

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ  
НАЦІОНАЛЬНИЙ ФАРМАЦЕВТИЧНИЙ УНІВЕРСИТЕТ  
КАФЕДРА НОРМАЛЬНОЇ ТА ПАТОЛОГІЧНОЇ ФІЗІОЛОГІЇ**



**VI науково-практична internet-конференція  
з міжнародною участю**

**«МЕХАНІЗМИ РОЗВИТКУ ПАТОЛОГІЧНИХ ПРОЦЕСІВ І  
ХВОРОБ ТА ЇХ ФАРМАКОЛОГІЧНА КОРЕКЦІЯ»**

**16 листопада 2023 р.  
ХАРКІВ – Україна**

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**MINISTRY OF HEALTH OF UKRAINE  
NATIONAL UNIVERSITY OF PHARMACY  
DEPARTMENT OF PHYSIOLOGY AND PATHOLOGICAL PHYSIOLOGY**



**VI<sup>th</sup> scientific and practical  
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**«MECHANISMS OF PATHOLOGICAL PROCESSES  
DEVELOPMENT AND DISEASES,  
THEIR PHARMACOLOGICAL CORRECTION»**

**November 16, 2023  
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ЗМІСТ	С
<b>Bayraktar V. M.</b> ATHOPHYSIOLOGY AND CONDITION OF PROSTATE IN SUFFERERS OF CHRONIC INFLAMMATION	23
<b>Bilokha A. K.</b> SURVEY: EFFECTIVENESS OF CLASSICAL AND EXPERIMENTAL ANXIOLYTIC MEDICATION IN ANXIETY DISORDERS	25
<b>Bondarenko S. E., Vysotskyi O. V., Leontieva F. S., Morozenko D. V., Gusakov I. V., Shevtsova O. V., Gulida T. I., Leontieva L. V.</b> BIOCHEMICAL MARKERS OF LIPID METABOLISM DISORDERS IN PATIENTS WITH OSTEOARTHRITIS OF LARGE JOINTS REQUIRING ARTHROPLASTY	28
<b>Bondarenko L. B., Shayakhmetova G. M., Tkachenko O. Y., Kalachinskaya M. M., Serhiichuk N. M., Kovalenko V. M.</b> EFFECTS OF METFORMIN AND PREPARATIONS WITH PLEIOTROPIC EFFECTS ON METABOLIC PROCESSES ON TESTICULAR BIOCHEMICAL INDICES OF RATS WITH JUVENILE-ONSET METABOLIC SYNDROME	30
<b>Bondarieva I. V., Jaouad I.</b> ASSESSING OF THE SOCIAL AND PSYCHOLOGICAL ENVIRONMENT IN PHARMACY	33
<b>Buha V. V., Huliieva V. K., Sliusarenko D. S., Boiko I. S., Kovaltsova M. V., Myroshnychenko M. S.</b> FEATURES OF PSYCHO-EMOTIONAL STATUS DISORDERS OF MEDICAL STUDENTS IN THE CONDITIONS OF FULL-SCALE WAR	34
<b>Dubey Nikhil, Fedorchenko Yuliya</b> THE MULTIFACETED IMPACT OF MODERN TECHNOLOGY ON HUMAN HEALTH	37
<b>Faliush O. A., Sachynska O. V., Reznikov O. G.</b> SEX-SPECIFIC PECULIARITIES OF THE PRENATAL EFFECTS OF DIBUTYL PHTHALATE AND BISPHEENOL A ON REPRODUCTIVE SYSTEM OF RATS	39
<b>Filipets N. D., Gerush O. V., Filipets O. O.</b> CHRONOBIOLOGICAL ASPECTS OF CHANGES IN KIDNEY FUNCTIONAL STATUS INDICATORS	41
<b>Groma N., Voskoboinik O., Shvets V.</b> HEPATOPROTECTIVE ACTIVITY AND TOXICITY OF NOVEL PTERIDINE DERIVATIVES	43
<b>Javeriya Noor, Fedorchenko Yuliya</b> EXPLORING THE IMPACT OF WI-FI AND MOBILE PHONES ON HUMAN HEALTH	44
<b>Kholov S. B., Lytkin D. V., Musozoda S. M.</b> STUDY OF ANXIOLYTIC ACTIVITY OF TAJIKISTAN-GROWN <i>SALVIA SCLAREA</i> DRY EXTRACT	45
<b>Kurhaluk N., Tkaczenko H.</b> MELATONIN PREVENTS OXIDATIVE STRESS IN THE LIVER OF MICE EXPOSED TO ACUTE ETHANOLIC INTOXICATION	47

## FEATURES OF PSYCHO-EMOTIONAL STATUS DISORDERS OF MEDICAL STUDENTS IN THE CONDITIONS OF FULL-SCALE WAR

**Buha V. V., Huliieva V. K., Sliusarenko D. S., Boiko I. S.,  
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**Introduction.** War and military conflicts are events that negatively affect all aspects of public life, including the mental health of the population. The stress, depression, and anxiety that accompany war-related crisis events can have a profound effect on the physical health, internal relationships, and daily life of a whole society. Today it is known that war significantly affects the occurrence and severity of mental disorders observed in the civilian population. In particular, the most common conditions include acute stress disorder (ASD), post-traumatic stress disorder (PTSD), and adjustment disorder. At the same time, the exacerbation of existing mental disorders is observed both among people who live directly in the territory of the military conflict, and among internally displaced persons (IDPs) and refugees.

**Aim.** To investigate the presence of acute stress and post-traumatic stress disorders and adjustment disorder in war conditions among medical university students and to identify the most common disorder to determine the vector of further educational, preventive, and therapeutic activities.

**Materials and methods.** In order to achieve the set goal in compliance with the principles of medical deontology and bioethics, in April 2023, an anonymous survey was conducted on the basis of the Google Forms service among 3rd-year students of the Kharkiv National Medical University, in which 166 students voluntarily participated, of which 41 (24.7%) men and 125 (75.3%) women. The results of the questionnaire were analyzed using Microsoft Excel.

**Results and discussion.** At the time of the survey, 21 students (12.7%) were in the front-line territory of Ukraine; 3 (1.8%) – in the temporarily occupied territory of Ukraine; 49 (29.5%) – in the city of Kharkiv; 60 (36.1%) were in another region of Ukraine and 33 students (19.9%) were abroad. Since the full-scale invasion, 54 respondents (32.5%) have been in the zone of heavy hostilities; 12 (7.2%) came under occupation; 40 people (24.1%) lost their relatives or friends in the war; 36 students (21.7%) saw people killed; 11 people used weapons themselves; 121 people (72.9%) were under fire or bombardment; 159 (95.8%) were worried about their relatives or friends who were in danger; 34 people (20.5%) witnessed the terrorist attack; and 4 people (2.4%) were captured or encircled.

According to the literature sources, the symptoms of ASD and PTSD are very similar, and the only difference between them is the time when they appear. Thus, if the manifestations of stress disorder occur within 4 weeks after a traumatic event, then this is an acute stress disorder, and if later than a month, then it is post-traumatic stress disorder. In our survey, we provided respondents with a list of symptoms that indicate the presence of a stress disorder and asked when exactly they had these symptoms: in the first month of the war, at the time of the survey (April 2023, i.e. one year after the start of full-scale war), or never. The survey showed the following results: in the first month of the war, 119 people (71.7%) felt excessive nervous excitement, and at the time of the survey – 23 people (13%);

100 people (60.2%) had a changed sense of reality (for example, a feeling of numbness, slowing down of time, a change in perception) in the first month of the war, but at the time of the survey – 35 (21%); hypervigilance in the first month of the war was noted by 98 respondents (59%), at the time of the survey – by 38 (22.9%) people; the feeling of constant danger in the first month of the war bothered 111 (66.9%) students, and at the time of the survey – 35 (21%); 79 (47.6%) people had sleep disturbances in the first month of the war, 57 (34.3%) – at the time of the survey; 80 (48.2%) respondents noted an exaggerated reaction of fear in the first month of the war, 28 (16.9%) – at the time of the survey; 45 students (27.1%) had the inability to express and show emotions (cry, rejoice, sympathize) in the first month of the war, and 27 (16.3%) – at the time of the survey; irritability or outbursts of anger in the first month of the war occurred in 65 (39.2%) students, and at the time of the survey – in 78 (47%); for 66 people (39.8%) it was difficult to concentrate on something in the first month of the war, and for 98 (59%) it was so at the time of the survey; 39 (23.5%) were unable to remember an important part of the traumatic event in the first month of the war, and 28 (23.5%) – at the time of the survey; 37 (22.3%) had the feeling that a traumatic event is happening again in the first month of the war, and 33 (19.9%) – at the time of the survey; 52 (31.3%) felt intense psychological or physiological distress when something reminded them of a traumatic event (for example, similar sounds) in the first month of the war, and at the time of the survey, this was happening to 76 respondents (45.8%); constant and uncontrolled thoughts about traumatic events, dreams about them occurred in the first month of the war in 60 respondents (36.1%), and at the time of the survey – in 37 (22.3%); panic attacks (feeling of fear, shallow breathing, nausea, rapid heartbeat, chest pain) were experienced by 49 students (29.5%) in the first month of the war, at the time of the survey – by 24 (14.5%) students; 24 people (14.5%) experienced relationship problems, distance from their partner in the first month of the war, and 32 (19.3%) experienced it at the time of the survey; persistent inability to feel positive emotions (for example, happiness, satisfaction, love) in the first month of the war bothered 46 people (27.7%), and at the time of the survey – 36 (21.7%); 17 people (10.2%) had suicidal thoughts in the first month of the war, and 19 (11.4%) at the time of the survey; 26 (15.7%) abused alcohol, cigarettes or drugs in the first month of the war, and 15 (9%) at the time of the survey; 30 (18%) tried to avoid depressing memories, thoughts or feelings associated with an event in the first month of the war, and 69 (41.6%) – at the time of the survey; 20 respondents (12%) tried to avoid external reminders (people, places, conversations, activities, objects, situations) related to some event, in the first month of the war, and at the time of the survey – 48 (28.9%).

Adjustment disorder has its own characteristics of manifestation, so we also asked students about them separately. The results of the survey showed that 57.2% of respondents felt frequent anxiety in the first month of the war, 36.7% – at the time of the survey; 22.9% had panic attacks in the first month of the war, and 15.7% at the time of the survey; 39.2% of students suffered from apathy at the beginning of the war, at the time of the survey – 51.2%; regular overwork in the first month of the war was noted by 27.1% of people, at the time of the survey – by 65%; 33.1% observed laziness in the first month of the war, and 74.1% at the time of the survey; sharp changes in mood in the first month of the war were noted by 37.3% of respondents, and at the time of the survey – by 54.8%.

**Conclusions.** This study found that acute stress disorder, post-traumatic stress disorder and adjustment disorder are quite common among students. At the same time, although not significantly, acute stress disorder was more common than post-traumatic stress disorder. Adjustment disorder was also common among medical

students and manifested itself in some as early as the first month of full-scale war, and in others later. Its immediate cause could be a change of place of residence, loss of loved ones, job and, in general, the very need to accept a new reality. Our research complements the existing ideas about the psycho-emotional state of people during the war, creates a basis for a more detailed study of the mechanisms of stress and substantiates the need for public support for students through the creation of a tolerant environment for better adaptation.

**Key words:** stress, war, medical students, acute stress disorder, post-traumatic stress disorder, adjustment disorder.

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