Victimization and psychopathology among children in the aftermath of mass trauma in Sri Lanka

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Vathsalan Rajan
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1 Overview

1.1 Publications and submitted manuscripts of the cumulative dissertation

1.1.1 Predictors of violence against children in Tamil families in northern Sri Lanka

Authors: Vathsalan Sriskandarajah1, Frank Neuner1, Claudia Catani1
Published 2015 in Social Science and Medicine, 146, 257-265

1.1.2 Explaining the accumulation of victimization in vulnerable children: Interpersonal violence among children traumatized by war and disaster in a children’s home in Sri Lanka

Authors: Vathsalan Rajan1, Frank Neuner1, Claudia Catani1
Submitted to Development and Psychopathology

1.1.3 Parental care protects traumatized Sri Lankan children from internalizing behavior problems

Authors: Vathsalan Sriskandarajah1, Frank Neuner1, Claudia Catani1
Published 2015 in BMC Psychiatry, 15, 203

1 Bielefeld University
1.2 Author contributions

1.2.1 Author contributions to the manuscripts

I was involved in the conceptualization and design of the study. I guided the translation and adaptation of the study instruments and conducted the trainings on the study tools and procedure of the study. I continuously monitored data collection and entry, and with the assistance of my supervisors I supervised the local team during study implementation. I also contributed to data collection and carried out a small number of clinical interviews. I took care of the day-to-day study administration and logistics. I managed and analyzed the data, interpreted the findings and wrote the manuscripts as the first author.

1.2.2 Confirmation of first authorships and contributions

We, the co-authors of the specified manuscripts, confirm that Vathsalan Rajan contributed to the research underlying the articles as stated above and drafted the manuscripts as first author.

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apl. Prof. Dr. Claudia Catani  Prof. Dr. Frank Neuner
2 Introduction to the common context of this research

Globally, the prevalence rates of violence against children is alarmingly high. It is estimated that worldwide half of all children - viz. up to 1 billion children - have experienced at least one type of violence in the past year (Hillis, Mercy, Amobi, & Kress, 2016). The experience of violence may have lifelong impacts on children’s development and health (Connor, Doerfler, Volungis, Steingard, & Melloni, 2003; Gershoff, 2002, 2010, 2013; Schilling, Aseltine, & Gore, 2007). Experiencing violence at an early age can impair brain development and damage other parts of the nervous system which can further lead to negative impact on cognitive development and educational deficits (Perkins & Graham-Bermann, 2012). Child maltreatment has not only adverse effects on physical health but also on mental health. Previous studies observed high rates of mental disorders among children that experienced violence (see 2.4 Violence against children and child psychopathology). Severe forms of violence can also lead to severe injuries or even homicide. In summary, violence against children can have alarming and long-term consequences.

Studies in postwar communities (e.g. Haj-Yahia & Abdo-Kaloti, 2003) found extraordinary high levels of violence against children leading to the assumption that children in the aftermath of mass trauma are more likely to experience interpersonal violence. Understanding this specific phenomenon is crucial in order to stop the continuation of child maltreatment. Catani (2010, 2018) developed a model on the transmission of mass trauma to violence against children on which the present work is based on. But first, it is important to understand what violence against children is and how it is defined.

2.1 Definition of violence against children

The Convention on the Rights of the Child defines violence against children as “all forms of physical or mental violence, injury and abuse, neglect or negligent treatment, maltreatment or exploitation, including sexual abuse” against people under the age of 18 (Unicef, 1989).

The physical violence against children includes the use of physical force, such as shaking, slapping, punching or kicking, but also the use of objects (e.g. belt, sticks) or
Introduction

1. **Weapons** (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). *Psychological violence* involves yelling, insulting, restricting a child’s movements as well as threatening to use physical violence. Touching private parts, exposing to pornography, rape and related acts are defined as *sexual abuse*. *Neglect* involves the failure of fulfilling the child’s needs such as not providing food, shelter or adequate supervision. All described forms of violence can be perpetrated by parents or other caregivers, peers, or strangers (Devries et al., 2018).

2.2 **Violence against children in the aftermath of mass trauma**

As reported above, there is a high risk for children in the context of mass trauma to be harmed by the described forms of violence. It is an alarming finding, considering the fact that worldwide almost one in five children is living in countries that have been affected by political conflict and violence (Graham, Kirollos, Fylkesnes, Salarkia, & Wong, 2019). Children who grow up in such adverse situations have to bear much more than the exposure to war violence. They are also confronted with subsequent adversities such as poverty, homelessness, and loss of family members (Pynoos, Steinberg, & Piacentini, 1999; Shaw, 2003). Stressors tend to “pile up” in war-torn regions (Barocas, Seifer, & Sameroff, 1985; Rutter, 1979), so that children are at high risk to experience maltreatment. Indeed, studies conducted with children and adolescents in war and post-war communities showed increased prevalence rates of violence against children (Catani, Schauer, & Neuner, 2008; Saile, Ertl, Neuner, & Catani, 2014). For example, a survey with Palestinian secondary school students revealed high rates of violence against children within the family (Haj-Yahia & Abdo-Kaloti, 2003). The perpetrators of violence were not only their parents but also their siblings. Furthermore, the authors reported that child maltreatment was significantly associated with the level of children’s experience of war violence. In accordance with that finding, a study with children in the war-affected north of Sri Lanka found a high prevalence rate of child maltreatment (Catani, Jacob, Schauer, Kohila, & Neuner, 2008). In this study, analyses revealed exposure to war as the strongest predictor of violence against children. These findings suggest that exposure to war can play an important role in the development and the perpetuation of violence against child. However, it remains unclear how exposure to war and high prevalence rates of child abuse are interlinked and which factors may function as mediators of this relationship.
2.3 Violence against children and parents’ psychopathology

To understand the relationship between war exposure and increased levels of violence against children the suggestions made by Catani (2010, 2018) can be helpful. She proposed two pathways that may link the experience of war with child maltreatment. One pathway assumes that parental psychopathology such as posttraumatic stress symptoms and substance abuse may mediate the relationship between war exposure and interpersonal violence. In fact, studies with parents living in war-torn communities revealed high prevalence rates of psychological disorders, such as posttraumatic stress disorder (PTSD) and depression (De Jong, Komproe, & Van Ommeren, 2003; Summerfield, 2000). Parents suffering from psychological disorders are in turn at high risk of engaging aggressive or violent behavior towards their children (Black, Heyman, & Smith Slep, 2001; Milner & Chilamkurti, 1991). Catani (2010, 2018) suggested that in particular PTSD symptoms such as irritability and outburst of anger may be linked with higher levels of violence against children. In line with this hypothesis, several studies found that parental PTSD symptoms are significantly associated with higher levels of intrafamilial stress and violence (Brand, Schechter, Hamm, Le Brocque, & Brennan, 2011; Gewirtz, Polusny, Degarmo, Khaylis, & Erbes, 2010). Studies on substance abuse in parents and perpetration of violence against their children also support this hypothesis: Parents with alcohol and drug use problems are more likely to engage punitive parenting strategies (Miller, Smyth, & Mudar, 1999; Walsh, MacMillan, & Jamieson, 2003). Saile and co-workers (2014) found in an Ugandan post-conflict region that the level of alcohol use in male guardians significantly predicted the fathers’ perpetration of violence against their children. This finding leads to the assumption that parental alcohol abuse is indeed a contributing factor to the perpetuation of violence against children in post-war settings. However, psychopathological symptoms of parents do not fully explain the relationship between war and child maltreatment, which suggests that other factors also play an important role in the development and continuation of violence against children in the aftermath of war.
2.4 Violence against children and children’s psychopathology

Catani’s framework (2010, 2018) is helpful to identify factors - besides parental psychopathology - that fuel violence against children in the aftermath of mass trauma. She suggested an alternative pathway that may lead to increased levels of child maltreatment: Children growing up in the context of mass trauma such as war and natural disaster are at high risk of developmental problems (Barenbaum, Ruchkin, & Schwab-Stone, 2004; Pine, Costello, & Masten, 2005) as well as psychological impairments (Attanayake et al., 2009; Thabet, Abed, & Vostanis, 2004; Weems et al., 2010). High prevalence rates of posttraumatic stress disorder, major depression and suicidal ideation were found among children affected by the Asian Tsunami in 2004 (Catani, Jacob, et al., 2008; Neuner, Schauer, Catani, Ruf, & Elbert, 2006; Thienkrua et al., 2006; Wickrama & Kaspar, 2007). Studies with children exposed to other natural disasters also revealed high levels of broader aspects of mental health such as internalizing and externalizing behavior problems (e.g. Mclaughlin et al., 2009). Similarly, literature on children’s mental health in post-war settings identified a high risk for these children to develop emotional and behavioral problems (Murthy & Lakshminarayana, 2006). Studies conducted with children in war-affected regions of Sri Lanka revealed repeatedly high prevalence rates of mental disorders such as PTSD and major depression (Catani, Jacob, et al., 2008; Catani et al., 2009; Elbert et al., 2009). Across various countries and types of mass trauma, the severity and frequency of exposure to disaster-related traumatic events was found to be one of the main predictors for children’s psychopathology (e.g. Kinan, Shrira, & Shmotkin, 2012; Saile, Ertl, Neuner, & Catani, 2016). Therefore, Catani (2010, 2018) further assumed that parents in mass trauma settings may be unable to cope with their children’s psychological impairments and its sequelae. In particular, externalizing behavior problems of children such as hyperarousal and outbursts of anger may be difficult to handle for the parents. But also internalizing behavior problems that include anxiousness, concentration problems, disturbances in eating and sleeping may be difficult to handle for the parents. Thus, it can be further presumed that these parents may be more likely to perpetrate violence against their psychologically impaired children as a result of strain and helplessness in managing their children’s behavior (Catani, 2018; Gershoff, 2002). This assumption is supported by studies that found a significant relationship between parental stress and child maltreatment (Paquette, Bolté, Turcotte, Dubeau, & Bouchard, 2000; Rodriguez & Tucker, 2015). In a longitudinal study
with Filipino parents, children’s externalizing behavior problems predicted subsequent hostility and aggression by their parents (Garcia & Alampay, 2012) leading to the assumption that Catani’s pathway (2010) may be a valid explanation for the development of violence against children in the aftermath of mass trauma.

Nevertheless, it is important not to overlook that violence against children has detrimental effects on children’s mental health. Even in the context of mass trauma, it has been repeatedly shown that violence perpetrated by the parents contributes to externalizing and internalizing behavior problems as well as specific mental disorders such as PTSD and major depression (Catani, Schauer, et al., 2008; Olema, Catani, Ertl, Saile, & Neuner, 2014; Saile et al., 2016). Therefore, it is conceivable that this may lead to a vicious cycle of family violence in post-disaster settings: Children with psychological impairments (as a result from mass trauma) may experience subsequent violence within the family and then develop more psychological symptoms, which, in turn, makes them more likely to experience further interpersonal violence.

### 2.5 Protective factors for children’s mental health

Given that children’s psychological impairment may mediate the relationship between the experience of mass trauma and victimization, the understanding of potential protective factors for children’s mental health becomes very essential. Protective factors can be found on individual, family, and community level (Masten & Narayan, 2012; Pine et al., 2005). Inter-individual differences in responding to mass trauma may result from individual factors such as gender, age, and development stage (Furr, Comer, Edmunds, & Kendall, 2010; Pine et al., 2005). Prior work has documented that specific aspects of genetics and epigenetics may play a protective role for children’s mental health (Stein, Jang, Taylor, Vernon, & Livesley, 2002; Yehuda & Bierer, 2009). For example, studies have found a relationship between variations in the serotonin transporter gene (5-HTT) and the risk for depression and anxiety among children exposed to trauma (Nugent, Tyrka, Carpenter, & Price, 2011).

At community and family level, cultural beliefs and practices in mental health, family resources such as socio-economic status, and the mental health of guardians seem to contribute to resilience to trauma (Betancourt & Khan, 2008; Klasen et al., 2010; Tol, Song,
Accordingly, a study with Chechen adolescents found family support and connectedness with family members to be significantly associated with lower levels of internalizing and externalizing behavior (Betancourt, 2005). In the context of mass trauma, parenting behavior may not only act as additional stressor but also function as a protective factor for children’s mental health (Gewirtz, Forgatch, & Wieling, 2008; Masten & Narayan, 2012). Parker and coworkers (1979) identified care and overprotection as main characteristics that describe the parent-child-relationship adequately, which may be a helpful hint to identify protective factors at parental level. Indeed, studies with children affected by natural and manmade disasters have associated positive parenting behavior such as high parental care with children’s resilience (Masten et al., 1999; Masten & Narayan, 2012; Werner, 2012). Adolescents who had been exposed to the Asian Tsunami reported fewer symptoms of mental disorders when they had a highly caring mother (Wickrama & Kaspar, 2007). Dubow and coworkers (2012) examined the mental health of Israeli and Palestinian children and found that positive parenting moderated the relationship between exposure to war violence related events and posttraumatic stress symptoms indicating that parental care may be a valid protective factor for children’s mental health in the aftermath of mass trauma. Likewise, a study with war-affected Palestinian students found that the children who perceived only their mothers as highly loving and caring, but not their fathers, reported higher levels of PTSD symptoms compared to children who perceived both parents as loving and caring (Punamäki, Qouta, & El-Sarraj, 2001). However, research on the potential protective effect of parental care in the context of mass trauma has mainly focused on symptoms of specific psychiatric diagnoses such as PTSD and depression, but not on broader aspects of children’s mental health such as internalizing and externalizing behavior problems.

### 2.6 Overall objective of the current work

The factors that lead to violence against children in the aftermath of mass trauma are poorly understood (Catani, 2010). It is also unclear which factors can prevent child maltreatment in the context of mass trauma. Therefore, the present thesis focused on investigating the predictors of violence against children in the aftermath of mass trauma. This work also investigated the effects of positive parenting on children’s mental health in
such regions assuming that poor mental health of children may be a risk factor for the experience of violence. We conducted the present studies within a Tamil population in northern Sri Lanka which tragically represent a prototypical example of a region that had been shattered by a long-lasting war as well as a major natural disaster. Our aim was to generate empirical and relevant knowledge that would contribute to the understanding and prevention of ongoing violence against children in the post-war and post-Tsunami regions of Sri Lanka. We assumed that this knowledge can be used to support the healthy psychological development of children in the aftermath of mass trauma. The aim was not only to identify the extent of violence against children in northern Sri Lanka but also to understand the underlying mechanisms that lead to the child maltreatment in the aftermath of war and Tsunami. Furthermore, we aimed to provide useful information for the development and implementation of interventions that can prevent violence against children by also investigating factors that are associated with positive parenting.

Derived from the findings described above and based on Catani (2010, 2018), the working model as shown in figure 2.1 is conceivable: Family members living in the context of mass trauma may subsequently suffer from psychological impairment which, in turn, may increase the risk of violence against children. Child maltreatment may also have negative consequences on child’s mental wellbeing so that a bidirectional relationship between child abuse and child’s mental health is assumable. In this context, parental care may function as a protective factor and moderate the relationship between exposure to mass trauma and child’s mental health.
In order to understand the complex interplay of factors that contribute to the phenomenon *violence against children in the aftermath of mass trauma* and to support the relationships postulated in the working model, we first focused on the prevalence rate and risk factors of violence against children living in families. Here, we investigated dyadic and triadic interactions that may lead to the victimization of children and the parental...
perpetration of violence against children. Second, we focused on the risk factors of violence against children living outside their families in order to reveal child-related factors that may contribute to their victimization within the institution. Finally, we examined the potential positive effect of parental care on children’s mental health in the aftermath of mass trauma. These three main analyses constitute the manuscripts of the cumulative dissertation. In the last section of this thesis all findings of the three manuscripts will be discussed and conclusions and implications for further research and clinical practice will be presented.
3 Predictors of violence against children in Tamil families in northern Sri Lanka

Please note:

The online version of this article can be found here:

https://doi.org/10.1016/j.socscimed.2015.10.010
4 Explaining the accumulation of victimization in vulnerable children: Interpersonal violence among children traumatized by war and disaster in a children’s home in Sri Lanka

4.1 Abstract

Research in post-conflict settings indicated that children’s exposure to war and natural disaster is a significant predictor of experiencing violence within their families. However, it is unclear if this effect is driven by characteristics of traumatized children or their parents. To disentangle these different factors we conducted a survey in a children’s home in Sri Lanka. One hundred forty-six institutionalized children (aged 8 to 17) were interviewed using standardized questionnaires administered by local senior counselors in order to assess children’s exposure to mass trauma, family violence and violence in the institution as well as their mental health. Linear regression analyses revealed that, controlling for potential confounds, previous exposure to civil war was a significant predictor of violence by guardians in the children’s home. In addition, previous exposure to family violence was a significant predictor of violence by peers in the institutions. A mediation analysis showed that children’s internalizing and externalizing behavior problems partly mediated the relationship between violence prior to the admission to the children’s home and violence in the children’s home. The findings of our study provide evidence for the assumption that the transmission of mass trauma into interpersonal violence can occur independently from parents through children’s psychopathology.

4.2 Introduction

The occurrence of violence leads to further violence. The often-observed intergenerational transmission of violence had been explained by the “cycle of violence” hypothesis proposed by Widom (1989). Following her assumption, parents who have been exposed to violence in their own childhood are more likely to perpetrate violence against their children. However, this hypothesis does not fully explain the intergenerational
transmission since studies on the relationship of exposure to violence in families of origin and subsequent perpetration of violence against own children show only moderate correlations (Thornberry et al., 2012). Additional factors may have an influence on the perpetuation of violence against children, particularly in the aftermath of war and natural disaster.

Catani (2010) proposed that exposure to war may lead to disruption within the community as well as the family which, in turn, contributes to an increased rate of violence against children. In fact, several studies showed that the prevalence of family violence against children is particularly high in post-war communities (e.g., Dubow et al., 2012). For example, Haj-Yahia and Abdo-Kaloti (2003) found high rates of child maltreatment in a Palestinian sample that were associated with the level of exposure to war-related events. Likewise, the experience of violence has been reported by an unusually high proportion of children in the war-affected north of Sri Lanka (Catani, Jacob, et al., 2008). These findings lead to the assumption that war exposure may play an important role in the development and the perpetuation of child maltreatment. However, little is known about the factors which may have an impact on the association between exposure to war and experience of child maltreatment. Catani (2010) suggested that parental psychopathology such as posttraumatic stress symptoms and substance abuse may mediate the relationship between war exposure and child abuse. Recent studies support such a perspective (e.g., Saile, Ertl, Neuner, & Catani, 2014). In a study with Sri Lankan school children and their parents, parental traumatization was significantly related to parent-reported perpetration as well as child-reported victimization. In addition, substance abuse by fathers appeared to be the strongest predictor of father-reported perpetration of violence against children (Sriskandarajah et al., 2015). However, the children’s own mental health problems might also be a potential mediator between war violence and family violence against children. It is well known that children living in post-war communities are at high risk of developing psychological problems (Ayub et al., 2012; McLaughlin et al., 2009; Abel Aziz Mousa Thabet et al., 2006) including behavioral and emotional difficulties such as hyperarousal, irritability, or outbursts of anger (Catani, 2010). Parents may find it difficult to cope with their children’s impairments and might, in response, adopt inappropriate or even violent parenting strategies to raise their children. Several studies on the link between parental stress and violence against children support this assumption (Garcia & Alampay, 2012; McElroy & Rodriguez, 2008; Rodriguez & Tucker, 2015).
Explaining victimization of institutionalized children in the aftermath of mass trauma

To date, the potential of children’s psychopathology as a mechanism linking war trauma to child maltreatment is poorly understood. A promising approach to study this pathway is to look at children in a post-conflict society who are currently raised in the absence of their parents so that a potential influence of parental psychopathology and/or genetic factors on the transmission of war violence into family violence can be ruled out. Therefore, children living in an orphanage or children’s home are a suitable population: They not only may have experienced adverse events associated with their life circumstances (e.g., war or community violence) but also violence perpetrated by their parents before admission to the residential care institution. In fact, several studies show that the most frequent reasons for the placement of children in residential care institutions are due to violence and neglect within the family of origin (Morantz, Cole, Ayaya, Ayuku, & Braitstein, 2013; Oliveira et al., 2012; Sainero, Bravo, & del Valle, 2014). Accordingly, a study with institutionalized children in Tanzania found that more than half of the children had experienced violence in the family of origin before they were admitted to the residential care institution (Hermenau, Hecker, Elbert, & Ruf-Leuschner, 2014).

Following the framework of Catani (2010), it may be assumed that such an accumulation of violent experiences increases the risk for these children to also experience violence at the hands of their new guardians in the orphanage or children’s home. Indeed, studies on child maltreatment by guardians in children’s home show high prevalence, with rates up to 89% (Gavrilovic & Groza, 2007; Hermenau et al., 2014; Saboula, Hussien, & El-Refaee, 2015). In this context, it is noteworthy that residential care institutions in third world countries are often unregistered and unregulated, often leading to a lack of proper training of the guardians providing childcare (Hecker, Mkinga, Ssenyonga, & Hermenau, 2017). In addition, their environment within children’s institutions may be chaotic due to a high fluctuation of staff members as well as an inconsistent assignment of guardians to specific children (Muhamedrahimov, Palmov, Nikiforova, Groark, & McCall, 2004; Wright, Lamsal, Ksetree, Sharma, & Jaffe, 2014).

Peer violence seems to be another common phenomenon in residential care institutions. Research on the prevalence of peer violence among institutionalized children is scarce, but initial studies revealed prevalence rates of physical violence by peers of up to 56% and psychological violence up to 73% (Attar-Schwartz & Khoury-Kassabri, 2015; Khoury-Kassabri & Attar-Schwartz, 2014; Sekol & Farrington, 2009). Although the extent
of violence against institutionalized children is alarming, the factors that may lead to these high prevalence rates are still understudied.

According to the concept of revictimization children who have experienced violence are more likely to experience subsequent exposure to violence at later stages of their lives (Widom, Czaja, & Dutton, 2008). This may lead to the assumption that institutionalized children, who have experienced family violence as well as war violence, are at particularly high risk of experiencing further violence by their guardians and peers. Studies on the relationship between family violence and peer violence support this assumption (Cluver, Bowes, & Gardner, 2010; Shields & Cicchetti, 2001). For example, a longitudinal study with Chinese school children showed that the experience of family violence even predicts victimization by peers (Xia, Li, & Liu, 2018).

To the best of our knowledge, however, no study to date has investigated potential predictors of violence by guardians and peers within a residential care institution in the aftermath of mass trauma, such as war and natural disaster. Also, the potential mediating effect of child psychopathology on the relationship between traumatic events and interpersonal violence in residential care institutions has not been examined. To address this gap in the literature, we conducted a study with institutionalized children in a region of Sri Lanka which has been severely affected by an armed conflict lasting over two decades and by the tsunami disaster in 2004. The civil war in the Tamil areas of Sri Lanka only came to an end in May 2009 (United Nations, 2011). Up to 100,000 people were killed, and hundreds of thousands of civilians were internally displaced (ABC News, 2009). As the civil war continued to rage, the coastal areas of the northern, eastern, and southern provinces of Sri Lanka were devastated by the Asian Tsunami in 2004, which led to further deaths, displacements, and disruptions in affected families (Ratnasooriya et al., 2007).

The present study aimed to explore potential risk factors for the victimization of institutionalized children in the aftermath of mass trauma. We predicted that exposure to the tsunami, war, and family violence, and mental health problems would represent significant predictors of victimization of children by guardians and peers. Moreover, we assumed a mediating effect of children’s mental health on the relation between exposure to traumatic events prior to admission to the children’s home and victimization experienced while in the children’s home.
4.3 Method

Sample Selection

During the year of 2012, we conducted a cross-sectional study with children residing in an institution and their guardians in the Jaffna district in Northern Sri Lanka. This children’s home was financed by state funding and private donations and was situated near a governmental school. Children from the age of five were admitted to the children’s home either by court order due to absence of safety in the children’s environment or by their relatives due to loss of parent and/or poverty. If safety was assured, the institutionalized children were allowed to stay with their relatives for a maximum period of one week per year. In this study, all institutionalized children between the ages of 8 and 17 were interviewed. The ethical review board of the Bielefeld University and local educational authorities approved the implementation of the survey.

Participants

The current sample consisted of 146 children living in an institution in Northern Sri Lanka. The majority of the children (74.7%) reported that one of the reasons for their institutionalization was poverty. Other frequent reasons were loss of one parent (41.1%), better access to education (12.3%) and more safety (8.9%). On average, the children had been living in the children’s home for 33.29 months (SD = 26.83). All children possessed their own bed and, on average, seven pieces of clothing (SD = 3.44). Children reported an average intake of 3.40 meals and snacks a day (SD = 0.55), even though the children’s home claimed to provide three daily meals and two snacks. Further sample characteristics are displayed in table 4.1.
Explaining victimization of institutionalized children in the aftermath of mass trauma

Table 4.1
Sample characteristics (n = 146)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Count (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age, M (SD)</strong></td>
<td>12.8 (2.0)</td>
</tr>
<tr>
<td><strong>Sex (female), n (%)</strong></td>
<td>80 (54.8)</td>
</tr>
<tr>
<td><strong>Religion (Hindu), n (%)</strong></td>
<td>146 (100.0)</td>
</tr>
<tr>
<td><strong>Full orphans, n (%)</strong></td>
<td>6 (4.1)</td>
</tr>
<tr>
<td><strong>Loss of father, n (%)</strong></td>
<td>39 (26.7)</td>
</tr>
<tr>
<td><strong>Loss of mother, n (%)</strong></td>
<td>40 (27.4)</td>
</tr>
<tr>
<td><strong>Loss of sibling, n (%)</strong></td>
<td>18 (12.3)</td>
</tr>
<tr>
<td><strong>Visiting their relatives regularly</strong></td>
<td>94 (64.4)</td>
</tr>
<tr>
<td><strong>Weekly</strong></td>
<td>1 (1.1)</td>
</tr>
<tr>
<td><strong>Monthly</strong></td>
<td>5 (5.3)</td>
</tr>
<tr>
<td><strong>Thrice a year</strong></td>
<td>3 (3.2)</td>
</tr>
<tr>
<td><strong>Yearly once</strong></td>
<td>85 (90.4)</td>
</tr>
</tbody>
</table>

Measures

All instruments, except the questionnaire on peer violence, had been previously translated into Tamil language, validated, and deployed in previous studies. The additional questionnaire was translated following international standards (de Figueiredo & Lemkau, 1980; Geisinger, 1994) using lexical back translation, blind back translation, and discussions with a group of local bilingual experts.

**Sociodemographic characteristics and exposure to mass trauma.** For the assessment of sociodemographic characteristics, we adopted a questionnaire that had previously been used with Tamil schoolchildren (Catani, Jacob, et al., 2008; Elbert et al., 2009) and included additional questions regarding their stay in the children’s home. The questionnaires for the assessment of exposure to the tsunami in 2004 and to the civil war
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were also adopted from previous studies in Northern Sri Lanka (Catani, Jacob, et al., 2008). The different types of war-related events were summed in order to create an index of exposure to the civil war.

**Exposure to family violence and violence in the children’s home.** For the assessment of exposure to family violence we adopted a questionnaire that had previously been created by Catani and colleagues (2008) and used with schoolchildren in Northern Sri Lanka as well as in other cultural contexts (Saile et al., 2014, 2013). The questionnaire consisted of 32 items regarding physical, emotional, and sexual abuse as well as neglect. The children were asked whether they had experienced a specific event (yes/no). We established an index of exposure to family violence by summing the reported types of violence related events. Similarly, we asked the children whether they have experienced the same types of events in the children’s home (yes/no) and established an index of exposure to violence by guardians by aggregating the reported event types. For the assessment of exposure to peer violence in the children’s home, we created a questionnaire consisting of five items that address psychological violence and four items that address physical violence. The cumulative number of different peer violence experiences was used to estimate the level of exposure to peer violence. Furthermore, we summed up the index of exposure to family violence, the index of exposure to civil war and exposure to the 2004 Tsunami in order to establish an index of exposure to violence prior to admission to the children’s home.

**Posttraumatic Stress Disorder.** The University of California of Los Angeles (UCLA) PTSD Reaction Index for DSM-IV (UPID) for children (Pynoos et al., 1999) was used for the assessment of Posttraumatic Stress Disorder (PTSD). The UPID has previously been employed with children in different cultural contexts and has shown overall good validity and nearly excellent reliability (Steinberg, Brymer, Decker, & Pynoos, 2004). Elbert and coworkers (2009) translated this instrument into Tamil following standard principles of instrument translation and validated it in a sample of war-affected children in Sri Lanka. The UPID codes the frequency of the DSM-IV symptom criteria on a 5-point Likert-type scale ranging from 0 (none of the time) to 4 (most of the time). The sum-score of the UPID represents the overall PTSD severity score (range: 0-68). In order to establish the diagnosis of PTSD according to the fulfillment of the DSM-IV criteria we included six items related to problems in functioning in different areas of the children’s life which had been utilized in a previous study (Catani, Jacob, et al., 2008).
Depression and Suicidality. Sections A and B of the Mini-International Neuropsychiatric Interview for Children and Adolescents (MINI-KID; Sheehan et al., 1998) were used to assess the presence and levels of major depression and suicidality. The MINI-KID is a brief, structured diagnostic interview assessing psychiatric disorders in children and adolescents on the basis of DSM-IV (Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition) and ICD-10 (International Classification of Diseases, 10th Revision) criteria. It shows good reliability and good concurrent validity when compared to the parents’ version of the MINI-KID (MINI-KID-P) and the Schedule for Affective Disorders and Schizophrenia for School Aged Children – Present and Lifetime Version (K+SADS-PL; Sheehan et al., 2010). The Tamil version was adopted from previous studies with schoolchildren in Sri Lanka (Catani, Jacob, et al., 2008; Elbert et al., 2009).

Internalizing and Externalizing Behavior Problems. To assess children’s internalizing and externalizing behavior problems, the self-report version of the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) was used. The SDQ consists of five scales with five items each: emotional symptoms, peer relationship problems, conduct problems, hyperactivity/inattention, and prosocial behavior. The emotional symptom scale and the peer relationship problem scale can be combined into an “internalizing behavior” subscale and the conduct problem scale and hyperactivity scale into an “externalizing behavior” subscale. The overall difficulties score (range: 0-40) can be calculated by aggregating the indices for internalizing and externalizing behavior problems. This questionnaire has been used in different cultural settings and has consistently shown good psychometric properties (Woerner et al., 2004). In this study, a translated and validated Tamil version of the SDQ self-report was used (Lukumar et al., 2008).

Procedure

The director of the children’s home was first informed about the purpose and content of the study. After obtaining his consent, we selected the sample: Out of the 203 children/adolescents living in the children’s home, 146 children were in the age range of 8-17. We invited all children in this age range to take part in the study and none declined to participate. Prior to the interviews, written informed consent was obtained from the children and their legal guardian (the director of the children’s home). The clinical interviews took place in the assembly hall of the children’s home and were carried out by ten school teachers who had
been trained previously as “Master Counselors”. These “Master Counselors” were experienced in conducting diagnostics and treatments of children’s mental health disorders. In a seven-day training prior to the study, these Master Counselors were provided with detailed instructions on administering the study instrument. The local team was accompanied and supervised on a regular basis by one clinical psychologist from our workgroup to ensure that they were properly supported and that the clinical interviews were carried out correctly.

**Data analysis**

Data were analyzed using JMP 13.0 (SAS Institute) and the Statistical Package for Social Sciences (SPSS), Windows Version 25 (Chicago, Illinois, USA). We calculated frequencies, mean scores, and standard deviations to describe the traumatic events experienced by the children and their mental health. Spearman’s rank correlations (Spearman’s ρ) were used to assess the bivariate association between traumatic events and mental health. Multivariate linear regressions were employed to identify the predictors of violence in the children’s home. The indices for violence by guardians and for peer violence were used as outcome measures whereas age, sex, exposure to tsunami, war, and family violence were entered as potential predictors. The overall difficulties score for internalizing and externalizing behavior problems was added as a further variable in the regression models. The mediating effect of internalizing and externalizing behavior problems on the relationship between exposure to violence prior to admission to the children’s home and the experience of violence in the children’s home was tested using Sobel tests in order to estimate the effect-sizes and to test the significance of the indirect effect. We also used a boot-strapping procedure as proposed by Preachers and Hayes (2004) with 5,000 bootstrap samples to yield more valid estimates of the indirect effects.

**4.4 Results**

**Exposure to adverse and traumatic events**

**Civil war and Tsunami.** More than half of the children (53.1%) reported the experience of at least one type of war-related event during his/her lifetime. On average, the
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children experienced 1.68 (SD = 2.18) different types of war events in their life. The most common war-related events were seeing a dead or mutilated body (37.9%), being close to shelling or gunfire (29.0%), and being rounded up (20.7%). Ten children (6.9%) reported experiencing the 2004 Tsunami.

**Violence in the family of origin.** A large number of the sample (80.0%) experienced at least one family violence-related event before entering the children’s home. On average, the children experienced or witnessed 3.46 (SD = 3.82) different event types in their families. The most frequent family-related violence event types reported by the children were being hit on the body, arm or leg (44.1%), witnessed family member being pinched or hit (35.9%) and being told not to be a good child (31.0%). Four children (2.8%) had at least one injury as a result of the reported family-related violence and needed medical treatment. Three children (2.1%) experienced at least one incident of sexual abuse at home.

**Violence in the children’s home.** The majority of the sample (84.1%) reported at least one incident of violence by their guardians. The children experienced or witnessed on average 4.92 types of such violent events (SD = 3.98). Four children (2.8%) had at least one injury resulting from the reported incidents, and three of these children (2.1%) needed medical treatment. Furthermore, 77% of the children experienced peer violence in the children’s home. On average, the children were exposed to 3.46 types of peer violence events (SD = 2.73). Figure 4.1 shows the frequency of the most often reported types of violent events in the children’s home. No child reported the experience of sexual abuse in the children’s home.
Figure 4.1. Frequency (%) of the most often reported types of violence related events in the children’s home.
 Traumatic life events. Witnessing (73.8%) and experiencing physical assault (50.3%) were the most frequent traumatic event types reported by the children. Nearly half of the children experienced the death of a close person (44.8%). Other frequently-reported traumatic life events were witnessing an accident (44.1%), witnessing the death of a person (40.0%), and witnessing a fire or an explosion (33.3%).

Mental disorders and internalizing/externalizing behavior problems

PTSD. The vast majority of the children (73.8%) fulfilled criterion A for the diagnosis of PTSD according to the standards of the DSM-IV. Witnessing the sudden death of a person (32.2%), experiencing physical assault (10.5%), and witnessing an accident (7.7%) were rated most frequently by the children as their most upsetting life event. The prevalence rate of PTSD according to DSM-IV was 20.0% and the mean PTSD severity score on the UPID was 22.2 (SD = 13.3).

Major Depression and Suicidality. Eleven children (7.6%) were diagnosed with a major depressive disorder. Nineteen children (13.1%) were diagnosed with current suicidal ideation and 28 children (19.3%) reported suicidal tendencies in the past.

Internalizing and externalizing behavior problems. The average score for internalizing problems was 6.3 (SD = 3.8) and the average score for externalizing behavior problems 5.9 (SD = 3.4). The mean score of total difficulties as measured by the SDQ was 12.2 (SD = 6.6). The percentages of children with medium and high risk for mental disorders are shown in figure 4.2.
Figure 4.2. Frequencies (%) of critical scores on the four SDQ subscales (peer problems, hyperactivity, emotional symptoms and conduct problems) and on the SDQ sum score.
Prediction of violence in the children’s home

In order to identify the predictors of exposure to violence in the children’s home we conducted two linear regressions analyses with the sum score of the checklist for violence perpetrated by the guardians and the sum score of the peer violence checklist as dependent variables. One child was excluded due to missing data in the war event checklist. The results of the regression analyses are shown in table 4.2.
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Table 4.2
Linear regression models predicting violence by guardians and peers by previous exposure to mass trauma, family violence, and internalizing and externalizing behavior problems (standardized beta coefficients, spearman’s Rho, and significance levels are reported)

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Zero-order correlation (ρ)</th>
<th>Model excluding psychopathology (B)</th>
<th>Model including psychopathology (B)</th>
<th>Zero-order correlation (ρ)</th>
<th>Model excluding psychopathology (B)</th>
<th>Model including psychopathology (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-.05</td>
<td>-.05</td>
<td>-.04</td>
<td>-.22**</td>
<td>-.25**</td>
<td>-.24**</td>
</tr>
<tr>
<td>Sex (male)</td>
<td>.27**</td>
<td>.23***</td>
<td>.19**</td>
<td>.22**</td>
<td>.15+</td>
<td>.10</td>
</tr>
<tr>
<td><em>Adversities prior to admission to children’s home</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tsunami (yes)</td>
<td>.04</td>
<td>.05</td>
<td>.06</td>
<td>.03</td>
<td>-.01</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Number of war related events</td>
<td>.43***</td>
<td>.39***</td>
<td>.33***</td>
<td>.31***</td>
<td>.19*</td>
<td>.13+</td>
</tr>
<tr>
<td>Number family violence related events</td>
<td>.29***</td>
<td>.08</td>
<td>-.10</td>
<td>.42***</td>
<td>.36***</td>
<td>.16*</td>
</tr>
<tr>
<td>Internalizing and externalizing behavior problems</td>
<td>.50***</td>
<td>.41***</td>
<td>.57***</td>
<td></td>
<td></td>
<td>.45***</td>
</tr>
</tbody>
</table>

Note: 1Adjusted $R^2 = .24; F(5, 139) = 9.89; p < .001. 2Adjusted $R^2 = .35; F(6, 138) = 14.15; p < .001. 3Adjusted $R^2 = .27; F(5, 139) = 11.61; p < .001. 4Adjusted $R^2 = .41; F(6, 138) = 17.89; p < .001. +p < .10. *p < .05. **p < .01. ***p < .001.
In a second step, we added to each regression model the children’s internalizing and externalizing behavior problems as a potential predictor of violence experienced in the children’s home. These regression analyses revealed internalizing and externalizing behavior problems to be significant predictors of violence by guardians and by peers (table 4.2).

To test a potential mediation effect of internalizing and externalizing behavior problems on the relationship between exposure to violence prior to admission to the children’s home and violence experienced in the children’s home, we calculated mediation models that are shown in figure 4.3. All indirect effects calculated according to Preacher and Hayes (2004) were significant. After entering children’s behavior problems as mediator, the direct effect of violence experienced prior to admission on the victimization by guardian violence was no longer significant.
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Figure 4.3. Standardized regression coefficients for the relationship between the experience of violence prior to admission to the children’s home and violence experienced in the children’s home as mediated by children’s internalizing and externalizing behavior problems. The standardized regression coefficients between the experience of violence prior to admission and violence experienced in the children’s home after controlling for internalizing and externalizing behavior problems are shown in parentheses. 1.) sobel’s z = 3.92; p < .001. 2.) sobel’s z = 4.64; p < .001. **p < .01. ***p < .001.
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4.5 Discussion

The present study aimed at identifying risk factors for the victimization of institutionalized children in the aftermath of mass trauma. We found that children's experience of war and family violence prior to admission to the children’s home was significantly associated with the amount of violence they experienced by guardians and by peers. This finding extends prior research on revictimization processes (Widom et al., 2008) by proving that the transmission of mass trauma into interpersonal violence against children can occur independently from the effects that such mass traumas have on the psychopathology of the parents. In line with previous studies in post-conflict settings (Attar-Schwartz & Khoury-Kassabri, 2015; Catani, Jacob, et al., 2008; Catani, Schauer, et al., 2008; de Zoysa, Senarath, & de Silva, 2018; Khoury-Kassabri & Attar-Schwartz, 2014), we have found a high prevalence rate of guardian and peer violence in our sample.

In order to better understand the mechanisms behind the revictimization process we have further investigated children’s characteristics that may influence the relationship between the experience of violence prior to admission to the children’s home and violence experienced in the institution. We found that children’s internalizing and externalizing behavior problems fully mediated the relationship between early child adversities and subsequent experience of violence by guardians. This finding is in accordance with the specific pathway introduced by Catani (2010, 2018) by which war trauma could translate into increased levels of violence against children: Children who grow up in the midst of war and are subject to various traumatic experiences early in their lives are at greater risk of developing challenging behavior problems such as higher levels of internalizing and externalizing symptoms or irritability. In concordance with the proposed pathway, we have found high prevalence rates of exposure to different types of violence as well as high prevalence rates of depression, suicidality and PTSD. Even the risk for other internalizing and externalizing behavior problems is elevated in the present sample. Typically, these psychological problems are accompanied by functional impairments related to school performance or successful engagement in social relationships. Guardians may perceive these impaired children as particularly difficult and may, in response, apply more violent and harsh strategies to manage these children (Garcia & Alampay, 2012; Miragoli, Balzarotti, Camisasca, & Di Blasio, 2018). The guardians’ more violent strategies may result from guardians’ lack of knowledge of nonviolent disciplinary measures (Hecker et al., 2017).
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can be further assumed that the finding of high prevalence rates of guardian violence may not only result from the fact that verbal and corporal punishment perpetrated by guardians is lawful in Sri Lanka (GIEACPC, 2018), but also from a common Sri Lankan view that physical violence by parents and teachers is an accepted form of disciplinary measure (de Silva, 1981). Our finding of a low rate of severe child abuse support the view that minor violent acts are used as a form of disciplinary measure by guardians.

With respect to the link between early experiences of violence and later experiences of peer violence, we again identified children’s mental health impairments as a significant mediator, however, in contrast to violence perpetrated by guardians, the mediation was only partial. This result supports the described pathway of transmission of war violence into interpersonal violence by children’s behavior problems but also leads to the assumption that this mechanism may not be a sufficient explanation for peer violence. Our finding that family violence is a significant predictor only for peer violence (not for violence by guardians) may further indicate that the experience of earlier interpersonal violence in particular paves the way for subsequent interpersonal violence. Xia and colleagues (2018) have found that children who have experienced family violence are more likely to accept violent norms and to associate themselves with violent peers which, in turn, makes them vulnerable to revictimization. Studies also indicate that victims of peer violence are not only likely to have mental impairments but also a low self-esteem and a lack of social skills which may also mediate the relationship between family violence and peer violence (Fox & Boulton, 2005; Postigo, González, Mateu, & Montoya, 2012; Shetgiri, 2013). Children who have experienced degradation within their family may be unable to develop a healthy self-esteem and adequate social skills which, in turn, may hinder the prosocial participation in peer relationships and may lead to disagreements and potential conflicts (Hong, Espelage, Grogan-Kaylor, & Allen-Meares, 2012). However, further studies are needed to understand the complex interplay of the various variables that predict peer violence in the context of mass trauma.

The findings described here must be viewed in light of several limitations of the present study. Due to logistical and political restrictions during the time of the survey it was not possible to randomly select the region of study and the residential care institution. As a result, our sample is not representative for the whole community of institutionalized Sri Lankan Tamil children. The current study focused solely on the mental health of the institutionalized children. Future studies with institutionalized children in post-conflict...
settings should also include the assessment of guardians’ mental health and prior adverse experience in order to rule out the possibility of their mental health playing a role in the perpetration of violence against the institutionalized children. Most importantly, due to the cross-sectional design of our study, it is premature to consider the mediating effect of children’s mental health in the relationship between exposure to traumatic events and further experience of interpersonal violence as proven. Externalizing and internalizing behavior problems could as well be a consequence of the violence by guardians and/or peers. Longitudinal studies are needed to investigate the temporal course of mental health and exposure to violence within the residential care institution.

Despite these limitations, our findings offer valuable and new insight into the mechanisms behind the transmission of mass trauma into interpersonal violence against children. Since potential confounding effects of parental psychopathology can be ruled out in the present sample, our findings strengthen the view that children’s mental health plays a major role with regard to the passing on of violence in the aftermath of war as well as in the revictimization process between early family abuse and subsequent violence by peers or guardians. Institutionalized children who are affected by mass trauma and associated mental health problems are more vulnerable to experiencing further violence and, as a result, require more care and attention. Intervention programs should not only include the treatment of children’s mental impairments but also provide training in nonviolent behavioral management strategies for guardians in order to promote positive disciplinary measures as well as training for children in order to nourish their social skills and, as a result, their success in establishing healthy, non-violent relationships.

4.6 Acknowledgements

This study was generously supported by the German Research Foundation (DFG) and the Bielefeld Young Researchers’ Fund. We thank the director and the guardians of the children’s home as well as the children for participating in the study. We thank the local counselors for their exceptional dedication while conducting the interviews. We are also grateful the administrative team in Sri Lanka, as well as Justin Preston for editing and Verena Ertl for assisting in data analyses.
5 Parental care protects traumatized Sri Lankan children from internalizing behavior problems

Please note:

The online version of this article can be found here:

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6 General discussion

The present thesis examined the interplay of factors that contribute to violence against children in the aftermath of mass trauma. Previous studies in post-war communities identified high levels of child maltreatment (Catani, Schauer, et al., 2008; Dubow, Huesmann, et al., 2012; Haj-Yahia & Abdo-Kaloti, 2003; Saile et al., 2014) leading to the assumption that the experience of war contributes to violence against children. However, the mechanism underlying that relationship remains unclear. Following the lead of Catani (2010, 2018), the present thesis focused on two pathways that may link war violence to child maltreatment.

1. Parents living in the context of mass trauma are vulnerable to mental disorders, such as PTSD, substance abuse, and depression (De Jong et al., 2003; Summerfield, 2000), which, in turn, may increase the likelihood to perpetrate violence or neglect their children.

2. Children living in the context of mass trauma are also vulnerable to mental disorders, such as PTSD and depression (Catani, Jacob, et al., 2008; Neuner et al., 2006; Thienkrua et al., 2006; Wickrama & Kaspar, 2007), as well as other externalizing and internalizing behavior problems (Mclaughlin et al., 2009; Murthy & Lakshminarayana, 2006). Guardians of these children may perceive them as “difficult to handle”, so that they may - out of helplessness - engage in violent acts in order to control their children.

Assuming that children’s mental health contributes to the development of child maltreatment, the present thesis also examined the potential protective effect of parental care on children’s mental health. All analyses were conducted within a Tamil population in northern Sri Lanka, a region that had been severely affected by a long-lasting civil war as well as the Asian Tsunami in 2004.
6.1 Discussion of the results

6.1.1 Predictors of violence against children in the aftermath of mass trauma

The first study aimed at identifying factors that may contribute to violence against children in the aftermath of mass trauma. We utilized reports of children and their parents to examine the factors that may lead to victimization of children as well as parental perpetration of violence against their children. In line with Catani’s framework (2010, 2018) on transmission of war-related violence to family violence, all types of mass trauma exposure in the family (exposure of children, mothers, and fathers to war and Tsunami) were significantly associated with both indices of violence against the children, i.e. victimization reported by children as well as perpetration reported by parents. This finding not only corroborates the reports of previous studies with children affected by war violence (Catani, Schauer, et al., 2008; Haj-Yahia & Abdo-Kaloti, 2003; Hecker, Fetz, Ainamani, & Elbert, 2015; Saile et al., 2014) but also supports the view that mass trauma typically leads to secondary adversities also on a family level (Pynoos et al., 1999; Shaw, 2003). Further, the results of the multivariate regression analyses suggest that the children’s traumatization rather than the parental traumatization may mediate the relationship between war violence and violence against children. Even after controlling for parental traumatization and parental psychopathology, children's exposure to mass trauma emerged as the main predictor for children's victimization by family violence. After entering child psychopathology as an additional variable, child psychopathology remained the only significant predictor. This result strengthens one potential mechanism underlying the transmission from mass to family trauma as introduced by Catani (2010, 2018): Children affected by mass trauma may display various behavior problems, which may make them more challenging to manage for their parents, who, in turn, may apply more violent and aggressive strategies. However, psychological symptoms of children were only a significant predictor for child-reported victimization but not for parent-reported perpetration.

The findings of this study also support the pathway of the transmission from war violence to violence against children as suggested by Catani (2010, 2018): Psychopathology of parents was significantly associated with child maltreatment, but this relationship was less consistent in multivariate analyses. The only exception is fathers’ use of alcohol, which
was the main predictor of fathers’ perpetration of violence. In accordance with this finding, previous studies in war-affected communities showed that parental alcohol is interlinked with perpetration of violence against children (Catani, Schauer, et al., 2008; Saile et al., 2014).

The findings reported here must be viewed in light of several limitations of the study: The sample is not representative for the whole community of Sri Lankan Tamils since it was not possible to randomly select the regions and schools due to logistical and political restrictions during the time of the survey. Most importantly, due to the cross-sectional design of this study it is premature to consider the proposed predictors as cause for violence against children in the aftermath of mass trauma. However, the findings of this study suggest that the experience of mass trauma may contribute to higher prevalence rates of child maltreatment in a post-conflict setting and that traumatization of family members, child psychopathology, and alcohol use seem to fuel parents’ aggressive and violent behavior towards their children.

6.1.2 Predictors of violence against institutionalized children in the aftermath of mass trauma

The second study was designed to identify risk factors for the victimization of institutionalized children in the aftermath of mass trauma. We found that children’s exposure to war and violence by parents prior to admission to the children’s home was significantly associated with the level of violence they experienced by guardians and by peers. This finding is in accordance with the revictimization hypothesis (Widom et al., 2008) and shows that the transmission of mass trauma to interpersonal violence against children can occur independently from the effects of such mass trauma on psychopathology of parents. In order to better understand the mechanisms underlying the process of revictimization, we have examined children’s characteristics that may influence the relationship between experience of violence prior to admission to the children’s home and violence experienced within the institution. The analyses showed that children’s internalizing and externalizing behavior problems fully mediated the relationship between early child adversities and subsequent experience of violence by guardians. This finding is in line with the specific pathway suggested by Catani (2010, 2018) by which war trauma may translate into increased levels...
of child maltreatment due to children’s psychological impairment. Not only parents but also guardians in residential care institutions may perceive impaired children as particularly difficult and may, in response, apply more violent and harsh strategies to manage these children (Garcia & Alampay, 2012; Miragoli et al., 2018). The violent strategies of guardians may result from their lack of knowledge of nonviolent disciplinary measures (Hecker et al., 2017). The finding of high prevalence rates of violence by guardians in this study and of violence by parents in the first study may not only arise from the fact that verbal and physical punishment by guardians is lawful in Sri Lanka (GIEACPC, 2018) but also from a common Sri Lankan view that physical violence by parents and teachers is an accepted form of disciplinary action (de Silva, 1981). Our finding of a low prevalence rate of severe child abuse affirms the view that minor acts of violence are used as a form of disciplinary measure by guardians.

Children’s psychological impairment appeared to be a significant mediator also in the relationship between early experiences of violence and experience of peer violence within the institution. In contrast to violence perpetrated by guardians, the mediation was only partial supporting the assumption that the pathway described by Catani (2010, 2018) may not be a sufficient explanation for peer violence. The finding that family violence is a significant predictor only for peer violence (and not for violence by guardians) further suggests that the experience of earlier interpersonal violence in particular may cause subsequent interpersonal violence. Indeed, previous studies showed that children victimized by their parents are not only more likely to have a low self-esteem and a lack of social skills (Fox & Boulton, 2005; Postigo et al., 2012; Shetgiri, 2013) but also more likely to accept violent norms and to associate themselves with violent peers which, in turn, may make them vulnerable to revictimization (Xia et al., 2018).

Here, it is also important to mention that we were not able to randomly select the region of study and the residential care institution due to logistical and political restrictions. Therefore, the examined sample is not representative for the whole community of institutionalized Sri Lankan Tamil children. This study focused solely on the mental health of the institutionalized children and their report of victimization. Furthermore, the cross-sectional design of our study does not allow conclusions about cause-effect relationships. Therefore, we cannot consider the mediating effect of children’s mental health in the relationship between exposure to traumatic events and further experience of interpersonal violence as proven. Children’s psychological impairment could as well be a consequence of
violence by guardians and/or peers. However, the findings offer a new insight into the mechanisms behind the transmission of mass trauma into violence against children. Since potential confounding effects of parental psychopathology can be eliminated, the results of this study corroborate the view that children’s mental health plays an important role in the transmission of war violence and in the process of revictimization between early family abuse and subsequent violence by peers or guardians.

6.1.3 Parental care as a protective factor for children’s mental health in the aftermath of mass trauma

The third study aimed at investigating protective and risk factors for children’s mental health in the aftermath of mass trauma. The main finding was that parental care moderates the relationship between experience of mass trauma and children’s internalizing behavior problems. Thus, parental care seems to buffer the adverse effects of trauma due to war and natural disaster on children’s mental health. Children who reported their parents to be highly caring did not show significant increases in internalizing behavior problems related to the exposure to mass trauma. This finding is in line with the general assumption that parent-child relationship may be one of the core variables influencing children’s psychological adaptation even in the aftermath of mass trauma (Masten & Narayan, 2012) and the presumption of Gewirtz and coworkers (2008) that parenting practices may regulate children’s adjustment in the aftermath of trauma exposure. The finding further supports previous studies with other disaster-affected children that that supportive and positive parent-child relationship can have a moderating effect of children psychopathological reactions to traumatic experiences (Qouta et al., 2008; Wickrama & Kaspar, 2007). However, this interaction effect was restricted to internalizing behavior problems, whereas Qouta and coworkers (2008) also found a moderating effect on aggressive behavior. The protective role of parental care for internalizing behavior problems has been found in previous studies: In longitudinal studies on parenting styles and mental health, lack of parental care was associated particularly with symptoms of depression (e.g. Gotlib et al., 1988). It is conceivable that unpleasant interactions with the parents lead to emotional distress in children and that children who experience their parents as less caring may develop negative cognitions about themselves and the world (Bayer et al., 2006).
A high percentage of children not only reported high parental care but also high parental overprotection indicating a parenting style of “affectionate constraint”. In a study with Indian adolescents, similar parenting types had been reported (Shams & Williams, 1995). The co-occurrence of high parental care and high parental overprotection in these populations may result from a common Asian assumption that control and overprotection are both equally relevant aspects of parental attention and care. As a result, parental strictness and overprotection may not necessarily perceived as negative child rearing strategies (Chao & Tseng, 2002). It is also plausible that parents may become more overprotective towards their children in the context of community-wide disasters that cause the loss of lives and property. Literature also shows that the loss of a child may have an impact on parents’ behavior towards the remaining children (Rosenblatt, 2000).

The findings of this study further reaffirm the detrimental consequences of traumatic experiences for children’s mental health. Consistent with findings from previous studies (Catani et al., 2010; Catani, Jacob, et al., 2008; Catani, Schauer, et al., 2008) exposure to war and Tsunami as well as experiences of family violence were independently associated with psychological impairment in children.

In this study, the same limitations as above apply: Due to logistical and political restrictions during the time of the survey it was not possible to randomly select the regions and schools, so that our sample is not representative for the whole community of Sri Lankan Tamil children. Moreover, due to the cross-sectional design of the study, the protective effect of parenting in the aftermath of mass trauma cannot considered proven, especially since parenting behavior was assessed in an interview using self-report measures. Although several studies suggest that rating of parents’ behavior is stable even over a 20 year period (Wilhelm et al., 2005) a reporting bias may have contributed to our results. However, the findings of this study show that family characteristics seem to be strongly associated with children’s mental health even in regions severely affected by mass trauma and that parental care may be an essential protective factor to buffer the negative impact of mass trauma in children’s mental health.
6.1.4 Resume

The present work investigated the predictors of violence against children in the aftermath of mass trauma as well as the effects of positive parenting on children’s mental health. The presented results not only corroborate previous findings, but also provide further information on the development and continuation of violence against children in the aftermath of mass trauma. The result of the first and second study strengthen both pathways suggested by Catani (2010, 2018): Firstly, parents living in the context of mass trauma may subsequently suffer from psychological impairment and dysfunctional coping strategies such as substance abuse which may increase the likelihood of perpetrating violence against their children. Secondly, children affected by mass trauma may suffer from psychological impairments which may make them more vulnerable to experience violence. The results of the second study further indicate that the second pathway as suggested by Catani (2010, 2018) may not only apply to violence within the family but also to violence in other relationships. Through these two pathways, violence may find its way from community to interpersonal level. Interpersonal violence may further affect children’s mental health which, in turn, may lead to a vicious cycle of increasing violence and additional mental health problems. Therefore, protecting the mental health of children in the context of mass trauma seems to be crucial. In this regard, the third study revealed parental care as a powerful factor that may even buffer the detrimental effects of war and natural disaster on children’s mental health giving parenting behavior an essential role in the context of mass trauma.

6.2 Implications for the future

6.2.1 Future research

To broaden the understanding of the phenomenon violence against children in the aftermath of mass trauma, future research should further investigate the pathways as suggested by Catani (2010, 2018): Studies conducted in different contexts of war and/or natural disaster would be helpful to validate the results of the present work and to generalize the findings. The promising finding that parental care may protect children from mental
health problems even in the context of mass trauma need further support from future research.

Our samples were not representative for the whole community of Sri Lankan Tamils, so that future studies should concentrate on epidemiological studies with a randomly selected sample. Future studies should also focus on longitudinal studies in order to investigate the cause-effect relationship between exposure to mass trauma, psychopathology of family members and violence against children and the moderating effect of parental care on the relationship between mass trauma and children’s mental health. Longitudinal studies would be also helpful to eliminate potential reporting bias with respect to retrospective events.

Some of the effects, such as an independent effect of parents own experience of family violence on parental perpetration, may have reached significance in a larger sample that exhibits a greater variance in the level of parents' exposure to family violence. Future studies with institutionalized children in post-conflict settings should also include the assessment of guardians’ mental health and prior adverse experience in order to eliminate the possibility of their mental health playing a role in the perpetration of violence against the institutionalized children. It would be also helpful to include more extensive diagnostic interviews that allow for the diagnosis of a broader range of psychological disorders besides PTSD and major depression. Future studies should add behavioral observations as independent and additional measures of parenting behavior.

Future research should also develop and test family-level interventions that may be effective and sustainable in promoting resilience in children in post-disaster contexts. Some family-based interventions have been already developed and adapted to post-war communities (Betancourt et al., 2013; Wieling et al., 2015), but the empirical evidence regarding their long-term efficacy is still not proven. Future research should aim at filling this research gap and further develop and test intervention programs that include culturally sensitive family-based approaches and parenting trainings for families in the aftermath of mass trauma.
6.2.2 Clinical implications

It is hoped that the finding of the studies may stimulate debate about adequate interventions for children affected by mass trauma. The high level of violence against children indicates the necessity of adequate interventions to promote nonviolent parenting and to protect children living in the aftermath of war and natural disaster. The findings denote that interventions aiming at reducing family violence in post-conflict settings should consider both child and parent characteristics. Therefore, intervention programs should include culturally sensitive family-based approaches and parenting trainings that meet the specific needs of families and children in post-war communities. However, it is not sufficient to focus only on highlighting alternative parenting styles and disciplinary measures, but also to include the promotion of responsible handling of alcohol and if applicable the individual treatment of parental alcohol addiction. A study found a reduction of intrafamilial violence after engaging the integrated cognitive–behavioral intervention (ICBI) among Indian men with substance use disorder (Satyanarayana et al., 2016). At child level, intervention programs should not only include the treatment of children’s mental impairments but also provide training to nourish their social skills and to establish healthy, non-violent relationships with peers. For example, the narrative exposition therapy (NET) has been successfully used to treat posttraumatic stress disorder and to restore functioning in traumatized children (Catani et al., 2009; Ruf et al., 2010). Institutionalized children in the aftermath of mass trauma are, in particular, vulnerable to experience further violence, so that they require more care and attention. Intervention programs in residential care institutions should provide training in nonviolent behavioral management strategies for guardians in order to promote positive disciplinary measures. A promising intervention approach that aims to prevent maltreatment in institutional care, Interaction Competencies with Children – for Caregivers (ICC-C), was already successfully implemented in Sub-Saharan Africa (Hecker et al., 2017), but needs to be validated across other countries.

6.3 Overall conclusion

The findings of the three studies suggest that the experience of mass trauma may contribute to violence against children in a post-conflict setting. The present studies are
furthermore an attempt to illuminate the underlying mechanisms of this relationship: In accordance with Catani’s framework (2010, 2018), traumatization of all family members, child psychopathology, and perpetrators’ alcohol use seem to reinforce guardians’ and peers’ aggressive and violent behavior towards the children. Additionally, the results indicate that parenting practices play a major role for the wellbeing of children in the aftermath of mass trauma. Parenting practices should not only be seen as potential risk factors for children’s mental health but also as a variable that can have a strong protective impact since high parental care seem to alleviate the negative effect of mass trauma on children’s mental wellbeing.

The findings on the complex interplay of mass trauma, interpersonal violence, psychological impairment, and parenting behavior are important for understanding the needs and difficulties of children and their parents in the aftermath of war and natural disaster. Thus, the present work paves the way for the development of appropriate interventions and thereby contributes to improving the living conditions of children affected by mass trauma.
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