

# Mental health of university students in Ukraine in the context of global crises and cognitive warfare

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There are no conflicts of interest.

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## Abstract

Ukrainian university students facing profound mental health challenges during the ongoing war, a humanitarian crisis exacerbated by cognitive warfare - efforts to destabilise consciousness, erode trust and manipulate emotions. Drawing on a systematic review of 65 studies and a longitudinal survey of 980 students (aged 18-24) at the University of Customs and Finance in Dnipro (2022-2025), alarming findings revealing that 60% of students report clinically relevant distress (anxiety, depression, chronic stress); 32.6% adapt to “new war norms” risking trauma normalisation; 94% endure upheavals like power outages, explosions and loss of loved ones; 40% fear constantly for family safety and 22.4% show academic apathy amid online learning disruptions. Alas, despite suffering, 89% of the students view challenges as growth opportunities, while highlighting resilience as a resource for Ukraine’s future. Our findings recommend urgent university-integrated interventions like sleep hygiene, anxiety management, stress regulation, time structuring, resilience training and cognitive enhancement to counter somatisation of mental health effects of war.

**Take-home message for students** War amplifies stress, but resilience can be built using various techniques, e.g., anxiety techniques or self-care, amongst others. Increasing individual adaptability, is strength for tomorrow.

## Introduction

The mental health of university students has emerged in the 21st century as a public health priority (Dodd et al. 2021). International bodies, including the European Commission and the United Nations International Children's Emergency Fund (UNICEF), have repeatedly highlighted the rising prevalence of psychological distress within these groups (Borella et al. 2025). The transitional phase from adolescence to adulthood, coupled with the rigorous demands of the academic environment, creates an inherent vulnerability for this group (Dodd et al. 2021; Osokina et al. 2025). This global challenge, however, is experiencing a tragic and unprecedented escalation within the current military conflict in Ukraine (Osokina et al. 2025). The ongoing war has not only shattered the country's physical security and social fabric, but is also waging an invisible war at the level of cognition and the psyche (Sydorenko et al. 2025).

This investigation is dedicated to the systematic analysis of the mental health of Ukrainian students under these extreme conditions (Bilavych et al. 2025). The central research objective concerns the effects of modern cognitive warfare — a form of confrontation aimed at destabilising consciousness, eroding trust and manipulating emotions — on the well-being and future prospects of the nation's young academic elite. The purpose of this manuscript is to identify the specific stressors and psychological response patterns, to document empirically the scale of the crisis and to formulate substantiated recommendations for support mechanisms.

## The global context of student mental health as a frame of reference

To fully comprehend the unique nature of the Ukrainian situation, it is essential to situate it within the global context. The period of higher education, typically encompassing the ages of 18 to 24, is a time of fundamental personal transformation and, concurrently, of heightened psychological susceptibility. Projections from the World Health Organisation (WHO) for the year 2025 paint a sobering picture: worldwide, over one billion people, including a significant proportion of adolescents and young adults, are affected by mental health disorders. The fact that suicide ranks among the leading causes of death for the 15-to-29 age group illustrates the lethal potential of this silent pandemic.

Research from diverse national contexts identifies recurrent stressors: academic performance pressure, financial insecurity, social isolation and anxiety about the future. Studies (e.g., Nightline Europe, 2025) quantify specific issues such as loneliness and homesickness (affecting 16% of students in some cohorts), precarious living conditions (10%) and the experience of psychological or sexual violence (4%) as significant drivers of mental distress (Borella et al. 2025). Untreated mental health conditions during this formative life stage have far-reaching consequences; they not only impede academic success but can also lead to chronic health problems in adulthood, thereby permanently hindering social and professional integration. In response, the WHO has called for a paradigm shift, advocating for strengthened policy frameworks, massive investment in psychosocial care and the participatory involvement of young people in the design of preventative and interventional measures. This global context serves as the backdrop against which

the sheer scale of the crisis in Ukraine is thrown into sharp relief.

## Theoretical foundations and definitions

A clear terminological foundation is indispensable for a rigorous analysis. Central to this is the concept of "good well-being" which extends beyond the mere absence of pathology. It incorporates established constructs such as subjective and psychological well-being, happiness and overall quality of life. In this sense, "good mental health" is defined not as a static state but as a dynamic condition of well-being that enables an individual to realise his potential, to be productive and to navigate the inevitable challenges of life constructively. Following the seminal framework of the WHO (2005), mental health is understood as a holistic phenomenon that integrates well-being across the mental, emotional, social and somatic domains of human existence. This multi-dimensional perspective is of critical importance, as it acknowledges the inextricable interplay between the psyche, the body and the social environment. Stress, trauma and anxiety do not manifest solely as cognitive or emotional states; they are also expressed through physical symptoms and disrupted social relationships. This holistic understanding provides the theoretical scaffolding for the present investigation, permitting an analysis of the profound, systemic impacts of the war on the student population.

## Methodology and research design

The methodological approach of this investigation is twofold. First, a comprehensive synthesis of 65 relevant studies by Ukrainian and international scholars on the topic of mental health in the higher

education sector was conducted. This systematic literature review served to situate our research within the current scientific discourse and to identify existing research gaps.

The empirical core of the investigation is a longitudinal study, realised between 2022 and 2025 with a cohort of 980 students aged 18 to 24 years. A longitudinal design was chosen in order to map the procedural and dynamic impacts of the ongoing war on psychological states, rather than capturing a mere static snapshot.

Our primary research objective was to investigate the negative effects of cognitive warfare on the neural and conscious processes of the student cohort. Data collection was focused on several thematic priorities:

1. Assessment of general psychological well-being.
2. Identification of specific symptom clusters (anxiety, depression, post-traumatic stress).
3. Analysis of perceived barriers to accessing psychosocial support.
4. Derivation of recommendations for policy and institutional interventions.

The study was designed to create a robust empirical basis to substantiate the need for effective protective and supportive mechanisms for students living under wartime conditions.

## Results

The findings presented herein are based on a comprehensive research initiative conducted at the University of Customs and Finance in Dnipro and are intended to contribute to the understanding and mitigation of one of the most significant humanitarian challenges of our time.

## The psychological state of the Ukrainian student cohort

The analysis of the longitudinal data reveals a profound mental health crisis among Ukrainian students, one which far exceeds global averages.

## Cognitive warfare and pathological normalisation

Our data indicate a massive influence of cognitive warfare on self-esteem and psychological stability. Nearly 60% of the surveyed students report clinically relevant symptoms of psychological distress, with anxiety disorders, depressive moods and chronic stress being the most common. A particularly revealing finding is that 32.6% of students claim to be developing signs of an "understanding" of the "new norms of life" during the war. This points towards an ambivalent psychological process of adaptation, which on the one hand represents a form of resilience, but on the other hand carries the risk of trauma through the normalisation of a fundamentally abnormal reality (Sydorenko et al. 2025; Cuijpers et al. 2010).

## Existential threat and the destabilisation of daily life

Our study quantifies the permanent existential anxiety: 40% of the young people live in constant fear for their lives and physical integrity of their loved ones — a fear perpetuated by daily attacks. This state of perpetual alert depletes cognitive and emotional resources (Osokina et al. 2025). An overwhelming majority of 94% of students have experienced radical, war-induced upheavals in their lives. These include the loss or injury of close relations, recurrent and prolonged power outages,

the loss of a stable internet connection, constant noise pollution from explosions and alarms and an atmosphere of relentless negative emotionality and tension. This cascade of stressors prevents the establishment of any form of security or daily routine.

## Academic demotivation and cognitive impairment

The direct consequences for academic life are severe. 22.4% of respondents express a profound indifference towards their studies, an apathy that is amplified by the enforced and often technically deficient online learning format. A further 12.6% describe a state of complete exhaustion and disorganisation that renders them incapable of meeting academic requirements. Beyond these war-specific factors, classic academic stressors (e.g., deadline pressure) act as an accelerant for psychological exhaustion under the given circumstances.

## Discussion

Our results necessitate a thorough interpretation of the specific needs of Ukrainian students, and we derived concrete recommendations for action.

## Identification of mental health needs

Our analysis clarifies that an adequate assessment of mental health under wartime conditions requires a multi-dimensional approach. Drawing on established research paradigms, the following dimensions must be systematically and repeatedly assessed to enable targeted interventions: general psychological symptoms and well-being,

specific indicators of stress, anxiety and depression, as well as the extent of social isolation and loneliness (Dodd et al. 2021; Wall and Lee 2021; Maes et al. 2022).

## Recommendations for behaviour-based interventions

The findings give rise to the need to develop practical interventions aimed at modifying and improving maladaptive behavioural patterns. Action is particularly required in the following areas:

- **Sleep hygiene and management:** The development of strategies to cope with war-induced sleep disturbances.
- **Anxiety and panic management:** Training in techniques for controlling panic attacks and managing anxiety triggered by acoustic stimuli (sirens, explosions).
- **Stress regulation and self-care:** Education on the link between stress, nutrition and physical health.
- **Structuring the academic day:** Coaching in time and self-management under unpredictable conditions (e.g., during power outages).
- **Cognitive and emotional resilience:** Training in self-control strategies to maintain agency during situations of acute threat.
- **Cognitive enhancement:** Development of strategies to overcome concentration deficits and cognitive avoidance patterns such as "Clipped Thinking" (a state of fragmented information processing), in order to preserve the capacity for deep engagement with complex material.

These interventions must be low-threshold, needs-oriented and integrated into university structures to ensure maximum reach and efficacy.

## Conclusions

Our investigation provides an empirically grounded analysis of a humanitarian crisis within a crisis. The protection of the mental health of Ukraine's young, academic generation is not a secondary task to be deferred until the war is over. It is a strategic imperative for the nation's survival and future prosperity. A concerted effort from national and international actors is required to provide the necessary resources and build a psychosocial support infrastructure capable of meeting this historic challenge.

This leads to several grave conclusions that signal an urgent need for action:

1. The war constitutes a fundamental threat to the mental health of the Ukrainian population, particularly its university youth. It thereby directly undermines the intellectual and human capital that is essential for the future reconstruction of the nation.
2. The empirical data reveal a remarkable psychological ambivalence. Whilst the extent of suffering is immense, 89% of students also perceive the altered circumstances as a stimulus for active intellectual engagement, adaptation and personal development. This impressive resilience is a valuable resource, yet it is one that risks shattering without targeted support.
3. The primary need is for the development and implementation of individualised strategies and reliable care mechanisms to help students process the traumas of war and build coping competencies.
4. The negative effects of modern cognitive warfare are empirically verifiable, manifesting in severe behavioural (in 46%), functional (in 86%) and psychosomatic (in 92%) changes. The extremely high rates of functional and

psychosomatic disorders demonstrate how profoundly psychological stress has become somatised.

## Author Contributions

The author wrote this manuscript based on a presentation given on 21 November 2025 at the 3rd annual Symposium of the Deutsche Gesellschaft für Öffentliche Gesundheit und Bevölkerungsmedizin e.V. in Frankfurt am Main. Google AI Studio Gemini 2.5 Pro was used to develop an initial draft manuscript outline from the author's presentation slides that was used by the author to write the manuscript.

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