

ABSTRACT

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PECULIARITIES OF POLTAVA STATE MEDICAL UNIVERSITY STUDENTS STRESS RESISTANCE

One of the main competencies of the future doctor is developed stress resistance. High level of stress is characteristic of student's life, but at the same time, it is favourable for opportunities related to the development of viable strategies and attitudes of the individual. It necessitates the study of stress factors of students and ways of its development.

Objective. The objective of the article is theoretical and experimental study of psychological factors of stress resistance in medical and dental faculties' students when forming their professional readiness. The sample included 104 people aged 18 to 20 years, who were 2 to 4 course students of medical and dental faculties of Poltava State Medical University.

Methods and materials. The following methods were used in the empirical study: «S. Muddy's stress test», adapted by DA Leontiev and EI Rasskazova, «Test of meaningful life orientations (MLO)» by D. Leontiev and «Boston stress test». The study was conducted in November 2021 remotely, using Google questionnaires. Statistical processing of research results was carried out using Microsoft Excel Office 2010. The statistical significance of difference between groups was determined using the Student's t-test.

Results. As a result of the study, some differences in the features of stress resistance between students of dental and medical faculties were revealed. Students of the medical faculty had a higher level of stress resistance. They were more focused on mastering the profession and professional activity and had higher risk-taking rates than dental faculty students. There were also differences in the value-semantic sphere: existential attitudes were more common among medical students and utilitarian attitudes – among dentists. Based on the obtained results, we conducted training on stress resistance in order to increase the level of stress resistance, which should be considered a way to respond to stressful situations.

Keywords: stress resistance, stress, professional training of future doctors, stress resistance among students.

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**ОСОБЛИВОСТІ
ПОЛТАВСЬКОГО
УНІВЕРСИТЕТУ****СТРЕСОСТІЙКОСТІ
ДЕРЖАВНОГО****СТУДЕНТІВ
МЕДИЧНОГО**

Однією з головних компетентностей майбутнього лікаря є розвита стресостійкість. Студентський період характеризується підвищеним рівнем стресу, але в той же час сприятливими віковими можливостями для розвитку життєздатних стратегій і установок особистості. Це обумовлює необхідність вивчення чинників стресостійкості студентів та способів її розвитку. Мета статті полягає у теоретико-експериментальному дослідженні психологічних чинників стресостійкості студентів медичного та стоматологічного факультетів у процесі формування їхньої професійної готовності. Кількісний склад вибіркової сукупності студентів складав 104 особи віком від 18 до 20 років, які навчалися на 2–4 курсах медичного та стоматологічного факультетів Полтавського державного медичного університету.

В ході емпіричного дослідження було використано такі методики: «Тест стресостійкості С. Мадді», адаптований Д. А. Леонтєвим і Є. І. Рассказовою, «Тест смисложиттєвих орієнтацій (СЖО)» Д. Леонтєва та «Бостонський тест стресостійкості». Дослідження було проведене в листопаді 2021 року дистанційно, за допомогою гугл-анкет. Статистичну обробку результатів досліджень здійснювали за допомогою програми Microsoft Excel Office 2010. Визначення вірогідності різниці між групами проводили з використанням критерію t Стюдента. В результаті проведеного дослідження були виявлені відмінності в особливостях стресостійкості між студентами стоматологічного та медичного факультетів. У студентів медичного факультету відмічається вищий рівень стресостійкості, вони більш орієнтовані на освоєння професії, на професійну діяльність, також для них характерні більш високі показники прийняття ризику порівняно зі студентами-стоматологами. Також наявні відмінності у ціннісно-смысловій сфері: серед студентів-медиків більш поширеними є екзистенційні установки, а серед стоматологів – утилітарні. На основі отриманих результатів з метою підвищення рівня стресостійкості нами було проведено тренінг стресостійкості, який слід розглядати як спосіб розвитку та вироблення нових шляхів реагування на стресові ситуації.

Ключові слова: стресостійкість, стрес, професійна підготовка майбутніх лікарів, стресостійкість серед студентів.

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INTRODUCTION/ВСТУП

The activities of a health worker are always associated with high levels of stress due to high responsibilities. The work of a future specialist is

associated with many difficulties and requires not only special training and a set of complex skills, knowledge and abilities, but also developed intrapersonal qualities. One of the main

competencies of the future doctor is developed stress resistance [1].

Stress resistance is an integrative property of the individual, characterized by the interaction of emotional, volitional, intellectual and motivational components of mental activity, which provide optimal success in achieving the goal of activity in a difficult situation [2].

However, even first-year students in the first stage of their medical careers are less stressed. An order of magnitude higher educational load, new forms of work, a large amount of information needed for learning is superimposed on many crises: age, the crises of individual life, which includes crises of unrealisation, devastation, hopelessness; vocational training crises; external, global, existential, associated with the instability of the present and the uncertainty of the future [3].

It should be noted that the student period is also characterized by favourable age opportunities for the development of viable strategies and attitudes of the individual (active desire for meaningfulness, developing attitudes to different life situations and attitudes to their experiences of these situations, active search and development of behavioural and cognitive strategies for overcoming difficult life situations). Mental neoplasms determine the psychological readiness of young people to develop viable strategies and attitudes - the ability to deep reflection, a high level of self-awareness, active search and formation of life plans, attitudes, strategies [4].

Thus, stress resistance can be crucial for students' practical mastery and positive comprehensive development during their active professional, personal and social development [5].

The aim of the study is the theoretical and experimental study of psychological factors of stress resistance of medical and dental faculties students in forming their professional readiness.

The object of the research is the stress resistance of the individual.

The research subject is psychological factors of stress resistance of medical and dental faculties students of Poltava State Medical University (PSMU).

Materials and methods of research

To solve the research problem, we used the following research methods: theoretical (analysis, synthesis, comparison, systematization, classification, modelling used to generalize existing theoretical approaches and empirical

research results) and empirical (testing, psychodiagnostic and experimental methods of stress testing) applicants for higher education).

The empirical part of the study was performed based on PSMU. The quantitative composition of the students was 104 people aged 18 to 20 years, who studied in 2-4 courses of medical and dental faculties of Poltava State Medical University.

The methodical research procedure of psychological features of stress resistance was determined based on theoretical conclusions about the value-semantic basis of stress resistance, subject, object and purpose of research. The following methods were used for this: «S. Muddy's stress test», adapted by DA Leontiev and EI Rasskazova, «Test of meaningful life orientations (MLO)» by D. Leontiev and «Boston stress test» [6, 7]. The study was conducted in November 2021 remotely, using Google questionnaires.

Statistical processing of research results was carried out using Microsoft Excel Office 2010. The statistical significance of the difference between the groups was determined using Student's t-test.

Results and discussion

Analysis of empirical data revealed the main quantitative trends in terms of severity and psychological content of stress resistance of young people dental and medical faculties according to the method of «S. Muddy's stress test» adapted by DA Leontiev and EI Rasskazova [7]. The obtained data on the level of stress resistance of young people and the existential attitudes are presented in Fig. 1.

The next step was to determine the average value of stress resistance of students.

The group's overall level of stress resilience was at the middle level. Given the chosen profession and the complexity of the chosen specialities naturally, it was found that the low level was 27%. At the same time, high-stress resistance was observed in only 5%. It is noteworthy that students of the dentistry faculty showed lower resistance to stress (34.5 ± 4.4) than respondents from the medical faculty (28.1 ± 3.4).

Among the leading causes of stress, they pointed to the lack of time, high demands of the institution of higher education, and personal problems.

The profile of the values of the students stress resistance average is presented in Fig. 2.

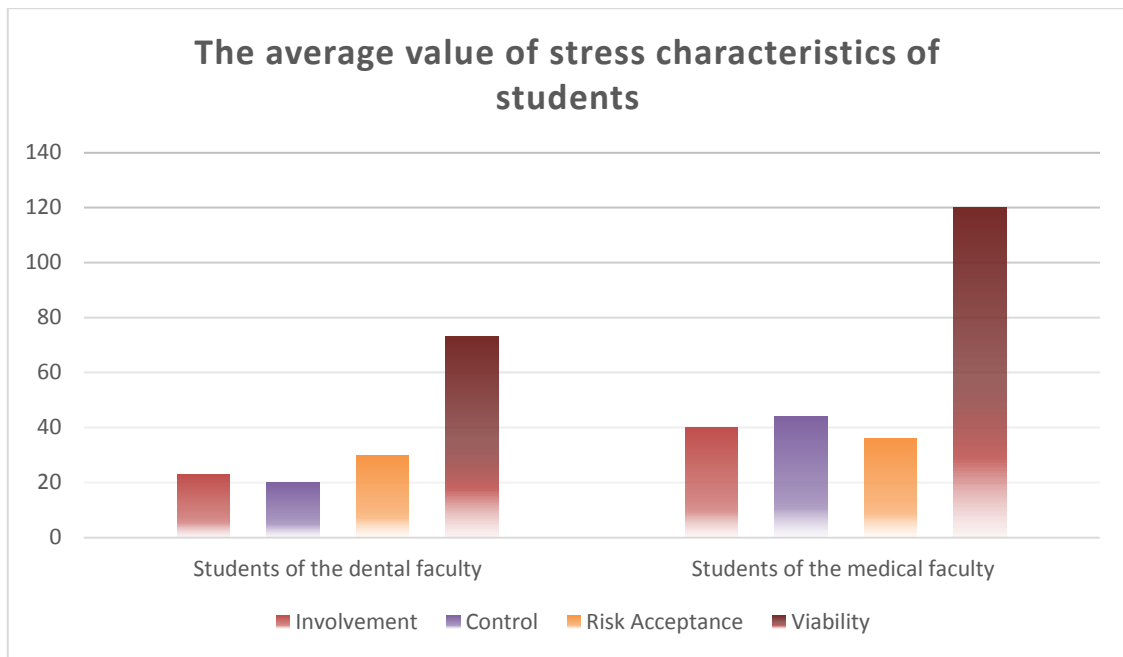


Figure 1 – The average value of stress characteristics of students

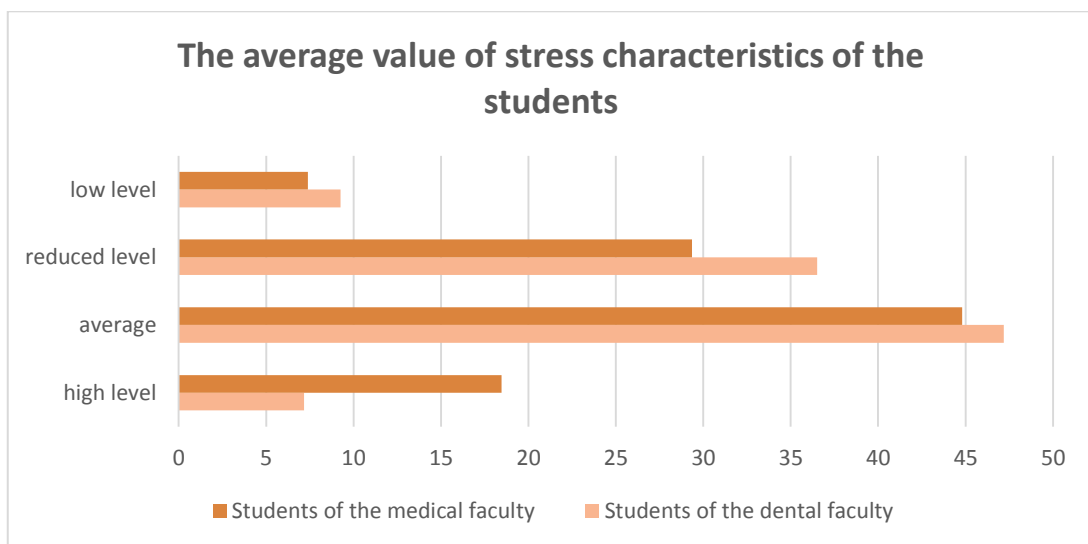


Figure 2 – The average value of stress characteristics of students

The third indicator of psychodiagnostic tools is the profile of the young people life values expression. The results are shown in Fig. 3.

There is a very significant difference in almost every indicator of life values. For example, the slightest difference between groups 1 and 2 is presented on the «individuality» scale. However, the average values of all other values show that young people from the medical faculty, compared to dental students, are much more interested in self-improvement, spiritual satisfaction, creativity, self-realization personality in general.

The importance of life values for the realization of the values of PSMU students is shown in Fig. 4.

Thus, medical faculty students are more focused on mastering the chosen profession and obtaining the education. As a result, they have a much higher level of involvement, which indicates their ability to focus on activities, to immerse in them.

Higher rates of risk acceptance have a place than for dental students. It indicates the readiness of the medical faculty students to possible difficulties and their perception as a factor of personal and professional growth, rather than a threat.

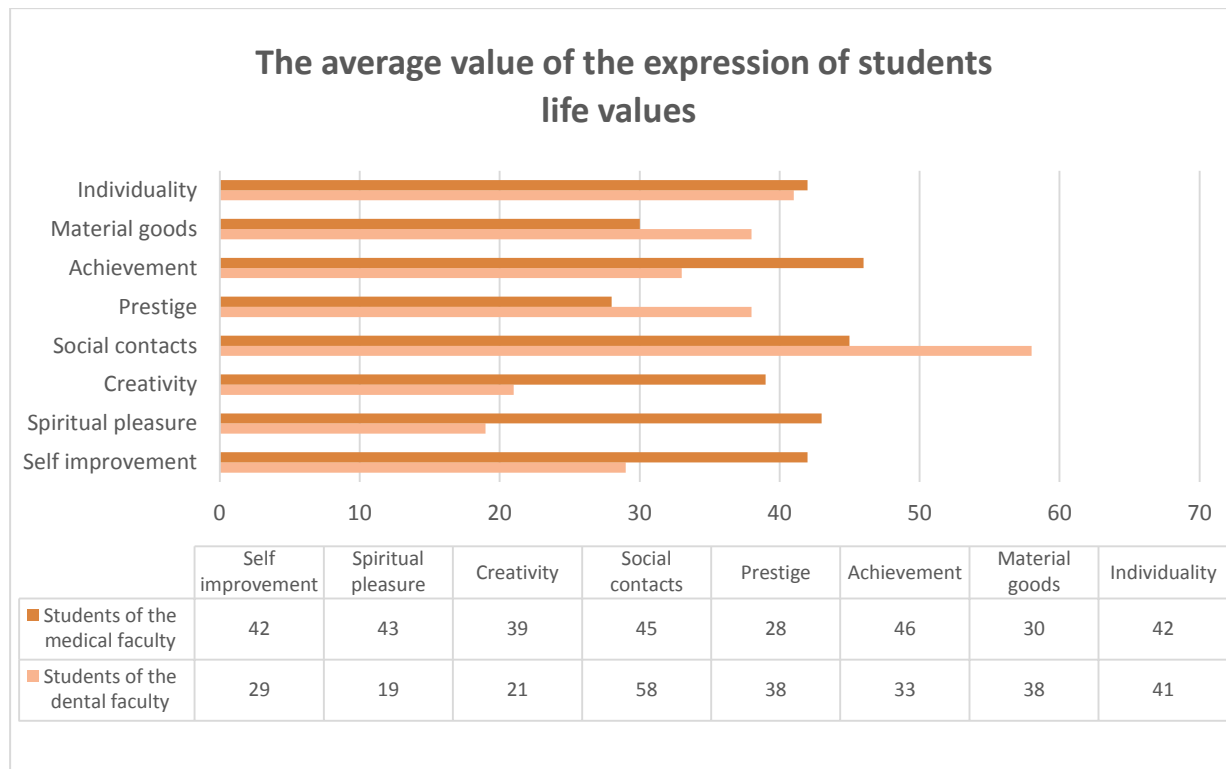


Figure 3 – The average value of the expression of students’ life values

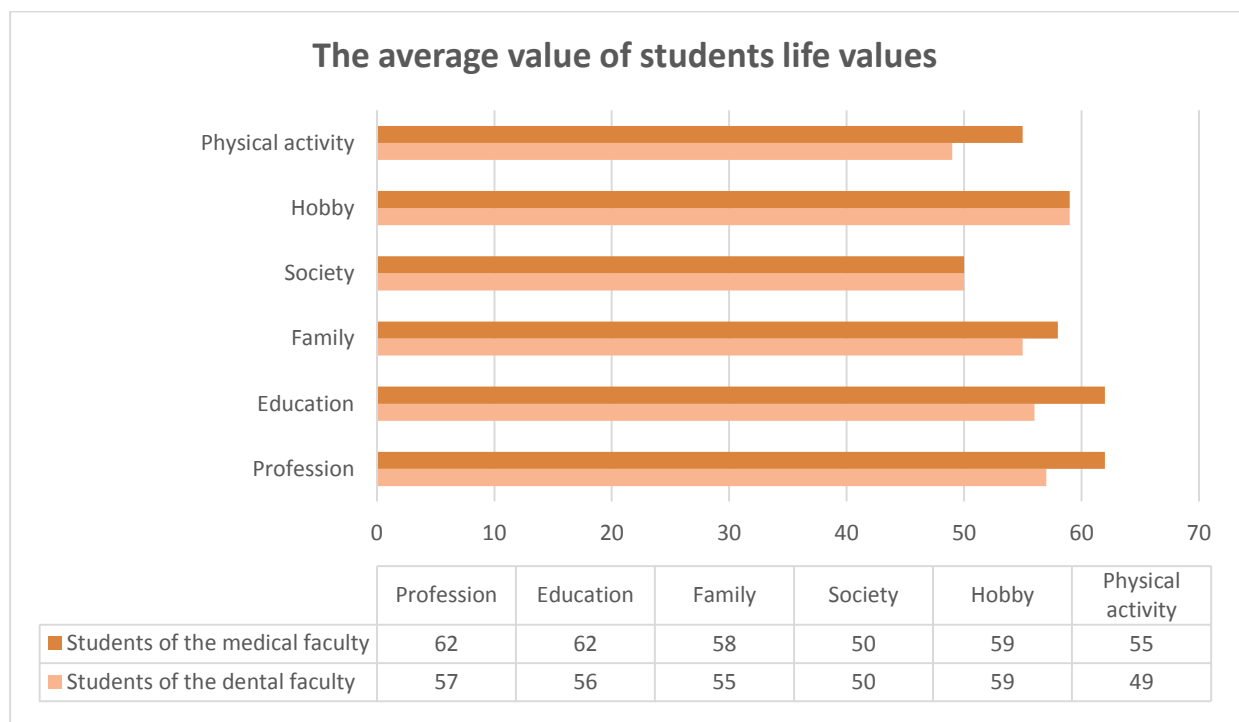


Figure 4 – The average value of students’ life values

The method «Test of meaningful life orientations» revealed differences in the value-semantic sphere of students of two faculties. According to the results, existential values (self-development, spiritual satisfaction and creativity)

were dominant among medical students, while utilitarian values (material well-being and prestige) were dominant among future dentists.

The psychological content of stress resistance of young students of the dentistry faculty is

characterized by a pronounced focus on today without solid content, procedurality and implementation of plans in the future. Utilitarian values determine this vector of future life. At the same time, focusing on future events deprives a person of the flexibility to perceive the process of life in general, which reduces the breadth of signals and accuracy of orientation in the future.

Based on this, the lower the degree of future orientation, the lower the willingness to accept future risk. Accordingly, any situation of risk and uncertainty will be perceived by the individual as dangerous and traumatic, and chronic stress will significantly narrow the cognitive ability to overcome and the ability of the individual to emotional self-regulation, which will have devastating consequences for the psyche and body.

Thus, the existential worldview ensures the stability of the individual in situations of risk and uncertainty, focuses on openness to new experiences, and is the basis for an adequate response to life events at the mental and somatic levels of human functioning [8, 9].

CONCLUSIONS/ВИСНОВКИ

Thus, it was found out that the orientation of the existential nature, risk-taking, willingness to work, study, and possible resistance to difficulties determine a high level of stress resistance. In our study, the level of stress resistance of students of medical and dental faculties was compared. Higher indicators of stress resistance were found in

In order to develop stress resistance among students, stress resistance training was conducted. This program aims to develop vital qualities, which together are the basis of resilience.

The theoretical and methodological basis of the program is an existential-phenomenological approach (R. May, J. Bjugenthal, I. Yalom, W. Frankl, A. Langley, J. Jendlin), which focuses not on the individual, but being-in-the-world – the way a person lives his life and interacts with existential factors [10, 11]. This training can be described as a step-by-step process of research by participants of their lifeworld and ways to answer existential questions of life. The methods and techniques used in training should be considered to develop and strengthen «dialogue openness» [12].

The training uses such universal methods as mini-lectures, group discussion, case method, and methods of behaviour rehearsal, cognitive restructuring, visualization, relaxation. Participants perform tasks individually and in pairs and mini-groups with subsequent discussion in a group.

medical students, which may be characterized by a more thorough approach to choosing a profession, given that human life will often depend on their work. Furthermore, medical faculty students tend to regard their speciality as a vocation that can generate income, meet spiritual needs, realize their potential, and benefit society.

PROSPECTS FOR FUTURE RESEARCH/ПЕРСПЕКТИВИ ПОДАЛЬШИХ ДОСЛІДЖЕНЬ

Therefore, to increase the level of stress resistance, a training program was conducted among students of the dentistry faculty, based on an existential-phenomenological approach.

CONFLICT OF INTEREST/КОНФЛІКТ ІНТЕРЕСІВ

The authors declare no conflict of interest.

COMPLIANCE WITH ETHICS REQUIREMENTS/ВІДПОВІДНІСТЬ ЕТИЧНИМ НОРМАМ

The authors declare that all procedures of this research met the ethical standards of the Declaration of Helsinki of 1975, as revised in 2008.

FUNDING/ДЖЕРЕЛА ФІНАНСУВАННЯ

None.

AUTHOR CONTRIBUTIONS/ВКЛАД АВТОРІВ

All authors substantively contributed to the drafting of the initial and revised versions of this paper. They take full responsibility for the integrity of all aspects of the work.

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