkehelseinstituttet har utført denne systematiske oversikten på oppdrag fra Barne-, ungdoms- og familiedirektoratet (Bufdir).

Når ble litteratursøket gjennomført:
Søk etter studier ble avsluttet i september 2015.

Eksterne fagfeller:
Svein Mossige, UiO
Bente Heggem Kojan, NTNU

Sammendrag (Norwegian)

Bakgrunn

Vold mot barn er et viktig folkehelseproblem. Millioner av barn over hele verden opplever vold. Det fins mye dokumentasjon som knytter vold i tidlig alder til psykiske problemer, som depresjon, angst, og atferdsproblemer som selvmordsforsøk, selvskading og dårlig arbeidsdeltakelse.

Dersom virkningsfulle tiltak kan identifiseres vil de hjelpe barn til å holde seg friske, gjøre dem i stand til å leve et aktivt og produktivt liv, bidra til samfunnet og nyte livet.

Problemstilling

Formålet med denne oversikten over oversikter var å undersøke effekten av ulike tiltak for barn som har vært utsatt for vold i nære relasjoner.

Metoder

Vi utførte en oversikt over oversikter i henhold til Kunnskapssenterets metodehåndbok. Vi søkte etter litteratur i elleve databaser opp til september 2015, uten begrensninger på språk, for å identifisere potensielle relevante systematiske oversikter.

To oversiktsforfattere valgte uavhengig av hverandre ut de oversiktene som møtte inklusjonskriteriene. De hentet deretter ut data og vurderte kvaliteten på dokumentasjonen for hovedutfallene (dvs. posttraumatisk stresslidelse, mental helse, uønskede hendelser, kognisjon, livskvalitet, forhold mellom omsorgsperson og barn, plassering) ved hjelp av GRADE tilnærmingen (Grading of Recommendations Assessment, Development and Evaluation).

Resultat

Vi inkluderte fem systematiske oversikter som var publisert mellom 2008 og 2013. De hadde moderat til høy metodisk kvalitet. Oversiktene inkluderte tiltak rettet mot barn fra 0 til 18 år; én oversikt inkludert barn fra 0 til 14 år. Vi klassifiserte tiltakene som psykoterapi eller som behandling i fosterhjem. Sammenligningene var enten et annet aktivt tiltak eller vanlig praksis.

Psykoterapeutiske tiltak

Seks psykoterapeutiske tiltak ble inkludert: barn-foreldre psykoterapi, kognitiv atferdsterapi, gruppe psykoterapi for seksuelt misbrukte jenter, spillterapi, psykodynamisk terapi, og traumefokusert kognitiv atferdsterapi.

Utfallene vurdert av disse tiltakene var post-traumatisk stresslidelse (PTSD), uønskede hendelser, og forhold mellom barn og foreldre eller forsørgere, det vil si tilknytning. Det samlede resultatet i oversikten som omhandlet effekten av traumefokusert kognitiv adferdsterapi (TF-CBT), indikerer at tiltaket muligens forbedrer symptomer på PTSD litt (3 studier, n = 389; standardisert gjennomsnittsdifferanse (SMD) 0,40, 95% CI 0,20 lavere til 0,60 lavere) 12 uker etter tiltaket. Resten av dokumentasjonen tyder på at det er usikkert om disse tiltakene reduserer symptomene eller forbedrer forholdet mellom forsørger og barn, siden tilliten til dokumentasjonen er svært lav.

Behandling i fosterhjem

Elleve tiltak med behandling i fosterhjem ble inkludert: Attachment and biobehavioural catch up, Enhanced Foster Care, Fostering Healthy Futures, Fostering Individualized Assistance Programme, Incredible Years, Keeping Foster and Kinship Parents Trained and Supported, Middle School Success, Multidimensional Treatment Foster Care, Nurse Home Visitation, Parent Child Interaction Therapy og Treatment Foster Care.

Utfallene som disse tiltakene vurderte var uønskede hendelser, kognisjon, psykisk helse, livskvalitet, forsørger-barn forhold (tilknytning) og plassering (varighet). Resultatene av disse tiltakene viser at det er usikkert om de forbedrer eller reduserer utfallene fordi tilliten til dokumentasjonen er svært lav.

Diskusjon

Vi inkluderte fem systematiske oversikter av moderat til høy metodisk kvalitet som til sammen inkluderte 37 primærstudier. Oversiktene undersøkte effekten av tiltak for barn som har vært utsatt for vold. Resultatene fra disse oversiktene tyder på at 'Branded' og 5-komponent TF-CBT reduserer PTSD symptomer litt. Til tross for pågående forskning om temaet er det usikker dokumentasjon når det gjelder effekten av andre psykoterapier (f.eks. CBT, psykodynamisk terapi, og spill-terapi) og behandling i fosterhjem (f.eks. Middle School Success, Enhanced Foster Care) for barn som har vært utsatt for vold. Bare tre oversikter rapporterte om uønskede hendelser.

Vi har dessverre fortsatt lite kunnskap om virkningsfulle tiltak for barn som har vært utsatt for vold.

Konklusjon

Denne oversikten over oversikter identifiserte og oppsummerte informasjon fra fem systematiske oversikter av moderat til høy metodisk kvalitet. Den fant kun dokumentasjon av lav- til svært lav kvalitet når det gjelder tiltak for barn som har vært utsatt for vold.

Det var svakheter i flere av disse oversiktene som reduserer vår tillit til resultatene og implikasjoner for praksis. Beslutningstakere, helsearbeidere, sosialarbeidere, foreldre og omsorgspersoner som arbeider med barn som har vært utsatt for vold bør informeres om mangelen på solid dokumentasjon om effekten av de nevnte tiltakene når de jobber for å forbedre livene til slike barn.

Preface

The Knowledge Centre in the Norwegian Institute of Public Health was in April 2015 commissioned by the Norwegian Directorate for Children, Youth and Family Affairs (Bufdir) to conduct a systematic review evaluating the benefits and harms of interventions for children who have experienced violence in close relationships. In this overview of reviews we evaluate and summarise the evidence from systematic reviews of the effect of psychotherapy and treatment foster care interventions on various outcomes.

The Knowledge Centre in the Norwegian Institute of Public Health follows a common approach in summarizing research, documented in the manual "How we summarise the research."

Contributors to the project:
Project leader and researcher: Julia Bidonde, the Norwegian Institute of Public Health.
Researcher: Jose Menses, the Norwegian Institute of Public Health.
JB developed the project protocol, and led the project. Alongside with JM she screened and assessed quality of literature, extracted data, conducted the synthesis, and wrote up the report. The head of unit, Rigmor C Berg, commented on the protocol, early versions of the manuscript and provided feedback on the final report.

Internal contributors:
Dr. Kari Anne Leiknes, Senior Researcher, Specialist in Psychiatry, and
Doris Tove Kristoffersen and Yunpeng Ding, Statisticians at the Norwegian Institute of Public Health. These internal contributors provided specialized expertise for particular sections of this project.
We wish to acknowledge the internal peer referees Atle Fretheim and Gunn E. Vist for peer reviewing the protocol and final report.

Information specialists: Ingrid Harboe, the Norwegian Institute of Public Health developed the search strategy and performed the systematic search. Research librarian Gyri Hval Straumann peer reviewed the search strategy.

External contributor/specialist: Ulrika Christiana Håkansson, Child Psychologist.
Dr. Håkansson provided specialized expertise for particular sections of this project.

We also wish to acknowledge the external peer reviewers Professor Svein Mossige, Department of Psychology, University of Oslo, Associate Professor Bente Heggem Kojan from the Department of Applied Social Science Faculty of Health and Social Science,

Norwegian University of Science and Technology and Dr. Tine Jensen, Department of Psychology University of Oslo for their helpful comments

Declaration of interest:
Neither the authors nor the external peer referees state any conflicts of interest.

The aim of this report is to support well-informed evidence-based decisions in health- and social welfare services that lead to improved quality of services. We suggest that when meeting with individual children, the results of this overview should be considered in conjunction with other relevant factors, children's needs and clinical experience.

Signe Flottorp	Rigmor C Berg	Julia Bidonde
Head of Department	*Head of Unit*	*Project Leader*

Objectives

The aim of this project was to evaluate the benefits and harms of interventions for children who have experienced violence in close relationships.

This overview of reviews adopts UNICEF's, World Health Organization (WHO) and Per Isdal's definitions as stated below. In this report we use the terms 'violence' and 'maltreatment' interchangeably;

> For the purpose of this overview we defined a child as: "… human being below the age of 18 years unless, under the law applicable to the child, majority is attained earlier" as per the United Nations World report on Violence Against Children (1).
>
> We used the definition of violence according to the article 19 of the Convention on the Rights of the Child: "all forms of physical or mental violence, injury and abuse, neglect or negligent treatment, maltreatment or exploitation, including sexual abuse" (1).
>
> Child maltreatment "sometimes referred to as child abuse and neglect, includes all forms of physical and emotional ill-treatment, sexual abuse, neglect, and exploitation that results in actual or potential harm to the child's health, development or dignity" (2).
>
> This overview focusses on violence against children in close relationships which means that the assailant (or perpetrator) and the victim are related, friends or that they mean a lot to each other (3).

Background

Description of the condition

Violence against children remains a worldwide reality. It is recognized as an important international public health, human rights, legal and social issue (4). Violence against children takes many forms including physical, sexual, emotional, commercial and other forms of violence or exploitation, and neglect or deprivation. These forms of violence - shown through the World Report on Violence and Health (5) and the United Nations Secretary General's study on violence against children (6) - are widely prevalent in all societies. We have defined key terms used in this report in Appendix 1.

Research shows that early life stress, like violence, causes long lasting brain dysfunction that affects health and quality of life throughout the life span. The consequences of experiencing violence in a developing brain, are widely reported and acknowledged (7). Research shows that violence causes specific regions of the brain to fail to form or grow properly, resulting in impaired development (8, 9). As Tarullo points out "these alterations in brain maturation have long-term consequences for cognitive, language, and academic abilities and are connected with mental health disorders" (10).

The evidence linking early life violence to psychological (e.g. depression, anxiety) and behavioural problems (e.g. suicide attempts, self-harm, poor employment prospects) is strong (7, 11). Behavioural problems may show through impaired emotional functioning that can contribute to behavioural and interpersonal emotion dysregulation (i.e. a response that does not fall within the conventionally accepted range of emotive responses) (12). Psychological problems may manifest later in life. For instances, depression and anxiety. Sexual risk taking during adolescence and adulthood is common among young people exposed to sexual abuse, and additionally may lead to increased chances of contracting sexually transmitted diseases (12-14).

Economic costs of child violence are high for the child, the family and the society as a whole. Emerging evidence suggests that consequences of violence against children include an increased use of the healthcare system, increased use of the juvenile and adult criminal system, and it is associated with mental disorders. These consequences translate into productivity losses in adulthood at the cost of billions of Euros (4). A study funded by the Centre for Disease Control and Prevention found that "the total lifetime economic burden resulting from new cases of fatal and non-fatal child violence in the United states is approximately $124 billion" (15). Additionally, violence against children may be linked to unemployment and re-victimization (16).

How many children are affected by violence?

Determining the true number of affected children is problematic as different definitions, data collecting methods, and sources are used across countries. It is not uncommon to find different data trends across different types of violence. It is also important to consider that most cases are not reported at the time they happen (17), which is revealed by the number of retrospective reports from adults.

A WHO report (4) states that in the European region, child violence is common with a prevalence rate of 10% for sexual abuse, 23% for physical abuse and 30% for psychological abuse. Worldwide research shows that for physical neglect the prevalence is 16% and 18% for emotional neglect. Applying these figures to the population of children in Europe suggests that 18 million children suffer from sexual abuse, 44 million from physical abuse, and 55 million from psychological abuse.

Norway is not exempt from violence against children. Nearly 4% of children aged 0-17 years received some kind of help from child welfare service during 2014. Although not exclusively due to violence related issues, about one third of these children were placed outside of the family, usually in foster homes (18-20). According to the Norwegian Centre for Violence and Traumatic Stress Studies, one in 10 of Norwegian children witnesses a parent being subjected to violence, and many of these children are directly exposed to violence themselves (21). In the Norwegian general population, studies have reported a prevalence of physical abuse of 5–6% (22, 23). A recent literature review from the Nordic countries (24) showed a prevalence of child sexual abuse between 2-23% for boys and 11-36% for girls with an increased risk of abuse from early adolescence.

What are the risk factors for child violence?

Risk factors are difficult to assess and measure. Past research has focused on mental health and personality characteristics of the individual committing violence, especially the mother. Recent studies have taken a more holistic approach, examining a variety of factors pertaining to family members, the family system, and the environmental context (25). To date, we know a combination of contextual, individual, relational, community and social factors have to be contemplated while the risk of child violence is present.

Early research (26) found that there is a distinct set of factors that contribute to violence against children; substance abuse strongly associated with the onset of abuse and neglect. Chaffin found depression of the primary caregiver to be a strong risk factor for physical abuse. Brown's research (27), however, indicated that different patterns of risk factors predicted the occurrence of physical abuse, sexual abuse, and neglect, although maternal youth and maternal sociopathy predicted the occurrence of all three forms of child violence. In addition, Brown found that the prevalence of child abuse or neglect increased from 3% when no risk factors were present to 24% when four or more risk factors were present. A more recent study (28) indicated that the influence of socio-demographic factors varies by type of violence, so for example, while parents' education was associated with the risk of physical neglect, it is not associated with other types of neglect. Hussey (28) highlighted the critical role of poverty in the aetiology of

violence against children; children in low-income families were more likely to report physical neglect and sexual abuse even after adjusting for education and other socio-demographic factors.

There are also risk factors associated with biological variables; for example being younger than four years of age, being unwanted or having special needs that may increase caregiver burden (e.g. disabilities, mental health issues, and chronic physical illnesses) (29). There are also risk factors that deal with relationships; factors include issues such as bonding, parents' lack of understanding of children's needs, parenting skills, parents' history of child violence in family of origin, substance abuse and/or mental health issues, including depression in the family, parental characteristics such as young age, single parenthood, large number of dependent children, and low income (29).

A number of societal and community characteristics may increase the risk of violence against children (26). For example, social norms that encourage violence or absence of social welfare and policies to protect children including gender and social inequalities in the community, community tolerance of violence, easy access to alcohol and drugs, inadequate policies and programs to prevent child violence, child pornography, child prostitution and child labour, concentrated neighbourhood disadvantage (e.g. high poverty and residential instability, high unemployment rates, and high density of alcohol outlets), and poor social connections (30).

How the interventions may work

Research on interventions for child violence has primarily focused on symptoms, such as internalizing behaviours, psychiatric disorders, self-esteem, sexualized behaviours, parent-child relationships, and mental health symptoms such as anxiety and depression.

Interventions aimed at children exposed to violence may be influenced by a number of factors, including their age and developmental level. Interventions with younger children frequently involve play or art therapy while interventions for adolescents are more similar to adult oriented treatments (31, 32). Many interventions involve the offending or non-offending parents or caregivers, which aim to address some of the risk factors mentioned previously and reinforce what was discussed above during the intervention (33). In addition, many interventions use more than one modality to treat abused or neglected children and their families.

Treatment modalities

Several treatment modalities have been implemented. We identify and describe the most common ones below.

Individual treatment: is commonly used for children who have been maltreated. One-on-one treatment allows the clinician to provide an individualized interaction and therapeutic space for the child to develop the trust and relationship needed for the treatment (34).

Group therapy: an important and often preferred treatment modality for maltreated children. Both psychoanalytic and cognitive-behavioural type of interventions are commonly use in group format with children and adolescents. A group setting can provide the opportunity to learn patterns of interaction with other children and adults. It gives the clinician an opportunity to observe interpersonal skills with peers. Groups can be single or mixed gender and usually follow a developmental approach, limiting the age range of the children to within a few years (35).

Family therapy: often involves the offender parent as well as children and adolescents in the family who may not have been the ones abused or neglected. The focus of family therapy can be to improve relationships among family members as well as reducing symptoms in both parents and children (36).

Therapeutic foster care: involves a living situation consisting of individual treatment of one or more children living in a family foster home setting and community environment. It offers coordinated provision of services and use of procedures designed to produce a planned outcome in a person's behaviour, attitude, or general condition based on a thorough assessment of possible contributing factors. Treatment typically involves teaching adaptive, pro-social skills and responses that equip young people and their families with the means to deal effectively with the unique conditions or individual circumstances that have created the need for treatment. The therapeutic foster care parents are trained and supported to implement key elements of treatment (37).

Treatment orientations or styles

Several interventions for child violence have been investigated to date. We have defined some of those in Appendix 2. This list, although comprehensive, is not complete; we are aware that there are other treatment options not mentioned in the Appendix.

This overview of reviews is limited to effects of interventions for children who have experienced violence in close relationships. Thus, primary prevention interventions are not included. It is worth mentioning that some of the interventions in Appendix 2 could be implemented as primary or secondary interventions (e.g. Nurse Home Visiting).

Why is it important to do this overview of reviews?

The prevalence of child violence is still high in all societies around the world, and the emotional, psychological and societal consequences and costs are important. As violence continues to be present, there is a great need to identify effective interventions aiming to improve symptoms, behavioural or relational consequences. In this overview of reviews, we summarise the evidence from systematic reviews on benefits and harms of interventions for children 0 to 18 years who have experienced violence. If effective interventions can be identified, a lot can be saved in terms of personal suffering, helping children to stay healthy, and enabling them to live an active and productive life.

Methods

We conducted an overview of reviews evaluating and summarizing the effect of interventions for violence against children (38). This overview of reviews was conducted in accordance with the guidance for summarizing evidence described in the Knowledge Centre's handbook (39).

Objectives

To summarise and critically appraise the existing evidence from systematic reviews on the effects of interventions for children who have experienced violence in close relationships.

Inclusion criteria

This overview focused on systematic reviews of randomized controlled trials (RCTs). We accepted systematic reviews with all types of RCT designs (parallel group, crossover, or cluster). We used the population, intervention, comparison, outcome, time and study design (i.e. PICO-TS) framework to evaluate the suitability of reviews for inclusion (see Table 1).

Table 1: *PICO-TS framework*

Population	Children (0 to 18 years) who have experienced violence in close relationships (40)
Intervention	Any intervention aimed at improving the lives of children exposed to violence
Comparison	Any control or comparison group: *active controls* are comparison groups that receive another structured intervention. *Inactive controls* (e.g. wait list) are comparison groups that do not receive another structured intervention
Outcomes*	*Change from protocol "any outcomes" to cognition, harms, mental health, parental and caretaker child relationship, placement (i.e. permanency, length), post-traumatic stress disorder, and quality of life
Time frame	Published in 2005 or later

Study design	Systematic reviews meeting Knowledge Centre criteria and moderate to high AMSTAR methodological quality

Other inclusion criteria:

- Detailed description of an intervention.
- Provision of data and inclusion of at least one outcome relevant to this project.
- Inclusion of moderate to high income country primary studies' origin following the World Bank listing (41).
- Conducted in any setting (residential, hospital) and delivered by any service provider (social care, healthcare professional).

To determine inclusion of systematic reviews, we first considered a review as being systematic if it contained the characteristics stated by the Knowledge Centre's handbook (39): 1) the review must have a specified search strategy, 2) must contain clear inclusion criteria, and 3) must have evaluated the methodological quality of the included studies.

Exclusion criteria

We applied the following exclusion criteria:

- Overviews of reviews older than 3 years
- Systematic reviews that were of low methodological quality, older than 10 years, or with data that were not reported for children separately
- Violence not defined in accordance with this overview's definition, bullying or cyberbullying
- Pharmacological interventions only or those including alternative treatments, for example, alternative medicine, etc.
- Systematic reviews in which we were not able to determine if there was a control group in the included studies
- Clinical practice guidelines, conference abstracts and proceedings, books, book chapters, primary studies, animal or modelling studies
- Systematic reviews of female genital mutilation

Inclusion and exclusion criteria, and the seven outcomes were determined in collaboration with the commissioner.

Literature search

The search strategy was designed and executed by an information specialist. Searches were peer-reviewed by a second information specialist. The search was adapted to each database. We searched the following databases for systematic reviews up to September 2015:

- Ovid: Embase

- MEDLINE
- PsycINFO
- Cochrane Library: Cochrane Database of Systematic Reviews (CDSR), Other Reviews, Health Technology Assessment (HTA) Database
- Centre for Reviews and Dissemination: Database of Abstracts of Reviews of Effect, HTA
- ERIC (Education Resources Information Center)
- Epistemonikos
- Google Scholar
- PubMed
- SBU (Swedish Agency for Health Technology Assessment and Assessment of Social Services)
- Web of Science

We used a combination of subject terms, text words, and (when available in the databases) filters for systematic reviews. The complete search strategy is available in Appendix 3. We supplemented the database search by searching reference lists of relevant systematic reviews.

Selection of reviews

Two reviewers (JB and JM) independently read all potentially relevant records resulting from the searches. We resolved disagreements through discussion and subsequent consensus with a third reviewer (RB) when necessary. We listed the SRs considered in full-text, but subsequently excluded in Appendix 4 along with the reasons for exclusion.

Quality assessment as part of the selection process:
Two reviewers (JB and JM) independently assessed the methodological quality of each possible eligible systematic review using the AMSTAR tool (42). The eleven AMSTAR items were scored (yes/no) to evaluate the adequacy of the important components of the method: search, selection criteria, validity assessment, and synthesis. We rated reviews as having low methodological quality if they scored 0 to 4 points, moderate quality if the score was 5 to 8 points and high quality if they scored 9 to 11 points. If agreement could not be reached, the issue was referred to a third reviewer for a decision.

Interrater reliability analysis using Kappa statistic (43) was calculated using SPSS software version 20 to determine consistency among raters. We interpreted Kappa statistics using the Landis and Koch (44) approach: value of 0 = poor, 0.01 to 0.20 = slight, 0.21 to 0.40 = fair, 0.41 to 0.60 = moderate, 0.61 to 0.80 = substantial, 0.81 to 1 = almost perfect/ perfect agreement.

Data extraction

All data were extracted independently by one reviewer (JM or JB) into a standardized data extraction form, which was then checked for accuracy by another reviewer (JB or JM). The following data were extracted from each review:

- Author(s)
- Year of publication
- Research question (aim of the review)
- Comparator(s) included
- Period searched for literature (in years)
- Number, origin and type of primary studies included
- Methods for evaluating methodological quality of the primary studies
- Outcomes investigated and methods used to assess outcomes (e.g. tools used for assessment)
- Baseline characteristics of participants (age, gender, ethnicity, etc.)
- Type, duration/frequency of violence if reported
- Intervention characteristics (type and components, duration and follow up)
- Brief summary of the PICO characteristics of the included reviews
- Type of review (e.g. Cochrane and non-Cochrane)

We extracted data from included SRs as far as possible, and when necessary, we extracted data from original studies. We supplemented missing or unclear information (i.e. violence type) by contacting the primary studies' authors.

Overlap

We investigated the degree to which the reviews shared the same included studies (overlap) and the number of studies that were unique to each review. If there was complete overlap in terms of included studies between two or more systematic reviews, we reported the results from the most recent review with the most detailed description. The (overlap) assessment was done on the primary studies that provided outcome information only.

Data synthesis

We organised the data according to type of interventions and outcomes. We reported the results for the outcomes of interest in text and in tables.

We conducted no overarching meta-analysis of the results reported in the included reviews, as there was considerable clinical and statistical heterogeneity, and some overlap among publications. If a combined effectiveness measure was reported by the review authors, we included this in our results. We choose to report the results narratively. If no summary of effect estimate was provided, we reported the range of effect sizes.

Grading of the evidence

Two reviewers (JB and JM) used the GRADE tool (Grading of Recommendations Assessment, development and Evaluation) developed by the GRADE working group (45) to determine the certainty of the effects of interventions reported in the included reviews, i.e. to what degree we could trust the results. We considered the compiled documentation for each of the main outcomes using GRADE and prepared summary tables for the outcomes of interest. In the tables we integrated the quality of evidence and the magnitude of effect of the intervention. The GRADE quality ratings were made separately for each of the outcomes of interest.

Evidence from randomised controlled trials (RCTs) start as high quality evidence but may be downgraded depending on five criteria in GRADE that are used to determine the certainty of the evidence. We used the five GRADE considerations for downgrading (study limitations, consistency of effect, imprecision, indirectness and publication bias) to assess the certainty of the body of evidence in one of four levels:
High quality: We are very confident that the true effect lies close to that of the estimate of the effect
Moderate quality: We are moderately confident in the effect estimate: The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different
Low quality: Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect
Very low quality: We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect

Results

Description of included reviews

Search results

The search resulted in a total of 2,543 citations (2,505 through database and registry searching and 38 identified by hand searching) after duplicates were removed (see Figure 1). Of these we excluded 2,488 irrelevant citations on the basis of reading the title and abstract. We retrieved and examined 55 records; 44 were excluded because they did not meet the selection criteria related to: a) our criteria for a systematic review (n=5), b) overviews older than 3 years (n=2) (46, 47), c) AMSTAR score 0 to 4 (n=9), d) no data or outcomes of interest (n=1) (48), e) overlap with other systematic reviews (n=5), f) incorrect population (n=6) , g) inadequate primary study design (n=3), and h) absence of an effectiveness question (n=13). A complete list of exclusions is presented in Appendices 4-5.

We judged five systematic reviews eligible for inclusion in this overview of reviews (49-53). The five reviews were written in English. We describe the results of the methodological quality assessment of the systematic reviews and the Kappa statistics in Appendix 6.

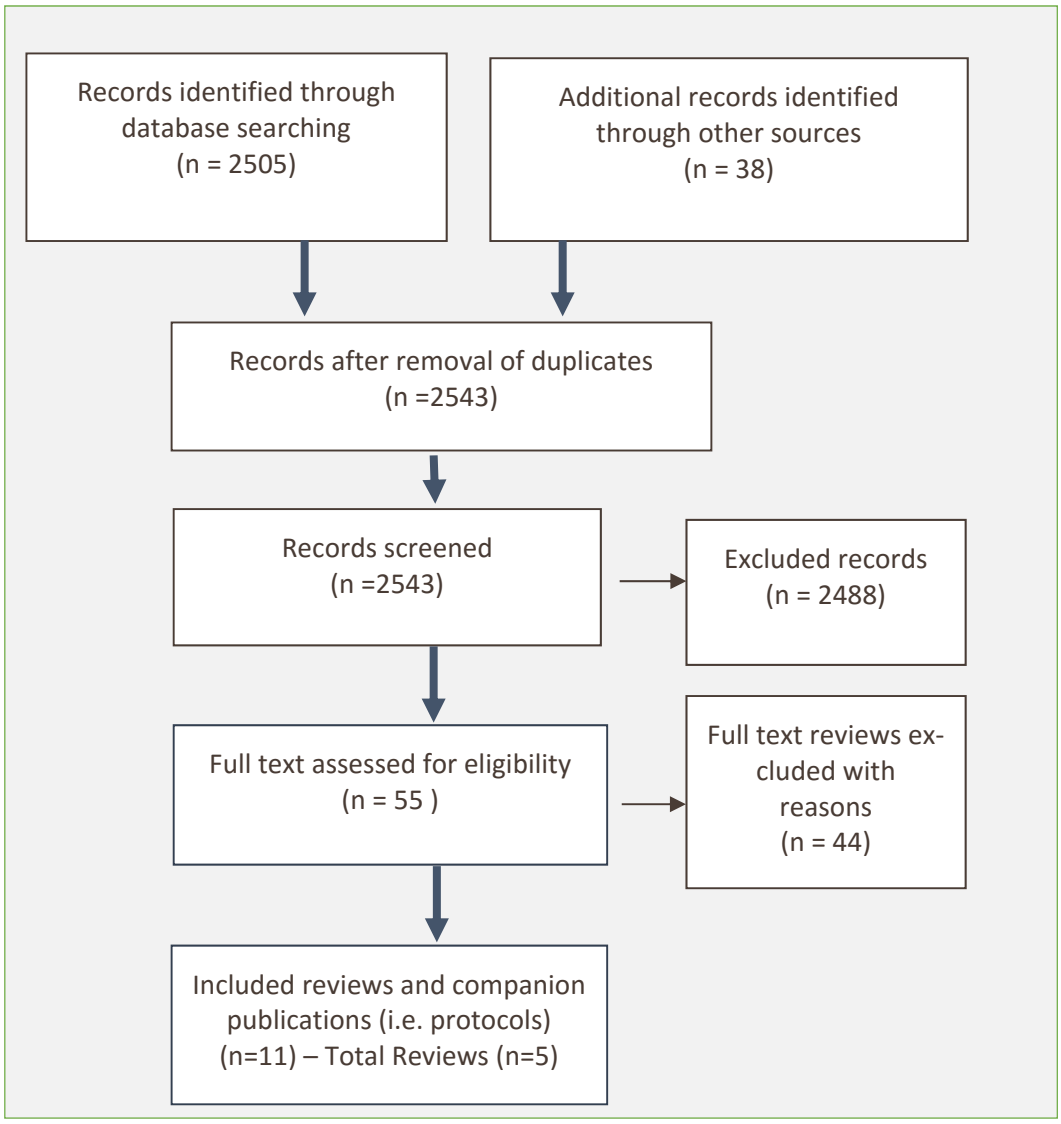

Figure 1
PRISMA flow diagram describing the review selection process

Characteristics of included reviews

Among the five systematic reviews, one review was co-published by the Campbell and Cochrane Collaboration (hereafter MacDonald 2007) (52, 54). Similarly, one agency review (Agency for Health Research and Quality /AHRQ) was reported in two publications (50, 55) (hereafter Goldman 2013). One Cochrane review (51) was an update of two earlier publications (1999, 2006) (56, 57). The remaining two reviews were non-Cochrane or Campbell publications (49, 53). Few of the reviews had a protocol available.

One of the reviews investigated a specific outcome (post-traumatic stress disorder), irrespective of intervention type (53), while the other four reviews examined the effects of specific interventions (49-52).

Main features of the reviews

The reviews' main features (i.e. number of studies included, children's age, primary studies' design, country of origin, and type of violence) are shown in Table 2 (PICO Components) and 3 (Characteristics of included reviews) and summarized below.

Table 2: *PICO components of the included reviews*

Review	Population Age	Intervention	Comparator	Outcomes*
Cary 2012 (49) Search date: 1990-2011	3 to 18 years	TF-CBT (parent/caregiver involved)	Wait list control, treatment as usual, child centred therapy, non-directive supportive therapy, family therapy	PTSD symptoms
Goldman 2013 (50) Search date: 1990-2012	0 to 14 years	FHF, MSS, KEEP, MTFC-P, NHV, PCIT, CPC-CBT, group psychotherapy, TF-CBT, ABC, Enhanced Foster Care, IYA, and CPP	Routine foster care, usual care, inactive control, individual psychotherapy, supportive therapy, home based intervention focused on children cognitive and linguistic development, parent only CBT, child centered therapy, developmental education for families, psychoeducational intervention	Mental health, PTSD, quality of life, cognition, placement, harms, parental and caretaker child relationship, recurrence of violence
MacDonald 2007 (52) Search date: Inception to 2007	7 to 17 years	Treatment Foster Care (foster care supported)	Traditional foster care, residential centres or caregivers' home care	Placement
Macdonald 2012 (51) Search date: Inception to 2011	3 to 17 years	Individual and group CBT (parent/caregiver involved, one study involved children only)	Supportive group therapy (parents) and interactive CBT approach with a didactic approach for children, supportive unstructured psychotherapy child-mother, non-directive supportive therapies, child and parent/family CBT	PTSD symptoms, parental and caretaker child relationship
Wethington 2008 (53) Search date: inception to 2011	3 to 17 years	Individual and group CBT, play therapy, psychodynamic therapy (parent/caregiver involved)	Wait list control, standard community care, supportive unstructured psychotherapy, non-directive supportive therapy, supportive therapy, case management	PTSD symptoms, harms

*Outcomes relevant to this overview of reviews

CBT: cognitive behavioural therapy; FHF: Fostering Healthy Features; MSS: Middle School Success; KEEP: Keeping Foster and Kinship Parents Trained and Supported; MTFC-P: Multidimensional Treatment Foster Care – Preschoolers; NHV: Nurse Home Visitation Intervention; PCIT: Parent-Child Interaction Therapy Adaptation Package; CPC-CBT Combined Parent-Child Cognitive Behavioral Therapy; Group Psychotherapy for sexually abused girls; TF-CBT: Trauma-Focused Cognitive Behavioral Therapy, ABC: Attachment and Biobehavioral catch up, Enhanced Foster Care; IYA: Incredible Years Adaptation; CPP: Child-Parent Psychotherapy.

Table 3: *Characteristics of the included reviews*

Review author AMSTAR score	RCTs /total articles Design(s)	RCTs' country of origin (%)	Type(s) of violence (for all RCTs in included reviews)	Comments
Cary 2012 6/11=Moderate	10 RCT: 10 (100%)	Not described	CSA: 5 (50%), Trauma: 3 (30%), IPV: 1 (10%) Terrorism: 1 (10%)	Author contacted: no response. Stein et al. 2003 included children "exposed to violence" and was categorized as trauma
Goldman 2013 9/11= High	16*/25 RCT: 23 (92%) Non-RCT: 1 (4%) Cohort: 1 (4%) *16 of 23 RCTs	USA: 20 (80%); Canada: 2 (8%) England: 1 (4%); Romania: 1 (4%) Asia: Iran: 1 (4%)	Unspecified: 10 (40%), CSA: 7 (28%), Physical abuse: 1 (4%), Physical & neglect: 4 (16%), Maltreatment: 3 (12%)	This report has several questions: key questions (KQ) related to this overview of reviews are: KQ1, KQ2, KQ4, KQ6 (pages. 34,87,107,125).
MacDonald 2007 9/11=High	3/5 RCT: 5 (100%)	USA: 5 (100%)	Abuse and neglect: 2 (40%), Emotional disorder (CSA) 1 (20%) 80% of children were sexually abused and family violence; Delinquency: 2 (40%)	Author contacted: Chamberlain 1991 full text and author contacted, response received - authors confirmed 80% of children had been sexually abused and were exposed to family violence
Macdonald 2012 9/11=High	10 RCTs RCT: 10 (100%)	USA: 9 (90%) Australia: 1 (10%)	CSA: 10 (100%)	n/a
Wethington 2008 6/11=Moderate	14/30 RCT: 14 (47%) Non-RCT: 16 (53%)	USA: 15 (50%) Australia: 1 (3%); New Zealand: 1 (3%) England: 2 (7%); Netherlands: 1 (3%), Armenia: 1 (3%) Taiwan: 1 (3%) Not-specified: 8 (27%)	CSA: 9 (30%), Community violence: 6 (20%), Domestic violence: 4 (13%), Physical abuse: 1 (3%), Child abuse: 1 (3%), Trauma (suicide of family member): 1 (3%), Natural disasters: 3 (10%), Non-abusive physical trauma: 2 (7%), War: 1 (3%), Childhood cancer: 1 (3%), Motor vehicle: 1 (3%)	Author Contacted (Hahn R): response received regarding quality of evidence and tools used to grade the evidence.

RCT: randomized control trial, CSA: child sexual abuse, IPV: interpersonal violence, USA: United States of America, SR: systematic review, non-RCT: non randomized control trial

Population

The children participating in the included studies across the five systematic reviews were between 0 and 18 years old. One review focused on sexual abuse (51), we extracted data from a sub-group on sexually abused children from another review (53), and the remaining reviews combined physical, neglect, emotional and intimate partner violence types of abuse. Cary (49) did not report gender data and the remaining four reviews reported similar gender distribution. In the reviews that reported ethnicity most of the children were Caucasian (~50%), nearly 30% African-American and 20% Latino/Hispanic. Several interventions involved a parent or caregiver.

Interventions

We divided the interventions into two broad categories: psychotherapy and treatment foster care. Two reviews focused on treatment foster care interventions only (50, 52) while the remaining three reviews incorporated psychotherapeutic interventions such as trauma focused cognitive behavioural therapy (TF-CBT) (49, 50), cognitive behavioural therapy (CBT) (51, 53), play therapy and psychodynamic therapy (53), or parent child interaction therapy (50).

Psychotherapeutic interventions

Psychotherapy is a form of treatment that involves regularly scheduled conversations between the child, or family, and a professional such as psychiatrist, psychologist, or psychiatric social worker. These types of therapies are called "talk therapies" and by means of talking the therapist tries to make the individual understand his/her illness or symptoms, provide insight and improve the child's, and the family's quality of life. The therapist teaches strategies and gives the individual tools to deal with stress, unhealthy thoughts and behaviours, and tools to improve interactions with others. Psychotherapy can be done alone or it can be combined with other treatments (i.e. medication). The most common types of psychotherapies for children are CBT, family focused therapy, group therapy, individual therapy, interpersonal therapy, and play therapy (58).

Treatment Foster Care interventions (TFC)

TFC is a foster family-based intervention that aims to provide children (and where appropriate, their families) with a tailored programme designed to effect positive changes in their lives (59). This type of intervention is multifaceted and may include outcomes related to child behaviour (i.e. substance abuse, aggression), relationship with caregiver or adults (i.e. attachment), symptoms (i.e. PTSD) or placement (i.e. permanency in a home, placement disruption). Trained treatment foster parents work with the children in their homes to provide a structured, therapeutic environment while also providing opportunities for the children to live in a family setting and learn how to live, work and relate to others. This provides a 'normal' environment while the children are receiving the treatment. Key factors of TFC are (1) supportive, involved relationships between TFC supervisors and treatment parents; (2) effective use of behaviour management strategies by treatment parents; and (3) supportive and involved relationships between treatment parents and the youth in their care (60).

Comparators

The comparators used were either active (another intervention) or non-active where children continue with their daily routine (wait list, no intervention/contact with researchers).

Outcomes

Four of the included reviews reported on PTSD symptoms (49-51, 53), two reviews reported on placement outcomes (i.e. permanency and time in placement) (50, 51), two reported on parental and caretaker child relationship (50, 51), and two reviews reported on harms (50, 53). One review reported on mental health, quality of life and cognition (50).

Timing

Most studies assessed outcomes immediately post-intervention and few studies assessed long-term outcomes. This is an important factor to consider. If the child has major damage inflicted (violence), the short-term focus is likely not enough for sustainable change. Further, for parents or caregivers, as someone violent towards a child, the dynamics underneath are likely not solved by a short-term intervention and improvement are not sustained.

Tools used by study authors to assess the outcome of interest

Tools used to assess the outcomes of interest were many and diverse. For example, more than eight different instruments were used to assess PTSD symptoms, administrative records were used for placement outcomes, child welfare records were used for recurrence of violence, and a variety of tools were used for outcomes related to the parent-caretaker and child relationship. It was clear that some tools were standardized assessments developed for the general population, while a few were abuse/violence-specific tools. Some of the tools were categorical (also referred to as diagnostic) and some were descriptive. Given the focus of our overview, we did not have the opportunity to investigate which tools have the capacity to track children's progress over time in response to the intervention. For details on the tools used for measuring outcomes see Appendix 7.

Tools used by review authors to determine risk of bias and certainty of the evidence

Two reviews (51, 52) used the Cochrane risk of bias tool (or an adapted version) (61). Two reviews (49, 50) used a non-published tool to assess risk of bias. One study used the Community Guide procedures tool (62). None of the included reviews used the GRADE tool (http://gradeworkinggroup.org/toolbox/index.htm) to assess the certainty of the included evidence for an effect, nor did they provide a summary of findings table. One review (50), however, used the Evidence-based Practice Centre's (EPCs) guidelines (63), which are adapted from GRADE, to evaluate the strength of the evidence.

Overlap among RCTs included in the systematic reviews

The included reviews were published relatively close in time (2008 to 2013), so predictably we found some overlap among the RCTs included in these systematic reviews. A total of 37 RCTs that evaluated our outcomes of interest were included; 8 (21%)

RCTs overlapped among reviews and 30 (79%) were 'unique'. Results are presented in Table 4 below.

Table 4: *Number of RCTs that overlapped among the reviews*

	Cary 2012	Goldman 2013	MacDonald 2007	Macdonald 2012	Wethington 2008
	n=10	n=16/25	n=3/5	n=10	n=14/30
Cary 2012		1	0	5	6
Goldman 2013	1		0	2	2
MacDonald 2007	0	0		0	0
Macdonald 2012	5	2	0		8
Wethington 2008	6	2	0	8	

n= number of RCTs included in the review/total number of primary studies; RCT= Randomized controlled trial

Data synthesis

Unsurprisingly, most of the psychotherapy interventions were related to cognitive behavioural therapy (e.g. TF-CBT). Child parent psychotherapy, group psychotherapy, play therapy, and psychodynamic therapy were also included in this category. The TFC care category included several programs, e.g. fostering healthy futures, attachment and biobehavioural catch up. A detailed description of the interventions can be found in Appendix 2.

The effect of interventions were quantified for some reviews, reported in terms of significance testing in other reviews, and reported narratively or unclearly in some reviews. We present findings for each intervention and main outcomes in text and tables.

Two review authors (JB and JM) used the GRADE tool developed by the GRADE working group to determine the certainty of the estimates of effects of interventions reported in the included reviews. The summary of findings table is presented after the results.

Standardized mean differences (SMDs) are interpreted using Cohen's *d* effect size index of the difference between group means as follow: 0.20 = small; 0.50 = medium; 0.80 = large.

Psychotherapy Interventions

Child-parent psychotherapy (CPP)

CPP is a treatment for children aged 0-5. Typically, the child is seen with his or her primary caregiver, and the dyad is the unit of treatment. CPP examines how the trauma

and the caregivers' relational history affect the caregiver-child relationship and the child's developmental trajectory. A central goal is to support and strengthen the caregiver-child relationship as a vehicle for restoring and protecting the child's mental health (64). One review investigated the effect of CPP (50). The review's characteristics and main results are reported in Tables 5 and 6.

Table 5: *Characteristics of the review on CPP (Goldman 2013)*

Population	Intervention	Comparison	Outcomes	Type of Abuse
[a]N= 87 child and caregiver 12 months	CPP 13 months	Active control (Psychoeducational intervention) and usual care	Attachment	Sexual/physical/neglect/emotional abuse, 60% exposed to multiple types of maltreatment
[b]N=137 5 years	1 year	Active control and usual care	Attachment	Neglect, emotional, and physical abuse

CPP= child-parent psychotherapy, N=number, a and b are explained below

Parental and caretaker child relationships: Attachment

[a]"Children who participated in CPP reported significantly fewer negative attachment representations compared with an active control; however, for younger children, there were no significant differences in efficacy of the intervention on secure attachment behaviour" (p 42).

[b]"When compared with usual care, infants who participated in CPP demonstrated significantly greater improvements in secure attachment behaviour and preschool-age children reported significantly fewer negative attachment representations" (p 42).

Table 6: *Summary of findings table of the effects of child-parent psychotherapy (CPP)*

Child-parent psychotherapy vs active control and usual care

Patient or population: children exposed to violence and parent/caregiver
Setting: primarily home-based, centre-based with periodic home visit
Intervention: child-parent psychotherapy
Comparison: Active control (psychoeducational intervention) and usual care
Outcome: Attachment

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with CPP			
Attachment[1]		NA		87 (1 RCT)	⊕◯◯◯ VERY LOW [2,3,4]
Attachment[5]		NA		137 (1 RCT)	⊕◯◯◯ VERY LOW [2,3,4]

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI).
CI: Confidence interval; RCT: randomised control trial: NA: not available

Table 6: *Summary of findings table of the effects of child-parent psychotherapy (CPP)*

Child-parent psychotherapy vs active control and usual care

Patient or population: children exposed to violence and parent/caregiver
Setting: primarily home-based, centre-based with periodic home visit
Intervention: child-parent psychotherapy
Comparison: Active control (psychoeducational intervention) and usual care
Outcome: Attachment

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with CPP			

1. Measure: Strange Situation
2. Unclear risk of bias
3. Statistical measures of heterogeneity not reported: data show difference of population
4. Imprecision: small sample size (less than 300 rule of thumb)
5. Measure: MacArthur Story Stem Battery & MacArthur Narrative Coding Manual-Rochester Revision

In conclusion, it is uncertain whether CPP improves attachment as compared with an active control because the quality of the evidence is very low.

Cognitive Behavioural Therapy (CBT)

CBT is a type of "talking treatment" that focuses on how a person's thoughts, beliefs and attitudes affect his/her feelings and behaviour, and teaches the person coping skills for dealing with different problems. It combines cognitive therapy (examining the things the person think) and behaviour therapy (examining the things the person do). CBT can be offered in *individual* sessions with a therapist or as part of a *group* (65). Three reviews (50, 51, 53) investigated the effect of CBT. Tables 7 and 8 present the reviews' characteristics and summary of findings.

Table 7: *Characteristic of the reviews on CBT (Goldman 2013, Macdonald 2012, Wethington 2008)*

Population	Intervention	Comparison	Outcomes	Type of Abuse
N=442 (51) Age: 2 to 17	CBT 12 weeks, 3-6 months follow up, 1 year follow up	Wait list or other no CBT intervention	PTSD, parental belief in their child's story, parental attributions, parenting skills, parent's emotional reactions	Sexual abuse
N=267 (individual), 44 (group) (53) Age: 4 to 17	Individual and Group CBT 20 weeks (individual) 11 weeks (group), 3 months follow up	Control group	PTSD, adverse events	Sexual abuse
N=75 (50) 7 to 13 years	Child-parent CBT 16 to 20 weeks	Parent only CBT	Parenting practices	Traumatic experiences and physical abuse

CBT= cognitive behavioural therapy, N=number, PTSD=post-traumatic stress disorder,

Post-traumatic stress disorder (PTSD)

One review (51) (6 RCTs, n= 442) compared CBT (individual and group combined) to wait list control or other interventions (e.g. non-directive supportive therapy). Pooled

results suggest there is a small to moderate effect for the intervention (SMD 0.44, 95% CI 0.73 lower to 0.16 lower) at 20 weeks. There was moderate heterogeneity (I^2=46%). Results remained small at 3 to 6 months follow up (5 RCTs, n=327, SMD 0.39, 95%CI 0.74 lower to 0.04 lower); and at one year follow up (3 RCTs, n=246 SMD 0.38, 95%CI 0.65 lower to 0.11 lower), however, heterogeneity increased (I^2=51%).

Individual and group CBT
Another review (4 studies; n=376 children) (53) evaluated PTSD symptoms in *individual* and *group* CBT. Pooled results for individual CBT (4 RCTs, n=267) suggest there was a small effect of the intervention. However, it is uncertain whether the intervention improves PTSD symptoms (SMD 0.34 95% CI 0.69 lower to 0.11 higher) at 20 week. Similarly, results from *group* CBT (1 RCT, n=44) suggest there was a small effect of the intervention at 11 weeks (SMD 0.04, 95%CI 0.55 lower to 0.63 higher); thus, we are uncertain whether individual CBT decreases PTSD symptoms.

PTSD was evaluated by a number of reviews (49-51, 53), and the overlap among reviews is high. Appendix 8 presents the PTSD outcome evaluation and reporting.

Parental and caretaker child relationships: Parenting Practices
One review (50) reported results from one trial (n=75) that evaluated the effect of combined child-parent CBT to parent only CBT at 20 weeks. No effect estimates were provided. The review authors stated "parents in the intervention reported significantly greater increases in positive parenting practices; however, the control group reported significantly lower use of corporal punishment compared with participants in child-parent CBT. Based on child report, there were no significant differences in efficacy of the intervention on positive parenting practices or use of corporal punishment" (50, p 54).

Parental and caretaker child relationships: parental belief in their child's story
One review (51), which reported pooled results of two RCTs (n=211) comparing CBT to no CBT at 12 weeks, showed a small increase favouring the intervention (2 RCTs, SMD 0.30 95% CI 0.03 higher to 0.57 higher). However, three to six month (1 RCT, n=146, SMD 0.32, 95% CI 0.65 lower to 0.01 higher) and the year follow up results (1 RCT, n=146, SMD 0.10 0.43 lower to 0.23 higher) showed a small effect favouring the control group. Thus, it is uncertain whether CBT improves parental belief in their child's story.

Parental and caretaker child relationships: parental attributions (i.e. parental affective and behavioural responses to caregiving) **self-blame, child-blame, perpetrator-blame, negative impact)**
Thirty sexually abused children participated in an 8 week CBT intervention (1 RCT). When compared to no CBT, it is uncertain whether CBT improves parental attributions as follows: self-blame (mean difference MD 0.80, 95% CI 4.03 lower to 2.43 higher), child-blame (MD 1.20, 95% CI 4.47 lower to 2.07 higher), perpetrator-blame (MD 0.60, 95% CI 2.62 lower to 1.42 higher) and negative impact (MD 1.90, 95%CI 4.67 lower to 0.87 higher).

Parental and caretaker child relationships: parenting skills

One review's pooled results (3 RCTs, n=287) suggest the intervention may lead to little increase in parenting skills at 12 weeks (MD 3.86, 95% CI 0.47 higher to 7.26 higher). However, the 95% CI is wide indicating imprecision. Results were not maintained at 3 to 6 months and one year follow up assessments. The effect estimates were as follow: 12 weeks, 3 to 6 months (3 RCTs, n=231, MD 2.36, 95% CI 1.55 lower to 6.28 higher) and year follow up (2 RCTs, n=193, MD 0.89, 95% CI 4.89 lower to 3.11 higher).

Parental and caretaker child relationships: parent's emotional reactions

One review's pooled results (51) (2 RCTs, n=223) suggest CBT may lead to parent's emotional reactions improvement at 12 weeks (MD 6.95, 95% CI 10.11 lower to 3.80 lower) and one year follow up (1 RCT, n=148, MD 4.56, 95% CI 8.37 lower to 0.75 lower). Results were not maintained at 3-6 months follow up (2 RCTs, n= 187, MD 3.46, 95% CI 6.98 lower to 0.06 higher). Although the effect estimate shows an improvement in parent's emotional reaction, the body of evidence is limited to two small trials for 12 weeks and 3-6 months assessment and to a single trial for one year follow up. There were high and unclear risks of bias issues with these trials. Thus, we graded the certainty of the evidence as very low.

Adverse events: individual CBT

One review (53) commented on page 291 "no potential harms of individual CBT were noted." It is unclear how this outcome was measured. Based on this information, it is uncertain whether there are adverse events associated with individual CBT (Table 8).

Table 8: *Summary of findings table of the effects of Cognitive Behavioural Therapy on children exposed to violence*

CBT intervention vs active/inactive control, or parent only CBT

Patient or population: children exposed to violence
Setting: not specified
Intervention: CBT
Comparison: active, inactive control or parent only CBT
Outcome: PTSD, parental belief in their child's story, parental attributions, parenting skills, parent's emotional reactions, adverse events, parenting practices

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with TF-CBT			
PTSD[1] 20 weeks 3-6 months follow up 1 year follow up		 SMD -0.44 (0.73 lower to 0.16 lower) SMD -0.39 (0.74 lower to 0.04 lower) SMD -0.38 (0.65 lower to 0.11 lower)		 442 (6 RCTs) 327 (5 RCTs)[4] 246 (3 RCTs)	 ⨁◯◯◯ VERY LOW [2,3,5]
PTSD (group CBT)[6] 11 weeks		SMD 0.04 (0.55 lower to 0.63 higher)		44 it is(1 RCT)	⨁◯◯◯ VERY LOW [3,7]
PTSD (individual CBT)[8] 20 weeks		SMD 0.34 (0.69 lower to 0.11 higher)		267 (4 RCTs)	⨁◯◯◯ VERY LOW [3,5]

CBT intervention vs active/inactive control, or parent only CBT

Patient or population: children exposed to violence
Setting: not specified
Intervention: CBT
Comparison: active, inactive control or parent only CBT
Outcome: PTSD, parental belief in their child's story, parental attributions, parenting skills, parent's emotional reactions, adverse events, parenting practices

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with TF-CBT			
Parenting practices (child-parent CBT)		NR		75 (1 RCT)	⊕◯◯◯ VERY LOW [3,5,9]
Parental belief in their child's story[10] 12 weeks 3-6 months follow up 1 year follow up		 SMD 0.30 (0.03 higher to 0.57 higher) SMD -0.32 (0.65 lower to 0.01 higher) SMD -0.10 (0.43 lower to 0.23 higher)		 211 (2 RCTs) 146 (1 RCT) 146 (1 RCT)	⊕◯◯◯ VERY LOW [3,5]
Parental attributions[11] Self-Blame Child Blame Perpetrator blame Negative Impact		 MD -0.80 (4.03 lower to 2.43 higher) MD -1.20 (4.47 lower to 2.07 higher) MD -0.60 (2.62 lower to 1.42 higher) MD -1.90 (4.67 lower to 0.87 higher)		 30 (1 RCT)	⊕◯◯◯ VERY LOW [3,5]
Parenting Skills[12] 12 weeks 3-6 months 1 year follow up		 MD 3.86 (0.47 higher to 7.26 higher) MD 2.36 (1.55 lower to 6.28 higher) MD -0.89 (4.89 lower to 3.11 higher)		 287 (3 RCTs) 231 (3 RCTs) 193 (2 RCTs)	⊕◯◯◯ VERY LOW [3,5]
Parent's emotional reactions[13] 12 weeks 3-6 moths follow up 1 year follow up		 MD -6.95 (10.11 lower to 3.80 lower) MD -3.46 (6.98 lower to 0.06 higher) MD -4.56 (8.37 lower to 0.75 lower)		 223 (2RCTs) 187 (2 RCTs) 148 (1 RCT	⊕◯◯◯ VERY LOW [3,5]
Adverse Events (individual CBT)	" no potential harms of individual CBT were noted."			NR	⊕◯◯◯ VERY LOW [3,5,9]

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI).
CBT: cognitive behavioural therapy; CI: Confidence interval; SMD: Standardised mean difference; PTSD: post-traumatic stress disorder; RCT: randomised control trial: MD: mean difference, NR: not reported

1. Children's Impact of Traumatic Events Scales-Revised CITES-R (child report), Kiddie schedule for affective disorders and schizophrenia for school aged children (K-SADS-PL PTSD subscale), K-SADS-E, Trauma Symptom checklist for children (TSCC-PTSD), Anxiety Disorder Interview Schedule (ADIS-DSM IV PTSD) (lower values are best)
2. Moderate heterogeneity (I^2 46%)
3. Issues related to high or unclear risk of bias (downgraded twice)
4. Moderate to substantial heterogeneity (I^2 51%)
5. Imprecision: Fewer than 300 participants and/or confidence intervals
6. Child Behaviour Checklist (PTSD), Anxiety Disorder Interview Schedule (PTSD section), Trauma Symptom Checklist for Children (PTSD), Schedule for Affective Disorders and Schizophrenia for School-Age Children (SSADE-E) (lower values are best)
7. High and unclear risk of bias in more than one domain – downgraded twice
8. Child Behaviour Checklist (PTSD), Anxiety Disorder Interview Schedule (PTSD section), Trauma Symptom Checklist for Children (PTSD), Schedule for Affective Disorders and Schizophrenia for School-Age Children (SSADE-E) (lower values are best)
9. Imprecision: no effect estimate provided
10. Parents' Reaction to Incest Disclosure Scale (PRIDS), Parental Support Questionnaire (PSQ) (higher values are best)
11. Parental attributions (PAS) (lower values are best)
12. Parenting practices questionnaire (PPQ) (higher values are best)
13. Parents emotional reaction questionnaire (PERQ) (lower values are best)

In conclusion, it is uncertain whether cognitive behavioural therapy decreases symptoms or improves parent child relationships (very low certainty of evidence).

Group Psychotherapy for Sexually Abused Girls

"…it involves one or more psychologists who lead a group of roughly 5 to 15 individuals. Groups are designed to target a specific problem, such as depression, obesity, or substance abuse. Other groups focus more generally on improving social skills, helping people deal with a range of issues such as anger, shyness, loneliness and low self-esteem" (66). One review by Goldman and colleagues (50) summarized the effects of group psychotherapy for sexually abused girls. We provide a synthesis of study characteristics and main findings in Tables 9 and 10.

Table 9: *Characteristic of the review on group psychotherapy (Goldman 2013)*

Population	Intervention	Comparison	Outcomes	Type of Abuse
N= 71 girls and caregiver component 6 to 14 years	Group psychotherapy 1 year, 2 years follow up	Active control (conventional individual psychoanalytic psychotherapy)	PTSD	Sexual abuse

N=number, PTSD=post-traumatic stress disorder

Post-traumatic stress disorder (PTSD)

Children in the control group (conventional individual psychoanalytic psychotherapy) had a greater decrease of PTSD symptoms than the intervention group (group psychotherapy). Results were the same for 1 year end of intervention and 2 years follow up (p 58). Review author estimation of the magnitude of effect included only the statistically significant (p>0.05) effect sizes provided by trial's authors and they did not calculate effect sizes as part of their analysis (Cohen's d=0.36 to 0.79).

Table 10: *Summary of findings table of the effects of group psychotherapy for sexually abused girls*

Group Psychotherapy vs Active Control (conventional individual psychoanalytic psychotherapy)

Patient or population: children (6to 14years)
Setting: community clinic in south London or tertiary clinic in north London
Intervention: Group psychotherapy
Comparison: Active control
Outcomes: PTSD

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with Group Psychotherapy			
PTSD[1]	-	Group psychotherapy < control		71 (1 RCT)	⨁◯◯◯ VERY LOW [2,3,4]

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; RCT: randomised control trial, Cohen's *d* = effect size index of the difference between groups means as follow 0.20 = small; 0.50 = medium; 0.80 = large. Lower comparative benefit is denoted in the results tables using a greater ("<") sign.

Table 10: *Summary of findings table of the effects of group psychotherapy for sexually abused girls*

Group Psychotherapy vs Active Control (conventional individual psychoanalytic psychotherapy)

Patient or population: children (6to 14years)
Setting: community clinic in south London or tertiary clinic in north London
Intervention: Group psychotherapy
Comparison: Active control
Outcomes: PTSD

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with Group Psychotherapy			

1. Measures: Shortened version of the Kiddie Schedule for Affective Disorders and Schizophrenia for School aged Children (K-SADS); Orvaschel's 1989 PTSD Scale
2. Imprecision: fewer than 300 participants.
3. Unclear risk of bias
4. Imprecision: effect size not reported

In summary, it is uncertain whether group psychotherapy decreases PTSD for sexually abused girls because the certainty of the evidence is very low.

Play Therapy

The Association for Play Therapy has defined play therapy as "the systematic use of a theoretical model to establish an interpersonal process wherein trained play therapists use the therapeutic powers of play to help clients prevent or resolve psychosocial difficulties and achieve an optimal growth and development" (67-71). On review investigated the effect of Play Therapy (53). Characteristics of the review and summary of findings are presented in Tables 11 and 12.

Table 11: *Characteristic of the review on play therapy (Wethington 2008)*

Population	Intervention	Comparison	Outcomes	Type of Abuse
N=22 child and mother Age range 4-9years	Play therapy 12days to 3 weeks	Inactive Control (wait list control doing group recreational activities)	PTSD	Domestic violence

N=number, PTSD=post-traumatic stress disorder

Post-traumatic stress disorder

The review author provided a broad statement which is insufficient to determine effectiveness of intervention for PTSD as follows: "All of the effect sizes reported were in the desirable direction, with SMDs ranging from 0.06 to 1.23 across all of the studies and outcomes." The author concluded "… there is insufficient evidence to determine the effectiveness of play therapy in reducing psychological harm among children who have developed symptoms of PTSD following traumatic exposures" (p 294-5).

Table 12: *Summary of findings table of the effects of Play Therapy*

Play Therapy vs Inactive Control

Patient or population: children (4 to 9 years)
Setting: children living in a women's homeless shelter
Intervention: Play therapy
Comparison: Inactive control
Outcomes: PTSD

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with Play Therapy			
PTSD[1]	- "… there is insufficient evidence to determine the effectiveness of play therapy in reducing psychological harm among children who have developed symptoms of PTSD following traumatic exposures" p 294/5			22 (1 RCT)	⨁◯◯◯ VERY LOW [2,3,4]

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; RCT: randomised control trial,

1. Unclear how this outcome was measured
2. Imprecision: fewer than 300 participants.
3. Issues related to high or unclear risk of bias "Fair quality of execution (2-4 penalties)"
4. Imprecision: effect size and CI not reported

In summary, it is uncertain whether play therapy decreases symptoms of PTSD because the certainty of evidence is very low.

Psychodynamic Therapy

According to the American Psychological Association, "Psychodynamic or psychoanalytic psychotherapy refers to a range of treatments based on psychoanalytic concepts and methods. Session frequency is typically once or twice per week, and the treatment may be either time limited or open ended. The essence of psychodynamic therapy is exploring those aspects of self that are not fully known, especially as they are manifested and potentially influenced in the therapy relationship" (72, 73). One review investigated the effect of psychodynamic therapy (53). Characteristics of the review and summary of findings are presented in Tables 13 and 14.

Table 13: *Characteristic of the review on psychodynamic therapy (Wethington 2008)*

Population	Intervention	Comparison	Outcomes	Type of Abuse
N=65 3-5 years	Child parent psychotherapy 50 weeks	Active and inactive control (case management plus individual psychotherapy)	PTSD	Parents' interpersonal violence

N=number, PTSD=post-traumatic stress disorder

Post-traumatic stress disorder

Results from a single small study show a large effect for children in the psychodynamic therapy group when compared to case management control at 50 weeks (SMD 0.87, 95% CI 1.37 lower to 0.37 lower). The review authors concluded "Based on the single study, there is insufficient evidence to determine the effectiveness of psychodynamic therapy" (p 296).

Table 14: *Summary of findings table of the effects of Psychodynamic Therapy*

Psychodynamic Therapy vs Active and Inactive Control (case management plus individual psychotherapy)

Patient or population: children (3 to 5 years)
Setting: children living in a women's homeless shelter
Intervention: psychodynamic therapy
Comparison: Active and inactive control
Outcomes: PTSD

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with psychodynamic therapy			
PTSD[1]		SMD 0.87 (1.37 lower to 0.37 lower)		65 (1 RCT)	⨁◯◯◯ VERY LOW [2,3,4]

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; RCT: randomised control trial, SMD: standardized mean difference

1. Diagnostic classification of mental health and developmental disorders of infancy and early childhood (DC: 0-3 TSD)
2. Imprecision: fewer than 300 participants.
3. Single study
4. Issues related to high or unclear risk of bias

In summary, it is uncertain whether psychodynamic therapy decreases PTSD symptoms because the certainty of evidence is very low.

Trauma Focused Cognitive Behavioural Therapy (TF-CBT)

TF-CBT is a components based model of psychotherapy that addresses the needs of children related to traumatic life experiences by integrating several therapeutic approaches and treating both child and parent in a comprehensive manner. TF-CBT combines elements of cognitive therapy, behavioural therapy and family therapy" (74). One review author (49) analysed trials according to the number of treatment components (i.e. PRACTICE) primary trials reported (see Appendix 2 definition of interventions) (75-80). Two reviews (49, 50) investigated the effect of TF-CBT. Characteristics of the reviews and summary of findings are presented in Tables 15 and 16.

Table 15: *Characteristic of the reviews on TF-CBT (Cary 2012, Goldman 2013)*

Population	Intervention	Comparison	Outcomes	Type of Abuse
N=44 (50) 2 to 8 years	TF-CB group adaptation 11 weeks, 3 months follow up	Active control	PTSD	Sexual abuse
Cary N=881 (49)	TF-CBT (author distinguishes while using all components (branded), 4 and 5 components 12 weeks, 52 weeks follow up	Inactive and active control (i.e. treatment as usual, child centred therapy)	PTSD	Sexual abuse, terrorism, traumatic event, single traumatic event, exposure to violence
N=229 (50) 8 to 14 years	TF-CBT 12 weeks	Active control (child centred Therapy for PTSD)	Parenting practices	Sexual abuse

N=67 (50) 2 to 7 years	TF-CBT 12 to 16 weeks	Active control (non-directive supportive therapy)	Adverse events	Sexual abuse

TF-CBT= trauma focused cognitive behavioural therapy, N=number, PTSD=post-traumatic stress disorder

Post-traumatic stress disorder

One review author (50) stated "The study found no significant differences between groups in children's PTSD symptoms" (p 65). No effect size or confidence intervals were provided.

Another review (49) meta-analysed the intervention considering the number of components the trials included as follows: branded version (eight P.R.A.C.T.I.C.E components) (3 RCTs, n=389), 4 components (10 RCTs, n=881) and 5 components (5 RCTs n=493). Post intervention pooled results show that, when compared to control, TF-CBT branded version may slightly decrease PTSD symptoms (SMD 0.40, 95% CI 0.20 lower to 0.60 lower); results were maintained at 12 months follow up (SMD 0.35, 95% CI 0.09 lower to 0.6 lower). Results suggest that when 5 P.R.A.C.T.I.C.E components were used it is uncertain if TF-CBT decreases PTSD symptoms (SMD 0.38, 95% CI, 0.30 lower to 0.67 lower) at the end of intervention. Pooled results for trials sharing 4 P.R.A.C.T.I.C.E components at post intervention show moderate results (SMD 0.67, 95% CI 0.52 lower to 0.8 lower). This analysis included both active and non-active comparators, and combined abuse and trauma for what we assume high heterogeneity was present (not reported). Thus, when 4 components are used it is uncertain whether the intervention decrease symptoms of PTSD.

Parental and caretaker child relationship: parenting practices

The review author (50) suggested "Parents who participated in TF-CBT reported an increased use of positive parenting practices (medium effect size Cohen's d=0.57, p<0.001) compared with the active control."

Adverse events

One review (50) reported this outcome which was measured by active surveillance. It was defined as the incidence of sexually inappropriate behaviour that involved another child or adult. Review author stated that "fewer children in TF-CBT experienced the adverse event of removal from treatment because of persistent sexually inappropriate behaviour involving another child or adult" (p ES-15).

Table 16: *Summary of findings table of the effects of Trauma Focused Cognitive Behavioural Therapy (TF-CBT)*

TF-CBT vs Active and Inactive Control

Patient or population: children (3 to 14 years)
Intervention: TF-CBT
Comparison: Active and inactive control
Outcomes: PTSD, parenting practices, adverse events

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with TF-CBT			
PTSD[1]	The intervention was not superior to the control in improving PTSD symptoms			44 (1 RCT)	⊕◯◯◯ VERY LOW [2,3,4]
PTSD[5]					
Branded		SMD 0.40 (0.20 lower to 0.60 lower)		389 (3 RCTs)	⊕⊕◯◯ LOW [6, 7]
4 components		SMD 0.67(0.52 lower to 0.8 lower)		881 (10 RCTs)	⊕◯◯◯ VERY LOW [7,8,9]
5 components		SMD 0.38 (0.30 lower to 0.67 lower)		493 (5 RCTs)	
Parenting Practices[10]		Medium effect size Cohen's *d*=0.57, p<0.001		229 (1 RCT)	⊕◯◯◯ VERY LOW [3,4]
Adverse events[7]	"fewer children in TF-CBT experienced the adverse event of removal from treatment because of persistent sexually inappropriate behaviour involving another child or adult" p ES-15.			67 (1 RCT)	⊕◯◯◯ VERY LOW [3,4]

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; RCT: randomised control trial, SMD: standardized mean difference; Cohen's *d* = effect size index of the difference between groups means as follow 0.20 = small; 0.50 = medium; 0.80 = large

1. Child PTSD scale (lower values are best)
2. Unclear risk of bias
3. Imprecision: fewer than 300 participants, no effect estimates and/or CI reported (downgraded twice)
4. Single study
5. Measured with Kiddie schedule for affective disorders and schizophrenia for school aged children (K-SADS-PL), Trauma Symptom checklist for children -SADS-PL, Anxiety disorders interview schedule(Child version), Preschool age psychiatric assessment (PAPA); Clinical administered PTSD scale, The child PTSD symptom scale (lower values are best)
6. Issues related to high or unclear risk of bias
7. Statistical measures of heterogeneity not reported: data show difference of population, intervention, comparators, number of sessions and age
8. Indirectness: violence and trauma
9. Attrition concerns and blindness in some of the studies (p 754)
10. Measured with the Parenting Practices Questionnaire;
11. Measured by Active Surveillance

In summary, the low certainty of evidence suggests TF-CBT branded version may slightly decrease symptoms of PTSD. It is uncertain whether TF-CBT decreases symptoms of PTSD when 4 and 5 components were used, adverse events, or increases parent and child relationships because the certainty of evidence is very low.

Attachment and Biobehavioural Catch up (ABC)

ABC is a "home-based intervention to help foster or biological parents provide nurturing, sensitive care that promotes child regulatory capabilities and attachment formation. ABC employs manualized parenting curriculum, flexibility in responding to current issues, and use of videotapes of parent-child interaction to illuminate child cues and strengths in the relationship. The intervention comprises 10, 1-hour weekly home visits with child and foster parent or child and biological caregiver together. Ages birth to 5 years" (50). On review investigated the effect of ABC (50). Characteristics of the review and summary of finding are presented below in Tables 17 and 18.

Table 17: *characteristics of the review on ABC (Goldman 2013)*

Population	Intervention	Comparison	Outcomes	Type of Abuse
Children and their foster or biological parents 4 to 6 years	ABC Overall N=93 14 weeks _____ [a] N=37 Follow up assessment at approx. 4 years	Active Control	Attachment and cognition[a]	maltreatment

[a] Cognition was measured at follow up, se below

Parental and caretaker child relationships: Attachment

Results suggest children whose caregivers (foster or biological) participated in ABC showed less avoidant attachment behaviour (between group analysis of variance F=0.501*, p= 0.030), however it is uncertain whether the intervention has on effect on children's secure attachment behaviour (F=0.791* p= 0.379). The outcome was measured with the Parent Attachment Diary.

*The F-statistic is a ratio of two variances. Variances are a measure of dispersion, or how far the data are scattered from the mean. Larger values represent greater dispersion.

Cognition[a]

The review author (50) stated "children in the ABC condition exhibited significantly greater cognitive flexibility (P=0.008) and theory of mind skills (p= 0.01) compared with children who had participated in the control condition" (p 37). The outcome was assessed with the Dimensional Change Card Sort and Penny Hiding Task. No effect estimates were provided for this outcome.

Table 18: *Summary of findings table of the effects of Attachment and biobehavioural catch up (ABC)*

ABC vs Active Control

Patient or population: children (4 to 6 years)
Intervention: ABC
Comparison: Active control
Outcomes: Cognition, attachment

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with ABC			
Cognition[1]	Children in the ABC condition exhibited significantly greater cognitive flexibility (p= .008) and theory of mind skills (p= .01) compared with children who had participated in the control condition" p 37.			37 (1 RCT)	⊕◯◯◯ VERY LOW [2,3,4]
Attachment[5]	Children whose caregivers participated in ABC showed less avoidant attachment behaviour (F=0.501, p= 0.030), The effects of the intervention on children's secure attachment behaviour (F=0.791, p= 0.379) is uncertain.			93 (1 RCT)	⊕◯◯◯ VERY LOW [2,3,4]

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; RCT: randomised control trial

1. Dimensional Change Card Sort and Penny Hiding Task
2. Imprecision: fewer than 300 participants,
3. Imprecision: no effect estimates and/or CI reported (downgraded twice)
4. Unclear risk of bias
5. Parent Attachment Diary

In summary, it is uncertain whether ABC improves cognition or attachment when compared to and active control because the certainty of evidence is very low.

Enhanced Foster Care

Enhanced foster care is a generic term for the diverse range of enhanced, intensive, specialised, and/or therapeutic models of foster care (81). The p*rogram referred to in this overview of reviews:* The Bucharest Early Intervention Project (82). The intervention was adapted from the New Orleans Intervention approach. This intervention was delivered in support of parents adopting infants and toddlers from institutional care. One review (50) investigated the effect of Enhanced Foster Care intervention. Tables 19 and 20 summarize the review's characteristics and present the main findings.

Table 19: *Characteristics of the review on enhanced foster care (Goldman 2013)*

Population	Intervention	Comparison	Outcomes	Type of Abuse
N=136 foster parent 6 months to 3 years	Enhanced Foster Care 3.5 years end of intervention	Inactive control (usual institutional care in Romania)	Cognition, Attachment	Orphans and abandoned children (i.e. neglect)

Cognition

There are 13 articles reporting results of this trial. Seven investigated the efficacy of the intervention in promoting cognitive functioning. In summary, review authors reported "Compared with children who remained in institutional care, children in the

intervention had significantly higher levels of cognitive functioning and receptive/expressive language, improvements in executive functioning (working memory strategy, accuracy, faster reaction time)" (p 69).

Parental and caretaker child relationship: attachment

The review author states "Compared with children who remained in institutionalized care, children in the intervention were significantly more likely to exhibit secure and organized attachment behaviour. Girls were more likely to have an organized attachment classification and secure attachment than boys" (p 69). The outcome was assessed with the Strange Situation tool. Children placed before 24 months of age were more likely to have secure attachment than those placed in foster care after 24 months. It is uncertain if the intervention leads improvement in attachment security when compared with regular institutional care because no effect estimate were reported.

Table 20: *Summary of findings table of the effects of Enhanced Foster Care*

Enhanced Foster Care vs Inactive Control

Patient or population: children (6 months to 3 years)
Intervention: Enhanced foster care
Comparison: Inactive control
Outcomes: Cognition, attachment

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with Enhanced foster care			
Cognition[1]	"…children in the intervention had significantly higher levels of cognitive functioning and receptive/expressive language, improvements in executive functioning (working memory strategy, accuracy, faster reaction time):"			136 (1 RCT)	⨁◯◯◯ VERY LOW [2,3,4]
Attachment[5]	"children in the intervention were significantly more likely to exhibit secure and organized attachment behaviour. Girls were more likely to have an organized attachment classification and secure attachment than boys" p 69.			136 (1 RCT)	⨁◯◯◯ VERY LOW [2,3,4]

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; RCT: randomised control trial

1. Dimensional Change Card Sort and Penny Hiding Task
2. Imprecision: fewer than 300 participants,
3. Imprecision: no effect estimates and/or CI reported (downgraded twice)
4. Unclear risk of bias
5. Strange Situation

In summary, it is uncertain whether enhanced foster care improves cognition and attachment because the certainty of evidence is very low.

Fostering Healthy Futures

"Fostering Healthy Futures® is a youth development program for pre-adolescent youth, ages 9 to 11, with a history of placement in out-of-home care. The program uses a combination of screening assessments, individual mentoring, and group-based skills training to promote healthy development and reduce risk factors for adverse outcomes" (83). One review (50) investigated the effect of Fostering Healthy Futures. Tables 21 and 22 summarize the review's characteristics and findings.

Table 21: *Characteristics of the review (Goldman 2013)*

Population	Intervention	Comparison	Outcomes	Type of Abuse
N=110 9-11 years	Fostering Healthy Futures 9 months, 6 month follow up	Inactive Control	Mental Health, Quality of Life, Placement Stability, Permanency	"physical, emotional, neglect, and sexual violence

Mental Health

The end of intervention assessment showed a lack of evidence of an effect between groups (Cohen's *d* 0.07 higher 95% CI 0.25 lower to 0.39 higher, p=0.66); however follow up assessment showed children in the intervention group had better mental health than children in the inactive control group (Cohen's *d* 0.51 lower, 95% CI 0.84 lower to 0.19 lower, p=0.003). The outcome was measured with Checklist and Internalizing Scales of Child Behaviour Checklist and Teacher Report Form.

Quality of Life

One review (50) reported on the effects of FHF on quality of life. Participants in FHF reported higher quality of life scores than youth in the control group (small effect size) (MD 0.11, 95% CI 0.03 higher to 0.19 higher, p=0.006) at end of intervention. The improvement was not mantained at follow up (p=0.38). The outcome was measured with the Life Satisfaction Survey.

Placement Stability (experience a new placement) and Permanency (case closure as the index of permanency)

Descriptive analyses showed that most of the children living with a relative or in kinship care at baseline experienced few placement changes, were not subsequently placed in a residential treatment center, and achieved permanence within the study period. Trial authors did subgroup analyses on the children living in nonrelative foster care as they represented a group more likely to have unstable placements.

Placement Stability

Results for the total sample suggest lack of evidence of an effect between groups (p=0.17). The authors' sub-group analysis indicate children in FHF were more likely to maintain their placements than children in the inactive control (odds ratio (OR) 0.56; 95% CI 0.34 to 0.93, p=0.03).

Permanency

There was a lack of evidence of an effect between the groups for the total sample (p=0.17) and sub-group analysis (OR=5.14 95% CI, 1.55 to 17.07, p=0.005) when comparing FHF to inactive control.

Table 22: *Summary of findings table of the effects of Fostering Healthy Futures*

Fostering Healthy Futures Care vs Inactive Control

Patient or population: children (9 to 11 years)
Setting: out of home – assumed in the community
Intervention: Fostering Healthy Futures
Comparison: Inactive control (assessment only group)
Outcomes: Mental Health, Quality of Life, Placement Stability, Permanency

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with fostering healthy futures			
Mental Health[1] 12 months end of Intervention 6 month follow up		 Cohen's *d* 0.07 (0.25 lower to 0.39 higher) Cohen's *d* 0.51(0.84 lower to 0.19 lower)		110 (1 RCT)	⨁◯◯◯ VERY LOW [2,3,4]
Quality of Life[5]	"	Cohen's *d* 0.11 higher (0.03 higher to 0.19 higher)		110 (1 RCT)	⨁◯◯◯ VERY LOW [2,3,4]
Placement Stability[6]		OR= 0.56 (0.34 to 0.93)		110 (1 RCT)	⨁◯◯◯ VERY LOW [2,3,4]
Permanency[6]		OR= 5.14 (1.55 to 17.07)		110 (1 RCT)	⨁◯◯◯ VERY LOW [2,3,4]

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; Cohen's *d*: effect size index of the difference between groups means as follow 0.20 = small; 0.50 = medium; 0.80 = large; RCT: randomised control trial; OR: odds ratio

1. Checklist and Internalizing Scales of Child Behaviour Checklist and Teacher Report Form,
2. Imprecision: fewer than 300 participants and wide confidence intervals
3. Risk of bias: 'low', however blinding may have not been possible
4. Possible clinical heterogeneity due to different types of violence
5. Measured with Life Satisfaction Survey
6. Measured with child welfare records (fewer number of moves/placements is best)

In summary, one RCT (n=110) found that children, aged 9 to 11 years who participated in the FHF intervention experienced greater improvements in mental health and quality of life outcomes at 6 months follow up, had greater placement stability, and were less likely to be placed in residential treatment care, than youth in an inactive control group. Although this study found improvements in outcomes of interest, we are uncertain these are true improvements because the certainty of evidence is very low due to the presence of a single small study.

Fostering Individualised Assistance Programme (FIAP)

FIAP employs a series of clinical interventions that are aimed at reducing emotional and behavioural problems in children within the foster care system. Key adults in a child's life are involved to carry out an individually tailored case plan. The two main goals of the intervention are to stabilize foster placement and develop permanency plans and to improve emotional and behavioural adjustment in children (84). One review investigated the effect of FIAP intervention (52). Tables 23 and 24 summarize the characteristics and main findings from the review.

Table 23: *Characteristics of the review on FIAP (MacDonald 2007)*

Population	Intervention	Comparison	Outcomes	Type of Abuse
N=132 Ages 7 to 15	FIAP 2.5 years	Inactive control (standard foster care services)	Time in placement	Emotionally or behaviourally disturbed

Placement: Time in placement (i.e. placement change)

Results suggest a moderate effect of FIAP on time in placement (individuals experienced fewer placement changes) (SMD 0.49, 95% CI 0.00 to 0.97 lower) at 2.5 years assessment. However, based on a single study we are uncertain whether FIAP reduces the number of placement changes for maltreated children.

Table 24: *Summary of findings table of the effects of Fostering Individualised Assistance Program (FIAP)*

FIAP vs Inactive Control

Patient or population: children (7 to 15 years)
Intervention: FIAP
Comparison: Inactive control (standard foster care services)
Outcomes: Time in Placement

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with FIAP			
Time in Placement[1]		SMD 0.49 (0.00 to 0.97 lower)		132 (1 RCT)	⨁◯◯◯ VERY LOW [2,3,4]

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; SMD (standardized mean difference) interpretation Cohen's *d*: effect size index of the difference between groups means as follow 0.20 = small; 0.50 = medium; 0.80 = large; RCT: randomised control trial;

1. Children leaving a mental hospital to a specialized foster care community setting, 80% exposed to abuse (confirmed with author)
2. Imprecision: fewer than 300 participants
3. Issues related to high or unclear risk of bias (downgraded twice)
4. Possible clinical heterogeneity due to different ages and types of violence

In summary, results from one small trial suggest it is uncertain whether FIAP reduces the number of placement changes because the certainty of evidence is very low.

Incredible Years (IY) (adapted)

The IY Training Series is a set of three comprehensive, multifaceted, and developmentally based curricula for parents, teachers, and children. The program is designed to promote emotional and social competence and to prevent, reduce, and treat aggression and emotional problems in young children 0 to 12 years old (85). One review investigated the IY adapted intervention (50). Tables 25 and 26 summarize the review's characteristics and main findings.

Table 25: *Characteristics of the review on IY adapted (Goldman 2013)*

Population	Intervention	Comparison	Outcomes	Type of Abuse
N=64 children, N=128 foster and biological parent 3 to 10 years	Incredible Years 12 weeks after baseline, 12 weeks after intervention ended	Inactive control (usual care)	Parenting practices	"neglect, domestic, physical, sexual, emotional, undetermined

Parental and caretaker child relationship: parenting practices

IY participants were more likely to endorse positive discipline practices at post-intervention and follow-up (small to medium effect sizes) (Cohen's *d* = 0.40, p<0.05 post intervention to *d*= 0.59, p<0.01 after intervention ended). A group difference emerged at follow-up in reporting of setting clear expectations for the child (medium effect size) (Cohen's d 0.54, p<0.05). There was a lack of evidence of an effect for appropriate discipline strategies and reporting of harsh discipline outcomes at post intervention and follow up. The outcome was measured with the Parenting Practices Interview Subscale.

Table 26: *Summary of findings table of the effects of Incredible Years (IY) adapted*

IY adapted vs Inactive Control

Patient or population: children (3 to 10 years) foster and biological parent's pairs
Setting: child welfare agency
Intervention: IY adapted
Comparison: Inactive control (usual care)
Outcomes: Parenting practices

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with IY adapted			
Parenting practices					
Positive Discipline practices		Cohen's d 0.40 (p<0.05)		64	⨁◯◯◯
Positive Discipline practices follow up		Cohen's d 0.59 (p<0.01)		(1 RCT)	VERY LOW [2,3,4]
Setting clear expectations		Cohen's d 0.54 (p<0.05)			
Appropriate discipline strategy		lack of evidence of an effect			
Reporting of harsh discipline		lack of evidence of an effect			

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; Cohen's *d*: effect size index of the difference between groups means as follow 0.20 = small; 0.50 = medium; 0.80 = large; RCT: randomised control trial.

1. Parenting Practices Interview Subscale
2. Imprecision: fewer than 300 participants
3. Unclear risk of bias
4. Possible heterogeneity due to different ages and types of violence

In summary, results from a very small trial (n=64) suggest it is uncertain whether IY adapted improves parenting practices because the certainty of evidence is very low.

Keeping Foster and Kinship Parents Trained (KEEP)

KEEP is a 16 to 20 week group training programme designed for non-relatives and kinship carers (family and friends) together with children in placement aged between 3 and 17 years. Meetings focus on increasing foster and kin parents' positive reinforcement, and the use of non-harsh methods such as time outs (86-88). One review (50) investigated the effect of KEEP. Tables 27 and 28 summarize the review's characteristics and main findings.

Table 27: *Characteristic of the review on KEEP (Goldman 2013)*

Population	Intervention	Comparison	Outcomes	Type of Abuse
N=700 foster or kin families - a child placed >30 days 5 to 12 years	KEEP 16 weeks, 5 months follow	Inactive control (usual case-worker services)	Parenting practices, placement stability, permanency	unspecified

Parental and caretaker child relationship: Parenting practices

Results indicated "an improvement in positive reinforcement as a proportion of total foster parent discipline; the study reports small effect sizes (Cohen's *d*=0.29 p value not reported)" (50) (p 48). The outcome was measured with the Parent Daily Report Checklist.

Placement: placement stability (i.e. negative placement changes)

The review author (50) suggested that, comparing usual care with KEEP, there was lack of evidence of a difference in placement stability outcomes in one trial (no effect estimate or p value reported) and mentioned previous placements were a predictor of hazard of placement disruption (i.e. negative exit).

Placement: permanency (i.e. positive exists from foster care such as reunification)

The review author reported that participants in KEEP had a greater proportion of positive exits from foster care (magnitude of effect not reported, p=0.005) (e.g. reunification with biological parent or another relative). "Results from Cox hazard models revealed children in KEEP were nearly twice as likely to exit their foster or kinship placement home for positive reasons compared with those in the usual care group" (p 88).

Table 28: *Summary of findings table of the effects of Keeping Foster and Kinship Parents Trained (KEEP)*

KEEP vs Inactive Control

Patient or population: children (5 to 12 years) placed > 30 days and foster or kin families
Setting: community recreation centres or churches, some visits
Intervention: KEEP
Comparison: Inactive control (usual care worker services)
Outcomes: Parenting practices, placement stability, permanency

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with KEEP			
Parenting practices[1] Positive Discipline practices		Cohen's d 0.29, p=NR		700 (1 RCT)	⊕◯◯◯ VERY LOW [2,3,4]
Placement stability[5]		NR		700 (1 RCT)	⊕◯◯◯ VERY LOW [2,3,4]
Permanency[5]		magnitude of effect NR, p=0.005		700 (1 RCT)	⊕◯◯◯ VERY LOW [2,3,4]

Table 28: *Summary of findings table of the effects of Keeping Foster and Kinship Parents Trained (KEEP)*

KEEP vs Inactive Control

Patient or population: children (5 to 12 years) placed > 30 days and foster or kin families
Setting: community recreation centres or churches, some visits
Intervention: KEEP
Comparison: Inactive control (usual care worker services)
Outcomes: Parenting practices, placement stability, permanency

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with KEEP			

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; Cohen's *d*: effect size index of the difference between groups means as follow 0.20 = small; 0.50 = medium; 0.80 = large; RCT: randomised control trial; NR: not reported

1. Parent Daily Report Checklist
2. Imprecision: no effect estimates and/or p values or CI
3. Unclear risk of bias
4. Unspecified type of violence
5. Child welfare records

The body of evidence is from a large effectiveness trial (n=700); however we are uncertain whether KEEP improves parenting practices, placements or permanency when compared to an inactive control because the certainty of evidence is very low.

Middle School Success (MSS)

The program targets girls in foster care who are transitioning to middle school. MSS aims to increase their social behaviours, reduce their internalizing and externalizing symptoms, increase the stability of their foster placements, and reduce their substance and abuse delinquency. There is a separate intervention component for foster parents to facilitate placement stability by improving parenting skills. One review (50) investigated the effect of MSS intervention. Tables 29 and 30 summarize the review's characteristics and main findings.

Table 29: *Characteristics of the review (Goldman 2013)*

Population	Intervention	Comparison	Outcomes	Type of Abuse
N=100 girls and their foster parents 10 to 12 years	MSS 6 months after baseline, follow up at 12, 24 and 36 months	Inactive control (routine foster care)	Placement stability	Neglect, physical and sexual abuse

Parental and caretaker child relationship: Placement stability

The review author suggested that girls who received the MSS intervention experienced fewer placement changes compared with girls in regular foster care at 12 months (Cohen's d= 0.50, p=0.02).

Table 30: *Summary of findings table of the effects of Middle School Success (MSS)*

MSS vs Inactive Control

Patient or population: girls (10 to 12 years) and their foster parents
Setting: NR
Intervention: MSS
Comparison: Inactive control (routine foster care)
Outcomes: Placement stability

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with MSS			
Placement stability[1]		Cohen's d= 0.50, p=0.02 (12 months follow up)		100 (1 RCT)	⨁◯◯◯ VERY LOW [2,3,4]

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; Cohen's *d*: effect size index of the difference between groups means as follow 0.20 = small; 0.50 = medium; 0.80 = large; RCT: randomised control trial;

1. Unclear how this outcome was measured
2. Imprecision: fewer than 300 participants,
3. Risk of bias: 'low'
4. Single study

In summary, results from a single small study (n=100) suggest it is uncertain whether MSS improves placement stability because the certainty of evidence is very low.

Multidimensional Treatment Foster Care for Pre-schoolers (MTFC-P)

The Multidimensional Treatment Foster Care - Preschool (MTFC-P) (now called Treatment Foster Care Oregon) intervention involves families and children ages of three and six who are either in or at risk of an out-of-home placement in foster or residential care. Children are placed with a 'treatment foster family' trained in the MTFC-P model, for a period that typically lasts between nine and 12 months (89, 90). One review (50) investigated the effect of MTFC-P. Tables 31 and 32 summarize the review's characteristics and main findings.

Table 31: *Characteristics of the review (Goldman 2013)*

Population	Intervention	Comparison	Outcomes	Type of Abuse
N=90 3 to 6 years	MTFC-P 12 months, 24 months follow up	Inactive control (usual Care)	Attachment, permanency	Neglect, sexual, physical and emotional

Parental and caretaker child relationship: attachment

Review authors stated "…examined child attachment behaviour as reported by the caregiver. The study found significant differences in report of increased secure attachment behaviours and decreased insecure-avoidant attachment behaviour favoring the MTFC-P condition" (p 85) (no effect estimate and CI reported).

Parental and caretaker child relationship: permanency

The review author reports "Compared with usual care, MTFC-P resulted in increased attempted placements, a greater proportion of attempts resulting in permanent placements, and a greater number of cases resulting in permanent placements compared

with children in usual care" (p 100) (assessed at 24 months post-baseline. Magnitude of effect not reported).

Table 32: *Summary of findings table of the effects of Multidimensional Treatment Foster Care for Pre-schoolers (MTFC-P)*

MTFC-P vs Inactive Control

Patient or population: children (3 to 6 years) in new foster placement
Setting: NR
Intervention: MTFC-P
Comparison: Inactive control (usual care)
Outcomes: Attachment, permanency

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with MTFC-P			
Attachment[1] Secure attachment behaviour Avoidant attachment behaviour Resistant Attachment behaviour		MTFC-P>control, p<0.05 MTFC-P >control, p<0.05 p=NS (NR)		90 (1RCT)	⊕◯◯◯ VERY LOW [2,3,4]
Permanency[5]: Fewer Placement failures Proportion with attempt permanent placement Proportion of attempts resulting in successful placement Proportion of cases resulting in permanent placement		MTFC-P >control: p=0.02 MTFC-P and control, p>0.05 MTFC-P >control, p<0.01 MTFC-P >control, p<0.01		90 (1RCT)	⊕◯◯◯ VERY LOW [2,3,4]

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; Cohen's *d*: effect size index of the difference between groups means as follow 0.20 = small; 0.50 = medium; 0.80 = large; RCT: randomised control trial; NR: not reported; NS: no significant. Greater comparative benefit is denoted in the results tables using a greater (">") sign.

1. Parent Attachment Diary
2. Imprecision: fewer than 300 participants,
3. Imprecision: no effect estimates provided
4. Unclear risk of bias
5. Unclear how this outcome was measured

In summary, results from a single small trial suggest it is uncertain whether MTFC-P improves attachment and permanency because the certainty of evidence is very low.

Nurse Home Visitation (NHV)

"Home Visiting Programs is a mechanism to provide direct support and coordination of services for families which involves direct services to the family in the home setting. Programs vary, but components may include 1) education in effective parenting and childcare techniques; 2) education on child development, health, safety, and nutrition; 3) assistance in gaining access to social support networks; and 4) assistance in obtaining education, employment, and access to community services" (91, 92). The effect of the NHV program was investigated by one review (50). Tables 33 and 34 summarize the review's characteristics and main findings.

Table 33: *Characteristics of the review about nurse home visitation (Goldman 2013)*

Population	Intervention	Comparison	Outcomes	Type of Abuse

N=163, child and primary caregivers Birth to 13 years	Nurse Home Visitation 2 years	Inactive control (usual care)	Adverse events, family functioning, home environment	physically and neglected

Parental and caretaker child relationships: family functioning

The review authors stated "no difference was found" (p 49). The authors did not report any effect estimate.

Parental and caretaker child relationships: home environment

The review authors stated "no difference was found" (p 49) in home environment practices between NHV and the usual care group.

Adverse events: recurrence of violence or safety

Recurrence of physical abuse and/or neglect was more likely to happen in the NHV group than the usual care group (23.6% vs 10.8%; difference rate 12.8% higher; 95% CI, 1.4 higher to 24.1 higher). The review authors suggested that the potential for detection bias as a function of the nurse visitors identifying the need for medical care in the intervention group. No difference between the groups was found when child protective services data were used. The review authors pointed out the conflicting evidence depending on the measure.

Table 34: *Summary of findings table of the effects of Nurse Home Visitation (NHV)*

NHV vs Inactive Control

Patient or population: children (younger than 13 years) and their primary caregivers
Setting: Home
Intervention: NHV
Comparison: Inactive control (usual care)
Outcomes: adverse events (safety), family functioning, home environment

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with NHV			
Adverse events[1] Recurrence of physical abuse or neglect		NHV<control, p=NR (sig) Based on Hospital records 23.6% vs. 10.8%, difference 12.8% (1.4 to 24.1)		163 (1RCT)	⊕◯◯◯ VERY LOW [2,3,4]
Family Functioning[5]		" no difference was found" p 49 p=NS		163 (1RCT)	⊕◯◯◯ VERY LOW [2,3,4]
Home Environment[6]		" no difference was found" p 49 p=NS		163 (1RCT)	⊕◯◯◯ VERY LOW [2,3,4]

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; Cohen's *d*: effect size index of the difference between groups means as follow 0.20 = small; 0.50 = medium; 0.80 = large; RCT: randomised control trial; NR: not reported; NS: no significant
Greater comparative benefit is denoted in the results using a greater ">" sign.

Table 34: *Summary of findings table of the effects of Nurse Home Visitation (NHV)*

NHV vs Inactive Control

Patient or population: children (younger than 13 years) and their primary caregivers
Setting: Home
Intervention: NHV
Comparison: Inactive control (usual care)
Outcomes: adverse events (safety), family functioning, home environment

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with NHV			

1. Child Protective Services and hospital records
2. Imprecision: fewer than 300 participants,
3. Imprecision: no effect estimates provided
4. Potential for 'detection bias'
5. McMaster Family Functioning-General Functioning Scale
6. Measured with HOME inventory
   Risk of bias: 'low'

In summary, results from a single small study suggest it is uncertain whether NHV improves family functioning, home environment or decreases the recurrence of violence because the certainty of evidence is very low.

Parent-child interaction therapy (PCIT)

"PCIT is an evidence-based treatment for young children (ages 2 to 8) with emotional and behavioural disorders that places emphasis on improving the quality of the parent-child relationship and changing parent-child interaction patterns. Children and their caregivers are seen together in PCIT. Most of the session time is spent coaching caregivers in the application of specific therapy skills. Therapists typically coach from an observation room with a one-way mirror into the playroom, using a "bug-in-the-ear" system for communicating to the parents as they play with their child. Concluding each session, therapist and caregiver together decide which skill to focus on most during daily 5-minute home practice sessions the following week" (93-95).

The intervention described in this review (PCIT) (50) was combined with self-motivational orientation intervention referred to here as PCIT adaptation package or PCIT-AP. Tables 35 and 36 present the characteristic of the review and summary of findings.

Table 35: *Characteristics of the review on PCIT (Goldman 2013)*

Population	Intervention	Comparisons	Outcomes	Type of Abuse
N=110[a] 4 to 12 years	PCIT-AP Median follow up 850 days post baseline	Active and inactive controls: PCIT-AP enhanced and SAU	Adverse event	physical abuse and neglect
N=153[b] 2.5 to 12 years	PCIT-AP Median follow up 904 days post baseline	Active and inactive controls: SM+SAU parenting program, SAU orientation + PCIT, SAU	Adverse event	physical abuse and neglect

SAU: services as usual (community standard orientation + parenting program); SM = self-motivational orientation; a and b refers to two different trials, a and b are explained below

Adverse events: maltreatment recidivism

[a] One review author suggested one (efficacy) trial (3 groups) showed PCIT-AP reduced child maltreatment recidivism (reports to the child welfare system) when compared to treatment as usual (p=0.02). There was lack of evidence of an effect between the enhanced version of the intervention compared with PCIT-AP (p=0.13) and between PCIT-AP enhanced and SAU (p=not reported).

[b] In a second RCT (effectiveness trial) there was a lack of evidence of an effect between PCIT-AP and usual care (HR=0.20, p=NR, trend). PCIT–AP resulted in significantly reduced recidivism compared with the community standard parenting program combined with the experimental self-motivational orientation (HR 0.10, p<0.05) and PCIT plus services as usual (HR=0.11, p<0.05).

Table 36: *Summary of findings table of the effects for Parent-child interaction therapy (PCIT-AP)*

PCIT-AP vs Active and Inactive Control

Patient or population: children (2.5 to 12 years)
Setting: clinic, welfare centre
Intervention: PCIT-AP
Comparison: Active and Inactive control
Outcomes: adverse events

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with PCIT-AP			
Adverse events[1] Child maltreatment recidivism Intervention Groups: PCIT-AP PCIT-AP enhanced SAU		PCIT-AP>SAU, p=0.02 Lack of difference of an effect between PCIT-AP and PCIT-AP enhanced, p=0.13 Lack of difference of an effect between PCIT-AP and SAU, p=ns (NR)		110 (1RCT)	⊕◯◯◯ VERY LOW [2,3,4]
Adverse events[1] Child maltreatment recidivism Intervention Groups: PCIT-AP SM+SAU parenting program SAU orientation +PCIT SAU		PCIT-AP>SM+SAU parenting program, HR=0.10, p<0.05 PCIT-AP>SAU orientation +PCIT, HR=0.11, p<0.05 PCIT-AP>SAU, HR=0.20, p=NR, trend		153 (1RCT)	⊕◯◯◯ VERY LOW [2,3,4]

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; HR: hazard ratio; RCT: randomised control trial PCIT-AP: parent-child interaction therapy adaptation package; NR: not reported; NS: no significant: SAU: services as usual (community standard orientation + parenting program): SM: self-motivational orientation. Greater comparative benefit is denoted in the results using a greater ">" sign.

1. Child Protective Services and hospital records (fewer recurrences is best)
2. Imprecision: fewer than 300 participants,
3. Unclear risk of bias
4. Imprecision: some effect size missing

Treatment Foster Care (TFC)

TFC is a unique model of care that provides children with a combination of the best elements of traditional foster care and residential treatment centres. The foster household is viewed as the primary treatment setting, and the foster parent(s) are trained and supported to implement the goals outlined in the child's treatment plan. These goals include: community integration, meeting the medical needs of the children, eliminating inappropriate behaviours, supporting the child's educational needs. These goals are carried out under the direction of a treatment team assigned to each child (37). On review investigated the effect of TFC (52). Tables 37 and 38 summarize the characteristics of the review and intervention's main findings.

Table 37: *Characteristics of the review (MacDonald 2007)*

Population	Intervention	Comparison	Outcomes	Type of Abuse
N=20 9-18 years	TFC	Inactive Control (regular foster care)	Time to placement	unspecified

Placement: Time in placement

The length of time youth were maintained in placement showed a lack of evidence of an effect (SMD 0.18 95%CI 0.79 lower to 1.14 higher). When the unplaced controls were excluded from the analysis, results showed a small effect (SMD 0.24, 95%CI 0.92 lower to 1.41 higher).

Table 38: *Summary of findings table of the effects of treatment foster care (TFC)*

TFC vs Inactive Control

Patient or population: children (9 to 18 years)
Setting: community
Intervention: TFC
Comparison: Inactive control
Outcomes: Time in placement

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	№ of participants (studies)	Quality of the evidence (GRADE)
	Risk with no intervention	Risk with TFC			
Time in Placement		SMD 018 (0.79 lower to 1.14 higher)		20 (1RCT)	⨁◯◯◯ VERY LOW [2,3,4]

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI: Confidence interval; HR: hazard ratio; RCT: randomised control trial PCIT-AP: parent-child interaction therapy adaptation package; NR: not reported; NS: no significant: SAU: services as usual (community standard orientation + parenting program): SM: self-motivational orientation,
Greater comparative benefit is denoted in the results using a greater ">" sign.

1. Child Protective Services and hospital records (fewer recurrences is best)
2. Imprecision: fewer than 300 participants, wide confidence intervals
3. Issues related to high and unclear risk of bias
4. Single study

In summary, results from a very small trial suggest it is uncertain whether TFC improves permanency because the certainty of the evidence is very low.

Discussion

Main results

This overview of reviews identified five moderate to high quality systematic reviews summarising the effects of interventions for children who experience, or have experienced violence. We categorized the interventions found into psychotherapy and treatment foster care.

Low certainty of evidence suggests that branded version (49) TF-CBT may slightly decrease PTSD symptoms (49). The effects of other psychotherapeutic interventions (i.e. individual or group CBT, psychodynamic therapy, play therapy, parent child psychotherapy, and group psychotherapy) on PTSD symptoms are uncertain. Psychotherapeutic interventions evaluating parental and caretaker child relationship outcomes included Nurse Home Visitation program and CBT.

Adverse events were evaluated by three reviews, however, it is uncertain if the interventions (nurse home visiting, parent-child interaction therapy, TF-CBT, and individual CBT) reduce harm in maltreated children.

It is uncertain whether Treatment Foster Care interventions (e.g. Nurse Home Visiting, Fostering Healthy Futures, Enhance Foster Care) improve mental health, quality of life, cognition, parental and caretaker child relationship, and placement outcomes.

Certainty of the evidence

The five included reviews were for the most part relatively well-conducted. Furthermore, from these systematic reviews, we used data from RCTs, which constitute the highest level of evidence. Nonetheless, the overall quality of evidence, as assessed using the GRADE tool, for each outcome was downgraded from 'high quality' to 'low' or 'very low'. Our reasons for downgrading the evidence have been footnoted for each outcome reviewed. We note that the effect estimate was often based on a single small study with wide confidence intervals. In summary, the certainty of the evidence for the main outcomes ranged from low to very low, which means our confidence in the estimate is limited and the true effect of these interventions may be substantially different. We are uncertain of the effect of a large number of interventions.

Strengths and weaknesses

There are several strengths of this overview of reviews. We used a comprehensive and systematic approach to searching, screening and reviewing the included reviews. The search strategy was developed, peer reviewed, and implemented by an experienced information specialist. We used duplicate screening, data extraction, and quality assessment. We had no language restrictions. A validated instrument (AMSTAR) was used to assess the methodological quality of included reviews. We retrieved data from the reviews; in a few cases we consulted full text RCTs, and contacted review authors and RCTs authors for further clarification.

There are some limitations with our overview of reviews. We only included moderate to high quality systematic reviews, and it can be argued that exclusion of low quality reviews may have excluded data relevant for this project. Although seven outcomes were examined, there are likely other relevant outcomes related to these interventions. Another limitation, is that in focusing on systematic reviews we may have missed more recent trends of interventions for child violence (e.g. attention and emotion regulation). We chose to focus on RCTs because without a randomization process and a control group, it is hard to be sure that the intervention is the cause of the observed change. However, RCTs might not be ideal as outcomes and concepts need to be clearly limited in these types of studies, and with complex issues such as child violence, this may be difficult. It is also important to highlight that by focusing on RCTs children's voices and stories have not been included.

Factors such as severity of the violence, concurrent types of violence, developmental stage of the child, and other variables such as socio-economic status, access to healthcare or services, single or repeated episode, etc. may influence the adoption and planning of violence interventions. Unfortunately, the description of the interventions was often limited. Failure to include operational definitions, a weakness of some of the included reviews, created ambiguity regarding the type of violence being investigated, the intervention applied, and the effectiveness of the intervention.

One dimension not considered in this overview, is the therapist-child relationship (i.e. the closeness of the relationship to therapist) in the psychotherapy category. We acknowledge this as a limitation and encourage further studies to add this important dimension.

Overall completeness and applicability of the evidence

Limited evidence was identified for some important outcomes (e.g. quality of life, cognition, mental health, harms). Also, although this is an overview of reviews, a substantial part of the evidence is derived from older small studies with suboptimal methodology. We did not find any reviews presenting sub-group information for very young children (0 to 3 years) or adolescents.

Maltreated children are a very heterogeneous group. Strict eligibility criteria applied to clinical trials included in these reviews, may have unintentionally selected 'middle-class' or average children (and parents/caregivers) and thus, applicability of our results should be viewed with caution. For example, MacDonald (52) reported not finding studies including disabled children and youth that met their inclusion criteria. Further, Whetington and colleagues' (53) review suggests studies often exclude children who were too disruptive, seriously suicidal or have severe mental health problems.

It is difficult to draw generalizable conclusions regarding the applicability of findings to the Norwegian context as there are differences between countries the evidence come from (see Table 3). Despite such differences, there are a number of interventions that will likely be applicable to this context. This may be the case for individual, group or parent-child CBT, TF-CBT, individual or group psychotherapy, and play therapy. Treatment Foster Care interventions are closely linked to country policies and community resources related to the protection of the child at a community or societal level, and are therefore not easily generalizable.

Agreements or disagreements with other overviews of reviews

Over the past 15 years, there have been a large number of reviews assessing child violence interventions. Our search identified two overviews of reviews of interventions, one published in 2004 and one in 2009 (46, 47).

Dufuor's (47) overview assessed the effect of interventions for children who experienced violence and who remained in the family home. The author searched 4 databases from 1984 to 2002, so logically there was no overlap between our included reviews. Dufuor used a comparable definition of child violence to ours: the child "had at least one experience of sexual abuse, physical abuse, emotional maltreatment, exposure to domestic violence and/or neglect reported, suspected or confirmed by the participant's family." However, we did not extract who the perpetrator of the abuse was. In contrast to our overview, Dufour specified that the interventions could be directly targeting children, parents or families. Dufuor noted there were no trials on child neglect intervention alone and most reviews merged neglect with other types of violence, which is also the case in our overview. Also in agreement with our overview, Dufuor found there was no standard way of measuring outcomes to determine effectiveness. Dufuor found that, after considering study limitations, group interventions directed to (sexually abused) children were the most common type, and individual interventions were mostly cognitive-behavioural approaches. Dufour found cognitive behavioural interventions were by far the most common type of intervention directed to parents. Last, in agreement with our overview, Dufour found that adverse events of interventions were rarely documented.

In the other overview of reviews, by Coren (46), eligibility criteria were more strict. Coren reviewed "therapeutic interventions" for children, or their families, who experienced child sexual abuse. Coren's search ranged from 2005 to 2008 and included 7 databases. The authors included five reviews with children 3 to 18 years; an early version

of Macdonald systematic review is included (56). In agreement with our overview of reviews, this overview shows an evidence gap for those younger than 3 years old. Also in agreement with our overview, Coren states social relationships and functioning evidence was not robust as this outcome was not measured often. In agreement with our overview, Coren suggests that CBT and TF-CBT interventions are the most frequently tested therapy for PTSD and that may occasionally improve symptoms for sexually abused children. We also agree that there is no one intervention with clear benefits over another one due to lack of evidence of effect differences.

Applications for practice

The evidence from the systematic reviews showed superiority or harm of one intervention compared to another or control for some of our chosen outcomes. Yet, despite the results presented, and the growth in the literature, clinicians, health professionals, and policy makers should be reminded the quality of evidence was low to very low. This means our confidence on the results is weak and that future research is likely to change our understanding of the effectiveness of these interventions. Decision based on the current evidence should be made with caution.

Children were between ages of 0 and 18 years with one review only including 0 to 14 years. Children at different ages and developmental levels may react differently to the same intervention, and therefore they should be met by interventions that fit with their age. Subgroup comparisons exploring treatment effect (i.e. younger vs older, female vs males, moderate vs severe symptomatology) were not present.

The interventions were clinically diverse; they differed in length of sessions, type of population involved (individual, parents/caregivers) and type of violence children experienced. In this regard, the nature of the violence will to some extent require different interventions and problem solution, arguing to read the evidence deriving from reviews with a broad violence inclusion criteria with caution. The length of these interventions (on average 16 weeks for psychotherapeutic and 6 months to 3.5 years for treatment foster care) may be disputed as some interventions might have poor outcomes in a short time perspective. In addition, this overview of reviews shows the overall complexities both of the phenomena of violence towards children and the need to develop holistic approaches that take in regard how violence and its effects on children has to be met at different levels with specific interventions.

Long term effects were uncommonly reported and this issue warrants futher investigation. It is important to understand how well these children exposed to these interventions fare in time. Any causal relationship between violence, interventions and adverse events is not substantiated by current evidence. Adverse events were rarely measured systmatically.

The involvement of parents or caregivers was not an initial focus of this overview of reviews, but it was clear that almost all interventions, especialy psychotherapy interventions, involved them. Children are with their therapist for only a small portion of the day, so it remained up to the parents or caregivers to ‘practice’ what was

conveyed during the intervention. Parents or caregivers can be the child's strongest source of healing and may be critically important for the intervention's success.

Low certainty evidence supports (branded) TF-CBT intervention to decrease symptoms of PTSD; however, the reviews included old trials and this finding may not reflect current practices.

The data in this overview of reviews do not cover every available intervention, and there are many other (new and old) interventions available. We did not consider the economic cost of interventions to children or families.

Research gaps

We have used the EPICOT approach to describe implications for further research (96-99). To date, the effect of interventions for maltreated children remains uncertain, and should be further explored.

Evidence: The multiple sectors addressing this issue (medical communities, public health officials, researchers, practitioners, etc.) use their own definitions, limiting common understanding across disciplines and hampering efforts to identify, assess, summarize and disseminate information effectively. A clearer definition of violence and operationalization of the interventions may aid public health efforts to respond to child violence.

Review authors need to be more explicit about how data has been handled (i.e. mean difference, standardized mean differences) to allow comparisons among reviews possible. Several documents are available to support systematic reviewers' work (100-102), and to evaluate the quality of the evidence (45).

Population: Only one of the reviews focused on children aged 0-3 years, which shows a clear gap for early ages. As early childhood experiences are key for healthy development, the inclusion of these very young children is therefore warranted.

We carefully reviewed full text records of interventions including terms such as youth/juvenile delinquency, violent behaviour, crimes, aggression or behavioural disorders picked out by our search. The link between these populations to child violence was not clearly stated, and we were unable to include this body of literature. We encourage researchers to include this information in future research.

Intervention: Violence is a complex issue, which makes developing interventions a challenging job. It is possible that there is no single 'solution' or stand-alone intervention for child violence, and that change may need to occur on multiple levels (political, economic, cultural, familial and professional) simultaneously for an intervention to work. We encourage researchers to address interventions as a broad and multifaceted construct, incorporating different sectors involved in childhood wellbeing in future research.

Comparators: none

Outcomes: Researchers should improve documentation of harms, adverse events or the exacerbation of associated children's pre-existing symptoms. Assessment of adherence should be an integral part of the results section of children's intervention.

In addition, further work to validate a set of outcome measures for children exposed to violence is desirable, to allow comparisons across studies and elucidation of the more effective interventions. Consensus of outcomes assessment may help to compare and combine results of trials appropriately. Finally, determination of the minimum clinically important difference and responsiveness of the core measures is also necessary.

Conclusion

In conclusion, given the evidence from the five systematic reviews included, there is still uncertainty surrounding the effectiveness of psychotherapy and treatment foster care interventions for children who have been exposed to violence in close relationships. Since a variety of aspects have been recognized as important risk factors for violence against children, interventions taking a more holistic approach and of longer duration may be needed. Althougth it appears there may be benefits for some interventions, we suggest interpreting the information with caution as it was often based on single, small studies. Also, heterogeneity concerning both populations and interventions make it very difficult to reach convincing evidence. The lack of high certainty of the evidence prevents us in answering questions that clinicians may ask regarding which particular intervention can improve the outcomes of interest.

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Appendices

1. Glossary

Term	Explanation
Abuse	Child abuse (and neglect) is any act or series of acts of commission or omission by a parent or other caregiver (e.g. clergy, coach, teacher) that results in harm, potential for harm, or threat of harm to a child (103)
Caregiver	A person, or people, who at the time violence occurred is in a permanent (primary caregiver) or temporary (substitute caregiver) custodial role. In a custodial role, the person is responsible for care and control of the child and for the child's overall health and welfare
Child	Any individual from birth through 18 years of age at the time of violence (1)
Cohen's d	Cohen's d is an effect size used to indicate the standardised difference between two means. It can be used, for example, to accompany reporting of t-test and ANOVA results. It is also widely used in meta-analysis. Cohen's d is an appropriate effect size for the comparison between two means
Control Group	Or sometimes refer to as comparison group, is a set of study participants not receiving the intervention under investigation. They may instead be given either a placebo or no treatment, or a different intervention
Domestic violence	Also called intimate partner violence (IPV), domestic abuse or battering, includes actual or threatened physical or sexual violence or emotional abuse between adults in an intimate relationship.
Emotional neglect	Caregiver ignores the child, or denies emotional responsiveness or adequate access to mental health care
Effectiveness	The degree to which child interventions are successful in producing desired results
Effect size	An index of the magnitude of difference in outcome between treatment and control groups
GRADE	Grading of Recommendations, Assessment, Development and Evaluation. A tool that is used to assess the certainty of the evidence in a systematic review (45)

Harm	Any acute disruption caused by the threatened or actual acts of commission or omission to a child's physical or emotional health. Disruptions can affect the child's physical, cognitive or emotional development.
Heterogeneous	Any kind of variability among studies in a systematic review may be termed heterogeneity. Variability in the participants, interventions and outcomes studied may be described as clinical heterogeneity, and variability in study design and risk of bias may be described as methodological heterogeneity. Variability in the intervention effects being evaluated in the different studies is known as statistical heterogeneity, and is a consequence of clinical or methodological diversity, or both, among the studies. Statistical heterogeneity manifests itself in the observed intervention effects being more different from each other than one would expect due to random error (chance) alone.
HR	Hazard ratio. The instantaneous hazard rate is the limit of the number of events per unit time divided by the number at risk, as the time interval approaches 0.
Imprecision	Imprecision in general, is when studies include relatively few participants, and few events, and therefore have wide confidence intervals around the estimate of effect.
Inconsistency	Inconsistency of relative (rather than absolute) treatment effects in binary/dichotomous outcomes may be determined by looking at the (dis)similarity of point estimates, extent of overlap of confidence intervals, and statistical criteria including tests of heterogeneity (I^2).
Indirectness	Indirectness of evidence is when evidence comes from research that either does not directly compare the interventions in which we are interested with control, or when the intervention is not applied to the populations in which we are interested or if a study measures outcomes that are not direct measures important to patients but proxy measures or process measures.
(Child) Maltreatment	Any act or series of acts of commission or omission by a parent or other caregiver that results in harm, potential for harm, or threat of harm to a child (2)
(child) Neglect	The failure to provide for a child's basic physical, emotional, or educational needs or to protect a child from harm or potential harm
OR	An odds ratio (OR) is a measure of association between an exposure and an outcome. It represents the odds that an outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the absence of that exposure (i.e. in the control group).
P value	Is the probability value of whether a statistical outcome is greater than what would occur by chance
Physical abuse	The intentional use of physical force against a child that results in, or has the potential to result in, physical injury. It can include hitting, kicking,

	punching, beating, stabbing, biting, pushing, shoving, throwing, pulling, dragging, dropping, shaking, strangling/choking, smothering, burning, scalding, and poisoning. An exception are the anal or genital area or surrounding areas that occur during attempted or completed sexual abuse; these are considered sexual abuse and do not constitute physical abuse
Physical neglect	Caregiver fails to provide adequate nutrition, hygiene, or shelter, or fails to provide clothing that is adequately clean, appropriate size, or adequate for the weather.
Prevention (primary)	Primary prevention seeks to prevent the onset of specific diseases via risk reduction: by altering behaviours or exposures that can lead to disease, or by enhancing resistance to the effects of exposure to a disease agent.
Prevention (secondary)	Type of prevention consisting of activities targeted to families/individuals that have one or more risk factors, including substance abuse or domestic violence issues, teenaged parents, parents of special needs children, single parents and low-income families. These services include parent education classes for high-risk parents, respite care, home visiting programs, crisis nurseries, etc.
Primary caregiver	Must live with the child at least part of the time and can include, but are not limited to, a relative or biological, adoptive, step- or foster parent, a legal guardian or the intimate partner
Psychological abuse	Intentional caregiver behaviour that conveys to a child that he/she is worthless, flawed, unloved, unwanted, endangered, or valued only in meeting another's needs. Psychological abuse can be continual or episodic. May include blaming, belittling, degrading, intimidating, terrorizing, isolating, restraining, confining, corrupting, exploiting, spurning, or otherwise behaving in a manner that is harmful, potentially harmful, or insensitive to the child's developmental needs, or can potentially damage the child psychologically or emotionally
Randomized controlled trial	Study design in which participants are randomly assigned to either one or more treatment groups and a control group to determine the efficacy of a treatment. The use of randomization ensures that known or unknown confounding factors are evenly distributed across intervention groups.
RR	Risk ratio or relative risk. Relative risk is the ratio of the risk of disease among those exposed to a risk factor to the risk among those not exposed.
SD	The standard deviation (SD) is a measure used to quantify the amount of variation of a set of data values. If close to '0' it indicates that the data points tend to be very close to the mean of the data set, while a high standard deviation indicates that the data points are spread out over a wider range of values.
Sexual Abuse	Any completed or attempted (not completed) sexual act, sexual contact with, or exploitation of a child by a caregiver. Sexual acts include contact

	involving penetration, however slight, between the mouth, penis, vulva, or anus of the child and another individual. Sexual acts also include penetration, however slight, of the anal or genital opening by a hand, finger, or other object.
SMD	The standardized mean difference is used as a summary statistic in meta-analysis when the studies all assess the same outcome but measure it in a variety of ways (for example, all studies measure depression but they use different psychometric scales). In this circumstance it is necessary to standardize the results of the studies to a uniform scale before they can be combined. The standardized mean difference expresses the size of the intervention effect in each study relative to the variability observed in that study.
Substitute caregiver	May or may not reside with the child and can include clergy, coaches, teachers, relatives, babysitters, residential facility staff, or others who are not the child's primary caregiver
Trauma	Trauma is an emotional response to a terrible event like an accident, rape or natural disaster. Shock and denial are typical reactions immediately after the event. Longer term reactions include unpredictable emotions, flashbacks, strained relationships and even physical symptoms.
(child) Violence	The intentional use of physical force or power, threatened or actual, against a child, that either results in or has a high likelihood of resulting in injury, death, psychological harm, underdevelopment, or deprivation.(1)
Violence in close relationships	Violence in close relationships means that the assailant and the victim are related, friends or that they mean a lot to each other (3)

2. Definitions of interventions

Conceptual definitions

We present internationally accepted definitions for each intervention evaluated in the included reviews which may or may not be the same used by the review authors. In a few cases, we directly quote the definition from the program website.

Attachment and Biobehavioral Catch Up (ABC)
Defined by Goldman and colleagues as a "Home-based approach to help foster parents provide nurturing, sensitive care that promotes child regulatory capabilities and attachment formation. ABC employs manualized parenting curriculum, flexibility in responding to current issues, and use of videotapes of parent-child interaction to illuminate child cues and strengths in the relationship. The intervention comprises 10, 1-hour weekly home visits with child and foster parent or child and biological caregiver together" (50).

Child-Parent Psychotherapy (CPP)
"CPP is a treatment for trauma-exposed children aged 0-5. Typically, the child is seen with his or her primary caregiver, and the dyad is the unit of treatment.CPP examines how the trauma and the caregivers' relational history affect the caregiver-child relationship and the child's developmental trajectory. A central goal is to support and strengthen the caregiver-child relationship as a vehicle for restoring and protecting the child's mental health. Treatment also focuses on contextual factors that may affect the caregiver-child relationship (e.g. culture and socioeconomic and immigration related stressors). Targets of the intervention include caregivers' and children's maladaptive representations of themselves and each other and interactions and behaviors that interfere with the child's mental health. Over the course of treatment, caregiver and child are guided to create a joint narrative of the psychological traumatic event and identify and address traumatic triggers that generate dysregulated behaviors and affect" (64).

Cognitive Behavioural Therapy (CBT)
"CBT is a type of "talking treatment" that focuses on how a person's thoughts, beliefs and attitudes affect his/her feelings and behaviour, and teaches the person coping skills for dealing with different problems. It combines cognitive therapy (examining the things the person think) and behaviour therapy (examining the things the person do). CBT can be offered in *individual* sessions with a therapist or as part of a *group*. The number of CBT sessions needed depends on the difficulty the person needs help with. Often this will be between five and 20 weekly sessions lasting between 30 and 60 minutes each. CBT is mainly concerned with how the person think and acts now, instead of looking at and getting help with difficulties in the past. In CBT the person works with a therapist to identify and challenge any negative thinking patterns and behaviour which may be causing the difficulties. In turn this can change the way the person feels about situations, and enables the person to change his/her behaviour in future. You and your therapist might focus on what is going on in the person's life right now, but the person might also look at his/her past, and think about how past experiences impact the way you see the world." (65).

Enhanced Foster Care

"Enhanced foster care is a generic term for the diverse range of enhanced, intensive, specialised, and/or therapeutic models of foster care." (81).

"Enhanced foster care is a unique model of care in its own right, rather than an "add-on" to foster care or a "step-down" from residential care. Out-of-home care systems provide a range of placement options and services to children with complex and diverse needs. Children's needs should not be conceptualised simply as a linear scale from low to high." (81).

Program referred to in this overview of reviews: The Bucharest Early Intervention Project (82).

Fostering Healthy Futures

"Fostering Healthy Futures® is a youth development program for pre-adolescent youth, ages 9 to 11, with a history of placement in out-of-home care. The program uses a combination of screening assessments, individual mentoring, and group-based skills training to promote healthy development and reduce risk factors for adverse outcomes." (83).

Fostering Individualized Assistance Program Fostering (FIAP)

FIAP employs a series of clinical interventions that are aimed at reducing emotional and behavioural problems in children within the foster care system. Key adults (biological, adoptive or foster parents) in a child's life are employed to carry out an individually tailored case plan. (84) There are four clinical components to the FIAP intervention: 1) strength-based child and family assessment to address individualized needs; 2) life domain area service planning to support and enhance permanency plans; 3) clinical case management of individualized, wraparound service plans, and 4) follow-along supports and services to maintain permanency and improve overall adjustment.

Group Psychotherapy

APA definition of Group Psychotherapy: "Group therapy involves one or more psychologists who lead a group of roughly 5 to 15 patients. Typically, groups meet for an hour or two each week. Some people attend individual therapy in addition to groups, while others participate in groups only. Many groups are designed to target a specific problem, such as depression, obesity, panic disorder, social anxiety, chronic pain or substance abuse. Other groups focus more generally on improving social skills, helping people deal with a range of issues such as anger, shyness, loneliness and low self-esteem. Groups often help those who have experienced loss, whether it be a spouse, a child or someone who died by suicide." (66).

Incredible Years (IY)

The Incredible Years (IY) Training Series is a set of three comprehensive, multifaceted, and developmentally based curricula for parents, teachers, and children. The program is designed to promote emotional and social competence and to prevent, reduce, and treat aggression and emotional problems in young children 0 to 12 years old (85)

Keeping Foster and Kinship Parents Trained (KEEP)

KEEP is a group training programme designed for non-relative and kinship (family and friends) carers with children in placement aged between 3 and 17 years. There are 3 separate KEEP programmes:

- KEEP P for carers with children aged 3-6 years
- KEEP Standard for carers with children aged 5-12 years
- KEEP Safe for carers with young people aged 12-17 years

The 16 week parent training programme (or 20 weeks for KEEP Safe) was developed by Dr Patti Chamberlain and her colleagues in Oregon, USA and was shown to have positive results in a study of 700 foster carers in San Diego. (86-88).

Middle School Success (MSS)

"The MSS program targets girls in foster care who are transitioning to middle school. MSS aims to increase their social behaviours, reduce their internalizing and externalizing symptoms, increase the stability of their foster care placements, and reduce their substance abuse and delinquency. During the school year, girls receive continuing one-on-one training and support, while foster parents participate in group meetings. In the short term, the Middle School Success (MSS) program is intended to reduce girls' internalizing and externalizing symptoms, promote their prosocial behaviours, and increase foster care placement stability. In the long term, MSS is intended increase girls' social behaviours and foster placement stability, and to reduce their substance abuse (tobacco, alcohol, and marijuana) and delinquency. (104, 105).

Multidimensional Treatment Foster Care for Preschoolers

"Multidimensional Treatment Foster Care - Preschool/Preventive (MTFC-P) is for families with a child between the ages of three and six who is in/or at risk of an out-of-home placement in foster or residential care. Children are placed with a 'treatment foster family' trained in the MTFC-P model, for a period that typically lasts between nine and 12 months." (89, 90).

Nurse Home Visitation

"Home Visiting Programs are defined as any home visiting programs with a goal to improve child well-being, including physical health, development, and school readiness. Home visiting is a mechanism to provide direct support and coordination of services for families which involves direct services to the family in the home setting. Programs vary, but components may include 1) education in effective parenting and childcare techniques; 2) education on child development, health, safety, and nutrition; 3) assistance in gaining access to social support networks; and 4) assistance in obtaining education, employment, and access to community services." (91, 92).

Parent-child interaction therapy (PCIT)

"PCIT is an evidence-based treatment for young children (ages 2 to 8) with emotional and behavioural disorders that places emphasis on improving the quality of the parent-child relationship and changing parent-child interaction patterns. Children and their caregivers are seen together in PCIT. Most of the session time is spent coaching caregivers in the application of specific therapy skills. Therapists typically coach from an ob-

servation room with a one-way mirror into the playroom, using a “bug-in-the-ear” system for communicating to the parents as they play with their child. Concluding each session, therapist and caregiver together decide which skill to focus on most during daily 5-minute home practice sessions the following week.” (93-95).

Play Therapy

The Association for Play Therapy has defined Play Therapy as "the systematic use of a theoretical model to establish an interpersonal process wherein trained play therapists use the therapeutic powers of play to help clients prevent or resolve psychosocial difficulties and achieve an optimal growth and development." (67-71).

Psychodynamic therapy

According to APA, “Psychodynamic or psychoanalytic psychotherapy refers to a range of treatments based on psychoanalytic concepts and methods that involve less frequent meetings and may be considerably briefer than psychoanalysis proper. Session frequency is typically once or twice per week, and the treatment may be either time limited or open ended. The essence of psychodynamic therapy is exploring those aspects of self that are not fully known, especially as they are manifested and potentially influenced in the therapy relationship”. (72, 73)

Psychotherapy

"Psychotherapy is the informed and intentional application of clinical methods and interpersonal stances derived from established psychological principles for the purpose of assisting people to modify their behaviours, cognitions, emotions, and/or other personal characteristics in directions that the participants deem desirable." (72, 106)

Trauma Focused Behavioural Therapy (TF-CBT)

TF-CBT is a components based model of psychotherapy that addresses the needs of children related to traumatic life experiences by integrating several therapeutic approaches and treating both child and parent in a comprehensive manner.
Recognizing the importance of parental support in the child’s recovery process, TF-CBT includes individual sessions for the child and parents or caregivers and joint parent-child sessions. The parent/caregiver component teaches stress management, parenting and behaviour management skills, and communication skills. As a result, parents are better able to address their own emotional distress associated with the child’s trauma, while also supporting their children more effectively. TF-CBT combines elements of cognitive therapy, behavioural therapy and family therapy.” (74)

Branded version

A trained clinician moves the client through a series of eight components, pacing the progression of the treatment with the client's clinical readiness. The components include: psychoeducation and parenting skills (P), relaxation (R), affective expression and regulation (A), cognitive coping (C), trauma narrative development and processing (T), in vivo gradual exposure (I), conjoint parent/child sessions (C) and enhancing safety/future development (E). Together these components comprise the P.R.A.C.T.I.C.E. acronym.

This branded version is a combination of and expansion upon earlier trauma-focused treatment interventions developed by Judith A Cohen, Anthony Mannarino and Esther Deblinger teams to treat child sexual abuse survivors." (75-80)

Four components
The review team selected the following components: (1) exposure, (2) cognitive processing and reframing, (3) stress management, and (4) parental treatment as the "four major components" of TF-CBT.

Five components
The addition of "psychoeducation."

Treatment Foster Care (TFC)
TFC is a unique model of care that provides children with a combination of the best elements of traditional foster care and residential treatment centers. In TFC, the positive aspects of the nurturing and therapeutic family environment are combined with active and structured treatment.

The foster household is viewed as the primary treatment setting, and the foster parent(s) are trained and supported to implement the goals outlined in the child's treatment plan. These goals include: community integration, meeting the medical needs of the children, eliminating inappropriate behaviours, supporting the child's educational needs. These goals are carried out under the direction of a treatment team assigned to each child. The team is made up of the foster parent(s), therapeutic case manager, individual treatment aide, the child and his/her family, the state social worker and other community resource professionals for the child. Support from all of the team members allows the child to benefit from a home environment and community-based setting while receiving intensive treatment and clinical services. (37)

3. Search strategy

Children who has experienced violence in close relations

Databases: Embase (Ovid), Ovid MEDLINE, PsycINFO (Ovid), Campbell Library, Centre for Reviews and Dissemination: Database of Abstracts of Reviews of Effect, HTA. Cochrane Library: Cochrane Database of Systematic Reviews, Other Reviews, Health Technology Assessment (HTA) Database. Education Resources Information Center (ERIC), Epistemonikos, Google Scholar, PubMed, Swedish Agency for Health Technology Assessment and Assessment of Social Services (SBU), Web of Science.

Date: 2015.09.24-10.01.

Study design: Systematic reviews
Clinical queries (Ovid): "reviews (best balance of sensitivity and specificity)" or (systematic* review*.tw (text word) or meta analysis.tw,pt (publication type) or review.pt.)

Publication year: 2000 - 2015

Results: 2497 systematic reviews/reviews (2916 including duplicates)

Searched by: Ingrid Harboe, research librarian

Search strategies:

Databases (Ovid, federated search):

Embase version 1974 to 2015 September 24.

Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily, Ovid MEDLINE(R) and Ovid OLDMEDLINE(R) version 1946 to Present.

PsycINFO version 1806 to September Week 3 2015.

Codes for subject headings:

Embase: oemezd

MEDLINE : pmoz

Psycinfo: psyc3…

Date: 2015.09.24

Results: Embase 515, MEDLINE 133, PsycINFO 1669

Nr.	Searches	Results
1	exp infant/ use oemezd	917350
2	Infant/ use pmoz	673516
3	exp child/ use oemezd	2245224
4	Child/ use pmoz	1437467
5	Child, Preschool/ use pmoz	792863
6	exp adolescent/ use oemezd	1318038
7	Adolescent/ use pmoz	1709121
8	(adolesc* or preadolesc* or pre-adolesc* or boy* or girl* or child* or infan* or juvenil* or minor* or pediatri* or paediatri* or pubescen* or puberty or teen* or young* or youth* or school* or toddler*).tw.	6321780
9	or/1-8	9132625
10	Child Abuse/	67725
11	Child Abuse, Sexual/ use pmoz	8809
12	child sexual abuse/ use oemezd	7261
13	Physical Abuse/ use psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	5205
14	Emotional Abuse/ use psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	2112
15	Sexual Abuse/ use psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	17314
16	Incest/	6126
17	Child Neglect/ use oemezd,psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	5398
18	Violence/ use pmoz,psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	48992
19	exp violence/ use oemezd	110721
20	"Wounds and Injuries"/ use pmoz	66466
21	wound/ use oemezd	18926
22	Domestic Violence/ use pmoz,psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	14134

23	Sex Offenses/	23297
24	sexual crime/ use oemezd	9397
25	Trauma/ use pmoz,psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	77922
26	(assault* or abus* or incest* or neglect*).tw.	501914
27	(violent or violently or violence*).tw.	158044
28	(fail* adj3 (care* or upbringing or (bring adj up) or raise or rasing)).tw.	9010
29	(injure or injured or injuries or injuring).tw.	503777
30	(harm or harms or harmed or harming or wound*).tw.	439939
31	(mistreat* or misus* or maltreat* or molestat* or (sex adj1 offense*)).tw.	64627
32	(trauma or traumas or traumatic or traumati*ed).tw.	672466
33	(scare* or frighten* or threaten* or hurt* or force*).tw.	958892
34	(force* adj3 marriage*).tw.	315
35	or/10-34	3003150
36	9 and 35 [children & abuse]	790609
37	Child Care/ use pmoz	4844
38	exp child care/ use psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	6884
39	Child Welfare/ use pmoz	20353
40	exp child welfare/ use psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	6520
41	Caregivers/ use pmoz,psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	45168
42	caregiver/ use oemezd	47435
43	Family Relations/ use pmoz	8579
44	family relations/ use psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	25609
45	parent child relations/ use psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	19121
46	sibling relations/ use psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	2042
47	childrearing practices/ use psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	6642
48	Foster Home Care/ use pmoz	3135

49	foster care/ use psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	4009
50	foster parents/ use psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	684
51	Counseling/	95521
52	Mentors/	30577
53	(child adj3 (care* or welfare)).tw.	47168
54	(carer or carers or caregiver* or (child* adj3 rear*)).tw.	158334
55	((famil* or father* or mother* or parent* or maternal*) adj6 relation*).tw.	158138
56	((foster adj3 (care* or home* or parent*)) or fostering or (social adj3 care*) or (social adj3 welfare)).tw.	66333
57	(nurser* or kindergarten* or (center adj6 director*)).tw.	48320
58	(teacher* or master* or schoolteacher* or schoolmaster*).tw.	326759
59	(counselor* or advocate* or instructor* or mentor* or legal guardian* or adviser* or advisor* or tutor* or coach* or confidant*).tw.	310576
60	((addiction adj2 person*) or confidence).tw.	721620
61	or/37-60	1886338
62	36 and 61 [children & abuse & close relations]	94343
63	exposure to violence/ use psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	338
64	(exposure or exposed or experiences or experienced or (go* adj through) or been through).tw.	2491478
65	(witness or witnessed or observe or observed).tw.	4747970
66	or/63-65	6884898
67	62 and 66 [children & abuse & close relations & exposed]	23405
68	exp intervention/ use psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	71902
69	Crisis Intervention/ use pmoz	5299
70	exp Therapeutics/ use pmoz	3575919
71	exp therapy/ use oemezd	7026583
72	(intervention* or program* or therap* or treat*).tw.	14610733

73	(strategy or strategies or course or courses or remedial* or healing).tw.	3236213
74	or/68-73	21392637
75	67 and 74 [children & abuse & close relations & interventions]	13513
76	limit 75 to yr="2000 -Current"	11329
77	76 and (systematic* review*.tw. or meta analysis.tw,pt. or review.pt.)	883
78	limit 76 to "reviews (best balance of sensitivity and specificity)"	2634
79	or/77-78	2659
80	remove duplicates from 79	2317
81	80 use oemezd	515
82	80 use pmoz	133
83	80 use psyc3,psyc4,psyc5,psyc6,psyc7,psyc8,psyc9,psyc10,psyc11	1669

Database: Campbell Library

Date: 2015.09.24

Results: 25

ID	Search	Hits
2	keywords is assault* or keywords is incest* or keywords is neglect or keywords is violence or keywords is sexual offence* or keywords is trauma and document type is title_proposal, protocol, review	12
4	keywords is forced marriage or keywords is maltreatment* or keywords is misus* or keywords is injur* or keywords is moleslation* or keywords is mistreat* and document type is title_proposal, protocol, review	3
6	title is forced marriage OR maltreatment* OR misus* OR injur* OR moleslation* OR mistreat* and document type is title_proposal, protocol, review, abstract, other	5
7	title is assault* OR incest* OR neglect OR violence OR sexual offence* OR trauma* and document type is title_roposal, protocol, review, abstract, other	18
9	title is abuse* and document type is title_proposal, protocol, review, abstract, other	13
10	keywords is abuse* and document type is title_proposal, protocol, review, abstract, other	12

Database: Centre for Reviews and Dissemination

Date: 2015.09.23

Line	Search	Hits
1	MeSH DESCRIPTOR Infant EXPLODE ALL TREES	2744
2	MeSH DESCRIPTOR Child	4268
3	MeSH DESCRIPTOR Child, Preschool	2137
4	MeSH DESCRIPTOR Adolescent	4169
5	((adolesc* or preadolesc* or pre-adolesc* or boy* or girl* or child* or infan* or juvenil* or minor* or pediatri* or paediatri* or pubescen* or puberty or teen* or young* or youth* or school* or toddler*))	16579
6	#1 OR #2 OR #3 OR #4 OR #5	16579
7	MeSH DESCRIPTOR Child Abuse	46
8	MeSH DESCRIPTOR Child Abuse, Sexual	34
9	MeSH DESCRIPTOR Incest	0
10	MeSH DESCRIPTOR Violence	50
11	MeSH DESCRIPTOR Domestic Violence	26
12	MeSH DESCRIPTOR Wounds and Injuries	340
13	MeSH DESCRIPTOR Sex Offenses	21
14	((assault* or abus* or incest* or neglect*))	991
15	((violent or violently or violence*))	209
16	((fail* near3 (care* or upbringing or bring up or raise or rasing)))	89
17	((injure or injured or injuries or injuring))	2180
18	((harm or harms or harmed or wound*))	4299
19	((mistreat* or misuse or maltreatment* or molestation or sex near/1 of-fense*)))	189
20	((trauma or traumas or traumatic or traumatized))	1787
21	((force* near marriage*))	0

22	#7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21	7985
23	#6 AND #22	2276
24	MeSH DESCRIPTOR Child Care EXPLODE ALL TREES	114
25	MeSH DESCRIPTOR Child Welfare	71
26	MeSH DESCRIPTOR Caregivers	209
27	MeSH DESCRIPTOR Family Relations EXPLODE ALL TREES	167
28	MeSH DESCRIPTOR Foster Home Care	8
29	((child near3 (care or welfare)))	246
30	((carer or carers or caregiver* or (child* near2 rear*) or teacher*))	1350
31	(((foster next care) or (health next care) or (social next care) or social next welfare)))	12561
32	((famil* near3 relation*)) [see line 36]	64
33	(((foster near3 (care* or home* or parent*)) or fostering or (social near3 care*) or (social near3 welfare)))	1929
34	((nursery or kindergarten or (center nea/6 director*))	95
35	((teacher* or master* or schoolteacher* or schoolmaster*))	320
36	(((famil* or father* or mother* or parent* or maternal*) near6 relation*))	
37	#24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36	13612
38	#23 AND #37	669
39	(((expos* or experiences or experienced or (go* next through) or been through)))	4089
40	MeSH DESCRIPTOR Crisis Intervention	25
41	MeSH DESCRIPTOR Therapeutics EXPLODE ALL TREES	25913
42	((intervention* or program* or therap* or treat*))	62809
43	#40 OR #41 OR #42	65424
44	#38 AND #39	100

45	#43 AND #44	99
46	(#45) IN DARE, HTA	68

Database: **Cochrane Library**

Date Run: 2015.10.01

Results: Cochrane Reviews (199)

Other Reviews (2)

Technology Assessments (1)

ID	Search	Hits
1	MeSH descriptor: [Infant] explode all trees	13453
2	MeSH descriptor: [Child] this term only	203
3	MeSH descriptor: [Child, Preschool] this term only	84
4	MeSH descriptor: [Adolescent] explode all trees	77828
5	(adolescen* or preadolescen* or pre-adolescen* or boy* or girl* or child* or infan* or juvenil* or minor* or pediatri* or paediatri* or pubescen* o puberty or teen* or young* or youth* or school* or toddler*):ti,ab,kw	211600
6	#1 or #2 or #3 or #4 or #5	211600
7	MeSH descriptor: [Child Abuse] this term only	279
8	MeSH descriptor: [Child Abuse, Sexual] this term only	198
9	MeSH descriptor: [Incest] this term only	4
10	MeSH descriptor: [Sex Offenses] this term only	109
11	MeSH descriptor: [Violence] explode all trees	1160
12	MeSH descriptor: [Domestic Violence] explode all trees	716
13	MeSH descriptor: [Wounds and Injuries] explode all trees	16384
14	(assault* or abus* or incest* or neglect*):ti,ab,kw	7591
15	(violent or violently or violence*):ti,ab,kw	1427
16	(fail* near/3 (care* or upbringing or brin next up or raise or rasing)):ti,ab,kw	708
17	(injure or injured or injuries or injuring):ti,ab,kw	11482

18	(harm or harms or harmed or wound*):ti,ab,kw	19137
19	(mistreat* or misus* or maltreat* or molestat* or (sex near/1 offense*)):ti,ab,kw	990
20	(trauma or traumas or traumatic or traumati*ed):ti,ab,kw	10475
21	(force* near marriage*):ti,ab,kw	0
22	#7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21	50988
23	#6 and #22	14793
24	MeSH descriptor: [Child Care] explode all trees	883
25	MeSH descriptor: [Child Welfare] this term only	323
26	MeSH descriptor: [Caregivers] this term only	1302
27	MeSH descriptor: [Family Relations] explode all trees	2043
28	MeSH descriptor: [Foster Home Care] explode all trees	90
29	MeSH descriptor: [Counseling] this term only	3033
30	MeSH descriptor: [Mentors] this term only	135
31	(child near/3 (care* or welfare)):ti,ab,kw	2193
32	(carer or carers or caregiver* or (child* near/3 rear*)):ti,ab,kw	4883
33	((famil* or father* or mother* or parent* or maternal*) near/6 relation*):ti,ab,kw	3268
34	((foster near/3 (care* or home* or parent*)) or fostering or (social near/3 care*) or (social near/3 welfare)):ti,ab,kw	1581
35	(nurser* or kindergarten* or (center near/6 director*)):ti,ab,kw	746
36	(teacher* or master* or schoolteacher* or schoolmaster*):ti,ab,kw	3335
37	(counselor* or advocate* or instructor* or mentor* or legal guardian* or adviser* or advisor* or tutor* or coach* or confidant*):ti,ab,kw	5406
38	((addiction near/2 person*) or confidence):ti,ab,kw	39959
39	#24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38	60735

40	#23 and #39	2492
41	(exposure or exposed or experiences or experienced or (go* next through) or been through):ti,ab,kw	59925
42	(witness or witnessed or observe or observed):ti,ab	106555
43	#41 or #42	156081
44	#40 and #43	730
45	MeSH descriptor: [Crisis Intervention] explode all trees	148
46	MeSH descriptor: [Therapeutics] explode all trees	247341
47	(intervention* or program* or therap* or treat*):ti,ab,kw	581715
48	(strategy or strategies or course or courses or remedial* or healing):ti,ab,kw	70477
49	#45 or #46 or #47 or #48	652523
50	#44 and #49 Publication Year from 2000 to 2015, in Cochrane Reviews (Reviews and Protocols), Other Reviews and Technology Assessments	202

Database: Epistemonikos

Date: 2015.01.10

Results: 8

(title: ((child* OR adolescent* OR boy* OR girl* OR youth*)) OR abstract: ((child* OR adolescent* OR boy* OR girl* OR youth*)))

AND

(title:((violen* OR abuse* OR assault*)) OR abstract: ((violen* OR abuse* OR assault*)))

AND

(title: ((family* OR parent OR parents OR foster care OR foster home OR teacher*)) OR abstract: ((family* OR parent OR parents OR foster care OR foster home OR teacher*)))

AND

(title: ((exposed OR exposure OR experience OR experienced OR been through)) OR abstract: ((exposed OR exposure OR experience OR experienced OR been through)))

Database: ERIC

Date: 20150925

Results: 147

SEARCH: abstract: child violence close relation intervention descriptor: systematic review

abstract: adolescent violence close relation intervention descriptor: systematic review

Database: Google scholar

Date: 2015.09.25

Results: 20

Search: all in title: child abuse family review

All in title: child violence family review

All in title: child domestic violence review

All in title: forced marriage review

All in title: adolescent maltreatment review

All in title: domestic violence treatment review

Database: PubMed (ahead of print)

Date: 2015.09.23

Results: 5 reviews/systematic reviews (121 references)

Search ((((((((((child*[Title/Abstract] OR adolescent*[Title/Abstract] OR boy*[Title/Abstract] OR girl* or youth*[Title/Abstract])) AND (violence[Title/Abstract] OR abuse*[Title/Abstract] OR assault*[Title/Abstract])) AND (relation*[Title/Abstract] OR family*[Title/Abstract] or parent[Title/Abstract] or parents[Title/Abstract] or "foster care"[Title/Abstract] OR "foster home"[Title/Abstract] OR teacher*[Title/Abstract])))) AND ((exposed[Title/Abstract] OR exposure[Title/Abstract] or "experience with"[Title/Abstract] or experienced[Title/Abstract] or "been through"[Title/Abstract])))) AND pubstatusaheadofprint)))

Database: Web of Science

Date: 2015.09.25

Results: 115

Set	Search
# 9	# 8

Refined by: Databases: (WOS) AND DOCUMENT TYPES: (REVIEW)
Timespan=All years
Search language=Auto

# 8 #7 AND #6
Timespan=All years
Search language=Auto

# 7 YEAR PUBLISHED: (2000-2015)
Timespan=All years
Search language=Auto

# 6 #5 AND #4 AND #3
Timespan=All years
Search language=Auto

# 5 TOPIC: (systematic* review*) OR TITLE: (systematic* review*)
Timespan=All years
Search language=Auto

# 4 TOPIC: (treatment OR therap* OR intervention* OR programme) OR TITLE: (treatment OR therap* OR intervention* OR programme)
Timespan=All years
Search language=Auto

# 3 #2 OR #1
Timespan=All years
Search language=Auto

# 2 TOPIC: (child or adolescent or youth or boy or girl or infant) AND TOPIC: (forced marriage OR maltreatment OR misus OR moleslation OR mistreat OR mistreatment OR assault OR incest OR neglect OR violence OR sexual offence OR trauma) AND TOPIC: (domestic OR family OR close relation OR caregiver OR foster home OR parent) AND YEAR PUBLISHED: (2000-2015)
Timespan=All years
Search language=Auto

1 TITLE:(child or adolescent or youth or boy or girl or infant) AND TITLE:(forced marriage OR maltreatment OR misus OR moleslation OR mistreat OR mistreatment OR assault OR incest OR neglect OR violence OR sexual offence OR trauma) AND TITLE: (domestic OR family OR close relation OR caregiver OR foster home OR parent) AND YEAR PUBLISHED: (2000-2015)

Time span=All years

Search language=Auto

4. Excluded records and reasons for exclusion

Domain	Reasons for exclusion
AMSTAR score <5	
Allin 2005	AMSTAR score: 2
Corcoran 2008	AMSTAR score: 4
Hetzel 2007	AMSTAR score: 4
Leenarts 2013	AMSTAR score: 4
Midgley 2011	AMSTAR score: 2
Parker 2013	AMSTAR score: 4
Passarela 2010	AMSTAR score: 4
Ramirez de Arellano 2014	AMSTAR score: 4
Trask 2011	AMSTAR score: 3
Not systematic review according to Knowledge Centre criteria	
Cerniglia 2012	Not a systematic review
Retzlaff 2013	Not a systematic review
Rizo 2011	Not a systematic review
Vine 2006	Not a systematic review
Williamson 2014	Not a systematic review
Not an effectiveness question	
Afari 2014	Not an effectiveness-related research question
Bair 2006	Not an effectiveness-related research question
Choi 2015	Not an effectiveness-related research question
Danese 2014	Not an effectiveness-related research question
De Koker2014	Not an effectiveness-related research question
De La Rue 2014	Not an effectiveness-related research question
Devries 2014	Not an effectiveness-related research question
Gadon 2009	Not an effectiveness-related research question
Gil 2008	Not an effectiveness-related research question
Leve 2012	Not an effectiveness-related research question
Lindert 2014	Not an effectiveness-related research question

Mikton 2009	Not an effectiveness-related research question
Muraya 2015	Not an effectiveness-related research question
Population	
Dretzke 2009	Population: the interventions aimed at parents/carers.
Garrido 2007	Population: Delinquent children and adolescents
Hahn 2005	Population: delinquency and emotionally disturbed children. Delinquency: 3 (60%); Emotionally disturbed children: 2 (40%) The authors of the primary studies were contacted
Niccols 2012	Population: the interventions focused on mothers. The included trials exhibited low methodological quality.
Prosman 2015	Population: the interventions focused on mothers. The review did not address our outcomes of interest.
Turner 2015	Population: the interventions aimed at professionals.
Study design	
Harvey 2010	Study design: 56% of the studies included are uncontrolled: Uncontrolled studies: 22 (56%), RCT: 10 (26%) Non-RCT: 6 (15%), Unclear: 1 (3%)
Van Der Laan 2011	The review does not include randomized controlled trials.
Winokur 2014	Study design: non-experimental studies Author contacted
Overlap	
Gillies 2012	Study design: Only two trials (2/14; 14%) included children victims of abuse in close relationships (Cohen 2004; King 2000). These trials overlap with other of the included reviews.
Ramchandani 2003	Overlap: 9/12 (75%) studies with respect to Macdonald 2012
Silverman 2008	Type of traumatic event. The data for sexual abuse interventions overlap with other included reviews in 100%.
Skowron 2005	This review reports effect estimates only for the comparison of sexual abuse versus general maltreatment (p.62). However, four out of the seven studies of sexual abuse overlap with other included systematic reviews and the rest of the studies do not meet our criteria of study design (Bagley 2000 is non-RCT; Sullivan 92 is a RCT where the parents who refused psychological treatment were considered as a control group; Verleur 86 is a non-RCT).
Winokur 2009	Companion of Winoukur 2014, thus overlap: 62/62 (100%)

5. Reviews excluded based on not meeting Knowledge Center criteria

Review authors	Specified search strategy	Use of explicit criteria to include/exclude studies	Explicit methods for the assessment of the quality of the included studies	Decision - Included or Excluded
Afari 2014	1	1	1	3 – I
Allin 2014	0	0	1	1 – E
Bair 2006	1	0	0	1 – E
Corcoran 2008	1	0	0	1 – E
Dretzke 2009	1	1	1	3 – I
Gillies 2012	1	1	1	3 – I
Hahn 2005	1	1	1	3 – I
Harvey 2010	1	1	1	3 – I
Hetzel 2007	1	0	0	1 – E
Leenarts 2013	0	0	1	1 – E
Midgley 2011	0	0	0	0 – E
Niccols 2012	1	1	1	3 – I
Parker 2013	1	0	0	1 – E
Passarela 2010	1	1	0	2 – E
Prosman 2015	1	1	1	3 – I
De Arellano 2014	1	0	1	2 – E
Ramchandani 2003	1	1	1	3 – I
Retzlaff 2013	0	1	1	2 – E
Rizo 2011	1	1	0	2 – E
Silverman 2008	1	1	1	3 – I
Skowron 2005	0	1	0	1 – E
Trask 2011	0	0	0	0 – E
Winokur 2009	1	1	1	3 – I
Winokur 2011	1	1	1	3 - I

0= no; 1=yes, I=include, E=exclude

6. Assessment of methodological quality in the included reviews

AMSTAR consensus scores and questions, and Kappa agreement and interpretation

AMSTAR Question	Cary 2012	Goldman 2013	Macdonald 2007	Macdonald 2012	Wethington 2008	Measure of Agreement (Kappa)	Kappa Interpretation
1	0	1	1	1	0	1	Perfect agreement
2	0	1	1	1	0	0.61	Substantial agreement
3	1	1	1	1	1	NE	Perfect agreement
4	1	1	1	1	0	0.28	Fair agreement
5	1	1	1	1	0	1	Perfect agreement
6	1	1	1	1	1	NE	Perfect agreement
7	1	1	1	1	1	NE	Perfect agreement
8	0	1	1	1	1	1	Perfect agreement
9	1	1	1	1	1	NE	Perfect agreement
10	0	0	0	0	1	NE	Perfect agreement
11	0	0	0	0	0	NE	Perfect agreement
Total Score	6	9	9	9	6	0.75	Substantial agreement

0=No; 1=Yes NE= Not estimated, since the two authors agreed perfectly across all reviews and the statistical test assumes those values as a constant.

AMSTAR Questions

1. Was an 'a priori' design provided?
2. Was there duplicate study selection and data extraction?
3. Was a comprehensive literature search performed?
4. Was the status of the publication used as an inclusion criterion?
5. Was a list of studies (included and excluded) provided?
6. Were the characteristics of the included studies assessed and documented?
7. Was the scientific quality of the included studies assessed and documented?
8. Was the scientific quality of the included studies used appropriately in formulating conclusions?
9. Were the methods used to combine the findings of studies appropriate?
10. Was the likelihood of publication bias assessed?
11. Were potential conflict of interest (for systematic review and included studies) included

7. Outcome measures (tools) used in the included reviews

Category	Outcome	Instrument
Mental health and PTSD	Mental Health	Multi-informant mental health index (composite of Trauma Symptoms Checklist and Internalizing Scales of Child Behaviour Checklist and Teacher Report Form)
	PTSD	Kiddie schedule for affective disorders and schizophrenia for school aged children (K-SADS-PL) Trauma Symptom checklist for children Anxiety disorders interview schedule (Child version) Preschool age psychiatric assessment (PAPA) Clinical administered PTSD scale The child PTSD symptom scale. PTSD subscale of the Child Behaviour Checklist (completed by the child's parent) CITES-R (Children's Impact of Traumatic Events Scales-Revised) Schedule for Affective Disorders and Schizophrenia for School-Age Children (SSADE-E) Diagnostic classification of mental health and developmental disorders of infancy and early childhood (DC: 0-3 TSD)
Cognition	Cognitive functioning	Bayley Scales of Infant and Toddler Development Dimensional Change Card Sort Penny Hiding Task
Harms	Recurrence of abuse	Hospital data Child protective services records
Quality of life	Quality of Life	Live satisfaction survey
Parental and caretaker child relation-ship	Attachment	Strange situation Parent Attachment Diary
	Family functioning	McMaster Family Functioning
	Parenting practices	Parent daily report, Adult Adolescent, Parenting Inventory

	Home environment	Home inventory
	Belief in their child's story	Parent's Reaction to Incest Disclosure Scale (PRIDS), Parental support questionnaire (PSQ)
	Parental attributions	Parent attribution scale (PAS)
	Parenting Skills	Parenting practices questionnaire (PPQ)
	Parent's emotional reaction	Parent emotional reaction questionnaire (PERQ)
Placement	Permanency	Child welfare records, administrative data
	Placement stability	Child welfare records, administrative data
	Time in placement (length of stay)	Child welfare records, administrative data
	Successful days in placement	Child welfare records, administrative data

8. PTSD outcome evaluation and reporting

Primary studies	Cary 2012	Goldman 2013	Macdonald 2012	Whetington 2008	Naming of Intervention	Type of abuse
Berger 2007	√				TF—CBT[1]	Terrorism
Celano 1996	√		√	√	TF-CBT[1] ,individual CBT[2], CBT[3]	Sexual abuse
Cohen 1998-05	√		√	√	TF-CBT[1] ,individual CBT[2] , CBT[3]	Sexual abuse
Cohen 2004	√		√		TF-CBT[1], CBT[3]	Sexual abuse
Cohen 2011	√				TF-CBT[1]	IPV
Deblinger 1996-99	√		√	√	TF-CBT[1] ,individual CBT[2], CBT[3]	Sexual abuse
Deblinger 2001		√	√	√	CBT[3] , Group CBT[4]	Sexual abuse
King 2000	√		√	√	TF-CBT[1], individual CBT[2] , CBT[3]	Sexual abuse
Kot 1998				√	Play therapy[5]	IPV
Lieberman 2005				√	Parent child psychotherapy	IPV
Scheeringa 2011	√				TF—CBT[1]	Life threatening traumatic event
Smith 2007	√				TF—CBT[1]	Single traumatic event
Stein 2003	√				TF—CBT[1]	Exposure to violence
Trowell 2002		√			Psychotherapy	Sexual abuse
Runyon 2012		√			CPC-CBT	Physical abuse

CPC-CBT: combined parent child cognitive behavioural therapy, TF-CBT: trauma focused cognitive behavioral therapy, IPV: interpersonal violence,

[1] Cary2012's naming of the intervention

[2] Included RCTs in Whetington's 2008 individual CBT meta-analysis

[3] Included RCTs in Macdonald's 2012 CBT meta-analysis

[4] Included RCT in Whetington's 2008 group CBT meta-analysis

[5] Primary study with two companion articles presenting intervention delivered at the individual level, child and parent, and siblings group. Unclear what comparison/arms author used to arrive to conclusions.

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