

War and Post-Traumatic Stress Disorder in Children: A Review

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ABSTRACT: The stress and traumas of war are unpredictable in their assault upon the human body, mind, and spirit. Children who live in war zones may experience post-traumatic stress disorder (PTSD). A child with PTSD develops symptoms such as intense fear, disorganized and agitated behavior, emotional numbness, anxiety or depression, after being directly exposed to or witnessing an extreme traumatic situation involving threatened death or serious injury, or hearing about such an event involving a family member. Treatment includes community and family support and psychotherapy.

Keywords: War, PTSD, children

Introduction

War is a complex social phenomenon or continuation of political intercourse, carried on with other means. In war, people are exposed to bombings, terror attacks and sniper shootings which brought them to trauma and stress. In response to violence, many people are forced to flee their countries in search for safety. The term 'asylum seeker' is used for the individual who has crossed an international border in search for safety, and is in the process of trying to obtain refugee status in another country.

War remains central to human history and social change. These two facts together might seem paradoxical and inexplicable; reveal deeply disturbing facets of the human character. There had been over 200 wars and armed conflict from 1899-2001 (Singer & Small, 1994), in which the main targets are often marginalized ethnic groups and the poorest sectors of society. People who suffer from war were most likely will experienced post-traumatic stress disorder (PTSD). PTSD gives negative impact on the individual, and the person may also lead to other problems such as eating disorders, suicide, sleep problems, violence and much more (Green & Kimerling, 2004). In the greater extent, war has caused a lot of destruction, agony, poorness, others negative effects, and death. An increase in aggressive and a decrease in prosocial behavior are among the most often expected negative consequences of war on children.

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Although it is well known that the violent conflicts have a profound impact on individuals, communities, and/or specific ethnic group, not enough attention has been paid to local patterns of distress, long-term impacts on health, and psychosocial consequences (Pederson, 2002).

Post-traumatic stress disorder

Post-traumatic stress disorder (PTSD) is an anxiety disorder that can develop after exposure to one or more traumatic events that threatened or caused great physical harm (*American Psychiatric Association, 1994; Brunet, Akerib, & Birmes, 2007*). It is a severe and ongoing emotional reaction to an extreme psychological trauma. This stressor may involve someone's actual death, a threat to the patient's or someone else's life, serious physical injury, an unwanted sexual act, or a threat to physical or psychological integrity (*American Psychiatric Association, 1994*), overwhelming psychological defenses. In some cases, it can also be from profound psychological and emotional trauma, apart from any actual physical harm. Often, however, incidents involving both things are found to be the cause.

PTSD is a more chronic and less frequent consequence of trauma than the normal acute stress response. PTSD has also been recognized in the past as railway spine, stress syndrome, shell shock, battle fatigue, traumatic war neurosis, or post-traumatic stress syndrome. Diagnostic symptoms include re-experience, such as flashbacks and nightmares; avoidance of stimuli associated with the trauma; and increased arousal, such as difficulty falling or staying asleep, anger, and hypervigilance or irritability (van Ijzendoorn, Bakermans-Kraneburg, & Sagi-Schwartz, 2003). Per definition, the symptoms last more than six months and cause significant impairment in social,

occupational, or other important areas of functioning (e.g. problems with work and relationships) (*American Psychiatric Association, 1994*).

PTSD and war

War can bring people to stress and too much stress can lead them to post-traumatic stress disorder (PTSD). PTSD is well-known to be a chronic, fluctuating, disorder (Solomon & Mikulincer, 2006). Traumatic events that may trigger PTSD include violent personal assaults, natural or unnatural disasters, accidents, or military combat. PTSD constitutes the basic psychopathological axis around which trauma revolves. This phenomenon was first studied in the nineteenth century (Baguena, 2002), only as a result of experiences in the two World Wars that it began to establish a substantial presence in psychopathology manuals. From those great international conflicts up to more recent traumatic situations, PTSD has trod a long and painful road: child abuse, gender violence, fires, road accidents, natural disasters, terrorist attacks, and torture have been among the aspects most commonly studied by researchers (e.g. Morrison, 2000; Ackerman, Newton, McPherson, Jones, & Dykman, 1998). Furthermore, secondary analysis by King, Rejeski and Buchner (1998) using data obtained from the National Vietnam Veterans Readjustment Study (Kulka, Schlenger, Fairbank, Hough, Jordan, & Marmar (1990) suggested that post-war traumatic experiences indirectly lead to increase PTSD symptoms through reduced social support and individual hardiness. These suggest that combat exposure is a significant factor that should be considered when examining multiple and interacting correlates of PTSD.

War and the social life

Around the world, armed conflicts affect the lives of millions of people. Populations that experience war and forced migration have a high burden of psychiatric morbidity, in particular, PTSD. PTSD encompasses symptoms of intrusive recollections of the traumatic events, avoidance behavior, general hyper arousal and reduced functioning, and is associated with the experience or witnessing of life threatening traumatic events (*American Psychiatric Association, 1994; Elbert & Schauer, 2002*). A number of studies suggest that increasing severity of trauma and the number of traumatic events in particular, aggravate a victim's PTSD symptoms (Schauer, Neuner, Karunakara, Klaschik, Robert, & Elbert, 2003). Horowitz and Solomon (1975) were among the first to describe symptoms in veterans including nightmares, painful moods,

and the emotional storms, direct or symbolic behavioural repetitions, and secondary signs such as impaired social relationships, aggressive and self-destructive behaviour, and fear or loss of control over hostile impulses.

The effects of PTSD in war can be divided into four categories studied that are children, women, prisoners, and hospital personnel. This review will focus on children matter.

The effects of PTSD as a result of war in children

Recent developments in warfare have significantly heightened the dangers for children. During the last decade, it is estimated (and these figures, while specific, are necessarily orders of magnitude) that child victims have included: 2 million killed; 4-5 million disabled; 12 million left homeless; more than 1 million orphaned or separated from their parents; some 10 million psychologically traumatized (*World Health Organization and United Nations Children's Fund, 1996*). The increasing number of child victims is primarily explained by the higher proportion of civilian deaths in recent conflicts. In the wars of the 18th, 19th and early 20th centuries, only about half the victims were civilians.

Children were exposed to traumatic events in war. Experiences of war, violence, killing or torture, as well as the subsequent losses suffered, increased the risk for psychological distress and the development of psychiatric disorders among children (Rousseau, 1995). The list of studies is fairly extensive and addresses the impact of political violence on: Bosnian-Herzegovian children (Smith, 2003), Cambodian children (Sack, Him, & Dickason, 1999), displaced children in Croatia (Zivcic, 1993), Iraqi children and youth (Abdel-Khalek, 1997), Kosovo children and parents in Sweden (Almqvist & Broberg, 2003), and Kurdish-Iraqi children (Punamaki, Muhammed, & Abdulrahman, 2004).

Common reactions among children exposed to war include posttraumatic stress symptomatology (Vizek-Vidovic, Kuterovac-Jagodic, & Arambasic, 2000), anxiety and depressive symptoms (Thabet, Abed, & Vostanis, 2004), psychophysiological disturbances (Sadeh, 1996), specific fears, grief reactions (Thabet, Abdulla, El Helou, & Vostanis, 2006), behavioral problems, changes in school performance (Leavitt & Fox, 1993), pessimistic perception of the future (Lavi & Solomon, 2005), personality changes (Weisenberg, Schwarzwald, Waysman, Solomon, & Klingman, 1993), and many others. The type of traumatic events is

important as some events were reported to bring higher levels of stress in children. More severe types of trauma such as the violent death of a family member or witnessing someone being injured, killed or tortured are related to higher levels of psychological distress (Heptinstall, Sethna, & Taylor, 2004). The disappearance of a family member is also a risk factor as the children did not know what had happened to their family members. Pre-existing individual vulnerability, such as conduct problems or chronic illness, places refugee children at greater risk of developing mental health difficulties (Almqvist & Broberg, 1999).

The greater the number and severity of prior traumatic events experienced, the more severe prior PTSD symptoms are likely to have been (Thabet & Vostanis, 1999). Symptoms of PTSD have been found following exposure to war and organized violence in children and adolescents from many different parts of the world including Cambodia (Sack, Seeley & Clarke, 1997), Lebanon (Saigh, 1991), Rwanda (Dyregrov, Gupta, Gjestad, & Mukanoheli, 2000), Kuwait (Nader, Pynoos, Fairbanks, Al-Ajeel, & Al-Asfour, 1993), Palestine (Thabet & Vostanis, 1999), Afghanistan (Mghir, Freed, Raskin, & Katon, 1995) and Bosnia (Papageorgiou, Frangou-Garunovic, Iordanidou, Yule, Smith, & Vostanis, 2000). PTSD can also be understood as a neurophysiologic disorder characterized by an exaggerated readiness for flight or fight which is present across cultures with the only differences being culturally specific expression of symptoms and the indigenous ways which survivors deal with them (Elbert & Schauer, 2002).

Post traumatic exposure is related to greater mental levels of mental health problem. Qouta, Punamaki, and Sarraj (2005) assessed the prevalence and determinants of PTSD among 121 Palestinian mothers and their young children, all living in areas of bombardment, none of whom had previous mental health problems. The results showed high rates of PTSD signs with various degrees of severity (e.g., 54% severe, 34% moderate, 11% mild or questionable). There was also a significant link between the mental health of mothers and that of their children, namely, when mothers' psychological problems increased, children's problems also did. In a different study of 547 school-age children exposed to traumatic events, 63% were reported as having full posttraumatic stress symptomatology (Quota & Odeh, 2005). In addition, the prevalence of attention problems, lack of concentration and hyperactivity, sleep and speech problems as well as aggressive behavior, rose during the Al-Aqsa Intifida to approximately 13%-14% (Quota & Odeh, 2005). In a recent Gaza Community Mental Health Program study, Quota,

Punamäki, & Sarraj (2003) reports that, only 2% of Palestinian children showed no symptoms of PTSD whereas 9% displayed light symptoms, 34% developed medium level symptoms, and 55% suffered from PTSD. In another recent research project (Qouta & Odeh, 2005) on 994 children in Gaza (mean age= 15.1), results revealed a high level of PTSD: About third of the children suffered from severe level of PTSD symptoms.

During war, majority of the children were exposed to strong sensory impressions such as people screaming for help, visual images of graphic violence inflicted against family members, and destruction of homes. The children reported that they had to hide under dead bodies in order to survive the genocide (Dyregrov, Gupta, Gjestad, & Mukanoheli, 2000). In a study on the consequences of the Lebanon war for Israeli soldiers, Solomon, Kotler, and Mikulincer (1988) found that adult children of Holocaust survivors were more vulnerable to develop PTSD in combat. Three years after the Lebanon war, soldiers who grew up in families with one or two Holocaust survivors as parents showed significantly more indicators of PTSD than soldiers without this family background. A similar incidence of combat-related psychological disturbances was observed in both groups, but the children of Holocaust survivors appeared to show more signs of PTSD for a longer period of time (van IJzendoorn et al., 2003). In a small sample of second-generation Holocaust survivors, Yehuda, Resnick, Schmeidler, Yang and Pitman (1998) found lower levels of the stress hormone cortisol compared to a matched group of participants without a Holocaust background. Lower levels of cortisol may indicate hypersensitivity to stress as a consequence of previous trauma.

Psychological reactions in terms of children's reactions to what they were exposed to during the war is very clear. According to the study done by Dyregrov et al. (2000), the majority of the children (sample study) said they thought about the event sometimes or often when they did not want to. Most of the children reported that they often tried to stay away from situations or things that reminded them of the event. Overall, the data indicate that many children continued to have intrusive images, thoughts, and feelings few months after exposure to the events of the war, despite their attempts to remove the event from their memory and to avoid these reminders. Many of the children also reported increased arousal symptoms such as an inability to concentrate or pay attention (Dyregrov et al., 2000).

Individuals with PTSD symptoms may experience distress and increased health risks (e.g., depression,

anxiety, substance abuse, hypertension, infectious diseases) for up to 20 years after the event (Boscarino, 1997). In addition to increased risk for PTSD, many children who experience severe trauma also experience symptoms of attention-deficit/hyperactivity disorder (ADHD), which is marked by a combination of extreme inattention, impulsivity, and hyperactivity (American Psychiatric Association, 2000). Relation between trauma exposure, post trauma symptoms, and attention problems suggest several possible explanations. First, because ADHD and PTSD syndromes share a salient symptom, poor concentration, it is possible that diagnostic overlap simply reflects symptom similarity rather than a conceptual or etiological relationship. The symptom-level overlap of PTSD and ADHD might partially account for some post trauma ADHD diagnoses (Weinsten, Staffelbach, & Biaggio, 2000). Causal explanations reflect attention problems and trauma exposure, and response may be linked. ADHD may be a risk factor for trauma exposure and later PTSD symptoms. Children with ADHD may put themselves in riskier situations and be at higher risk for victimization or other trauma exposure than their non-ADHD peers. Given the elevated rates of PTSD symptomatology endorsed by individuals who witnessed the Oklahoma City bombing, the degree of PTSD symptoms endorsed after September 11th may have been even greater because of both the severity of the attacks, and the widespread and continuous media coverage (Schuster, Stein, Jaycox, Collins, Marshall, Elliott, Zhou, Kanouse, Morrison, & Berry, 2001). There is evidence that in children, degree of television exposure to traumatic events contributes significantly to PTSD symptoms (Pfefferbaum, Nixon, Tivis, Doughty, Pynoos, & Gurwitsch, 2001), although the extent to which the results reported by Pfefferbaum et al. (2001) generalize to adult populations is unknown.

Psychological stress associated with refugee children

Poor parental mental health especially maternal mental distress is associated with psychological stress in war-affected and refugee children (Almqvist & Broberg, 1999; Qouta et al., 2005; Smith, Perrin, Yule, & Rabe-Hesketh, 2001). If children were separated from family members, they tend to be more distressed at higher risk of mental health problems than their accompanied peers (Felsman, Leong, Johnson, & Felsman, 1990). Post-migration stresses puts individuals at risk by delaying processes of asylum applications, uncertainty about asylum status, negotiations with immigration authorities, obstacles of employment, inadequate housing, frequent moves, financial

hardship, language problems, racial discrimination, and social isolation. Children were exposed at greater risk if their living condition were not in a good condition.

Other commonly effects in young refugees include somatic complaints, sleep problems, conduct disorder, social withdrawal, attention problems, generalized fear, over dependency, restlessness and irritability as well as difficulties in peer relationships (Almqvist & Brandell-Forsberg, 1997; Tousignant, M., Habimana, E., Biron, C., *et al*, 1999). There can also be a loss of previously acquired skills such as bladder control, with a secondary enuresis and separation anxiety being common in young children (Chimienti, Nasr, & Khalifeh, 1989), while adolescent refugees may increase the risk of psychosis (Yung, Phillips, McGorry, et al., 1998). Traumatized children will experienced arousal symptoms of PTSD and may mimic symptoms of hyperactivity and impulsivity. Thus, refugee children who have suffered multiple and severe traumatic experiences such as the death of parent as well as loss of their home and all that was familiar to them, will undoubtedly experience emotional reactions to such extreme adversity.

Treatments related war-PTSD

War brings many negative impacts on people. One of the most common impacts is PTSD. The persistence of PTSD among the children several years after war could be explained from the perspective of cognitive theory (Moradi, Taghavi, Neshat-Doost, Yule, & Dagleish, 2000), the contribution of co-morbid depression and anxiety as predictors of PTSD (Thabet et al., 2004). Steps to prevent this from happen should be taken immediately in order to deter people from the exposure of a bad situation.

The treatments are important to prevent people who suffer from war from worsening. Cognitive behavioral therapy has been shown to be effective for children with PTSD. Cognitive-behavioral treatment can help in reducing post-traumatic stress disorder, anxiety and depressive symptoms (Cohen, Deblinger, Mannarino, & Steer, 2004). This treatment is based on learning and information-processing theories. Cognitive training helps children restructure their thoughts and feelings so they can live with out feeling threatened. Behavioral interventions include learning to face fears so children no longer avoid people and places that remind them of the event. Relaxation techniques are used with supervised retelling of the child's story about the event to help teach the child how to handle fears and stress effectively (Cohen et al., 2004).

Testimonial psychotherapy can be introduced specially for adult survivors of torture and severe human right abuses who had suffered multiple traumatic events over a long period. This method uses a tape recorder to record the individual's verbal account of what they have experienced. Based on three cases studies, testimonial psychotherapy were effective with adolescent Sudanese refugees (Lustig, Weine, Saxe, & Beardslee, 2004).

Narrative exposure therapy (NET) with the combination of testimonial psychotherapy and cognitive behavioral exposure therapy can be introduced. It is a short-term treatment but using an adapted narrative approach to exposure. This therapy suits better on victims of organized violence who have experienced multiple traumatic events which is hard to identify just one worst event. Neuner, Schauer, Klasnick, Karunkara, and Elbert (2004) found that NET was an effective treatment for adult refugees with PTSD. Another treatment to be used is eye movement desensitization and reprocessing (EMDR). This treatment uses bilateral stimulation when processing traumatic memories in individuals with PTSD (Shapiro, 1995). The treatment involves a combination of both exposure and distraction or 'dual attention'. However, further research is required in establishing this treatment.

Conclusion

The relationship between war and PTSD are clear. PTSD symptoms can persist for up to 20 years and can manifest victims as other psychiatric and physiological problems. Some war's survivors are stronger to move on with their lives, since they had experienced the hardness of life. However, some of them experienced something bad and trauma due to the incident. It is critically important that primary care physicians be trained to evaluate patients (and emergency workers) presenting with medical and physiological problems, especially those with previous traumatic exposure, and to refer for PTSD treatment necessary.

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