



## Research Article

# Stress and Coping Strategies Among Nursing Students at The College of Nursing, ABHA, King Khalid University

Sahar Hamdy El Sayed<sup>1\*</sup>, Aida Sanad Alqarni<sup>2</sup>, Enas M Bassuni<sup>3</sup>, Kawther Eltayeb Ahmed<sup>4</sup>, Magda Bayoumi<sup>5</sup>, Sabah Zein Elgendi<sup>6</sup>

<sup>1</sup>Professor of Nursing Administration Department, College of Nursing, ABHA, King Khalid University, KSA

<sup>2</sup>Assistant professor of Medical Surgical Nursing Department, College of Nursing, ABHA, King Khalid University, KSA

<sup>3</sup>Assistant professor of Nursing Administration Department, College of Nursing, ABHA, King Khalid University, KSA

<sup>4</sup>Assistant professor of community Health Nursing Department, College of Nursing, ABHA, King Khalid University, KSA

<sup>5</sup>Assistant professor of Medical Surgical Nursing Department, College of Nursing, University of Bahrain, KB

<sup>6</sup>Lecturer of Medical Surgical Nursing Department, Faculty of Nursing, Kafresheikh University

\***Corresponding author:** Sahar Hamdy El Sayed, Professor of Nursing Administration Department, College of Nursing, ABHA, King Khalid University, KSA

**Citation:** El Sayed SH, Alqarni AS, Bassuni EM, Ahmed KE, Bayoumi M, et al. (2024) Stress and Coping Strategies Among Nursing Students at The College of Nursing, ABHA, King Khalid University. Int J Nurs Health Care Res 7:1525. DOI: <https://doi.org/10.29011/2688-9501.101525>

**Received Date:** 27 March, 2024; **Accepted Date:** 03 April, 2024; **Published Date:** 08 April, 2024

## Abstract

**Background:** Since nursing students frequently endure high levels of stress as a result of academic demands, clinical placements, and personal life pressures, stress and coping during nurse education and training are widely acknowledged as significant research subjects. This study aimed to examine nursing students' stress levels and their coping strategies in clinical practice. **Methods:** A descriptive design was used in the study, which was carried out in the College of Nursing, ABHA, King Khalid University, Kingdom of Saudi Arabia. a convenience sample of 153 nursing students enrolled in the fifth, seventh, and eighth levels during the academic year 2022/2023. The Perceived Stress Scale and the Coping Behaviour Inventory survey were the two instruments utilized to gather data. **Results:** The study's findings show that 64.1% of nursing students experienced moderate levels of academic stress. The coping strategies that nursing students utilized the most frequently were problem solving and staying optimistic, while avoidance was the least common. Consequently, given these results, it is advised that the nursing curriculum include instruction in constructive coping mechanisms before clinical rotations.

**Key words:** Coping strategies; Stress; Nursing students

## Introduction

Nursing is one of the world's most taxing and stressful professions [1]. It's common knowledge that college students who choose to major in nursing experience higher levels of stress than those who choose to pursue other health-related fields. As they advance through their academic degrees, nursing students encounter stress due to the numerous academic and practical criteria they must meet. Students learn the knowledge they need to care for their patients by studying nursing theory and principles in the classroom [2].

In a clinical context, students apply the theoretical concepts they have learned in the classroom, learning by doing. Working in a real-world workplace helps them develop the psychomotor abilities required for the employment of a professional nurse [3]. Despite the fact that the clinical component of their education gives a wealth of opportunities for practical experience, nursing students endure the greatest amount of stress associated to it [4].

Stress and coping during nurse education and training are widely accepted as important topics of research since nursing students commonly suffer considerable amounts of stress as a result of academic duties, clinical placements, and personal life constraints [5]. Academic-related stress is a person's response to the demands of their studies [6]. It involves psychological distress associated with the anticipated fear of academic failure. This could show up in several ways, such as feeling overworked as you get used to college life, the pressures and expectations of the classroom, a feeling that you're not getting where you want to go, and getting used to new systems. These components alone are enough to put any student at risk and create emotional distress [7].

Thomas (2022) [8] claims that stress can manifest as a complicated interplay of alterations in behavior, emotion, and body. The individual's perceptions and coping strategies determine the degree of stress. The primary sources of academic stress are tests, long study sessions, grades, a lack of free time, a lack of timely feedback on one's performance, and special components of the academic program like planning and facilitating workshops. A number of circumstances can lead to stress in a clinical setting, such as providing care for ill patients, managing challenging patients, tense peer relationships, doubting one's own clinical competence, fear of completing clinical requirements, handling heavy workloads, and standing for extended periods of time while learning psychomotor skills like bathing, making beds, and monitoring vital sign. monitoring has also been linked to elevated stress levels [9].

The mental health, academic performance, and general well-being of student nurses may be negatively impacted by prolonged exposure to extremely high stress levels. Therefore, developing

healthy coping strategies is essential for reducing stress, improving wellbeing, and boosting nursing students' academic achievement [10]. One important aspect of stress management is lowering one's own and external expectations of oneself [11]. To effectively manage and deal with these challenges, people should develop coping skills that offer long-term solutions to stress, such as problem-solving behaviors, as opposed to emotion-focused coping strategies [12].

Transference, remaining upbeat, and problem-solving strategies are three coping strategies that student nurses frequently use. Research has indicated that employing problem solving tactics and retaining an optimistic mindset are effective coping mechanisms for managing stress and challenging circumstances. When faced with difficult circumstances, optimism, or having an optimistic outlook on life, keeps student nurses resilient and motivated. Problem-solving approaches assist people in feeling less stressed and more in control of their lives by helping them identify problems, create plans of action, and carry them out [13].

## Theoretical framework

This study is based on the transactional model of stress and coping that Lazarus and Folkman (1987) [14] created. This well-known theory illustrates how, depending on how they interpret the stressors, people employ both problem- and emotion-centered coping strategies. The model provides a comprehensive framework for examining how nursing students handle stress, covering both the assessment of stress levels and sources as well as the effectiveness of the coping techniques employed [13].

## Significance of the problem

Although stress is a typical occurrence for individuals from various backgrounds, students are more vulnerable to it because of their academic responsibilities. Furthermore, nursing students can enhance results and reduce stress by employing an effective coping strategy to alter harmful situations. Even though some level of academic stress may be helpful, the need of nursing school programs produces excessive stress among nurse trainees. For the trainees' educational preparation to improve, this needs to be handled early and skilfully. Unfortunately, the Kingdom of Saudi Arabia has not given the assessment of academic stress any thought. Thus, the purpose of the current study is to identify the different stressors that nursing students face as well as the coping strategies that they employ. The results of this study should advance our knowledge of stress in a collaborative setting and, in the end, aid in the creation of interventions that will better prepare local nursing students for their education.

## Aim of the study

This study aimed to examine nursing students' stress levels and their coping strategies in clinical practice.

## Research Question

There is a relation between perceived stress, and the coping strategies used by nursing students during their clinical training.

## Study Design

A descriptive design was used to achieve the aim of the current study.

## Subjects

A convenience sample of 153 nursing students enrolled in the bachelor's degree program in nursing taught at King Khalid University at the five, seventh, and eighth levels during the academic year 2022/2023. (86, 29, and 38 students, in that order). All of the nursing students were female, and the age group of 21 to 22 years old had the largest percentage of students.

## Setting of the study

Five scientific departments nursing administration and education, fundamentals of nursing care, community nursing care, medical surgical nursing, and maternal and paediatric nursing make up the College of Nursing, ABHA, King Khalid University, Kingdom of Saudi Arabia, where this study was carried out. The institution was founded by the Council of Higher Education's No. 14/42/1427 resolution to offer exceptional instruction, community services, and cutting edge nursing research while making the best use of available resources..

## Tools of Data Collection

**The tool used in this study was composed of two instruments as follows**

### Tool I: The Perceived Stress Scale (PSS)

It was created by Sheu et al. [15] and assesses nursing students' levels of stress as well as the kinds of stressful events they experience. Two demographic items were also included in this survey: the participant's age and level of study. The PSS is made up of 29 items that are categorized into 6 stress/stressor groups on a 5-point Likert scale (ranging from 0 to 4). These groups include those who experience stress from caring for patients; educators and nursing staff; homework and assignments; peers and day-to-day activities; the clinical environment; and a lack of professional knowledge and skill. Stress levels were categorized as follows: 2.67 and above indicated a high level of stress, 1.34 to 2.66 indicated a moderate level of stress, and less than 1.34 indicated a low level of stress. Cronbach's alpha scores of 0.86 and a content validity index of 0.94 indicated the instrument's reliability.

### Tool II: The Coping Behaviour Inventory (CBI) survey

The CBI survey was initially created by Sheu et al. [15] and assesses the perceived efficacy of the methods of coping that

nursing students are most likely to employ. The 19 items in the CBI survey are all on a 5-point Likert scale, ranging from 0 to 4, and they are divided into 4 categories: problem-solving, avoidance, transference, and staying optimistic. A high level of coping strategies was indicated by a score of 2.67 or higher, a moderate level of coping strategies by a score between 1.34 and 2.66, and a low level of coping strategies by a score of less than 1.34. The reliability of the instrument was demonstrated by a Cronbach's alpha coefficient between 0.76 and 0.80.

## Data Collection Procedure

After in-person lectures, the researchers addressed all eligible nursing students and briefed them on the study's objectives before beginning data collecting. They were told that they might opt out of this study at any moment and that participation in it is entirely voluntary. Their academic performance and learning process would not be impacted by their refusal to participate. In order to participate in the study, students had to complete the instruments, sign a consent form on paper or digitally, and send it to the researchers right away. A Google Form was used to send the survey to other qualified students who did not attend in person courses, inviting them to take part and finish it. one hundred and fifty-three students received the survey.

## Pilot study

Ten percent of the fifteen nursing students participated in a pilot study to assess the questions' clarity and find out how long it took to complete the data collection forms. Students were part of the primary study sample because no changes were made.

## Administrative and ethical considerations

After outlining the purpose of the study, the Dean of the Nursing College at King Khalid University and the King Khalid University ethics committee granted permission to perform the study (approved No. ECM#2021-5610). Every nursing student involved in the study has received a written explanation outlining the purpose and nature of the study. They were informed that they could withdraw from the study at any time and given the option to accept or decline participation.

## Statistical Analysis

SPSS 20.0 for Windows (SPSS Inc., Chicago, IL, USA) was used to gather, tabulate, and statistically analyse all of the data. The following formats were used to express qualitative data: means and standard deviation, relative frequencies (%), and absolute frequencies (number). The Pearson correlation coefficient was computed to evaluate the link between the different study variables; a value close to 1 indicates strong correlation and a value close to 0 indicates weak correlation. A (+) sign indicates direct correlation and a (-) sign shows inverse correlation. Every test had two sides. p-value < 0.05 were regarded as statistically significant (S), those

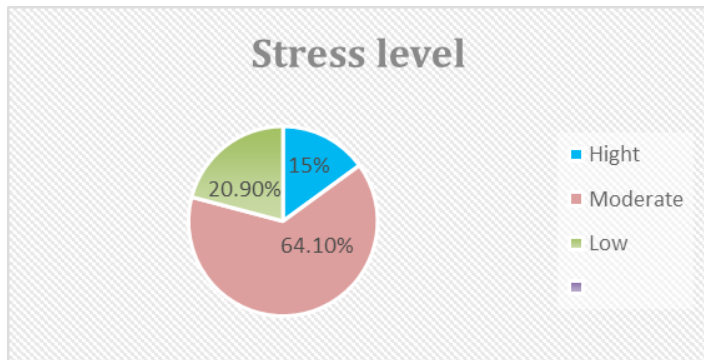
larger than 0.001 as highly statistically significant (HS), and those equal and smaller than 0.05 as statistically insignificant (NS).

Table 1 revealed that, overall, across all subscales of academic stress, stress from workload and assignments had the highest mean score among students ( $1.53 \pm 0.92$ ), while stress from a lack of professional knowledge and skills had the lowest mean score ( $0.94 \pm 0.91$ ).

std. deviation	Mean	Items
0.81	1.49	Stress from taking care of patients
0.91	1.35	Stress from teachers and nursing staff
0.92	1.53	Stress from assignments and academic load
0.82	1.32	Stress from peers and daily life
0.91	0.94	Stress from lack of professional knowledge and skills
1.04	1.18	Stress from the environment
0.7	1.22	Mean score of stress

**Table1:** Means and std. deviation for subscales items of academic stress experienced by nursing students(n=153).

According to Figure 1, the majority of nursing students (64.1%) reported experiencing a moderate level of academic stress, whereas only 15% reported a high level of stress.



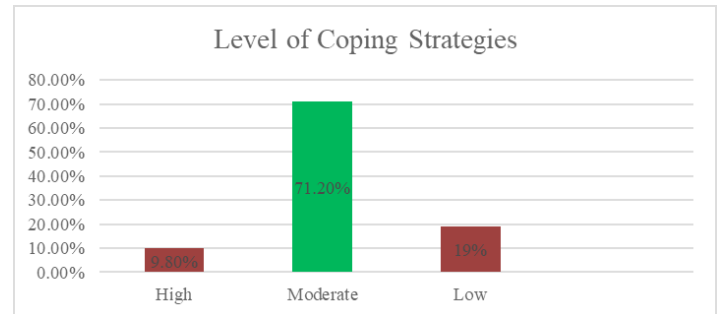
**Figure 1:** Total academic stress levels among nursing students (n=153).

According to Table 2, among the subscales of coping strategies used by nursing students, problem-solving and staying optimistic had the highest mean scores ( $2.08 \pm 1.07$  and  $2.05 \pm 0.89$ , respectively), while avoidance had the lowest mean score ( $1.37 \pm 0.87$ ).

std. deviation	Mean	Items
0.87	1.37	Avoidance
1.07	2.08	Problem-solving
0.89	2.05	Stay optimistic
0.92	1.77	Transference
0.75	1.64	Mean score of coping strategies

**Table 2:** Means and std. deviation for subscales items of coping strategies for stress experienced by nursing students (n=153).

According to Figure 2, the majority of nursing students (71.2%) employ moderate-level coping methods to deal with stress, whilst the least number of students (9.8%) use high-level coping strategies.



**Figure 2:** Total level of stress coping strategies that used by nursing students(n=153).

Table 3 shows that, at  $P = 0.001$ , there was a significant correlation between nursing students' coping strategies, academic stress, and their level of study.

P Valu	Chi Test	low	Moderate	High	Demographic data options	Variables
Academic stress						
0.001*	22.156	20	60	6	5 <sup>th</sup>	Levels
		0.232	0.698	0.07	86	
		8	18	3	7 <sup>th</sup>	29
		0.276	0.621	0.103		
		4	20	14	8 <sup>th</sup>	38
		0.106	0.526	0.368		
Coping strategies						
0.001*	28.723	18	60	8	5 <sup>th</sup>	Levels
		0.209	0.698	0.093	86	
		4	16	9	7 <sup>th</sup>	29
		0.138	0.552	0.31		
		20	14	4	8 <sup>th</sup>	38
0.527	0.368	0.105				

**Table 3:** Relation between academic stress, coping strategies scores and academic level of nursing students (n=153).

## Discussion

Throughout their education and training, nursing students are frequently exposed to a range of stressors, which may negatively affect their performance and learning capacity. Because of their very nature, clinical education obligations can be onerous for students. The curriculum's practical components, which are essential in preparing students for the role of a professional nurse, also make it far more challenging than other programs [16].

Understanding the stresses nursing students experience during their training and the coping strategies they use to manage these difficulties is crucial. This would enable educators and nursing schools to evaluate and implement evidence-based interventions and support programs designed to lower attrition in nurse training programs, thereby mitigating the region's nursing shortage. (Barry & Ward, 2017).

The majority of nursing students reported feeling moderately stressed about their academics., according to the study's findings. The study's findings imply that nurse educators will face greater difficulties in implementing strategies that assist students in avoiding academic stress while also retaining their drive and inspiration to learn more. This finding aligns with the results of Al Zamil [17-19], who found that mild to moderate stress was experienced by the majority of nursing students. Even though these findings contradict previous studies by Suarez-Garciaa et al. and Al Gamal et al. [20,21], they did demonstrate that students have been found to endure significant levels of stress.

The current study's findings show that the most common reasons for academic stress among students were assignments, workload, and patient care; the least common reasons were a lack of professional skills and knowledge. Nursing students may have found that caring for patients was the most difficult experience because they may come across a range of patients with complicated bio-psychosocial demands and issues. Nursing students must have the requisite knowledge and abilities in addition to the ability to build and maintain therapeutic connections to offer nursing care to these patients. In addition, a four-year bachelor's degree in nursing is a very rigorous program, and stress arises for nursing students when they can't keep up with the demands of the curriculum.

These results are also in line with the findings of previous studies by Ahmed and Mohammed [22-24], which emphasized the academic load as a significant factor contributing to stress among nursing students. Furthermore, the 2021 study by Anaman-Torgbor et al [25]. found that students saw caring for patients and finishing homework-related activities as significant sources of stress. The findings of this study support previous studies indicating that less experienced nursing students suffer less stress in terms of their academic position. Having said that, this interpretation must be linked to the outcomes that were previously presented by taking into consideration the clinical placements of the students. For example, training in more general services takes performed in college labs during the early years of study, requiring more basic abilities for patient responsibility and care, whereas clinical placements in more specialized services are typically completed in

the later years of study.

Consequently, there is an increased burden placed on students who are expected to have better levels of competencies and skills when delivering patient care while simultaneously receiving more in-depth teaching. This result was supported by the study of Onieva Zafra et al. [19], which found that the least experienced nursing students experienced lower levels of stress. The current study's findings indicate that nursing students most commonly used problem-solving and optimism-maintaining coping techniques, with avoidance being the least used. Focusing on actions that can alter or control the problem is one of the finest ways to solve difficulties and manage stress.

Furthermore, the results of this study showed that most nursing students use coping strategies to manage their stress to a moderate degree. These findings are consistent with past study by Al-Gamal et al. [21], which found that nursing students most frequently employed problem-solving strategies as coping mechanisms. Furthermore, a 2020 study by Kumar et al. found that nursing students' coping skills were only moderately developed.

The study's findings show a strong relationship between nursing students' coping strategies and their academic performance, indicating that students who experience less stress will use these coping methods more frequently. This outcome is in line with previous studies by Madian et al. and Shdaifat et al. [24,26], which found that nursing students' academic standing was a good predictor of their inclination to adopt coping techniques.

## Conclusions

Most nursing students stated that they were under moderate levels of academic stress. Students were most likely to cite workload, coursework, and patient care as their primary sources of academic stress; professional knowledge and abilities were the least common cause. Problem-solving and optimism maintaining were the most often used coping strategies among nursing students, while avoidance was the least. The academic achievement of nursing students and their experiences with stress and coping strategies were found to be related to this study.

## Recommendations

It is suggested that the nursing curriculum incorporate teaching healthy coping strategies before clinical rotations in light of these findings. Qualitative research on students' opinions of their clinical experience may be useful in developing an effective clinical teaching method in nursing school. Further research is necessary to completely comprehend the effects of year-specific stress reduction programs on nursing students. Repeat this study on a wider scale in multiple colleges.

## Acknowledgement

The authors express their gratitude to King Khalid University's Deanship of Scientific Research for funding this work under grant number RGP.1/256/44 for the Small Group Research Project.

## References

1. Ching SSY, Cheung K, Hegney D, Rees CS (2020) Stressors and coping of nursing students in clinical placement: A qualitative study contextualizing their resilience and burnout. *Nurse Education in Practice*. 42: 102690.
2. Tharani A, Husain Y, Warwick I (2017) Learning environment and emotional well-being: A qualitative study of undergraduate nursing students. *Nurse Education Today*. 59: 82-87.
3. Durgun Ozan Y, Duman M, C,ic,ek O, Baksi A (2020) The effects of clinical education program based on Watson's theory of human caring on coping and anxiety levels of nursing students: A randomized control trial. *Perspectives in Psychiatric Care*. 56: 621-628.
4. Yu"ksel A, Bahadir-Yilmaz E (2019) Relationship between depression, anxiety, cognitive distortions, and psychological well-being among nursing students. *Perspectives in Psychiatric Care*. 55: 690-696.
5. Liu J, Yang Y, Chen J, Zhang Y, Zeng Y, et al. (2022) Stress and coping styles among nursing students during the initial period of the clinical practicum: A cross-section study. *Int J Nurs Sci* 9: 222-229.
6. Fitzgerald A, Konrad S (2021) Transition in learning during COVID-19: Student nurse anxiety, stress, and resource support. *Nurs Forum* 56: 298-304.
7. Mathew CP (2017) Stress and coping strategies among college students. *Journal of Humanities and Social Science* 22: 40-44.
8. Thomas LMB (2022) Stress and depression in undergraduate students during the COVID-19 pandemic: Nursing students compared to undergraduate students in non-nursing majors. *Journal of Professional Nursing*. 38: 89-96.
9. Kumar P, Pathania S, Aarti I, Manisha BM, Sharma M (2020) Academic stress among nursing students. *Nursing & Healthcare International Journal*. 4: 20.
10. Li ZS, Hasson F (2020) Resilience, stress, and psychological well-being in nursing students: A systematic review. *Nurse Educ Today* 90: 104440.
11. Biggs A, Brough P, Drummond S (2017) Lazarus and Folkman's psychological stress and coping theory. In Cooper CL, Quick JC (Eds.) *The handbook of stress and health: A guide to research and practice* 351-364.
12. Kupcewicz E, Grochans E, Kadu"čáková H, Mikla M, Jóźwik M (2020) Analysis of the relationship between stress intensity and coping strategy and the quality of life of nursing students in Poland, Spain and Slovakia. *Int J Environ Res Public Health* 17: 4536.
13. Labrague LJ, McEnroe-Petitte DM, Al Amri M, Fronza DC, Obeidat AA (2018) An integrative review on coping skills in nursing students: Implications for policymaking. *Int Nurs Rev* 65: 279-291.
14. Lazarus RS, Folkman S (1987) Transactional theory and research on emotions and coping. *Eur J Pers* 1: 141-169.

15. Sheu S, Lin HS, Hwang SL (2002) Perceived stress and psychosocial status of nursing students during their initial period of clinical practice: The effect of coping behaviors. *Int J Nurs Stud* 39: 165-175.
16. Ajibade B, Olabisi O, Fabiyi B, Ajao O, Ayeni A (2016) Stress, Types of Stressors and Coping Strategies amongst Selected Nursing Schools Students in South West Nigeria. *European Journal of Biology and Medical Science Research*. 4:1-15.
17. Al Zamil LG, (2017) Perceived level of stress, & coping strategies among Saudi nursing student. *IOSR J. Nursing Health Sci* 6: 6-13.
18. Mohamed AA, El-Sherbini HH (2018) Academic Stress and Its Contributing Factors among Faculty Nursing Students in Alexandria. *ASNJ* 20: 163-181.
19. Onieva-Zafra MD, Fernández-Muñoz JJ, Fernández-Martínez E, García-Sánchez FJ, Abreu-Sánchez A, et al. (2020) Anxiety, perceived stress and coping strategies in nursing students: a cross-sectional, correlational, descriptive study. *BMC Medical Education*. 20: 370.
20. Suarez-Garcia JM, Maestro-Gonzalez A, Zuazua-Ricoa D, Sánchez-Zaballos M, Mosteiro-Diaz MP, (2018) Stressors for Spanish nursing students in clinical practice. *Nurse Education Today*. 64: 16-20.
21. Al-Gamal E, Alhosain A, Alsunaye K, (2018) Stress and coping strategies among Saudi nursing students during clinical education. *Perspect Psychiatr Care*. 54:198-205.
22. Ahmed WM, and Mohammed BM (2019) Nursing students' stress and coping strategies during clinical training in KSA. *J Taibah Univ Med Sci* 14: 116-22.
23. Nebhinani M, Kumar A, Parihar A, Rani R (2020) Stress and coping strategies among undergraduate nursing students: A descriptive assessment from Western Rajasthan. *Indian Journal of Community Medicine: Official Publication of Indian Association of Preventive & Social Medicine*. 45: 172-175.
24. Shdaifat EA, Jamama A, Al-Amer M (2018) Stress and coping strategies among nursing students. *Global Journal of Health Science*. 10: 33.
25. Anaman-Torgbor JA, Tarkang E, Adedia D, Attah OM, Evans A, et al. (2021) Academic-Related Stress Among Ghanaian Nursing Students. *Florence Nightingale Journal of Nursing*. 29: 263-270.
26. Madian A, Abdelaziz M, Ahmed H (2019) Level of stress and coping strategies among nursing students at Damanhour University, Egypt. *Am J Nurs Res* 7: 684-696.