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### STUDENT'S ANXIETY IN TODAY'S REALITIES OF UKRAINE

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**Abstract.** The article is devoted to the assessment of the psycho-emotional state of Karazin medical students by the level of situational anxiety in the conditions of a full-scale war of Russia against Ukraine, analyzes the causal problems of the impact of anxiety on the personality, mental and physical health of future doctors and psycho-somatic future of our nation as a whole.

**Key words:** war in Ukraine 2022, anxiety, situational anxiety, psychosocial traumatization, stress, psychological problems, psychological screening.

At the moment a full-scale war of the Russian Federation against Ukraine has been going on for ten months and all the civilians of our country have become hostages to it. In every Ukrainian's family, at work, in class, in everyday conversations, such concepts as «stress», «fear», «anxiety», «depression» are heard more and more often. Against the background of the worldwide coronavirus COVID-19 pandemic and the global economic and social problems provoked by it, the life under martial law, in particular in areas of active hostilities, has become considerably more complicated by a sharp deterioration of psychological state of people with the emergence of various mental and emotional personality disorders, that in turn has significantly exacerbated the problem of comorbidity of any somatic

pathology. Unfortunately, today stress and anxiety are an integral part of our lives, therefore it is extremely necessary to be aware of their danger, consequences and to know the ways of their early correction, overcoming and prevention [1-3].

According to the results of a social survey by Gradus Research Company, which was conducted in April 2022, it turned out that 82% of surveyed Ukrainians felt stress and nervousness, and 77% of respondents noted that the cause of anxiety was the full-scale war. For comparison, during 2021, at least two-thirds of Ukrainians experienced some kind of stressful situation, and only 29% of respondents did not experience any stressful situation. This rate became much lower comparing to year 2019, namely before the coronavirus pandemic, at that time 49% of Ukrainians lived without stress [3].

According to the Institute of Social and Political Psychology of the NAES of Ukraine (September 2022), the subjective assessment of the psychological well-being of Ukrainians has significantly decreased (6.7 points out of 9 possible, and those, who were forced to leave, have the lowest rate); 40% of the respondents experienced a threat to their own lives, were direct witnesses of such threats due to being in the combat area under fire, were in occupation or in captivity; more than 41% of Ukrainian citizens have relatives or family members, who were or still are in combat areas; 16% of respondents lost their family members; more than 90% of respondents have basic symptoms of complex post-traumatic stress disorder (added to ICD-11 F62.0, which emphasizes the modern-day necessity for professional psychological rehabilitation) [4].

According to the type of our professional activity among all segments of the population we focused specifically on students, in particular on medical students of V. N. Karazin Kharkiv National University. This is exactly the contingent of people who, under the most difficult socio-economic and psychological conditions of today's Ukrainian realities, must continue not only their studies, but also planning their future. That is why, by identifying the general level of situational anxiety and revealing the problems of the anxiety impact on the personality, on the mental and physical health of youth of the college age, we also encourage the future doctors to

master the skills of mandatory screening of the patients' psychological state, in particular at the level of primary health care, provided to the population by family doctors [5-6].

**Aim.** To determine the level of situational anxiety of medical students under the modern conditions of military psychosocial traumatization, to analyze the interdependence of trigger factors and ways to overcome psycho-emotional crisis and mental disorders of the individual for maintaining the health of the nation and the quality of life of Ukrainians.

Materials and methods. For anonymous voluntary testing of 100 national students (aged 18 to 25) of the School of Medicine of V. N. Karazin Kharkiv National University in the format of a unified online Google Form (a web application from the free Google Docs Editors web package), a survey form for self-assessment of situational anxiety was used (according to one's own subjective feelings of one's state) by the Spielberger-Hanin test method [1; 5-6], the psychological spectrum of which we supplemented with medical and social problematic issues that characterize the specifics of the Ukrainian society's current life during the war (gender, age, necessity to resettle or evacuate, family separation, material well-being, ability to continue education, clinical manifestations of an anxious state, applied methods of eliminating anxiety).

Results and discussion. It is known, that situational anxiety is characterized by subjective emotions: nervousness, excitement, tension, concern. This condition arises as a reaction to a stressful situation and can vary in intensity [5-6]. According to the results of the Spielberger-Hanin test, it has been determined that 45% of our respondents have an average level of situational anxiety, which indicates their ability to clearly understand and critically evaluate their opportunities. Such people try to adapt to a stressful situation in order to cause less harm to themselves and their health [7].

40 % of students have a high and very high level of anxiety, and they are inclined to perceive the world around them and everything related to their personal qualities more vividly. As a result, the level of self-esteem may decrease. These

persons need to learn to form a sense of confidence in themselves. It should be noted that a very high level of anxiety (if the test scores are more than 46 points) already indicates the presence of a neurotic conflict with emotional breakdowns. 15% of respondents are persons with a low level of situational anxiety. It is necessary to stimulate such individuals to activity, to motivate them, to encourage them to solve problems [1; 7].

At the same time, analyzing the specifics of anxiety, it should be noted that among the surveyed, young women experience a stressful situation more vividly - 35% of women have a high level of anxiety compared to 24% of men with the same anxiety level.

A higher level of situational anxiety in women can be explained by anatomical and physiological features of development. After all, women naturally have a wide range of emotions, which express themselves more openly and vividly in various life situations, especially if it concerns safety. Instead, men are more likely to keep such emotions as fear and anxiety to themselves. But it is not always a display of force, because the inability to express one's emotions negatively affects physical health. Most often, it affects the cardiovascular system. After all, according to statistics, heart attacks occur more often in men, and the average age of life of men is 10 years less than that of women [3-5; 8].

One more interesting fact is that among the surveyed students, those who are abroad, have the highest level of anxiety (44% of high level and 55% of medium level of anxiety), than those who are in Ukraine. Perhaps, it is explained by the absence of relatives nearby or by problem with adaptation, communication and mindset in a foreign country. However, the situation is somewhat different with those who live in Ukraine, because most of the respondents are internally displaced persons with an average level of anxiety (54% of respondents). It is interesting that the level of situational anxiety is lower among those with IDP status, than among those who remain at the place of registration.

Certainly, most likely, this is explained by the security situation. Forcibly displaced persons are those who moved to safer regions of Ukraine. And many of

those who stay at home, do not evacuate, are near active hostilities. The most interesting fact, as the survey showed, is that the students who were forced to evacuate abroad are more anxious than those who were forced to evacuate within Ukraine.

The next question, that we will try to analyze, is the dependence of the level of situational anxiety on a person's material well-being. Respondents were asked to evaluate their material well-being on a scale from 1 to 3, where 1 is low, 2 is average, and 3 is high level of well-being. After assessing the level of situational anxiety, it turned out that those who evaluated their well-being as high had a moderate level of anxiety. By contrast, those who evaluate their well-being as low (59% of our respondents) are more anxious and have a high level of situational anxiety.

70% of the surveyed students do not have a permanent job or a part-time job, 18% of respondents have a part-time job, 12% of respondents have a permanent job. The outcome analysis showed that the dependence of the level of anxiety on the availability of work is almost the same as on the level of prosperity. It means that a higher level of situational anxiety is in those who do not have their own means of support in contrast to students who have a job or a part-time job.

Taking into account the present life circumstances, the impossibility to stay at home for most students, and the fact that the online form of distance education prevails, we added to the survey the question of the level of organization of one's own education in the conditions of martial law. For the answer, a scale from 1 to 5 was offered, where 1 – I cannot organize it at all, 2 – I am dissatisfied with the conditions, 3 – satisfactory, 4 – quite convenient, 5 – excellent conditions for learning. The organization of learning is very important for education and depends not only on the educational institution, but also on the student himself, especially during the online learning format. Many components are important, from technical support to the availability of a separate room or the ability to comfortably spend study hours. The level of organization of one's own learning also affects the level of stress and situational anxiety [4-5]. According to the survey results, applicants who managed to organize their studies at a high, sufficient and satisfactory level have a moderate and

low level of situational anxiety, and those who could not organize themselves, in the vast majority, have a high level of situational anxiety.

Also, during the study, we noticed the complaints arising against the background of tension. Absolutely all surveyed had complaints, most of them had only one, but there were those who had two or more at the same time. The most common complaints were of heart palpitations (31%), headache (24%), heart pain (10%), difficulty in breathing (8%), abdominal pain (8%). Less common were complaints of nausea, vomiting and dizziness. And all these also coincide with the profile of basic clinical manifestations of distress and complex post-traumatic disorder [4].

The most interesting fact is that only 29% of respondents were concerned about the causes of their complaints, and yet, these are future doctors! Their professional competence should include a diagnostic search with a thorough analysis of cause-and-effect relationships. Also we were surprised with the result that 64% of medical students were not at all concerned about methods of eliminating their anxiety, and only 16% of them followed the relatives' advice and advice from the internet; 13% of the surveyed were distracted by household chores, sport, walks, meditation, reading, thoughts about victory; 5% of students took sedative drugs at their own choice; and only 2% of the surveyed turned for help to a professional psychologist.

The students who were consciously concerned with this issue are indeed professionally oriented (actually, they also organized the conditions for their learning at a sufficiently high level and had a medium-low level of anxiety). We asked these students to evaluate the effectiveness of their method of eliminating anxiety. Among all the methods, visiting a psychologist became more effective, in all other cases the effect was insufficient or the method was completely ineffective. And it is precisely the fact that fully coincides with the concept that all the people should be supported by the psychological and psychiatric specialists, because according to the Ministry of Health of Ukraine forecasts, more than 15.7 million Ukrainians will face psychological problems in the post-war period, and 3.5 million people will need

therapy and support especially by psychiatrists. Today more than 50% of immigrants already have anxiety-depressive and post-traumatic mental disorders. After the war, psychosomatic disorders in the military will increase, auto-aggressive and suicidal behaviour will also increase, and there will appear a phenomenon of "Rapid aging" [4].

Taking into account the general level of situational anxiety among the surveyed students, the number of those who do not try to improve their state and the ineffectiveness of the used methods to help, we can conclude that it is necessary to monitor and timely diagnose oneself with anxious state and use effective methods of psychological help. This will enable to significantly reduce the level of situational anxiety and avoid physical manifestations and psychosomatic consequences.

### **Conclusions**

- Anxiety is a normal feeling inherent to everyone, although it is unpleasant. In one way or another, everyone encounters it. It manifests itself in some people more intensively, in others – less intensively. Unfortunately, today this feeling accompanies vast majority of people. Therefore, we have to learn to control our anxiety. Our study showed that 40% of respondents have a high and a very high level of situational anxiety. Taking into account those surveyed (applicants for higher education, aged 18 to 25), such results are alarming. Constantly being in a state of heightened anxiety leads to negative consequences. Psychosomatic diseases often join anxiety and complicate comorbidity. If no one works with this state, later somatic and, as a result, chronic diseases will appear. Taking into consideration, that such a risk factor is already present in almost half of the respondents, without correction, problems with the physical and mental state may arise in the near future. Considering the age of the respondents, it is a bad signal, it will affect health – the chronicity of many diseases can be at a younger age, it will affect the process of learning and social life – in the state of anxiety it is difficult for us to concentrate, tension increases, and sometimes a depressive state appears.
- 2. Women have higher level of situational anxiety, than men (35% of high level situational anxiety in women vs. 24% in men). Unlike men, women are very

emotional, so they are more prone to anxious states. The fact is that anxiety is an emotion that cannot always be understood, unlike fear, which almost always occurs due to a valid reason. In order to cope with anxious state, it is necessary to clearly understand, what «anxiety wants to tell us?». It is easier for men to cope with anxiety, because in most cases they approach the issues of their emotions more rationally, they try to understand immediately, why they feel this or that right now. Women, on the other hand, first fully experience the emotion, and later pay attention to the causes of its occurrence and its elimination.

- 3. The level of anxiety is influenced by absolutely everything that surrounds a person: location, circumstances that forced a person to be in a particular place, living conditions, confidence in the future, and the ability to feel comfortable and confident. Our survey outcome analysis shows the following: students who were forced to evacuate abroad have a higher level of anxiety than those who stayed in Ukraine or evacuated within the country; students with an average and high level of income feel less anxious; the level of anxiety is lower among those who managed to organize their studies at a sufficient level in the conditions of martial law.
- 4. We would like to highlight separately the complaints that most often arise during feeling of anxiety. According to the outcomes of our survey, these are heart palpitations (31%), headache (24%), heart pain (10%), difficulty in breathing (8%), abdominal pain (8%). So, we can conclude that the most sensitive to anxious states are the cardiovascular and nervous systems of the body. Anxiety disorders should be considered as an independent risk factor for the development of internal diseases.
- 5. Anxiety is one of the main signal systems of the body, it helps to mobilize the body's resources and adapt it in extreme conditions. However, chronic anxiety loses its positive qualities and disrupts the functioning of the body and exhausts it. People with high situational anxiety need to learn to control their state, because there is a risk of transition from physiological (protective) to pathological anxiety, which will lead to exhaustion of adaptive capabilities. Considering the above-mentioned, everyone should understand that anxiety cannot be neglected, it is

necessary to be able to listen to one's body and feel the border between useful and destructive anxiety.

6. It became clear, that 64% of the surveyed students absolutely are not concerned about the methods of eliminating or reducing the level of their anxiety. Such a result made us think not only about the reasons for the increased level of anxiety, but also about the methods of eliminating the anxious state.

Taking into account the analysis of the conducted survey and the analyzed literature, we tried to make our list of tips that can be used by students and all those who want to improve their state and reduce the level of anxiety:

- What does anxiety mean? This is a question which you should try to answer for yourself. Figure out what caused the anxiety and what the anxiety tries to protect you from. Be sure, in most cases, the answer to this question can be fully explained.
- Everyone has anxiety! This is normal! Remember it and try not to withdraw into yourself when such emotions arise.
  - Establish the border between useful and harmful anxiety.
  - Self-discipline and efficiency treat anxiety!
  - When the problem arises, then I will solve it!
- Plan the future, focus on positive emotions and important things. Anxiety and fear have no plan. Try to be clear about what exactly you are afraid of, what difficulties you avoid. This will allow you to understand: what you are afraid of, in most cases, has not yet happened.
- The right decision is to ask for help! Do not hesitate and do not be afraid of asking for qualified help if you feel the need. Psychological help is the most effective way to eliminate feelings of anxiety, fear and many other problems. All of us go through hard times. A pandemic and a full-scale war are a huge test and a precondition for the formation of a wide range of anxiety disorders. Well-timed psychological support helps not just to overcome difficulties, but also to prevent negative consequences.

## **REFERENCES**

- 1. Naugolnyk L. B. (2015) *Psychology of Stress*. Lviv: Lviv State University of Internal Affairs [in Ukrainian].
- 2. Barsukova O. «More deaths»: what stress did the Ukrainians experience in 2021? *Ukrainska Pravda*. Survey. Retrieved from: https://life.pravda.com.ua/society/2022/02/3/247334/ [in Ukrainian].
- 3. Osadcha Ya. 63% of Ukrainians, who feel stressed, have disturbed sleep. Retrieved from: https://life.pravda.com.ua/society/2022/05/4/248512/ [in Ukrainian].
- 4. Matviyets L. G. (2022, November 7) Stressful effects, disorders and consequences for health in the practice of a family physician under the present-day conditions. Masterclass for family physicians. Kyiv. Retrieved from: https://www.youtube.com/watch?v=tBvwDZGd-fA&ab\_channel= HIPPOCRATES [in Ukrainian].
- 5. Voloshok O. V. (2012) Personal factors of anxiety among student youth. *Odesa National University Herald. Psychology*, 8, 479-484 [in Ukrainian].
- 6. Grinchenko A. Ya. Correlation between levels of anxiety and self-esteem of modern youth. Retrieved from: http://www.psyh.kiev.ua [in Ukrainian].
- 7. Striletska I. I. (2015) Anxiety as an individual characteristic of personality (theoretical aspect). *Scientific journal of M. P. Dragomanov National Pedagogical University. Series Psychological Sciences.* Kyiv: M. P. Dragomanov NPU, 1 (46), 266-272 [in Ukrainian].
- 8. Naugolnyk L. B., Kit V. V. (2014) Individual differences in response to stress by heads of internal affairs bodies. *The Scientific Bulletin of Lviv State University of Internal Affairs. Psychological Series.* Lviv: LvSUIA, 1, pp. 292 [in Ukrainian].