

Sixty years later: post-traumatic stress symptoms and current psychopathology in former German children of World War II

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ABSTRACT

Background: The aim of the study was to determine the amount of trauma impact, post-traumatic stress symptoms and current psychopathological distress in a sample of former German children of World War II.

Methods: 93 participants were recruited through the local press, and assessed using the modified Post-traumatic Diagnostic Scale (PDS) and the Symptom Checklist (SCL-90-R).

Results: Subjects reported a high qualitative and quantitative degree of trauma exposure. 13.8% reported PTSD-related symptoms after the war, and 10.8% reported current symptoms. PTSD symptoms after World War II were significantly correlated with current psychopathological distress.

Conclusions: In line with other studies, our data document a high degree of trauma exposure during warchildhood. In comparison with other studies on PTSD in warchildren, there is a persisting high prevalence of war-associated PTSD symptoms in this sample. Despite some methodological limitations, our data underline the urgent need for further studies on the ageing group of former children of World War II.

Key words: war childhood, war trauma, post-traumatic stress disorder, PDS, SCL-90-R

Introduction

War is a complex, long-lasting trauma composed of multiple stressors such as physical harm, intimidation, loss of loved ones, deprivation, abuse and starvation

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(Berman, 2001). Children represent a highly vulnerable population, whose rights and needs are usually subordinated to the burden of war (Barenbaum *et al.*, 2004). So far, only a few studies have been undertaken on the effects of war on the post-traumatic symptomatology of children (Shaw, 2003). Saigh (1991) estimated that 33% of Lebanese adolescents exposed to major war stress were diagnosed with post-traumatic stress disorder (PTSD). Some 70% of Kuwaiti children reported moderate to severe post-traumatic stress symptoms after the first Gulf War (Nader *et al.*, 1993). The issue of long-term effects is quite controversial. In a study of Iraqi children after the Gulf War, post-traumatic stress symptoms remained stable at 80% over two years (Dyregrov *et al.*, 2002). Other studies reported a significant decrease in post-traumatic symptomatology in children after war: 40% of children in the Gaza strip had been initially diagnosed with PTSD, a figure which had decreased to 10% one year later with the onset of the peace process (Thabet and Vostanis, 1999). Laor *et al.* (2001) reported a significant decrease of post-traumatic symptoms five years after a SCUD missile attack, but severe post-traumatic symptoms were still reported by 8% of the children. Persistence of post-traumatic symptomatology was associated with displacement and poor family function (Laor *et al.*, 2001).

Differences in the prevalence of long-lasting post-traumatic symptoms after war may be explained by a number of factors, including initial severity, psychosocial milieu after trauma, and continuing disruption, for example as a result of displacement (Barenbaum *et al.*, 2004). The impact of a childhood in war on post-traumatic symptoms in later life is rarely examined. Teegen and Meister (2000) found 5% PTSD and 25% partial PTSD among former German adolescent refugees of World War II. Yet most of the former children of World War II have managed their lives successfully: they have rebuilt destroyed cities, made their careers and had families. They can be seen as the “generation of normality” (Ermann, 2003). However, the complex challenges associated with reaching retirement see many former war children confronting the issues of their childhood (Radebold, 2003). The goal of our study was to determine the level of post-traumatic stress symptoms and current psychopathology in a sample of former German children 60 years after the end of World War II.

Methods

Participants

Participants were recruited via a report in the local press and a radio interview, which publicized our search for former children of World War II. A “war childhood” was defined as being born between 1933 (the onset of the Nazi regime in Germany) and 1945 (the end of World War II). Traumatization was not a necessary criterion for inclusion.

Measures

The Posttraumatic Diagnostic Scale (PDS) represents a 49-item self-report instrument for the assessment of PTSD (Foa *et al.*, 1997). The items correspond to the criteria A to F of the DSM-IV (American Psychiatric Association, 1994), and a diagnosis is very likely if all six criteria are met. The duration of the PTSD and the subsequent impairment in different areas of life are also assessed. For the purposes of our study, the PDS was modified as follows: subjects were asked to name the three worst experiences of their childhood during World War II, and then to refer to the most distressing event when completing the questionnaire. Subjects were additionally asked whether the symptoms had vanished or still persisted at the time of the study.

The revised version of the Symptom Check List-90 (SCL-90-R) is a 90-item, self-report clinical rating scale widely used to measure current psychopathology (Derogatis, 1983). In addition to a global rating (Global Severity Index, GSI), it comprises nine subscales: somatization, obsessional compulsion, interpersonal sensitivity, depression, anxiety, anger-hostility, phobic anxiety, paranoid ideation, and psychoticism.

Statistical analysis

The data analyses were computed using the Statistical Package for the Social Sciences (SPSS, version 11.5). For between-group comparisons we applied Mann-Whitney-U-tests. The significance level was established at $p < 0.05$.

Results

Some 93 subjects completed the questionnaires. Their mean age was 67.3 years ($SD = 3.4$). The sample included 50 women (53.8%) and 43 men (46.2%). According to the PDS, 13 participants (14.0%) met the DSM-IV criteria for a PTSD during their lifetime following World War II, 10 participants (10.8%) met the DSM-IV criteria at the present time. Table 1 presents a detailed description of the reported traumatic events and indicates which traumatic experiences led to a possible PTSD. Each subject reported an average of 2.8 traumatic events during World War II, with two-thirds of the participants remembering direct combat exposure, and over half remembering traumatization by occupation forces (in this part of Germany, Soviet troops) and suffering under forced displacement. Nearly one-third reported war-related deaths of relatives. Trauma caused by occupation troops, displacement and combat exposure contributed equally to 90% of the current post-traumatic symptoms assessed by the PDS.

Based on these results, the participants were assigned to the following groups: (1) subjects without current post-traumatic stress symptomatology following World War II ($N = 83$; 89.2%), hereafter referred to as “PTSD-negative”; and

Table 1. Traumatic events of former warchildren as assessed by the modified PDS

	ALL TRAUMATIC EVENTS		WORST TRAUMATIC EVENTS		WORST TRAUMATIC EVENTS AND PTSD- SYMPTOMS	
	N	% ^a	N	%	N	% ^b
Combat exposure	62	66.7	20	21.5	3	30.0
Trauma by occupation forces	50	53.8	16	17.2	3	30.0
Forced displacement	49	52.7	16	17.2	3	30.0
War-related death of relatives	27	29.0	12	12.9	0	0
Starvation	16	17.2	2	2.2	0	0
Separation from family	14	15.1	10	10.8	0	0
Witness of Nazi terror	6	6.5	2	2.2	0	0
Other war-related trauma	33	35.5	11	11.8	1	10.0

Notes: ^aPercentages refer to the total number of participants (N = 93).

^bPercentages refer to the "PTSD +"-sample (N = 10).

Table 2. Comparison of actual psychopathology (SCL-90-R) of former children of World War II without current post-traumatic symptoms due to the war ("PTSD -"; N = 83) and those with present war-associated PTSD symptomatology ("PTSD +"; N = 10)

	PTSD -		PTSD +		Z	P
	M	SD	M	SD		
SCL-90-R						
Somatization	0.7	0.6	1.0	0.6	-1.60	0.110
Obsessive compulsion	0.7	0.5	1.3	0.8	-2.63	0.009
Interpersonal sensitivity	0.7	0.6	1.4	0.9	-2.59	0.009
Depression	0.7	0.6	1.4	0.7	-3.23	0.001
Anxiety	0.5	0.5	1.0	0.6	-2.35	0.019
Anger-hostility	0.4	0.5	0.7	0.6	-1.50	0.133
Phobic anxiety	0.3	0.4	0.7	0.6	-2.01	0.045
Paranoid ideation	0.6	0.7	1.1	0.7	-2.36	0.018
Psychoticism	0.3	0.4	0.6	0.4	-2.56	0.010
GSI	0.6	0.4	1.1	0.5	-3.00	0.003

(2) subjects with actual post-traumatic stress symptoms possibly indicating a persisting PTSD after World War II (N = 10; 10.8%), hereafter "PTSD-positive".

As shown in Table 2, there were significant differences between the two groups with respect to current psychopathological distress: Subjects with war-associated

PTSD-symptoms scored significantly higher on most SCL-90 subscales and on the global rating than those without present post-traumatic symptoms related to World War II.

Discussion

The aim of the study was to assess the amount and type of trauma, post-traumatic stress symptoms and current psychopathology in a sample of former German children of World War II. In line with previous studies on war children (Saigh, 1991; Thabet and Vostanis, 1999; Teegen and Meister, 2000; Laor *et al.*, 2001), we found a high degree of traumatic impact: More than 50% remembered combat exposure, trauma of occupation troops (e.g. rape of relatives, looting) and had suffered under forced displacement. Nearly one-third reported war-related loss of relatives.

The main finding of our study is that 10.8% of participants were suffering post-traumatic symptoms six decades after the end of World War II. As far as the effects of a war childhood on post-traumatic symptoms are concerned, prevalences in other studies differ between 8% and 80% (Thabet and Vostanis, 1999; Laor *et al.*, 2001; Dyregrov *et al.*, 2002; Shaw, 2003). In those studies, former war children were investigated during or just a few years after the conflict, whereas our results demonstrate a strong impact of a war childhood into later life. Most of the war children named several traumatic experiences that could have contributed to the severity of their symptoms (Laor *et al.*, 2001). Over 50% of the participants reported displacement, which is identified in other studies as a main risk factor for PTSD on war children (Teegen and Meister, 2000; Laor, 2001; Shaw, 2003). Displacement, combat exposure and cruelty of occupation troops contributed to 90% of the actual post-traumatic distress. In the communist regime of the decades after World War II, traumatized war children had few opportunities to talk about their grief, caused by soldiers of the former USSR. This could have preserved “unresolved” post-traumatic symptomatology.

Another finding of our study is that war-related PTSD-symptoms are associated with a significantly higher degree of current psychopathological distress. This result is of clinical importance: when geriatric patients complain about symptoms such as depression, anxiety or somatization, doctors should be aware of the possibility of their having experienced a war childhood. Elderly people may not be accustomed to talking about their grief, so it is the task of the professional to explore the topic sensitively.

However, several methodological limitations have to be considered, including the relatively small sample size. Participants came forward in response to publicity in the local press and on the radio, which raises the question of participation bias: Some of them might have been interested in participating

through an awareness of their personal grief, but there is evidence that highly traumatized subjects find it difficult to participate in such research (Newman and Kaloupek, 2004). PTSD measures were based on a self-report screening instrument (PDS) and were not validated by a structured interview. Although the scale showed good agreement (82%) with the PTSD module of the SCID (Foa *et al.*, 1997), PTSD diagnoses based on the PDS must be considered presumptive. Given these limitations, there is a strong and urgent need for further studies to determine the qualitative and quantitative impact of World War II-trauma on later life. Special therapeutic approaches should also be studied. Research on neurobiological factors that mediate the very late life sequelae of war trauma could extend the understanding of PTSD (Rohleder *et al.*, 2004). Those people who were children in World War II are now themselves parents and grandparents, which poses the question of intergenerational transmission of war trauma (Yehud *et al.*, 2001). The late life effect of war trauma on small children needs further investigation with more appropriate instruments. Qualitative study designs, for example, could assess more subtle changes brought about by a war childhood (Ermann, 2004; 2005). Finally, the long-lasting wounds of World War II are a strong argument for preventing their repetition in current conflicts: countries should take all measures to ensure protection and care of children who are affected by war (UNHCHR, 1990).

Conflict of interest

None.

Description of authors' roles

P. Kuwert designed the study, supervised the data collection and wrote the paper. C. Spitzer helped analyze the data and helped write the paper. A. Träder collected the data and carried out the statistical analysis. H. J. Freyberger was responsible for the statistical design of the study. M. Ermann assisted in designing the study, helped with ideas and assisted with writing the paper.

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