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**MODERN PRACTICES
OF HEALTH AND MEDICINE**



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ISBN 978-617-7886-85-2
DOI: 10.61718/medheal2025

MEDFOCUS

SCIENTIFIC AND ANALYTICAL PUBLICATION

SCIENTIFIC CONFERENCE-FORUM
«MODERN PRACTICES OF HEALTH AND MEDICINE»

2025

• MEDICINE • SOCIAL SECURITY • PSYCHOLOGY •
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MEDFOCUS НАУКОВО-АНАЛІТИЧНЕ ВИДАННЯ

- Засновано 2025 року
- Міжнародний стандартний номер книжкового видання ISBN 978-617-7886-85-2
- Видання отримує власний DOI: 10.61718/medheal2025
- Видання є електронним мультидисциплінарним неперіодичним науковим виданням
- Засновник та видавець: Соціально-гуманітарна науково-творча майстерня «Новий курс» є науковою установою
- Свідectvo про внесення суб'єкта видавничої справи до державного реєстру видавців, виготовлювачів і розповсюджувачів видавничої продукції ДК № 8013 від 22.11.2023
- Зареєстровано у глобальному реєстрі видавців Global Register of Publishers
- Зареєстровано у Crossref із власним префіксом 10.61718
- Публікація у виданні є науковою працею, яка опублікована у вітчизняному електронному науковому неперіодичному виданні та підтверджує апробацію досліджень автора та підвищення кваліфікації
- Тематика видання: охорона здоров'я та соціальне забезпечення, медицина та психологія, фізична культура та спорт
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- Контент видання оновлюється впродовж 2025 року
- Публікації оприлюднюються у межах проведення наукової конференції-форуму «Сучасні практики охорони здоров'я та медицини» (Україна, м. Харків, Німеччина, м. Циттау, Велика Британія, м. Пул, США, м. Форт-Пірс). Розміщення публікації автора у науковому неперіодичному виданні є підтвердженням участі автора у науковій конференції-форумі «Сучасні практики охорони здоров'я та медицини»
- За результатами проведення наукової конференції-форуму автори отримують електронний сертифікат (30 годин – 1 ECTS credits). Сертифікати оприлюднюються на сайті видавця (згідно Порядку підвищення кваліфікації педагогічних і науково-педагогічних працівників, затвердженого постановою Кабінету Міністрів України від 21 серпня 2019 р. № 800)

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Medfocus: науково-аналітичне видання: СГ НТМ «Новий курс», 2025

ISBN 978-617-7886-85-2. DOI: 10.61718/medheal2025

Публікація у межах наукової конференції-форуму «Сучасні практики охорони здоров'я та медицини»
(Україна, м. Харків, Німеччина, м. Циттау, Велика Британія, м. Пул, США, м. Форт-Пірс)

УДК 614 • ISBN 978-617-7886-85-2 • DOI: 10.61718/medheal2025

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MODERN PRACTICES OF HEALTH AND MEDICINE



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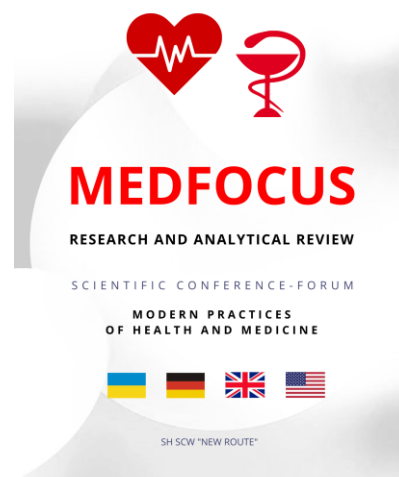
- Наукова конференція-форум «Сучасні практики охорони здоров'я та медицини» (2025)
- У межах проведення наукової конференції-форуму оприлюднюються наукові публікації у науковому виданні «Medfocus». Публікація є науковою працею, яка опублікована у вітчизняному науковому виданні, підтверджує апробацію досліджень автора та підвищення кваліфікації
- Розміщення публікації автора у науковому виданні є підтвердженням участі автора у науковій конференції-форумі. За результатами проведення наукової конференції-форуму та оприлюднення рукописів, автори отримують електронний сертифікат 30 годин – 1 ECTS credits). Сертифікати надаються згідно Порядку підвищення кваліфікації педагогічних і науково-педагогічних працівників, затвердженого постановою Кабінету Міністрів України від 21 серпня 2019 р. № 800

ОРГАНІЗАТОРИ

- Національна академія наук і мистецтв України
- Соціально-гуманітарна науково-творча майстерня «Новий курс»
- Науково-аналітичне видання «Medfocus»
- International Scientific-creative Unit «Proton Global»

ТЕМАТИКА КОНФЕРЕНЦІЇ-ФОРУМУ

- Охорона здоров'я та соціальне забезпечення
- Медицина та психологія
- Фізична культура та спорт



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UDK 614.2:616.98-085.38

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THE IMPACT OF THE MILITARY OPERATIONS IN UKRAINE ON ACCESS TO HEALTH CARE FOR PEOPLE LIVING WITH HIV

The full-scale invasion of Ukraine has profoundly disrupted HIV diagnosis and treatment, creating substantial barriers to accessing antiretroviral therapy and essential healthcare services. This study evaluated epidemiological trends alongside the psychosocial well-being of HIV-positive individuals through PHQ-9 and GAD-7 screenings. Findings revealed reduced testing rates and interruptions in therapy; however, the majority of patients demonstrated preserved psychological resilience and functioning adaptive mechanisms. These results underscore the critical need for integrated support systems and continuous monitoring of the mental health of this vulnerable population during wartime. Keywords: mental health, HIV, psychological resilience, psychosocial status, adaptive mechanisms.

Current affairs.

The full-scale invasion has triggered a profound humanitarian crisis in Ukraine and severely disrupted the operation of the national health care system. Even prior to the outbreak of war, Ukraine ranked among the European countries with the highest rates of HIV prevalence; therefore, the influence of military actions on the ability to ensure timely diagnosis, treatment, and ongoing support for people living with HIV has become critically significant.

Mass internal and external displacement has sharply increased the demand for well-coordinated measures aimed at maintaining uninterrupted access to antiretroviral therapy, ensuring regular viral load monitoring, and providing comprehensive psychosocial assistance. Although European countries and international donors rapidly developed mechanisms to integrate Ukrainian patients into their health care systems, numerous obstacles persist. These include delayed HIV detection, limited access to essential medications, and inconsistent monitoring of patients' health status.

The study presented in this work examined the psychosocial and epidemiological characteristics of 30 HIV-positive individuals receiving treatment at the Clinical Center for Infectious Diseases in Vinnytsia and evaluated these findings in relation to official statistics and analytical reports from the Public Health Center of the Ministry of Health of Ukraine - *HIV in Ukraine, Bulletin №54* - as well as the **HIV/AIDS Surveillance in Europe 2024–2023** data [1, 2].

These findings allow the integration of the national situation with the actual lived experiences of individuals during the war, including those reflected through PHQ-9 and GAD-7 screening data. The purpose of the research is to evaluate how military actions have affected access to health care for people living with HIV, to analyze shifts in epidemiological indicators and testing volumes throughout the wartime period, to examine the psychological state of HIV-positive patients using standardized screening tools, and to determine the principal obstacles that hinder the provision of medical and psychological support in the conditions of war.

Materials and methods.

The study relies on two primary data sources. The first consists of European epidemiological information, which includes statistics on the prevalence of HIV/AIDS across Europe and serves as a basis for contextual comparison. The main reference was the publication of the European Centre for Disease Prevention and Control containing the most recent data for 2024 [2]. These materials make it possible to evaluate the magnitude of the issue, trace trends in HIV distribution throughout Europe, and contrast them with the situation observed in Ukraine. The second source is a local survey of HIV-positive individuals, correlated with the findings of the study *"Will you need this health at all? Will you be alive?": using the bioecological model of mass trauma to understand HIV care experiences during the war in Ukraine* [3]. A questionnaire was administered to 30 patients who received treatment in the 1st department of the

“Clinical Center for Infectious Diseases.” The participants represented various regions of Ukraine. The survey was conducted anonymously, adhering to ethical standards and ensuring full confidentiality.

The PHQ-9 (Patient Health Questionnaire-9) was used to evaluate the severity of depressive symptoms. This tool includes nine items scored on a four-point scale ranging from 0 (“never”) to 3 (“almost every day”), yielding a total score between 0 and 27. It enables differentiation between minimal, mild, moderate, moderately severe, and severe depression [4]. Meanwhile, the GAD-7 (Generalized Anxiety Disorder-7) is a seven-item scale designed to assess generalized anxiety, with each item rated from 0 to 3, producing a total score of 0–21. It allows the identification of minimal, mild, moderate, and severe levels of anxiety [5].

Results.

A comparative examination of the main indicators for 2021–2022 shows that the full-scale invasion has led to substantial disruptions in HIV diagnostics and treatment in Ukraine. As reported in the official *HIV in Ukraine, Bulletin №54* issued by the Public Health Center of the Ministry of Health of Ukraine, nearly all essential indicators display negative trends, which are directly linked to the destruction of medical infrastructure, large-scale population displacement, and restricted access to laboratory services.

Comparison of key indicators on HIV/AIDS in the context of the impact of full-scale military aggression [1]:

Indicator	2021	2022	Increase rate (%)
HIV testing:			
Number of persons tested	1,922,018	1,612,348	-16.1
Incl. by RTs	832,620	674,786	-19.0
Number of persons with HIV serological markers	19,040	14,937	-21.5
Incl. by RTs	13,934	10,727	-23.0
HIV/AIDS cases reporting:			
Number of HIV cases	15,360	12,212	-20.5
Number of AIDS cases	4,151	3,010	-27.5
Number of AIDS-related deaths	1,928	1,293	-32.9
Linkage to care of newly diagnosed persons (%)	90,8	91.3	0.5
Medical care to PLHIV:			
Number of PLHIV linked to care	150,005	157,510	5.0
New patients initiating ART	16,477	12,710	-22.9
Number of PLHIV receiving ART	130,239	121,289	-6.9

Official statistics from the Center for Public Health demonstrate a marked decline in HIV testing after the onset of the full-scale invasion, and regional data from Vinnytsia similarly confirm reduced screening activity. Such indicators reflect a considerable drop in the identification of new cases during a critical period, increasing the likelihood that a significant number of infections remain undiagnosed.

In the study “Will you need this health at all? Will you be alive?”: using the bioecological model of mass trauma to understand HIV care experiences during the war in Ukraine, conducted between September and November 2022 on a sample of 9 men and 9 women aged 33–62 with confirmed HIV and a history of injecting drug use, profound disruptions in social connections, emotional support networks, and financial stability were documented [3]. Forced displacement, the loss of social workers, destruction of essential infrastructure, and persistent stressors contributed to interruptions in antiretroviral therapy adherence, difficulties accessing health services, and an increase in high-risk behaviors. The impact of military operations also resulted in medication shortages, disruptions in treatment supply chains, and heightened anxiety, which frequently overshadowed concerns about HIV status.

The summarized results of the PHQ-9 and GAD-7 assessments conducted in October–November 2025 reflect the psychological state of 30 surveyed participants and provide a detailed picture of the severity of depressive and anxiety symptoms within this group. According to the PHQ-9 data, which measure the intensity of depressive manifestations, individual scores varied from 1 to 17 points. The calculated mean score was 7.87, while the median reached 7.5,

indicating that a considerable proportion of respondents experienced mild to moderate depressive symptoms. The distribution of results demonstrated that a group of participants exhibited only minimal signs of depression within the 0-4-point range, whereas a slightly larger part reported mild depressive manifestations corresponding to 5-9 points. A notable portion of the respondents fell into the moderate category with scores between 10 and 14 points, suggesting the presence of more pronounced affective difficulties. Several individuals showed moderately severe depressive symptoms within the 15-19-point interval, although no cases of severe depression (20-27 points) were recorded, which may indicate that despite the stressful conditions, extremely high levels of depressive disturbance were not predominant in this sample.

The GAD-7 scale, used to evaluate generalized anxiety symptoms, revealed that participant scores extended from 0 to 14 points, with an average value of 6.3 and a median of 4.5. This distribution illustrates a wide variability in anxiety intensity across the sample. A substantial portion of respondents demonstrated minimal anxiety within the lowest scoring range, suggesting that nearly half of the participants maintained relatively stable emotional regulation. A smaller segment reported mild anxiety, indicating occasional worry or tension that did not significantly impair functioning. At the same time, a considerable number of respondents experienced moderate anxiety, reflected in scores between 10 and 14 points, which is often associated with persistent concerns and heightened physiological arousal. Importantly, similar to the depressive symptom scores, no respondents were identified with severe anxiety levels (15-21 points), implying that the upper threshold of anxiety severity was not reached within this particular group.

Taken together, the combined interpretation of PHQ-9 and GAD-7 outcomes reveals that although many participants managed to maintain psychological balance, a significant proportion showed mild to moderate disturbances in mood and anxiety. These findings underscore the emotional vulnerability of individuals living in prolonged instability and highlight the need for accessible psychological support, continuous monitoring, and timely intervention to prevent the escalation of mental health difficulties.

The findings of the study reveal an important and illustrative pattern: despite enduring prolonged wartime stress, most HIV-positive individuals exhibit a comparatively stable psychological state. According to the PHQ-9 results, depressive symptoms in the majority of respondents fall within the minimal to mild range. Only a few participants demonstrated moderate or moderately severe manifestations, and no cases of severe depression were identified. This may suggest that people living with HIV possess certain established coping mechanisms and have already developed adaptive strategies for managing chronic medical challenges.

A comparable picture emerges from the GAD-7 data. Most participants showed minimal anxiety, while signs of moderate anxiety were present in roughly one-third of the sample. As with depression scores, severe forms of generalized anxiety were not observed among respondents.

When juxtaposed with data from 2022, at the onset of the full-scale invasion, these results point to a degree of positive change. Earlier research frequently documented heightened anxiety, uncertainty, and emotional exhaustion among HIV-positive patients. Continuous displacement, medication interruptions, loss of social networks, and pervasive uncertainty about the future placed this group among the most vulnerable.

Although psychological tension remains, a noticeable portion of patients now demonstrates a significantly improved level of adaptation. This shift may be attributed to several key factors, including the stabilization of access to antiretroviral therapy, the expansion of volunteer and community-based support services, the optimization of patient care pathways, and the gradual accumulation of experience in navigating life under conditions of persistent wartime uncertainty.

It is essential to underscore that research examining the psychological condition of people living with HIV is particularly significant in the context of war. Individuals with HIV belong to a population that faces a dual burden: managing a chronic illness while simultaneously enduring persistent wartime stress. Therefore, ongoing assessment of their mental well-being makes it possible to identify high-risk groups in a timely manner, evaluate the effectiveness of existing support systems, and develop new approaches to providing comprehensive assistance.

The findings of this study highlight a crucial characteristic - the psychological resilience demonstrated by many people living with HIV. A substantial portion of them already have long-term experience of coping with a chronic diagnosis, adhering to continuous treatment, and adapting to various life changes, including extremely abrupt ones. Such prior experience likely contributed to the formation of effective stress-management strategies that enabled them to maintain a relative psychological balance even during the most unstable stages of the full-scale war.

Nevertheless, the presence of respondents who exhibit moderate levels of depressive and anxiety symptoms indicates that the demand for psychological support remains acute. Under conditions of prolonged and cumulative stress, even moderate manifestations may gradually intensify and evolve into more severe disorders. This underscores the necessity for comprehensive psychological assistance programs, targeted interventions for individuals displaying heightened vulnerability, and the expansion of accessible mental health services tailored specifically to this group.

Overall, compared with the situation at the onset of the full-scale invasion, there is evidence of improved adaptation, greater stabilization of emotional well-being, and increased resilience among HIV-positive patients. Despite numerous wartime challenges - including displacement, instability, disrupted access to medications, and the constant need to adjust to new circumstances - they continue to maintain control over their psychological health and demonstrate notable capacity for recovery and adjustment.

Such studies not only provide an accurate reflection of the current situation but also contribute to the planning of further support measures, the identification of potential risks, and the development of a more responsive healthcare system for people living with HIV. This forms the foundation for high-quality, comprehensive, and humane care, which becomes especially vital in the conditions of ongoing military conflict.

Conclusion.

1. The full-scale war in Ukraine has substantially disrupted HIV diagnostics, treatment continuity, and access to medical services, leading to reduced testing volumes, interruptions in antiretroviral therapy, and weakened epidemiological surveillance. These changes reflect the broader collapse of healthcare infrastructure and the consequences of mass population displacement.

2. Despite prolonged exposure to wartime stressors, the majority of HIV-positive patients demonstrate notable psychological resilience, as indicated by the PHQ-9 and GAD-7 assessments. Most respondents exhibit minimal to mild depressive and anxiety symptoms, suggesting the presence of established coping mechanisms developed through previous experience of living with a chronic illness.

3. At the same time, the presence of individuals with moderate levels of depression and anxiety highlights the ongoing need for targeted psychological support. Under conditions of chronic and cumulative stress, even moderate symptoms may intensify over time, emphasizing the necessity for comprehensive mental health services and structured psychosocial interventions for this vulnerable group.

4. The findings underscore the importance of continuous monitoring and integrated support for people living with HIV during wartime, as the combination of chronic illness and conflict-related instability creates complex risks. Strengthening access to ART, ensuring stable patient pathways, and expanding mental health resources are essential components of an effective and humane healthcare response.

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