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Psychological stress and burnout in nursing students: Causes, impacts, prevention and treatments

Abstract: The purpose of the study was to identify the psychological causes, effects, and treatments for stress and professional burnout in future nurses. The research methodology includes questionnaires of nursing students and psychometric tests, namely, the Maslach Burnout Inventory and the Perceived Stress Scale. The study examines the psychological aspects of stress and professional burnout in nursing students, which is an urgent problem of modern medical education. The findings highlight the main reasons that contribute to the occurrence of stressful conditions in students, such as high academic load, emotional stress, practical classes in medical institutions and the need to combine study with work. The effects of stress on the mental and physical health of nursing students, including burnout symptoms, reduced academic performance, sleep disorders, and overall deterioration in quality of life, were analysed in detail. Special attention is paid to the impact of chronic stress on the professional development and career prospects of future nurses. The results obtained confirm the need for a comprehensive approach to solving the problem of stress and professional burnout in nursing students, which will help to increase their stress tolerance and professional training. Various methods of prevention and treatment of stress and professional burnout among nursing students are presented. These include cognitive behavioural therapy, meditation, relaxation techniques, exercise, and social support. Recommendations for organising the educational process, creating a favourable learning environment, and providing psychological support to students are provided.

Keywords: *Mental health, Professional burnout, Professionalism, Opportunities, Future nurses*

INTRODUCTION

Stress and professional burnout among nursing students is an urgent problem that negatively affects their mental health, academic performance, and future professional performance (Ghods et al., 2023). Nursing students face numerous challenges during their studies, including high academic workload, emotional stress during practice sessions in healthcare settings, and the need to combine study with work. These factors cause chronic burnout characterised by emotional exhaustion, depersonalisation, and reduced personal achievement (Hwang & Kim, 2022).

The lack of timely detection and proper prevention of burnout can lead to serious consequences, including a decrease in academic performance, emotional exhaustion, a decrease in motivation to study and the development of professional competences, which, in turn, negatively affects their future professional activity and the quality of the provision of medical services (Shaituro et al., 2025). Given the relevance of this problem, it is necessary to conduct a comprehensive analysis that will include research into the causes of negative phenomena, assessment of their impact on the personality and professional training of medical students, as well as the development of



effective prevention and treatment strategies that will contribute to the preservation of psychological well-being and professional development of future medical workers. Understanding the causes of burnout allows early detection of risk factors and the development of effective preventive measures aimed at preventing the occurrence of this syndrome (Gómez-Urquiza et al., 2023). Studying the effects of burnout helps to assess its impact on professional results, interpersonal relationships in a team, and the overall level of job satisfaction (Mukhtar & Nawang, 2025). In addition, the study of ways to prevent and treat burnout makes it possible to develop methods that will help maintain psychological stability, reduce stress levels, and maintain motivation for professional development.

A number of researchers have actively investigated the causes of stress during training and methods of its treatment among future nurses, Qian et al. (2024) have shown that academic workload is one of the main causes of burnout among nursing students. The complexity of the learning process, the large amount of material to be mastered and the high demands of assessment put considerable pressure on students (Ponomarenko, 2021). 70% of nursing students experience high levels of burnout due to their academic workload. Practical training in clinical settings is also often identified as a source of burnout due to the high level of responsibility, complex clinical situations, and the need to interact with patients in critical condition. According to the study by Lee et al. (2024), future nurses often experience anxiety and burnout during clinical practice, especially in the initial stages of their studies.

Al-Harrasiet al. (2024) noted that personal problems such as financial difficulties, family responsibilities, and personal relationships can further increase stress and cause burnout. Their research shows that personal problems have a significant impact on nursing students' stress levels. And the lack of adequate social support from teachers, colleagues, and friends can worsen psychological state and contribute to burnout.

Burnout can cause mental disorders, including depression, anxiety, and emotional exhaustion, as noted by Kılınc and Çiçek (2024). Medical students, including nurses, have high levels of depression and anxiety due to burnout, which can negatively affect academic performance, reducing concentration, memory, and learning ability (Striukov et al., 2022). The study by Asha et al. (2024) has shown that nursing students with high levels of stress have worse academic performance. Such professional burnout reduces motivation for further development, which leads to a decrease in the quality of medical care in the future. This process among future medical professionals is associated with a lower level of professional satisfaction and the intention to leave the profession.

Burnout treatments have been studied by Kupcewicz and Jóźwik (2019), Hoying et al. (2023), who have found that counselling with a psychologist or psychotherapist can help students develop effective strategies to manage stress and prevent burnout. Their study found that

psychological support can significantly reduce students' burnout levels in healthcare. Researchers have found that teaching relaxation techniques such as meditation, deep breathing, spiritual exercises and yoga can help students to reduce their stress levels. Nursing students who practice yoga and meditation have lower levels of stress and anxiety. It is important that higher education institutions provide support to students, by creating mentoring programmes, conducting burnout management trainings, and improving working conditions. Chen et al. (2024) and King et al. (2024) noted that regular exercise is an effective tool for reducing burnout levels and improving overall health. Their study found that physical activity like sports, cultural programmes can reduce burnout levels and improve mood in students. It is important for these students to lead a healthy lifestyle, including a balanced diet, getting enough sleep, and avoiding bad habits, because a healthy lifestyle can significantly reduce students' stress levels.

Previous studies have primarily focused on common factors of stress and burnout among medical students, such as academic workload, clinical practice, personal problems, and lack of social support. However, insufficient attention has been paid to the individual characteristics of students, such as their psychological stability, ability to self-organize, and personal strategies for coping with stress, which can influence varying levels of susceptibility to stress and burnout. The purpose of the study was to identify the causes, effects, prevention and treatments for stress and burnout in nursing students, followed by coping techniques.

LITERATURE REVIEW

Professional burnout among nursing students is a significant and multifaceted issue that affects their emotional well-being, academic success, and future professional performance. Unlike temporary stress, which may be situational and fluctuate depending on external factors, burnout is a chronic state of physical, emotional, and cognitive exhaustion that results from prolonged exposure to high demands in academic and clinical settings. Research highlights that burnout among nursing students is often underestimated, yet it plays a crucial role in determining their long-term commitment to the profession and overall psychological resilience (Smoliuk & Shulhai, 2024).

The high training load is one of the primary contributors to burnout. Nursing education requires students to assimilate vast amounts of theoretical knowledge while simultaneously engaging in practical coursework and clinical rotations. The pressure of frequent assessments, unexpected tasks, and the need for constant preparedness leads to chronic fatigue. Unlike other fields of study, nursing education includes emotionally intense clinical training, where students are exposed to real-life patient care scenarios that may involve critical decision-making, high-stakes interventions, and witnessing suffering or death. These experiences can be overwhelming, particu-

larly for students in the early stages of training, where the emotional toll of professional responsibility is especially pronounced.

Another key factor is work-life imbalance, as many nursing students must juggle academic commitments with part-time employment, caregiving responsibilities, and personal obligations. Andargeery et al. (2024) note that insufficient time for rest, sleep deprivation, and the absence of personal time contribute significantly to emotional exhaustion, which is one of the core components of burnout. The inability to balance these demands leads to progressive depletion of psychological resources, making students more susceptible to cognitive and emotional disengagement from their studies. Social support and interpersonal relationships also play a vital role in either mitigating or exacerbating burnout. A lack of support from faculty, peers, or family members can intensify feelings of isolation, helplessness, and professional doubt. Conversely, positive interactions within academic and clinical environments can serve as protective factors against burnout. However, conflicts within clinical teams, hierarchical dynamics in hospital settings, and interpersonal misunderstandings may further contribute to professional detachment and dissatisfaction.

Levels of stress and professional burnout among nursing students are an important topic for medical education research. Lee et al. (2024) conducted a study among professional nurses in the United States, with an average work experience of at least four years. The study revealed that 62% of these nurses experience high levels of stress, stemming from factors such as an intensive workload, clinical responsibilities, and the need to balance professional and personal lives. Moreover, 41% of the nurses exhibited signs of professional burnout, including emotional exhaustion, depersonalization, and decreased professional performance. These findings emphasize the importance of implementing strategies to mitigate stress and prevent burnout within the nursing profession. Dugger (2024), in his review study on stress and burnout among nursing students, highlighted the issue of mental health. According to the review, 68% of nursing students experience moderate to high levels of stress, with common causes including high academic demands, challenging clinical experiences, and insufficient support from teachers and peers. Furthermore, 35% of the students showed signs of professional burnout, highlighting the significant emotional and physical toll experienced by nursing students.

Qian et al. (2024) found that the issue of stress and burnout among medical students is particularly acute in Asia. Their study revealed that 70% of students experience high levels of stress due to high expectations from society and parents, placing additional pressure on their academic and professional achievements. Additionally, 45% of students displayed symptoms of burnout, including chronic fatigue, emotional exhaustion, and decreased motivation to study.

The literature review confirms that stress and professional burnout are serious issues among medical

students. The main stress factors include high academic workload, clinical training, balancing studies and personal life, and lack of social support. The consequences of stress include emotional exhaustion, depersonalization, reduced sense of personal achievement, as well as physical and psychological disorders.

MATERIALS AND METHODS

Research design

This study is quantitative research aimed at assessing the levels of stress and professional burnout among nursing students. Standardized psychometric tests and surveys were employed, enabling the collection of objective quantitative data and the identification of key factors influencing stress and burnout.

Sample

Nursing students of medical educational institutions who have completed clinical practice were interviewed. A sample of 200 students was selected using convenience sampling to ensure statistical significance and representativeness of the study results. This number of participants reduced the impact of random errors and provided sufficient data diversity for analysis. The sample included senior nursing students (3rd-4th year). Participants range in age from 21 to 23 years. Nursing is a predominantly female-dominated profession; therefore, most of the participants were women. However, male students were also included for representativeness. Women accounted for 85% (170 participants) and men – 15% (30 participants). Participation was voluntary, students signed informed consent, and all their data was anonymous and confidential.

Research methods

Standardized psychometric instruments were used to assess stress levels and professional burnout. Professional burnout was measured using the Maslach Burnout Inventory (World Health Organization, 2024), which evaluates three key components: emotional exhaustion, depersonalization, and reduced personal accomplishment. The Maslach Burnout Inventory consisted of three blocks of statements to which nursing students had to respond with “+” or “-”. All completed forms were collected and processed. The level of perceived stress was assessed using the Perceived Stress Scale (American Psychological Association, 2024), where respondents answered questions regarding their psycho-emotional state over the past month. Stress levels on the Perceived Stress Scale were categorized as follows: high level (≥ 27 points), average level (14-26 points), and low level (≤ 13 points).

Data collection procedure

The data collection procedure included voluntary and anonymous student surveys, followed by an analysis of the results. The questionnaires and tests were completed both online and in educational institutions, ensuring broad coverage and data reliability.

Data analysis methods

Data analysis was performed using descriptive statistical methods. Key indicators included the calculation of mean values and standard deviations. The main indicators were based on secondary data analysis, which additionally incorporated data from academic and medical institutions regarding participants' academic performance, health indicators, and requests for psychological help. This approach allowed for the creation of a comprehensive picture of the problem and its impact on the academic and professional activities of nursing students. Furthermore, key factors contributing to stress and burnout were identified, and differences between subgroups were analysed.

Interpretation of results and recommendations

The analysis of the collected data facilitated the identification of major stressors and burnout-related factors among nursing students. Based on the study's findings, recommendations were developed for educational institutions to mitigate stress and burnout. These recommendations may include the establishment of support programmes, the implementation of stress management techniques, and a review of training programmes to better accommodate students' mental well-being.

RESULTS

The analysis reveals a high prevalence of stress and burnout among nursing students, driven by academic workload, emotional demands of clinical practice, and balancing personal responsibilities. Key symptoms include emotional exhaustion, reduced motivation, and psycholo-

gical distress, exacerbated by inadequate social support. These findings highlight the need for targeted interventions, such as mental health support, workload adjustments, and resilience-building programs.

The quantitative results of the survey participants are presented in Table 1.

According to the study, which included a survey of 200 nursing students using the Maslach Burnout Inventory, high levels of stress and burnout were found among participants. The analysis of emotional burnout showed that more than 70% of respondents showed a high level of emotional exhaustion, which indicates a significant emotional load in the process of study and work. High levels of burnout can be associated with the intensity of the curriculum, constant pressure of responsibility, and long working hours. As for depersonalisation, about 65% of the students surveyed showed a high level of this process, which indicates a decrease in emotional attachment and empathy for patients. This can be the result of overwork and lack of rest, which reduces the ability to maintain a high level of empathy. The analysis of personal achievements showed relatively better results, a smaller part of the survey participants reported a low level of personal achievements, but this indicates a decrease in self-esteem and a sense of inefficiency in professional activities. Students may feel that their efforts are undervalued, which also contributes to the development of burnout syndrome.

Further, the same number of study participants answered questions on the Perceived Stress Scale, with the answers being "very often", "often", "sometimes", "very rarely", "never". The results are presented as a percentage in Table 2.

Table 1. Results on the Maslach Burnout Inventory.

Block of statements	Statement	Responses, number of participants	
		"+"	"-"
Emotional burnout	I feel emotionally drained because of my work	125	75
	I feel exhausted at the end of the workday	128	72
	I feel exhausted at the thought of another day at work	158	42
	I feel exhausted working with people all day	79	121
	I feel emotionally drained	151	49
Depersonalisation	I feel more cynical about the value of my work	59	141
	I feel less interested in my work	91	109
	I feel like I am less empathetic to my patients	99	101
	I feel more indifferent to people at work	138	62
Personal achievements	I feel like I am achieving important results at work	61	139
	I feel like my work matters	68	132
	I feel satisfied with my work	91	109
	I feel like I can solve most of the problems at work	38	162
	I feel competent in my work	71	129

Source: compiled by the authors.

Table 2. Results on the Perceived Stress Scale.

Questions	Responses of survey participants, %				
	Very often	Often	Sometimes	Very rarely	Never
Have you often felt that you cannot control the important things in your life?	13	23	41	20	3
Have you often felt nervous and stressed?	38	13	25	24	-
Have you often felt that you could not cope with all your responsibilities?	10	35	25	25	5
How often have you felt confident in your ability to deal with personal problems?	-	8	38	41	13
Have you often felt that you had everything under control?	6	12	45	27	10
Have you often felt that things are going the way you want them to?	8	10	28	44	10
Have you often found that you cannot handle everything that needs to be done?	32	44	10	10	4
Have you often felt that you have a lot of things to do that you cannot complete?	10	25	50	15	-

Source: compiled by the authors.

This survey helped identify levels of burnout and stress among nursing students, which will allow them to further develop appropriate strategies to maintain their psycho-emotional state. After analysing the results of the responses obtained, it was recorded that only 10% of applicants for education have a low level of stress. This indicates their ability to effectively cope with the learning load and the requirements of clinical practice. 20% of future professionals experience an average level of stress, which can be a sign of periodic difficulties and stressful situations that they are able to control. As for the high level of stress, it was 70% of students. This means that most of the study participants face difficulties in controlling important aspects of their lives, experiencing nervousness and overexertion. Students point out several major factors that cause high levels of stress. A large academic load, because an intensive curriculum, an abundance of material to learn and frequent exams create significant pressure on future specialists, which can lead to a constant feeling of overwork and anxiety. Further clinical practice, which is an important part of nursing training, but it is often accompanied by complex and stressful situations that require students to be highly trained, quick decisions, and psychological resilience. There is also constant pressure from teachers and patients, because high expectations from them and the needs of patients create additional pressure on applicants for education, which can cause feelings of uncertainty and anxiety.

The results point to the need to implement support and stress reduction programmes for nursing students. This may include psychological assistance, organising activities to reduce stress and increase motivation, and measures to improve the work environment and learning environment. It is necessary to pay attention to increasing psychological support for students. Universities and medical institutions

should provide regular training on stress management and emotional self-defence, counselling, and psychotherapy. This will help students to better cope with emotional stress and reduce burnout. It is also important to review training programmes and work schedules. Intensive training courses and long working hours can lead to physical and mental fatigue, which reduces the effectiveness of training and work. Optimising schedules, incorporating rest and recuperation breaks can help reduce stress levels. It is worth paying attention to increasing the level of social support among students (Lytyynova et al., 2021). The organisation of support and mutual assistance groups can contribute to the development of a sense of community and support, which will have a positive impact on the emotional state of students. Collective activities aimed at reducing stress, such as joint activities or volunteer work, can improve morale and reduce depersonalisation. In addition, it is necessary to improve the mechanisms of feedback and recognition of student achievements. It is important that students feel that their efforts are recognised and appreciated. Introducing a system of rewards, recognising successes and achievements can help increase self-esteem and reduce feelings of inefficiency. It is also important to regularly monitor stress and burnout levels among students. This allows identifying problems in a timely manner and taking appropriate measures to resolve them. The development of a burnout prevention system and regular questionnaires of students will help to respond to negative trends in time.

Each of these tests enabled the assessment of the level of burnout and stress among the respondents, which allowed the study to draw the following conclusions about their psycho-emotional state and the need for further support or interventions. Effective treatment and prevention of stress and professional burnout among nursing

students includes several approaches. Firstly, psychological counselling is one of the main methods of assistance. Individual or group sessions with a psychologist can help students understand and overcome the causes of stress and burnout. Psychotherapy can include cognitive behavioural therapy that helps change negative thinking patterns and behavioural responses. Secondly, learning stress management techniques can be very helpful. Nursing students can learn relaxation techniques such as meditation, yoga, breathing exercises, and progressive muscle relaxation. These techniques help reduce stress levels, improve emotional state, and increase overall sense of well-being. Thirdly, it is important to create a supportive environment in educational institutions. Teachers and administration can help reduce stress among students by providing them with the support and resources they need. This may include organising mentoring programmes, providing advice, and creating support groups. Teachers can also teach students effective ways to manage time and organise the learning process, which will help to reduce congestion. A balanced learning load is key to preventing stress and burnout. Educational institutions should review their programmes to reduce student congestion by ensuring a reasonable balance between theoretical classes, practical skills, and rest time (Marushchak et al., 2021). It is also important to provide students with opportunities for rest and recovery, including holidays and weekends. Social support from colleagues and family is extremely important. Nursing students who receive support from loved ones feel more confident and secure. It is important to maintain open communication with friends, family, and colleagues, discuss concerns, and seek help when needed.

Stress and professional burnout among nursing students are serious problems that require a comprehensive approach to address them. Causes of stress include high academic workload, complex clinical experience, balance between study and personal life, and lack of social support (Andargeery et al., 2024). The effects of stress and burnout can be significant, including emotional exhaustion, depersonalisation, reduced personal achievement, and physical and psychological symptoms. Effective treatment and prevention of stress requires psychological counselling, training in stress management techniques, a supportive environment in educational institutions, a balanced academic load, and social support. An integrated approach to addressing these challenges will help improve the psychological well-being of nursing students and improve the quality of their education and training. The modern medical education system faces numerous challenges, including high levels of stress and professional burnout among nursing students. In order to improve the psychological well-being of students and enhance the quality of their education, it is necessary to implement comprehensive strategies and methods that will help reduce stress and prevent burnout. The study identified the following methods for dealing with stress and burnout in nursing students.

One of the main aspects of reducing stress levels is the creation of support programmes for nursing students. It

is important to ensure access to psychological assistance by organising regular consultations with professional psychologists. Psychological support should be available to all students, regardless of their year of study. Group therapy can help students share their experiences and receive support from peers, which helps create a sense of community and support. It is also important to create mentoring programmes in which older students or teachers will support younger students. Mentors can help beginners adapt to the learning process, provide advice on effective learning and time management. This will help reduce anxiety levels and increase self-confidence. Educational institutions should actively implement stress management techniques that will help students effectively cope with stressful situations. Classes in yoga, meditation, breathing exercises, and other relaxation techniques can be included in the schedule as optional classes. Such practices help to reduce stress levels, improve concentration and overall well-being (Shulhai et al., 2023). Organising seminars and trainings on stress management is also an important component. During such events, students will be able to learn various self-regulation techniques, develop time management skills, and learn how to set priorities effectively. This will help them better cope with the training load and avoid overwork.

A balanced learning load is key to preventing stress and burnout. Educational institutions should review their programmes to reduce student congestion. It is important to ensure a reasonable balance between theoretical classes, practical skills, and time to rest. Curricula should be designed in such a way that students have enough time to prepare for classes and relax. It is worth paying attention to the organisation of clinical practice, as students should be able to gradually get used to stressful situations that may occur while working with patients. Support from experienced mentors during clinical practice is extremely important. Teachers and nurse practitioners should create a supportive environment in which students can develop their professional skills without excessive stress. Maintaining physical health is an integral part of students' overall well-being. Educational institutions should provide students with access to gyms, physical education classes, and sports clubs (Duzhych et al., 2023). Regular physical activity helps to reduce stress levels, improve mood and overall well-being. The organisation of a healthy diet is also an important component. Healthy and balanced meals should be available in the canteens of educational institutions. It is important to conduct educational programmes aimed at promoting a healthy lifestyle among students, including information about the importance of proper nutrition, regular sleep, and physical activity.

Social support from colleagues and teachers is an important component of successful learning and stress reduction. Educational institutions should promote open communication between students and teachers, creating an atmosphere of trust and support. It is important to organise regular meetings where students can discuss their concerns and receive feedback. It is important to provide students with the opportunity to participate in various social

activities, cultural programmes, and volunteer projects. This will help to develop social connections, improve emotional state, and reduce stress levels. One of the most important components of preventing stress and burnout is to raise students' awareness of these issues. Educational institutions should conduct information campaigns, seminars, and trainings aimed at familiarising students with the symptoms of stress and burnout, their causes, and coping methods. Students should understand that stress and burnout are normal responses to excessive stress, and that there are effective methods to overcome them. Reducing stress and professional burnout among nursing students is a complex task that requires a comprehensive approach. Recommendations for educational institutions include creating support programmes, implementing stress management techniques, revising curricula, maintaining physical health, social support and communication, and raising awareness of stress and burnout. The implementation of these measures will contribute to improving the psychological well-being of students, improving their academic and professional success, and creating a healthy and supportive learning environment.

DISCUSSION

The results showed that continuous monitoring of stress and professional burnout among nursing students is an important aspect that will help to identify the causes of negative impact and ensure effective training of specialists. It was found that it is necessary to provide a comprehensive approach to solving this problem, which includes psychological support, group work, and training in self-regulation methods. The results show that the main causes of stress among future nurses are high academic workload, lack of support from teachers and colleagues, and emotional stress associated with working with patients. These factors cause chronic stress, which can lead to professional burnout, characterised by emotional exhaustion, depersonalisation, and reduced personal achievement. These results are consistent with data obtained by Lillekroken et al. (2024) and Hetherington et al. (2024), who also note that the main stressors are intensive training programmes and the difficulty of balancing learning and personal life. E. Park et al. (2024) emphasised that one of the main causes of stress is the lack of sufficient practical training, which makes students feel insecure when working with patients. This study confirms this thesis, because many nursing students note that they experience a high level of anxiety due to insufficient practical training. Moncayo-Rizzo et al. (2024) added that social factors, such as lack of support from colleagues and teachers, are also important causes of stress. Research data indicates the same, as future nurses often find that they feel isolated and do not receive sufficient support from their mentors and fellow students.

The results of the study showed that the impact of stress and professional burnout on nursing students is multifaceted and can manifest itself at different levels. It has been found that stress and burnout can lead to reduced academic performance, health problems, and

reduced motivation for professional activities (Efremov, 2024, 2025). These results are consistent with the studies by Miles (2023) and Saliya et al. (2024). Vaca-Auz et al. (2024) noted that stress and professional burnout can significantly affect students' academic performance, reducing their ability to concentrate and effectively assimilate learning material. This study confirms this, as many students report difficulty focusing and remembering information, which negatively affects their results in exams and other academic tasks. And stress and burnout can have serious consequences for students' physical and mental health. High levels of stress can lead to sleep problems, headaches, gastroenterological problems, and other physical symptoms (Spytska, 2023b). The results obtained support this assumption, which was confirmed by Jelen et al. (2024), who found that future nurses often complain of sleep problems, chronic fatigue, and stress-related physical symptoms.

In addition, stress and burnout can lead to a decrease in motivation for professional activities. As noted by Almeida et al. (2024), students suffering from burnout often lose interest in their future profession and have doubts about their career choices. The results of this study also indicate that many nursing students have expressed doubts about their ability to pursue a career in the medical field due to high levels of stress and burnout. This study found that psychotherapy, group support, and self-regulation training are effective treatments for stress and professional burnout. These results are consistent with the findings of Jaracz et al. (2017) and Bahari et al. (2022), who reported that psychotherapy can be very effective in reducing stress and burnout levels among future nurses. They also highlight the importance of cognitive behavioural therapy (CBT), which helps students change negative thinking patterns and develop a more positive attitude towards learning and professional activities. These results are consistent with the present study, as higher education applicants who underwent CBT reported a significant reduction in stress levels and an improvement in overall psychological state.

Research consistently highlights significant stress and burnout among nursing students, particularly with gender differences in experiences. Female students often report higher levels of acute and perceived stress than male students, due to emotional and physical demands of their training (Alharbi et al., 2025). Conversely, male nursing professionals may experience higher rates of burnout, particularly in clinical settings. For example, a study found male psychiatric nurses had a higher burnout rate (32.24%) compared to female nurses (25.97%), suggesting that while female students may face more stress during education, male professionals are more vulnerable to burnout (Zhang et al., 2022). Our study aligns with these findings, revealing that 60-70% of nursing students experience moderate to high levels of stress, with academic workload, clinical practice, and personal responsibilities as key stressors. High rates of emotional exhaustion and depersonalization were observed, similar to results in other studies. Gender differences were also

noted, with female students reporting higher levels of stress. Although our study did not focus on burnout by gender, the patterns observed support the idea that gender influences stress and burnout in nursing students. These findings highlight the need for gender-sensitive interventions to address the distinct stress and burnout challenges faced by both female and male nursing students.

Meng et al. (2021) and Almahmoud et al. (2024) found that group support is an important factor in dealing with stress and burnout. The researchers noted that participating in support groups allows students to share experiences, receive emotional support, and develop collaboration skills. These studies confirm that students who participated in group sessions report an improvement in their emotional state and a reduction in stress levels. In addition, teaching self-regulation techniques such as meditation, yoga, and relaxation techniques can significantly reduce stress and burnout levels among nursing students. According to Wilczek-Rużyczka (2020), these techniques help students to develop stress tolerance and improve their overall psychological state. The results of the studies were confirmed in these papers and it was found that students who practice meditation and other self-regulation methods report a significant reduction in stress levels and an improvement in overall well-being.

The results suggest that higher education institutions should provide access to qualified psychologists who can provide individual and group counselling to students. This can include both cognitive behavioural therapy and other forms of psychological care. Organising support and mutual assistance groups among students can help reduce stress and burnout levels. These results are consistent with the findings of Britz et al. (2023), who identified the importance of sharing students' experiences and receiving emotional support from their peers. Educational institutions should include courses in meditation, yoga, and other self-regulation techniques in their curricula (Sych et al., 2021). This will help students to develop stress tolerance skills and improve their overall psychological state.

The results of the study also showed the need to provide a sufficient number of practical classes and internships, which was confirmed by Chen and Chen (2024). They determined that this is necessary for students who can successfully acquire the necessary skills and feel more confident when working with patients. This will help reduce the level of anxiety and stress associated with insufficient practical training. Teachers should provide students not only with academic support, but also with emotional support. It is important to create an atmosphere in which students feel that they can seek help and support in difficult moments (Bocheliuk et al., 2019). The analysis showed that it is important to ensure a balance between learning activities and time for rest. Students should be able to recuperate and engage in activities that help reduce their stress levels (Spytska, 2023a).

The problem of stress and professional burnout among nursing students is extremely urgent and requires a comprehensive approach to its solution. This study, along with the findings of other researchers, showed that

the main causes of stress are high academic workload, insufficient practical training, and emotional stress. The impact of stress and burnout manifests itself in reduced academic performance, health problems, and reduced motivation for professional activities. Effective methods of dealing with stress can include psychotherapy, group support, and self-regulation training. Understanding existing problems and applying integrated approaches to address them will help to reduce stress and professional burnout among future health professionals, which will have a positive impact on their academic performance. It is important that higher education institutions provide students with access to these resources and create a supportive environment. Only the combined efforts of teachers, students and educational institutions can ensure the effective training of future healthcare professionals and their psychological well-being.

CONCLUSIONS

A survey of 200 nursing students was conducted to analyse the causes of stress and professional burnout. The results of the survey, which used the Maslach Burnout Inventory and the Perceived Stress Scale, revealed high levels of stress and burnout. The key contributing factors to these issues were identified as the intensity of the curriculum, the constant pressure of responsibility, long working hours, and the need to manage both theoretical and practical tasks that require significant emotional and physical effort. Additional stressors stem from pressure exerted by teachers and patients. The utilisation of psychometric tests yielded objective quantitative data, thereby facilitating the identification of predominant trends and risk factors through statistical analysis. These findings constituted the foundation for the development of efficacious interventions aimed at enhancing students' psychological well-being and elevating the quality of their education. Consequently, recommendations and programmes were formulated for educational institutions to provide more robust support to nursing students and ensure the maintenance of their mental health.

The impact of stress and burnout on nursing students is significant. According to the results of the Maslach Burnout Inventory, more than 70% of respondents showed a high level of emotional exhaustion, which indicates a significant emotional load. About 65% of students showed a high level of depersonalisation, which indicates a decrease in emotional attachment and empathy for patients. Almost 60% of respondents reported a low level of personal achievement, which indicates a decrease in self-esteem and a sense of inefficiency in professional activities. High levels of stress on the Perceived Stress Scale were recorded in 75% of students. This means that the majority of respondents face difficulties in controlling important aspects of their lives, experience nervousness and overexertion. The main stress factors are a large academic load, difficult clinical situations, and constant pressure. Methods of preventing stress and burnout should include both individual and systemic approaches. Indivi-

dual methods may include psychological assistance, training in relaxation and stress management techniques, and developing self-organisation and time planning skills. It is also important to increase the level of physical activity and ensure adequate rest. Systematic approaches may include organising supportive programmes at the educational level, creating an enabling environment for learning and practice, and providing opportunities for discussion and solving problems that arise for students.

Overall, the results highlight the importance of a comprehensive approach to addressing burnout. The results highlight the use of all possible measures to reduce stress and burnout among nursing students. This will not only improve their psycho-emotional state, but also contribute to improving the effectiveness of the educational process and the quality of medical services in the future. Creation of a healthy learning environment and support for students are key factors in achieving this goal.

A limitation of the study was a small sample of students from the same educational institution, which may not reflect the overall picture among nursing students in different regions. Additionally, the self-reported measures used in this study, such as the Maslach Burnout Inventory and the Perceived Stress Scale, are subject to response bias, which could affect the accuracy of the findings. Prospects for further research include more extensive studies with a variety of demographic and social factors to develop the response of nursing students to the stress and burnout prevention methods identified in this study.

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