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COMPREHENSIVE STUDY OF PSYCHO-EMOTIONAL CONDITION OF UNIVERSITY STUDENTS IN TIME OF WAR IN UKRAINE

Relevance. The prolonged military aggression against Ukraine has created unprecedented challenges for higher education institutions, significantly affecting students' mental well-being, learning motivation, stress tolerance, and social adaptation. Constant exposure to air raids, uncertainty, forced displacement, and concerns for personal safety may contribute to anxiety, depressive manifestations, obsessive thoughts, and reduced academic performance. Therefore, assessing psycho-emotional responses among students and academic staff in wartime conditions is essential for developing effective educational and psychological support strategies.

Materials and methods. The study involved 120 respondents aged 17 to 50+, including students and academic staff of National University "Zaporizhzhia Polytechnic". The survey was conducted from November to December 2025. To evaluate psycho-emotional status, validated screening instruments were applied, including the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS), the Generalized Anxiety Disorder scale (GAD-7), and the Patient Health Questionnaire (PHQ-9). Comparative analysis was performed considering gender, age, and professional activity.

Results. The findings demonstrate that prolonged exposure to wartime stressors contributes to increased anxiety, depressive symptoms, and obsessive-compulsive tendencies. Most respondents reported mild or moderate obsessive manifestations associated with repeated thoughts about danger and insecurity. Approximately 12% of participants aged over 35 experienced high levels of anxiety, while women demonstrated a greater prevalence of severe anxiety symptoms compared with men. Moderate depressive manifestations were observed in the majority of respondents (62% of men and 85% of women), predominantly among participants younger than 25 years. The deterioration of the regional security situation negatively influenced concentration, educational motivation, sleep quality, and the ability to perform academic tasks effectively.

Conclusions. The students are provided with methodological recommendations for controlling negative psycho-emotional reactions and taming internal discomfort, which can manifest themselves at different stages of the educational process in conditions of extreme danger. The potential predisposition of students to depressive manifestations requires academic staff at Labour and Environmental Protection Department to provide students with lecture material on the introduction of psychological safety and the development of stress resistance in war conditions to provide individual consultations at a convenient time for students.

Keywords: mental disorders, stress, psychological safety, depressive manifestations, emergency conditions.

Introduction. From the very first days of the full-scale invasion of Ukraine

by Russian troops, 70% of Zaporizhzhia region was occupied, and Zaporizhzhia

became the frontline zone. Despite these horrors of war, the city continues to function, with most businesses, NGOs, medical, educational, sports and recreational facilities, and shops open. Recently, the security situation in our region has deteriorated significantly. Rocket attacks on residential buildings, industrial infrastructure, educational establishments, and medical institutions have increased the number of people killed and injured, as well as the mental and physical exhaustion of all those living in Zaporizhzhia and the surrounding areas. The feeling of anxiety and expectation of shelling, the understanding that there are no safe places, has a significant impact on people's personal lives and their ability to engage in productive professional activities.

National University "Zaporizhzhia Polytechnic" has more than 10,000 students and more than 1,000 faculty staff members; the educational process is conducted remotely, which makes it challenging for students and professors to have an intellectual and psycho-emotional connection. Some students and academic staff are located outside of Zaporizhzhia in safer regions, but many keep working in the city. Despite all the external challenges, each student is required to master the theoretical and practical material in a qualitative and complete manner for further work in the context of re-equipping production with more advanced equipment, the latest technologies as well as automated processes.

Consequently, each teacher faces the challenge of organizing the educational process in the best way to provide young people with the maximum amount of relevant information and advanced knowledge in professional and security fields, as well as to take into

account the psycho-emotional state of each person, which can significantly affect their health. In addition, each lecturer understands that the emotional background in a time of war can be very different for each individual.

Materials and methods. The World Health Organisation estimates that 16.2% of the world's population suffers from the effects of war, and 12.5% have relatives who suffer from war trauma. The problem of maintaining the mental health of both the military and the population in the combat zone, the frontline zone, and people who have been exposed to torture has been researched and examined by numerous medical doctors, academic researchers, and the military on the example of the world experience and the tragic experience of Ukraine [1, 2]. According to Professor O. Chaban, every war is a new experience of physical and mental suffering of people. The geography of combat operations, technical equipment, and human and material resources change, but the essence of wars does not change - the suffering, the lack of security, the uncertainty, the losses, the deprivation, and the dramatic changes in sustainable development that cause uncertainty and confusion. All this is based on people's mental reactions to the horrific events of war [1].

There appears to be so much research and description of these psychological problems and mental disorders associated with war. However, with every new conflict and war on our planet, there is a fresh understanding of these manifestations and disorders. Society is evolving and does not stand still [1]. Unfortunately, since the war has spread into each Ukrainian household and remained there for almost three years, increasing numbers of people are

experiencing exhaustion, devastation, fatigue, anxiety, or panic [2].

Therefore, it has become absolutely necessary for everyone to learn how to assess their psychological state and better understand when they can cope with problems on their own and when they need to seek professional assistance.

Contemporary psychology offers various approaches for assessing a person's emotional, cognitive, and behavioral state. As a rule, structured questionnaires are used for such purposes. For example, the National Stressful Events Survey Acute Stress Disorder Short Scale (NSESSS) [3] and the Stanford Acute Stress Reaction Questionnaire (SASRQ) [4] are recommended for adults and children - the Child Stress Reaction Checklist (CSDC) [5] and the Acute Stress Checklist (ASC-Kids)]. The answers obtained allow the specialist to objectively assess the patient's condition and develop an individual support strategy [6, 7].

One of the most common and popular options for assessing obsessive-compulsive disorders is the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS), which has the significant advantage of being completely adapted for self-diagnosis. This scale (10 questions in total) is user-friendly for self-diagnosis, although it is based on objective criteria and allows assessing the level of disorders as minor, medium or high. In the latter case, it is recommended to consult a physician, and a specialist will conduct additional diagnostics to develop a program of individual psychological assistance. Symptoms [8, 9] of obsessive-compulsive disorder include:

Repeated intrusive thoughts and desires (obsessions) can impair attention;

Ritual actions ((compulsions) - hand washing, constant cleaning, shifting, rearranging or counting objects, repeating words;

Inability to control obsessions or compulsive behavior;

Increased anxiety;

Unreasonable fears, including a constant fear of a threat to one's own life;

Impaired communication skills with peers, inability to establish and maintain friendships for a long time;

Aggressive thoughts and a high level of conflict with close people;

Striving for excessive perfection and strict order;

A constant desire to make a good impression, to receive approval and support;

Worrying about the opinion of others about yourself;

Obsessive scrutiny of one's own actions;

Dissatisfaction with one's own appearance.

Robert L. Spitzer, MD, Professor of Psychiatry at Columbia University, and his colleagues developed and tested the GAD-7 scale on 2740 patients. To determine an anxiety disorder and self-assess its degree, it is necessary to answer seven questions. If you have a high level of anxiety, it is recommended to seek professional help. It is a specialist who can eliminate the risks of incorrect interpretation of the results and develop a further scheme of psychological assistance and improvement of personal well-being [9].

In the early 1990s, a scale for the initial assessment of mental disorders, including depression and anxiety disorders (The Primary Care Evaluation of Mental Disorders, PRIME-MD) was developed and approved. The questionnaire consisted of 27 questions

and took up to 12 minutes to complete (for a patient with pathology). This time was too long for the test to be widely used. Later, based on studies involving 6000 patients, a new version of the Patient Health Questionnaire (PHQ-9) was presented and widely used in clinical and laboratory practice.

Hence, analyzing the current security situation in Ukraine, the issue of how much the quality of higher education depends on external factors arises, whether education during the war is not only about gaining professional skills but also about fighting for personal psychological stability. Recently, while communicating with colleagues from our and other departments, all faculty members have been focusing on insufficient student learning of theoretical content. In addition, the lack of skills to practice what they have learned is a concern. After the large-scale missile strikes that destroyed the infrastructure and killed civilians and children, students are unable to concentrate on the theoretical material taught in class fully. The information seems irrelevant, the reality of its use seems doubtful, and the perspective for their professional future is undefined. Education is a lower priority for some students than their survival or personal safety. Many students complain of a permanent feeling of overwork, which they associate not only with the impact of external danger but with negative learning outcomes, i.e., late completion of coursework and tests, with a significant number of mistakes and the need to complete the same task several times. The above-mentioned situation is an unprecedented challenge for a teacher: it is necessary to consider the psychophysiological capabilities of

young people, their behavioral patterns in ordinary and extreme situations, and the quality and effective implementation of their professional duties.

To determine the psycho-emotional state of students during the war and to analyze the potential negative dynamics after the deterioration of the security situation in our region, the academic staff of Labour and Environmental Protection Department of National University "Zaporizhzhia Polytechnic" applied a psychological survey program based on the Yale-Brown scale, the GAD-7 and PHQ-9 [9, 10].

A survey was conducted among students, employees, and academic staff for people (male and female in equal proportion) aged 17 to 50+.

The second objective was to determine which of the existing methods of preventing and reducing the negative impact on a person's psycho-emotional state are more acceptable to present-day youth.

Results. The Yale-Brown Scale survey (Fig. 1) shows that the majority (42.9%) of students have slight or moderate levels of obsessive-compulsive disorder (37.5%). The total duration of obsessive thoughts about anxiety (obsession) during the day for most respondents is from one to three hours during the day when Russian mass attacks take place in our region. At the same time, most of the surveyed women (Fig. 1, purple color) report difficulties in regulating emotions and excessive anxiety for several hours after the all-clear signals, and intrusive thoughts prevent them from completing the earlier assigned calculation tasks. All respondents report easy control over the appearance of intrusive thoughts after the external security stabilized.

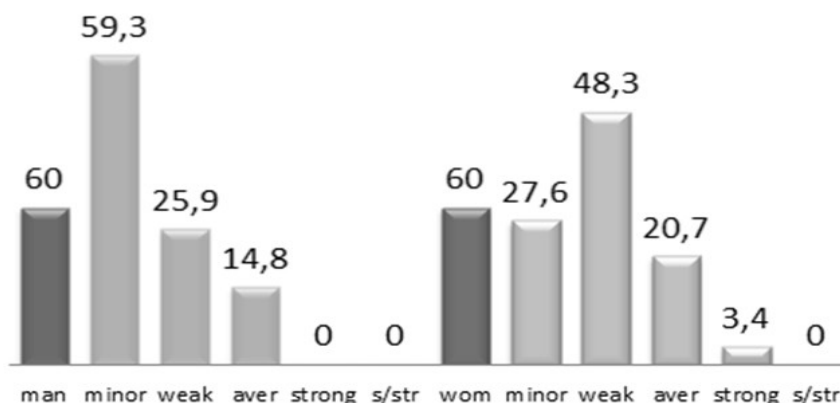


Fig. 1. Obsessive-compulsive disorder in men and women, %

Most of the teachers surveyed state that fulfilling their professional duties according to the schedule helps them overcome obsessive thoughts about the probability of repeated blasts and the possibility of danger to their lives and their loved ones. Most respondents note that the opportunity to concentrate on methodological and teaching work protects them from the realities of today. Some of the respondents experience a significant negative impact, which is not related to psycho-emotional discomfort but to a deterioration in their overall health (trembling of the limbs, heart palpitations, high blood pressure, and headaches), exacerbation of chronic

diseases, and the treatment process are lengthy, and the results are unstable.

To assess the degree of anxiety after the security situation worsened, we asked students and teachers to answer questions using the GAD-7 methodology, and the results are in the diagrams (Fig. 2, women are marked in purple, men are marked in brown). Approximately 12% of respondents (age group 35 and older) experience high and very high levels of anxiety. Perhaps this is because people of this age usually have small children and elderly parents, and anxiety may be caused by additional responsibility for the safety and health of their loved ones.

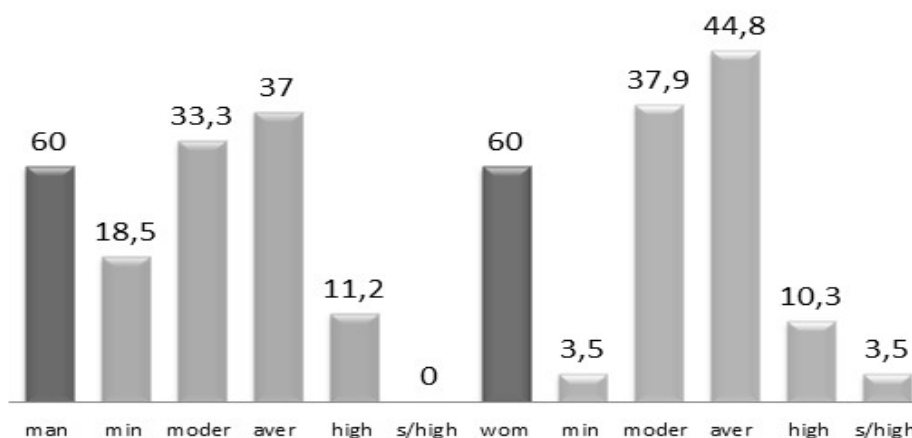


Fig. 2. Generalized anxiety disorder in men and women, %

It was surprising to learn that 18.5% of men experience mild anxiety, which is about 5 times more than women. Unfortunately, almost 14% of the women surveyed experience high and very high levels of anxiety. In addition, they complained that they are in constant stress. They are not able to sleep for a long time at night because of the sounds of the alarm, and in the morning, they feel exhausted and apathetic, which, of course, negatively affects the speed of analysis of large amounts of information provided during lectures and practical classes.

The results of the analysis of young people’s mental health in wartime, as determined by the Patient Health Questionnaire (PHQ-9), are presented in Figure 3. Almost all the respondents experience moderate and average levels

of depression (62% of men and 85% of women), complaining about a bad mood, feeling depressed, and thinking about the hopelessness of their current situation for the entire country as well as for their future. A high level of depression (14.3%) is more common among men as most are unwilling to do anything and lack the inspiration to learn and master new skills. The moderate and average levels of depression are more typical for young people (under 25 years of age). It requires the academic staff of Labour and Environmental Protection Department to provide students with educational materials on the implementation of psychological safety and the development of stress resistance in emergencies and to provide individual consultations during convenient hours for students.

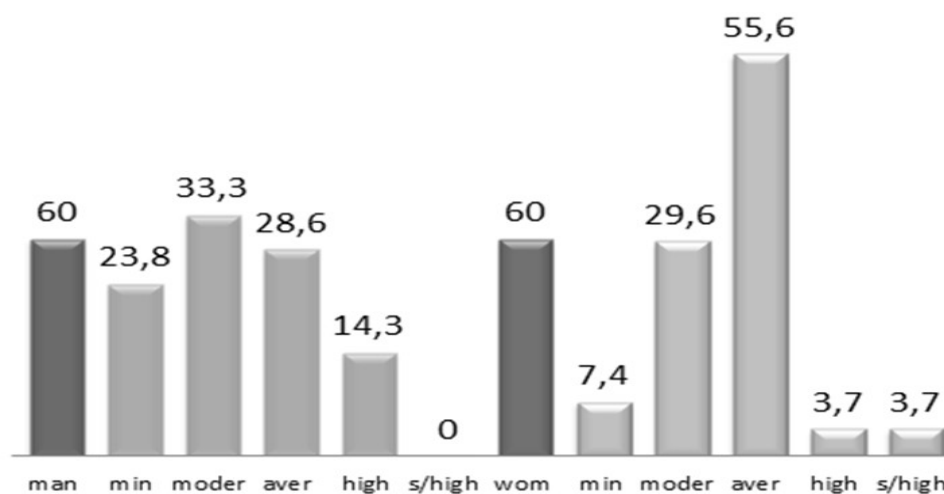


Fig. 3. Depression level in men and women, %

Discussion. All the academic staff of Labour and Environmental Protection Department of National University “Zaporizhzhia Polytechnic” should pay special attention to the analysis of changes in the psycho-emotional state of a person during the war. Various studies show that significant traumatic events (personal injuries, injuries or deaths of loved ones, destruction of their home or

infrastructure located near their place of residence or place of work) and the lack of stable security is the main factor leading to anxiety, uncertainty, in some cases, panic attacks, and other psychophysiological manifestations [11-13].

The research has confirmed that the current extreme security situation can cause unstable psycho-emotional reactions among students and teachers

alike, which may become an additional negative indicator for young people who feel confused, apathetic, or, in contrast, irritated and even excessive aggression in dealing with colleagues and loved ones. Understanding a student's psychological personality based on testing can become a methodological basis for improving the quality of education.

The analyses of the results show that the majority of respondents experience a moderate or medium level of anxiety and a tendency to depression (Fig. 2-3). It can be considered positive that this psycho-emotional state is transient and that the reduction of external threats creates conditions for reducing the level of anxiety among young people. At this point, the level of methodological competence of the teacher and his/her practical skills to keep the student's attention not on potential external problems but on specific information in the field of study is essential. Thus, teachers can provide young people with psycho-emotional support during the war due to their leadership qualities and stable behavioural skills in the face of potential external dangers. In addition, teachers of Department of Physical Education can provide a systematic justification of the need for sports to control and stabilise the psychophysiological state, provide practical recommendations on the organisation of the training process, focusing on which sports and recreational facilities continue to operate during the war in Zaporizhzhia. To maintain the mental health of students who have a high tendency to obsessive-compulsive disorder (1 survey), anxiety disorder (2 surveys), and depression, a comprehensive and particularly attentive approach is needed not only from

teachers but also from their close environment and, probably, from physicians [14]. At the first stage of lecturer-student communication, an additional individual conversation was held, and a recommendation was made to consult a doctor for further professional advice.

Conclusions. In summary, the questionnaires allow a young person to take the first step towards a conscious attitude to their well-being and mental well-being. A comprehensive analysis of the assessment findings shows an urgent need to adhere to the basic principles of a healthy lifestyle as soon as possible. Physical activities, exercising, and implementing active ways to increase the overall resilience of one's body will help reduce the impact of negative external consequences on the individual.

The revealed tendency to depressive manifestations in the course of the students' survey requires teachers of the classes "Life Safety" and "Civil Security" to provide more information on methods of controlling emotional stress, curbing internal dis-comfort, and reducing emotional stress.

Increased communication between the lecturer and the student, as well as conducting individual consultations at a convenient time for the student, will help reduce anxiety, tension, and depressive symptoms caused by external factors and inspire students to improve their professional level.

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КОМПЛЕКСНИЙ АНАЛІЗ ПСИХОЕМОЦІЙНОГО СТАНУ ЗДОБУВАЧІВ ВИЩОЇ ОСВІТИ ПІД ЧАС ВІЙНИ В УКРАЇНІ

У статті представлено комплексний аналіз пси-хофізичного стану студентів та викладачів з урахуванням викликів, пов'язаних із військовими діями в Україні. Дослідження висвітлює вплив цих подій на психологічне благополуччя, фізичне здоров'я, соціальну адаптацію та навчальні досягнення студентів. Використовуючи міждисциплінарний підхід, у статті аналізуються дані, зібрані за допомогою опитувань, інтерв'ю та показників фізичного здоров'я, а також психологічних тестів, щоб визначити ключові тенденції та наслідки.

Матеріали та методи. У педагогічному експерименті брали участь 120 осіб віком від 17 до 50+ років, студенти та викладачі Національного університету «Запорізька політехніка» в період з листопаду по грудень 2024 року.

Результати. На базі комплексного тестового опитування студентів та викладачів Національного університету «Запорізька політехніка» проведено аналіз впливу надзвичайної небезпеки та факторів особистості (статі, віку, стажу роботи, рівня досягнень в професійній сфері, індивідуальних якостей) на потенційну схильність до обесивно-компульсивного розладу, тривожності, депресії. Визначено, що майже всі опитані відчували помірний або середній рівень депресії (62% чоловіків та 85% жінок), який більш характерний саме для молоді віком до 25 років.

Студентам надано методичні рекомендації по контролю негативних психоемоційних реакцій та приборканню внутрішнього дискомфорту, що можуть проявлятися на різних етапах навчального процесу в умовах надзвичайної небезпеки. Потенційна схильність студентів до депресивних проявів вимагає від викладачів кафедри охорони праці надати студентам лекційний матеріал по впровадженню психологічної безпеки та розвитку стресостійкості в умовах війни, передбачити індивідуальні консультації в зручний для студентів час.

Ключові слова: психічні розлади, стрес, психологічна безпека, депресивні прояви, надзвичайні умови.

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