

## Post-traumatic stress disorder and coping styles of war veterans from Tuzla Canton twenty years after the war

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### ABSTRACT

**Aim** To analyse symptoms of posttraumatic stress disorder and coping strategies of war veterans in Tuzla Canton twenty years after the war in Bosnia and Herzegovina (B&H).

**Methods** The study analysed a group of 120 war veterans from the Tuzla Canton who had experience of the war in B&H. For assessment of posttraumatic stress disorder Harvard Trauma Questionnaire was used, a version for Bosnia and Herzegovina and for assessment of coping styles Life Style Index was used.

**Results** Concerning number of traumatic experiences of war veterans, it was found that they suffered 12 traumatic experiences. Most often traumatic experience was the participation in fighting and shelling (90.0%), knowledge of injuries in combat or landmine injuries of family members or friends (75.8%), exposure to snipers (74.2%). The most important were the symptoms of numbness-emotional numbness (2.62%), the symptoms of intrusion (2.58%) and the severity of the symptoms of PTSD (2.39%). The most common strategy of dealing with veterans of war was a projection (68.31%) and intellectualisation (56.20%).

**Conclusion** War veterans have experienced polytraumatic experiences in war and show increased expression of symptoms of posttraumatic stress disorder, emphasised psychosocial problems with a common defence mechanism in the form of projections twenty years after the war. War veterans are in need of continuous treatment in order to reduce long-term consequences of war trauma.

**Key words:** war traumatisation, coping, Bosnia and Herzegovina

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## INTRODUCTION

Numerous studies have shown a connection between the war traumatic events and long-term, negative effects on mental health (1). After brutal war in Bosnia (1992-1995) a significant number of veterans still shows symptoms war traumatization which is manifested in the form of post-traumatic stress disorder (2,3). Posttraumatic stress disorder (PTSD) occurs as a delayed or prolonged response to a stressful event or situation, which could be of short or long duration, which was extremely endangering, catastrophic by nature, and that will cause disorder at almost everybody (4). In PTSD, it comes to scary and gruesome visions of traumatic war experiences that pave the way to the awareness forms of intrusive images or nightmares and repetitions of traumatic scenes (5). As a result of exposure to an extreme stressor, a person can be overwhelmed by the feeling of helplessness, intense fear and horror (6). The symptoms of PTSD can vary depending on a variety of traumatic experiences to which people were exposed and can be graded into four groups: re-experiencing the trauma, avoidance of stimuli associated with the trauma, negative changes in cognition and mood, and symptoms of increased arousal (7). The prevalence of PTSD in war veterans is estimated 9-31% (8-10). Research suggests that prevalence in soldiers from the war in Afghanistan 6-11.5%, Iraq 12-20%, 17.0% in Croatia, Serbia 18.8% and 11.2% Kosovo (11,12) and among women and men veterans there is no difference or it is minimal (12-14). There is no epidemiological research in Bosnia and Herzegovina that indicates the assessment of veterans status after the war.

The aim of this study was to determine the presence of symptoms of post-traumatic stress disorder and how to deal with it twenty years after the war in Bosnia and Herzegovina (1992-1995). These results indicate that the symptoms of post-traumatic stress disorder are maintained over a prolonged period indicating the need for treatment and more serious preventative programs in order to reduce the long-term effects of the war.

## EXAMINEES AND METHODS

### Examinees and study design

In the period January 2015 to December 2016 a group of 120 veterans from Tuzla Canton, who

had experienced of the war in Bosnia and Herzegovina (B&H) (1992-1995), was analysed. Veterans are members of the War Veterans Association "Stećak" Tuzla, who were treated for post-traumatic stress disorder, and war veterans who were admitted to outpatient treatment at the Clinical Centre for Psychiatry, University Clinical Centre Tuzla. All veterans were informed and gave signed consents to participate in the research.

### Methods

The symptoms of PTSD in war veterans were examined using the Harvard Trauma Questionnaire-Version for Bosnia and Herzegovina (15), and for determination of the orientation of the defence (coping styles) Life Style Questionnaire (Life Style Index LSI) was used (16).

The Harvard Trauma Manual (HTQ) -Version for Bosnia and Herzegovina (15) consists of four parts. The first part presents lists of possible traumatic events and experiences (about 46 traumatic events and experiences that the inhabitants of B&H were exposed to during different phases of the war), second one contained respondents' (subjective) description of most horrible and painful experiences during and after the war which occurred in different environments, the third part related to head (brain) injuries. The fourth part includes 40 statements relating to psychosocial problems caused by (associated) to trauma. The first 16 statements were derived from the DSM-IV criteria for PTSD (17). Symptoms are grouped into three phenomena: re-experiencing traumatic experiences, avoiding and numbing, and psychological excitement. Part IV of the HTQ related to symptoms was scored follows: 1 = not at all, 2 = very little, 3 = pretty much, 4 = very strong. The result for PTSD and / or total score >2.5 was considered positive for PTSD. The values of the overall result reflect the actual level of the PTSD as this result also refers to the symptoms and functional status (15,18). The original questionnaire Life Style Questionnaire and Defence Mechanisms -The Life Style Index was translated by the Centre for Psychodiagnostic Means in Ljubljana in 1990. It is consisted of 92 claims for testing 8 defence mechanisms: negation, repression, regression, compensation, projection, displacement, intellectualization, reaction formation. The questionnaire was based on the theory

of Plutschik's eight primary emotions and eight primary defence mechanisms which are most responsible for controlling emotions (16).

**Statistical analysis**

For significance of testing descriptive statistics (mean and standard deviation) was used.

**RESULTS**

The average age of veterans was 54.22 ± 5.23; 77 (64.2%) lived in a family of four members with two children; 78 (64.6%) had secondary education, with income from 101 to 550 KM; 53 (44.1%) were unemployed; 102 (85.0%) had longer stays on battlefields from 3-5 years, and a degree of disability caused by war injuries was found in 38 (31.5%) veterans.

According to the number of traumatic events, war veterans had an average of 12 traumatic experiences (12.11 ± 6.74) during the war in Bosnia and Herzegovina. War veterans claimed participation in fighting and shelling in 108 (90.0%) cases, knowledge that somebody of family members had been wounded in 91 (75.8%), exposure to snipers in 89 (74.2%), experience that they had no shelter in 78 (65.0%), knowledge about murder or violent death of a family member or friend in 77 (64.2%) cases (Table 1).

**Table 1. Type of traumatic events/ experience of war veterans according to the Harvard Trauma Questionnaire, version for Bosnia and Herzegovina (n = 120)**

The traumatic event / experience	N (%) of participants
Participated in a fight or survived shelling	108 (90.0)
Learned that the battle or landmines severely injured a family member	91 (75.8)
Exposed to snipers	89 (74.2)
Experience that you have nowhere to hide	78 (65.0)
Murder or violent death of a family member or friend	77 (64.2)
Experienced hunger and thirst	76 (63.3)
Forced to leave the place of living	76 (63.3)
Experienced danger	76 (63.3)
Experienced a situation of having to stay at home because of danger	74 (61.7)
Disappearance or abduction of a family member or friend	56 (46.7)
Seriously injured during the fight	51 (42.5)

With respect to the severity of symptoms most evident symptoms included numbness-emotional numbness (2.62 ± 1.07) and the symptoms of intrusion (2.58 ± 1.15). Twenty years after the war war veterans showed an increase of severity of symptoms of posttraumatic stress disorder (2.39 ± 0.96), problems with functionality (2.20 ±

0.86) and a high level of total PTSD score (2.29 ± 0.88) (Table 2).

**Table 2. Results of posttraumatic stress disorder according to the Harvard Trauma Questionnaire -Bosnia and Herzegovina for 120 war veterans**

Symptom	Score (M±SD)
Intrusion	2.58±1.15
Avoidance	2.29±1.18
High excitations	2.48±1.16
Numbness / emotional numbness / numbing	2.62±1.07
The severity of PTSD	2.39±0.96
Functionality of PTSD	2.20±0.86
Total PTSD (volume + functionality)	2.29±0.88
Number traumatic experience	12.11±6.74

M, mean; SD, standard deviation;

The most common coping styles were projection (68.31 ± 26.07), intellectualization (56.20 ± 23.00 ), the reaction formation (52.31 ± 23.37), and at least expressed it was compensation (37.20 ± 21.15 ); (Table 3).

**Table 3. Results of coping styles according to Life Style Questionnaire -Life Style Index of 120 war veterans**

Coping styles	Score (M±SD)
Denial	45.08±20.43
Repression	43.68±24.91
Regression	44.73±24.33
Compensation	37.20±21.15
Projection	68.31±26.07
Displacement	51.70±30.39
Intellectualizing	56.20±23.00
Reaction formation	52.31±23.37

M, mean; SD, standard deviation;

**DISCUSSION**

In this study it was found that war veterans in Bosnia and Herzegovina continue to have low social and economic status, existential insecurity, survived difficult polytraumatic war experiences with symptoms of post-traumatic stress disorder, which is still maintained on a high level. The most prominent symptoms are still emotional numbness, symptoms of intrusion and increased level of PTSD symptoms. Twenty years after the war in Bosnia and Herzegovina, war veterans are still the group in great risk for the development of mental disorders, post-traumatic stress disorder in particular. Posttraumatic stress disorder often has a chronic course, with recurrent episodes that are usually associated with exposure to multiple traumas. The connection between the number of traumatic events and intensity of PTSD argues for cumulative effects of trauma that leads to a growing exhaustion and overcoming defence capabilities of persons, and therefore to the deve-

lopment of the growing post-traumatic psychopathology (19). Individuals differ a great deal as they react to a traumatic event: many people have significant symptoms of post-traumatic stress disorder (PTSD) after exposure to trauma that is eventually reduced, while others suffer from symptoms that last for years (20). Marmar et al showed that a significant number of war veterans from the Vietnam War showed symptoms four to five decades after the war experience (21). A high percentage of PTSD among American war veterans of the Vietnam War found it to be an unpopular conflict and that the veterans were stigmatized without support of the society and often without the support of family members (22). Ten years after the Gulf War a high level of post-war anxiety was found in Australian veterans as well as affective problems and the use of psychoactive substances comparing to the soldiers who did not participate in the conflict (23). In a sample of 164 Canadian veterans from the Vietnam War Stretch found that they experienced no rejection, neither acceptance of the public, and that is one of the most important causes of the high representation of PTSD (24). Research of Komar and Vukušić covering 3217 war veterans in Croatia showed that 16.2% of veterans had PTSD, while 25% had partial PTSD (25). Špirić et al indicate significant psychosocial and general health vulnerability of Serbian war veterans, especially those with chronic PTSD, one decade after the war in ex-Yugoslavia (26). Shahini and Shala in research about veterans of the Kosovo war showed that eight years after the war they suffered from PTSD symptoms and a significant number of them did not seek help and did not receive

adequate support and treatment (15). In this study the most prominent coping strategies of war veterans were the projection, intellectualization, reaction formation, and the least expressed was compensation. Results of other studies suggest the use of projection and regression, but is often referred as rip, idealization, denial and projective identification (27,28). Knežević et al in the study of 220 war veterans in Croatia pointed out long-term effects of war trauma, a strong relationship between dysphoria, coping strategies and chronicity of PTSD (29).

A limitation of this study is the relatively small number of subjects in comparison with the number of war veterans from the Tuzla Canton who had a war experience. At the time of performing this study we used instruments that were accepted and used in Bosnia and Herzegovina.

In conclusion, war veterans had polytraumatic experiences and showed an increase in the expression of posttraumatic stress disorder symptoms, emphatic psychosocial problems with most prominent defence mechanism in the form of projections. War veterans need continuous treatment in order to reduce long-term consequences of war trauma.

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## TRANSPARENCY DECLARATION

Competing interests: None to declare.

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