

UDC 613.86:355.097.2

DOI <https://doi.org/10.32689/2663-0672-2024-4-11>

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MENTAL HEALTH OF VOLUNTEERS DURING WARTIME: COMPREHENSIVE ASSESSMENT USING A STANDARDIZED EVALUATION QUESTIONNAIRE AND DEVELOPMENT OF A PROGRAM FOR THE PREVENTION AND CORRECTION OF NEUROTIC AND STRESS-RELATED MENTAL DISORDERS

The article addresses pressing issues related to the mental health of individuals on the front lines of response during the Russian-Ukrainian war. These individuals are directly involved in providing aid in shelling zones, interacting with affected populations, and coordinating humanitarian operations. Their activities are characterized by a high risk of primary and secondary traumatization due to constant contact with people who have experienced loss, destruction, and grief. This group also includes volunteers actively engaged in providing psychosocial and humanitarian assistance. Volunteer initiatives have played a crucial role in mitigating the socio-economic challenges Ukraine faced during the initial stages of the war. However, as the workload of volunteers increases, there is a notable rise in stress levels and emotional exhaustion, adversely affecting their productivity and efficiency. This underscores the need to study factors contributing to the development of mental disorders among volunteers and to determine the prevalence of these conditions. Notably, it is essential to create an effective program for psychosocial support, prevention, and management of neurotic and stress-related mental disorders, tailored for implementation at the outpatient level.

The aim. To examine the prevalence and analyze the factors contributing to the development of neurotic and stress-related disorders among individuals engaged in volunteer activities during the war. The study results will serve as the basis for developing a comprehensive personalized program for psychosocial support, prevention, and management at the outpatient level in mental health centers. The goal is to reduce psycho-emotional stress and improve the quality of life for volunteers.

Methodology. A standardized assessment questionnaire was developed for the study, including socio-demographic data, a social problems survey, and psychopathological test methods. The research was conducted in two stages and included both quantitative and qualitative data analysis.

Scientific novelty. For the first time, the mental health of volunteers has been studied in the context of the Russian-Ukrainian war, as this group is at high risk of exposure to psychotraumatic factors. The results of the study formed the basis for the implementation of a comprehensive program for psychosocial support, prevention, and management of neurotic and stress-related disorders among volunteers.

Conclusions. The findings indicate an increased vulnerability of volunteers to stress-related mental disorders, driven by the nature of their work and the constant impact of stress factors. This aligns with previous research, which highlights significant levels of stress and a high risk of emotional burnout among humanitarian workers in crisis situations. A critical issue is the lack of psychological support for volunteers, which complicates their adaptation process and increases the risk of developing neurotic and stress-related disorders.

Key words: neurotic and stress-associated disorders, war, volunteers, trauma, PTSD, non-psychotic mental disorders, psychocorrection, depression, anxiety, psychoeducation.

Богдан Сумарюк. ПСИХІЧНЕ ЗДОРОВ'Я ВОЛОНТЕРІВ У ЧАСІ ВІЙНИ: КОМПЛЕКСНА ОЦІНКА ЗА ДОПОМОГОЮ УНІФІКОВАНОЇ АНКЕТИ ОЦІНЮВАННЯ ТА РОЗРОБКА ПРОГРАМИ ПРОФІЛАКТИКИ Й КОРЕКЦІЇ НЕВРОТИЧНИХ ТА СТРЕС-АСОЦІЙОВАНИХ ПСИХІЧНИХ РОЗЛАДІВ

У статті розглядаються актуальні питання, пов'язані з психічним здоров'ям осіб, які належать до першої лінії реагування під час російсько-української війни. Ці особи безпосередньо залучені до надання допомоги в зонах обстрілів, взаємодіють із постраждалими, а також координують гуманітарну підтримку. Особливістю їхньої діяльності є високий ризик первинної та вторинної травматизації через постійний контакт із людьми, які зазнали втрат, руйнувань і пережили горе. До цієї групи належать також волонтери, які активно займаються наданням психосоціальної та гуманітарної допомоги. Волонтерські ініціативи відіграли важливу роль у зменшенні соціально-економічних труднощів, з якими Україна зіткнулася на початкових етапах війни. Проте зі збільшенням обсягу завдань, покладених на волонтерів, спостерігається підвищення рівня стресу та емоційного виснаження, що негативно впливає на їхню продуктивність та ефективність. Це актуалізує необхідність дослідження чинників, які сприяють розвитку психічних розладів серед волонтерів, а також визначення поширеності цих станів. Зокрема, важливим є створення ефективної програми психосоціального супроводу, профілактики та корекції невротичних і стрес-асоційованих психічних розладів, адаптованої для впровадження на амбулаторному рівні надання допомоги.

Мета дослідження: вивчення поширеності та аналіз факторів розвитку невротичних та стрес-асоційованих розладів серед осіб, які залучені до волонтерської діяльності в умовах війни. Результати дослідження слугують основою для розробки комплексної персоналізованої програми психосоціального супроводу, профілактики та корекції на амбулаторному рівні надання допомоги у сфері психічного здоров'я (на базі Центрів Психічного Здоров'я), з метою зниження психоемоційного навантаження та покращення якості життя волонтерів.

Матеріали та методи дослідження: для проведення дослідження було розроблено уніфіковану анкету обстеження, що включала: соціально-демографічні дані, анкету щодо соціальних проблем, патопсихологічні тестові методики. Дослідження складалося з двох етапів та включало кількісний і якісний аналіз даних.

Наукова новизна. Вперше досліджено психічне здоров'я волонтерів у контексті російсько-української війни, оскільки дана категорія є у групі ризику зазнання психотравмуючих чинників. Результати проведеного дослідження покладені у впровадження комплексної програми психосоціального супроводу, профілактики та корекції невротичних і стрес-асоційованих розладів серед волонтерів.

Висновки. Отримані результати свідчать про підвищену вразливість волонтерів до психічних розладів, пов'язаних зі стресом, що обумовлено особливостями їхньої роботи та постійною дією стресових факторів. Це узгоджується з даними попередніх досліджень, які вказують на значний рівень стресу і ризику емоційного вигорання серед гуманітарних працівників у кризових ситуаціях. Однією з ключових проблем є недостатня психологічна підтримка для волонтерів, що ускладнює процес їхньої адаптації та підвищує ризик розвитку невротичних та стрес-асоційованих розладів.

Ключові слова: невротичні та стрес-асоційовані розлади, війна, волонтери, травма, ПТСР, неспокійні психічні розлади, психокорекція, депресія, тривога, психоосвіта.

Statement of the problem. The full-scale invasion of Russia into Ukraine has brought not only physical losses but also a significant impact on the mental health of Ukrainians. Particular attention should be paid to first responders, as they are directly involved in providing assistance in shelling zones, interacting with victims, and coordinating humanitarian aid. These individuals are often exposed to traumatization due to constant contact with people who have experienced loss, destruction, and grief, which may lead to the development of neurotic and stress-related mental disorders. This category also includes volunteers who actively engage in providing psychosocial and humanitarian assistance.

According to the Law of Ukraine "On Volunteer Activities", a volunteer is an individual who engages in voluntary, socially-oriented, and non-profit activities [9].

As per OpenDataBot, based on official data from the State Tax Service of Ukraine, 6,734 individuals were registered in the volunteer registry as of December 7, 2023, for collecting funds to provide aid [5]. This number marks a significant increase compared to January 2022, when only 320 volunteers were officially registered [4]. However, the number of people engaging in informal charitable activities is substantially higher. For instance, according to "Monobank", as of May 2023, 38,963 Ukrainians opened accounts for fundraising, exceeding the number of officially registered volunteers by eightfold [5].

Beyond financial volunteering, other essential forms of activity include:

– *Physical assistance:* working in humanitarian centers, purchasing, unloading, sorting, and delivering aid, weaving camouflage nets, cooking, restoring damaged housing;

– *Service provision:* psychological support, medical and educational assistance, legal support, housing search for internally displaced persons, logistics services, cargo delivery, and evacuation of civilians from hazardous areas;

– *Informational volunteering:* spreading reliable information on social media, countering disinformation, and managing advertising and SMM for non-governmental organizations.

Volunteer initiatives have played a critical role in mitigating many socio-economic challenges faced by

Ukraine during the early stages of the war. However, the growing scope of responsibilities assigned to volunteers has led to increased stress levels and emotional exhaustion, negatively affecting their productivity and efficiency [13, 14]. This highlights the urgent need to examine the factors contributing to the development of mental disorders among volunteers and determine their prevalence. It is particularly important to develop an effective program for preventing and managing neurotic and stress-related mental disorders, tailored for implementation at the outpatient care level.

Analysis of recent studies and publications.

According to the World Health Organization (WHO), one in five individuals (22%) who have experienced war or conflict over the past decade will suffer from depression, anxiety, post-traumatic stress disorder (PTSD), or other mental health conditions. Applying these statistics to the Ukrainian context, WHO estimates that approximately 9.6 million Ukrainians may face mental disorders as a result of the war [17].

In early 2024, the Ukrainian nationwide mental health program "How Are You?", initiated by Olena Zelenska, released an analytical report. The sociological company Gradus Research conducted the third wave of the study "Mental Health and Attitudes of Ukrainians Toward Psychological Assistance During the War". The findings reveal that among those who recently experienced stress or severe anxiety, the primary causes were the full-scale Russian war against Ukraine (72%), financial difficulties (41%), and the socio-political situation in the country (38%). Additionally, 40% of respondents reported a need for psychological assistance over the past six months, but only 8% sought professional help [8, 12].

Our research on factors contributing to the development of neurotic and stress-related mental disorders among volunteers involved a standardized assessment questionnaire. Analysis revealed that 176 respondents (61.11%) expressed a willingness to consult a mental health professional. Furthermore, 244 respondents (84.72%) reported that volunteering provided emotional relief, suggesting that volunteering may sometimes serve as a coping strategy for alleviating emotional discomfort.

According to the National Health Service of Ukraine (NHSU), the number of patients diagnosed with PTSD

has significantly increased in recent years. In 2023, the number of PTSD cases quadrupled compared to 2021, and in the first two months of 2024, the number of diagnoses matched that of the entire year 2021. In 2023, 12,494 patients were officially diagnosed with PTSD, while 3,292 patients received the diagnosis in the first two months of 2024 [3].

Statistical data from the Ministry of Health of Ukraine indicate that from the beginning of the year until August 16, 2024, 276,926 patients consulted general practitioners or family physicians with mental health concerns—more than double the figure for all of 2023 (approximately 135,000 patients) [2].

Despite these findings, the prevalence of non-psychotic mental disorders among volunteers in Ukraine amidst the war remains insufficiently studied. This gap necessitates further research into the factors contributing to the development and formation of neurotic and stress-related disorders among volunteers. Additionally, there is a pressing need to develop a personalized program for the support, prevention, and management of these disorders among volunteers. Implementing such a program at the outpatient level would not only reduce the need for hospitalization in specialized facilities but also offer a more accessible and cost-effective approach to mental healthcare.

Objective of the study. The objective of this study is to examine the prevalence and analyze the factors contributing to the development of neurotic and stress-related disorders among individuals engaged in volunteer activities during wartime. The results of the study serve as the foundation for the development of a comprehensive, personalized program for psychosocial support, prevention, and management at the outpatient level in mental health care centers. The program aims to reduce psycho-emotional stress and improve the quality of life for volunteers.

Materials and methods of the study. A standardized assessment questionnaire was developed for this research, which included:

- Socio-demographic data,
- A questionnaire on social problems,
- Pathopsychological testing methodologies.

The study was conducted in two stages and involved both quantitative and qualitative data analysis. A total of 288 volunteers engaged in humanitarian aid during the Russian-Ukrainian war participated in the study. The sample included individuals aged 18 to 60 years with varying levels of volunteer experience.

Inclusion criteria. Volunteers were eligible for the study if they met all the following criteria:

- Engagement in volunteer activities;
- Ability to provide informed consent;
- Age between 18 and 60 years.

Exclusion criteria. Volunteers were excluded from the study if they met any of the following criteria:

- A diagnosed mental disorder or use of psychoactive substances as per ICD-10 prior to the study;
- Active or demobilized military personnel;
- Presence of organic brain lesions;
- Concurrent participation in other research studies at the time of this study.

Presentation of the main research findings.

The study consisted of two stages and included both quantitative and qualitative data analyses.

Stage 1: Initial identification of predictors

The first stage focused on identifying predictors of susceptibility to the development of neurotic and stress-related disorders among volunteers providing assistance during wartime. This was achieved using a standardized assessment questionnaire that incorporated:

- *Socio-demographic data:* gender, age, place of residence, marital status, and presence of children;
- *Social problems questionnaire:* daily routine, nutrition, duration of volunteer activity, material and living conditions, alcohol consumption, self-assessment of health, and type of volunteer activity.

– The following psychodiagnostic methods were utilized:

- Hospital Anxiety and Depression Scale (HADS),
- Pittsburgh Sleep Quality Index (PSQI),
- General Quality of Life Questionnaire (MOS SF-36),
- Symptom Checklist 90-R (SCL-90-R),
- Standardized PTSD verification questionnaire.

Stage 2: Diagnostic verification of mental disorders

The second stage involved diagnostic procedures to verify the presence of mental disorders in volunteers who obtained positive diagnostic results according to the psychodiagnostic methods. This stage required informed consent for a psychiatric evaluation (primary medical documentation form No. 003-7/o) and direct consultation with a psychiatrist. These consultations were conducted at mental health centers affiliated with the following institutions:

- Municipal Polyclinic No. 1 and No. 2,
- Central City Clinical Hospital of the Chernivtsi City Council [11].

Diagnoses were established based on the criteria of the International classification of diseases, 10th revision (ICD-10) and the National disease classifier NC 025:2021 [15, 10].

The study involved 288 volunteers engaged in humanitarian aid during the Russian-Ukrainian war. The sample included individuals aged 18 to 60 years with varying levels of volunteer experience.

Over the course of the two-stage study, the following were analyzed:

- *Key factors influencing emotional discomfort:*

These factors contribute to the development of neurotic and stress-related disorders among volunteers.

– *Prevalence of these disorders:* The findings provided insight into the extent to which these disorders affect the volunteer population.

The analysis revealed significant predictors, such as the nature of volunteer activities, duration of engagement, and socio-demographic characteristics, which exacerbate the risk of emotional strain and psychological distress. These insights form the foundation for further interventions and tailored programs targeting mental health support for volunteers.

Based on the statistical analysis of the personalized questionnaire for individuals engaged in volunteer activities during the war, the primary factors contributing to the development of neurotic and stress-related disorders are as follows:

- Sense of lack of prospects (39.2% of respondents);
- Inability to adapt to a new environment (58.3% of respondents);
- Difficulty in assimilating new norms and rules (55.8% of respondents);
- Separation or divorce from a loved one (43.3% of respondents);
- Deterioration of material and living conditions (65% of respondents);
- Forced change of profession (23.3% of respondents);
- Negative influence of mass media (42.3% of respondents);
- Interpersonal conflicts in the team (34.3% of respondents);
- Feeling of isolation among others (21.1% of respondents).

According to the design of the second stage of the study, volunteers who experienced excessive emotional discomfort, had difficulties performing daily tasks, and received clinically positive results in at least one of the questionnaires were offered a clinical-psychopathological examination to verify their diagnosis. These examinations were conducted at the mental health centers affiliated with Municipal polyclinic No. 1 and No. 2 and the Central city clinical hospital of the Chernivtsi City Council.

Out of the total sample of 288 volunteer respondents, 114 participants from the first stage of the study were invited for interviews as part of the clinical-psychopathological examination, accounting for 39.58% of the total sample.

All diagnoses were established by psychiatrists following the criteria of the International classification of diseases, 10th revision (ICD-10), and the National disease classifier NC 025:2021 [15, 10].

Following interviews conducted with 114 participants in the second stage of the study, it was found that 82 participants met the criteria for the presence of neurotic or stress-related disorders according to

ICD-10, specifically disorders under the rubric F40-F48 “Neurotic, stress-related, and somatoform disorders” [15]. The remaining 32 volunteer respondents out of 114 did not meet the criteria for mental disorders. This accounts for 28.47% of the total sample of 288 respondents and exceeds the 22% prevalence rate projected by the World Health Organization for individuals who have experienced war or other conflicts in the last 10 years by 6.47% [17].

These findings indicate that volunteers constitute a high-risk group for the development of neurotic and stress-related disorders, emphasizing the need to create a personalized program of psychosocial support, prevention, and psychocorrection tailored to this population, with consideration of predictors that contribute to such changes.

To prevent the development of neurotic and stress-related disorders among individuals engaged in volunteer activities during wartime, in addition to the primary treatment outlined in the Unified clinical protocol for primary and specialized medical care (*Acute Stress Reaction, Post-Traumatic Stress Disorder, Adjustment Disorders*), approved by the order of the Ministry of Health of Ukraine No. 1265, dated July 19, 2024, it is necessary to develop personalized programs for psychosocial support, prevention, and correction of these disorders among volunteers [7].

The program we developed provides assistance at the outpatient level, specifically through mental health centers. Within the framework of this study, assistance was provided at centers located in Municipal polyclinic No. 1 and No. 2 and the Central city clinical hospital of the Chernivtsi City Council. These facilities, in addition to specialized medical care, have over 90% of primary healthcare staff trained under the mhGAP program (*Mental Health Gap Action Program*) [6].

Furthermore, these centers are enrolled in the State medical guarantee program under package No. 51, “*Support and Treatment of Adults and Children with Mental Disorders at the Primary Care Level*”, which significantly facilitated the provision of care to patients with mental and behavioral disorders. This ensured close collaboration between specialized and primary care, enabling rapid referrals for patients with identified mental health issues [1].

The personalized program for psychosocial support, prevention, and psychocorrection, in addition to standard treatment per the clinical protocol, includes:

- *Group and individual psychoeducational consultations* aimed at explaining the patient's health status, which increases their engagement in the program.
- Organization of *peer-support groups*, where facilitators, in prior agreement with mental health specialists, design group support programs.
- Group sessions using *low-intensity scalable psychological interventions* developed by the WHO, such

as “Self-Help+”, “Problem Management+”, as well as self-regulation techniques and trauma-focused cognitive-behavioral therapy [18, 16].

It is recommended that specialized interventions be conducted by mental health professionals accredited as trainers for the respective interventions. This approach ensures high-quality program implementation and compliance with international standards. Additionally, it is essential to provide all specialists with *supervision support*, enabling them to enhance and refine the psychocorrection program further.

Conclusions. The findings indicate an increased vulnerability of volunteers to stress-related mental disorders, driven by the nature of their work and constant exposure to stress factors. This aligns with previous studies highlighting significant stress levels and a high risk of emotional burnout among humanitarian workers in crisis situations. One of the key issues identified is the lack of adequate psychological support for volunteers, which complicates their adaptation process and increases the risk of developing neurotic and stress-related disorders.

Notably, the results of the standardized assessment questionnaire reveal that the majority of volunteers are willing to seek mental health support. In response to the question, “*Would you like to consult a mental health*

professional?” 176 respondents (61.11% of the total sample) answered “Yes”.

Additionally, the duration of engagement in volunteer activities correlates with a higher level of emotional burnout, underscoring the need for mechanisms to prevent and address this issue among volunteers. The study demonstrates that volunteer work during wartime is associated with an elevated risk of developing neurotic and stress-related disorders. To mitigate this risk, it is essential to implement systems of psychological support for volunteers and enhance their awareness of their mental health.

Prospects for further research. The results of this study and the implementation of a comprehensive program for psychosocial support, prevention, and correction of neurotic and stress-related disorders among volunteers can serve as a foundation for further scientific research aimed at developing interdisciplinary approaches to restoring volunteers’ mental health.

The mental health of this population is a critical element of societal resilience during wartime. Ensuring the well-being of volunteers and the effectiveness of their activities for the common good is achievable only through a systematic approach that incorporates research, prevention, and timely correction of their psycho-emotional state.

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