



Handbook of Peace Psychology

Christopher Cohrs, Nadine Knab & Gert Sommer (Eds.)

Augsburger & Jacob: Traumatization and violence

Christopher Cohrs • Nadine Knab • Gert Sommer (Eds.)

Handbook of Peace Psychology

ISBN 978-3-8185-0565-3

DOI: <https://doi.org/10.17192/es2022.0058>

Editing and formatting: Michaela Bölinger, Katherina Hildebrand and Nadine Knab

Translation: Katherina Hildebrand

Cover picture and chapter design: Nadine Knab

Cover picture: Hope (Esperanza). Peace, gratitude, creativity and resilience are the symbols and elements that are harmonised in this artwork. In large format, it is part of the graffiti tour in Community 13 in Medellín, Colombia. The artwork conveys an important message of hope to both the local community and foreign visitors.
@medapolo.trece @fateone96 @radycalshoes @pemberproducciones

<https://handbuch-friedenspsychologie.de>

Website design: Tamino Konur, Iggy Pritzker, Nadine Knab

Forum Friedenspsychologie e.V.

<https://www.friedenspsychologie.de>



This work is licensed under a [Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License](https://creativecommons.org/licenses/by-nc-nd/4.0/).

The publishers accept no liability for illegal, incorrect or incomplete content and in particular for damage arising from the use or non-use of further links.

Traumatisation and the emergence of spirals of violence

Mareike Augsburger & Nadja Jacob

Abstract

In contexts of war and crises, 20-50% of individuals develop symptoms of post-traumatic stress disorder (PTSD), which is defined by three main clusters of symptoms: Involuntary re-experiencing of the traumatic event, avoidance of situations or details reminiscent of the event, and hyper-arousal or perception of a persistent ongoing threat. Various pre-, peri-, or post-traumatic risk and protective factors have an impact on inter-individual vulnerability for symptom exacerbation. PTSD plays an important role in the perpetuation of cycles of violence and promotes instability in crisis regions due to various pathways. First, experiencing adverse childhood events are one central mechanism in transmitting violent experiences to subsequent generations. In addition, there is a direct link between the severity of PTSD and the risk of perpetrating aggression. Survivors of traumatic events with PTSD are prone to difficulties in emotion regulation and have an increased risk for reacting aggressively due to PTSD inherent symptoms of hyperarousal. In this context, appetitive aggression can evolve. This type of aggression is associated with feelings of pleasure and thrill with subsequent loss of control when perpetrating violence. It can develop as universal adaptation in the context of extreme brutality in conflict regions and impairs processes of reintegration and reconciliation. Affected persons are often initially survivors and subsequently perpetrators of violence. Due to these mechanisms, the recovery from mental disorders such as PTSD should be a prominent component during reconciliation processes in war and crisis regions. Professional mental health services can be implemented even in resource-poor regions, as models have shown. The inclusion of mental health into peace processes is crucial to break ongoing cycles of violence and promote long-term stability.

Keywords: PTSD, trauma, appetitive aggression, dissemination, spiral of violence, trauma-induced disorder, secondary traumatization, mental health

Traumatisation through the ages

Experiencing threatening situations can have long-lasting effects on mental health. During the First World War, soldiers were observed to be unfit for service due to severe panic, involuntary tremors and other symptoms (so-called war tremblers). The theory that damages to the brain was caused by the pressure waves of shells striking nearby gave rise to the term *shell shock*. The occurrence of *shell shock*, even without external injuries or proximity to the impact of projectiles, led to the recognition of the emotional component of traumatic experiences (Jones, Fear & Wessely, 2007).

During the Second World War, soldiers were again noticed to be suffering from severe anxiety and physiological hyperarousal. Even in military hospital, they continued to feel as if they were in war. The condition was paraphrased with terms such as war neurosis or combat fatigue. Subsequently, somatic, and psychological explanatory models were integrated for the first time and the symptoms were described as a memory disorder (Kardiner, 1941). These findings laid the foundation for today's understanding of psychotraumatology (M.A. Crocq & L. Crocq, 2000).

Entry into the diagnostic manuals

In part thanks to the efforts of veterans of the Vietnam War to gain recognition for their psychological war wounds, the disorder of PTSD was included in diagnostic manuals. In 1980, PTSD was first named as a mental illness in the Diagnostic Statistical Manual of Mental Disorders (DSM) of the American Psychiatric Association (APA). It took until 1992 before PTSD could be formally diagnosed with the globally used International Classification of Diseases (ICD) of the World Health Organisation (WHO).

Modern concepts

More recent findings on PTSD primarily stem from studies following terrorist attacks and natural disasters. Together with studies from the military in the context of assignments abroad, as well as findings from modern brain research, the understanding of PTSD has been continuously developed. While PTSD was assigned to anxiety disorders in earlier diagnostic manuals, an important paradigm shift took place in the current DSM-5 and the new ICD-11: PTSD is now assigned to the category "disorders specifically associated with stress" (American Psychiatric Association [APA], 2013; World Health Organisation [WHO], 2018). This innovation emphasises the development of PTSD as a reaction to traumatic experiences. Conversely, this in principle implies the possibility of attributing responsibility to people (or groups) as the cause of post-traumatic symptomatology. This aspect is of great significance for the societal and social recognition of survivors of traumatic violence. At the same time, it is recognised that PTSD constitutes only one possible form of various trauma-related disorders.

The traumatic event

Case study: Clementine was born a Tutsi in Rwanda and, due to her ethnicity, already marginalised during her childhood. During the genocide, she witnessed her father's murder at the age of 10. She hid under the neighbour's bed for weeks with her mother and two siblings. When the neighbour's fear of consequences became too great, they had to flee. Clementine and her family found refuge in banana plantations on the hills. They went through hunger, cold and heard screams from raids and massacres on adjacent hills. They decided to separate to increase the likelihood that a family member would survive. Clementine tried to reach the border to Burundi and experienced a large massacre on the way. She had to witness the murder of numerous people and hide among the dead bodies. Alongside her sister, Clementine survived the genocide.

Definition

The term trauma (Greek: wound) refers to the experience of one or several event(s) of an extremely threatening or horrific nature (WHO, 2018). The fifth version of the DSM (DSM-5) defines a traumatic event as "confrontation with actual or threatened death, serious injury or sexual violence" (Falkai et al., 2018, p. 369). A distinction is made between direct exposure, experience as a witness, confrontation as news about a close person or professional repeated confrontation with details of traumatic events. In Clementine's case study described above, the experience of acute life threat and witnessing murders very clearly fulfils this criterion.

Trauma is further classified according to its temporal dimension into Type I (single event, e.g., an accident) versus Type II (repeated/ongoing, e.g., war, torture, prolonged physical and/or sexual abuse – see case study). An additional subdivision concerns interpersonal violence (also described in the case study) versus accidental disasters (e.g., traffic accident, nuclear disaster; Herman, 1992; Kessler et al., 2017; Maercker & Augsburger, 2019a).

Psychosocial stressful situations (e.g., divorce, job loss or, as described in the case study, initially experienced discrimination) are not understood as traumatic events, unlike in colloquial language. To diagnose a trauma sequelae disorder, it is assumed that a traumatic event has been taken place.

Prevalence

Most people are confronted with traumatic events in their lifetime, with over 70% experiencing one traumatic event and over 30% experiencing four or more events (Benjet et al., 2016). The extent and range of trauma exposure vary widely around the world (Kessler et al., 2017; Koenen et al., 2017) and reflects historical, cultural, and political factors (Atwoli, Stein, Koenen & McLaughlin, 2015), as illustrated by the case study.

PTSD and Complex PTSD (CPTSD)

Case study: During the genocide, Clementine hardly slept, felt no sense of hunger, exhaustion and fatigue. She felt awake and focused. After the war ended, however, nightmares began. During the day, images of the blank stares of the dead appear in her head. She hears screams and always smells blood and decay. Clementine suddenly feels fear at everyday cries of children, machetes used for gardening, and fire. She avoids leaving the house. She tries to forget the genocide; she does not want to talk about it and leaves the room during conversations about war. She does not listen to the radio as she does not want to be confronted with memorial rituals. Clementine becomes increasingly jumpy and cannot fall asleep, she also wakes up repeatedly each night. She feels guilty for having survived and wishes her mother had survived in her stead. She is disinterested in life, feels emotionally empty, worthless and useless. When she does leave the house, she repeatedly feels as if in a dream and regains consciousness in places unknown to her. She cannot remember how she got there and is afraid of losing her mind.

Diagnostic criteria

The case study illustrates the three major symptom groups that characterise PTSD: Re-experiencing, avoidance and hyperarousal. These are described in different detail depending on the classification system used, DSM (APA, 2013) or ICD (WHO, 2018), and are explained in more closely below.

Re-experiencing. This includes recurring uncontrollable, sensory, and stressful memories, such as in the case study, e.g. hearing (screams), seeing (pictures of dead people), smelling (blood). These manifest as recurring moments and/or in nightmares. Scenic re-experiencing in the form of inner films (flashbacks) as well as physiological (e.g., palpitations) and emotional reactions (e.g., fear, guilt) when confronted with a trauma-associated stimulus ("trigger", e.g., machetes or fire) also belong to this symptom group

Avoidance. The highly aversive re-experiencing leads to avoidance behaviour to bypass thoughts, feelings as well as memories related to the traumatic experiences. Activities, situations, or people reminiscent of the traumatic event are avoided. In the case study, holistic social withdrawal takes place.

Physiological hyperarousal. Hyperarousal is described as the perception of a present threat, the whole world is experienced as dangerous. Vigilance and reactivity are permanently increased, which leads to irritable behaviour, an excessive startle response, concentration difficulties and sleep disturbances as in the case study. Self-injurious and self-endangering behaviour, too, is assigned to this symptom group.

Negative changes in thoughts and mood. This criterion is only listed in the DSM-5. It concerns the inability to remember core aspects of the traumatic event, decreased interest in activities, feelings of isolation, difficulty in positive emotional experience, persistent and often distorted assumptions about oneself or the world ("I am worthless/useless"), negative

feelings and exaggerated attributions of blame for causing the trauma against oneself or others – also described in the case study. The DSM-5 assigns this syndrome to the core of the PTSD diagnosis, whereby a "dissociative subtype" is additionally diagnosed in the case of significant derealisation (feeling of detachment from space and time) or depersonalisation (feeling of detachment from one's own body) that impairs functionality.

Complex PTSD according to ICD-11. Dysfunctional changes in thoughts and mood, which constitute a criterion of PTSD in the DSM-5, are assigned to an independent diagnosis in the ICD-11. This so-called CPTSD usually develops as a reaction of exposure to type II traumatic events (Herman, 1992). As a result of lasting interpersonal violence, a complex syndrome develops with fundamental problems in affect regulation, self-perception and relationship skills and usually severe functional limitations, as described in the case study.

Although it is not a diagnostic criterion according to recent definitions, survivor guilt often occurs in survivors of organised violence, as exemplified by the genocide in Rwanda. This represents a process in relation to impending death or injury that the affected person (unlike others) has escaped themselves. One's own acts of survival, which were not available to others due to scarce resources (such as drinking the last sip of water) or caused harm, are experienced as tormenting (Hutson, Hall & Pack, 2015; Kubany, 1994; Niderland, 1964).

Symptom duration and onset. Immediately after confrontation with a potentially traumatic event, the affected experience reactions that qualitatively resemble those of PTSD (including strong re-experiencing, avoidance, hyperarousal or dissociative tendencies) and can also cause strong discomfort. These symptoms belong to the area of acute stress reaction and represent a normal reaction to a serious or stressful event. Thus, the symptoms of the acute reaction are to be distinguished diagnostically from the pathology of PTSD. The latter can only be diagnosed after the stress reaction has subsided if the relevant symptomatology lasts longer than four weeks (according to DSM-5) or, unspecified, several weeks (according to ICD-11) and leads to functional impairments (personal, family, social, in relation to work/education).

It should also be noted that the symptomatology of PTSD develops with a delay in about 25% of those affected and only manifests after several months. Initial symptoms usually exist earlier, and everyday stressors play a role in the subsequent deterioration in condition (Andrews, Brewin, Philpott & Stewart, 2007; Horesh, Solomon, Zerach & Ein-Dor, 2011). In the DSM-5, this type of PTSD can be classified by the additional feature "delayed onset".

Prevalence

Despite the high prevalence of traumatic experiences, in relation to the total population, only a small minority of 4% develops PTSD (Liu et al., 2017). Various factors seem to be relevant here; this is the subject of intensive research efforts (Sayed, Iacoviello & Charney, 2015). Overall, epidemiological findings vary greatly depending on the sample and methodology, as well as socio-political and cultural factors. The type of traumatic event also plays an

important role, as evidenced by different prevalences following the occurrence of a specific event. These so-called conditional prevalences are much higher. The highest rates are documented in war and refugee populations (Atwoli et al., 2015). Here, 20-50% of respondents report symptoms (Bogic, Njoku & Priebe, 2015; Bronstein & Montgomery, 2011; Lindert, Ehrenstein, Priebe, Mielck & Brähler, 2009; Steel et al., 2009). The populations studied have experienced multi-layered cycles of violence, both at the individual and societal level (Bronstein & Montgomery, 2011; Crombach & Bambonyé, 2015; Silove, Sinnerbrink, Field, Manicavasagar & Steel, 1997). Prolonged flight and difficult living conditions follow war traumas alongside further stressful and traumatic experiences that have a negative impact on mental health (Porter & Haslam, 2005; H. Seddighi, Salmani, Javadi & S. Seddighi, 2021; Silove et al., 1997).

Another population affected by war in crisis regions are combatants themselves who were active in armed or paramilitary groups. A PTSD lifetime prevalence of 6-31% has been described for combatants in military groups, and 25-35% in para-military groups. In addition to trauma factors, characteristics of the deployment (e.g., intensity and duration, unit characteristics, troop morale) are assessed as critical mediators (Bayer, Klasen & Adam, 2007; Ertl, Pfeiffer, Schauer-Kaiser, Elbert & Neuner, 2014; Richardson, Frueh & Acierno, 2010; Winkler et al., 2015).

Risk and protective factors

Only a minority develops PTSD after being confronted with a traumatic event. This means that the majority of those affected have sufficient resources to cope with traumatic events. Protective and risk factors identified in research, thereby, determine individual vulnerability. Risk factors can be present pre-, peri- or post-traumatically (Maercker & Augsburger, 2019b). The best-studied factors are described in the following:

Pre-traumatic conditions. The risk of developing PTSD is increased by young age at the time of trauma confrontation, female gender, lack of social support, low educational status, low socioeconomic status, pre-existing mental disorder(s) in the individual affected or family members (Bangasser & Valentino, 2014; Brewin, Andrews & Valentine, 2000; Ozer, Best, Lipsey & Weiss, 2003; Tolin & Foa, 2006) and genetic factors (Sartor et al., 2011; Smoller, 2016).

Peritraumatic aspects of the event. In particular, the cumulative number of traumatic experiences in line with a building block effect is central to the PTSD risk (Kessler et al., 2017; I. T. Kolassa et al., 2010; Liu et al., 2017; Steel et al., 2009). Survivors of organised, physical, and sexual violence – especially systematic violence such as torture – have also been found to be at increased risk (Kessler, Sonnega, Bromet, Hughes & Nelson, 1995; Liu et al., 2017; Steel et al., 2009). The duration of the event (Kaysen, Rosen, Bowman & Resick, 2010) and the extent of the harm (Ozer et al., 2003) have an influence on the PTSD risk.

Peritraumatic assessment. Initially arising appraisals can promote coping or be dysfunctional. Catastrophic appraisals, subjective life threat and dissociative reactions are

predictive of PTSD (Kaysen et al., 2010; Murray, Ehlers & Mayou, 2002; Schalinski, Elbert & Schauer, 2011).

Post-traumatic conditions. Cognitive appraisal, changes as well as individual coping play a role. Low social support, persistent stressors (Brewin et al., 2000; Ozer et al., 2003) and societal/social stigmatisation are important risk factors for the development of PTSD (Schneider et al., 2018).

Progression

The progression of PTSD is shaped by similar factors as its development. Spontaneous remission of symptoms occurs after five months in less than half of those affected. The development of a chronic disorder thus becomes likely (Morina, Wicherts, Lobbrecht & Priebe, 2014; Perkonig et al., 2005). Furthermore, survivors of violence have a many times increased risk of re-victimisation (Morina et al., 2014). Even in the case of a (partial) remission of the PTSD symptomatology, an ongoing impairment in everyday life persists (Westphal et al., 2011).

Individual and societal consequences

PTSD is associated with significant individual as well as societal functional impairment in combination with greatly reduced quality of life (Olatunji, Cisler & Tolin, 2007; Rapaport, Clary, Fayyad & Endicott, 2005), significantly reduced work performance and productivity (Kessler, 2000), poor health and increased co-occurring disorders (Goldberg et al., 2014; Kessler et al., 1995; Pacella, Hruska & Delahanty, 2013). PTSD burdens the health care system and is judged to be one of the most financially expensive mental disorders. One estimate in the US assumes three trillion US dollars annually and 3.6 days of productivity loss per month (Kessler, 2000).

Transgenerational transmission. Some findings show that impairments due to traumatic experiences are not limited to the affected themselves. The following generation, which have not themselves experienced traumatic experiences, also exhibits symptoms of PTSD (e.g. Dozio et al., 2020; Kirmayer, Gone & Moses, 2014; Roth, Neuner & Elbert, 2014). The exact mechanisms are unclear and various pathways are discussed (Buss et al., 2017). Besides dysfunctions in the "system 'family'", epigenetic changes seem to play an important role (Pape & Binder, 2014; Turecki & Meaney, 2016). However, the research field on transgenerational transmission is still young and findings are very contradictory. Some researchers even question the entire mechanism (Yehuda, Lehrner & Bierer, 2018).

Cultural aspects

There is controversy regarding the cross-cultural validity of the PTSD concept as formulated in the DSM or ICD (Chentsova-Dutton & Maercker, 2019; Rasmussen, Keatley & Joscelyne,

2014). Culture is understood as shared knowledge, values and institutions that coordinate the life of communities (Chiu, Gelfand, Yamagishi, Shteynberg & Wan, 2010; Kirmayer, 2018).

Overall, studies can confirm the diagnostic validity of PTSD when ethnocultural factors are included (Friedman, Resick, Bryant & Brewin, 2011; Hinton & Lewis-Fernández, 2011; Marsella, 2010). PTSD is influenced by biological processes; the causes, interpretation, and expression of symptoms as well as the response to them differ, specific to the culture (Elbert & Schauer, 2002; Kirmayer, 2018; Wenzel, Kienzler & Wollmann, 2015). Accordingly, specific explanatory models (e.g., spirit possession) as well as expressions of suffering (e.g., physical pain) are evident in clinical practice. These factors influence stigmatisation, social reactions, coping with the disorder and, thus, impairment as well as recovery in the communities concerned.

Models for the development of PTSD

There is a multitude of theoretical models on the development of PTSD. Most of them are empirically well studied and can explain how individual symptom groups develop, or complement each other with behavioural, neuroscientific, and emotional elements. Some important models underlying successful treatment methods are briefly presented in the following.

Defence cascade. Evolution has optimally equipped humans to maximise their chances of survival in life-threatening situations. A sequence of various stages of defence (e.g., fight or flight, dissociation) is triggered depending on the proximity of the threat and individual disposition. After an initial attentional freeze for orientation, either a fight or flight response can occur. If fight or flight is judged to be futile, a "shutdown" of the body ensues, which is characterised by rigidity and motionlessness up to dissociative fainting. This peritraumatically occurring reaction sequence determines the post-traumatic symptoms in the present – when re-experiencing, the individual defence cascade is undergone again (Schauer & Elbert, 2010). This model can explain well individual differences in the ways of experiencing and behaving during and after the experience of traumatic stress and, in particular, dissociative tendencies. The model can thus be used therapeutically to normalise the symptomatology and holds great clinical relevance.

Fear conditioning. Fear conditioning is based on Pavlov's findings of classical conditioning. An originally neutral stimulus (e.g., the smell of a meal) occurs simultaneously with an aversive stimulus (e.g., a bomb impact). The aversive stimulus leads to a reaction (e.g., fear), whereas the neutral stimulus originally does not. In the conditioned response, the formerly neutral stimulus triggers the response (e.g., the good smell is responded to with fear) (VanElzakker, Dahlgren, Davis, Dubois & Shin, 2014). The fear conditioning paradigm can explain well the re-experiencing symptomatology and fear response to trauma-independent stimuli. It lays the theoretical foundation for confrontation-based treatment interventions to reduce anxiety.

Memory models. In the dual representation theory (Brewin, 2014; Brewin, Gregory, Lipton & Burgess, 2010), it is assumed that memories based on sensory impressions are represented qualitatively differently in memory than context-based information about the place, time, and space of the event. The latter can be retrieved at will and accessed verbally, whereas the former are activated uncontrollably by external triggers. Normally, both memory systems are closely linked. In PTSD, however, the contents are separate – the memory is fragmented. The experience-based contents generate the symptomatology of re-experiencing through their activation character. The model plausibly explains the re-experiencing symptomatology and likewise forms the foundation for trauma confrontation procedures.

Network models. Emotional processing theory (Foa & Kozak, 1986; Foa & Rothbaum, 1998) extends the model of memory duality to include the subjective appraisal of the reaction: A triggering stimulus is paired with the initially occurring (fear) reaction and the subjective appraisal. These aspects are stored, interlinked, and represented in the memory as a so-called fear network. Subsequently, the activation of a single element is sufficient to activate other elements of the network in an uncontrolled manner. While this process of memory formation is not pathological per se, in PTSD, harmless stimuli (e.g., smells, voices) are integrated into the fear structure and, as a result, trigger states of anxiety and re-experiencing of the trauma. At the same time, the avoidance behaviour prevents habituation, which deletes the link between the formerly neutral stimuli and the traumatic situation. The symptomatology is maintained and becomes chronified (Rauch & Foa, 2006). The model integrates aspects of fear conditioning and the memory model and can explain “fear of fear” and the maintenance of the PTSD symptomatology.

Other psychological consequences

Case study: When Clementine and her sister are caught in a crowd at the market, memories of the massacre during the genocide intrude. Clementine feels her heart racing and becomes scared. She breathes rapidly and sweats. Only with the help of her sister can she calm down again after being at home for half an hour. Clementine then develops a great fear of being in crowds. As a result, she rarely leaves the house any more due to her pronounced avoidance. Because of her mistrust, she only has contact with her sister. She spends a lot of time in bed but can hardly sleep. She no longer feels refreshed and rested. Clementine has hardly any drive, has no appetite and loses weight, is often sad and doubts herself. She thinks it would be better not to live any more.

Comorbid disorders

Traumas are central to the development of numerous psychological and physical consequences. Comorbidity is the rule with PTSD. PTSD as a primary diagnosis is (often) closely associated with all other mental disorders – as illustrated in the case study –, namely, anxiety disorders and depression but also substance abuse.

In crisis regions with violent conflict, survivors have been documented to have depression in 31-69 % and anxiety disorders in 40 %, comorbid to PTSD (e.g. Lindert et al., 2009; Steel et al., 2009). In receiving countries, approximately half of refugees reported comorbid affective and anxiety disorders, and 20 % met the criteria for three or more mental disorders (Bogic et al., 2012, 2015; Kaltenbach, Schauer, Hermenau, Elbert & Schalinski, 2018; Nesterko, Jäckle, Friedrich, Holzapfel & Glaesmer, 2020). Multimorbidity is associated with severe functional impairment as well as suicidality (Perkonig, Kessler, Storz & Wittchen, 2000; Stevens et al., 2013; Westphal et al., 2011). The incidence of physical ailments, such as heart diseases or diabetes, also increases significantly with trauma exposure and a PTSD diagnosis (Kibler, Joshi & Ma, 2009; Kimerling, 2004; Glaesmer, Brähler, Gündel & Riedel- Heller, 2011).

Emergence of comorbidity

With PTSD as the primary diagnosis, comorbid disorders can develop as a result of long-lasting psychological distress. Substance abuse, in particular, is well documented as a dysfunctional coping attempt (Westphal, Aldao & Jackson, 2017). Trauma survivors and war and refugee populations, especially, suffer from diverse psychosocial stressors besides numerous comorbid mental disorders. These impede societal as well as social integration (e.g., Laban, Gernaat, Komproe, van der Tweel & de Jong, 2005; Schlechter et al., 2021). In a large refugee population, war-related factors explained a greater proportion of the variance in PTSD itself, whereas stressful post-migration factors explained more variance in depression, anxiety, and substance abuse (Bogic et al., 2012).

The severity of the symptomatology and comorbidity is related to the same risk factors as described for PTSD (see Figure 1). After a one-time experience (e.g., traffic accident), initial post-traumatic symptomatology holds a good prognosis for spontaneous recovery. In contrast, in the case of persistent sexual violence beginning in childhood, a complex, underlying and lasting disorder is to be expected, which, besides PTSD, is accompanied by dissociation, depression, pain etc., and, eventually, personality changes in the context of CPTSD.

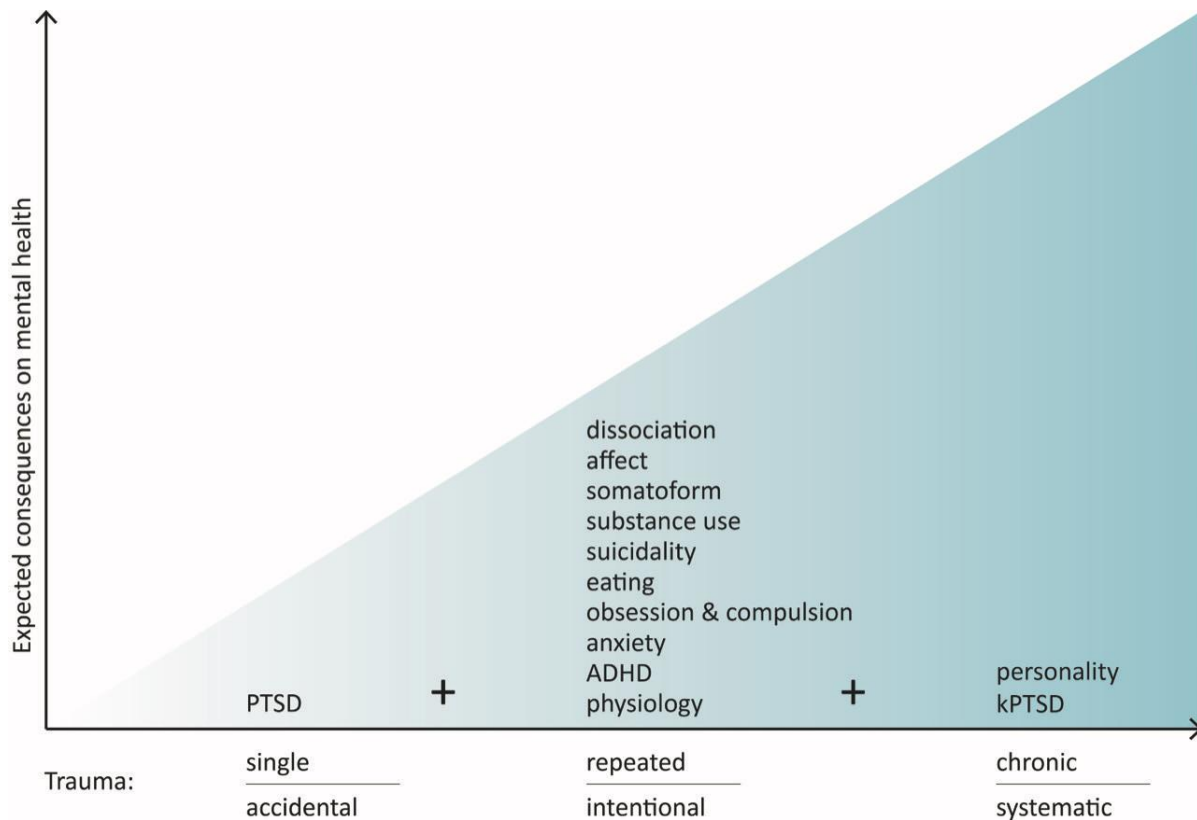


Figure 1: Type and severity of the traumatic experience in relation to the expected trauma sequelae symptomatology

The parallel occurrence of mental disorders may result as a consequence of the same traumatic events, such as in the case of a traumatic loss of a close figure of reference, which, in addition to PTSD, may cause a persistent grief disorder (Heeke, Stammel, Heinrich & Knaevelsrud, 2017; Killikelly & Maercker, 2017; Schaal, Dusingizemungu, Jacob, Neuner & Elbert, 2012). Alternatively, it is possible that due to the PTSD avoidance symptomatology, the healthy grieving process is impaired and, consequently, persistent grief develops (Foa, Stein & McFarlane, 2006). Accordingly, e.g., social withdrawal within the PTSD avoidance symptomatology can lead to depression or fear can be conditioned in specific situations (cf. the fear of the crowd in the case study). However, there is considerable overlap at the symptom level between affective, dissociative, psychotic, somatoform, grief and anxiety disorders, which may overestimate the frequency (Schellong, Schützwohl, Lorenz & Trautmann, 2019).

Traumatisation and violence

High rates of PTSD are relevant for the long-term emergence and maintenance of spirals of violence in crisis regions. Meta-analyses confirm an association between the severity of PTSD and the occurrence of relationship violence (Taft, Watkins, Stafford, Street & Monson, 2011). This association seems to be independent of the type of aggression (e.g., verbal versus physical aggression) and the person against whom the aggression is directed (e.g., own children or partner) (Augsburger & Maercker, 2020).

Reactive aggression

Two partially overlapping mechanisms are discussed as causal factors for these individually occurring spirals of violence: one direct and one indirectly mediated via symptoms of PTSD (Augsburger & Maercker, 2020). Figure 2 visualises both mechanisms. The indirect mechanism is supported by findings that the severity of PTSD influences the link between trauma experience and willingness to act aggressively (Hecker, Fetz, Ainamani & Elbert, 2015). Here, the core PTSD feature of physiological hyperarousal leads to increased experience of anger and rage, as well as difficulties in the functional regulation of these emotions (Miles, Menefee, Wanner, Tharp & Kent, 2015). Those affected have the feeling of constantly being in a potentially threatening situation. In fact, heightened experience of anger and problems with its functional control are more common in PTSD than in other anxiety disorders (Olatunji, Armstrong, Fan & Zhao, 2010). Dysfunctional coping strategies for these emotional outbursts are known to be an important predictor of aggression (Orth & Wieland, 2006).

However, this link only explains part of the mechanism: A second mechanism functions via a direct connection between traumatic experiences and aggression. Findings mainly stem from studies with members of the military: After returning from deployments in Afghanistan and Iraq, veterans reported increased aggressive tendencies (e.g. MacManus et al., 2015). Furthermore, studies show that former greatly psychologically burdened child soldiers show less acceptance of rehabilitation processes and describe more feelings of revenge. It is assumed that retaliation is carried out to restore personal integrity and overcome traumatic experiences (Bayer et al., 2007).

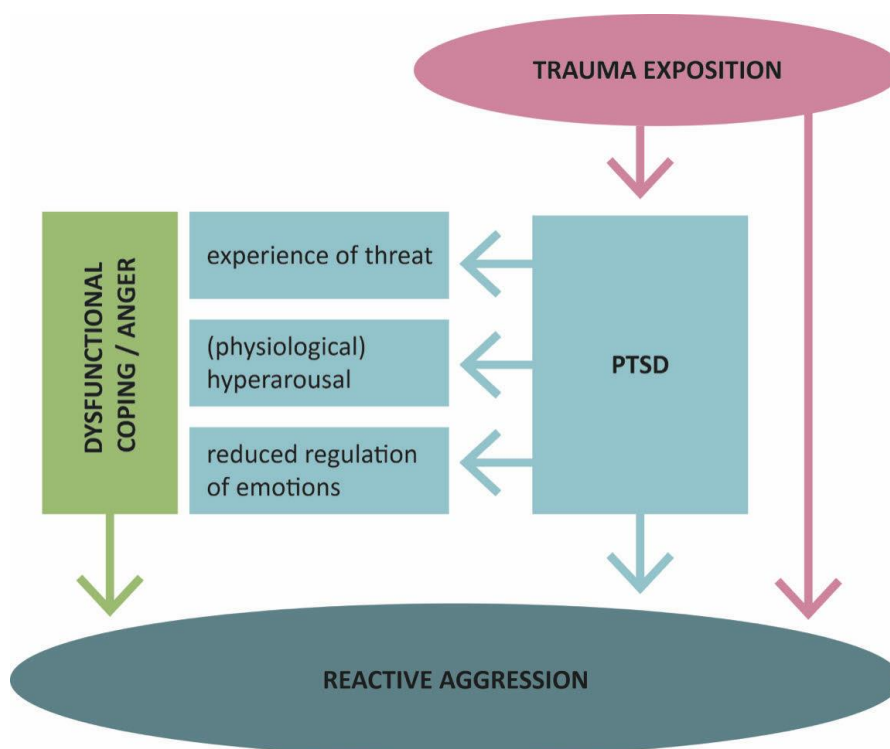


Figure 2: Relationships between trauma exposure, development of PTSD and subsequent reactive aggression.

Excursus: Adverse childhood experiences

Traumatic experiences in the broader sense also include adverse childhood experiences (ACEs) such as physical, sexual, or emotional violence or abuse. ACEs are considered a non-specific risk factor for lifelong physical and mental health problems (Norman et al., 2012) and likewise enhance the spiral of violence. For affected children, poverty, poor health care, multiple daily stressors and psychosocial stress create emotional and behavioural problems. In their two-generation study in northern Uganda, Saile, Ertl, Neuner and Catani (2014, 2015) showed dysfunctional parent-child interaction due to limited parental resources as well as individual risk factors. ACEs of parents were the strongest correlate of self-perpetrated aggressions towards their own children (Saile et al., 2014). Personal experiences of abuse or maltreatment also play a major role in the transmission of experiences of violence (Catani, 2010). While the entire family is at increased risk of victimisation in the case of men with trauma experiences, it is primarily the children who are affected in the case of women with trauma experiences (Gillikin et al., 2016). Impairments in sensitivity to the needs of children as well as increased general hostility as a result of PTSD are discussed as operating mechanisms (van Ee, Kleber & Mooren, 2012) and could be confirmed in a qualitative study with a small sample (Anderson & van Ee, 2020).

Aggression as a consequence of traumatic experiences and PTSD arises in most cases as a reaction (action) to a perceived or expected threat. It is part of the human behavioural repertoire for self-protection and is associated with negative affect and high physiological arousal (Elbert, Schauer & Moran, 2018). Affected individuals react without being aware of the consequences for themselves and others at the time (Nelson & Trainor, 2007). Reactive aggression contributes to spirals of violence in smaller interpersonal systems (e.g., family). As a systematic driver of conflicts, another form of aggression, so-called appetitive aggression, plays a more important role.

Appetitive aggression

In the context of war and conflict, a type of aggression develops that is associated with strong feelings of pleasure in the exercise of violence and high arousal: appetitive aggression (Weierstall, Schaal, Schalinski, Dusingizemungu & Elbert, 2011). In groups of people in active conflicts, the following can often be observed: The first act of violence is strongly fearsome and burdensome. It is usually carried out under coercion and/or strong group pressure as well as under death threats as an initiation ritual and ensures one's own survival in the armed group (Harnisch & Pfeiffer, 2018). In the case study, a former child soldier of the Ugandan Lord's Resistance Army (LRA) reports his first killing at the age of seven.

Case study: "After a week... they (the LRA higher ranking soldiers) (...) gave me the person to be beaten (...) they surrounded me (...) five soldiers and they all had guns (...) I had an axe in my hand and the person was lying down on the ground (...) they told me to beat that person to death... I at first did not want to do it... I felt like refusing... but they then told me... "if you feel like you don't

want, you go lie down, and the person gets up to do what? To beat you up.” (...) so I had to choose for myself at least to make my life a little longer... (...) *I beat the person and the person died... (...)”* (Harnisch & Pfeiffer, 2018, page 428).

In the course of repeated perpetration of atrocities, a change in its appraisal takes place – from reactive to appetitive aggression (Augsburger et al., 2017; Elbert et al., 2018). Positive feelings such as reward develop, as well as states of exhilaration with regard to the acts leading to loss of control and outbursts of violence (Elbert, Moran & Schauer, 2017a).

Case study: *„I was happy there [in the bush, author's note]... Especially when we won over those soldiers that came there to disturb us, so I would really, really be happy. [...] It is the battle which used to make me happy... because for example... the government soldiers...the newly recruited [...]... Those were weak soldiers, so when we saw them, when they come and we begin to shoot our bullets, they would run just in a hole, so that would excite us, because then we knew that that day at least we would have a very good opportunity to get good guns...so you kill them and you get your gun, so you are happy... Yes... it is that joy of winning over those soldiers [...]”* (Harnisch & Pfeiffer, 2018, page 430).

Appetitive aggression can develop in extremely readily violent and lawless contexts, as among former child soldiers in the Democratic Republic of Congo (Hermenau et al., 2013), active soldiers from Burundi involved in the African Union mission in Somalia (Nandi, Crombach, Bambonyé, Elbert & Weierstall, 2015), members of armed groups in various (post-)conflict regions in the African Great Lakes region and demobilised FARC members in Colombia (Augsburger, Meyer-Parlapanis, Bambonyé, Elbert & Crombach, 2015; Weierstall, Castellanos, Neuner & Elbert, 2013; Weierstall, Schalinski, Crombach, Hecker & Elbert, 2012) or among refugees from crisis regions (Hecker et al., 2015). High levels are also reported by young people in gangs from South African townships (Hinsberger et al., 2016) and forensic patients in German correctional facilities (Dudeck et al., 2016). Men and women show the same pattern, provided that the extent of their own combat experiences is comparable, as a study with former armed combatants from Burundi shows (Meyer-Parlapanis, Bambonyé, Elbert & Crombach, 2016).

Appetitive aggression can be universally aroused and encouraged in people, depending on external circumstances. In a spiral of violence, the exercise of violence and appetitive aggression reinforce each other. The development of appetitive aggression in the context of massive violence is interpreted as a functional emotional adaptation to maintain agency: Previous studies have found negative associations, at least up to a certain threshold, between the severity of PTSD and the intensity of appetitive aggression (e.g. Hecker et al., 2015; Nandi, Crombach, Bambonyé, Elbert & Weierstall, 2016; Weierstall et al., 2013). First-hand victimisation experiences among male study participants correlated positively with the level of appetitive aggression (Nandi et al., 2015; Sommer et al., 2017). However, this protective effect of appetitive aggression appears to be gender-specific (Augsburger et al.,

2015, 2017). In biological males, both traumatic experiences and self-exercised violence are significant, whereas, in biological females, self-exercised acts of violence mainly lead to increased appetitive aggression (Augsburger et al., 2015, 2017).

Recent studies with women and men point towards strong PTSD symptoms, increased active combat experiences and young age at the time of the first use of violence as risk factors (Zeller et al., 2020). Most likely, there are so-called sensitive periods (age ranges) in which people are particularly susceptible to the development of appetitive aggression (Köbach & Elbert, 2015). People affected in conflict regions are hence often both: initially, survivors of violence and, subsequently, perpetrators of violence.

After the settlement of armed conflicts, the pleasurable perception of violence endangers the return to a "civilian" mode of life. In contrast to life in the armed group, appetitive aggression is socially undesirable in the post-conflict village community and is seen as a threat to the fragile peace process. Thus, the situation for returning combatants remains difficult: adaptation to civilian life has not yet taken place but the general conditions have changed; what was previously essential for one's own survival now leads to social exclusion and can even result in a threat to one's own integrity (Harnisch & Pfeiffer, 2018). This social stigmatisation again contributes to an increased risk of aggression and violence (Schmitt, Robjant & Köbach, 2021) – and makes successful reintegration into civilian life more difficult. A continuous spiral of violence develops (Elbert et al., 2017a; Maedl, Schauer, Odenwald & Elbert, 2010).

Implications for policy and practice

Prioritising mental health

In the public perception and especially in resource-poor regions, mental health is considered a luxury good. The long-lasting and multi-layered outcomes of untreated trauma disorders are enormous for those affected but also for societies and future generations. In light of the research presented, promoting mental health must be a prominent component in the peace process (Ventevogel, 2015).

Societal recognition of traumatisation and social realities

Recognition of psychological trauma and its consequences is not limited to individual care but also extends to the public sphere and the social community. Societal recognition of the effects of trauma throughout the lives and experiences of those affected should be encouraged, especially considering the importance of social recognition in promoting resilience (Maercker & Augsburger, 2019a).

This recognition does not only refer to individually experienced traumas but also to a gender-sensitive perspective: the recognition of the social realities of women and men during armed conflicts and in resolution are likewise essential. Up to 30% of armed group members

in conflict regions are women (Brett, 2002; McKay & Mazurana, 2004). They are abused as active combatants or sex slaves, and predominantly provide the infrastructure for the armed group's operational capability. Especially women with sexual violence experiences and with non-gender-conforming roles during an armed conflict experience great stigmatisation, which compromises the recognition of social realities, processing as well as reintegration and, thus, further contributes to ongoing instability (Tonheim, 2012).

Community-based approaches involving the entire (village) community constitute an effective and efficient option saving resources. Societal recognition of their individual experiences enables affected women to reintegrate into civil society (Veale, McKay Worthen & Wessells, 2013).

Establishment of supply structures and dissemination

The divergence between the large number of traumatised people and the small number of specialised professionals presents a major challenge, especially in conflict regions (Kakuma et al., 2011) but also became a pressing issue for traumatised refugees during the large-scale migrant movement in 2015 in countries of arrival (Elbert, Wilker, Schauer & Neuner, 2017b; Hecker & Neuner, 2019). Dissemination of specific diagnostic and therapeutic skills constitutes one solution (Ruzek & Rosen, 2009). The process empowers healthcare professionals from communities concerned to effectively identify and treat those affected (Foa, 2006). Intensive planning, personal active contact and ongoing clinical support from experienced professionals are central to success (Chu, 2008; Kakuma et al., 2011; Patel, Chowdhary, Rahman & Verdelli, 2011). This requires capturing and considering the social and cultural contexts as well as local history and understanding of the concept of illness held by those affected (Kirmayer, 2018; Faregh, Tounkara & Soumaoro, 2019). In this complex field, scientific findings need to be evaluated, disseminated and integrated from an ethical and humanitarian perspective. The scientific consensus on a modern understanding of PTSD and, in a second step, evidence-based and effective intervention methods should be accessible to every community (M. Schauer & E. Schauer, 2010).

Accordingly, M. Schauer and E. Schauer (2010) designed a cascade model for the identification and treatment of mental disorders. First, an epidemiological data collection is carried out to clarify the needs in the community concerned. Then, a staged model is implemented. Suited and trained members of the respective community (e.g., nurses, teachers, social workers), as diagnosticians/health guides, identify people with trauma sequelae. Psychologically trained assistants provide psychosocial support and patients with trauma sequelae requiring treatment are referred to therapists who receive regular supervision. These structures are complemented by public relations work to inform society, healthcare professionals and political decision-makers. Concurrent evaluation and optimisation of the programmes is essential (Elbert et al., 2017b).

Yet, the dissemination of clinical skills remains costly in terms of personnel, time, and finance (Foa, 2006). Therefore, to optimise the use of resources, the train-the-trainer model

was conceived in an additional step. Here, in the initial stage, experts train healthcare professionals from the community who are thereupon supervised in their diagnostic and therapeutic work – as training cases – with those affected. In the second stage, the disseminated professionals train and supervise other colleagues. Societal, regional and cultural particularities can be directly incorporated and interventions adapted accordingly (Cahill, Foa, Hembree, Marshall & Nacash, 2006).

Psychosocial care in auxiliary professions

In addition to the war-affected population, humanitarian aid workers can also be affected by trauma. A systematic review estimates the prevalence of PTSD among workers for peace or relief operations at 6-42%, depending on the location and duration or activity (including any form of trauma in the field). The rates are two to three times higher compared to people who performed similar functions, yet not confronted with traumatic details (Strohmeier & Scholte, 2015).

The term secondary traumatisation describes the reaction of helpers when confronted with traumatised people and is described in the DSM-5 in the case of being confronted with adverse details in the context of occupational activities (APA, 2013; Figley, 1999). Those affected by secondary traumatisation experience PTSD symptoms and accordingly require treatment (Bride, Radey & Figley, 2007). In the context of working with traumatised people, the term compassion fatigue has been established to refer to the helpers' psychological stress. It describes helplessness or being overstrained leading to a lack of empathy and, thereby, endangering professional work (Hofmann, 2009). The recognition of traumatic experiences and the development of care structures should also include groups of people from humanitarian peace work or development cooperation in all phases of work. Adequate preparation, regular supervision and personal counselling opportunities should be available. Professional support at the organisational level significantly contributes to reducing psychosocial stress (Lopes Cardozo et al., 2013). Since staff members from affected communities have often experienced violence themselves, they should also receive support in their processing by professional therapists.

In a broader sense, this demand refers to the formal recognition of PTSD as an occupational disease in vulnerable occupational groups to destigmatise psychosocial overload.

Tension between justice and psychology

Case study: Mr Ongwen was abducted as a 9-year-old boy by members of the Ugandan Lord's Resistance Army and abused as a child soldier. He experienced terrible cruelties. As an adult, he became a senior commander himself and ordered similar crimes to those he had experienced himself. In February 2021, Mr Ongwen was found guilty of crimes against humanity and war crimes at

the International Criminal Court in The Hague (International Criminal Court, 2021).

Especially in conflict regions, the sharp division between perpetrator and survivor is complex from a clinical-psychological perspective. This reality presented in the excursus illustrates the contradictions of the psychological and legal perspective. People with PTSD who have been, at least partly, identified as perpetrators are also entitled to treatment. This is likewise significant since working with (former) perpetrators is the best prevention against renewed violence.

From a legal perspective, perpetrators must be held accountable for their actions. However, here too, the question of culpability arises outside the narrowly defined legal "unsoundness of mind". (Re-)Integration into society can only succeed if perpetrators are held accountable. The use of violence can ultimately never be justified. Not only for the affected relatives but also for entire societies, processing conflicts with criminal conviction – as in the case study – is an acknowledgement of the injustice experienced and an important element in the peace process.

Fields of research

Much of the research in conflict regions is based on cross-sectional studies with retrospective recording of traumatic experiences. Experimental studies are not feasible for ethical reasons. Causal assumptions are therefore mostly interpretative and ultimately remain hypothetical. Only through retrospective collection can narratives be created and attributions generated, which, in hindsight, confirm the model assumptions (Kirmayer et al., 2014). Even in light of the aetiological complexity in the development of trauma sequelae, a monocausal root is difficult to confirm. Solely the congruence of findings in different contexts suggests that reported associations satisfactorily reflect reality. Nevertheless, empirical research has to admit that questions about cause and effect can only be answered to a limited extent.

Current controversies

On the one hand, controversies concern the diagnostic conceptualisation of PTSD in the tension field of the classification systems, whose differences became particularly clear with the introduction of CPTSD, exclusively in the ICD-11. Against this background, professionals are confronted with the task of deciding which criteria are the "correct" ones. Furthermore, there is the risk that people who are suffering are overlooked as they – depending on the criteria used – do not have a mental disorder. In this respect, an empirically based re-approximation of the psychiatric classification systems is desirable.

Another controversy in the context of conflict regions concerns the term "continuous traumas" – referring to persistent traumatic stressors. This is particularly the case in war and post-conflict regions, when the traumatic event prevails due to high levels of violence and ongoing political and social instability (Somasundaram, 2014). Strictly speaking, the criteria of PTSD cannot be applied to such a setting, as there is no "post-trauma". In this context, the

evolutionary state of alarm of traumatised individuals can be interpreted as a reasonable adaptation increasing the probability of survival (Maercker & Augsburger, 2017). Nevertheless, the state of PTSD is associated with great suffering and loss of functionality. It remains a subject of scientific investigation how individual stressors can be effectively reduced within continuously unsafe settings.

Future research should consider higher gender sensitivity in relation to the study of group phenomena on the perpetrator and survivor side. This concerns gender-based violence as well as gender-based societal barriers to reintegration. Research on spirals of violence currently focuses mainly on self-experienced traumatic experiences and the resulting effects on mental health and aggression willingness. Important aspects such as gender-specific social recognition as well as stigmatisation of specific experiences, such as sexual violence, have been insufficiently taken into account so far.

In conclusion, the controversy remains that a majority of people – up to a certain number of traumatic events – can cope well with these experiences without developing PTSD. Individual studies present initial approaches to resilience research but an expansion of projects, especially in the context of conflict, is indicated. The consideration of resilience-promoting resources provides important insights into interrupting trauma-violence spirals in crisis regions. This further leads to the question of early interventions to prevent PTSD as secondary traumatisation. In stable contexts, initial evidence on the effectiveness of early interventions has accumulated in recent decades and should be further explored (N. P. Roberts et al., 2019). Of course, preventing violence is the best primary prevention.

Outlook

For the long-term and sustainable interruption of ongoing spirals of violence in crisis regions and the promotion of peace processes, it is essential to incorporate the clinical- psychological perspective. The significance of mental health should not only be raised in official programmes for disarmament, demobilisation and reintegration, but also, in longer running peacekeeping. This has often been overlooked or neglected in the past (Banholzer, 2013; Maedl et al., 2010).

Starting points can be found at various levels: On the one hand, those affected and diagnosed with trauma sequelae should receive evidence-based treatment. There are effective methods for this, which can also be employed in countries with few resources. Dissemination of diagnostics and treatment is necessary to manage the divergence between professionals and survivors. At the same time, interrupting the spiral of violence as early as possible by focusing on prevention of adverse childhood experiences is essential to create more favourable conditions for future generations.

The integration of mental health issues requires explicit gender awareness. All too often, women have been overlooked or actively excluded from peacekeeping programmes (McKay & Mazurana, 2004). This is not only momentous in terms of women's health but also

in terms of women's usually greater participation in care work. Finally, social recognition by the environment and the community is of central importance.

Professional practitioners at risk of becoming traumatised should thereby not be ignored. International and national organisations should intensify their efforts to provide better preparation of their staff and psychosocial support.

Only by including mental health in the work of peacekeeping can spirals of violence be disrupted in the long term and can stability be promoted. Peacekeeping, however, constitutes the most important prevention of the development of PTSD, propensity to violence and other trauma-related consequences.

References

- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Arlington, VA: American Psychiatric Association. <https://doi.org/10.1176/appi.books.9780890425596>
- Anderson, K. & van Ee, E. (2020). Reflective functioning of refugee mothers with children born of sexual violence. *International Journal of Environmental Research & Public Health*, 17(8), 2873. <https://doi.org/10.3390/ijerph17082873>
- Andrews, B., Brewin, C. R., Philpott, R. & Stewart, L. (2007). Delayed-onset posttraumatic stress disorder: A systematic review of the evidence. *American Journal of Psychiatry*, 164(9), 1319-1326. <https://doi.org/10.1176/appi.ajp.2007.06091491>
- Atwoli, L., Stein, D. J., Koenen, K. C. & McLaughlin, K. A. (2015). Epidemiology of post-traumatic stress disorder: Prevalence, correlates and consequences. *Current Opinion in Psychiatry*, 28(4), 307-311. <https://doi.org/10.1097/YCO.000000000000167>
- Augsburger, M. & Maercker, A. (2020). Associations between trauma exposure, post-traumatic stress disorder, and aggression perpetrated by women. A meta-analysis. *Clinical Psychology: Science and Practice and Practice*, 27(1), e12322. <https://doi.org/10.1111/cpsp.12322>
- Augsburger, M., Meyer-Parlapanis, D., Bambonyé, M., Elbert, T. & Crombach, A. (2015). Appetitive aggression and adverse childhood experiences shape violent behavior in females formerly associated with combat. *Frontiers in Psychology*, 6, 1-9. <https://doi.org/10.3389/fpsyg.2015.01756>
- Augsburger, M., Meyer-Parlapanis, D., Elbert, T., Nandi, C., Bambonyé, M. & Crombach, A. (2017). Succumbing to the call of violence – Sex-linked development of appetitive aggression in relation to familial and organized violence. *Frontiers in Psychology*, 8, 751. <https://doi.org/10.3389/fpsyg.2017.00751>
- Bangasser, D. A. & Valentino, R. J. (2014). Sex differences in stress-related psychiatric disorders: Neurobiological perspectives. *Frontiers in Neuroendocrinology*, 35(3), 303-319. <https://doi.org/10.1016/j.yfrne.2014.03.008>
- Banholzer, L. (2013). *When do disarmament, demobilization and reintegration programs succeed?* (Report No. 8/2014). Bonn: Deutsches Institut für Entwicklungspolitik [German Institute for Development Policy]. <https://doi.org/10.2139/ssrn.2367307>

- Bayer, C. P., Klasen, F. & Adam, H. (2007). Association of trauma and PTSD symptoms with openness to reconciliation and feelings of revenge among former Ugandan and Congolese child soldiers. *JAMA*, 298(5), 555-559. <https://doi.org/10.1001/jama.298.5.555>
- Benjet, C., Bromet, E., Karam, E. G., Kessler, R. C., McLaughlin, K. A., Ruscio, A. M., Koenen & K. C. (2016). The epidemiology of traumatic event exposure worldwide: Results from the World Mental Health Survey Consortium. *Psychological medicine*, 46(2), 327-343. <https://doi.org/10.1017/S0033291715001981>
- Bogic, M., Ajdukovic, D., Bremner, S., Franciskovic, T., Galeazzi, G. M., Kucukalic, A & Priebe, S. (2012). Factors associated with mental disorders in long-settled war refugees: Refugees from the former Yugoslavia in Germany, Italy and the UK. *British Journal of Psychiatry*, 200(3), 216-223. <https://doi.org/10.1192/bjp.bp.110.084764>
- Bogic, M., Njoku, A. & Priebe, S. (2015). Long-term mental health of war-refugees: A systematic literature review. *BMC International Health and Human Rights*, 15, 29. <https://doi.org/10.1186/s12914-015-0064-9>
- Brett, R. (2002). *Girl soldiers: Challenging the assumptions*. New York, NY: Quaker United Nations Office.
- Brewin, C. R., Andrews, B. & Valentine, J. D. (2000). Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology*, 68(5), 748-766. <https://doi.org/10.1037/0022-006x.68.5.748>
- Brewin, C. R. (2014). Episodic memory, perceptual memory, and their interaction: Foundations for a theory of posttraumatic stress disorder. *Psychological bulletin*, 140(1), 69-97. <https://doi.org/10.1037/a0033722>
- Brewin, C. R., Gregory, J. D., Lipton, M. & Burgess, N. (2010). Intrusive images in psychological disorders: Characteristics, neural mechanisms, and treatment implications. *Psychological review*, 117(1), 210-232. <https://doi.org/10.1037/a0018113>
- Bride, B. E., Radey, M. & Figley, C. R. (2007). Measuring compassion fatigue. *Clinical Social Work Journal*, 35(3), 155-163. <https://doi.org/10.1007/s10615-007-0091-7>
- Bronstein, I. & Montgomery, P. (2011). Psychological distress in refugee children: A systematic review. *Clinical Child and Family Psychology Review*, 14(1), 44-56. <https://doi.org/10.1007/s10567-010-0081-0>
- Buss, C., Entringer, S., Moog, N. K., Toepfer, P., Fair, D. A., Simhan, H. N & Wadhwa, P. D. (2017). Intergenerational transmission of maternal childhood maltreatment exposure: Implications for fetal brain development. *Journal of the American Academy of Child & Adolescent Psychiatry*, 56(5), 373-382. <https://doi.org/10.1016/j.jaac.2017.03.001>
- Cahill, S. P., Foa, E. B., Hembree, E. A., Marshall, R. D. & Nacash, N. (2006). Dissemination of exposure therapy in the treatment of posttraumatic stress disorder. *Journal of Traumatic Stress*, 19(5), 597-610. <https://doi.org/10.1002/jts.20173>
- Catani, C. (2010). Krieg im Zuhause – Ein Überblick zum Zusammenhang zwischen Kriegstraumatisierung und familiärer Gewalt [War in the home – A review of the

- relationship between war traumatisation and family violence]. *Verhaltenstherapie [Behaviour Therapy]*, 20(1), 19-27. <https://doi.org/10.1159/000261994>
- Chentsova-Dutton, Y. & Maercker, A. (2019). Cultural scripts of traumatic stress: Outline, illustrations, and research opportunities. *Frontiers in Psychology*, 10, 2528. <https://doi.org/10.3389/fpsyg.2019.02528>
- Chiu, C. Y., Gelfand, M. J., Yamagishi, T., Shteynberg, G. & Wan, C. (2010). Intersubjective culture: The role of intersubjective perceptions in cross-cultural research. *Perspectives on Psychological Science*, 5(4), 482-493. <https://doi.org/10.1177/1745691610375562>
- Chu, B. C. (2008). Empirically supported training approaches: The who, what, and how of disseminating psychological interventions. *Clinical Psychology: Science and Practice*, 15(4), 308-312. <https://doi.org/10.1111/j.1468-2850.2008.00142.x>
- Crombach, A. & Bambonyé, M. (2015). Intergenerational violence in Burundi: Experienced childhood maltreatment increases the risk of abusive child rearing and intimate partner violence. *European Journal of Psychotraumatology*, 6(1), 26995. <https://doi.org/10.3402/ejpt.v6.26995>
- Crocq, M. A. & Crocq, L. (2000). From shell shock and war neurosis to post-traumatic stress disorder: A history of psychotraumatology. *Dialogues in Clinical Neuroscience*, 2(1), 47-55. <https://doi.org/10.31887/DCNS.2000.2.1/macrocq>
- Dozio, E., Feldman, M., Bizouerne, C., Drain, E., Laroche Joubert, M., Mansouri, M. & Ouss, L. (2020). The transgenerational transmission of trauma: The effects of maternal PTSD in mother-infant interactions. *Frontiers in Psychiatry*, 11, 480690. <https://doi.org/10.3389/fpsyg.2020.480690>
- Dudeck, M., Susic-Vasic, Z., Otte, S., Rasche, K., Leichauer, K., Tippelt, S & Streb, J. (2016). The association of adverse childhood experiences and appetitive aggression with suicide attempts and violent crimes in male forensic psychiatry inpatients. *Psychiatry Research*, 240, 352-357. <https://doi.org/10.1016/j.psychres.2016.04.073>
- Elbert, T., Moran, J. K. & Schauer, M. (2017a). Lust for violence: Appetitive aggression as a fundamental part of human nature. *Neuroforum*, 23(2), 77-84. <https://doi.org/10.1515/nf.2016-A056>
- Elbert, T. & Schauer, M. (2002). Psychological trauma: Burnt into memory. *Nature*, 419, 883-883. <https://doi.org/10.1038/419883a>
- Elbert, T., Schauer, M. & Moran, J. K. (2018). Two pedals drive the bi-cycle of violence: Reactive and appetitive aggression. *Current Opinion in Psychology*, 19, 135-138. <https://doi.org/10.1016/j.copsyc.2017.03.016>
- Elbert, T., Wilker, S., Schauer, M. & Neuner, F. (2017b). Dissemination of psychotherapeutic modules for traumatised refugees: Insights from trauma work in crisis and war regions. *Der Nervenarzt [The neurologist]*, 88(1), 26-33. <https://doi.org/10.1007/s00115-016-0245-3>
- Ertl, V., Pfeiffer, A., Schauer-Kaiser, E., Elbert, T. & Neuner, F. (2014). The challenge of living on: Psychopathology and its mediating influence on the readjustment of former child soldiers. *PLoS ONE*, 9(7), e102786. <https://doi.org/10.1371/journal.pone.0102786>

- Falkai, P., Wittchen, H.-U., Döpfner, M., Gaebel, W., Maier, W., Rief, W. & American Psychiatric Association. (Eds.) (2018). *Diagnostisches und statistisches Manual psychischer Störungen DSM-5 [Diagnostic and statistical manual of mental disorders DSM-5]*. Göttingen: Hogrefe.
- Faregh, N., Tounkara, A. & Soumaoro, K. (2019). The role of family and culture in extreme adversity: Psychosocial response to the Ebola Virus Disease (EVD) Epidemic in Guinea, West Africa. In L. Charlés & G. Samarasinghe (Eds.), *Family systems and global humanitarian mental health* (pp. 143-164). Cham: Springer. https://doi.org/10.1007/978-3-030-03216-6_10
- Figley, C. R. (1999). Compassion fatigue: Toward a new understanding of the costs of caring. In B. H. Stamm (Ed.), *Secondary traumatic stress. Self-care issues for clinicians, researchers and educators* (pp. 3-28). Baltimore, MD: Sidran Press.
- Foa, E. B. (2006). Psychosocial therapy for post-traumatic stress disorder. *Journal of Clinical Psychiatry*, 67(sup2), 40-45.
- Foa, E. B. & Kozak, M. J. (1986). Emotional processing of fear. Exposure to corrective information. *Psychological Bulletin*, 99(1), 20-35. <https://doi.org/10.1037/0033-2909.99.1.20>
- Foa, E. B. & Rothbaum, B. O. (1998). Treating the trauma of rape: Cognitive-behavioral therapy for PTSD. New York, NY: The Guilford Press.
- Foa, E. B., Stein, D. J. & McFarlane, A. C. (2006). Symptomatology and psychopathology of mental health problems after disaster. *American Journal of Psychiatry*, 67(sup2), 15-25.
- Friedman, M. J., Resick, P. A., Bryant, R. A. & Brewin, C. R. (2011). Considering PTSD for DSM-5. *Depression and Anxiety*, 28(9), 750-769. <https://doi.org/10.1002/da.20767>
- Gillikin, C., Habib, L., Evces, M., Bradley, B., Ressler, K. J. & Sanders, J. (2016). Trauma exposure and PTSD symptoms associate with violence in inner city civilians. *Journal of Psychiatric Research*, 83, 1-7. <https://doi.org/10.1016/j.jpsychires.2016.07.027>
- Glaesmer, H., Brähler, E., Gündel, H. & Riedel-Heller, S. G. (2011). The association of traumatic experiences and posttraumatic stress disorder with physical morbidity in old age: A German population-based study. *Psychosomatic medicine*, 73(5), 401-406. <https://doi.org/10.1097/PSY.0b013e31821b47e8>
- Goldberg, J., Magruder, K. M., Forsberg, C. W., Kazis, L. E., Üstün, T. B., Friedman, M. J. ... Smith, N. L. (2014). The association of PTSD with physical and mental health functioning and disability. *Quality of Life Research*, 23(5), 1579-1591. <https://doi.org/10.1007/s11136-013-0585-4>
- Harnisch, H. & Pfeiffer, A. (2018). How 'the urge to kill' feels: Articulations of emic 'appetitive aggression' experiences among former forcefully recruited children and youth in the Acholi region of Northern Uganda. *Culture, Medicine and Psychiatry*, 42(2), 419-448. <https://doi.org/10.1007/s11013-017-9557-4>
- Hecker, T., Fetz, S., Ainamani, H. & Elbert, T. (2015). The cycle of violence: Associations between exposure to violence, trauma-related symptoms and aggression – Findings

- from Congolese refugees in Uganda. *Journal of Traumatic Stress*, 28(5), 448-455. <https://doi.org/10.1002/jts.22046>
- Hecker, T. & Neuner, F. (2019). Mental health enables integration: Re-thinking treatment approaches for refugees. In A. Krämer & F. Fischer (Eds.), *Refugee migration and health* (pp. 63-72). Heidelberg: Springer International Publishing. https://doi.org/10.1007/978-3-030-03155-8_5
- Heeke, C., Stammel, N., Heinrich, M. & Knaevelsrud, C. (2017). Conflict-related trauma and bereavement: Exploring differential symptom profiles of prolonged grief and posttraumatic stress disorder. *BMC Psychiatry*, 17(1), 118. <https://doi.org/10.1186/s12888-017-1286-2>
- Herman, J. L. (1992). Complex PTSD: A syndrome in survivors of prolonged and repeated trauma. *Journal of Traumatic Stress*, 5(3), 377-391. <https://doi.org/10.1007/BF00977235>
- Hermenau, K., Hecker, T., Maedl, A., Schauer, M. & Elbert, T. (2013). Growing up in armed groups: Trauma and aggression among child soldiers in DR Congo. *European Journal of Psychotraumatology*, 4(1), 21408. <https://doi.org/10.3402/ejpt.v4i0.21408>
- Hinsberger, M., Sommer, J., Kaminer, D., Holtzhausen, L., Weierstall, R., Seedat, S & Elbert, T. (2016). Perpetuating the cycle of violence in South African low-income communities: Attraction to violence in young men exposed to continuous threat. *European Journal of Psychotraumatology*, 7(1), 29099. <https://doi.org/10.3402/ejpt.v7.29099>
- Hinton, D. E. & Lewis-Fernández, R. (2011). The cross-cultural validity of post-traumatic stress disorder: Implications for DSM-5. *Depression and Anxiety*, 28(9), 783-801. <https://doi.org/10.1002/da.20753>
- Hofmann, P. B. (2009). Addressing compassion fatigue. The problem is not new, but it requires more urgent attention. *Healthcare Executive*, 24(5), 40-42.
- Horesh, D., Solomon, Z., Zerach, G. & Ein-Dor, T. (2011). Delayed-onset PTSD among war veterans: The role of life events throughout the life cycle. *Social Psychiatry and Psychiatric Epidemiology*, 46(9), 863-870. <https://doi.org/10.1007/s00127-010-0255-6>
- Hutson, S. P., Hall, J. M. & Pack, F. L. (2015). Survivor guilt: Analyzing the concept and its contexts. *Advances in Nursing Science*, 38(1), 20-33. <https://doi.org/10.1097/ANS.000000000000058>
- International Criminal Court. (2021, February 04). *Dominic Ongwen declared guilty of war crimes and crimes against humanity committed in Uganda*. Available at: <https://www.icc-cpi.int/Pages/item.aspx?name=pr1564>
- Jones, E., Fear, N. T. & Wessely, S. (2007). Shell shock and mild traumatic brain injury: A historical review. *American Journal of Psychiatry*, 164(11), 1641-1645. <https://doi.org/10.1176/appi.ajp.2007.07071180>
- Kakuma, R., Minas, H., Ginneken, N. van, Dal Poz, M. R., Desiraju, K., Morris, J. E. & Scheffler, R. M. (2011). Human resources for mental health care: Current situation and

- strategies for action. *The Lancet*, 378(9803), 1654-1663. [https://doi.org/10.1016/S0140-6736\(11\)61093-3](https://doi.org/10.1016/S0140-6736(11)61093-3)
- Kaltenbach, E., Schauer, M., Hermenau, K., Elbert, T. & Schalinski, I. (2018). Course of mental health in refugees – A one year panel survey. *Frontiers in Psychiatry*, 9, 352. <https://doi.org/10.3389/fpsy.2018.00352>
- Cardiner, A. (1941). *The traumatic neuroses of war*. Washington, DC: National Research Council. <https://doi.org/10.1037/10581-000>
- Kaysen, D., Rosen, G., Bowman, M. & Resick, P. A. (2010). Duration of exposure and the dose-response model of PTSD. *Journal of Interpersonal Violence*, 25(1), 63-74. <https://doi.org/10.1177/0886260508329131>
- Kessler, R. C. (2000). Posttraumatic stress disorder: The burden to the individual and to society. *Journal of Clinical Psychiatry*, 61(sup5), 4-12.
- Kessler, R. C., Aguilar-Gaxiola, S., Alonso, J., Benjet, C., Bromet, E. J., Cardoso G. & Koenen, K. C. (2017). Trauma and PTSD in the WHO world mental health surveys. *European Journal of Psychotraumatology*, 8(sup5), 1353383. <https://doi.org/10.1080/20008198.2017.1353383>
- Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M. & Nelson, C. B. (1995). Posttraumatic stress disorder in the national comorbidity survey. *Archives of General Psychiatry*, 52(12), 1048-1060. <https://doi.org/10.1001/archpsyc.1995.03950240066012>
- Kibler, J. L., Joshi, K. & Ma, M. (2009). Hypertension in relation to posttraumatic stress disorder and depression in the US national comorbidity survey. *Behavioral Medicine*, 34(4), 125-132. <https://doi.org/10.3200/BMED.34.4.125-132>
- Killikelly, C. & Maercker, A. (2017). Prolonged grief disorder for ICD-11: The primacy of clinical utility and international applicability. *European Journal of Psychotraumatology*, 8(sup6), 1476441. <https://doi.org/10.1080/20008198.2018.1476441>
- Kimerling, R. (2004). An investigation of sex differences in nonpsychiatric morbidity associated with posttraumatic stress disorder. *Journal of the American Medical Women's Association (1972)*, 59(1), 43-47.
- Kirmayer, L. J. (2018). Ethno- and cultural psychiatry. In H. Callan (Ed.), *The international encyclopedia of anthropology* (1st ed.). Hoboken, NJ: Wiley. <https://doi.org/10.1002/9781118924396>
- Kirmayer, L. J., Gone, J. P. & Moses, J. (2014). Rethinking historical trauma. *Transcultural Psychiatry*, 51(3), 299-319. <https://doi.org/10.1177/1363461514536358>
- Köbach, A. & Elbert, T. (2015). Sensitive periods for developing a robust trait of appetitive aggression. *Frontiers in Psychiatry*, 6, 144. <https://doi.org/10.3389/fpsy.2015.00144>
- Koenen, K. C., Ratanatharathorn, A., Ng, L., McLaughlin, K. A., Bromet, E. J., Stein, D. J. ... Kessler, R. C. (2017). Posttraumatic stress disorder in the World Mental Health Surveys. *Psychological medicine*, 47(13), 2260-2274. <https://doi.org/10.1017/S0033291717000708>
- Kolassa, I. T., Ertl, V., Eckart, C., Kolassa, S., Onyut, L. P. & Elbert, T. (2010). Spontaneous remission from PTSD depends on the number of traumatic event types experienced.

- Psychological Trauma: Theory, Research, Practice, and Policy*, 2(3), 169-174.
<https://doi.org/10.1037/a0019362>
- Kubany, E. S. (1994). A cognitive model of guilt typology in combat-related PTSD. *Journal of Traumatic Stress*, 7(1), 3-19. <https://doi.org/10.1002/jts.2490070103>
- Laban, C. J., Gernaat, H. B., Komproe, I. H., van der Tweel, I. & de Jong, J. T. (2005). Postmigration living problems and common psychiatric disorders in Iraqi asylum seekers in the Netherlands. *The Journal of nervous and mental disease*, 193(12), 825-832. <https://doi.org/10.1097/01.nmd.0000188977.44657.1d>
- Lindert, J., Ehrenstein, O. S. von, Priebe, S., Mielck, A. & Brähler, E. (2009). Depression and anxiety in labour migrants and refugees – A systematic review and meta-analysis. *Social Science & Medicine*, 69(2), 246-257. <https://doi.org/10.1016/j.socscimed.2009.04.032>
- Liu, H., Petukhova, M. V., Sampson, N. A., Aguilar-Gaxiola, S., Alonso, J., Andrade, L. H., ... Kessler, R. C. (2017). Association of DSM-IV posttraumatic stress disorder with traumatic experience type and history in the World Health Organization world mental health surveys. *JAMA Psychiatry*, 74(3), 270-281. <https://doi.org/10.1001/jamapsychiatry.2016.3783>
- Lopes Cardozo, B., Sivilli, T. I., Crawford, C., Scholte, W. F., Petit, P., Ghitis, F. Eriksson, C. (2013). Factors affecting mental health of local staff working in the Vanni region, Sri Lanka. *Psychological Trauma: Theory, Research, Practice, and Policy*, 5(6), 581-590. <https://doi.org/10.1037/a0030969>
- MacManus, D., Rona, R., Dickson, H., Somaini, G., Fear, N. & Wessely, S. (2015). Aggressive and violent behaviour among military personnel deployed to Iraq and Afghanistan: Prevalence and link with deployment and combat exposure. *Epidemiologic Reviews*, 37, 196-212. <https://doi.org/10.1093/epirev/mxu006>
- Maedl, A., Schauer, E., Odenwald, M. & Elbert, T. (2010). Psychological rehabilitation of ex-combatants in non-Western, post-conflict settings. In E. Martz (Ed.), *Trauma rehabilitation after war and conflict: Community and individual perspectives* (pp. 177-214). New York, NY: Springer. https://doi.org/10.1007/978-1-4419-5722-1_9
- Maercker, A. & Augsburger, M. (2017). Psychotraumatologie: Differenzierung, Erweiterung und öffentlicher Diskurs [Psychotraumatology: Differentiation, expansion and public discourse]. *Der Nervenarzt [The neurologist]*, 88(9), 967-973. <https://doi.org/10.1007/s00115-017-0363-6>
- Maercker, A. & Augsburger, M. (2019a). Developments in psychotraumatology: A conceptual, biological, and cultural update. *Clinical Psychology in Europe*, 1(1), 1-18. <https://doi.org/10.32872/cpe.v1i1.30294>
- Maercker, A. & Augsburger, M. (2019b). Die posttraumatische Belastungsstörung [Post-traumatic stress disorder]. In A. Maercker (Ed.), *Traumafolgestörungen [Trauma sequelae disorders]* (pp. 13-45). Berlin: Springer. https://doi.org/10.1007/978-3-662-58470-5_2

- Marsella, A. J. (2010). Ethnocultural aspects of PTSD: An overview of concepts, issues, and treatments. *Traumatology*, 16(4), 17-26. <https://doi.org/10.1177/1534765610388062>
- McKay, S. & Mazurana, D. (2004). *Where are the girls? Girls in fighting forces in Northern Uganda, Sierra Leone and Mozambique: Their lives during and after war*. Montréal, QC: Rights & Democracy.
- Meyer-Parlapanis, D., Bambonyé, M., Elbert, T. & Crombach, A. (2016). Appetitive aggression in women: Comparing male and female war combatants. *Frontiers in Psychology*, 6, 1792. <https://doi.org/10.3389/fpsyg.2015.01972>
- Miles, S. R., Meneffee, D. S., Wanner, J., Tharp, A. T. & Kent, T. A. (2015). The relationship between emotion dysregulation and impulsive aggression in veterans with posttraumatic stress disorder symptoms. *Journal of Interpersonal Violence*, 31(10), 1795-1816. <https://doi.org/10.1177/0886260515570746>
- Morina, N., Wicherts, J. M., Lobrecht, J. & Priebe, S. (2014). Remission from post-traumatic stress disorder in adults: A systematic review and meta-analysis of long-term outcome studies. *Clinical Psychology Review*, 34(3), 249-255. <https://doi.org/10.1016/j.cpr.2014.03.002>
- Murray, J., Ehlers, A. & Mayou, R. A. (2002). Dissociation and post-traumatic stress disorder: Two prospective studies of road traffic accident survivors. *British Journal of Psychiatry*, 180(4), 363-368. <https://doi.org/10.1192/bjp.180.4.363>
- Nandi, C., Crombach, A., Bambonyé, M., Elbert, T. & Weierstall, R. (2015). Predictors of post-traumatic stress and appetitive aggression in active soldiers and former combatants. *European Journal of Psychotraumatology*, 6(1), 26553. <https://doi.org/10.3402/ejpt.v6.26553>
- Nandi, C., Crombach, A., Bambonyé, M., Elbert, T. & Weierstall, R. (2016). Appetitive aggression and its relation to post-traumatic stress in Burundian ex-combatants. *Peace and Conflict*, 22(2), 102-108. <https://doi.org/10.1037/pac0000138>
- Nelson, R. J. & Trainor, B. C. (2007). Neural mechanisms of aggression. *Nature Reviews Neuroscience*, 8(7), 536-546. <https://doi.org/10.1038/nrn2174>
- Nesterko, Y., Jäckle, D., Friedrich, M., Holzappel, L. & Glaesmer, H. (2020). Health care needs among recently arrived refugees in Germany: A cross-sectional, epidemiological study. *International Journal of Public Health*, 65(6), 811-821. <https://doi.org/10.1007/s00038-020-01408-0>
- Niderland, W. G. (1964). Psychiatric disorders among persecution victims: A contribution to the understanding of concentration camp pathology and its aftereffects. *Journal of Nervous and Mental Diseases*, 139, 458-474.
- Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J. & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: A systematic review and meta-analysis. *PLoS Medicine*, 9(11), e1001349. <https://doi.org/10.1371/journal.pmed.1001349>

- Olatunji, B. O., Cisler, J. M. & Tolin, D. F. (2007). Quality of life in the anxiety disorders: A meta-analytic review. *Clinical Psychology Review*, 27(5), 572-581. <https://doi.org/10.1016/j.cpr.2007.01.015>
- Olatunji, B. O., Armstrong, T., Fan, Q. & Zhao, M. (2014). Risk and resiliency in posttraumatic stress disorder: Distinct roles of anxiety and disgust sensitivity. *Psychological Trauma: Theory, Research, Practice, and Policy*, 6(1), 50-55. <https://doi.org/10.1037/a0029682>
- Orth, U. & Wieland, E. (2006). Anger, hostility, and post-traumatic stress disorder in trauma-exposed adults: A meta-analysis. *Journal of Consulting and Clinical Psychology*, 74(4), 698-706. <https://doi.org/10.1037/0022-006X.74.4.698>
- Ozer, E. J., Best, S. R., Lipsey, T. L. & Weiss, D. S. (2003). Predictors of posttraumatic stress disorder and symptoms in adults: A meta-analysis. *Psychological Bulletin*, 129(1), 52-73. <https://doi.org/10.1037/0033-2909.129.1.52>
- Pacella, M. L., Hruska, B. & Delahanty, D. L. (2013). The physical health consequences of PTSD and PTSD symptoms: A meta-analytic review. *Journal of Anxiety Disorders*, 27(1), 33-46. <https://doi.org/10.1016/j.janxdis.2012.08.004>
- Pape, J. C. & Binder, E. B. (2014). Psychotrauma als Risiko für spätere psychische Störungen: Epigenetische Mechanismen [Psychotrauma as a risk for later mental disorders: Epigenetic mechanisms]. *Der Nervenarzt [The neurologist]*, 85(11), 1382-1389. <https://doi.org/10.1007/s00115-014-4085-8>
- Patel, V., Chowdhary, N., Rahman, A. & Verdeli, H. (2011). Improving access to psychological treatments: Lessons from developing countries. *Behaviour Research and Therapy*, 49(9), 523-528. <https://doi.org/10.1016/j.brat.2011.06.012>
- Perkonig, A., Kessler, R. C., Storz, S. & Wittchen, H.-U. (2000). Traumatic events and post-traumatic stress disorder in the community: Prevalence, risk factors and comorbidity. *Acta Psychiatrica Scandinavica*, 101(1), 46-59. <https://doi.org/10.1034/j.1600-0447.2000.101001046.x>
- Perkonig, A., Pfister, H., Stein, M. B., Höfler, M., Lieb, R., Maercker, A. & Wittchen, H.-U. (2005). Longitudinal course of posttraumatic stress disorder and posttraumatic stress disorder symptoms in a community sample of adolescents and young adults. *American Journal of Psychiatry*, 162(7), 1320-1327. <https://doi.org/10.1176/appi.ajp.162.7.1320>
- Porter, M. & Haslam, N. (2005). Predisplacement and postdisplacement factors associated with mental health of refugees and internally displaced persons: A meta-analysis. *JAMA*, 294(5), 602-612. <https://doi.org/10.1001/jama.294.5.602>
- Rapaport, M. H., Clary, C., Fayyad, R. & Endicott, J. (2005). Quality-of-life impairment in depressive and anxiety disorders. *American Journal of Psychiatry*, 162(6), 1171-1178. <https://doi.org/10.1176/appi.ajp.162.6.1171>
- Rasmussen, A., Keatley, E. & Joscelyne, A. (2014). Posttraumatic stress in emergency settings outside North America and Europe: A review of the emic literature. *Social Science & Medicine*, 109, 44-54. <https://doi.org/10.1016/j.socscimed.2014.03.015>

- Rauch, S. & Foa, E. (2006). Emotional processing theory (EPT) and exposure therapy for PTSD. *Journal of Contemporary Psychotherapy*, 36(2), 61-65. <https://doi.org/10.1007/s10879-006-9008-y>
- Richardson, L. K., Frueh, B. C. & Acierno, R. (2010). Prevalence estimates of combat-related post-traumatic stress disorder: critical review. *Australian & New Zealand Journal of Psychiatry*, 44(1), 4-19. <https://doi.org/10.3109/00048670903393597>
- Roberts, N. P., Kitchiner, N. J., Kenardy, J., Robertson, L., Lewis, C. & Bisson, J. I. (2019). Multiple session early psychological interventions for the prevention of post-traumatic stress disorder. *Cochrane Database of Systematic Reviews*, 8(3), CD006869. <https://doi.org/10.1002/14651858.CD006869.pub3>
- Roth, M., Neuner, F. & Elbert, T. (2014). Transgenerational consequences of PTSD: Risk factors for the mental health of children whose mothers have been exposed to the Rwandan genocide. *International Journal of Mental Health Systems*, 8(1), 1-12. <https://doi.org/10.1186/1752-4458-8-12>
- Ruzek, J. I. & Rosen, R. C. (2009). Disseminating evidence-based treatments for PTSD in organizational settings: A high priority focus area. *Behaviour Research and Therapy*, 47(11), 980-989. <https://doi.org/10.1016/j.brat.2009.07.008>
- Saile, R., Ertl, V., Neuner, F. & Catani, C. (2014). Does war contribute to family violence against children? Findings from a two-generational multi-informant study in Northern Uganda. *Child Abuse and Neglect*, 38(1), 135-146. <https://doi.org/10.1016/j.chiabu.2013.10.007>
- Saile, R., Ertl, V., Neuner, F. & Catani, C. (2015). Children of the postwar years: A two-generational multilevel risk assessment of child psychopathology in northern Uganda. *Development and Psychopathology*, 28(2), 1-14. <https://doi.org/10.1017/S0954579415001066>
- Sartor, C. E., McCutcheon, V. V., Pommer, N. E., Nelson, E. C., Grant, J. D., Duncan, A. E. ... Heath, A. C. (2011). Common genetic and environmental contributions to post-traumatic stress disorder and alcohol dependence in young women. *Psychological Medicine*, 41(7), 1497-1505. <https://doi.org/10.1017/S0033291710002072>
- Sayed, S., Iacoviello, B. M. & Charney, D. S. (2015). Risk factors for the development of psychopathology following trauma. *Current Psychiatry Reports*, 17(8), 612. <https://doi.org/10.1007/s11920-015-0612-y>
- Schaal, S., Dusingizemungu, J.-P., Jacob, N., Neuner, F. & Elbert, T. (2012). Associations between prolonged grief disorder, depression, post-traumatic stress disorder, and anxiety in Rwandan genocide survivors. *Death Studies*, 36(2), 97-117. <https://doi.org/10.1080/07481187.2011.573177>
- Schalinski, I., Elbert, T. & Schauer, M. (2011). Female dissociative responding to extreme sexual violence in a chronic crisis setting: The case of Eastern Congo. *Journal of Traumatic Stress*, 24(2), 235-238. <https://doi.org/10.1002/jts.20631>
- Schauer, M. & Elbert, T. (2010). Dissociation following traumatic stress. Etiology and treatment. *Journal For Psychology*, 218(2), 109-127. <https://doi.org/10.1027/0044-3409/a000018>

- Schauer, M. & Schauer, E. (2010). Trauma-focused public mental-health interventions: A paradigm shift in humanitarian assistance and aid work. In E. Martz (Ed.), *Trauma rehabilitation after war and conflict* (pp. 389-428). New York, NY: Springer. https://doi.org/10.1007/978-1-4419-5722-1_16
- Schellong, J., Schützwohl, M., Lorenz, P. & Trautmann, S. (2019). Diagnostik und Differenzialdiagnostik [Diagnostics and differential diagnostics]. In A. Maercker (Ed.), *Traumafolgestörungen [Trauma sequelae disorders]* (pp. 129-156). Berlin: Springer. https://doi.org/10.1007/978-3-662-58470-5_8
- Schlechter, P., Rodriguez, I. M., Morina, N., Knausenberger, J., Wilkinson, P. O. & Hellmann, J. H. (2021). Psychological distress in refugees: The role of traumatic events, resilience, social support, and support by religious faith. *Psychiatry Research*, 304, 114121. <https://doi.org/10.1016/j.psychres.2021.114121>
- Schmitt, S., Robjant, K. & Köbach, A. (2021). When reintegration fails: Stigmatization drives the ongoing violence of ex-combatants in Eastern Democratic Republic of the Congo. *Brain & Behavior*, 11, e02156. <https://doi.org/10.1002/brb3.2156>
- Schneider, A., Conrad, D., Pfeiffer, A., Elbert, T., Kolassa, I.-T. & Wilker, S. (2018). Stigmatization is associated with increased PTSD risk after traumatic stress and diminished likelihood of spontaneous remission – A study with East-African conflict survivors. *Frontiers in Psychiatry*, 9, 423. <https://doi.org/10.3389/fpsyt.2018.00423>
- Seddighi, H., Salmani, I., Javadi, M. H. & Seddighi, S. (2021). Child abuse in natural disasters and conflicts: A systematic review. *Trauma, Violence, & Abuse*, 22(1), 176-185. <https://doi.org/10.1177/1524838019835973>
- Silove, D., Sinnerbrink, I., Field, A., Manicavasagar, V. & Steel, Z. (1997). Anxiety, depression and PTSD in asylum-seekers: associations with pre-migration trauma and post-migration stressors. *British Journal of Psychiatry*, 170(4), 351-357. <https://doi.org/10.1192/bjp.170.4.351>
- Smoller, J. W. (2016). The genetics of stress-related disorders: PTSD, depression, and anxiety disorders. *Neuropsychopharmacology*, 41(1), 297-319. <https://doi.org/10.1038/npp.2015.266>
- Somasundaram, D. (2014). Addressing collective trauma: Conceptualisations and interventions. *Intervention: Journal of Mental Health and Psychosocial Support in Conflict Affected Areas*, 12(4), 43-60. Available at: <https://www.interventionjournal.com/content/addressing-collective-trauma-conceptualisations-and-interventions>
- Sommer, J., Hinsberger, M., Elbert, T., Holtzhausen, L., Kaminer, D., Seedat, S. & Weierstall, R. (2017). The interplay between trauma, substance abuse and appetitive aggression and its relation to criminal activity among high-risk males in South Africa. *Addictive Behaviors*, 64, 29-34. <https://doi.org/10.1016/j.addbeh.2016.08.008>
- Steel, Z., Chey, T., Silove, D., Marnane, C., Bryant, R. A. & van Ommeren, M. (2009). 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*, 302(5), 537-549. <https://doi.org/10.1001/jama.2009.1132>
- Stevens, D., Wilcox, H. C., MacKinnon, D. F., Mondimore, F. M., Schweizer, B., Jancic, D. ... Potash, J. B. (2013). PTSD increases risk for suicide attempt in adults with recurrent MDD. *Depression and Anxiety*, 30(19), 940-946. <https://doi.org/10.1002/da.22160>
- Strohmeier, H. & Scholte, W. F. (2015). Trauma-related mental health problems among national humanitarian staff: A systematic review of the literature. *European Journal of Psychotraumatology*, 6(1), 28541. <https://doi.org/10.3402/ejpt.v6.28541>
- Taft, C. T., Watkins, L. E., Stafford, J., Street, A. E. & Monson, C. M. (2011). Posttraumatic stress disorder and intimate relationship problems: A meta-analysis. *Journal of Consulting and Clinical Psychology*, 79(1), 22-33. <https://doi.org/10.1037/a0022196>
- Tolin, D. F. & Foa, E. B. (2006). Sex differences in trauma and post-traumatic stress disorder: A quantitative review of 25 years of research. *Psychological Bulletin*, 132(6), 959-992. <https://doi.org/10.1037/0033-2909.132.6.959>
- Tonheim, M. (2012). 'Who will comfort me?' Stigmatization of girls formerly associated with armed forces and groups in eastern Congo. *The International Journal of Human Rights*, 16(2), 278-297. <https://doi.org/10.1080/13642987.2010.538922>
- Turecki, G. & Meaney, M. J. (2016). Effects of the social environment and stress on glucocorticoid receptor gene methylation: A systematic review. *Biological Psychiatry*, 79(2), 87-96. <https://doi.org/10.1016/j.biopsych.2014.11.022>
- van Ee, E., Kleber, R. J. & Mooren, T. T. M. (2012). War trauma lingers on: Associations between maternal posttraumatic stress disorder, parent-child interaction, and child development. *Infant Mental Health Journal*, 33(5), 459-468. <https://doi.org/10.1002/imhj.21324>
- Van Elzaker, M. B., Dahlgren, K. M., Davis, F. C., Dubois, S. & Shin, L. M. (2014). From Pavlov to PTSD: The extinction of conditioned fear in rodents, humans, and anxiety disorders. *Neurobiology of Learning and Memory*, 113, 3-18. <https://doi.org/10.1016/j.nlm.2013.11.014>
- Veale, A., McKay, S., Worthen, M. & Wessells, M. G. (2013). Participation as principle and tool in social reintegration: Young mothers formerly associated with armed groups in Sierra Leone, Liberia, and Northern Uganda. *Journal of Aggression, Maltreatment and Trauma*, 22(8), 829-848. <https://doi.org/10.1080/10926771.2013.823635>
- Ventevogel, P. (2015). The effects of war: Local views and priorities concerning psychosocial and mental health problems as a result of collective violence in Burundi. *Intervention: Journal of Mental Health and Psychosocial Support in Conflict Affected Areas*, 13(3), 216-234. Available at: https://www.interventionjournal.com/sites/default/files/The_effects_of_warlocal_views_and_priorities.3.pdf
- Weierstall, R., Castellanos, C. P. B., Neuner, F. & Elbert, T. (2013). Relations among appetitive aggression, post-traumatic stress and motives for demobilization: A study in former Colombian combatants. *Conflict and Health*, 7(1), 1-10. <https://doi.org/10.1186/1752-1505-7-9>

- Weierstall, R., Schaal, S., Schalinski, I., Dusingizemungu, J.-P. & Elbert, T. (2011). The thrill of being violent as an antidote to posttraumatic stress disorder in Rwandese genocide perpetrators. *European Journal of Psychotraumatology*, 2(1), 6345. <https://doi.org/10.3402/ejpt.v2i0.6345>
- Weierstall, R., Schalinski, I., Crombach, A., Hecker, T. & Elbert, T. (2012). When combat prevents PTSD symptoms – Results from a survey with former child soldiers in Northern Uganda. *BMC Psychiatry*, 12, 14. <https://doi.org/10.1186/1471-244X-12-41>
- Wenzel, T., Kienzler, H. & Wollmann, A. (2015). Facing violence – A global challenge. *Psychiatric Clinics of North America*, 38(3), 529-542. <https://doi.org/10.1016/j.psc.2015.05.008>
- Westphal, M., Aldao, A. & Jackson, C. (2017). Emotion dysregulation in comorbid posttraumatic stress disorder and substance use disorders: A narrative review. *Military Psychology*, 29(3), 216-233. <https://doi.org/10.1037/mil0000157>
- Westphal, M., Olfson, M., Gameroff, M. J., Wickramaratne, P., Pilowsky, D. J., Neugebauer, R. & Neria, Y. (2011). Functional impairment in adults with past posttraumatic stress disorder: Findings from primary care. *Depression and Anxiety*, 28(8), 686-695. <https://doi.org/10.1002/da.20842>
- Winkler, N., Ruf-Leuschner, M., Ertl, V., Pfeiffer, A., Schalinski, I., Ovuga, E & Elbert, T. (2015). From war to classroom: PTSD and depression in formerly abducted youth in Uganda. *Frontiers in Psychiatry*, 6, 2. <https://doi.org/10.3389/fpsy.2015.00002>
- World Health Organization. (2018). *International classification of diseases for mortality and morbidity statistics* (11th revision). Available at: <https://icd.who.int/browse11/l-m/en>
- Yehuda, R., Lehrner, A. & Bierer, L. M. (2018). The public reception of putative epigenetic mechanisms in the transgenerational effects of trauma. *Environmental epigenetics*, 4(2), dvy018. <https://doi.org/10.1093/eep/dvy018>
- Zeller, A. C., Conrad, D., Schneider, A., Behnke, A., Pfeiffer, A., Blum, G. F. & Kolassa, I.-T. (2020). A combination of combat experience, early abduction, and severe traumatization fuels appetitive aggression and violence among abductees of rebels was in Northern Uganda. *Aggressive Behaviour*, 46(6), 465-475. <https://doi.org/10.1002/ab.21914>

Dr. Mareike Augsburg (*1989), head of research and development and emergency psychologist at foundation Carelink. She studied psychology at the Philipps University of Marburg. Her doctoral thesis focused on the role of traumatic experiences in the perpetuation of violence in crisis regions (University of Konstanz, 2017). Her scientific focus is on psychotraumatology and the prevention of PTSD. In addition, she also works as psychological counselor in her own practice.

Dr. Nadja Jacob (*1981), therapeutic director of the Liestal day clinics (Psychiatry Baselland). She studied psychology at the University of Konstanz (PhD 2010). Scientifically and clinically, she is concerned with the effects of cumulative traumatic events on mental health and the dissemination of psychological trauma scientifically effective treatment methods to professionals.