Torture, 2024, 34(3), 15-40
https://doi.org/10.7146/torture.v34i3.143968 *Review*

Children who survive torture: A systematic review of screening, documentation and treatment of torture injuries in children

Catarina Nahlén Bose[1] and Ronak Tamdjidi[2]

1 Senior Lecturer, Department of Health Sciences, Swedish Red Cross University. Correspondence to: catarina.nahlen.bose@rkh.se
2 Clinical Psychologist, Red Cross Treatment Center Uppsala, Swedish Red Cross

Key points of interest

- Screening methods to identify child survivors of torture need to be developed.
- Both individual- and group-based treatment and both normal and more intensified treatment can reduce symptoms of PTSD, but the evidence is limited.
- TF-CBT and NET can reduce PTSD by up to one year after treatment in child survivors of torture, although the result should be interpreted with caution.

Abstract

Background: Children all over the world are subjected to torture, but few are identified as victims of these actions. Knowledge that facilitates identification, documentation, and treatment of torture injuries in children can allow redress and rehabilitation for more children in need. *Objective*: To synthesise research regarding screening, documentation, and treatment of child survivors of torture. *Methods*: A systematic literature review was conducted. A total of 4795 titles and/or abstracts were screened, of which 80 articles were included. Grey literature was also included. *Results*: Screening for torture exposure usually consisted of questions that were included in trauma questionnaires. Questions about perpetrators in the traumatic events were missing from more than half of the studies. Although children were screened mainly for psychological injuries, it was primarily physical injuries that were documented. The evidence on treatment effects was limited. However, there was a tendency that Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) and Narrative Exposure Therapy (NET) significantly reduced PTSD up to three months to one year after the end of treatment. Treatments with individual and group-based formats, as well as those with normal and more intensified approaches, were found to have an effect on PTSD.

Keywords: Child, Documentation, Rehabilitation, Screening, Torture

Introduction

Torture of children has a long history, dating back to ancient Greece (Evans, 2020). Historical findings include the systematic abuse of Indigenous children during the colonial era and violence in educational institutions (Durrant, 2022). During World War II, children were subjected to fatal medical experiments (Weindling et al., 2016), and military dictatorships, war, and genocide have also involved child torture (Quiroga, 2009). Torture of children occurs in both times of war and peace and both high-income and low-income countries (Marc, 2016; Quiroga, 2009). At present, refugee children are abused by border police (Burgund Isakov et al., 2022) and forcibly separated from their families and detained (Oberg et al., 2021). Homeless children are subjected to violence and killed by the police (Quiro-

ga, 2009). Forced recruitment of child soldiers has tripled since 1900 (Kamøy et al., 2021), and very violent interrogation methods in the judicial system affecting children are reported worldwide (Mèndez, 2015; The World Organisation Against Torture (OMCT), 2021; UNICEF, 2015). Torture of children appears to be increasing according to the United Nations (UN) (United Nations Voluntary Fund for Victims of Torture, 2016), yet the issue is conspicuous by its absence in both research and socio-political debate (den Otter et al., 2013; Pérez-Sales, 2019). Children who survive torture often must live with the physical and mental health consequences of violence without being identified as victims of torture and offered treatment. Leading experts in the field have, therefore, pointed to an urgent need for research and a knowledge base that facilitates the identification, documentation, and treatment of children who survive torture (den Otter et al., 2013; Pérez-Sales, 2019). A step in this direction took place in 2022, when the UN Guidelines on the documentation of torture, the Istanbul Protocol (IP), were updated to include sections on children (UN Office of the High Commissioner for Human Rights (OHCHR), 2022). The current review has adopted the UN definition of torture in the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (CAT) (UN General Assembly, 1984, Article 1).

Torture is not a limited act or method. Instead, torture can be understood as a situation in a specific context that is more or less protracted. The situation usually involves combined physical and psychological actions that often cause traumatisation (Patel et al., 2016; Steel et al., 2009) and other severe physical and mental consequences for the victim (Reyes, 2007). A person who is subjected to torture is often put in a state of helplessness and powerlessness, something that is reinforced by the fact that the perpetrator represents the public, which is one of the criteria in the UN's definition of torture (Marc, 2016; Quiroga, 2009). Children exposed to torture are at particularly severe risk of injury as the human organs, not least the brain, are most sensitive to external influences at the beginning of their development (Bosquet Enlow et al., 2012). Children have a lower pain threshold than adults (Quiroga, 2009) and have a limited capacity to endure their stress reactions without the support of adults who confirm, comfort, and convey security (Marc, 2016). Although the long-term consequences after torture vary among torture victims, research has shown an association between adverse childhood experiences and morbidity and mortality later in life (Felitti et al., 1998; Petruccelli et al., 2019).

The distinction between physical and psychological injuries, which sometimes appears in the literature on torture, can be considered somewhat simplistic as there are often several psychological, physical, and social processes in interaction with each other that affect how the injuries are manifested and sustained (Reyes, 2007). The manifestations of torture injuries also change over time, and many, not least children, heal and recover from their physical injuries, which makes it difficult to detect them in the event of delayed documentation. The psychological injuries from torture, on the other hand, are often more challenging to heal and usually persist long after the bodily injuries have healed (Pérez-Sales, 2019; Quiroga, 2009). Documented torture injuries in children include neurological damage, pain, scarring, damage to nerves and blood vessels, visual and hearing impairments, dental injuries, post-traumatic stress, depression, sleep problems, difficulty concentrating, emotional dysregulation, separation anxiety, and regressive symptoms such as bedwetting (Alayarian, 2009; Quiroga, 2009).

By its very nature, the interventions offered within the framework of torture rehabilitation will vary depending on what needs to be treated. Due to the limited availability of knowledge about torture rehabilitation for children, the following are instead some standard components of torture rehabilitation for adults: social support, pain rehabilitation, and psychological trauma treatment (Sjölund et al., 2009). Torture rehabilitation has long been a neglected area in research, especially for children who have survived torture. Increased knowledge that facilitates the identification, documentation, and treatment of torture injuries in children is an essential step towards redress for all children who have been subjected to torture and an equally important step in preventing further children from being subjected to torture.

The objective of this review is to synthesise research regarding screening, documentation, and treatment of child survivors of torture with the overall aim of collecting, developing, and spreading knowledge that facilitates the identification and treatment of torture injuries in children.

The specific research questions were:

1. How are child survivors of torture identified and screened? What screening instruments are used for child survivors of torture?
2. How are torture injuries documented in children?
3. What interventions are available for child survivors of torture, and what effect do they have?

Method

The review aligns with the PRISMA protocol (Page et al., 2021).

Eligibility criteria

Inclusion criteria: Original articles written in English, Swedish, Norwegian or Danish. No time limit. Children <18 years of age who have been subjected to torture, according to the definition of the Convention Against Torture, would constitute all or part of the sample in the studies. Grey literature in the form of reports and care guidelines was also included.

Exclusion criteria: Review articles and literature that deal only with adults, studies that lack the necessary basis for assessing torture, such as information about whether the act has been deliberate, what purpose it has had, and whether the state in question has seriously failed in its efforts to prevent and protect the children. Thus, studies dealing with trafficking and domestic violence, such as intrafamilial child torture, have been excluded. Since the updated Istanbul protocol was the starting point for the study, the protocol has not been included in our results.

Search strategy

Scientific articles were searched in PubMed, Cinahl, PsychInfo, Cochrane Library and AMED. A complete account of the search strategy is available upon request from the first author.

Reports and care guidelines were searched in the resource database Mental Health and Human Rights Info (HHRI) using the keywords "torture" and "children." The search was limited to "manual and guidelines." Experts in the field were also consulted for relevant literature. The literature search was performed in November and December 2022.

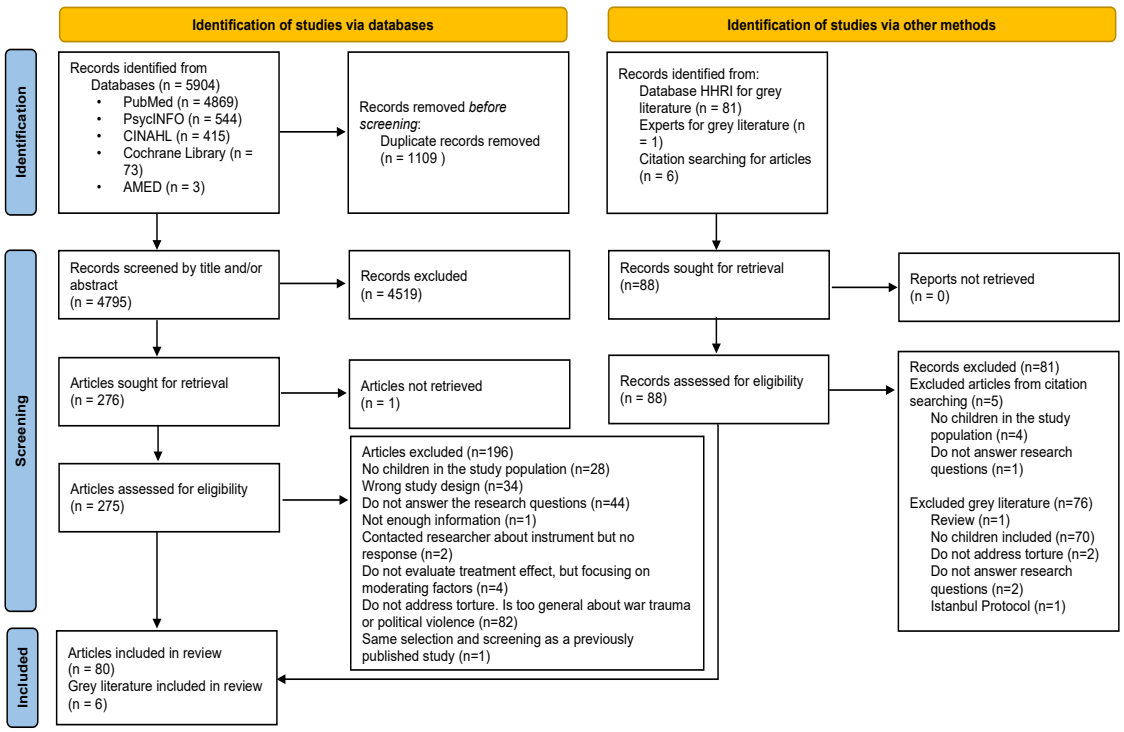
Screening and study selection

All hits in the scientific databases were imported into Covidence, a web-based tool for systematic reviews. Both authors performed all steps of the screening process blind to each other. Any conflicts were resolved by reaching a consensus after a discussion. A total of 80 scientific articles and six reports/guidelines were included. Figure 1 shows the flow of the screening process.

Data extraction and data analysis

Two of the 80 included scientific articles were categorised as guidelines. Of the remaining 78 scientific articles, 56 were classified as screening, 14 as documentation and 13 as treatment. Five articles were categorised under both screening and treatment. Data were then extracted into matrixes. Even though some

***Figure 1**. PRISMA flow diagram of the screening process.*



studies had mixed populations of children and adults, the method for screening and documentation was the same in most studies; therefore, the data extracted reflects the method used for the children. For the treatment studies, a comparative analysis of the effect was made between the type of treatment given, the intervention format and the intensity of the intervention, where normal intensity was compared with a more intensified treatment. These comparisons were made as they were considered interesting from a clinical perspective.

Risk of bias

The treatment studies were assessed for risk of bias with either A revised tool to assess risk of bias in randomised trials (RoB2-tool) (Sterne et al., 2019) for the RCT-studies or Risk Of Bias In Non-randomized Studies-of Interventions (ROBINS-I) (Sterne et al., 2016). All RCT-studies were assessed to have some concerns about the risk of bias. In the non-randomized studies of intervention (NRSI), four were evaluated to have a serious risk of bias and one critical risk of bias (see Supplementary material 1).

Results

Characteristics of included studies

Table 1 displays the characteristics of the included studies. The children in the study samples were usually made up of children who had fled, children in war and conflict zones, and former child soldiers. Some of the research participants had been exposed to torture, but not all. The age range was broad in the samples, with some studies only including children and others mixing children with young adults or adults.

Screening for torture exposure

Details on the 56 screening studies are displayed in an article matrix in Supplementary Material 2. The method for screening for exposure to torture was either through specific instruments (66 percent) or with interviews that were not based on a screening instrument (30 percent). Questions about the perpetrator occurred in 41 percent (n=23) of the studies, of which 16 studies were based on screening instruments and 7 studies were based on interviews.

From the above it was possible to extract 18 screening instruments (See Table 2). Twelve of the instruments used in the studies ask questions about the perpetrator or provide other information about the context in which the violence took place that could be considered sufficient to suspect torture, for example, former child soldiers. In some instruments, the term torture is used in the questions without the term being explained, and in other instruments, questions about specific torture methods are asked.

Screening for torture injuries

Most screening studies (n=50) screened for psychological and/or psychosocial symptoms. Symptoms of PTSD (n=40) were most common, followed by depression and anxiety (n=19), behavioural problems (n=11), and general mental and cognitive symptoms (n=7).

Only 12 (21.4%) of the studies screened for physical injuries. Most (n=10) had performed the screening through medical examinations such as X-rays, medical examinations of the genitals and rectum, and tests for, e.g., Hepatitis B and C. Two studies had questionnaires for somatic symptoms, and one study also used an instrument which mainly assesses children's physiological development in areas such as gross and fine motor skills, vision and hearing. (See supplementary material 2)

Documentation of torture injuries

Details on the 14 documentation studies (Allodi & Cowgill, 1982; Amone P'Olak, 2009; Clément et al., 2017; Guy, 2009; Haar et al., 2019; Keten et al., 2013; Lykke & Timilsena, 2002; Mateen et al., 2012; Olsen et al., 2006; Petersen, Larsen, et al., 1998; Petersen & Wandall, 1995; Ruchman et al., 2020; Russo et al., 2020; Tsai et al., 2012) are displayed in an article matrix in Supplementary material 3.

Torture survivors were identified in refugee camps (n=2), through patient record reviews (n=2), through rehabilitation centres (n=3), via a lawyer in the asylum process (n=1) and via grassroots organisation (n=1). In five studies, it was unclear how the identification took place. Examination of patient records consisted of forensic patient investigations and patient databases containing health data and diagnoses. Furthermore, a study that identified torture survivors through a rehabilitation centre reviewed documentation from the centre. Mixed professions carried out the documentation, whereas, in some studies, there was a team with different professions. The following professions carried out the documentation: Psychologist (n=1), Physician (n=8 of which one psychiatrist), Lawyer (n=1), and Social worker (n=1). In six studies, it was unclear who carried out the documentation.

In three of the studies, only the children were interviewed; in two other studies, children were interviewed with a parent. In one study, younger children were interviewed together with a parent and older children were interviewed without a parent if they were considered old enough to answer the questions themselves. However, in most studies, it is unclear who was interviewed (n=9).

***Table 1**. Characteristics of included studies for screening, documentation and treatment (n=78). N denotes the number of studies. Four studies were conducted in more than one country.*

Where the study was conducted

- Africa: n=31 (Algeria:1, Burundi:1, Ethiopia:1, Nigeria:1, Rwanda:2, Sierra Leone:3, Sudan:2, The Democratic Republic of Congo:7, Uganda:13)
- Australia & New Zealand: n=3 (Australia: 2, New Zealand:1)
- Europe: n=17 (Albania &Macedonia:1, Bosnia:1, Denmark:3, France:1, Germany:2, Italy:2, Norway:1, Sweden:3, Turkey:1, United Kingdom:3)
- Middle East: n=10 (Iraq:2, Jordan:1, Lebanon:1, the occupied Palestinian territory:6)
- North America: n=9 (Canada:1, USA:8)
- South America: n=1 (Peru)
- Southeast Asia: n=14 (Bangladesh:1, Cambodia:1, East Timor:1, Indonesia:1, Kashmir:1, Nepal: 6, Sri Lanka:1, Thailand:2)

Study population

- Children/adults
    - Only children: n=36
    - Only children and young adults, 0–25 years: n=11
    - Both children and adults: n=27
    - Retrospective screening studies where the sample was children at the time of the torture: n=4
- Studies that included children ≤ 7 years: n=25* (screening: 17, documentation:2, treatment: 2)
- Context
    - Refugee
        - Children that have escaped to the Western world (Europe/USA/Australia): n=22
        - Children that have escaped to non-western parts of the world: n=10
        - Children in immigration detention in the Western world: n=5
    - War and conflict
        - Children in war- and conflict zones: n=21
        - Abducted children/forcibly recruited as child soldiers: n=15
        - Children in war- and conflict zones who have been exposed to sexual violence: n=2
        - Children who survived genocide: n=2
    - Homeless children: n=1
- Studies where the whole study sample consisted of only torture survivors: n=5
- Studies conducted in another country than the potential torture occurred: n=30

*One study was categorised as both a screening and treatment study.

In six of the documentation studies, it appears that a psychological assessment has been carried out, while in all studies, there has been documentation of physical injuries. Eight studies state that they have followed a protocol in the documentation of torture where most followed the Istanbul Protocol (n=7). Of the studies that followed IP, three had followed all three parts of the protocol, psychological, psychosocial and physical, and four had only conducted the physical assessment.

Treatments for child survivors of torture

All included treatment studies had a psychological intervention. Even though broad searches were carried out, no somatic treatment studies were found. Details about the treatment studies and their effects can be found in the article matrix, Annex 1. The studies included children exclusively (=8) or mixed children with young adults (n=5).

The design of the treatment studies consisted of eight RCTs and five NRSIs. In two studies, the intervention consisted of contextually adapted TF-CBT (McMullen et al., 2013; O'Callaghan et al., 2013) and in four studies, treatment consisted of narrative exposure therapy (NET) (Ertl et al., 2011; Onyut et al., 2005; Ruf et al., 2010; Schaal et al., 2009) two of which had the child-friendly version KIDNET (Onyut et al., 2005; Ruf et al., 2010). Two studies included treatment consisting of more

Table 2. *Screening instruments, which include questions about torture*

Instrument (studies that used the instrument)	Questions about torture	Questions about the perpetrator
Adolescent Complex Emergency Exposure Scale (Mels et al., 2009)	No question specifically concerns torture, but questions are included about, e.g. being recruited into an armed force, forced to kill, injure or rape. The instrument is specially designed for war-affected youth in the specific region of the Democratic Republic of Congo.	Not specified
Child Psychosocial Distress Screener (CPDS) (Jordans et al., 2009)	Ask, among other things, if the child has experienced shocking events. Exploratory questions: e.g. witnessed the murder of family members. The questionnaire contains different parts, partly about experienced events but also about perceived psychosocial stress. Questions are addressed to both the child and teachers at school.	Not specified
Child Soldiers Trauma Questionnaire (CSTQ) (Klasen et al., 2009)	It has two subscales: 13 questions in a victim subscale (abduction; exposure to: shooting, bomb explosion, massacre, air raid; deprivation: food, water; witnessed: injury, murder; victim: death threat, beatings, injury, rape) and 6 questions in a perpetrator subscale if the child was the perpetrator (fighting, looting, abduction, torture, injury, killing).	No. The context is former child soldiers.
Child War Trauma Questionnaire (adapted version) (Betancourt et al., 2011)	The questions are categorised to: -Witness violence (13 questions), - Revolutionary United Front (RUF)-related abuse and violence/injury (12 questions), -as well as single questions concerning killed others, survivors of violence and sexual abuse, death of mother or father. Several questions could be classified as questions about torture and other questions not. The original was made for the target group of war-affected Lebanese youth. This version has been adapted for a context in Sierra Leone.	Yes
Detention Experience Checklist (Steel et al., 2004)	Some incidents could be classified as torture in the case of children, such as witnessing physical assault, being physically assaulted by an official, insufficient water in hot weather, separation from family, being held in solitary confinement, denial of access to basic items. It was designed for the study based on reports from current and former detainees of common experiences in detention.	Yes
Gaza Traumatic Exposure Checklist (Asia 2010)	Questions concern exposure to, for example, beating and humiliation, deprivation of water, food, toilet visits, and witnessing the murder of a family member, among other things, to threaten. The majority of the questions concern general traumatic war events.	Yes
Gaza Traumatic Event Checklist (Massad et al., 2017; Thabet et al., 1999; Thabet et al., 2000)	Questions include whether you have witnessed the beating of a family member or if you yourself have been beaten by the army. Can be completed by children 6-16 years old. Also available in revised version.	Yes
Harvard-Uppsala Trauma Questionnaire for Children (HUTQ-C) (Sundelin-Wahlsten et al., 2001; Taib et al., 2019)	Includes one question that asks specifically about torture. There are other items that could be classified under torture such as brainwashing, forced isolation, forced separation from parents. Age is filled in when the incident occurred and if the trauma was repeated. Adapted version of the Harvard trauma questionnaire that includes extra questions for children.	No
Harvard Trauma Questionnaire (HTQ) Geltman et al., 2005; Möhlen et al., 2005)	The instrument consists of two parts. One part with a list of traumatic events and one part with symptoms of PTSD. The part that lists traumatic events has an event specifically for torture. There are also events such as deprivation of food and water, brainwashing, forced isolation.	No

HURIDOCS standard formats: a tool for documenting human rights violations. (Chu et al., 2013)	Is not a specific instrument but functions as a coding system that includes over 70 acts or situations under the category of torture.	Yes, and defines what is considered to be a perpetrator.
Persecution in the Child (Hjern et al., 1998)	There are direct questions about torture, e.g. whether the child has witnessed the parent being tortured. Or if the child has been physically abused by a uniformed or non-uniformed person from the state. There are other issues, but they do not concern torture.	Yes
PTSD Traumatic Event Checklist of the Kiddie Schedule of Affective Disorders and Schizophrenia (Kohrt et al., 2010; Kohrt et al., 2008)	The instrument contains questions about traumatic events, partly "general" ones such as car accidents, natural disasters, and domestic violence. Questions have been added, one of which relates specifically to torture. The instrument has been adapted to the context.	No. The context is former child soldiers in the adapted version.
Trauma History Profile (THP) (Betancourt et al., 2012)	Have questions like "Extreme interpersonal violence", Physical maltreatment/ abuse, Emotional abuse/psychological maltreatment, Sexual maltreatment abuse. Uses the term maltreatment and not torture. Several of the questions do not concern torture but concern general war events, as well as violence in schools and natural disasters. The interviewer asked supplementary questions such as whether the child was a direct victim or witness to the incident.	Not specified
Trauma Questionnaire (Tremblay et al., 2009)	Developed for the study from Harvard Trauma Questionnaire. History of the trauma. Exposure to the worst traumatic event (which may include torture), including place and date.	Not specified
Violence, War and Abduction Exposure Scale (Ertl et al., 2011)	Some items could be related to torture, others not. Developed specifically for use in northern Uganda.	Yes
War Experiences Checklist (WEC) (Amone-P'Olak 2006; McMullen et al., 2013; McMullen et al., 2012)	The questions are divided into eight themes: 1. Separation from parents/relatives 2. Exposed to and role in combat 3. Deprivation and other hardships 4. Participation in rituals during captivity 5. Injured and victims of violence and intimidation 6. Witnessed beatings, mutilations, abductions, killings and village raids 8. Laid landmines and staged ambushes 9. Sexual abuse The instrument was available in different versions with different numbers of questions and adapted questions.	No. The context is partly former child soldiers.
War Trauma Experience Checklist (WTEC) (Ovuga et al, 2008)	On the 15-item WTEC there is one question about whether you yourself have been tortured, one question about whether you have witnessed someone else being tortured and one question about whether you have been forced to torture someone.	No. The context is former child soldiers.
Wartime Violence Checklist (Neugebauer et al., 2009)	No question uses specifically the term torture. The questions are divided into 6 categories. 1) Bereavement, 2) Witnessing violence against people, 3) Witnessing violence against property, 4) Direct victimization, 5) Witnessing rape/sexual mutilation, 6) Hiding under dead bodies. Adapted version to Rwandan context.	No. The context is the genocide in Rwanda.

established and comprehensive mental health programs under the auspices of Médecins Sans Frontières (MSF) (Lokuge et al., 2013; Martínez Torre et al., 2022), of which one study consisted partly of trauma-focused therapy (Lokuge et al., 2013) and the other of a Mental Health and Psychosocial Support (MHPSS) program with psychological interventions such as psychoeducation and psychological first aid (Martínez Torre et al., 2022). Five studies had interventions with varying trauma-focused elements (Betancourt et al., 2014; Durà-Vilà et al., 2013; Gupta & Zimmer, 2008; Layne et al., 2008; O'Callaghan et al., 2014) in which two contained exposures (Gupta & Zimmer, 2008; Layne et al., 2008).

The intervention format was either individual (n=7) or in groups (n=6), and some group interventions were classroom-based. The intensity of the interventions was grouped into either normal or a more intensified treatment, where our definition of more intensified is based on a comparison with the standard approach for TF-CBT, which is once a week for 90 minutes. Anything beyond that, both the number of sessions and the minutes were counted as an intensification of the standard setup. Four treatments were of normal intensity, and four were more intensified. In five studies, there was not enough information to make an assessment.

There was a variation in the follow-up time where 8 studies had a short-term follow-up of up to 4 months, and 5 studies had a longer follow-up time between 6-12 months. The most common outcome measure was PTSD, followed by depression, anxiety, behavioural problems, prosocial behaviour and functional impairment.

Effects of the interventions

The result from different types of interventions is presented for the most frequent measured outcome measures, PTSD, depression and anxiety, behavioural problems, prosocial behaviour and functional impairment. For comparison between format and intensity, the result presents the effect for PTSD solely. Effect size is given if it has been reported in the study. Figure 2 displays the effect on symptoms of PTSD for the different categories.

Effect from different types of treatments: PTSD: TF-CBT significantly reduced symptoms of PTSD after treatment compared to the control group with a large effect size (η_p^2 .518-.665). After three months, there was a sustained significant reduction in PTSD symptoms compared to before the start of treatment when analysis was performed within the intervention group (McMullen et al., 2013; O'Callaghan et al., 2013). NET was also shown to significantly reduce PTSD symptoms compared to the control group over a 6–12-month period with a moderate to large effect size (Cohen's d 0.72, Hedge's g 1.9, η^2 0.26) (Ertl et al., 2011; Ruf et al., 2010; Schaal et al., 2009) or over nine months when a within-group analysis was performed for the intervention group (Onyut et al., 2005). Interventions with varying trauma-focused elements showed mixed results, where one out of three RCTs found the treatment to significantly reduce PTSD symptoms compared to the control group after the end of treatment with a moderate effect size (Cohen's d 0.40). The effect was sustained within the treatment group after three months with a small effect size (η_p^2 0.04) (O'Callaghan et al., 2014). Of the two interventions that had no statistically significant difference between the groups (Betancourt et al., 2014; Layne et al., 2008), a within-group analysis showed a significant reduction in both the intervention group and the active control group for one of these studies (Layne et al., 2008). One NR-SI-study found a significant reduction within the treatment group after 4-6 weeks (Gupta & Zimmer, 2008).

Depression and anxiety: Symptoms of depression and anxiety were significantly reduced after TF-CBT in both studies after the end of treatment compared to the control group with a large effect size (η_p^2 0.517- .567) (McMullen et al., 2013; O'Callaghan et al., 2013). No comparative long-term follow-up was performed, but a within-group analysis after three months showed a sustained significant reduction in PTSD symptoms in the TF-CBT group (McMullen et al., 2013; O'Callaghan et al., 2013). Different outcomes were found after NET, where a significant reduction in depression after six months compared to the control group with a large effect size (η2 0.26) was seen (Schaal et al., 2009) and where there was no significant difference between the groups (Ertl et al., 2011). Interventions with varying trauma-focused elements could not demonstrate any reduction in depression compared to the control group (Layne et al., 2008; O'Callaghan et al., 2014). However, a within-group analysis for one intervention group found a significant reduction in symptoms of anxiety and depression after three months with a large effect size (η_p^2=.32) in one study (O'Callaghan et al., 2014).

Behavioural problems: In one study, behaviour problems were significantly reduced after TF-CBT compared to the control group with a large effect size (ηp2 0.259). After three months, a significant reduction in behavioural problems was seen in the TF-CBT group, but no comparative analysis with the control group was performed (O'Callaghan et al., 2013). Among the studies with interventions with varying trauma-focused elements, there was no significant difference in behavioural problems compared to the control group (O'Callaghan et al., 2014). However, within-group analyses in the treatment

group showed a significant reduction in behavioural problems after the end of treatment (Durà-Vilà et al., 2013) and after three months with a large effect size (η_p^2=.13) (O'Callaghan et al., 2014). None of the studies with NET as a treatment had behavioural problems as an outcome measure.

Prosocial behaviour: Prosocial behaviour increased significantly after completion of TF-CBT compared to a control group with a moderate effect size (η_p^2 0.099) in one study. No comparative analysis between the groups was performed at the three-month follow-up, but analysis within the TF-CBT group showed a significant improvement in prosocial behaviour after three months (O'Callaghan et al., 2013). For interventions with varying trauma-focused elements, both significant improvements in prosocial behaviour with a moderate effect size (Cohen's d 0.39) were seen (Betancourt et al., 2014) and no significant difference compared to the control group (O'Callaghan et al., 2014). The positive improvement was seen after the end of treatment but did not persist after six months (Betancourt et al., 2014). A within-group analysis showed positive improvement after three months for the intervention group with a moderate effect size (η_p^2=.08) (O'Callaghan et al., 2014). None of the studies with NET as a treatment had prosocial behaviour as an outcome measure.

Functional impairment: The level of function increased significantly in two studies with NET as an intervention compared to the control group over a 6–12-month period after the end of treatment with a large effect size (Cohen's d 0.83, Hedge's *g* 1.7) (Ertl et al., 2011; Ruf et al., 2010). In one study with intervention with varying trauma-focused elements, the level of function also increased significantly after the end of treatment compared to the control group with a moderate effect size (Cohen's d 0.32). However, after six months, there was no difference between the groups (Betancourt et al., 2014). None of the studies with TF-CBT as a treatment had functional impairment as an outcome measure.

Effects of normal or a more intensified treatment: PTSD: Among the interventions that were given more intensively, all RCT-studies had significantly reduced PTSD symptoms compared to control with a moderate to large effect size (Cohen's d 0.40 - 0.72, η^2 0.26) (Ertl et al., 2011; O'Callaghan et al., 2014; Schaal et al., 2009) and in one study when performing a within-group analysis (Gupta & Zimmer, 2008). A significant reduction in PTSD symptoms was seen in one out of three RCT-studies for interventions given at normal intensity compared to the control group with a large effect size (Hedge's *g* 1.9) (Ruf et al., 2010) or in two studies within the treatment group (Layne et al., 2008; Onyut et al., 2005).

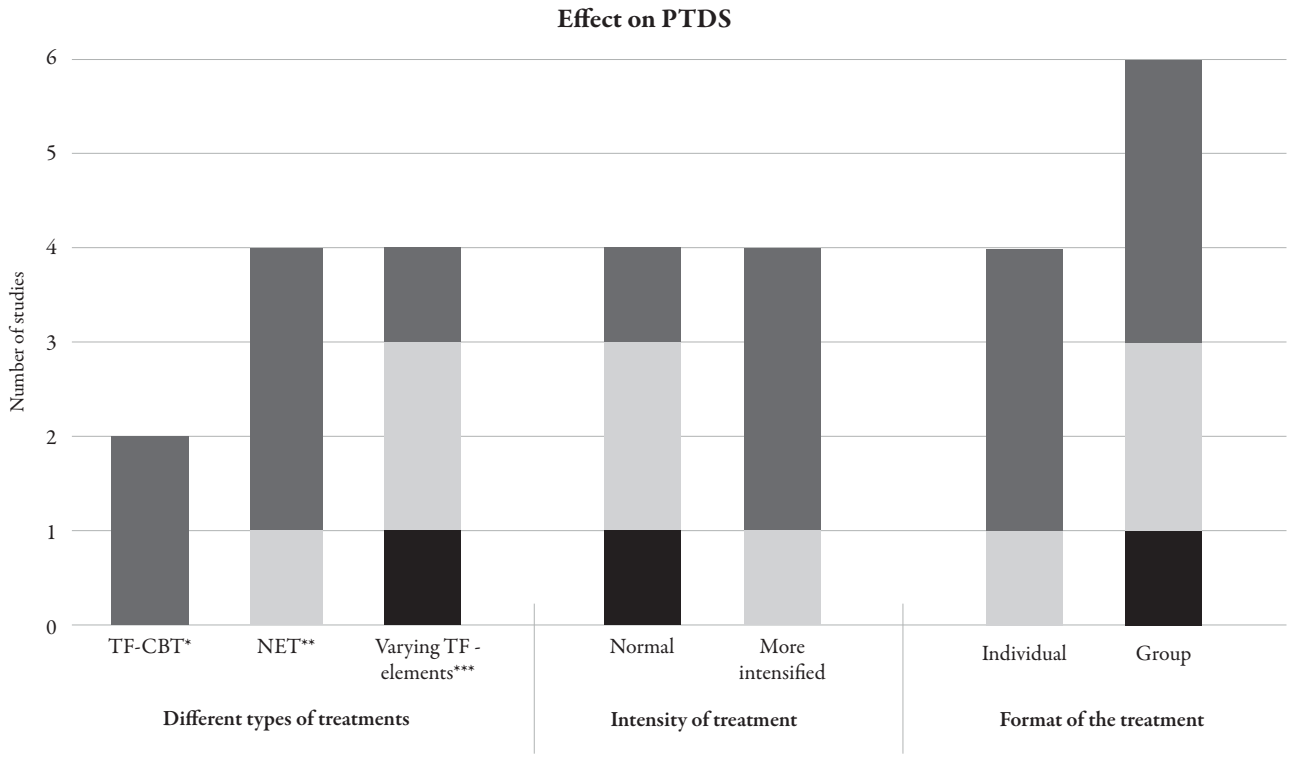
Effects of individual and group-based treatment: PTSD: Among the interventions given individually, a significant reduction in symptoms of PTSD was seen in all RCTs compared to the control group with a moderate to large effect size (Cohen's d=0.72, Hedge's *g* 1.9, η^2 0.26) (Ertl et al., 2011; Ruf et al., 2010; Schaal et al., 2009) or when comparing within the intervention group before and nine months after the end of treatment (Onyut et al., 2005). For the interventions given in groups, a significant reduction in PTSD symptoms compared to the control group was shown in three studies with a moderate to large effect size (Cohen's d 0.40, η_p^2 0.518 and .665) (McMullen et al., 2013; O'Callaghan et al., 2014; O'Callaghan et al., 2013) while two studies showed no difference between control and intervention group (Betancourt et al., 2014; Layne et al., 2008). Within-group analysis in the intervention group showed a significant reduction in PTSD symptoms in two group-based studies (Gupta & Zimmer, 2008; Layne et al., 2008).

Guidelines, reports, and health care program

The included guidelines, reports and health care program contained sections devoted to children. The health care program, which is a Swedish regional one, gives an example of how to pose a question to children about potential exposure to torture (Region Skåne, 2022). Furthermore, the care program mentions two screening instruments to support identifying whether the child has been subjected to torture: Child and Adolescent Trauma Screen CATS (Sachser et al., 2017) and Linköping Youth Lifetime Event Scale LYLES (Nilsson et al., 2010). However, these instruments are not specific to exposure to torture. The program describes how a medical certificate for *suspicion* of torture should be designed. The medical certificate then forms the basis for whether an investigation of torture will be carried out according to IP. The program also brings up referral procedures, for example, in cases of chronic pain and mental illness in children (Region Skåne, 2022).

Several guidelines included sections on children with a focus on conducting interviews with children who have, among other things, been subjected to torture (UNHCR, 2010; Peel et al., 2005; Tepina & Giffard, 2015; Thakkar et al., 2015; UNHCR, 2003) or specifically sexual torture (Volpellier, 2009). Some common points that were highlighted in these guidelines were the importance of obtaining consent from the child and custodian and deciding about the custodian's presence in each individual case, that documentation is carried out by staff with pediatric competence, and to adapt the environment and framework of the interview to the child's needs and level of development. Concerning rehabilitation after torture, one field manual, DIGNITY, contains child-specific information with descriptions of how several physical and psychological torture

Figure 2. *Treatment effect on symptoms of PTSD*



*Trauma focused cognitive behavioural therapy, **Narrative exposure therapy, ***Interventions with varying trauma focused elements

injuries manifest themselves in children as well as guidance in the assessment and rehabilitation of torture injuries in children (DIGNITY, 2013).

Discussion

The aim of the present study was to synthesise research and grey literature regarding screening, documentation and treatment of torture injuries for child survivors of torture.

The instruments intended to identify and screen for potentially traumatic events, including torture, generally lacked questions that provided sufficient evidence to identify torture victims. There was a lack of questions about who the actors behind the traumatic life events had been. This makes it challenging to identify state interference, which is a key criterion for torture as defined in the Convention Against Torture (UN General Assembly, 1984). Furthermore, in some instruments, the term torture is used in the questions without explaining the term. There may be a risk of underreporting in cases where children (and adults) do not understand that the actions were torture and a risk of overreporting in cases where other incidents are equated with torture. Generic screening for the identification of torture of children needs to be developed both in terms of wording and content. Child-adapted questions that provide information about perpetrators but also address different expressions and processes of pain and suffering in children are therefore essential when identifying torture according to the definition of the Convention Against Torture (UN General Assembly, 1984). However urgent it may be to detect torture against children, it is important that the responsibility for identifying the perpetrators is not placed on the children subjected to torture. The child's right to protection and other basic needs must always be ensured in cases where torture documentation is used for the purpose of prosecuting crimes and perpetrators. Furthermore, the children might not recall the perpetrator (UN Office of the High Commissioner for Human Rights (OHCHR), 2022).

Screening for mental health symptoms was dominated by instruments measuring symptoms of PTSD. Although PTSD is a common diagnosis among torture survivors, an almost exclusive focus on the diagnosis risks overshadowing other expressions of pain and suffering that are not included in the diagnosis (Patel et al., 2016; van Willigen, 1999). In contrast to the screening studies, which were dominated by questions about psychological symptoms, there was a clear emphasis on physical torture injuries in the studies that included more extensive torture documentation. This can partly be explained by the fact that several studies have excluded psychological assessment from the documentation, which in turn risks distorting knowledge about the health consequences of torture for children. In the long run, this can make it more difficult to identify both exposure to torture and care needs among the children. Solid documentation of torture injuries of a child requires, in addition to the profession-specific competence, also child-specific knowledge of, among other things, developmental expressions and reactions to pain and suffering (UNHCR, 2022).

The results from the treatment studies showed that TF-CBT and NET, two exposure-based trauma treatments, significantly reduced symptoms of PTSD up to three months to one year after the end of treatment (Ertl et al., 2011; McMullen et al., 2013; O'Callaghan et al., 2013; Onyut et al., 2005; Ruf et al., 2010; Schaal et al., 2009). Of all treatments with varying trauma-focused elements, only two treatments included structured exposure, and both significantly reduced symptoms of PTSD within the treatment group (Gupta & Zimmer, 2008; Layne et al., 2008). The results show that exposure may constitute an important component in the psychological treatment of PTSD for this group. The National Institute for Health and Care Excellence (NICE) has conducted a systematic review of the treatment of PTSD in children that supports TF-CBT in reducing PTSD symptoms in children up to one year after the end of treatment (National Guideline Alliance (UK), 2018). Furthermore, a Cochrane review gives some evidence that CBT reduces PTSD compared to other psychological treatments up to one month after the end of treatment in children and adolescents suffering from trauma (Gillies et al., 2016). None of the treatment studies in the present systematic review included the trauma treatment Eye Movement Desensitization and Reprocessing Therapy (EMDR). According to NICE, EMDR can be offered to children as a second choice after TF-CBT (National Guideline Alliance (UK), 2018). EMDR for children with PTSD is recommended in the DIGNITY Field Manual (DIGNITY, 2013), which is based on a scientific study that has shown positive results (Ahmad & Sundelin-Wahlsten, 2008).

The results show that a more intensified trauma treatment for children can have an effect on PTSD among a sample that partly included children exposed to torture (Ertl et al., 2011; Gupta & Zimmer, 2008; O'Callaghan et al., 2014; Schaal et al., 2009). To the best of the authors' knowledge, a more intensified trauma treatment for children has not yet been highlighted in any guidelines or systematic reviews. However, some studies support that high-intensity treatment with EMDR and Prolonged Exposure (PE) may reduce PTSD in children between the ages of 12 and 18 (Hendriks et al., 2017; van Pelt et al., 2021). Additional treatment formats investigated in the current review were the effect of individual- and group-based treatment. The results show that treatments with both formats have an effect on reduced PTSD. However, the systematic review by NICE only supports individual treatments for TF-CBT (National Guideline Alliance (UK), 2018).

The present review found that several of the psychological treatments in the studies had significant effects on outcome measures other than PTSD in children, some of whom had survived torture. There was, inter alia, a decrease in depressive symptoms and/or anxiety (McMullen et al., 2013; O'Callaghan et al., 2014; O'Callaghan et al., 2013; Schaal et al., 2009), behavioural problems (Durà-Vilà et al., 2013; O'Callaghan et al., 2014; O'Callaghan et al., 2013) and an increase in prosocial behaviours (Betancourt et al., 2014; O'Callaghan et al., 2014; O'Callaghan et al., 2013) and level of functioning (Ertl et al., 2011; Ruf et al., 2010). This is somewhat contradictory results to a Cochrane review on psychological treatments for children exposed to trauma where no differences were found compared to control in anxiety, depression, and behaviour. However, the Cochrane review found improved function (Gillies et al., 2016).

All treatment studies in the present literature review have included psychological or psychosocial treatment. Despite broad searches, no treatments for physical torture injuries or pain rehabilitation for children could be identified. Meanwhile, treatment interventions in these areas are highlighted in a care program and DIGNITY's field manual (DIGNITY, 2013; Region Skåne, 2022). This knowledge gap calls for more research in this area.

The samples in the treatment studies usually included children from the age of seven onwards. This means that treatment for younger children who have survived torture, among other things, is an unresearched area. This is also confirmed in the systematic review by NICE, where treatment efficacy could only be established in children between the ages of seven and 17 (National Guideline Alliance (UK), 2018).

Finally, the representation of the countries of origin of the studies should not be interpreted as a reflection of the real prev-

alence of child torture in the world. The lack of studies conducted in some countries is more likely to be explained, among other things, by the notion of torture as something happening elsewhere, and by the security risks that the research would entail. Much of the work for tortured individuals in countries with repressive regimes is carried out in silence (Başoğlu, 1999). Furthermore, work in this field might also occur in various settings that cannot be found through a systematic review.

Strengths and limitations

The current study has led to difficult distinctions between torture and broader definitions of violence and vulnerability among children. A decision on whether the sample of the studies consisted of torture survivors was based on the Torture Convention's definition of torture. Although the framework for assessment was the definition of torture, there was room for more difficult considerations and interpretations. For example, decisions to exclude victims of trafficking, which turned out to be a relatively well-researched area, can be discussed and problematised afterwards. In addition, many studies lacked sufficient information to allow an assessment of whether parts of the sample had been subjected to torture.

The quality assessment of the treatment articles showed that none of the treatment studies achieved high quality. The RCTs were judged to have some risk of bias, and the non-randomized trials had a severe or critical risk of bias. This means that the results from the treatment studies should be interpreted with some caution.

The samples in both the screening, documentation and treatment studies were heterogeneous. Few studies had samples consisting solely of a torture population, especially with only children. The samples in many studies also consisted of mixed age groups of children, young adults and adults. In addition, the treatment studies included a variety of methods, components, varied outcome measures and instruments. This affects the generalizability of the results to the group of child survivors of torture. It also makes it difficult to draw clear conclusions about which treatments are most effective for the target group. Despite this, the literature study still contributes to providing some support for certain types of treatments.

Conclusions and future directions for clinic and research

Many existing trauma screening instruments are deficient in screening for torture; where some of the reasons are how questions about torture are formulated and that the screening instrument does not ask about the perpetrator. Therefore, we suggest the development of a generic screening instrument that can facilitate the identification of child survivors of torture in various social services that encounter the target group. Although the evidence is scarce, the results of the study indicate that trauma treatments with exposure, such as TF-CBT and NET, have a positive effect on both PTSD and other psychological outcome measures in children, some of whom have been subjected to torture. Furthermore, trauma treatment in a group format, as well as in an intensified form, could be implemented in the clinic and further evaluated in research with long-term follow-up for the specific target group. Research also needs to include the youngest children.

Funding

This work was supported by Hildur Nordin's Memorial Fund.

Acknowledgements

Frida Johansson Metso, coordinator at the Swedish Red Cross Competence Centre for Rehabilitation of Torture and War Trauma, and Niklas Möller, clinical psychologist at the Swedish Red Cross treatment center in Uppsala, for support during the working process. Camilla Juhlin, lawyer and migration advisor at the Swedish Red Cross, for sharing knowledge and important perspectives. Karin Löfroth at Södertörn University Library for guidance in the search process.

References

Abdalla, K., Elklit, A. (2001). En landsdækkende screeningsundersøgelse af flygtningebørn fra Kosovo. *Psykologisk Paedagogisk Rådgivning*, *35*(5), 339-348.

Ahmad, A., Sundelin-Wahlsten, V. (2008). Applying EMDR on children with PTSD. *European Child and Adolescent Psychiatry*, *17*(3), 127-132. https://doi.org/10.1007/s00787-007-0646-8

Alayarian, A. (2009). Children, torture and psychological consequences. *Torture*, *19*(2), 145-156.

Allodi, F., Cowgill, G. (1982). Ethical and psychiatric aspects of torture: a Canadian study. *Canadian Journal of Psychiatry. Revue Canadienne de Psychiatrie*, *27*(2), 98-102. https://doi.org/10.1177/070674378202700203

Amone-P'Olak, K. (2006). Mental states of adolescents exposed to war in Uganda: finding appropriate methods of rehabilitation. *Torture*, *16*(2), 93-107.

Amone-P'Olak, K., Dokkedahl, S. B., Elklit, A. (2017). Post-traumatic Stress Disorder among child perpetrators and victims of violence from the Northern Uganda civil war: Findings from the WAYS study. *Journal of Psychology in Africa*, *27*(3), 235-242. https://doi.org/10.1080/14330237.2017.1321849

Amone-P'Olak, K., Elklit, A., Dokkedahl, S. B. (2018). PTSD, mental illness, and care among survivors of sexual violence in Northern Uganda: Findings from the WAYS study. *Psychol Trauma*, *10*(3), 282-289. https://doi.org/10.1037/tra0000295

Amone-P'Olak, K., Garnefski, N., Kraaij, V. (2007). Adolescents caught between fires: cognitive emotion regulation in response to war experiences in Northern Uganda. *Journal of Adolescence*, *30*(4), 655-669. https://doi.org/10.1016/j.

adolescence.2006.05.004

Amone P'Olak, K. (2009). Torture against children in rebel captivity in Northern Uganda: physical and psychological effects and implications for clinical practice. *Torture*, *19*(2), 102-117.

Asia, M. R. (2010). *The relationship of level of traumatic exposure, perceived stress, and resilience with salivary cortisol and salivary alpha-amylase diurnal rhythm in Palestinian children 10-12 years exposed to chronic war violence*. Dissertation. University of San Diego.

Başoğlu, M. (1999). Behavioural and cognitive approach in the treatment of torture-related psychological problems. In *Torture and its consequences: Current treatment approaches.* (pp. 402-429). Cambridge University Press.

Betancourt, T. S., Borisova, II, de la Soudière, M., Williamson, J. (2011). Sierra Leone's child soldiers: war exposures and mental health problems by gender. *Journal of Adolescent Health*, *49*(1), 21-28. https://doi.org/10.1016/j.jadohealth.2010.09.021

Betancourt, T. S., McBain, R., Newnham, E. A., Akinsulure-Smith, A. M., Brennan, R. T., Weisz, J. R., Hansen, N. B. (2014). A behavioral intervention for war-affected youth in Sierra Leone: a randomized controlled trial. *Journal of the American Academy of Child and Adolescent Psychiatry*, *53*(12), 1288-1297. https://doi.org/10.1016/j.jaac.2014.09.011

Betancourt, T. S., Newnham, E. A., Layne, C. M., Kim, S., Steinberg, A. M., Ellis, H., Birman, D. (2012). Trauma history and psychopathology in war-affected refugee children referred for trauma-related mental health services in the United States. *Journal of Traumatic Stress*, *25*(6), 682-690. https://doi.org/10.1002/jts.21749

Bosquet Enlow M, Egeland B, Blood EA, Wright RO, Wright RJ. Interpersonal trauma exposure and cognitive development in children to age 8 years: a longitudinal study. J Epidemiol Community Health. 2012;66(11):1005-10. https://doi.org/10.1136/jech-2011-200727

Brunvatne, R., Lysgård, K. H., Hjortdahl, P. (1995). [Psychosocial preventive work among war refugees. A task for primary health care?]. *Tidsskrift for Den Norske Laegeforening*, *115*(1), 23-26. (Psykososialt forebyggende arbeid blant krigsflyktninger. En oppgave for primaerhelsetjenesten?)

Burgund Isakov, A., Husremović, D., Krasić, B., Marković, V., Milic, N., Ristić, T., Trkulja, A., Žegarac, N. (2022). *Wherever we go, Someone does us Harm: Violence against refugee and migrant children arriving in Europe through the Balkans*. Save the Children International & Save the Children North West Balkans.

Chu, T., Keller, A. S., Rasmussen, A. (2013). Effects of post-migration factors on PTSD outcomes among immigrant survivors of political violence. *J Immigr Minor Health*, *15*(5), 890-897. https://doi.org/10.1007/s10903-012-9696-1

Clément, R., Lebossé, D., Barrios, L., Rodat, O. (2017). Asylum seekers alleging torture in their countries: Evaluation of a French center. *J Forensic Leg Med*, *46*, 24-29. https://doi.org/10.1016/j.jflm.2016.12.011

de Jong, J. T., Komproe, I. H., Van Ommeren, M., El Masri, M., Araya, M., Khaled, N., van De Put, W., Somasundaram, D. (2001). Lifetime events and posttraumatic stress disorder in 4 postconflict settings. *JAMA*, *286*(5), 555-562. https://doi.org/10.1001/jama.286.5.555

den Otter, J. J., Smit, Y., dela Cruz, L. B., Ozkalipci, O., Oral, R. (2013). Documentation of torture and cruel, inhuman or degrading treatment of children: A review of existing guidelines and tools. *Forensic Science International*, *224*(1-3), 27-32. https://doi.org/10.1016/j.forsciint.2012.11.003

Derluyn, I., Broekaert, E., Schuyten, G., De Temmerman, E. (2004). Post-traumatic stress in former Ugandan child soldiers. *Lancet*, *363*(9412), 861-863. https://doi.org/10.1016/s0140-6736(04)15734-6

DIGNITY (2013). Field Manual of Rehabilitation https://dignity.dk/wp-content/uploads/Dignity-field-manual-rehabilitation.pdf

Durà-Vilà, G., Klasen, H., Makatini, Z., Rahimi, Z., Hodes, M. (2013). Mental health problems of young refugees: duration of settlement, risk factors and community-based interventions. *Clin Child Psychol Psychiatry*, *18*(4), 604-623. https://doi.org/10.1177/1359104512462549

Durrant, J. E. (2022). Corporal Punishment: From Ancient History to Global Progress. In R. Geffner, J. W. White, L. K. Hamberger, A. Rosenbaum, V. Vaughan-Eden, V. I. Vieth (Eds.), *Handbook of Interpersonal Violence and Abuse Across the Lifespan: A project of the National Partnership to End Interpersonal Violence Across the Lifespan (NPEIV)* (pp. 343-365). Springer International Publishing. https://doi.org/10.1007/978-3-319-89999-2_13

Ertl, V., Pfeiffer, A., Schauer, E., Elbert, T., Neuner, F. (2011). Community-implemented trauma therapy for former child soldiers in Northern Uganda: a randomized controlled trial. *JAMA*, *306*(5), 503-512. https://doi.org/10.1001/jama.2011.1060

Evans, R. (2020). The Ethics of Torture: Definitions, History, and Institutions. In: Oxford University Press.

Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. Am J Prev Med. 1998;14(4):245-58. https://doi.org/10.1016/s0749-3797(98)00017-8

Geltman, P. L., Grant-Knight, W., Mehta, S. D., Lloyd-Travaglini, C., Lustig, S., Landgraf, J. M., Wise, P. H. (2005). The "lost boys of Sudan": functional and behavioral health of unaccompanied refugee minors re-settled in the United States. *Archives of Pediatrics and Adolescent Medicine*, *159*(6), 585-591. https://doi.org/10.1001/archpedi.159.6.585

Gillies, D., Maiocchi, L., Bhandari, A. P., Taylor, F., Gray, C., O'Brien, L. (2016). Psychological therapies for children and adolescents exposed to trauma. *Cochrane Database Syst Rev*, *10*(10), Cd012371. https://doi.org/10.1002/14651858.Cd012371

Goldin, S., Levin, L., Persson, L. A., Hägglof, B. (2001). Stories of pre-war, war and exile: Bosnian refugee children in Sweden. *Medicine, Conflict and Survival*, *17*(1), 25-47. https://doi.org/10.1080/13623690108409553

Gupta, L., Zimmer, C. (2008). Psychosocial intervention for war-affected children in Sierra Leone. *British Journal of Psychiatry*, *192*(3), 212-216. https://doi.org/10.1192/bjp.bp.107.038182

Guy, K. M. (2009). Child soldiers as zones of violence in The Democratic Republic of Congo: three cases of medico-legal evidence of torture. *Torture*, *19*(2), 137-144.

Haar, R. J., Wang, K., Venters, H., Salonen, S., Patel, R., Nelson, T.,

Mishori, R., Parmar, P. K. (2019). Documentation of human rights abuses among Rohingya refugees from Myanmar. *Confl Health*, *13*, 42. https://doi.org/10.1186/s13031-019-0226-9

Hampton, K., Mishori, R., Griffin, M., Hillier, C., Pirrotta, E., Wang, N. E. (2022). Clinicians' perceptions of the health status of formerly detained immigrants. *BMC Public Health*, *22*(1), 575. https://doi.org/10.1186/s12889-022-12967-7

Hashemi, B., Ali, S., Awaad, R., Soudi, L., Housel, L., Sosebee, S. J. (2017). Facilitating mental health screening of war-torn populations using mobile applications. *Social Psychiatry and Psychiatric Epidemiology*, *52*(1), 27-33. https://doi.org/10.1007/s00127-016-1303-7

Hendriks, L., de Kleine, R. A., Heyvaert, M., Becker, E. S., Hendriks, G. J., van Minnen, A. (2017). Intensive prolonged exposure treatment for adolescent complex posttraumatic stress disorder: a single-trial design. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *58*(11), 1229-1238. https://doi.org/10.1111/jcpp.12756

Hjern, A., Angel, B., Jeppson, O. (1998). Political violence, family stress and mental health of refugee children in exile. *Scandinavian Journal of Social Medicine*, *26*(1), 18-25. https://doi.org/10.1177/14034948980260010701

Iacopino, V., Frank, M. W., Bauer, H. M., Keller, A. S., Fink, S. L., Ford, D., Pallin, D. J., Waldman, R. (2001). A population-based assessment of human rights abuses committed against ethnic Albanian refugees from Kosovo. *American Journal of Public Health*, *91*(12), 2013-2018. https://doi.org/10.2105/ajph.91.12.2013

Jordans, M. J., Komproe, I. H., Tol, W. A., De Jong, J. T. (2009). Screening for psychosocial distress amongst war-affected children: cross-cultural construct validity of the CPDS. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *50*(4), 514-523. https://doi.org/10.1111/j.1469-7610.2008.02028.x

Kamøy, K., Podieh, P., Salarkia, K. (2021). *Stop the War on Children: A crisis of recruitment*. Save the Children International. https://resourcecentre.savethechildren.net/pdf/SWOC-5-5th-pp.pdf/

Keten, A., Akçan, R., Karacaoglu, E., Odabasi, A. B., Tümer, A. R. (2013). Medical forensic examination of detained immigrants: is the Istanbul Protocol followed? *Medicine, Science and the Law*, *53*(1), 40-44. https://doi.org/10.1258/msl.2012.011090

Kizilhan, J. I., Noll-Hussong, M. (2018). Post-traumatic stress disorder among former Islamic State child soldiers in northern Iraq. *British Journal of Psychiatry*, *213*(1), 425-429. https://doi.org/10.1192/bjp.2018.88

Klasen, F., Oettingen, G., Daniels, J., Post, M., Hoyer, C., Adam, H. (2010). Posttraumatic resilience in former Ugandan child soldiers. *Child Development*, *81*(4), 1096-1113. https://doi.org/10.1111/j.1467-8624.2010.01456.x

Kohrt, B. A., Jordans, M. J., Tol, W. A., Perera, E., Karki, R., Koirala, S., Upadhaya, N. (2010). Social ecology of child soldiers: child, family, and community determinants of mental health, psychosocial well-being, and reintegration in Nepal. *Transcult Psychiatry*, *47*(5), 727-753. https://doi.org/10.1177/1363461510381290

Kohrt, B. A., Jordans, M. J., Tol, W. A., Speckman, R. A., Maharjan, S. M., Worthman, C. M., Komproe, I. H. (2008). Comparison of mental health between former child soldiers and children never conscripted by armed groups in Nepal. *JAMA*, *300*(6), 691-702. https://doi.org/10.1001/jama.300.6.691

Layne, C. M., Saltzman, W. R., Poppleton, L., Burlingame, G. M., Pasalić, A., Duraković, E., Musić, M., Campara, N., Dapo, N., Arslanagić, B., Steinberg, A. M., Pynoos, R. S. (2008). Effectiveness of a school-based group psychotherapy program for war-exposed adolescents: a randomised controlled trial. *Journal of the American Academy of Child and Adolescent Psychiatry*, *47*(9), 1048-1062. https://doi.org/10.1097/CHI.0b013e31817eecae

Loko Roka, J., Van den Bergh, R., Au, S., De Plecker, E., Zachariah, R., Manzi, M., Lambert, V., Abi-Aad, E., Nanan-N'Zeth, K., Nzuya, S., Omba, B., Shako, C., MuishaBaroki, D., Basimuoneye, J. P., Moke, D. A., Lampaert, E., Masangu, L., De Weggheleire, A. (2014). One size fits all? Standardised provision of care for survivors of sexual violence in conflict and post-conflict areas in the Democratic Republic of Congo. *PLoS One*, *9*(10), e111096. https://doi.org/10.1371/journal.pone.0111096

Lokuge, K., Shah, T., Pintaldi, G., Thurber, K., Martínez-Viciana, C., Cristobal, M., Palacios, L., Dear, K., Banks, E. (2013). Mental health services for children exposed to armed conflict: Médecins Sans Frontières' experience in the Democratic Republic of Congo, Iraq and the occupied Palestinian territory. *Paediatr Int Child Health*, *33*(4), 259-272. https://doi.org/10.1179/2046905513y.0000000098

Lorek, A., Ehntholt, K., Nesbitt, A., Wey, E., Githinji, C., Rossor, E., Wickramasinghe, R. (2009). The mental and physical health difficulties of children held within a British immigration detention center: a pilot study. *Child Abuse and Neglect*, *33*(9), 573-585. https://doi.org/10.1016/j.chiabu.2008.10.005

Lykke, J., Timilsena, M. N. (2002). Evidence of torture in the mid west region of Nepal. *Danish Medical Bulletin*, *49*(2), 159-162.

MacLean, S. A., Agyeman, P. O., Walther, J., Singer, E. K., Baranowski, K. A., Katz, C. L. (2019). Mental health of children held at a United States immigration detention center. *Social Science and Medicine*, *230*, 303-308. https://doi.org/10.1016/j.socscimed.2019.04.013

Marc, B. (2016). Torture: Child Torture. In J. Payne-James & R. Byard (Eds.), *Encyclopedia of Forensic and Legal Medicine* (2 ed., Vol. 4, pp. 565-571). Elsevier.

Martínez Torre, S., Carreño, C., Sordo, L., Llosa, A. E., Ousley, J., Waziri, A., Mathela, R., Umar, R. D., Usman, J., Sagrado, M. J. (2022). Severity, symptomatology, and treatment duration for mental health disorders: a retrospective analysis from a conflict-affected region of northern Nigeria. *Confl Health*, *16*(1), 41. https://doi.org/10.1186/s13031-022-00473-x

Massad, S., Khammash, U., Shute, R. (2017). Political violence and mental health of Bedouin children in the West Bank, Palestine: a cross-sectional study. *Medicine, Conflict and Survival*, *33*(3), 188-206. https://doi.org/10.1080/13623699.2017.1368307

Mateen, F. J., Carone, M., Nyce, S., Ghosn, J., Mutuerandu, T., Al-Saedy, H., Lowenstein, D. H., Burnham, G. (2012). Neurological disorders in Iraqi refugees in Jordan: data from the United Nations Refugee Assistance Information System. *Journal of Neurology*, *259*(4), 694-701. https://doi.org/10.1007/s00415-011-6248-x

McMullen, J., O'Callaghan, P., Shannon, C., Black, A., Eakin, J. (2013). Group trauma-focused cognitive-behavioural therapy with former child soldiers and other war-affected boys in the

DR Congo: a randomised controlled trial. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *54*(11), 1231-1241. https://doi.org/10.1111/jcpp.12094

McMullen, J. D., O'Callaghan, P. S., Richards, J. A., Eakin, J. G., Rafferty, H. (2012). Screening for traumatic exposure and psychological distress among war-affected adolescents in post-conflict northern Uganda. *Social Psychiatry and Psychiatric Epidemiology*, *47*(9), 1489-1498. https://doi.org/10.1007/s00127-011-0454-9

Mels, C., Derluyn, I., Broekaert, E., Rosseel, Y. (2009). Screening for traumatic exposure and posttraumatic stress symptoms in adolescents in the war-affected eastern Democratic Republic of Congo. *Archives of Pediatrics and Adolescent Medicine*, *163*(6), 525-530. https://doi.org/10.1001/archpediatrics.2009.56

Mèndez, J. (2015). *Report of the Special Rapporteur on torture and other cruel, inhuman or degrading treatment or punishment*. UN General Assembly Human Rights Council.

Modvig, J., Pagaduan-Lopez, J., Rodenburg, J., Salud, C. M., Cabigon, R. V., Panelo, C. I. (2000). Torture and trauma in post-conflict East Timor. *Lancet*, *356*(9243), 1763. https://doi.org/10.1016/s0140-6736(00)03218-9

Montgomery, E. (1998). Refugee children from the Middle East. *Scandinavian Journal of Social Medicine. Supplementum*, *54*, 1-152. https://doi.org/10.1080/14034949850153329

Morgos, D., Worden, J. W., Gupta, L. (2007). Psychosocial effects of war experiences among displaced children in southern Darfur. *Omega (Westport)*, *56*(3), 229-253. https://doi.org/10.2190/om.56.3.b

Möhlen, H., Parzer, P., Resch, F., Brunner, R. (2005). Psychosocial support for war-traumatized child and adolescent refugees: evaluation of a short-term treatment program. *Australian and New Zealand Journal of Psychiatry*, *39*(1-2), 81-87. https://doi.org/10.1080/j.1440-1614.2005.01513.x

National Guideline Alliance (UK). (2018). NICE Evidence Reviews Collection. In *Evidence reviews for psychological, psychosocial and other non-pharmacological interventions for the treatment of PTSD in children and young people: Post-traumatic stress disorder: Evidence review B*. London: National Institute for Health and Care Excellence (NICE). PMID: 32757555

Neugebauer, R., Fisher, P. W., Turner, J. B., Yamabe, S., Sarsfield, J. A., Stehling-Ariza, T. (2009). Post-traumatic stress reactions among Rwandan children and adolescents in the early aftermath of genocide. *International Journal of Epidemiology*, *38*(4), 1033-1045. https://doi.org/10.1093/ije/dyn375

Nilsson, D., Gustafsson, P. E., Larsson, J. L., Svedin, C. G. (2010). Evaluation of the linköping youth life experience scale. *Journal of Nervous and Mental Disease*, *198*(10), 768-774. https://doi.org/10.1097/NMD.0b013e3181f4acb6

O'Callaghan, P., Branham, L., Shannon, C., Betancourt, T. S., Dempster, M., McMullen, J. (2014). A pilot study of a family focused, psychosocial intervention with war-exposed youth at risk of attack and abduction in north-eastern Democratic Republic of Congo. *Child Abuse and Neglect*, *38*(7), 1197-1207. https://doi.org/10.1016/j.chiabu.2014.02.004

O'Callaghan, P., McMullen, J., Shannon, C., Rafferty, H., Black, A. (2013). A randomized controlled trial of trauma-focused cognitive behavioral therapy for sexually exploited, war-affected Congolese girls. *Journal of the American Academy of Child and Adolescent Psychiatry*, *52*(4), 359-369. https://doi.org/10.1016/j.jaac.2013.01.013

Oberg, C., Kivlahan, C., Mishori, R., Martinez, W., Gutierrez, J. R., Noor, Z., Goldhagen, J. (2021). Treatment of Migrant Children on the US Southern Border Is Consistent With Torture. *Pediatrics*, *147*(1). https://doi.org/10.1542/peds.2020-012930

Olsen, D. R., Montgomery, E., Bøjholm, S., Foldspang, A. (2006). Prevalent musculoskeletal pain as a correlate of previous exposure to torture. *Scand J Public Health*, *34*(5), 496-503. https://doi.org/10.1080/14034940600554677

Onyut, L. P., Neuner, F., Schauer, E., Ertl, V., Odenwald, M., Schauer, M., Elbert, T. (2005). Narrative Exposure Therapy as a treatment for child war survivors with posttraumatic stress disorder: two case reports and a pilot study in an African refugee settlement. *BMC Psychiatry*, *5*, 7. https://doi.org/10.1186/1471-244x-5-7

Ovuga, E., Oyok, T. O., Moro, E. B. (2008). Post traumatic stress disorder among former child soldiers attending a rehabilitative service and primary school education in northern Uganda. *Afr Health Sci*, *8*(3), 136-141.

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., . . . Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*, *372*, n71. https://doi.org/10.1136/bmj.n71

Patel, N., Williams, A., Kellezi, B. (2016). Reviewing outcomes of psychological interventions with torture survivors: Conceptual, methodological and ethical Issues. *Torture*, *26*(1), 2-16.

Peel, M., Lubell, N., Beynon, J. (2005). *Medical Investigation and Documentation of Torture: A Handbook for Health Professionals*. Human Rights Centre, University of Essex. https://repository.essex.ac.uk/13102/1/fco_humanrights_medicaltorture.pdf

Petruccelli K, Davis J, Berman T. Adverse childhood experiences and associated health outcomes: A systematic review and meta-analysis. Child Abuse Negl. 2019 Nov;97:104127. https://doi.org/10.1016/j.chiabu.2019.104127

Pérez-Sales, P. (2019). Documentation of torture in children and young adults: Time to reflect. *Torture*, *29*(1), 1-15. https://doi.org/10.7146/torture.v29i1.114028

Petersen, H. D., Larsen, M., Mannstaedt, M., Skytt, G. L., Vedel, O. M., Wandall, J. H. (1998). [Documentation of violence against civilians in a civil war. Examples from Kashmir]. *Ugeskrift for Laeger*, *160*(29), 4302-4306. (Dokumentation af overgreb mod civile i en borgerkrig. Eksempler fra Kashmir.)

Petersen, H. D., Lykke, J., Hougen, H. P., Mannstaedt, M. (1998). Results of medical examination of refugees from Burma. *Danish Medical Bulletin*, *45*(3), 313-316.

Petersen, H. D., Wandall, J. H. (1995). Evidence of physical torture in a series of children. *Forensic Science International*, *75*(1), 45-55. https://doi.org/10.1016/0379-0738(95)01766-c

Pham, P. N., Vinck, P., Stover, E. (2009). Returning home: forced conscription, reintegration, and mental health status of former abductees of the Lord's Resistance Army in northern Uganda. *BMC Psychiatry*, *9*, 23. https://doi.org/10.1186/1471-244x-9-23

Poole, G. E., Galpin, G. (2011). Prevalence of victims of torture in

the health screening of quota refugees in New Zealand during 2007-2008 and implications for follow-up care. *New Zealand Medical Journal*, *124*(1338), 18-24.

Quiroga, J. (2009). Torture in children. *Torture*, *19*(2), 66-87.

Region Skåne. (2022). *Vårdprogram om vård och stöd efter tortyr*

Reyes, H. (2007). The worst scars are in the mind: psychological torture. *International Review of the Red Cross*, *89*(867), 591-617. https://doi.org/10.1017/S1816383107001300

Ruchman, S. G., Green, A. S., Schonholz, S., Hersh, E., Sikka, N., Baranowski, K. A., Singer, E. K. (2020). A toolkit for building medical programs for asylum seekers: Resources from the Mount Sinai Human Rights Program. *J Forensic Leg Med*, *75*, 102037. https://doi.org/10.1016/j.jflm.2020.102037

Ruf, M., Schauer, M., Neuner, F., Catani, C., Schauer, E., Elbert, T. (2010). Narrative exposure therapy for 7- to 16-year-olds: a randomized controlled trial with traumatized refugee children. *Journal of Traumatic Stress*, *23*(4), 437-445. https://doi.org/10.1002/jts.20548

Russo, M. C., Azzalini, E., Rossetti, C., Maghin, F., Antonietti, A., Verzeletti, A. (2020). Asylum seekers: Forensic remarks regarding 185 cases. *Medicine, Science and the Law*, *60*(1), 30-36. https://doi.org/10.1177/0025802419850265

Sachser, C., Berliner, L., Holt, T., Jensen, T. K., Jungbluth, N., Risch, E., Rosner, R., Goldbeck, L. (2017). International development and psychometric properties of the Child and Adolescent Trauma Screen (CATS). *Journal of Affective Disorders*, *210*, 189-195. https://doi.org/10.1016/j.jad.2016.12.040

Saigh, P. A. (1991). The development of posttraumatic stress disorder following four different types of traumatization. *Behaviour Research and Therapy*, *29*(3), 213-216. https://doi.org/10.1016/0005-7967(91)90110-o

Sanfelici, M., Wellman, B., Mordeglia, S. (2021). Unaccompanied minors' needs and the child welfare response. *Journal of Social Work*, *21*(6), 1533-1552. https://doi.org/https://doi.org/10.1177/1468017320958145

Schaal, S., Elbert, T., Neuner, F. (2009). Narrative exposure therapy versus interpersonal psychotherapy. A pilot randomized controlled trial with Rwandan genocide orphans. *Psychotherapy and Psychosomatics*, *78*(5), 298-306. https://doi.org/10.1159/000229768

Sjölund, B. H., Kastrup, M., Montgomery, E., Persson, A. L. (2009). Rehabilitating torture survivors. *J Rehabil Med*, *41*(9), 689-696. https://doi.org/10.2340/16501977-0426

Steel Z, Chey T, Silove D, Marnane C, Bryant RA, van Ommeren M. Association of torture and other potentially traumatic events with mental health outcomes among populations exposed to mass conflict and displacement: a systematic review and meta-analysis. *JAMA*. 2009;302(5):537-49. https://doi.org/ 10.1001/jama.2009.1132

Steel, Z., Momartin, S., Bateman, C., Hafshejani, A., Silove, D. M., Everson, N., Roy, K., Dudley, M., Newman, L., Blick, B., Mares, S. (2004). Psychiatric status of asylum seeker families held for a protracted period in a remote detention centre in Australia. *Australian and New Zealand Journal of Public Health*, *28*(6), 527-536. https://doi.org/10.1111/j.1467-842x.2004.tb00042.x

Sterne, J. A., Hernán, M. A., Reeves, B. C., Savović, J., Berkman, N. D., Viswanathan, M., Henry, D., Altman, D. G., Ansari, M. T., Boutron, I., Carpenter, J. R., Chan, A. W., Churchill, R., Deeks, J. J., Hróbjartsson, A., Kirkham, J., Jüni, P., Loke, Y. K., Pigott, T. D., . . . Higgins, J. P. (2016). ROBINS-I: a tool for assessing risk of bias in non-randomised studies of interventions. *BMJ*, *355*, i4919. https://doi.org/10.1136/bmj.i4919

Sterne, J. A. C., Savović, J., Page, M. J., Elbers, R. G., Blencowe, N. S., Boutron, I., Cates, C. J., Cheng, H. Y., Corbett, M. S., Eldridge, S. M., Emberson, J. R., Hernán, M. A., Hopewell, S., Hróbjartsson, A., Junqueira, D. R., Jüni, P., Kirkham, J. J., Lasserson, T., Li, T., . . . Higgins, J. P. T. (2019). RoB 2: a revised tool for assessing risk of bias in randomised trials. *BMJ*, *366*, l4898. https://doi.org/10.1136/bmj.l4898

Sundelin-Wahlsten, V., Ahmad, A., von Knorring, A. L. (2001). Traumatic experiences and post-traumatic stress reactions in children from Kurdistan and Sweden. *Acta Paediatrica*, *90*(5), 563-568.

Taib, N. I., Ahmad, A. (2019). Boys who work on the streets of Iraq are exposed to more traumatic events such as torture than schoolboys of the same age. *Acta Paediatrica*, *108*(4), 725-730. https://doi.org/10.1111/apa.14530

Tepina, P., Giffard, C. (2015). *The Torture Reporting Handbook: How to document and respond to allegations of torture within the international system for the protection of human rights.* Human Rights Centre, University of Essex. https://www1.essex.ac.uk/hrc/documents/practice/torture-reporting-handbook-second-edition.pdf

Thabet, A. A., Vostanis, P. (1999). Post-traumatic stress reactions in children of war. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *40*(3), 385-391.

Thabet, A. A., Vostanis, P. (2000). Post traumatic stress disorder reactions in children of war: a longitudinal study. *Child Abuse and Neglect*, *24*(2), 291-298. https://doi.org/10.1016/s0145-2134(99)00127-1

Thakkar, M. J., Jaffe, A. M., Vander Linden, R. S. (2015). Guidelines for Conducting a Victim-Sensitive Interview. *J Child Sex Abus*, *24*(7), 717-730. https://doi.org/10.1080/10538712.2015.1077365

The World Organisation Against Torture (OMCT). (2021). *Best Practices to Protect Children against Torture in Detention*. https://www.omct.org/site-resources/files/OMCT_Global-Guide-Children.pdf

Tol, W. A., Komproe, I. H., Thapa, S. B., Jordans, M. J., Sharma, B., De Jong, J. T. (2007). Disability associated with psychiatric symptoms among torture survivors in rural Nepal. *Journal of Nervous and Mental Disease*, *195*(6), 463-469. https://doi.org/10.1097/NMD.0b013e31802f5dac

Tran, A., Brickman, S., Jordan, J., Samuelson, K. W. (2020). Predictors of Posttraumatic Stress Disorder, Anxiety, and Depression Symptoms in Survivors of Torture Living in the United States. *Journal of Nervous and Mental Disease*, *208*(8), 593-599. https://doi.org/10.1097/nmd.0000000000001197

Tremblay, J., Pedersen, D., Errazuriz, C. (2009). Assessing mental health outcomes of political violence and civil unrest in Peru. *International Journal of Social Psychiatry*, *55*(5), 449-463. https://doi.org/10.1177/0020764009103214

Tsai, A. C., Eisa, M. A., Crosby, S. S., Sirkin, S., Heisler, M., Leaning, J., Iacopino, V. (2012). Medical evidence of human rights violations against non-Arabic-speaking civilians in Darfur: a cross-sectional study. *PLoS Med*, *9*(4), e1001198. https://doi.

org/10.1371/journal.pmed.1001198

UN General Assembly. Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, United Nations, Treaty Series, vol. 1465, p. 85, 10 December 1984.

UNHCR, APT, APF. (2010). *Preventing Torture: An Operational Guide for National Human Rights Institutions*. UN Office of the High Commissioner for Human Rights (OHCHR).

UNCHR. (2022). *Istanbul Protocol: Manual on the Effective Investigation and Documentation of Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment*. UN Office of the High Commissioner for Human Rights (OHCHR).

UNCHR(2003). *Sexual and Gender-Based Violence against Refugees, Returnees and Internally Displaced Persons: Guidelines for Prevention and Response*.

UNICEF. (2015). Children in Israeli Military Detention: Observations and Recommendations. *UNICEF Bulletin*(2). Microsoft Word - Final UNICEF SoP Bulletin on Children in Military Detention - 31 Jan 2015.doc

United Nations Voluntary Fund for Victims of Torture. (2016). *How can children survive torture? Report on the Expert Workshop on redress and rehabilitation of child and adolescent victims of torture and the intergenerational transmission of trauma.*

van Pelt, Y., Fokkema, P., de Roos, C., de Jongh, A. (2021). Effectiveness of an intensive treatment programme combining prolonged exposure and EMDR therapy for adolescents suffering from severe post-traumatic stress disorder. *Eur J Psychotraumatol*, *12*(1), 1917876. https://doi.org/10.1080/20008198.2021.1917876

van Willigen, L. H. M. (1999). Organization of care and rehabilitation services for victims of torture and other forms of organized violence: A review of current issues. In *Torture and its consequences: Current treatment approaches.* (pp. 277-298). Cambridge University Press.

Volpellier, M. (2009). Physical forensic signs of sexual torture in children. A guideline for non specialized medical examiners. *Torture*, *19*(2), 157-166.

Weindling, P., von Villiez, A., Loewenau, A., Farron, N. (2016). The victims of unethical human experiments and coerced research under National Socialism. *Endeavour*, *40*(1), 1-6. https://doi.org/10.1016/j.endeavour.2015.10.005

Willard, C. L., Rabin, M., Lawless, M. (2014). The prevalence of torture and associated symptoms in United States Iraqi refugees. *J Immigr Minor Health*, *16*(6), 1069-1076. https://doi.org/10.1007/s10903-013-9817-5

Young, P., Gordon, M. S. (2016). Mental health screening in immigration detention: A fresh look at Australian government data. *Australas Psychiatry*, *24*(1), 19-22. https://doi.org/10.1177/1039856215624247

Submitted 8th of March 2024
Accepted 16th of Oct. 2024

Annex 1. Article matrix of the treatment studies

First author, year published, country	Design	Intervention	Comparator	Study population, follow up & data collection of outcomes	Effect (effect size is presented when reported in the study)
Betancourt et al., 2014 Sierra Leone	Randomzied controlled study (RCT)	Youth Readiness Intervention (YRI) combines elements of Interpersonal psychotherapy (IPT) and cognitive behavioral therapy (CBT). The main components of YRI are as follows: psychoeducation about trauma, strategies for self-regulation and relaxation (e.g., belly breathing), cognitive restructuring of distortions linked to trauma, behavioral activation, social skills training, problem solving. Immediately after the YRI intervention was completed, all participants (both those who received the YRI and controls) were randomized to either a subsidized education program n=220 or wait-list n=216. **Structural exposure:** No **Intensity:**10–12 sessions of 90 min per week **Format:** Group	Did not receive the intervention. Nothing more is specified.	**Study population:** War-affected children, including former child soldiers in Sierra Leone. N= treatment group (n=222), control group (n=214) Age: 15-24 Gender distribution: 55% boys in treatment group, 53% boys in control group **Follow-up:** post-intervention and 6 months For children who went to school, there was a follow-up after 8 months regarding enrolment, attendance and performance in school. **Data collection:** Self-reporting instruments: Psychological distress: Oxford Measure of Psychosocial Adjustment Prosocial behavior: Oxford Measure of Psychosocial Adjustment Emotion regulation: Difficulties in Emotion Regulation Scale Functional impairment: The World Health Organization Disability Adjustment Scale (WHODAS) Social supportive behavior: Inventory of Socially Supportive Behaviors PTSD: University of California, Los Angeles (UCLA) Post-Traumatic Stress Disorder Reaction Index (PTSD) School performance: Classroom performance scale (Filled in by the teacher)	**PTSD:** No significant difference between the groups at post-intervention (p=.88) and 6-month follow-up (p=.33). **Prosocial behavior:** A significant improvement in prosocial behavior for the intervention group compared to control with a moderate effect size (p=.001, Cohen's d 0.39) at post-intervention. After 6 months, there was no significant difference (p=.92). **Psychological distress:** No significant difference between the groups postintervention (p=.92) and 6-month follow-up (p=.83). **Functional impairment:** A significant improvement in the level of functioning of the intervention group compared to control with a moderate effect size (p=.007, Cohen's d 0.32) at post-intervention. At the 6-month follow-up there was no significant difference between the groups (p=.54). **Emotion regulation:** A significant improvement in the intervention group compared to control with a moderate effect size (p=.01, Cohen's d 0.31) at post-intervention. At 6-month follow-up, there was no significant difference between the groups (p=.84). **Social supportive behavior:** A significant improvement for the intervention group compared to control with a small effect size (p=.02, Cohen's d 0.29) at postintervention. At 6-month follow-up, no significant difference is seen between the groups (p=.47). **School performance:** Those who participated in the psychosocial treatment program had significantly better attendance in school (p<.01) and significantly better academic performance (p<.05) compared to control after 8 months.

First author, year published, country	Design	Intervention	Comparator	Study population, follow up & data collection of outcomes	Effect (effect size is presented when reported in the study)
Durà-Vilà et al., 2013 United Kingdom	Non-randomized study of intervention (NRSI). Pilot study	Trauma therapeutic treatment components are combined with practical support measures according to the individual's needs (focus on trauma narratives, family treatment and cognitive therapy). **Structural exposure:** It's unclear if and how much exposure. Mentions "narrative work" but not how and how much. **Intensity:** Different number of sessions (single consultations 0–2 sessions, short interventions 3–9 sessions, longer interventions ≥ 10 sessions. Nothing more is specified. **Format:** Individual	N/A	**Study population:** Refugee children (from all over the world) who fled to the UK who were assessed to have psychological distress or problems. N= 102 Age: 13–17 Gender distribution: boys:girls 3:1 **Follow-up:** post-intervention immediately after completion **For the evaluation of treatment:** N=48 where the outcome has been assessed by a therapist. It is unclear what has been assessed. N=35 where Strengths and Difficulties Questionnaire (SDQ) both before and after treatment. (n=24 has been filled in by the teacher, n=11 has been filled in by the parents). No age or gender distribution is given for these subgroups. **Data collection:** Questionnaires Behavioral screening (both behavioral problems and positive attributes): Strengths and Difficulties Questionnaire, (SDQ), Clinical Interviews Assessment of outcomes by a therapist.	**Behavioral problems:** A significant improvement within the group (p=.01).
Ertl et al., 2011 Uganda	RCT	Narrative exposure therapy (NET) **Structural exposure:** Yes **Intensity:** 8 sessions 3 times/week of 90–120 minutes/session **Format:** Individual	Two control groups. Control group 1: supportive counseling combined with academic catching up program Control group 2: waitlist	**Study population:** Former child soldiers who have PTSD and live in camps for internally displaced people in Uganda. N= 85, intervention n=29, Control group 1 n=28, control group 2 n=28 Age: 12–25 Gender distribution: 55% girls/women, 45% boys/men **Follow-up:** 3-, 6- and 12-months post-treatment **Data collection:** Self-reporting instruments: PTSD: Clinician-Administered PTSD Scale (CAPS) Functional impairment: CASP Guilt: CASP Depression: Mini International Neuropsychiatric Interview Stigmatization: shortened version of The Perceived Stigmatization Questionnaire Suicidal ideation: MINI	**PTSD:** After 12 months, there was a significant reduction in symptoms of PTSD in the NET group with a moderate effect size (Cohen's d 0.72 and 0.66, respectively) compared to an active control group (academic catch-up) and waitlist control. **Depression:** No statistically significant difference between the groups over a 12-month period. **Functional impairment:** After 12 months, there was a significant improvement in the NET group with a large effect size (Cohen's d 0.83 and 0.97, respectively) compared to an active control group and waitlist control. **Stigmatization:** No statistically significant difference between the groups over a 12-month period. **Guilt:** Over a 12-month period, there was a significant difference in reduction of guilt between the NET group and the waitlist control in favor of the NET group (p<.001) with a large effect size (Cohen's d 0.97). There was no significant difference between the NET group and the active control (p=.16). **Suicidal ideation:** No statistically significant difference between the groups over a 12-month period.

First author, year published, country	Design	Intervention	Comparator	Study population, follow up & data collection of outcomes	Effect (effect size is presented when reported in the study)
Gupta et al., 2008 Sierra Leone	NRSI	Trauma processing intervention consisting of, among other things, sharing war experiences and providing accurate information about the war, normalizing children's reactions, instilling hope, and creative exercises (singing, dancing, drawing, writing, role-playing, playing instruments). **Structural exposure:** Contains exposure but it is unclear how much. **Intensity:** A total of 8 sessions of 60 minutes were given 2 times/ week over a 4-week period. **Format:** In a group integrated into a classroom.	N/A	**Study population:** War-affected and displaced children in Sierra Leone. N= 315 Age: 8–17 (average 10.7 years)) Gender distribution: 53% boys **Follow-up:** 4-6 weeks post-treatment **Data collection:** Interviews based on self-reporting instruments. PTSD: Impact of Events Scale (IES) Childrens' general emotions: self-developed eight-item questionnaire	**PTSD:** A significant reduction within the group after 4-6 weeks (p<.0001). **Childrens' general emotions:** No significance test has been performed. The majority of the children who participated in the trauma processing intervention reported feeling much better (22.3%) or better (73.4%) after sharing their bad memories of the war. Overall, 95% reported that their concentration problems at school were also better or much better, and 96% reported that their bad dreams and/or nightmares decreased. More than half of the children said they felt relief while participating in the structured activities and 36% experienced sadness. About 5% of the children reported mixed emotions or fear while participating in the intervention.
Layne et al., 2008 Bosnia	RCT	Trauma and grief therapy for adolescents containing trauma therapeutic components (e.g. psychoeducation, emotion regulation, relaxation, social skills training, trauma and grief processing, problem solving and planning for the future). **Structured exposure:** Yes, in one part of the treatment. **Intensity:** 17 sessions, 1 time/week of 60-90 minutes **Format:** Group - Classroom-based	Classroom-based psychoeducation and exercises in emotion regulation, relaxation and problem solving. Parts of the same manual as for the intervention group.	**Study population:** War-affected children who suffered a significant trauma before, during or after the war; significant current psychological stress, e.g., PTSD, depression, and significant functional impairment e.g., in relationships and school performance. N= 127 (Treatment: N=66, control group: n=61) Age: 13–19 Gender distribution: active control group: 66% girls, intervention: 67% girls **Follow-up:** Post-intervention and 4 months **Data collection:** Self-reporting instruments: PTSD: Posttraumatic stress disorder reaction Index (RI), Depression: Depression Self-Rating Scale (DSRS), Traumatic and existential grief: UCLA Grief Inventory	**PTSD:** No significant difference between the groups. Within-group analysis showed significantly reduced symptoms of PTSD for both the trauma and grief therapy group and the active control group (p<.01) **Depression:** No significant difference between the groups. **Traumatic and existential grief:** No significant difference between the groups. Within-group analysis showed a significant reduction for the trauma and grief therapy group (p<.001) at postintervention but not for the active control group.

First author, year published, country	Design	Intervention	Comparator	Study population, follow up & data collection of outcomes	Effect (effect size is presented when reported in the study)
Lokuge et al., 2013 Democratic Republic of the Congo, Iraq, the occupied Palestinian territory	Retrospective intervention study without control group.	Mental health program run by Médecins Sans Frontières (MSF), which partly consisted of trauma-focused therapy. MSF mental health guidelines include acute crisis management, drug treatment, CBT techniques such as cognitive restructuring, mindfulness, relaxation, and social support. **Structured exposure:** Unclear if and how much. Refers to exposure in Médecins Sans Frontières guidelines but unclear if it was used in the study. **Intensity:** Varied the number of sessions as needed. In the Democratic Republic of Congo it was most common with 2-5 sessions and in Palestine 44% received more than 10 sessions. Nothing more is stated about the intensity. **Format:** Individual	N/A	**Study population:** War-affected children in the Democratic Republic of Congo, Iraq and the occupied Palestinian territory N= 3025 (n=1767 children and young adults up to 19 years) Age: 0–19 years in the children/young adults' group. Gender distribution= Children <15 years 53% boys, 47% girls 15–19 years: 32% boys, 68% girls **Follow-up:** Immediately at discharge. **Data collection:** Data was used from MSF's medical record system. Patient demographics, symptoms associated with: PTSD Anxiety, depression Somatoform Symptoms Behavioral problems Other symptoms	Nothing specifically reported on the different outcome measures. The most commonly reported symptom in the children and adolescents was anxiety, followed by behavioral problems and somatic symptoms. 97% of those who completed treatment self-reported improvements in their main reported symptoms (no significance tests are presented for the self-reported improved symptoms).

First author, year published, country	Design	Intervention	Comparator	Study population, follow up & data collection of outcomes	Effect (effect size is presented when reported in the study)
Martinez Torre et al., 2022 Nigeria	Retrospective intervention study without control group.	Mental Health and psychosocial support (MHPSS) program, under the auspices of Médecins Sans Frontières, with psychological interventions such as psychoeducation and emergency crisis management, as well as drug treatment and social support. **Structured exposure:** No **Intensity:** The number of sessions ranged from 1 to 14. The median was 2 sessions. Lacks information on length and how often they were given. **Format:** Individual	N/A	**Study population:** War-affected persons, including children and former child soldiers in Nigeria. N= 11 709 (4025 in the age group 1-25 years) Age: 1–25 (Children and young Adults Group) (The entire sample average 32.7 years.) Gender distribution: 26% boys/men in the age group 1–25 years **Follow-up:** Measurement after each session. No further follow-ups. **Data collection:** Medical records from the MHPSS program were analyzed retrospectively. Eight mental, neurological, and substance use symptoms were categorized: Somatic symptoms Anxiety-related symptoms Post-traumatic symptoms Depression-related symptoms Psychosis-related symptoms Behavioral problems Cognitive symptoms Other symptoms The severity of these symptoms was measured by counselors by using the Clinical Global Impression-Improvement (CGI-I) scale and the Mental Health Global State (MHGS) scale.	There is no specific report on the individual outcome measures. In the children, 45.2% (n = 239) improved overall, but 53.5% (n = 283) showed no change at the end of treatment. Some (1.3%; n = 7) had worse symptoms. **Children with somatic symptoms (OR: 2.3, p < 0.001), post-traumatic symptoms (OR: 2, p < 0.001), anxiety (OR: 1.6, p = 0.001) and depression (OR:** 1.5, p = 0.002) were more likely to have improved outcomes.

First author, year published, country	Design	Intervention	Comparator	Study population, follow up & data collection of outcomes	Effect (effect size is presented when reported in the study)
McMullen et al., 2013 Democratic Republic of the Congo	RCT	Trauma-focused cognitive-behavioral therapy (TF-CBT). (contextually adapted) **Structured exposure:** Yes **Intensity:** 15 sessions. No information about the duration and frequency of the sessions. **Format:** Group	Waiting list (which was shortened due to ethical reasons, which led to no comparative analysis being performed at the 3-month follow-up).	**Study population:** War-affected children, including former child soldiers in the Democratic Republic of Congo N= 50 (39 former child soldiers) Age: 13–17 Gender distribution: 100% boys **Follow-up:** Postintervention and 3 months. **Data collection:** Interviews based on self-reporting instruments: PTSD: The UCLA-PTSD Reaction Index Psychological distress: The African Youth Psychosocial Assessment Depression and anxiety: AYPA (formerly known as the Acholi Psychosocial Assessment Instrument (APAI))	**PTSD:** Significant reduction in the TF-CBT group (p<.001) with a large effect size (ηp2 .665) and with a slightly larger effect size when former child soldiers were analyzed separately (ηp2 688) at postintervention. No between-group analysis at 3-month follow-up but within-group analysis showed significant reduction in the TF-CBT group with a large effect size (p < .001, d 2.17). **Depression and anxiety:** Significant reduction in the TF-CBT group (p<.001) with a large effect size (ηp2 .567) with a slightly larger effect size when former child soldiers were analyzed separately (ηp2 .587) compared to control. No between-group analysis at 3-month follow-up but within-group analysis showed significant reduction in the TF-CBT group with a large effect size (p < .001, Cohen's d 2.64). **Psychological distress:** Significant reduction in the TF-CBT group (p<.001) with a large effect size (ηp2 .617) and a slightly larger effect size when former child soldiers were analyzed separately (ηp2 .643) compared to control. No between-group analysis at 3-month follow-up but within-group analysis showed significant reduction in the TF-CBT group with a large effect size (p < .001, Cohen's d 2.03).

First author, year published, country	Design	Intervention	Comparator	Study population, follow up & data collection of outcomes	Effect (effect size is presented when reported in the study)
O'Callaghan et al., 2013 Democratic Republic of the Congo	RCT	TF-CBT (contextually adapted) **Structured exposure:** Yes **Intensity:** 15 sessions. No information about the duration and frequency of the sessions. **Format:** Group except for three of the sessions that were given individually.	Waiting list (which was shortened due to ethical reasons, which led to no comparative analysis being performed at the 3-month follow-up).	**Study population:** War-affected girls who have either been directly exposed to or witnessed rape and inappropriate sexual touching in the Democratic Republic of Congo. N= 52, intervention n=24, control n=28 Age: 12–17 Gender distribution: 100% girls **Follow-up:** Postintervention and 3 months. **Data collection:** Self-reporting instruments: PTSD: the UCLA PTSD Reaction Index (Revised) Depression/Anxiety/Behavioral Problems/Prosocial Behavior: African Youth Psychosocial Assessment Instrument (AYPA)	**PTSD:** Significant reduction in the TF-CBT group compared to control with a large effect size ($p < .001$, $\eta p2$ 0.518) at post-intervention. No between-group analysis at 3-month follow-up but within-group analysis shows significant reduction at 3 months for the TF-CBT group with a large effect size ($p<.001$, Cohen's d 2.04). **Depression and anxiety:** Significant reduction in the TF-CBT group with a large effect size ($p < .001$, $\eta p2$ 0.517) compared to post-intervention control. No between-group analysis at 3-month follow-up but within-group analysis shows a significant reduction in depression and anxiety symptoms at 3 months for the TF-CBT group with a large effect size ($p<.001$, Cohen's d 2.45). **Behavioral problems:** A significant reduction in the TF-CBT group with a large effect size ($p < .001$, $\eta p2$ 0.259) compared to control. No between-group analysis at 3-month follow-up but within-group analysis shows a significant reduction at 3 months for the TF-CBT group with a large effect size ($p<.001$, Cohen's d .95). **Prosocial behavior:** A significant improvement in the TF-CBT group was a moderate effect size ($p < .001$, $\eta p2$ 0.099) compared to control. No between-group analysis at 3-month follow-up but within-group analysis shows a significant improvement at 3 months for the TF-CBT group with a large effect size ($p<.001$, Cohen's d 1.57).

First author, year published, country	Design	Intervention	Comparator	Study population, follow up & data collection of outcomes	Effect (effect size is presented when reported in the study)
O'Callaghan et al., 2014 Democratic Republic of the Congo	RCT Pilot study	Psychosocial treatment program with a focus on reintegration into society. **The manual is based on three main components:** 1. Life skills programs for young people, 2. Various videos depicting what young people, parents and society can do to promote the re-integration of abducted children, 3. Relaxation exercises according to TF-CBT **Structured exposure:** No **Intensity:** A total of 8 sessions, 3 times/week of 2 hours. **Format:** Group	Waiting list (which was shortened due to ethical reasons, which led to no comparative analysis being performed at the 3-month follow-up).	**Study population:** War-affected children N= 159, intervention n=79, control n=80 Age: 7–18 Gender distribution: 55% boys/ 45% girls **Follow-up:** Postintervention and 3 months **Data collection:** Interview based on self-reporting instruments: PTSD: Child Revised Impact of Events Scale (CRIES-8). Depression/Anxiety/Behavioral Problems/Prosocial Behavior: African Youth Psychosocial Assessment Instrument (AYPA)	**PTSD:** Significant reduction (p=.009) with a moderate effect size (Cohen's d 0.40) for the intervention group compared to control at post-intervention. No between-group analysis at 3-month follow-up but within-group analysis shows a significant reduction at 3 months with a small effect size (p=.036, ηp2 0.04) for the intervention group. **Depression and anxiety:** No significant difference between the groups (p=.738). No between-group analysis at 3-month follow-up but within-group analysis shows a significant reduction at 3 months with a large effect size (p<.001, ηp2 .32) for the intervention group. **Behavioral problems:** No difference between the groups (p=.756). No between-group analysis at 3-month follow-up but within-group analysis for the intervention group shows a significant reduction at 3 months with a large effect size (p<.001, ηp2 .13). **Prosocial behavior:** No significant difference between the groups (p=.171). No between-group analysis at 3-month follow-up but within-group analysis for the intervention group showed a significant improvement at 3 months with a moderate effect size (p<.001, ηp2 .08)
Onyut et al., 2005 Uganda	NRSI	KIDNET (Child-friendly version of NET) **Structured exposure:** Yes **Intensity:** 4-6 sessions of 1-2 hours. No information on the frequency of sessions. **Format:** Individual	N/A	**Study population:** Refugees with PTSD, from Somalia in Uganda living in refugee camps. N= 6 Age: 13–17 Gender distribution: 50 % girls /50% boys **Follow-up:** Postintervention and 9 months **Data collection:** Self-reporting instruments: PTSD: The Posttraumatic Diagnostic Scale (PDS) Depression: Hopkins Symptom Checklist-25 (HSCL)	**PTSD:** Significant reduction over a nine-month period within the group (p < 0.01). **Depression:** No significance values are reported but 4 out of 6 had major depression prior to the start of KIDNET and at post- and 9-month follow-up, none met criteria for clinically significant depression.

First author, year published, country	Design	Intervention	Comparator	Study population, follow up & data collection of outcomes	Effect (effect size is presented when reported in the study)
Ruf et al., 2010 Germany	RCT	KIDNET **Structured exposure:** Yes **Intensity:** 8 sessions 1 time/week of 90–120 minutes **Format:** Individual	Waiting list (which was shortened due to ethical reasons, which led to no comparative analysis being performed at the 12-month follow-up).	**Study population:** Traumatized refugee children diagnosed with PTSD living in Germany. N= 26, intervention n=13, control n=13 Age: 7–16 Gender distribution: 54% girls, 46% boys **Follow-up:** 4 weeks, 6 and 12 months **Data collection:** Self-reporting instruments: PTSD-diagnostics with UCLA PTSD Index for DSM-IV with additional questions about everyday functioning at school, with friends and in the family. General psychiatric diagnostics to investigate comorbidity: Mini International Neuropsychiatric Interview for Children and Adolescents Cognitive function: Raven's progressive matrices. Carried out through professional assessment.	**PTSD:** There was a significant reduction in the KIDNET group compared to control over time up to 6 months ($p<.01$) with a large effect size (Hedge's g 1.9). No between-group analysis was performed at 12 months. Within-group analysis for the KIDNET group showed a significant reduction in PTSD symptoms with a large effect size (Hedge's g 1.8) after 12 months. **Functional impairment:** A statistically significant improvement was seen in the KIDNET group compared to control over a 6-month period ($p<.05$) with a large effect size (Hedge's g 1.7). **Cognitive function:** There was a significant group x time effect in favor of the KIDNET group compared to waitlist control over a 6-month period for nonverbal cognitive function ($p<.05$) as measured by Raven's test. **Psychiatric comorbidity:** No statistical difference between groups at the 6-month follow-up.
Schaal et al., 2009 Rwanda	RCT	NET + Grief counseling session **Structured exposure:** Yes **Intensity:** 4 sessions 1 time/week of 2-2.5 hours (3 sessions with NET and 1 session with grief counselling) **Format:** Individual	IPT in groups.	**Study population:** Orphans of the Rwandan genocide who have PTSD. They were ≤ 18 years old when the genocide happened. N=26, (IPT n=14, NET n=12) Age: 14–28 (average 19.2) The worst traumatic event had occurred at an average age of 10.2 years. Gender distribution: 38.5% boys/men, 61.5% girls/women **Follow-up:** 3 and 6 months **Data collection:** Self-reporting instruments: PTSD: the Clinician-Administered PTSD Scale, CAPS Symptoms of depression: the depression section from the Mini-International Neuropsychiatric Interview (MINI) Severity of depression: Hamilton Depression Rating Scale Guilt: Two questions from CAPS	**PTSD:** No significant difference between NET group and active control at 3 months but after 6 months there was a significant difference in favor of the NET group ($p<.01$) with a large effect size of treatment X time interaction ($p<0.05$, $\eta 2$ 0.26). **Depression:** No significant difference in depressive symptoms between the groups after 3 months but after 6 months there was a significant difference in favor of the NET group with a large effect size of treatment X time interaction ($p = 0.05$, $\eta 2$ 0.23). The severity of depression (Hamilton Depression Rating scale) decreased significantly more in the NET group compared to the active control group ($p<.05$) **Guilt:** At 3 months, there was a significant difference between the groups ($p<.05$) where the NET group had less guilt than the active group. At 6 months, there was no statistical difference between the groups.