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Clinical specifics of stress-related disorders in volunteers whose activities are related to Joint Forces Operation

Клінічна специфіка стресасоціюваних розладів у волонтерів, діяльність яких пов'язана з ООС

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Abstract

A volunteer movement has emerged in Ukraine during the Revolution of Dignity and the events that followed it. Experts consider this event as an important component of civil society and the main driving force of the country's reform.

The clinical structure of post-stress disorders among examined volunteers was represented by the following nosologic forms: F 43.2 adjustment disorders (32.7% of men and 28.1% of women), F 43.1 - post-traumatic stress disorder (27.6% of men and 22.9% of women), F 41.0 - panic disorder (22.4% of men and 29.1% of women), F 41.1 - generalized anxiety disorder (17.3% of men and 19.9% of women). According to the Scale of Severity of Traumatic Stress, 62.8% of respondents have complete manifestation and 37.2% clear manifestation of stress disorder. According to the Hamilton Anxiety and Depression Rating Scale, 56.2% of subjects had a severe depressive episode, 62.1% had severe anxiety episode, 42.3% had moderate depressive

Анотація

Під час Революції Гідності та подій, що сталися вслід за нею, в Україні відбулося виникнення волонтерського руху, який фахівці вважають важливою складовою громадянського суспільства і головною рушійною силою реформування країни.

Клінічна структура постстресових розладів у обстежених волонтерів була предствлена наступними нозологіями: F 43.2 розлади адаптації (32,7% чоловіків та 28,1% жінок), F 43.1 – посттравматичний стресовий розлад (27,6% чоловіків та 22,9% жінок), F 41.0 – панічний розлад (22,4% чоловіків та 29,1% жінок), F 41.1 – генералізований тривожний розлад (17,3% чоловіків та 19,9% жінок). За шкалою вираженості травматичного стресу 62,8% обстежених мають повний прояв та 37,2% явний прояв стресового розладу. За шкалою тривоги та депресії Гамільтона у 56,2% обстежених відмічався важкий депресивний епізод у 62,1% важкий

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episode, and 33.4% had a moderate anxiety episode.

Severe clinical manifestations of PTSD were characteristic of volunteers who survived the fighting, with a high level of exposure to the traumatic event on all PTSD scales; excessive signs of stress disorder, severe or moderate depressive and anxiety episodes by the Hamilton Anxiety and Depression Rating Scale.

Keywords: PTSD, post-traumatic stress disorder, depression, anxiety, adjustment disorder, combat stress.

Introduction

Since 2014, Ukraine has been involved in hostilities on the territory of its Eastern part (Donetsk and Luhansk regions). Thus, as a result of this hybrid war, about 14,000 people died. Currently, all hostilities are taking place in the area called the Anti-Terrorist Operation Zone or the Joint Forces Operation Zone.

Volunteer movement is an important part of modern society. Volunteering is a voluntary, socially oriented non-profit activity for providing free assistance, and a volunteer, respectively, is a motivated person who by their own beliefs is engaged in this important socially useful work (Law of Ukraine «About volunteering» № 3236-VI, 2011; Maruta & Markova, 2015; Markova & Kozyra, 2015; Chaban O.S., Bezsheyko, Khaustova, Ryvak & Kyrylyuk, 2018).

The most common type of modern volunteering in Ukraine is the support of combatants which involved in Joint Forces Operation. In conditions of armed conflict, volunteering is accompanied by additional physical, psychological and emotional stress, significant changes in life rhythm, and sometimes even life risks, which, in general, characterizes volunteering as extreme, stressful activity, that hides danger of possible stress-related disorders (Hlaholych & Markova, 2018; Yuryev & Yuryeva, 2015).

Modern research has shown that a third of volunteers show signs of severe professional maladaptation. In the structure of maladaptation phenomena with increasing signs of burnout, there is a shift from psycho-emotional disorders to sleep cycle disorders, somato-vegetative and psychosocial disorders, which indicates transition of reactions from the level of emotions

тривожний епізод, у 42,3% помірний депресивний та у 33,4% помірний тривожний епізод.

Для волонтерів, які пережили бойові дії притаманні важкі клінічні прояви ПТСР, при цьому високий рівень впливу травматичної події відзначався за усіма шкалами ПТСР; надмірні ознаки стресового розладу, важкий або помірний депресивний та тривожний епізоди за шкалою Гамільтона.

Ключові слова: ПТСР, посттравматичний стресовий розлад, депресія, тривога, розлад адаптації, бойовий стрес.

to the level of psychosomatics (Hlaholych, 2016; Khaustova & Smashna, 2019; Maruta & Gichun, 2000)

32% of internally displaced persons in Ukraine suffer from post-traumatic stress disorder (PTSD) caused by the ongoing conflict in the east of the country. These are the findings of a study entitled “The Hidden Consequences of Conflict: Mental Health Problems for Internally Displaced Persons and the Availability of Psychological Assistance in Ukraine,” conducted by International Alert organization in cooperation with the Global Initiative in Psychiatry, the London School of Hygiene and Tropical medicine and Kiev International Institute of Sociology

As part of the study, 2203 respondents were interviewed throughout Ukraine. As a result of the survey especially among the women surveyed, the prevalence of such mental disorders as depression (22%) and anxiety states (17%) was revealed. According to the researchers, the presence of these symptoms is associated with a violation of family ties, relationships with society, working capacity, and even such elementary functions as walking.

Among the surveyed internally displaced persons, 74% needed psychiatric help do not receive it, mainly because of the high cost of services and medicines. (Roberts, Makhshvili & Javakhshvili, 2017).

Theoretical Framework or Literature Review

Combat mental injuries of volunteers, that received in the combat zone, can haunt them for a long time. They are also a major obstacle to adapting to a peaceful life after returning from the Joint Forces Operation zone (Yurieva,

Shusterman & Likholetov, 2019; Aimevov, Asieieva & Tolmachov, 2016; Grinevich, Druz & Chernenko, 2019).

In addition to the positive trend of increasing civic activity and responsibility (for example, increasing the number of people involved in volunteering), experts also noted the emergence of a negative trend in the development of volunteers maladaptation and stress-related disorders (Druz & Chernenko, 2017; Kazmirchuk, Lashin, Druz & Chernenko, 2020; Maruta, Panko, Kalenskaya, Semikina & Denisenko, 2020).

During the Revolution of Dignity and following events a volunteer movement emerged in Ukraine. Experts consider it an important component of civil society and the main driving force of the country's reform (Skrypnikov, Rakhman, Markova, Shpylovyi & Plevachuk, 2019; Schreiner, Trent, Prange & Allen, 2018; Maruta & Zavorotnyy, 2018).

According to USA experts, the overall "baseline" prevalence of PTSD among military conscripts there ranges from 3 to 6%. Estimates of US ground forces personnel in Iraq and Afghanistan (2004-2007) found a prevalence of acute stress or PTSD (PCL scores of 50 or higher) in the range of 10-20%, with a clear correlation to frequency and the intensity of hostilities. (Crumlish & O'Rourke, 2010)

Also in the United States of America, the number of veterans seeking PTSD assistance from the U.S. Department of Veterans Affairs increased from 274,000 to 442,000 in 2004-2008. (Buckley, Mozley, Bedard, Dewulf and Greif, 2004)

A large meta-analysis states that female participants were more likely to meet the criteria for post-traumatic stress than male participants, although they were less likely to develop PTSD. Female participants were more frequently sexually abused and sexually violated in childhood. Male participants were more likely to be exposed to accidents, attacks of a non-sexual nature, witnessed death or injury, natural disasters or fires, hostilities or wars. Among the victims of certain groups, female participants showed a more pronounced post-traumatic stress disorder. All of this suggests that there are gender differences in the risk of exposure to certain types of stress disorders in male and female participants. (Tolin & Foa, 2006).

The prevalence of PTSD in the world ranges from 1.3% to 37.4% in different countries, for Canada, this figure is 9.2%. (Van Ameringen, Mancini, Patterson & Boyle, 2008). For the above, The aim of our research was to study the clinical and psychopathological features of stress-associated disorders in volunteers who survived the fighting.

Methodology

To achieve this goal, a comprehensive clinical, psychopathological and pathopsychological examination of 97 persons, was conducted in accordance with the principles of bioethics and deontology. All people were volunteers to support soldiers in combat zone for at least 1 year. Among surveyed were 57 women and 40 men with an average age of 30.6±4.7 years.

The work was performed in accordance with the research plan of the Department of Psychiatry, Narcology, Medical Psychology and Social Work of Kharkiv National Medical University of the Ministry of Health of Ukraine on the topic "To develop a prevention system of non-psychotic mental disorders and rehabilitation of hostilities victims", state registration No 0119U002902

Following examination methods were used in the study. Clinical and psychopathological research was based on generally accepted approaches to psychiatric and narcological examination through interviews and observations, using diagnostic and research criteria ICD-10.

Psychodiagnostic method using the "Impact of Event Scale-Revised" (IES-R) (Weiss, D. S., & Marmar, C. R., 1996); Questionnaire on the severity of psychopathological symptoms of Derogatis (Symptom Check List-90-Revised - SCL-90-R) (Derogatis, L. R., Rickels, K., & Rock, A. F., 1976) (according to Tarabrina, 2007); clinical scales - The Hamilton Anxiety Rating Scales (Hamilton, 1959); clinical scales - The Hamilton Depression Rating Scales (Hamilton, 1960); Mississippi Scale for Combat-Related PTSD (Keane, Caddell, & Taylor, 1988), "The Combat Exposure Scale (CES)" by T. Keane (Keane T.M., Fairbank J.A., Caddell J.M., Zimering R.T., Taylor K.L., Mora C.A., 1989).

Results and Discussion

As the results of the study showed, clinical structure of post-stress disorders among examined volunteers was represented by the following nosologic types: F 43.2 adjustment

disorders (32.7% of men and 28.1% of women), F 43.1 - post-traumatic stress disorder (27.6% of men and 22.9% of women), F 41.0 - panic disorder (22.4% of men and 29.1% of women), F 41.1 - generalized anxiety disorder (17.3% of men and 19.9% of women).

In the clinical picture of adjustment disorders in examined patients was a low mood and affect of sadness (64.8% male, 71.2 female patients), unreasonable anxiety, feelings of internal tension with inability to relax (67.1% and 62.1% respectively), feelings of inferiority (32.1% males, 39.2% females), apathy (32.8% and 33.1% respectively), various fears and obsessions (64.2% of men and 60.2% of women), anhedonia (35.8% and 36.1% accordingly), asthenic symptoms (46.8% of men and 40.2% of women), increased vulnerability (25.8% and 33.1% respectively) in most cases.

Adjustment disorders included prolonged depressive reaction (21.1% of men and 31.2% of women), mixed anxiety-depressive reaction (33.2% and 45.2%), adjustment disorders with predominant disturbance of other emotions (45.7% and 23.6% respectively).

It was found obsessive memories of hostilities that caused depressive feelings (65.8% of men and 63.3% of women), sleep disorders in the form of nightmares associated with combat stress, flashback effects (52.1% and 49.8% respectively), efforts to avoid memories and conversations related to combat trauma (41.1% of male and 45.6% of female subjects), psychogenic amnesia (28.1% and 31.1% accordingly), dysphoria (35.8% of men and 29.9% of women), apathy (38.5% and 35.6% respectively), feelings of alienation and distance from other people (55.1% of men and 56.2% of women), anxiety (66.8% and 69.9% accordingly) and depressive (55.2% of men and 52.2% of women) symptom complexes in post-traumatic stress disorder.

The clinical structure of PTSD was represented by anxiety (33.2% of men and 45.9% of women), dysphoric (38.5% and 8.9%) and asthenic (28.3% and 45.2%) syndromes.

Panic disorder was manifested by unpredictable attacks of severe anxiety (99.9% of men and 96.8% of women), extreme fear (66.8% and 68.5% respectively), feelings of insecurity, death threats (75.8% of men and 76.1% of women), psychogenic suffocation (69.2% and 70.1% accordingly), tachycardia (81.1% of men and 79.3% of women), cardialgia (49.8% and 49.2%

respectively), sweating (39.8% of men and 40.1% of women). Between attacks, patients are anxiously awaiting its recurrence.

Generalized anxiety disorder was characterized by persistent constant anxiety (99.9% of men and 100.0% of women), feelings of tension (89.9% of men and 91.1% of women), unmotivated bad feelings (56.6% of men and 58.2% of women), timidity, unwarranted anxiety for various reasons (89.2% of men and 91.0% of women), sleep disorders, especially process of falling asleep, caused by repeated "scrolling" in the head of previous day events (56.5% of men and 56.1% of women), restlessness, restless movements (68.8% of men and 71.1% of women), tremor (45.8% of men and 46.2% of women), constantly tense face (66.2% of men and 67.8% of women), psychogenic dyspnea (36.9% and 49.2% respectively).

Regular for all patients were sleep-wake cycle disorders, autonomic paroxysms, obsessive memories of combat events, decreased appetite, the desire to drink psychostimulants (coffee, strong tea, energy drinks and alcohol), avoid watching TV news.

According to the results of psychodiagnostic research, the indicators of signs of post-traumatic stress disorder on the Mississippi scale in the subjects exceeded the norm and amounted to 99.2 ± 2.2 points for men and 98.7 ± 2.2 for women, and their symptoms were ranked as follows (in descending order, score): prevention (41.1 ± 0.9 in men and 43.2 ± 0.9 in women), intrusion (22.6 ± 0.8 and 19.9 ± 0.6 points, respectively), hyperactivity (23.3 ± 0.6 and 21.9 ± 0.6), guilt (11.5 ± 0.5 and 11.2 ± 0.5 points).

Analysis of the Impact of Event Scale-Revised (IES-R) indicates a high level of traumatic event impact on the scale of invasion (68.9% of surveyed men and 71.1% of women), avoidance (61.1% and 58.1%, respectively) and physiological excitability (69.8% of men and 55.6% of women).

According to the Combat Exposure Scale 62.8% of respondents had a complete manifestation and 37.2% a clear manifestation of stress disorder.

According to the Hamilton Depression and Anxiety Rating Scales 56.2% of males and 55.6% of female subjects had a severe depressive episode, 62.1% of males and 66.5% females had a severe anxiety episode, 42.3% of males and 40.5% females had a moderate depressive

episode, and 33.4% and 35.2% patients respectively had a moderate anxiety episode.

Analysis of the data obtained from the questionnaire on the severity of psychopathological symptoms (Symptom Check List-90-Revised-SCL-90-R) shows that the surveyed volunteers are characterized by high levels of somatization (45.6% of men and 51.1% of women), depression (62.1 % and 66%, respectively), anxiety (85.2% of surveyed men and 88.5% of women) and obsessive-compulsive symptoms (49.2% and 51.1% of respondents, respectively).

According to the psychodiagnostic study, the indicators of the Combat Exposure Scale in 65.9% of men and 65.2% of women were in the range of high severity of combat experience, indicating presence of repeated long-term situations of imminent life threatening, death and injuries of comrades during hostilities.

Thus, according to the study results, a high level of impact of a traumatic event, excessive signs of symptoms of intrusion, avoidance, physiological excitability; high levels of somatization, depression, anxiety, obsessive-compulsive symptoms on the scale SCL-90-R; severe depressive and anxiety episodes on clinical scales of anxiety and depression by Hamilton and medium-high severity of combat experience is prognostically significant in the formation of stress-related disorders in volunteers whose activities are associated with Joint Forces Operation.

A comprehensive system of medical and psychological support was developed for volunteers, based on the data obtained during this study.

Conclusions

1. The clinical structure of post-stress disorders in the examined volunteers is represented by: adjustment disorders (with a predominance in men of mixed anxiety-depressive reactions and adjustment disorders with predominant disturbance of other emotions; in women - prolonged depressive reaction and mixed anxiety-depressive reaction); post-traumatic stress disorder (with a predominance in men of anxiety and dysphoric syndromes, in women - anxiety and asthenic syndromes), panic disorder (mostly in women) and generalized anxiety disorder (occurring with approximately equal frequency in men and

women). Volunteers who survived fighting are characterized by severe clinical manifestations of PTSD, with a high level of impact of the traumatic event was observed by all scales of PTSD; excessive signs of stress disorder, severe or moderate depressive and anxious episodes by the Hamilton Depression and Anxiety Rating Scales, high levels of somatization, depression, anxiety, obsessive-compulsive symptoms on the SCL-90-R scale and a medium-high level of severity of combat experience by the Combat Exposure Scale.

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