

POST-TRAUMATIC STRESS DISORDER IN MILITARY PERSONNEL: TIMELY DIAGNOSIS AND OVERCOMING METHODS

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Abstract: The article determines that post-traumatic stress disorder (PTSD) occurs among people who have experienced traumatic events. Extreme situations leave a significant mark on the psyche of a serviceman, as they are exposed to decisive psycho-traumatic factors that lead to a shortened life perspective and constant stress. In the hostilities zone, they go through various dangerous situations: shelling, injuries, threats to life, anxiety, and the deaths of their fellows. Accordingly, being in constant tension, they expect new threats and bombings and are ready for any danger if necessary. The other side is emotional numbness, detachment from reality and daily events, and a detached view of oneself and one's life. This paper also considers the specifics of post-traumatic stress disorder symptoms. The authors analyze the data of the Public Health Center of the Ministry of Health of Ukraine, the state guarantee of free psychological assistance to the military, the National Program of Mental Health and Psychosocial Support, as well as the Unified Clinical Protocol for Primary, Secondary (Specialized) and Tertiary (Highly Specialized) Medical Care "Response to Severe Stress and Adaptation Disorders. Post-traumatic stress disorder". The book describes the features of diagnostics and treatment of PTSD patients.

The authors also provide an overview of mandatory and preferred methods of psychodiagnostics assessment, its purpose, and its features. Moreover, they highlight the need for laboratory tests.

Keywords: post-traumatic stress disorder (PTSD), trauma, stress, disorders, anxiety, psychological adjustment, serviceman.

1 Introduction

Today, the reality of Ukrainian life is the full-scale armed aggression of the Russian Federation against Ukraine. This aggression has changed the lives of millions of Ukrainians. In the face of the ongoing military threat, Ukrainian servicemen and servicewomen are experiencing intense emotions. For most people, feelings of anxiety, anger, and sadness are normal reactions to such events. However, more profound reactions to hostilities for some servicemen and servicewomen can harm their psychological health.

A prolonged stay in a battle zone increases the risk of developing post-traumatic stress disorder. The following situations influence its development:

- using weapons with lethal consequences, even for the enemy;
- witnessing the deaths of fellow soldiers and civilians.

The global statistics show that one in five soldiers participating in military operations suffers from a neuropsychiatric illness, and one in three is among the wounded. The most severe consequences of extreme exposure begin to manifest themselves a few months after returning to normal living conditions. These include a variety of psychosomatic disorders: general health conditions characterized by weakness, dizziness, decreased performance, headaches, heart pain, sexual disorders, sleep disorders, etc. For service members with disabilities, injuries and wounds make the situation even more complicated. Therefore, it is necessary to assess modern methods of researching post-traumatic stress disorder, as well as to review the areas of psychological assistance to soldiers in order to fully restore their military and professional status and adapt to civilian life after being demobilized.

This study aims to analyze the existing theoretical and practical framework for identifying and providing appropriate assistance

to service members with post-traumatic stress disorder. Based on this aim, the following tasks have been set:

- to define the essence of the concept of "post-traumatic stress disorder;"
- to review the system for identifying psychological problems;
- to find out the types and specifics of psychological assistance to service members.

Research goals:

- To examine the features and symptoms of the negative impact of war-related events on the psychological state of military personnel.
- To analyze the state support (laws and programs) for providing free psychological services to rehabilitate affected servicemen and women and the role of public and volunteer centers.
- To specify the specifics of psychological assistance: diagnosis and methods of coping.

2 Literature Review

The legislative framework in Ukraine includes the following main documents:

- The Law of Ukraine "On Social and Legal Protection of Servicemen and Members of Their Families."
- The Law of Ukraine, "On Psychiatric Care," based on the Constitution of Ukraine.
- The Law of Ukraine, "On Healthcare," and other regulatory acts.

The article employs statistical data from the Public Life Center of the Ministry of Health of Ukraine. An essential document for analysis is the Unified Clinical Protocol of Primary, Secondary (Specialized), and Tertiary (Highly Specialized) Medical Care (UCPP) "Reaction to Severe Stress and Adaptation Disorders. Post-Traumatic Stress Disorder." It was developed following modern requirements of evidence-based medicine, which considers the peculiarities of diagnosing and treating patients with post-traumatic stress disorder in Ukraine to ensure continuity of medical care stages.

The development and symptomatology of post-traumatic stress disorder have been the subject of numerous studies by specialists in medical and psychological sciences, including Vasiliev, Lytvyn, Halych, Cinderella, Orlovskaya, Sochenko, Monachyn, Bohomolets, and Chervonna.

Candidate of Medical Sciences Danilevska researched and identified amplification, worsening, and structural-dynamic features and factors of post-traumatic stress disorder in service members of the Armed Forces of Ukraine who participated in the anti-terrorist operation.

Omelyanovich performed a bibliographic-analytical analysis of modern American and Polish publications devoted to the study of various factors contributing to the development of post-traumatic stress disorder, as well as the specifics of using methods and assessments for establishing this diagnosis. Zabolotna, Gushcha, Babova, Dmitrieva, and Polskakova also analyzed the experience of organizing rehabilitation systems for service members of the Armed Forces of the United States, France, Germany, the United Kingdom, China, Israel, and some CIS countries.

Kokun, Agaev, Pishko, and Lozinska presented the main concepts and general mechanisms of stress development and revealed traumatic and combat stress concepts. The authors also proposed preventive measures for negative mental states and

post-traumatic stress disorders in servicemen and servicewomen, including hostilities.

Doctor Muzychko developed the "Program for Overcoming Post-Traumatic Disorder in the Intellectual and Volitional Sphere among Servicemen," aimed at targeted overcoming post-traumatic problems, with the main form of impact by program specialists being social-psychological training.

Matviets pointed out the peculiarities of providing psychological assistance, considering the expert's analysis of the dynamics of a serviceman's experience of a traumatic situation and its stages.

Cushing R. E. and Braun K. L. studied the role of psychophysical therapy in overcoming post-traumatic disorder based on the research of service members returning from combat operations in Afghanistan and Iraq after September 11.

Ian C. Fischer, Mackenzie L. Shanahan, Adam T. Hirsh, Jesse C. Stewart, and Kevin L. Rand experimentally analyzed how a sense of life helps adapt to traumatic events. Moore B. A., Pujol L., Waltman S., and Shearer D. S. stated that trauma-focused psychological therapy (TFT) is the first-line treatment for post-traumatic stress disorder. At the same time, pharmacological options are often considered second-line or adjunctive.

Porter B, Bonanno G. A., Frasco M. A., Dursa E. K., and Boyko E. J. identified demographic characteristics, social support, and military characteristics that can mitigate the relationship between the severity of post-traumatic stress disorder and social support among American service members.

As we can see, many researchers have addressed the formation and course of post-traumatic stress disorder, and the diagnosis and prevention of this disorder in war conditions require further study.

3 Methodology

A systematic method was used to consider the features of the "post-traumatic stress disorder" concept and the correlation between its symptoms and stages of development. The study employs the method of studying normative, instructional, and methodological documents on the problem under study: laws, programs, strategies, and data from the official websites of relevant ministries and institutions. Also, the authors used the method of systematizing and summarizing the processed materials of the theoretical and practical framework.

4 Results

Post-traumatic stress disorder (PTSD) is a prolonged reaction to a stressful situation characterized by a complex of psychological disorders. The cluster of symptoms observed in people who have experienced traumatic stress was labeled "post-traumatic stress disorder" in the 1980s. The diagnostic criteria for this disorder were included in the American National Diagnostic Psychiatric Standard (Diagnostic and Statistical Manual of Mental Disorders). Since 1994, they have been included in the European diagnostic standard ICD-10 (International Statistical Classification of Diseases, Injuries, and Causes of Death).

Post-traumatic stress disorder is a specific mental disorder that develops after direct or indirect exposure to a highly stressful (traumatic) event or series of events. The symptoms of post-traumatic stress disorder include intrusive memories related to the traumatic event, reactions to trauma-related cues, and avoidance of these cues, leading to distress and negative changes in cognition and emotions. These symptoms can be categorized accordingly (Figure 1).

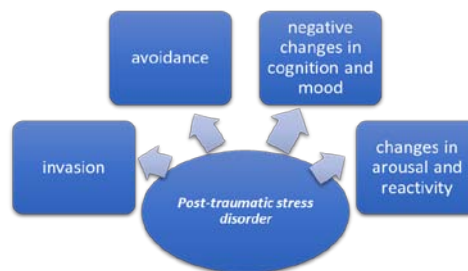


Figure 1. Sectors of post-traumatic stress disorder symptoms

The National Alliance on Mental Illness (NAMI) defines the symptoms of post-traumatic stress disorder (PTSD) and categorizes them into the following broad categories:

- Re-experiencing typical symptoms. This includes repetitive, involuntary, and intrusive distressing memories of the trauma, nightmares, and intrusive thoughts.
- Avoidance. A person actively avoids places or people that might trigger the aforementioned symptoms.
- Cognitive and mood symptoms. These include problems with memory and negative thoughts about oneself. The person may also experience detachment, guilt, anxiety, depression, and difficulties in recalling the traumatic event.
- Arousal and reactivity symptoms. These symptoms include heightened alertness and hypervigilance, being easily startled by stimuli reminiscent of the trauma, sleep problems, or outbursts of anger.

The symptoms are believed to appear at least four weeks after the traumatic event. They can occur mainly within the first three months.

As combatants, military personnel experience physical, moral, and psychological stresses that destroy typical perceptions and change behavior. The prolonged impact of stressors is crucial, which is why post-traumatic stress disorder is also referred to as "chronic military neurosis." The combination of psychological trauma due to an extreme situation, individual psychological characteristics, and the influence of the social environment can trigger the following physical and emotional reactions:

- Physical reactions manifest as insomnia, constant fatigue, eating, and gastrointestinal problems. Thinking about the war can cause headaches, sweating, rapid heartbeat, and breathing, as well as exacerbate existing conditions.
- Emotional reactions include nightmares, frequent negative memories of the war, feelings of anger and hatred, helplessness, fear, tension, feelings of sadness, loneliness, and worthlessness. There may also be feelings of anxiety, excitement, shock, numbness, inability to experience positive emotions, feelings of guilt, shame, high self-criticism, and hopelessness about the future.

The Public Health Center of the Ministry of Health of Ukraine has determined that 20% to 40% of service members require psychological assistance. The symptoms of acute trauma are observed in 60-80% of service members who have witnessed the death of comrades or civilians or have seen dead bodies. The risk of developing mental health disorders is associated with young service members aged 18-24 who exhibit symptoms of depression or have alcohol-related problems. Approximately 12-20% of service members who have experienced combat trauma but have not sought psychological help due to fear of stigma related to weakness, cowardice, or threats to their military career may develop symptoms of post-traumatic stress disorder. The intensity of stress is influenced by the characteristics of combat activities, including:

- The level of military activity (number of military operations, level of actual life-threatening situations).
- The significance of combat actions.
- The level of tension and nature of military actions experienced by the service members.

- The number of losses within the unit or division where the serviceman served.

American researchers point out that post-traumatic stress disorder is a severe mental illness that affects current and former service members disproportionately more often than the civilian population. The studies have also shown that the trajectories of post-traumatic stress disorder symptoms differ between civilians and service members. The significant factors that influence the manifestation and development of stress in a person include the number of past injuries and traumas, concussions, and, if applicable, the circumstances of being taken as a prisoner of war, its duration, and the conditions of captivity. In addition to these factors, particular social, ethnic, religious, family, and other circumstances are also identified as additional contributors to the intensification of disorder symptoms in military personnel. According to the Law of Ukraine, "On Social and Legal Protection of Servicemen and Members of Their Families," the state guarantees the provision of free psychological assistance to servicemen serving on the territory of Ukraine and performing military duties outside its borders. Also, it is guaranteed to military personnel who have become disabled due to service-related illnesses and to members of volunteer associations of territorial communities. Furthermore, psychological assistance for military personnel is provided free of charge during military service. The funds for medical and psychological rehabilitation are allocated from the state budget, with the responsibility lying on the psychological and medical services of the security and defense sector for providing appropriate services. A patient must receive a referral from a family doctor or contact a psychological health specialist for assistance.

The state budget for 2023 allocated UAH 540 million for the implementation of programs by the Ministry for Veterans Affairs in the field of psychological rehabilitation, professional adaptation, and sanatorium-resort treatment for military personnel. This amount is twice as much as the previous year.

Additionally, in August 2022, the "Registry of Providers of Psychological Rehabilitation Services for Veterans and Their Families" began operating. The experts in the field of mental health who wish to engage in the rehabilitation of military personnel submit applications electronically to the Registry. As of December 15, 2022 (the latest available information at the time of publication), 45 healthcare facilities are included in the registry. The establishment of the National Mental Health and Psychosocial Support Program in Ukraine is significant. It involves training psychologists, social workers, and educators in quick techniques of psychological support and assistance. The Ministry of Health of Ukraine pays special attention to the training of family doctors so that they can timely diagnose and provide necessary assistance. The main target groups include people with post-traumatic stress disorder, families of military personnel, and affected civilians.

The Ministry of Health of Ukraine has initiated the establishment of the National Lifeline, where anyone can turn to in moments of despair or hopelessness to receive quality support or specialized assistance. The "Helpline" is a 24-hour assistance line staffed by psychiatrists and psychotherapists. The "Lisova Poliana" Mental Health and Rehabilitation Center, under the Ministry of Health of Ukraine, deals with disorders related to combat stress and the consequences of traumatic brain injuries (post-concussion syndrome). The "Lifeline Ukraine" is a nationwide hotline primarily created to provide crisis psychological assistance to veterans and their family members and later extended to all residents of Ukraine. The "Dim Veterana" is a center for social adaptation and psychological rehabilitation of veterans, their family members, and the families of the deceased. Additionally, the "Pobratymy" is a team specializing in the psychosocial adaptation of veterans. One of their projects is the "Veteran Hub," a space for veterans and non-governmental organizations working in veteran affairs.

The "Open Doors" Center for Psychological Counseling and Trauma Therapy organizes online sessions for initial psychological assistance. The center's experts have experience

working with combatants and provide trauma-focused assistance following the American military standard to service members, their families, and other individuals whose lives have been impacted by war or other traumatic events. The Crisis Center for Medical and Psychological Assistance provides psychological support to internally displaced persons and members of the Armed Forces of Ukraine who have been injured or experienced psychological trauma. The Telegram channel "Office of Support for the Families of Military Personnel" assists in processing social and pension payments, provides consultations regarding the search for missing and captured individuals, and offers legal and psychological advice. The National Program for Mental Health and Psychosocial Support and the Unified Clinical Protocol for Primary, Secondary (specialized), and Tertiary (highly specialized) Medical Care for "Reaction to Severe Stress and Adaptation Disorders. Post-traumatic Stress Disorder," approved by the Ministry of Health's order on February 23, 2016, No. 121, describes the peculiarities of diagnosis and treatment of patients with post-traumatic stress disorder. The scope of psychodiagnostics examination is determined by its purposes, such as diagnosis formulation (assessment of symptoms and syndromes), identification of targets for psychocorrection/ psychotherapy, and individual resources. The diagnosis and treatment should be considered within the context of the time that has passed since the traumatic event.

While providing psychological assistance, the specialists should analyze the dynamics and stages of the military personnel's experience of psychotraumatic situations. In particular, the following stages are highlighted:

- The stage of denial or shock occurs immediately after the traumatic event and is characterized by the person's emotional inability to accept what has happened (psychological defense mechanisms triggered by denial or rejection of the harmful consequences of the traumatic situation).
- The stage of aggression and guilt. The people begin to understand the traumatic event that occurred, may try to understand its causes, seek blame, feel guilt, and direct aggression toward themselves.
- The stage of depression is marked by the realization of the worsening situation, accompanied by feelings of helplessness, self-devaluation, a sense of aimlessness in future life, and loss of interest in communication.
- The stage of healing is characterized by the acceptance and acknowledgment of the experienced traumatic situations, gaining new meanings in life.

The program states that diagnosis begins with a comprehensive assessment of the person's condition, which includes a detailed analysis of the military personnel's life history, taking into account the history of psychotrauma, family status, work capacity, and role in the social environment. It is also essential to analyze the mental state along with the main dimensions of disorders, mental pathologies, suicidal risk, and quality of life. This includes the usage of "high-tech methods of clinical-psychopathological and clinical-anamnestic research (clinical consultations, reviews, telemedicine technologies), neuroimaging (MRI, CT), neurophysiological (somnography), psychodiagnostics, psychometric and psychophysiological research."

At the patient's request, laboratory tests are also undertaken (immunological studies, cortisol levels, and neurotransmitters). Currently, research on post-traumatic stress disorder is conducted in the following main forms: clinical interviews, training, self-report questionnaires, and psychometric and psychophysiological measurements. Overcoming post-traumatic stress disorder in military personnel can be done through individual or group therapy. The specialists have a range of techniques to choose from, including mini-lectures, discussions, psycho-gymnastic exercises, modeling, and therapeutic approaches such as art therapy and psycho-drawing.

Table 1. Main psychodiagnostics methods

	Mandatory	Preferred
Psychodiagnostics methods	<ol style="list-style-type: none"> 1. Mississippi Scale for PTSD (Civilian or Military Version) 2. Impact of Event Scale-Revised (IES-R) 3. Symptom Checklist-90-Revised (SCL-90-R) 4. Hamilton Depression Rating Scale (HAM-D) 5. Hamilton Anxiety Rating Scale (HAM-A) 6. Coping Behavior Inventory for Stressful Situations (Norman S., Endler D.F., James D.A., Parker M.I.) adapted by T.A. Kryukova 	<ol style="list-style-type: none"> 1. Trauma Symptom Inventory-TSI 2. S. Maddi's Hardiness Test in the adaptation of D. A. Leontiev and Ye. I. Rasskazova 3. E. Heim's coping mechanisms psychological diagnostic technique in the adaptation of L.I. Vaserman 4. Hospital Anxiety and Depression Scale 5. Lüscher's Color Test 6. Alcohol Use Disorders Identification Test (AuDIT) 7. Spielberg-Hanin's State-Trait Anxiety Inventory 8. Minnesota Multiphasic Personality Inventory-2 (MMPI-2) (J. Boucher, W. Dahlstrom, J. Graham, A. Telligen, and B. Kemmer) 9. Five-Factor Personality Inventory by J. Howard, P. Medin, and J. Howard, in the adaptation of L.F. Burlachuk and D.K. Koroliiv 10. Battery of Neuropsychological Tests by A.R. Luria 11. Montreal Cognitive Assessment (MoCA) 12. Pittsburgh Sleep Quality Index 13. SF-36 Quality of Life Questionnaire

The National Institute of Mental Health (NIMH) highlights cognitive-behavioral therapy as a widely used type of psychotherapy. It may involve exposure therapy and cognitive restructuring. Exposure therapy helps individuals learn to manage their fears by gradually exposing them to the trauma they experienced in a safe manner. In exposure therapy, people may think or write about the trauma or visit where it occurred. This therapy can help individuals reduce stress-related symptoms. Cognitive restructuring helps individuals understand the traumatic event. Sometimes people remember the event differently from how it actually happened. They may feel guilt or shame for something that wasn't their fault. Cognitive restructuring can help people with post-traumatic stress disorder think realistically about what happened.

The treatment of post-traumatic stress disorder in military personnel is recommended to be combined with physical exercise. Running, swimming, soccer or basketball, and gymnastics can help burn adrenaline, improve mood and overall well-being.

In addition, the support of loved ones is crucial. The results of American studies indicate that social support from civilians and the family environment has a more significant protective effect than social support from military sources regarding the severity of long-term post-traumatic stress disorder symptoms.

5 Discussion

There is a problem of defaulting on the part of military personnel with their own psychological disorders, hiding their suffering to continue their military career. There is a lack of trust in psychologists and psychiatrists. Often, service members are unwilling to acknowledge that they cannot deal with their problems independently, and some do not even consider seeking help from a psychologist. Additionally, the assistance offered (or imposed) often annoys rather than helps. The rhetoric used when talking about them as "socially dangerous" or "sick" people in need of treatment creates tension.

The issue of professional psychological training and psycho-educational work with military personnel regarding the impact of complex emergencies on mental health is essential. Factors that contribute to the prevention of post-traumatic stress disorder include the emotional self-control of combatants, a positive self-image, the ability to integrate the traumatic experiences of others into their own, and the presence of social support. The presence of these qualities and the training of military personnel will contribute to protecting them from deep psychological trauma.

The family plays a crucial role as a resource in successfully overcoming post-traumatic stress disorder. Psychological work with the families of military personnel involves two aspects: considering them as one of the most critical factors in the psychological rehabilitation of returning personnel from war and

providing direct psychological assistance to the families of military personnel.

In addition, further areas of research may include psychodiagnostics based on age, sex, and gender characteristics of post-traumatic stress disorder.

6 Conclusion

A full-scale invasion of the Russian Federation into Ukrainian territory has contributed to establishing a diagnostic and preventive system for post-traumatic stress disorder in modern wartime conditions. Being at war is an extreme situation when a person is constantly under severe psycho-emotional stress, overcoming it with willpower. Almost all war-zone deployed inevitably experience changes in their physical and mental condition in one way or another.

Many service members may exhibit symptoms of depression, anxiety, acute stress reactions, or depressive reactions in response to combat stress or traumatic experiences. Disorders primarily occur in those servicemen who have been in direct combat, lived in trenches, suffered injuries and disabilities, witnessed the death of fellow combatants, or were taken as prisoners of war. Many of them require assistance from psychologists, psychiatrists, and psychotherapists, as they have a higher risk of developing post-traumatic stress disorder. Accordingly, support for military personnel is provided by a multidisciplinary team comprising relevant specialists who employ various methods and approaches. In addition, volunteers, veterans, social workers, family members of patients, and representatives of regional and international organizations are involved in providing assistance.

Literature:

1. Asotsiatsiia resursnoi psikhologii ta psykhoterapii [Association of Resource Psychology and Psychotherapy]. Retrieved from URL <https://arpp.com.ua/blog/>.
2. Bohucharova, O.I. (2012). Zdorovia osobystosti u psikhologichnij perspektivi [Personal health in a psychological perspective]: monohrafiya / Lughan. derzh. un-t vnur. sprav im. E.O. Didorenka. Vyd. 2, Luhansk (in Ukrainian).
3. Bohomolets, O. V. (2017). Poshyrenist ta struktura posttravmatychnykh psikhichnykh porushen v uchasnykh boiovykh dii [Prevalence and structure of post-traumatic mental disorders in combat participants]. Natsionalna prohrama okhrony psikhichnoho zdorovia. Vazhlyvi kroky na shliakhu peretvorennia. Kyiv, Neironius, 105–112 (in Ukrainian).
4. Boscarino, J. A. (2015). Conceptualization of PTSD from the Vietnam War to Current Conflicts and Beyond. № 17 (3). 661–663.
5. Brewin, C.R. (2005). Risk factor effect sizes in PTSD: what this means for intervention. *J Trauma Dissociation*, 6(2), 123–130.

6. Chervonna, T. (2015). Post-traumatic stress disorders. Overcoming the consequences [Posttraumatychni stresovi rozlady. Podolannya naslidkiv] Kyiv, Shkilnyi svit (in Ukrainian).
7. Cushing, R. E., Braun, K. L. (2018). Mind-Body Therapy for Military Veterans with Post-Traumatic Stress Disorder: A Systematic Review. *J Altern Complement Med.* Feb; 24(2), 106-114. doi: 10.1089/acm.2017.0176.
8. Danilevska, N. V. (2018). Modern features of post-traumatic stress disorder in servicemen of the Armed Forces [Suchasni osoblyvosti posttraumatychnoho stresovoho rozladu u viiskovosluzhbovtziv ZSU] *Medychna psykholohiia.* № 3. 64-66 (in Ukrainian).
9. Davidanko, K. (2019). Posttraumatychni stresovi rozlad: rekomendatsii z profilaktyky ta likuvannya [Posttraumatic stress disorder: recommendations for prevention and treatment]. *Ukrainskyi medychni chasopys*, June 22. Retrieved from <https://www.umj.com.ua/article/159875/posttraumatychnij-stresovij-rozladrekomendatsiyi-z-profilaktyki-ta-likuvannya> (in Ukrainian).
10. Fischer, I. C., Shanahan, M. L., Hirsh, A. T., Stewart, J. C., Rand, K. L. (2020). The relationship between meaning in life and post-traumatic stress symptoms in US military personnel: A meta-analysis. *J Affect Disord.* Dec 1,277, 658-670. doi: 10.1016/j.jad.2020.08.063.
11. Friedman, M. J. In: eds (2009). Phenomenology of post-traumatic stress disorder and acute stress disorder. *Oxford Handbook of Anxiety and Related Disorders.* New York, Oxford University Press.
12. Dopomoha viiskovym z posttraumatychnym stresovym rozladom (2022). [Helping military personnel with post-traumatic stress disorder]. Tsentr hromadskoho zdorovia MOZ Ukrainy. Retrieved from URL <https://phc.org.ua/news/dopomoga-viiskovim-z-posttraumatychnim-stresovim-rozladom>.
13. Kokun, O. M., Agaev, N. A., Pishko, I. O., Lozinska, N. S. (2015). Osnovy psykholohichnoi dopomohy viiskovosluzhbovtziv v umovakh boiovykh dii [Basics of psychological assistance to servicemen in combat conditions], *Metodychni posibnyk.* Kyiv, NDTs HP ZSU (in Ukrainian).
14. Kokun, O. M., Agaev, N. A., Pishko, I. O. (2017). *Psykholohichna robota z viiskovosluzhbovtzivami – uchasnykamy ATO na etapi vidnovlennia* [Psychological work with servicemen – participants of the anti-terrorist operation at the recovery stage], *Metodychni posibnyk.* Kyiv, NDTs HP ZSU (in Ukrainian).
15. Lytvyn, V., Halych, M. (2022). Zahalna kharakterystyka posttraumatychnoho stresovoho rozladu v umovakh voiennoho chasu: diahnozyka ta profilaktyka [General characteristics of post-traumatic stress disorder in wartime conditions: diagnosis and prevention]. *Yurydychna psykholohiia*, 1 (30), 22-28. <https://doi.org/10.33270/03223001.22>. (in Ukrainian).
16. Mclay, R., Feserman, S., Webb-Murphy, J., Delaney E., Ram, V., Nebeker, B., Burce, C. M. (2023). Post-Traumatic Stress Disorder Treatment Outcomes in Military Clinics. *Mil Med.* May 16;188(5-6). 1117-1124. doi: 10.1093/milmed/usab454.
17. Mental health Retrieved from URL https://www.rch.org.au/immigranthealth/clinical/mental_health_resources/#mental-health-services-refugee-or-cald-specific.
18. Moore, B. A., Pujol, L., Waltman, S., Shearer, D. S. (2021). Management of Post-traumatic Stress Disorder in Veterans and Military Service Members: A Review of Pharmacologic and Psychotherapeutic Interventions Since 2016. *Curr Psychiatry Rep.* Jan 6,23(2). doi: 10.1007/s11920-020-01220-w.
19. «Pro zatverdzhennia Instruksii z orhanizatsii psykholohichnoi dekompresii viiskovosluzhbovtziv ZS Ukrainy» [Order of the General Staff of the Armed Forces of Ukraine «On the approval of the Regulation on the psychological rehabilitation of servicemen of the Armed Forces of Ukraine who participated in the anti-terrorist operation during the restoration of combat capability of military units (units) 462, dated December 27, 2018»]. (in Ukrainian).
20. Omelianovych, V. (2019). Suspilni ta simeini aspekty diahnozu posttraumatychni stresovi rozlad u viiskovosluzhbovtziv pislia povnennia z zony boiovykh dii [Social and family aspects of the diagnosis of post-traumatic stress disorder in service members after returning from the combat zone]. Retrieved from URL <https://uk.e-medjournal.com/index.php/psp/article/view/183>.
21. Orlovska, O. A. (2020). Posttraumatychni stresovi rozlad uchasnyka boiovykh dii ta simeina adaptatsiia [Post-traumatic stress disorder of a combatant and family adaptation]. *Sotsialna psykholohiia. Yurydychna psykholohiia*, 251-255. <https://doi.org/10.32843/2663-5208.2020.15.43>.
22. Porter, B., Bonanno, G. A., Frasco, M. A., Dursa, E. K., Boyko, E. J. (2017). Prospective post-traumatic stress disorder symptom trajectories in active duty and separated military personnel. *J Psychiatr Res.* Jun, 89, 55-64. doi: 10.1016/j.jpsychires.2017.01.016. Epub 2017 January 30.
23. Posttraumatychni stresovi rozlad: diahnozyka i likuvannya (2022). [Posttraumatic stress disorder: diagnosis and treatment]. *Medychna sprava.* Retrieved from URL <https://medplatforma.com.ua/article/2468-posttraumatychnij-stresovij-rozlad-diahnozyka-likuvannya>.
24. Post-traumatic Stress Disorder (2017). Retrieved from URL <https://www.nami.org/About-Mental-Illness/Mental-Health-Conditions/Posttraumatic-Stress-Disorder>.
25. Post-Traumatic Stress Disorder. What is post-traumatic stress disorder (PTSD)? (2023) Retrieved from URL <https://www.nimh.nih.gov/health/topics/post-traumatic-stress-disorder-ptsd>.
26. PTSD: National Center for PTSD / U.S. Department of Veterans Affairs. Retrieved from URL https://www.ptsd.va.gov/understand/common/common_veterans.asp.
27. Post-traumatic stress disorder (PTSD) Public Affairs Editorial Board (PEEB) of the Royal College of Psychiatrists. Retrieved from URL <https://www.rcpsych.ac.uk/mental-health>.
28. Psychological first aid [Persha psykholohichna dopomoha: posibnyk dlja pracivnykiv na miscjakh]. Kyiv, Univ. Vyd-vo PULSARY (in Ukrainian).
29. Prokofieva, L. (2022). Psykholohichna model PTSR ta osoblyvosti korektsii v umovakh voiennoho stanu [Psychological model of PTSD and features of correction under martial law]. *Naukovyi visnyk Izmajlskoho derzhavnoho humanitarnoho universytetu. Serii: Istorychni nauky*, 57, 110-120 (in Ukrainian).
30. Reabilitacijna psykholohija v nadzvychajnykh sytuacijakh (2022). [Rehabilitation psychology in emergency situations]. Rada z jakosti vyshhoji osvity Doneckjogho nacionalnogho universytetu imeni Vasylja Stusa, 1 (in Ukrainian).
31. Reaktsiia na vazhkyi stres ta rozlady adaptatsii. posttraumatychni stresovi rozlad. Unifikovanyi klinichni protokoli pervynnoi, vtorynnoi (spetsializovanoi) ta tretynnoi (vykospetsializovanoi) medychnoi dopomohy (2016). [Reaction to Severe Stress And Adaptation Disorders. PTSD Unified Clinical Protocol Of Primary, Secondary (Specialized) And Tertiary (Highly Specialized) Medical Care]. Retrieved from URL <https://forpost-center.org/wp-content/uploads/2019/06/stress.pdf>.
32. Romanishyn, A., Neurova, A. (2021). Diahnostuvannia posttraumatychnykh stresovykh rozladiv osobovoho skladu pislia uchasti v operatsii obidnanykh syl [Diagnosis of post-traumatic stress disorders of personnel after participation in a joint forces operation]. *Visnyk Natsionalnoho universytetu oborony Ukrainy.* 62(4), 127–133. <https://doi.org/10.33099/2617-6858-2021-62-4-127-133> (in Ukrainian).
33. Sanko, K. (2016). Psykholohichne blagopoluchchja jak osnova povnoccinnogho ta psykholohichno zdorovogho funkcionuvannja osobystosti [Psychological well-being as the basis of full-fledged and psychologically healthy functioning of the person]. *Visnyk Kharkivskoho nacionalnoho universytetu imeni V.N. Karazina*, 59, 42–45 (in Ukrainian).
34. Soshenko, T., Gabinska, A. (2018). Efektyvnist psykhoterapii ta farmakoterapii v likuvanni PTSR u viiskovosluzhbovtziv i veteraniv [Effectiveness of psychotherapy and pharmacotherapy in the treatment of PTSD in military personnel and veterans]. *Zhurnal «NEIRONESWS, Praktyka»*, 3 (96), 32-36.
35. Tsykhonia, V. (2014). Pamiatka pro posttraumatychni stresovi rozlad [Memo about post-traumatic stress disorder]. *Mystetstvo likuvannia*, 7(8), 57-58. Retrieved from <https://w>

ww.healthmedix.com/articles/mistetzvo/2014-10-16/6.pdf (in Ukrainian).

36. US Department of Veterans Affairs – National Center for PTSD Retrieved from URL https://www.ptsd.va.gov/understand/common/common_adults.asp

37. Vasiliev, S. P., Zubovskyi, D. S. (2016). Psykhodiahnostyka posttravmatychnoho stresovoho rozladu u viiskovosluzhbovtziv [Psychodiagnosis of post-traumatic stress disorder in military personnel]. *Ukrainskyi psykhologichnyi zhurnal*, № 1, 6-16 (in Ukrainian).

38. De mozna otrymaty psykhologichnu dopomohu zahysnykam ta yikhnim rodynam (2023). [Where can defenders and their families get a psychological help?]. Retrieved from URL <https://armyinform.com.ua/2023/03/16/de-mozhna-otrym-aty-psyhologichnu-dopomogu-zahysnykam-ta-yihnim-rodynam/>. (in Ukrainian)

39. Zabolotna, I. B., Gushcha, S. G., Babova, I. K., Dmytrieva, G. O., Polskakova, T. V. (2021). Orhanizatsiia reabilitatsii viiskovosluzhbovtziv z posttravmatychnym stresovym rozladom: analiz zarubizhnykh pidkhodiv ta vitchyznianoho dosvidu [Organization of rehabilitation of servicemen with post-traumatic stress disorder: analysis of foreign approaches and domestic experience]. *Aktualni problemy transportnoi medytsyny*, № 2 (64), 32-44 (in Ukrainian).

Primary Paper Section: A

Secondary Paper Section: AN