

UDK 612.821:159.922:355.12

*M.I. Badiuk,**O.S. Shevchuk,**K.S. Gutchenko,**I.G. Biryuk*,**T.E. Moldovan*

Ukrainian Military Medical Academy
Higher State Educational Establishment of
Ukraine
"Bukovinian State Medical University"*,
Chernivtsi

THE COMBAT STRESS REACTION AS A SCIENTIFIC PROBLEM OF THE WORLD, AND ITS SOCIAL AND MEDICAL CONSEQUENCES

Keywords: *the combat stress reaction, post-Traumatic Stress Disorder, the combat post-traumatic stress.*

Abstract. *The concept of the article is the combat trauma and the importance of the problem worldwide. The effect of the Post-Traumatic Stress Disorder(PTSD)of the combatants on their relations in society was investigated.*

Introduction

Under current conditions, our country is undergoing the profound changes that affect all the spheres of life of the citizens and society as a whole. Ukrainian military units are involved in their service areas in the aggravation of the military-political situation and take part in hostilities. Anti-terrorist operation of the Armed Forces of Ukraine promotes their readiness and increase the authority of the Ukrainian state. However, its negative side is that the Ukrainian soldiers are killed, injured and aimed. Along with combat experience, they get the mental and physical trauma, and their psyche is undergoing significant changes. Acute stress reaction in modern local wars is observed in 25% of the combatants (O.H.Syropyatov, 2014). In the wounded the frequency of mental disorders reaches 54% (V.V.Nechyporenko, S.V.Lytyvntsev, E.D.Snedkov, 2014). As a result of the consequences of acute stress reaction the background of its social significance broadens.

Combat stress reaction (CSR) occupies an important place in the structure of military losses. It increased the incidence of mental Army 3-4 times (Avtokratov P., 1906 VM Bekhterev, 1914; Astvatsurov MI, 1916; Schneider RJ. Luscomb RL, 1984) and 10-50% reduces combat effectiveness of the armed forces (Solomon Z., 1995). The CSR determines the particular social relevance as the prevalence of late, very difficult and long-term effects among veterans. (B Gannushkina P. .. 1926; Archibald NS, Tuddenham RD, 1965; Hobfoll SE et al., 1991).

The combat trauma is seen as a pathological condition of the central nervous system, especially the pathogenesis and phenomenology which determine the specificity of etiological causes of external,

changed under their influence, and internal conditions. Use of the term due to the inability to bring the etiology of the combat stress disorders to any one of the factors - psychogenic, physio-genic, somato-genic - and also to the necessity to unite them in a general clinical-dynamic group different by the emphasis and the external appearance options - from the relatively light pre-pathological reactions to the acquired personality change with the joining of the irreversible organic processes.

The most important indicator of the psychological inability to adaptation is the lack of "degrees of freedom" of the adequate and targeted response of the person in terms of traumatic situations that, therefore, acquires an individually extreme nature.

This is due to a rush strictly individual for each person functionally dynamic education - mental barrier adaptation. Thus, the barrier of mental adaptation is individual functional and dynamic formation comprising interconnected biological and social factors that provide freedom to a person in choosing the adequate and targeted response to the traumatic situation. Using the idea of adapting mental barrier and its constituent mechanisms may contribute to a clearer idea of integrated mental activity. Without a broad understanding of the mechanisms that lead to psychological adaptation, and determining its pathological manifestations that accompanied crisis of mental states it is impossible adequately to assess the human condition and justify therapeutic and rehabilitation psychological help.

At present there are a number of explanatory models which describe genesis, dynamics, reasons of the psychic condition crisis, and measures of its overcoming. According to psychosocial approach, the reaction model to injury is multilateral, and it is

necessary to take into account the role of each factor in the development of stress reactions. It is based on B. Horowitz's model, but the authors and supporters of the model (Gryn, 1990; Wilson, 1993) also emphasize the need to consider environmental factors, factors of social support, stigma, demographic factors, cultural features, additional stress. This model has drawbacks in information, model introductions but environmental factors may detect individual differences.

There were identified the key social factors that influence the success of adaptation trauma victims, lack of physical effects of trauma, strong financial position, maintaining the former social status, availability of social support from the society and especially of the loved ones. This last factor is the most important. It highlighted such stressful situations related to social environment: people with war experience are not required in society; war and its participants unpopular; there is no understanding between those who were in the war and those who were not; the society creates a "guilt complex" in veterans. The clash of these is secondary to the extreme experience gained in the war, stressors often led to deterioration of the veterans of wars. This suggests an important role of social factors which help to overcome traumatic stress and post-traumatic stress syndrome in formation when the support and understanding of others are missing.

Circle clinical diagnosis of combat trauma are classes ICD-10 / F00-F99 / F40-F48 / F43.

Results and discussion

Family aspects of post-traumatic stress syndrome.

A study by American psychologists have shown long-term effects on family life when a traumatic events were not discussed, and the necessary treatment was conducted (Figli, 1989; Kruhmen, 1987).

There are four options for families in the presence of not treated persons with post-traumatic stress syndrome.

The first option - frequent quarrels because of the increased violations. The acts of verbal and physical violence against other family members who will tolerate it. Developing cycle of violence.

The second option is the development of "poor" family intimacy skills, not only sexy, but also all other interpersonal communication skills. People with post-traumatic stress syndrome, avoiding emotional topics, are very secretive in their feelings. So, emotionally away from other family members. After some time, this communication leads to the lack of trust and sense of frustration.

The third option - general dissatisfaction with the

whole family. A person with post-traumatic stress syndrome begins to abuse alcohol or other substances. The family feels periodic crises of stability and one of them can break.

The fourth option is the development of codependency with other family members. A codependence is an unhealthy dependence on one person to the extent that the codependent person donates his or her needs, emotions and life to meet the needs and desires of another person. A codependent person begins to help the addiction of the person with PTSD, hiding from others, giving money, etc. (Aleksandrov E.O., 2005)

Traumatic stress after combat.

Hundreds of thousands of the American veterans that have adapted to the terrible conditions of the Vietnam War failed to readapt to the well-being of the peaceful and comfortable life in the USA (over 150 000 of them, have committed suicide one way or another). It forced professionals to pay special attention to combat stress and its consequences.

Failure to hundreds of thousands of American veterans that have adapted to the terrible conditions of the Vietnam War, re-adapt to the welfare, peace comfortable life in the US (more than 150,000 of them, one way or another committed suicide), forced to pay special attention to combat stress and its consequences. The vast, long-term program of surveys of combatants returned from the war (from the French Combattant - a person who is a member of the armed forces and warring states participating in hostilities) allowed to describe a complex multifactorial symptoms of mental and physical disorders in veterans.

There are two types of combat post-traumatic stress syndrome reasons: firstly, it is psychotrauma which stress caused noticeable changes in mental and physical condition and obvious behavior problems (aggression, panic flight, or numbness, withdrawal "in itself" and others.).

People who have successfully participated in combat, but not capable of reintegration to the civil life, are facing other kinds of causes of PTSD .

The cause of the post-traumatic stress syndrome resumption after the quiet period of time is the re-traumatization. It can be caused by the negative attitudes of the people around, medical personnel or social workers. It happens because they have formed some kind of psychological complex as unconscious protest against the possibility for the most of them to have the same disease, the same health disorders and behaviors they see and treat sufferers from post-traumatic stress syndrome (Tarabryna MV 2001). From the psychoanalytical point of view this phenomenon can be seen as "countertransference"

when the displacement of their own anxiety awakens type of misery. But we must keep in mind that repeated trauma can occur through overprotecting of the post-traumatic stress syndrome sufferers from everyday life stress, in other words as a result of the excessive care.

Years of research, managed by N.V. Tarabryna showed that after exposure to combat trauma psychological stress combatants have actually re-play conditions of peaceful life in their subjective structure of living space, including the structure of self-treatment, self-esteem and life purport orientations" (M.E. Zelenova ., 2005).

Because of better scrutiny of combat post-traumatic stress syndrome than after other emergencies, in his case clearly visible stages of this disorder. Vasilevsky V.G., Fastovets G.A. (2005) consider the formation of post-traumatic stress syndrome as a process, highlighting its pathological stage.

As a first step they consider post-traumatic stress syndrome acute affective reactions directly in a combat situation. After affective surge in fighting, bombing comes under emotional exhaustion and feelings of emptiness asthenia, mental shock.

Nearest effects states emerged after the Extreme stressors, very favorable - practical recovery occurred in 67% of cases. Among the veterans that were directly involved in combat, it occurred in 48.7% of cases; and among other soldiers 20% of cases. "(Snedkov E., 1997).

An important and specific feature of post-traumatic stress syndrome appears that after a period of time, busy stressful events disappear when emotional stress, many people think that good feeling back. They have no health complaints and psychotrauma past seem forgotten. But later it turns out that this latent (hidden, transition) during the formation of post-traumatic stress syndrome and the disease returned to them again. During the US war in Vietnam seriously paid attention to the fact that veterans who happily celebrated the return to civilian life, having recovered after combat stress, suddenly returned his hardest symptoms (Kolb LC 1983; Kolb LC, Mutalipassi LR 1982 and others).

After repeated acute stress condition and neuropsychological exhaustion in combat, bypassing the latency period, may have neurotic reactions. This is another step to create sustainable post-traumatic stress syndrome

The next stage in the pathogenesis of post-traumatic stress syndromes is the abnormal nature that brings human condition to the expanded picture of post-traumatic stress syndrome, and in various degrees, the veterans are facing them the following years of their life. The development of neurotic

character is not the same in different people. It depends on genetic, personality factors, social environment influences and characteristics of the military activities or individual actions, heroic or reprehensible from the ordinary point of view.

Stable, monosemeiotic, and wide-open post-traumatic stress syndromes suggested to be seen by V.G. Vasilevsky and G.A. Fastovetsi as the final stage of its development.

The prolonged stay of the soldiers in the combat area is the important traumatic factor. Large studies of combat stress in "Afgan" and "Chechen" wars were conducted by E.V. Snedkovym. They significantly supplement and correct the above statement of "combat hardening." He detected that during 6 months in a combat situation 20,3% of combat troops raised individual adaptive abilities, the men become steadfast and though, able to resist the enemy successfully. In 42.6% of soldiers no significant emotional and behavioral changes were detected. However, 36.1% develops a "stable socio-psychological disadaptation." In combat units, there were the number of soldiers and officers, participating in combat from 7 months to 1 year with high adaptability to combat extreme effects, it decreased to 5.8%, and vice versa, "dysadaptation stable" - the ability to adapt to the threats and the hardships of war was noted in 61.1%. Staying longer in a combat situation creates a "personal disadaptation" in 83.3%; a year later, no one was keeping high adaptability to combat stress (Snedkov E., 1997).

Probability of chronic effects of combat stress reaction depends on the severity of myocardial stress exposure and duration of exposure to the theater of operations. It increases with the presence of military character accentuation epileptoid, hyperthymic, conformal and unstable type (Snedkov E., 1997). Formation of a type of personality changes combatants depends on the general political assessment of the nature of war, as is evident from analysis of psychiatric pathology participants wars of XX - XXI centuries.

PTSD occurs in 50 - 80% of those who had suffered from severe stress. The morbidity is directly dependent on the intensity of stress. Prevalence of post-traumatic stress syndrome in the contingent of people who survived extreme situations in the literature ranges from 10% to 95 witnesses% among hard hit (including somatic injuries).

According to J.R. Davidson (1995), the incidence (rate of life-time prevalence) of post-traumatic stress syndrome ranges from 3.6 to 75% (of those who survived extreme events). Appropriate epidemiological studies conducted in the US among veterans of the Vietnam War, post-traumatic stress syndrome

revealed 30% of people; partial and subclinical manifestation of the syndrome were found in an additional 22% of the war.

One of the first to use a comprehensive study of martial PTRS Zahav Israel Solomon (Solomon Z., Benbenishy R., 1986; Solomon Z., Mikulincer M., Blech A., 1988 and so on.). Particular importance is attached to latent period after combat psycho-trauma. Its small group of enthusiasts was more effective than large bulky structure - "Administration of military veterans" in the United States. Zahav Solomon created a three-tier system of medical and psychological diagnosis and treatment of post-traumatic stress syndrome, which occurs in a combat situation.

- The first stage psychologists interviewed after the battle commanders. According to their reports showed further examination of soldiers and officers who have overly emotional (actively or passively) experienced stress in combat.

- The second stage of the soldiers when their combat units allotted to rest, examined to detect latent "maturation" of post-traumatic stress syndrome; If necessary, they are immediately sent to hospital for prevention of post-traumatic stress syndrome expanded form.

- The third phase - treatment of those who helped prevention and those with post-traumatic stress syndrome emerged without undue primary emotional stress reactions in battle with the transitional asymptomatic (latent) period.

Long-term studies of the effectiveness of psychological rehabilitation of soldiers after combat trauma during the "Afghan" and "Chechen wars" have confirmed expediency "multi" psychological service in a combat situation (Snedkov E., 1997).

Using complex methods of correction directly in combat to ensure maximum efficiency in comparison to the use of deferred (I.B. Ushakov, YA Bube, 2005).

"Phasing", "phasing" in the dynamics of post-traumatic stress syndrome used for its prevention and treatment (Tsygankov B.D., Grigoriev M.E., 2000, Marino M.I., Kasperovich V.G., 2003; Shilov L.A., 2003; Z.I. Kekelidze, 2005 and so on.)

Preventive measures during the latent period post-traumatic stress syndrome significantly reduce the expanded form of the disorder after any emergency. However, there are different opinions about when these measures are most effective. Many argue that the earlier after the psychological trauma they started the better. But a number of psychologists have noticed that it is necessary to grasp the dynamics of post-traumatic stress syndrome moment when it has "matured", but expanded form of the disorder did not appeared yet. Often this is the

end of the third month after the psychological trauma (S. Zakharov, 2006 and others).

Conclusions

1. During the study, it has been determined that combat stress reaction is the worldwide scientific problem, with its social and health consequences.

2. Thereby, the posttraumatic factors are important for the development and course of the post-traumatic stress syndrome, however, now this area is researched very little. In some cases, what happens to a person after an injury affected her even more than the injury. To deepen the effects of post-traumatic stress syndrome are certainly factors of social disadvantage society are inevitable in the era of social - social disasters, catastrophes, wars.

Perspectives of the research: the authors will continue their work in the field of the problem under study.

Literature.1. Amyrov A.M. Features of the organization of medical assistance to servicemen of the federal group of forces in the Republic of Dagestan in the course of counterterrorist operation in 1999 / Amyrov A.M. // Military Medical Journal. - 2010. - № 8. - P. 45-46. 2. Badyuk M.I., D.V. Kovyda Feature timeliness of care during medical evacuation in the leading countries of the world (literature review) // Problems of Military Health Care - 2012. - Issue 31 - p 20-25. 3. Belevytn A.B., Miroshnichenko Y.V., Bunin S.L. Conceptual approaches to the construction of modern medical supply system of the Armed syllabic Medical Journal - 2009. - № 9. - P. 4-9. 4. Huschenko V.A., Miroshnichenko Y.V., Riot S.L. and others. The current state of the system of complete equipment troop level of medical service of the Armed Forces and the direction of its reform - 2007. - № 2 (18). - S. 111-114. 5. The doctrine of Allied Command Europe number 85-8 "principles, policy options and planning medical support Allied Command Europe" of 26 October 1993 - 100 p. 6. Doctrine TO NATO. Chapter 11. The medical software. - 2007. S. 157-166. 7. Miroshnichenko Y.V., Ben F.M., Goryachev A.B. and others. Experience in medical supply troops in the armed conflict in South Ossetia // Military Medical Journal - 2009. - № 1. - P. 68-72. 8. Miroshnichenko Y.V., A.B. Goryachev, V. Boyarintsev and others. Development of the system of complex equipment of the troop level of the Armed Forces Medical Service // Military Medical Journal - 2008. - № 7. - S. 38-45. 9. Miroshnichenko Y.V., A.B. Goryachev, A.V. Stupnykov Prospects of development of the system complete-standard-issue equipment of troop-level medical services // the I European Congress on Military Medicine 8-11 July 2010. : - Svetlogorsk Svetlogorsk Central Military Health Ministry of Defense, - 2010. - P. 67-68. 10. Umarov S.Z., Miroshnichenko Y.V., I.A. Natkevych and others. COMPLETE-government-issue medical equipment of the Armed Forces. - St. Petersburg: Izd SPFHA - 2002. - 100 p. 11. ATTP 4-02. Army Health System / Headquarters Department of the Army, Washington, DC, - 2011. - 124 p. 12. Claster J.C. Forward surgery. / J.C. Claster., M.J. Midwinter. // J.R. Army Med Corps. - № 153(3). - P. 149-151. 13. Cordell R.F. Audit of the effectiveness of command and control arrangements for medical evacuation of seriously ill or injured casualties in southern Afghanistan 2007. / RF Cordell, M.S. Cooney, D. Beijer. // J.R. Army Med Corps. - № 154(4). - P. 227-230. 14. Dekhili A. Particularities de l'organisation des medicaux dans la lutte anti-terroriste. / Dekhili A. // International Review of the Armed Forces Medical Service. - 2008. - vol. 82. - P. 44-50. 15. Hodgetts T.J. Military pre-hospital care: why is it different? / Hodgetts T.J., Mahoney P.F. // JR Army Med Corps. - № 155(1). - P. 4-10. 16. Medical support manual for United Nations peacekeeping operations / Medical Support Unit, New York, 1999. - P. 25-34.

ВОЗДЕЙСТВИЕ БОЕВОГО СТРЕССА, ЕГО

**СОЦИАЛЬНЫЕ И МЕДИЦИНСКИЕ ПОСЛЕДСТВИЯ
КАК МИРОВАЯ НАУЧНАЯ ПРОБЛЕМА**

*М.И.Бадюк, А.С.Шевчук, К.С.Гутченко, И.Г.Бирюк,
Т.Е.Молдован*

Резюме. Основная идея статьи - боевая травма и значение этой проблемы во всем мире. Исследовалось влияние пост-травматического стресса на участников сражений и их взаимоотношения в обществе.

Ключевые слова: влияние боевого стресса, нарушения, пост-травматический стресс.

**ВПЛИВ БОЙОВОГО СТРЕСУ, ЙОГО СОЦІАЛЬНІ
ТА МЕДИЧНІ НАСЛІДКИ ЯК СВІТОВА НАУКОВА
ПРОБЛЕМА**

М.І.Бадюк, О.С.Шевчук, К.С.Гутченко, І.Г.Бірюк,

Т.Є.Молдован

Резюме. Головна ідея статті - бойова травма та значення цієї проблеми у всьому світі. Вивчався вплив пост-травматичного стресу на учасників бойових дій та їх відносини у суспільстві.

Ключові слова: вплив бойового стресу, порушення, пост-травматичний стрес.

**Вищий державний навчальний заклад України
“Буковинський державний медичний університет”,
м. Чернівці**

Clin. and experim. pathol.- 2016.- Vol.15, №4 (58).-P.10-14.

Надійшла до редакції 10.11.2016

Рецензент – проф. В.І. Чебан

*© М.І. Бадюк, О.С. Шевчук, К.С. Гутченко, І.Г. Бірюк, Т.Е.
Молдован, 2016*