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# TABLE OF CONTENTS

## AGRICULTURAL SCIENCES

1. *Вінюков О. О., Бондарева О. Б., Коробова О. М., Вискуб Р. С.* 15  
АГРОБІОЛОГІЧНИЙ ДОБІР СОРТІВ ПШЕНИЦІ ОЗИМОЇ ЗА АДАПТИВНИМИ ОЗНАКАМИ В ПІВНІЧНО-СХІДНОМУ СТЕПУ УКРАЇНИ.
2. *Петрова О. І., Шевчук Н. П., Іванова К. М.* 19  
ТЕХНОЛОГІЯ ВІДТВОРЕННЯ СТАДА УКРАЇНСЬКОЇ ЧЕРВОНОЇ МОЛОЧНОЇ ПОРОДИ ВЕЛИКОЇ РОГАТОЇ ХУДОБИ.

## BIOLOGICAL SCIENCES

3. *Косенчук Н. П., Косенчук С. М., Кірова Т. С.* 24  
ТРОПІЗМИ ЯК СПЕЦИФІЧНА ФОРМА ПРИСТОСУВАННЯ РОСЛИН ДО УМОВ ЖИТТЄДІЯЛЬНОСТІ.

## MEDICAL SCIENCES

4. *Abaturov A. E., Kryvusha O. L., Babych V. L.* 29  
INTERCONNECTION BETWEEN QUALITY OF LIFE OF INFANTS AND VITAMIN D AND CALCIUM.
5. *Pavlovska Yu. O., Mandryk O. Ye.* 33  
MELDONIUM IN COMBINED THERAPY OF STABLE ANGINA OF TENSION OF TENSION AND GASTROESOPHAGEAL REFLUX DISEASE.
6. *Sharun A. I.* 35  
ADJUSTMENT DISORDERS AS A STRESS-RELATED DISORDER IN THE COMMUNITY: A LONGITUDINAL STUDY OF MEDICAL STUDENTS, WHO HAS SUFFERED PSYCHO-EMOTIONAL STRESS.
7. *Vovk S., Vashcenko V.* 39  
MODERN DIRECTIONS OF HEALTHCARE DEVELOPMENT IN UKRAINE.
8. *Абдумаджидов А. А., Бахтияр Г. А., Тошпулатова Лазиза Эрали кизи, Атаходжиева Бехруза Мурот кизи* 42  
АСПЕКТЫ РОЛИ ГОРМОНОВ ЩИТОВИДНОЙ ЖЕЛЕЗЫ.
9. *Абдумаджидов А. А., Усмонова Диера Равшан кизи, Упаходжаева М. У., Равшанова Дилобар Хасан кизи* 48  
ДИСФУНКЦИЯ ЭНДОКРИННОЙ СИСТЕМЫ И ЕЕ ВЛИЯНИЕ НА СОСТОЯНИЕ СЕРДЕЧНО СОСУДИСТОЙ СИСТЕМЫ.
10. *Абдумаджидов А. А., Юсупова К. А.* 54  
ФУНКЦИОНАЛЬНЫЕ ОСОБЕННОСТИ ДЕЙСТВИЯ ВИТАМИНА Д НА ОРГАНИЗМ.
11. *Азизова Г. Д.* 60  
ОПТИМИЗАЦИЯ ДИАГНОСТИКИ СИНДРОМА ГИПЕРАНДРОГЕНИИ РАЗЛИЧНОГО ГЕНЕЗА.

# ADJUSTMENT DISORDERS AS A STRESS-RELATED DISORDER IN THE COMMUNITY: A LONGITUDINAL STUDY OF MEDICAL STUDENTS, WHO HAS SUFFERED PSYCHO-EMOTIONAL STRESS

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**Introductions.** Stress-related diseases have been predicted to become major contributors to the Global Disease Burden within the next 20 years. Stress related disorders, including post-traumatic stress disorder (PTSD), acute stress reaction (also known as acute stress disorder), adjustment disorder, and other stress reactions, refer to a group of psychiatric conditions that are preceded and triggered by an identifiable trauma or other life stressors. With considerable variation in response to adverse events, people with stress related disorders might represent a population with the most severe physiological dysregulation as a result of severe stress. Mental health is one of the most significant determinants of life quality and satisfaction. Different psychological and psychiatric studies conducted in multiple developed and developing countries across the past decades have shown that prevalence of stress, anxiety, and depression is higher among university students compared with the general population. Untreated poor mental health can cause distress among students and, negatively influence their quality of lives and academic performance, including, but not limited to, lower academic integrity, alcohol and substance abuse as well as a reduced empathetic behaviour, relationship instability, lack of self-confidence, and suicidal thoughts. We conducted a controlled longitudinal cohort study to explore the association between psychoemotional disorders and adjustment disorder among medical students.

**Aim.** The study aim was to establish discover the most relevant psychopathological features of adjustment disorder in students, who have experienced psychoemotional stress, on the basis of studying their clinical-

psychopathological peculiarities and use of modern psychometric researches.

**Materials and methods.** The analysis included results obtained from 4 groups of students ( $n = 249$  average, age  $20.88 \pm 2$ , both sexes), 2 groups experienced a traumatic event (respondents — children of ATO soldiers, internally displaced persons (IDP)). The research was conducted on the basis of the Dnipro State Medical University (DSMU) and the Dnipro Basic Medical College (DBMC). The participants were informed about the aim of the study and no identification or names were recorded so as to maintain confidentiality. The study participants were informed of their right to refuse or stop participating at any time during the interview. Finally, data were collected after obtaining written informed consent from the participants. During the examination, clinical, psychopathological, anamnestic, socio-demographic, and psychodiagnostic research methods were used. The research involved the use of several standardized measurement tools, including The questionnaire of severity of psychopathological symptoms (Symptom CheckList-90-revised, L.R. Derogatis, in adaptation by N.V. Tarabrina, 2001); The Scale of the astenical state (L. D. Malkova, according to adaptation by T. H. Chertov based on MMPI); quality of life scale; Integrative Test of Anxiety (A.P. Bizyuk, L.Y.Vasserman, B.V. Iovlev, 2005); The Leonhrad-Schmieschek's Questionnaire (H. Schmieschek, 1970); Scales of psychological well-being (K. Ryff, 1989, Adaptation by T. D. Shevelenkova, P. P. Fesenko, 2005).

**Results and discussion.** Results from the current study suggest that stress experienced by students from 2 main groups is multifactorial (displacement trauma, broken social network, health issues, social discrimination, examination stresses, age problems, awareness of the content of professional activity in the world of self-realization and self-actualization). Despite the wide range of individual differences, common themes were uncovered in the categories: burnout-related challenges, facilitators of burnout, facilitators of wellbeing, and coping strategies. Recognizing burnout is an important first step that may lead to broader understanding and help build interventions to support the individual and address institutional barriers to resiliency and resident wellbeing.

The findings from the current study with the help of the Symptom Check List-90 Revised - SCL-90 questionnaire revealed that the value of interpersonal sensitivity dominated among the leading psychopathological symptoms; the respondents noted feelings of personal inadequacy and inferiority ( $0.78 \pm 0.07$ ), self-condemnation, feelings of anxiety and noticeable discomfort in the process of interpersonal interaction. Depression ( $0.63 \pm 0.06$ ) was defined in the main group alongside with anxiety, lack of interest to life, lack of motivation, loss of life energy, sense of hopelessness, thoughts about suicide. Somatic symptoms ( $0.50 \pm 0.06$ ) in the form of headache, tension, muscle discomfort and etc. were also expressed. The lowest scores were obtained on the scales of psychoticism ( $0.20 \pm 0.03$ ), phobic symptoms ( $0.28 \pm 0.04$ ), which reflects the absence of hallucinatory-paranoid symptoms and severe fears.

Among students of the main groups there were higher average levels for severity of asthenic manifestations on the scale of asthenic condition ( $45.62 \pm 1.11$  points, at  $p \leq 0,001$ , compared with students of the control groups who had the lowest results and amounted to  $39.51 \pm 1.06$  points, respectively.

The general indicator of quality of life among students of the DSMU main group was  $7.97 \pm 0.15$  points, at  $p \leq 0.01$ , and among students of the control group it was  $8.65 \pm 0.16$ ; the respective values among DBMC students were  $7.87 \pm 0.40$  and  $8.8 \pm 0.22$  points. During the study it was revealed that the students showed the worst indicators of spiritual realization ( $6.25 \pm 0.23$  points), physical well-being ( $7.39 \pm 0.14$ ) and emotional well-being ( $7.45 \pm 0.17$ ).

Among students with identified accentuations, the largest group consisted of persons with hyperthymic type (49.13%), the second place was taken by the group of students with the exalted type of accentuation (43.93%), the third place was taken by the group of people with the fixedness-type accentuation. The groups of dysthymic (3.03%), pedantic (4.61%), excitation-type (8.44%) accentuation were presented in a much lesser extent. Students who have experienced a psychoemotional stress have higher trait and state anxiety indicators compared to the Control Group, as can be seen from the diagram (Table 1).

**Table 1**

**Indicators of the trait and state anxiety of students of the Dnipro State Medical University (DSMU) and the Dnipro Basic Medical College (DBMC)**

	Self-assessment of trait anxiety (M)						Self-assessment of state anxiety (M)					
	Emotional discomfort	Asthenic component of anxiety	Phobic component	Anxious assessment of the nervous system	Social protection	General indicator	Emotional discomfort	Asthenic component of anxiety	Phobic component	Anxious assessment of the nervous system	Social protection	General indicator
DSMU, the Main Group	5,64	5,28	4,60	5,65	4,57	5,37	3,26	4,15	3,73	5,02	4,07	3,83
DSMU, the Control Group	4,37	4,17	3,57	4,42	3,33	3,77	1,78	2,83	2,60	3,53	3,08	1,92
DBMC, the Main Group	4,91	4,82	4,42	4,21	3,39	4,39	3,03	4,09	3,94	3,91	3,67	3,76
DBMC, the Control Group	4,70	4,50	3,53	4,37	2,70	4,00	2,13	3,33	2,53	3,70	3,17	2,53

The association of low level of mental well-being with high level of state anxiety ( $r = -0.6$ ) and trait anxiety ( $r = -0.45$ ) was confirmed.

**Conclusions.** The analysis of clinical and psychopathological features of the examined students with a traumatic event history gave an opportunity to determine negative expectations about interpersonal interaction and communication, self-condemnation, feelings of anxiety, lack of interest in life, lack of motivation, loss of vital energy, feelings of hopelessness, suicidal thoughts, somatic symptoms such as headache, tension, muscle discomfort and dysfunctions of cardiovascular, gastrointestinal and respiratory systems. Also, there were higher average levels for severity of asthenic manifestations. The association of low level of mental well-being with high level of state anxiety ( $r = -0.6$ ) and trait anxiety ( $r = -0.45$ ) was confirmed. Future studies are required to investigate long-term effects of experiencing stress-related diseases on students. A longitudinal study with a large randomly recruited sample size is required. The obtained results may have important practical implications, especially in the therapy of people exposed to trauma.