

DOI <https://doi.org/10.11603/m.2414-5998.2024.4.15142>
УДК 378.091.212:61:159.942.5:616.891.4:355.01(477)

N. O. Fedchyshyn

ORCID <https://orcid.org/0000-0002-0909-4424>

Scopus ID 57202833382

A. H. Shulhai

ORCID <https://orcid.org/0000-0002-2145-5851>

Scopus ID 6506445523

H. I. Klishch

ORCID <https://orcid.org/0000-0002-1074-1772>

Scopus Author ID 57202834170

L. M. Sas

ORCID <https://orcid.org/0009-0006-5305-3060>

Scopus Author ID 57201670305

Ivan Horbachevsky Ternopil National Medical University of the Ministry of Health of Ukraine

EMOTIONAL BURNOUT SYNDROME IN MEDICAL STUDENTS: CHALLENGES AMIDST THE WAR

Н. О. Федчишин, А. Г. Шульгай, Г. І. Кліщ, Л. М. Сас

Тернопільський національний медичний університет імені І. Я. Горбачевського МОЗ України

СИНДРОМ ЕМОЦІЙНОГО ВИГОРАННЯ У СТУДЕНТІВ-МЕДИКІВ: ВИКЛИКИ, ПОВ'ЯЗАНІ З ВІЙНОЮ

Abstract. The article analyzes the results of a survey conducted among medical students regarding emotional burnout syndrome as a body reaction to prolonged stress. Attention is focused on the students' reports of a gradual loss of emotional, cognitive, and physical energy, mental exhaustion, physical fatigue, personal detachment, and decreased satisfaction with the learning process. The study examines the state of physical, emotional, and cognitive exhaustion caused by prolonged exposure to emotionally overwhelming situations. Exhaustion is highlighted as a critical factor contributing to dissonance in experiences, behaviors, and well-being, manifesting as complaints about personal health, physical discomfort, nervous tension, emotional depletion, indifference, and emotional saturation. The article emphasizes the risks of emotional burnout – physical exhaustion, emotional and motivational depletion – which pose significant threats to the young generation of medical professionals.

Key words: emotional burnout syndrome, medical students, personal, role-related and organizational burnout factors, psycho-emotional state.

Анотація. У статті проаналізовано результати анкетування студентів-медиків щодо синдрому емоційного вигорання як реакції організму на тривалу дію стресу. Зосереджено увагу на вказаних студентами поступовій втраті емоційної, когнітивної і фізичної енергії, розумового виснаження, фізичної втоми, особистої відчуженості та зниження задоволення від навчального процесу. Досліджено стан фізичного, емоційного і когнітивного виснаження, яке викликане тривалим перебуванням в емоційно перевантажених ситуаціях, коли виснаження є головним чинником проявів дисгармонії, переживань та поведінки й проявляється у скаргах на власне здоров'я, фізичне самопочуття, нервові напруження, емоційне виснаження, байдужість та емоційне перенасичення. Наголошено на ризиках емоційного вигорання (фізичне виснаження, емоційне та мотиваційне виснаження), які несуть загрози представникам молодшої генерації лікарів.

Ключові слова: синдром емоційного вигорання, студенти-медики, особистісний, рольовий та організаційний чинники вигорання, психоемоційний стан.

Relevance of the Research. Traditionally, in public consciousness and scientific literature, when studying the professional activities of specialists in socio-economic professions (doctors, educators, psychologists, social workers, etc.), the focus is primarily on the positive aspects of working with people. However, it is clear that working with people,

due to the high demands placed on professionals in such fields, the unique responsibility and emotional burdens inherently contain the risk of severe emotional experiences related to work situations and the likelihood of professional stress. This is why much of the effort of modern scientists is directed towards studying human interaction, identifying the impact of professional factors on the individual, especially on personality deformation [2; 6; 8; 10; 11].

In both foreign and domestic literature, many studies explore the phenomenon of emotional burnout.

Upon entering a medical university, most future students are highly motivated to acquire new knowledge and skills to help people with their minds and efforts in the future. However, due to the large amount of information, lack of time for rest, and engaging in personal activities, the inner reserves of each student begin to deplete. As a result, sleep and leisure fail to provide the desired relaxation and internal energy cannot be restored. The daily routine becomes more overwhelming, leading to emotional burnout. Over time, this results in a loss of interest and motivation toward studying, the future profession, and one's surroundings, which eventually turns into indifference to work and social connections [9, p. 228]. Other people's problems and thoughts become burdensome, creating a desire to withdraw and immerse oneself in isolation.

Statistical data confirm that professional burnout is «younger» over time, which calls for further research on this issue and the development of preventive measures among medical professionals.

Aim of the Study. This study aims to determine the impact of burnout syndrome on the academic performance of medical university students.

Materials and Methods. The study is based on the analysis of a survey conducted among 180 medical students of the 1st to 3rd years, aged 17 to 19, during the 2022-2023 academic year. The survey contained ten questions designed to identify the presence and spectrum of burnout syndrome manifestations and its impact on student's academic performance at Ternopil National Medical University.

Main Part. Emotional burnout is one of the most common psychological problems, particularly among doctors, educators, and students [1; 2]. It is well known that those professionals who are subjected to prolonged intellectual [3; 5] and communicative stress, or individuals prone to professional perfectionism [9; 11], are at high risk for developing burnout syndrome. The work of future healthcare professionals is characterized by significant mental, moral, and ethical tension and is considered one of the most challenging types of human activity. Healthcare workers are a social group that faces not only considerable informational overload (often negative) but also a wide range of patient-related issues, ultimately resulting in significant social and psychological stress [12]. Professional burnout syndrome is most commonly observed in doctors, leading to decreased work efficiency, a lack of motivation for self-development, and the absence of professional achievements.

Recently, researchers on professional burnout have pointed out the need to develop and implement effective preventive measures not only for chronic

occupational stress but also for chronic fatigue syndrome, which becomes the first stage in the development of asthenic syndrome and suicidal tendencies as an active (internal) form of aggressive behavior [4; 7]. In times of war and pandemic, doctors face not only high mortality and morbidity rates (which alone lead to intense emotional strain) but also must adapt to changing routines. All of this leads to the early development of professional burnout, even among young specialists, and can contribute to the formation of depressive behavioral disorders [10, p. 176].

Stress and professional burnout among medical students are just as acute a problem as they are for practicing doctors. Therefore, studying student behavior regarding coping and resilience related to burnout at different stages of university education is essential. These findings can be used to develop behavioral-level prevention programs for medical students to «stay healthy in difficult situations» [1, p. 126].

Scientific research shows various trends in burnout levels during medical university training. Some studies have found that burnout increases with each year of medical education. Senior students demonstrate lower levels of cynicism but a higher level of emotional exhaustion than freshman students [5, p. 96].

According to English researchers, a high level of anxiety is recorded in 41% of young general practitioners, while clinically significant depression is observed in 26%. One-third of young doctors use medication to alleviate emotional tension. This highlights the importance of faculty advisors conducting conversations with student groups to identify ways to cope with stress among students [6]. This is especially important for the early detection of dysfunctional coping strategies, which include the use of tranquilizers, stimulants, alcohol, and dependency on PC or mobile phone games. These dysfunctional coping strategies are closely linked to professional burnout. Using these strategies increases the likelihood that students will suffer from burnout.

Even more concerning is the fact that there are isolated cases where students resort to using «light» drugs to cope with stress and exhaustion, with many also turning to alcohol to reduce stress. It is well-established that alcohol consumption, psychostimulants, and computer games have a strong impact on the development of professional burnout. Some students who used alcohol also used drugs, refused psychological support, and were unable to continue their studies [7]. Alcohol and drug abuse among medical students has been confirmed by research. Up to 20% of medical students reported excessive alcohol consumption [3, p. 49]. It has been found that the risk of alcohol use is higher among medical students than their peers who do not study

in medical institutions. Overall, the risk of substance abuse is significantly correlated with psychosocial disturbances, including stress during studies. Students increasingly use psychotropic substances to alleviate tension, loneliness, stress, anxiety, and depression [2].

Based on the research, we can identify three significant factors in emotional burnout syndrome: personal, role-related, and organizational.

Personal factor. Variables such as age and marital status do not influence emotional burnout. However, female students tend to experience emotional exhaustion more than male students, who lack a connection between motivation (satisfaction from receiving high grades). Students who experience a lack of independence («over-controlled personalities») are more susceptible to emotional burnout. L. Beresa points to the following personal factors that contribute to the development of emotional burnout syndrome: a tendency for emotional restraint, a tendency to intensely experience negative circumstances, such as the learning process, and weak motivation for emotional engagement [2, p. 39].

Role factor. Learning in a situation of distributed responsibility reduces the development of emotional burnout syndrome. However, when responsibility for developing professional skills is unclear or unevenly distributed, this factor increases sharply, even with a significantly low academic load. Emotional burnout is more likely to develop when collective efforts are not coordinated or competition exists.

Organizational factor. The development of emotional burnout syndrome among students is associated with the presence of a tense psycho-emotional situation: intense communication about wartime events, reinforced by negative emotions, intense perception, processing, and interpretation of

the information received, and decision-making. This also includes destabilizing organization of certain classes and an unhealthy psychological atmosphere within the group. Prolonged stress combined with personal impulsiveness and low emotional resilience in conflict situations inevitably promotes the development of emotional burnout syndrome [11, p. 39]. Thus, 45% of respondents reported physical symptoms of emotional burnout: a sharp increase in fatigue, chronic tiredness, headaches, changes in blood pressure, insomnia, weight gain or loss, and involuntary movements such as clenching fists, stiffness, etc.

At the same time, 51% of respondents reported emotional symptoms, including anxiety, increased irrational worry, inability to concentrate, pessimism, fatigue, feelings of frustration, helplessness, and hopelessness, irritability, aggressiveness, depression, feelings of guilt, hysteria, emotional suffering, loss of hope or professional prospects, and loneliness.

In 19% of students, social symptoms appeared: lack of desire, time, or energy for social activity; reduced interest in hobbies; limited relationships with others, both at home and in the educational institution; feelings of isolation and misunderstanding; and a lack of support from family and friends.

Thus, according to the conducted research to determine the level of emotional burnout among medical students, the results were as follows: low level of emotional burnout – 24 students (13%), medium level – 54 medical students (30%), high level – 69 students (38%), and very high level – 33 students (19%) (Fig. 1).

If we consider the results of male and female students according to the components of emotional burnout, we obtained the following results among male students: low level of emotional burnout – 9 students (12%), medium level – 19

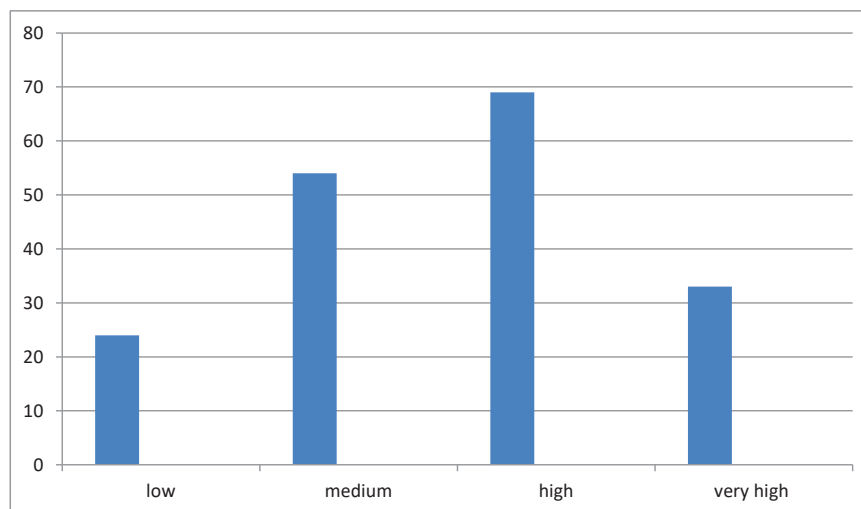


Fig. 1. Levels of emotional burnout among medical students in %

students (25%), high level – 33 students (44%), very high level – 14 students (19%). Among female students, we have the following results: low level of emotional burnout – 13 students (12%), medium level – 17 students (16%), high level – 51 students (49%), very high level – 24 students (23%). It is worth noting that these stepwise indicators show only minor differences regarding the characteristics of the high and very high levels (Fig. 2.).

According to the study, we obtained the following results regarding emotional exhaustion among male and female students. Among male students: low level of emotional exhaustion – 6 students (8%), medium level – 36 students (48%), high level – 27 students (36%), very high level – 6 students (8%). Among female students, the results were as follows: low level of emotional exhaustion – 20 students (19%), medium

medium level – 54 students (52%), high level – 16 students (15%), very high level – 15 students (14%). It is worth noting the symptoms that medical students indicated in the survey: a sharp increase in fatigue, headaches, insomnia, emotional insufficiency, irritability, aggressiveness, anxiety, intensification of irrational anxiety, inability to concentrate, hysterics, increased sadness, apathy, and a formal attitude towards studying (Fig. 3.).

Regarding the depersonalization indicators among male and female medical students, the results were as follows: among male students, low level of depersonalization – 12 students (16%), medium level – 36 students (48%), high level – 24 students (32%), very high level – 3 students (4%). Among female students, the results were: low level of depersonalization – 24 students (23%), medium

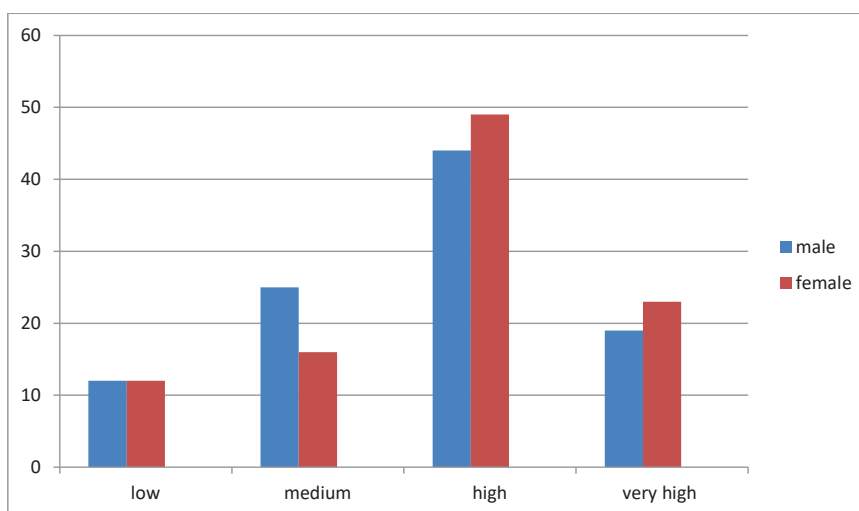


Fig. 2. Components of emotional burnout (%)

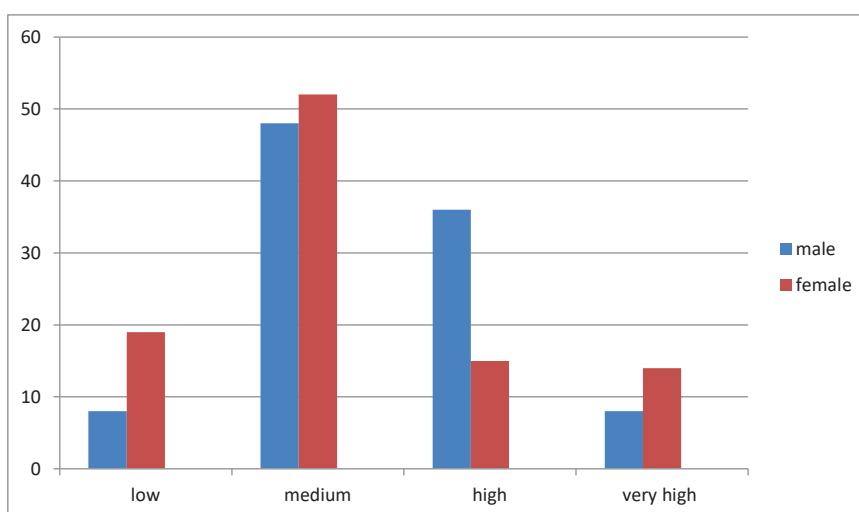


Fig. 3. Levels of emotional exhaustion among medical students (%)

level – 28 students (27%), high level – 21 students (20%), very high level – 32 students (30%).

Regarding the symptoms, respondents described the following: limited social contacts, reduced interaction with others both at home and at university, feelings of isolation, misunderstanding from others and by others, lack of support from family and friends, pessimism, cynicism, and emotional coldness in personal life, indifference and fatigue, irritability, aggressiveness, and a prevailing sense of loneliness.

We found that medical students with signs of burnout were twice as likely, compared to respondents without signs of the syndrome, to believe that stress constantly accompanies their lives – 64.2% versus 35.7%, respectively. Despite a high awareness among these students regarding the need for psychological assistance (73.7%), only 6.3% sought help, and almost half (48.9%) did not know where to access it.

Conclusions and Prospects for Research. The results obtained in this study highlight the negative

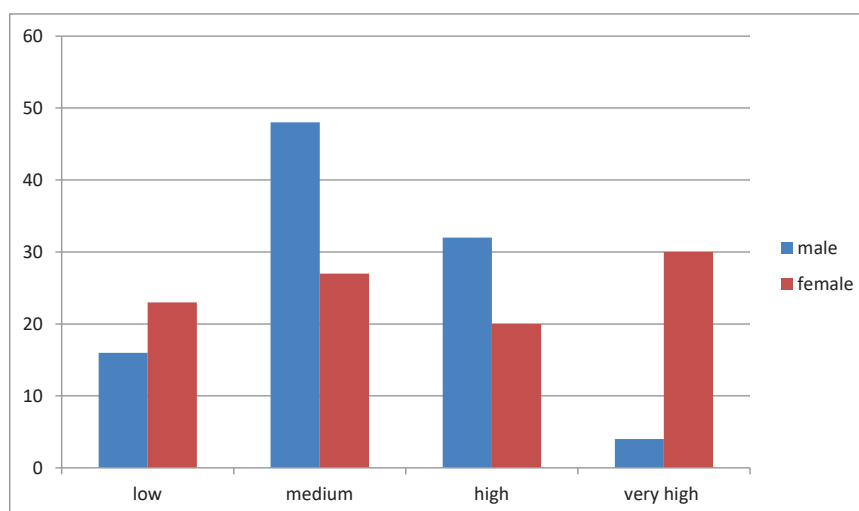


Figure 4. Indicators of depersonalization among medical students (%)

impact of war on the psycho-emotional state of medical students, their low level of knowledge in psychohygiene, and the lack of skills to prevent this condition.

To prevent the onset and development of emotional burnout syndrome among medical students, it is essential to implement a comprehensive set of

measures at the university level. These measures should create a supportive educational environment and provide access to qualified psychotherapeutic assistance when needed. For instance, initiatives could include monitoring to identify at-risk groups for maladaptation among medical students and offering training programs on burnout prevention.

List of literature

1. Виявлення ознак емоційного вигорання під час медичних симуляційних тренінгів / В.В. Артюшенко та ін. *Вісник Вінницького національного медичного університету*. 2016. № 1. Ч. 1 (т. 20). С. 125–127.
2. Береза Л. Психологічні особливості емоційного вигорання лікарів. *Психологічні перспективи*. 2020. Вип. 36. С. 37–48.
3. Вашека Т.В., Тукаєв С.В. Детермінанти емоційного вигорання студентів психологів в процесі навчання. *Проблеми загальної та педагогічної психології*. 2011. Т. XIII. Ч. 6. С. 47–55.
4. Гулинська С. Синдром емоційного вигорання. URL: <https://psychology.lviv.ua/syndromemotsiinoho-vygoriannia/>

5. Золотарьова Ж.М. Обґрунтування заходів профілактики синдрому емоційного вигорання серед студентів-медиків. *Медична освіта*. 2018. № 3. С. 95–98.
6. Карамушка Л.М., Зайчикова Т.В. Проблема синдрому «професійного вигорання» в педагогічній діяльності в зарубіжній та вітчизняній психології. *Актуальні проблеми психології*. 2006. Т. 1. С. 210–217.
7. Кернас А.В., Бондаревич С.М., Котляр Л.І., Малиш В.Є. Теоретико-методологічні основи дослідження психологічних особливостей феномена «професійного емоційного вигорання» у студентів. *Ментальне здоров'я*. 2024. № 1. С. 20–28.
8. Лаврова М.Г. Теоретичний аналіз сучасних поглядів на поняття «емоційне вигорання». *Вісник Одеського національного університету. Серія «Психологія»*. 2014. Т. 19. Вип. 2. С. 194–202.

9. Павлюк М.М. Психологічні чинники емоційного вигорання у професійній діяльності. *Актуальні проблеми психології*. 2018. Т. XI. Вип. 18. С. 226–244.

10. Підлипняк І.Ю., Дука Т.М. Професійне вигорання педагогів: профілактика та подолання. *Науковий часопис НПУ імені М.П. Драгоманова. Серія 5. Педагогічні науки: реалії та перспективи*. 2019. Вип. 11. С. 175–178.

References

1. Artomenko, V.V., Yelchaninova, S.I., Nosenko, V.M. et al. (2016). Vyiavlennia oznak emotsiinoho vyhorannia pid chas medychnykh symulatsiinykh treninhiv [Identification of signs of emotional burnout during medical simulation training]. *Visnyk Vinnytskoho natsionalnoho medychnoho universytetu – Bulletin of the Vinnytsia National Medical University*. 1(1) (t. 20). S. 125–127.

2. Bereza, L. (2020). Psykholohichni osoblyvosti emotsiinoho vyhorannia likariv [Psychological features of emotional burnout of doctors]. *Psykhologichni perspektyvy – Psychological perspectives*. Vyp.36. S. 37–48.

3. Vasheka, T.V. (2011). Determinanty emotsiinoho vyhoriannia studentiv psykholohiv v protsesi navchannia [Determinants of emotional burnout of psychology students during training]. *Problemy zahalnoi ta pedahohichnoi psykholohii : zb. nauk. prats Instytutu psykholohii im. H. S. Kostiuka NAPN Ukrainy – Problems of general and pedagogical psychology*. K. Tom. KhIII. Ch. 6. S. 47–55.

4. Hulynska, S. Syndrom emotsiinoho vyhorannia [Emotional burnout syndrome] Retrieved from <https://psychology.lviv.ua/syndromemotsiinoho-vyhorannia/>

5. Zolotarova, Zh.M. (2018). Obguntuvannia zakhodiv profilaktyky syndromu emotsiinoho vyhorannia sered studentiv-medykiv [Implementation of measures to prevent emotional burnout syndrome among medical students]. *Medychna osvita – Medical education*. №3. S. 95–98.

6. Karamyshka, L.M. (2006). Problema syndromy «profesiinoho vyhorannia» v pedahohichnii diialnosti v zarybizhnii ta vitchyznianiі psykholohii [Problems of «professional burnout» syndrome in pedagogy in foreign and domestic psychology]. *Aktyalni problemy psykholohii: zbirnyk naykovykh prats Instytutu psykholohii im. H.S. Kostiuka APN Ukrainy – Actual problems of psychology / za red. S.D. Maksymenka, L.M. Karamyshky*. T. 1. K. S. 210–217.

11. Пахомов І.В. Профілактика професійного та емоційного вигорання педагогічних працівників закладів професійної (професійно-технічної) освіти : навчальний посібник. Біла Церква : БІНПО ДЗВО «УМО» НАПН України, 2024. 114 с.

12. Сергєєнкова О.П. Криза фахового навчання як підґрунтя емоційного вигорання студентів. *Збірник наукових праць*. 2017. № 27. С. 77–81.

7. Kernas, A.V. (2024). Teoretyko-metodolohichni osnovy doslidzhennia psykholohichnykh osoblyvostei fenomena «profesiinoho emotsiinoho vyhorannia» u studentiv [Theoretical and methodological foundations of the study of psychological features of the phenomenon of «professional emotional burnout» among students]. *Mentalne zdorovia – Mental health*. №1. S. 20–28.8. Lavrova, M.H. (2014). Teoretychnyi analiz suchasnykh pohliadiv na poniattia «emotsiine vyhorannia» [Theoretical analysis of modern views on the concept of «emotional burnout»]. *Visnyk Odeskoho natsionalnoho universytetu. Serii «Psykhologhiia» – Bulletin of Odessa National University. Series «Psychology»*. T. 19. Vyp. 2. S. 194–202.

9. Pavliuk, M.M. (2018). Psykholohichni chynnyky emotsiinoho vyhorannia u profesiinii diialnosti [Psychological factors of emotional burnout in professional activity]. *Aktualni problemy psykholohii – Actual problems of psychology*. Kyiv. T. I. Vyp. 18. S. 226–244.

10. Pidlypniak, I.Iu. (2019). Profesiine vyhorannia pedahohiv: profilaktyka ta podolannia [Professional burnout of teachers: prevention and overcoming]. *Naukovyi chasopys NPU imeni M.P. Drahomanova – Scientific journal of the NPU of M.P. Drahomanov*. Serii 5. Pedahohichni nauky: realii ta perspektyvy. Vyp. 11. S. 175–178.

11. Pakhomov, I.V. (2024). Profilaktyka profesiinoho ta emotsiinoho vyhorannia pedahohichnykh pratsivnykiv zakladiv profesiinoyi (profesiino-tekhnichnoi) osvity: navchalnyi posibnyk [Prevention of professional and emotional burnout of teaching staff of vocational (vocational and technical) education institutions: training manual]. Bila Tserkva: BINPO DZVO «УМО» НАПН України. 114 с.

12. Serheienkova, O.P. (2017). Kryza fakhovoho navchannia yak pidgruntia emotsiinoho vyhorannia studentiv [The crisis of vocational training as a basis for emotional burnout of students]. *Zbirnyk naukovykh prats – Bulletin of scientific works*. Kyiv. № 27. S. 77–81.

Отримано 01.12.2024

Електронна адреса для листування: fedushunno@tdmu.edu.ua