

UDC 925.159:017.51-2'34

DOI <https://doi.org/10.32782/health-2025.1.21>

**PSYCHOLOGICAL AND PHYSIOLOGICAL REHABILITATION
OF POST-TRAUMATIC STRESS DISORDERS OF COMBATANTS
IN THE SITUATION OF WAR IN UKRAINE**

Mykhalchuk Nataliia,

Dr. in Psychology, Professor,
Head of the Department of English Language Practice and Teaching Methodology
Rivne State University of the Humanities
ORCID: 0000-0003-0492-9450
Researcher ID: <http://www.researcherid.com/rid/A-9440-2019>
Scopus AuthorID: 57214227898

Kharchenko Yevhen,

Doctor of Medicine, Professor, Professor of the Department
of Physical Rehabilitation and Ergo-Therapy
Rivne Medical Academy
ORCID: 0000-0002-4340-8503
Researcher ID: AAU-7523-2020
Scopus AuthorID: 57216872875

Ivashkevych Eduard,

Doctor of Psychology, Professor, Professor of the Department of General Psychology and
Psychological diagnostics,
Rivne State University of the Humanities, Rivne (Ukraine)
ORCID: 0000-0003-0376-4615
Researcher ID: V-8872-2018
Scopus AuthorID: 57216880484

Ivashkevych Ernest,

PhD in Psychology, Professor's assistant of the Department of English Language
Practice and Teaching Methodology, Translator
Rivne State University of the Humanities
ORCID: 0000-0001-7219-1086
Researcher ID: F-3865-2019
Scopus AuthorID: 57216880485

The purpose of our research is to show the ways of psychological and physiological rehabilitation of post-traumatic stress disorders of combatants in the situations of war in Ukraine.

Methods of the research. *The following theoretical methods of the research were used to solve the tasks formulated in the article: a categorical method, structural and functional methods, the methods of the analysis, systematization, modeling, generalization.*

Results and their discussion. *There are following areas of psycho-physiological activity of military units, which are distinguished to ensure the necessary psychological stability of combatants: patriotic education and maintenance of fighting spirit of the person; in a military situation there are failures of our troops and human losses, which are possible, therefore it is important not only to compensate for negative emotions, but also to restore the fighting spirit of soldiers, to predict possible changes in people's mood in any days; a positive role in creating a favorable psychological atmosphere in a military unit and raising morale and fighting spirit are played by thoughtful and timely stimulation of military activities of soldiers.*

Conclusions. *In order to improve the effectiveness and timeliness of providing psychological assistance to combatants who have suffered military mental trauma and their psychological rehabilitation in military situations, a military psychologist must take into account such aspects, as: training senior military groups, sergeants and officers to recognize post-traumatic stress disorder reactions and respond to them correctly, providing the simplest first aid and a great support; identifying servicemen with acute post-traumatic stress disorder reactions and sending them to the rear for inpatient recovery or treatment of combatants; creating points for providing primary psychological and physiological assistance and support in places where servicemen rest or units rotate.*

Key words: *post-traumatic stress disorders, combatants' mental activity, patriotic education, maintenance of fighting spirit of the person, acute post-traumatic stress disorder reactions.*

Наталія Михальчук, Євген Харченко, Едуард Івашкевич, Ернест Івашкевич. Психофізіологічна реабілітація посттравматичних стресових розладів учасників бойових дій у ситуації війни в Україні

Мета дослідження – показати шляхи психофізіологічної реабілітації посттравматичних стресових розладів учасників бойових дій в умовах війни в Україні.

Методи дослідження. Для виконання поставлених у роботі завдань використовувалися такі теоретичні методи дослідження: категоріальний, структурно-функціональний, аналіз, систематизація, моделювання, узагальнення.

Результати дослідження. У статті виокремлюються такі напрями фізіологічної та психологічної реабілітації фахівця, яку він проводить у військових частинах з метою забезпечення необхідної психологічної стійкості комбатантів: патріотичне виховання та підтримка бойового духу у військових з особового складу; у бойовій обстановці можливі й невдачі військових, людські втрати, тому особливо важливо не тільки компенсувати негативні емоції, а й відновити бойовий настрій військовослужбовців, спрогнозувати можливі зміни в їхньому настрої на найближчі дні; позитивну роль у створенні найбільшою мірою сприятливої психологічної атмосфери в підрозділі, урахуовуючи шляхи підняття морально-бойового духу, чинить керівництво військового підрозділу, що продумано й своєчасно стимулює бойову діяльність військовослужбовців.

Висновки. Фізіологу та військовому психологу з метою вдосконалення ефективності та своєчасності надання психологічної допомоги комбатантам, які перенесли бойові психічні травми, а також з метою їх психологічної реабілітації в бойовій обстановці необхідно враховувати такі аспекти: навчати керівників бойових груп, сержантів та офіцерів розпізнаванню реакцій посттравматичних стресових розладів й адекватному реагуванню щодо них, надання найпростішої первинної допомоги й підтримки військовослужбовців; виокремлювати військовослужбовців з гострими реакціями посттравматичних стресових розладів і спрямовувати їх в тил з метою стаціонарного відновлення або лікування; створювати в місцях відпочинку військовослужбовців або ротації підрозділів пункти надання первинної психологічної допомоги, реабілітації та підтримки.

Ключові слова: посттравматичні стресові розлади, психічна діяльність учасників бойових дій, патріотичне виховання, підтримка бойового духу особистості, гострі посттравматичні стресові реакції.

Introduction. At the current stage of the development of the Armed Forces of Ukraine, the attention of researches is significantly increasing to the problem of reliable and effective functioning of a person in the conditions of military activity. A great need to strengthen the moral and psychological state and psychological stability of military personnel, increasing their readiness and the ability to perform tasks in military conditions, necessitates reforming the system of education and training of personnel of the Armed Forces of Ukraine, which is the most important in the conditions of contemporary war.

The basis of the activities of military personnel in this field it is Military Psychology. The achievements of modern psychological science and practice provide the solution of many important social tasks. At the moment, enough special knowledge, practical methods and techniques have been accumulated to solve an extremely urgent and socially significant task, such as psychological assistance to military personnel in military conditions, as well as to military personnel who participated in different military conflicts [2; 3].

Despite the nature of military operations, the influence of environmental factors, the resistance of servicemen to psychogenic injuries depends, first of all, influences the personal qualities of the soldier. A number of different studies have established that having been in the process of traumatic situations can subsequently lead to specific changes in the psyche

of the person. Being a military man in a traumatic situation is one of the main reasons that can cause post-traumatic stress disorder [7; 10; 11].

According to statistics, in the first days of hostilities in 2022, 30–40 % of servicemen suffer from mental trauma, of which 10–15 % were unable to perform their duties and required specialized assistance. Since 2022–2024, there have been 2–3 global military conflicts in the world each year, which also make this problem more urgent [12].

The researches about the factors that lead to the formation of post-traumatic stress disorder of combatants will allow scientists and practitioners to build a more effective strategy and tactics for the rehabilitation of combatants with long-term consequences of stress-related influences [4; 14; 15].

The psychological dimensions of modern war in Ukraine, including their manifestations in the psychology of its participants, are extremely diverse. They are influenced by the parameters of both the armed conflict itself and the military contingent participating in it. The latter factor includes such characteristics as the total number of human masses having been involved into military operations, a wide range of socio-demographic and social parameters, including social origin and status, educational and cultural levels [13].

Combatant is a term of international law that designates persons who are members of the regular armed forces of the warring parties and directly

participate in hostilities, as well as those ones who belong to the personnel of militias, volunteer and partisan units. Such situation provides that they are led by a commander, that they have a clearly visible distinctive sign, openly carry arms and observe the laws and customs of war [1; 6; 16].

The **purpose** of our research is to show the ways of psychological and physiological rehabilitation of post-traumatic stress disorders of combatants in the situations of war in Ukraine.

Methods of the research

The following theoretical methods of the research were used to solve the tasks formulated in the article: a categorical method, structural and functional methods, the methods of the analysis, systematization, modeling, generalization.

Results and their discussion

It has been repeatedly noted in the psychological and pedagogical literature that the activities of combatants, which are characterized by extremism, physical and mental trauma, which has a significant impact on the mental health of the personnel of some military units.

Based on this fact, a relevant area of psychological research is to clarify the role that complex or extraordinary traumatic events play in the development of mental disorders or the deterioration of the quality of life of a combatant. It should also be noted that there are three main points of view on this problem. Thus, the first point of view assumes that the traumatic event plays a minor role in the etiology of mental disorders, and that it is necessary to draw a line between normal stress reactions and pathological ones.

The supporters of the second point of view believe that mental disorders are manifestations of distress. Representatives of the third view assume that distress and mental disorders are completely different phenomena. Scientists believe that traumatic events can cause distress, but not the cause of mental pathology [5].

But despite these points of view, the fact remains that military operations and their psychotraumatic effect for many combatants will forever remain associated with such factors as:

- the influence of specific factors of the combat situation (presence or absence of equipment, shortage of time, uncertainty, suddenness, acceleration of the pace of action);
- psycho-emotional stress associated with the death of comrades or with the need to kill people (even the enemy);
- a clearly perceived sense of threat to life, the so-called biological fear of death, injury, pain, torture;

– difficulties and suffering (lack of full sleep, food, warmth, etc.);

– unusual living conditions and new terrain [2].

The results of many studies have allowed us to identify four groups of factors and conditions for the formation of post-traumatic stress disorders as a long-term consequence of the impact of psychological trauma on combatants [8]:

1. **Features of the experienced traumatic situation:** content; suddenness or unpredictability of occurrence; duration, intensity; mass, group or individual nature; awareness; timeliness of medical and psychological assistance; presence of secondary traumatic factors.

Shock psychotraumatic factors are distinguished by their suddenness of impact and great force. They are usually associated with a threat to the life of the combatants, therefore, directly affecting the instinct of self-preservation, they almost invariably cause of certain mental disorders.

According to the scientists [9; 13], psychotraumatic factors, due to their direct impact on the instinctive and lowest affective spheres, are not fully realized and due to the speed of action do not cause conscious interpsychic processing of their content and meanings. The researchers of the features of the mental activity of the liquidators of the Chernobyl disaster [12] consider the psychotraumatic factor as insufficient awareness, inexperience, unpreparedness of the victims for extreme conditions and the individual's perception of the situation as dangerous one, which leads to a pathological stress reaction.

Also, there are some factors that increase the risk of mental trauma of combatants, among them it is worth noting the real threat of death, loss of working capacity, loss of social ties, uncertainty of the future, in particular health status, mistakes in medical care, social support, a sense of helplessness.

Some specialists in the field of environmental Psychiatry and psycho-therapists of man-made disasters [5; 8] consider the differences between physical and emotional trauma to be insignificant and see the existence of constant relationships between these two components. The scientists note the dependence of the clinical picture on the nature of the psychological trauma, whether it was acute or chronic, immediate or potential, as well as on its nature and content. In addition, these scientists believe that additional psychotraumatic factors contribute to the protracted course of the traumatic disorder.

Based on the facts above, it should be noted that traumatic events can take the form of unusual circumstances or a series of events that expose a

combatant to extreme, intense exposure to a threat to the life or health of both the serviceman himself and his significant environment, and violate his sense of security. These situations can be short-term, but extremely strong, the duration of which can range from several minutes to several hours (sabotage sorties, sniper activity, etc.), or long-term or regularly repeated (artillery shelling), but less intense in terms of the strength of the traumatic impact.

2. *Social and socio-psychological factors:* social support of the combatants and the protection at the state and departmental levels; availability of medical care and rehabilitation programs; development and nature of micro-social ties; religiosity; socio-economic status of the combatants; attitudes of the society to this event.

Many researches [1; 6; 12; 13] indicate that a sufficient level of social support of the combatant, his access to medical care and rehabilitation programs, satisfactory socio-economic status, development of social ties of the combatant, belonging to one of the religious denominations, significantly reduce the risk of developing traumatic disorders.

The attitudes of the society to a traumatic event and its participants (combatants) depends on the level of the development of this society and its socio-psychological stereotypes and can act as both a risk factor and anti-risk factor for the development of post-traumatic stress disorder. Currently, actions have the aim at liberating the occupied and annexed territories of one's own country from occupiers and gangs, freeing prisoners, capturing occupiers and criminals, preventing terroristic actions, which are perceived as patriotic ones and are generally accompanied by a lower level of mental trauma than unpopular actions.

3. *Individual and personal factors:* individual significance of the traumatic event for combatants; individual and typological features; understanding of value and motivational sphere; level of neuropsychiatric stability of combatants; features of the emotional, volitional and intellectual sphere of the serviceman; features of lifestyle and coping strategies, psychological defense mechanisms of psyche of combatants; presence in the combatant's psyche of neuropsychiatric and somatic diseases and psycho-traumatic factors.

In addition to trauma, there are some additional factors that determine to some extent how a combatant experiences trauma. The impact of trauma on the development of a traumatic disorder of a combatant without taking into account his personality is very difficult, because the traumatic nature of military actions depends on what significance they have

for this or that serviceman. Depending on personal experience and experience of actions in military conditions, the combatant's stress tolerance, his adaptive capabilities, stress coping skills, and understanding of the danger of the situation that is occurring, the same event may be traumatic for one individual and not cause severe trauma to another person.

Studies which was organized among operational law enforcement officers in Ukraine [7; 12] have shown that the risk of developing of post-traumatic stress disorder as a long-term consequence of the impact of a traumatic event increases in the psychological sphere of individuals with high levels of their personal anxiety, preoccupation with their health, internal tension, increased sensitivity and sentimentality.

A correlation between the main factors of individual possibilities was also found between personal motives for participating of combatants and the characteristics of mental trauma and the clinic of post-traumatic stress disorder. When diagnosing combatants who participated in military situations, in the group with a predominant number of such personal motives as defending the Motherland, duty to the dead and wounded comrades, the symptoms of post-traumatic stress disorder were relatively short-lived and with a positive outcome. The clinical picture of post-traumatic stress disorder was dominated by depressive manifestations, against the background of which sensitive and hysterical reactions are developed in combatants. In the group with a predominance of such motives as the material factor, anxiety about not appearing cowardly in the eyes of others, the symptoms of post-traumatic stress disorder were distinguished by a longer duration and hypochondriac and psychosomatic disorders prevailed in a clinical picture in a professional activity of psychologists with his/her clients.

A significant role in the process of the development of psychogenic psychoses belongs to the nature of some psycho-traumatic impact, which largely depends on the previous traumatic brain injuries, the presence of neuroinfections in the anamnesis, as well as on the personal characteristics of the combatant. Some scientists [6; 13] believed that post-traumatic stress disorder can be developed as a result of one or more traumatic events. Also, traumatic disorders can be accumulated due to the accumulation of traumatic experience.

An important condition for the perception of a traumatic situation is the age factor. Empirical research which was organized in 1986–1988 in the Chernobyl region among the population living in a radiation-contaminated area showed that the fact of

radiation contamination had extremely pathogenic effect on the development of neurotic disorders in the adult population, and had no effect on mental health of children [3; 12; 14].

For military personnel, there are some certain *factors that minimize the likelihood of developing post-traumatic stress disorder*, such as: the availability of high-quality professional selection; a high level of professional training; readiness to provide activities in military conditions; a high level of psycho-prophylactic support for military activities. Another important factor in minimizing the likelihood of developing post-traumatic stress disorder of combatants is providing them with assistance and support in the form of Psychological Therapy.

So, we proposed the set of measures had been organized by us in military units of commanders in order to restore the mental and physical resources of the person, which is called psychological rehabilitation. However, based on the experience of modern hostilities, it is more appropriate to talk about the psychological support of the renewed period of military activity, which includes:

- psychological counseling of combatants on psychological difficulties of the period of recovery;
- diagnosis of the mental state of servicemen who are a risk group (performed complex and stressful tasks; who are experiencing psychological problems; have a difficult family situations; who participated in hostilities for the first time; made serious mistakes during doing their tasks; female servicemen, etc.);
- psychological and socio-psychological support of combatants experiencing the difficulties of the recovery period;
- psychological informing of the person about possible negative psychological consequences of combatants and different ways to overcome them;
- use of specialized psychological methods with the aim of reaching accelerating recovery processes of combatants (psychophysical training, self-regulation training, being in intensive communication groups, etc.).

Psychocorrectional activity is carried out with a serviceman when he has some deviations from the normal recovery process, and when persistent psychological difficulties appear, and psychotherapeutic assistance is provided. These two forms of psychological assistance, just like those ones listed above, can be carried out in the conditions of a military unit by a psychologist in cooperation with the medical personnel of the same military unit. In this case, the subject of the recovery process remains the combatant himself.

Something different form from the above ones of psychological assistance is psychological rehabilitation, which is carried out in cases where the recovery process is blocked for any reason or it is possible only with the participation of specialists. Psychological rehabilitation is a process of organized psychological influence with the aim at restoring the mental health of combatants to a state that allows them to effectively solve their official and military tasks.

Psychological rehabilitation is an integral part of medical and psychological rehabilitation and it is carried out with military personnel undergoing treatment for wounds, contusions, injuries, burns, radiation, mental disorders. In some cases, medical and psychological rehabilitation is supplemented by professional and social rehabilitation.

Psychological rehabilitation is of great importance after the end of hostilities. In this case, psychologists of military units and commanders of these units must take into account the following factors:

- the time of the existence of military units is not the same as the combatant's exit from the military zone. The earlier and more fully psychological assistance is provided to combatants, and less likely it is that psychological problems will arise over a long period of time due to military stress;
- the degree of active participation of the military units and of some individual serviceman in military operations. The longer and more actively combatants operated in the military zone, the more efficient, extensive and comprehensive psychological assistance would be. The degree of military activity of servicemen is conventionally determined by the number and nature of military operations in which combatants participated, by the level of their military intensity and their significance for solving larger and greater military tasks;
- characteristics of socio-psychological climate and interpersonal relations in the military unit, the nature of the relations of a particular combatant with the people around him. In order to increase the effectiveness of providing psychological assistance to military personnel, it is advisable to pay attention to their mental states, previous conflicts (including them into a military situation) and complications in relations with colleagues, commanders and others;
- the number of military losses in the unit and their causes, as well as the nature and causes of wounds, contusions, injuries, burns and other forms of harm to the physical health of a particular combatant. In the process of providing psychological assistance to a particular serviceman during the recovery period, the

psychologist of the military unit and the commander of the unit have to take into account:

a) the degree of impact on the combatant of the deaths (especially mass) of his fellow soldiers (primarily close friends);

b) situations, in which the health of the serviceman was harmed;

c) the nature of the combatant's attitude to the events specified in points (a) and (b);

d) awards and decorations related by one degree or by another one according to these events;

e) the peculiarities of the attitude of a military command at various levels to these events;

f) the nature of the reflection of these events in the opinions of fellow soldiers and as it is described in Mass Media.

- characteristics and conditions of the activity of a military unit, subdivision, a combatant after leaving a military zone. Organized and well-thought-out activity of military personnel after their return from a military situation to normal conditions for mental health will contribute to increasing the effectiveness of psychological assistance provided to combatants. It is of great importance for commanders to predict the psychological effect of decisions they have made for the organization of personnel activities after the withdrawal of a unit or subdivision from a military zone.

Along with the listed factors, the process of providing psycho-physiological assistance is influenced by the experiences of combatants, which are associated with such events of combatants' experience, such as:

- the death of comrades and civilians, for which the serviceman attributes moral responsibility to himself;

- physical destruction (especially for the first time) of enemy soldiers;

- conducting (especially prolonged one) of military operations surrounded by the enemy, having been in captivity;

- committing, in the opinion of combatants, unlawful actions or passive complicity of them.

When organizing psychological assistance to servicemen who participated in hostilities, it is advisable also to take into account certain social, ethnic, religious, family and other circumstances that have an additional impact on the mental state of servicemen during the recovery period. Psychologists of military units must remember that a person can endure the most severe suffering and deprivation only if he is able to give them a personally significant meaning, if he feels his need and protection, finds understanding, respect and moral support from others.

From the moment of receiving the task to prepare the unit for redeployment to a military zone, the problem of preventing combatants' mental trauma and providing psychological assistance and support becomes a priority problem for psychologists in the activities of a military unit. During explanatory activity with the command staff, it is advisable to consider the essence, characteristics, symptoms of combatants' mental trauma and paying the attention to measures of primary psychological assistance. It is important to focus the attention on military units of commanders and reliable use of elements of modeling military factors during combatants' training.

Particular attention should be paid to the establishment of a military informational system. Also, this is important because uncertainty and the unknown exhausting of the psyche of a serviceman is more important than any rigid concreteness, generating negative emotions and reducing adaptive reserves. It is important to focus on updating combatants' motives, clarifying the goals and necessity of future military operations.

There are following areas of psycho-physiological activity of military units, which are distinguished to ensure the necessary psychological stability of combatants:

- education and maintenance of fighting spirit of the person;

- in a military situation there are failures of our troops and human losses, which are possible, therefore it is important not only to compensate for negative emotions, but also to restore the fighting spirit of soldiers, to predict possible changes in people's mood in any days;

- a positive role in creating a favorable psychological atmosphere in a military unit and raising morale and fighting spirit are played by thoughtful and timely stimulation of military activities of soldiers.

It is advisable for a physiologist of a military unit to be guided by the principle that during the period of preparation and expectation of military operations, the person should be constantly active. In the absence of useful military activity, various opinions and rumors are arisen, fear of the unknown sense is arisen, and a general decline in fighting spirit occurs. After arriving into the area of military operations, a physiologist must take care of the equipment in the nearest rear of the psycho-physiological first aid point. This may be an empty building, a tent, a dugout, etc. Comfortable conditions should be created at the point of: heat, water, sleeping places, food.

It is not advisable to place it near the collection point of the wounded, as their appearance and moans

can increase a psychological trauma. It is also necessary to the combatant to make sure that the medical instructor knows the symptoms of combatant's mental trauma, the location of the point, and tries to take care of supplying them with sedatives. During military operations, it is very important to understand for yourself and to explain to others that a fighter who has suffered from military mental trauma is equal to someone who has received a severe physical injury. Therefore, this category is attributed to psychological losses.

A combatant who has received a military trauma (also mental one) must firstly be evacuated from the battlefield and to be taken to a psychological first aid point. If evacuation is impossible (something like a battle in the environment), he must be placed into a shelter, given a sedative and to be kept under supervision, isolated from weapons, until the possibility of evacuation appears. Manifestations of combatants' trauma (also mental one) must be distinguished from different manifestations of confusion or cowardice, which neither appeals, nor persuasions, nor slaps, nor threats (up to the execution) will bring the fighter out of a state of disorientation and can only be worsen the consequences of military trauma (also mental one).

Conclusions

It should also be noted that in order to improve the effectiveness and timeliness of providing psychological assistance to combatants who have suffered military mental trauma and their psychological rehabilitation in military situations, a military psychologist must take into account such aspects, as: training senior military groups, sergeants and officers to recognize post-traumatic stress disorder reactions and respond to them correctly, providing the simplest first aid and a great support; identifying servicemen with acute post-traumatic stress disorder reactions and sending them to the rear for inpatient recovery or treatment of combatants; creating points for providing primary psychological and physiological assistance and support in places where servicemen rest or units rotate.

When psychologists and physiologists conduct readaptation or rehabilitation of combatants with long-term consequences of stress-related influences, they are faced with the fact that almost all combatants experience temporary maladaptation in peaceful conditions. Successful overcoming of the negative consequences of experiencing traumatic events depends on the level of the activity of the combatant and his

ability to implement more optimal strategies for exiting the crisis situation.

Psychologists also carry out rehabilitation activity, both in the area of military operations and in peacetime, organically including combatants' activities in *the three-level rehabilitation system*. At the technological and methodological levels, there are significant differences when provide the activity in different conditions: in any military situation psychological rehabilitation is closely related to psychological assistance and support, and in a peaceful situation psychological and physiological rehabilitation are carried out in conjunction with medical measures, full-fledged rest. It includes productive activity with the combatants' families, activities to restore social status and, undoubtedly, it is carried out on the basis of a good material and technical basis. But in any conditions, the rehabilitation activity of a psychologist should be carried out in the following areas:

1) organizational activity, which includes all levels of planning the psychologist's activities, as well as preparatory and direct activity in all types and areas of professional activity;

2) psychoprophylaxis activities. These are activities, which are used to prevent undesirable manifestations in the psyche of a combatant;

3) psychodiagnostics, as the activity of a psychologist to identify the psychological characteristics of combatants, military groups and various aspects of military service;

4) psychological counseling. It is the activity of a psychologist, which is of a recommendatory nature, it is based on the joint identification of the causes and shortcomings of existing conditions; counseling is carried out in the form of a systematic reception of war of combatants and members of their families;

5) psychocorrection. It is the organization of the activity, which allows combatants to do targeted influences on the personality and psyche of the combatant, in order to change, strengthen or form the necessary qualities;

6) psychotherapeutic influences, which ensure targeted change in the necessary qualities and characteristics of combatants, in the interests of military service, carried out by means of verbal and non-verbal influences on the emotional-volitional, intellectual, motivational sphere of the combatant's personality, as well as in creating comfortable conditions for military service;

7) the activity with families of combatants.

BIBLIOGRAPHY

1. Brodsky B.S., Oquendo M., Ellis S.P., Haas G.L., Malone K.M., Mann J.J. The relationship of childhood abuse to impulsivity and suicidal behavior in adults with major depression. *The American Journal of Psychiatry*. 2001. Vol. 158(11). P. 1871–1877. DOI: 10.1176/appi.ajp.158.11.1871.

2. Card J. Epidemiology of PTSD in a national cohort of Vietnam Veterans. *Journal of Clinical Psychology*. № 43(1). 1987. P. 6–17. URL: doi: 10.1002/1097-4679(198701)43:1<6::aid-jclp2270430103>3.0.co;2-x.
3. Chan J.W.M., Ng C.K., Chan Y.H. Short term outcome and risk factors for adverse clinical outcomes in adults with severe acute respiratory syndrome (SARS). *Thorax*. 2003. Vol. 58. P. 686–689. DOI: 10.1136/thorax.58.8.686
4. Corbitt E.M., Malone K.M., Haas G.L., Mann J.J. Suicidal behavior in patients with major depression and comorbid personality disorders. *Journal of affective disorders*. 1996. Vol. 39(1). P. 61–72. DOI: 10.1016/0165-0327(96)00023-7.
5. Edwards F., Lee H., Esposito M. Risk of being killed by police use of force in the United States by age, race-ethnicity, and sex. *Proceedings of the National Academy of Sciences of the United States of America*. 2019. Vol. 116 (34). P. 16793–16798. DOI: 10.1073/pnas.1821204116.
6. Epstein R., Blake J.J., González T. Girlhood interrupted: the erasure of black girls' childhood. Washington, DC: Georgetown Law Center on Poverty and Inequality. 2017. URL: <https://www.law.georgetown.edu/poverty-inequality-center/wp-content/uploads/sites/14/2017/08/girlhood-interrupted.pdf.tab>.
7. Figley C.R. Trauma and Its Wake. Brunner/Mazel, New York, 1985. 457 p. <https://doi.org/10.1002/smi.2460020217>
8. Grunebaum M.F., Oquendo M.A., Burke A.K., Ellis S.P., Echavarría G., Brodsky B.S., Malone K.M., Mann J.J. Clinical impact of a 2-week psychotropic medication washout in unipolar depressed inpatients. *Journal of affective disorders*. 2003. Vol. 75(3). P. 291–296. DOI: 10.1016/s0165-0327(02)00168-4.
9. Huang Yung-yu, Oquendo M.A., Friedman Jill M.H., Greenhill L.L., Brodsky B., Malone K.M., Khait V., Mann J.J. Substance abuse disorder and major depression are associated with the human 5-HT1B receptor gene (HTR1B) G861C polymorphism. *International Journal of Neuropsychopharmacology*. 2003. Vol. 28(1). P. 163–169. DOI: 10.1038/sj.npp.1300000.
10. Kraus K. Bildung von Lehrerinnen und Lehrern: Herausforderungen in Schule, Hochschule und Gesellschaft. Berlin; Toronto: Budrich UniPress, 2015. S. 145. URL: https://www.pedocs.de/frontdoor.php?source_opus=16736
11. Mandell B., Pherwani S. Relationship between emotional intelligence and transformational leadership style: a gender comparison. *Journal of Business and Psychology*. 2003. Vol. 17(3). P. 387–404. URL: <https://link.springer.com/article/10.1023/A:1022816409059>
12. Mykhalechuk N., Kharchenko Ye., Ivashkevych Ed., Ivashkevych Er., Nabochuk A. Types of military stress of combatants in the situation of war in Ukraine. *Actual problems of education and science in the conditions of war: collective monograph*. Compiled by V. Shpak; Chairman of the Editorial Board S. Tabachnikov. Sherman Oaks California: GS Publishing Services. 2023. P. 104–121.
13. Mykhalechuk N., Pelekh Yu., Kharchenko Ye., Ivashkevych Ed., Zukow W., Ivashkevych Er., Yatsjyryk A. Suicidal behavior as a result of maladjustment of servicemen to the conditions of military service in Ukraine. *European Journal of Clinical and Experimental Medicine*. 2023. Vol. 21(1). P. 90–107. DOI: 10.15584/ejcem.2023.1.12
14. Murphy N.A., Hall J.A., Hall C.R. Accurate intelligence assessments in social interaction: Mediators and gender effects. *Journal of Personality*. 2003. Vol. 71(3), June. P. 465–493. DOI: 10.1111/1467-6494.7103008
15. Onufrieva L., Chaikovska O., Kobets O., Pavelkiv R., Melnychuk T. Social Intelligence as a Factor of Volunteer Activities by Future Medical Workers. *Journal of History Culture and Art Research*. 2020. Vol. 9(1). P. 84–95. URL: <http://dx.doi.org/10.7596/taksad.v9i1.2536>.
16. PTSD: National Center for PTSD. 2022. URL: <http://www.ptsd.va.gov/public/PTSD-overview/basics/how-common-is-ptsd.asp>

REFERENCES

1. Brodsky, B.S., Oquendo, M., Ellis, S.P., Haas, G.L., Malone, K.M. & Mann, J.J. (2001). The relationship of childhood abuse to impulsivity and suicidal behavior in adults with major depression. *The American Journal of Psychiatry*, 158(11), 1871–1877. DOI: 10.1176/appi.ajp.158.11.1871.
2. Card, J. (1987). Epidemiology of PTSD in a national cohort of Vietnam Veterans. *Journal of Clinical Psychology*, 43(1), 6–17. DOI: 10.1002/1097-4679(198701)43:1<6::aid-jclp2270430103>3.0.co;2-x.
3. Chan, J.W.M., Ng, C.K. & Chan, Y.H. (2003). Short term outcome and risk factors for adverse clinical outcomes in adults with severe acute respiratory syndrome (SARS). *Thorax*, 58, 686–689. DOI: 10.1136/thorax.58.8.686
4. Corbitt, E.M., Malone, K.M., Haas, G.L. & Mann, J.J. (1996). Suicidal behavior in patients with major depression and comorbid personality disorders. *Journal of affective disorders*, 39(1), 61–72. DOI: 10.1016/0165-0327(96)00023-7.
5. Edwards, F., Lee, H. & Esposito, M. (2019). Risk of being killed by police use of force in the United States by age, race-ethnicity, and sex. *Proceedings of the National Academy of Sciences of the United States of America*, 116 (34), 16793–16798. DOI: 10.1073/pnas.1821204116.
6. Epstein, R., Blake, J.J. & González, T. (2017). Girlhood interrupted: the erasure of black girls' childhood. Washington, DC: Georgetown Law Center on Poverty and Inequality. Retrieved from <https://www.law.georgetown.edu/poverty-inequality-center/wp-content/uploads/sites/14/2017/08/girlhood-interrupted.pdf.tab>.
7. Figley, C.R. (1985). Trauma and Its Wake. Brunner/Mazel, New York. 457 p. <https://doi.org/10.1002/smi.2460020217>
8. Grunebaum, M.F., Oquendo, M.A., Burke, A.K., Ellis, S.P., Echavarría, G., Brodsky, B.S., Malone, K.M. & Mann, J.J. (2003). Clinical impact of a 2-week psychotropic medication washout in unipolar depressed inpatients. *Journal of affective disorders*, 75(3), 291–296. DOI: 10.1016/s0165-0327(02)00168-4.
9. Huang, Yung-yu, Oquendo, M.A., Friedman, Jill M.H., Greenhill, L.L., Brodsky, B., Malone, K.M., Khait, V. & Mann, J.J. (2003). Substance abuse disorder and major depression are associated with the human 5-HT1B receptor gene

(HTR1B) G861C polymorphism. *International Journal of Neuropsychopharmacology*, 28(1), 163–169. DOI: 10.1038/sj.npp.1300000.

10. Kraus, K. (2015). Bildung von Lehrerinnen und Lehrern: Herausforderungen in Schule, Hochschule und Gesellschaft. Berlin; Toronto: Budrich UniPress. S. 145. Retrieved from https://www.pedocs.de/frontdoor.php?source_opus=16736

11. Mandell, B. & Pherwani, S. (2003). Relationship between emotional intelligence and transformational leadership style: a gender comparison. *Journal of Business and Psychology*, 17(3), 387–404. Retrieved from <https://link.springer.com/article/10.1023/A:1022816409059>

12. Mykhalchuk, N., Kharchenko, Ye., Ivashkevych, Ed., Ivashkevych, Er. & Nabochuk, A. (2023). Types of military stress of combatants in the situation of war in Ukraine. *Actual problems of education and science in the conditions of war: collective monograph*, 104–121. Compiled by V. Shpak; Chairman of the Editorial Board S. Tabachnikov. Sherman Oaks California: GS Publishing Services.

13. Mykhalchuk, Nataliia, Pelek, Yurii, Kharchenko, Yevhen, Ivashkevych, Eduard, Zukow, Walery, Ivashkevych, Ernest & Yatsjuriy, Alla (2023). Suicidal behavior as a result of maladjustment of servicemen to the conditions of military service in Ukraine. *European Journal of Clinical and Experimental Medicine*, 21(1), 90–107. DOI: 10.15584/ejcem.2023.1.12

14. Murphy, N.A., Hall, J.A. & Hall, C.R. (2003). Accurate intelligence assessments in social interaction: Mediators and gender effects. *Journal of Personality*, 71(3), June, 465–493. DOI: 10.1111/1467-6494.7103008

15. Onufrieva, L., Chaikovska, O., Kobets, O., Pavelkiv, R. & Melnychuk, T. (2020). Social Intelligence as a Factor of Volunteer Activities by Future Medical Workers. *Journal of History Culture and Art Research*, 9(1), 84–95. Retrieved from <http://dx.doi.org/10.7596/taksad.v9i1.2536>.

16. PTSD: National Center for PTSD (2022). Retrieved from <http://www.ptsd.va.gov/public/PTSD-overview/basics/how-common-is-ptsd.asp>