

EVALUATION OF STRESS AND COPING STRATEGIES ADOPTED BY NURSING STUDENTS

CHUDARY M^{*1}, PARVEEN T¹, NAZAR K²

¹Department of Nursing, Nishtar Medical University, and Hospital (NMU & H) Multan, Pakistan

²Department of Nursing, Nishtar Institute of Dentistry, NMU & H Multan, Pakistan

*Correspondence author email address: maria128@gmail.com

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Abstract: *The prospective study was conducted in Nishtar Medical Hospital from November 2022 to January 2023 to evaluate stress levels and coping strategies adopted by government hospital nursing students. The study was conducted with a total of 54 participants. Three tools were used to gather data, including a questionnaire, Perceived Stress Scale (PSS-10) and Adolescent Coping Orientation for Problem Experiences (ACOPE). Results showed that according to PSS, 21 % (11) students reported mild stress, 69% (38) reported moderate levels of stress, and 10% (5) reported a severe level of stress. The most commonly used strategies were practicing breathing or muscle relaxation technique (42%), followed by having a hobby (40%) and meditation (39%). Moreover, it was also observed that some students (31%) pray to manage their stress. Most nursing students suffer moderate stress due to workload, patient care, peer pressure, and academic stressors. Faculty members should know students' stress levels and concentrate on providing a program to help them manage it.*

Keywords: Stress, Nursing Students, PSS, Coping Behavior

Introduction

Stress is a physiologic and psychological reaction to a feared task, demand, or situation. Stress hormones like cortisol and adrenaline are released due to stress, which prepares the body to react to it. Chronic stress has been associated with several harmful health outcomes, including impaired immune function, heart disease, and mental health issues (Association, 2019). Factors contributing to stress in nursing students include the demanding academic curriculum, clinical requirements, and patient care's emotional and physical demands. The effects of stress can include decreased academic performance and job satisfaction and increased mental health issues like anxiety and depression (Shin and Hwang, 2020).

Effective coping strategies can help manage stress and maintain well-being. Because stress is a typical experience for healthcare students, it is important to understand its causes and coping mechanisms among undergraduate students (Association and Association, 2019). Their entire well-being, academic performance, and physical and mental well-being may be negatively impacted by chronic stress (Lim et al., 2010). It is critical to find effective coping mechanisms to assist nursing students in managing their stress and preserving their well-being (Aslan and Akturk, 2018). Teachers and policymakers may create effective interventions to promote nursing students' academic progress and

future jobs as healthcare providers by studying the stresses and coping mechanisms among them. This study will evaluate stress and coping strategies adopted by government hospital nursing students.

Methodology

The prospective study was conducted in Nishtar Medical Hospital from November 2022 to January 2023. The study included undergraduate nursing students. Midwives and male nurses were excluded from the study. The study was conducted with a total of 54 participants. Informed consent of the participants was taken. The ethical board of the hospital approved the study.

All participants were given a questionnaire about demographics, academic year, and performance and open-ended questions about stressors. Another tool used was the Perceived Stress Scale (PSS), a 10 scale that determines a person's perception of stress. It is the subjective measurement of stress level. The total PSS score is calculated by reversing the 4,5,6,7,9 and 10 items as 0=4, 1=3, 2=2, 3=1, and 4=0 and then adding 10 items. In this score, 0 represents never, 1 almost, 2 sometimes, 3 fairly often, and 4 very often (Homan et al., 2021).

The coping behavior of the students was evaluated using Adolescent Coping Orientation for Problem

Experiences (ACOPE), which contains 12 coping patterns. It is also represented by 5 point scale where 0 represents never, 1 hardly, 2 sometimes, 3 often, and 4 mostly (Reife et al., 2020). Expert psychiatrists validated the content of PSS and ACOPE. The study was conducted in mid-term so that all stress factors other than exams can also be stressed.

SPSS version 23 was used for data analysis. The relationship between PSS and coping strategies was assessed by Spearman's correlation. P value <0.05 was considered statistically significant.

Results

The demographic data of the participants are summarized in Table I. All participants were female. Of 54 cases, 33% (18) were aged between 15-18 years, 60% (32) were between 19-22 years, and 7% (4) were between 23-26 years. There were 41% (22) 1st-year students, 20% (11) 2nd year, 20% (11) were 3rd year, and 19% (10) 4th-year students. The

qualification of all participants was FSC. Among all participants, 85% (46) were hostelite, and 15% (8) were day scholars.

According to PSS, 21 %(11) students reported mild stress, 69% (38) reported moderate levels of stress, and 10% (5) reported a severe level of stress. The percentage of responses to each item of PSS-10 is shown in Table II.

Coping strategies adopted by nursing students are summarized in Table III. The most commonly used strategies were practicing breathing or muscle relaxation technique (42%), followed by having a hobby (40%) and meditation (39%). Moreover, it was also observed that some students (31%) pray to manage their stress.

Evaluation of the correlation between age and PSS score showed a statistically significant association between both (P=0.034). On the other hand association between PPS and academic grades was not statistically significant (P=0.89).

Table I Demographic data of the study participants

Variable	Frequency (%)
Gender	
Male	0
Female	54 (100%)
Age, years	
15-18	18 (33%)
19-22	32 (60%)
23-26	4 (7%)
Academic year	
1 st	22 (41%)
2 nd	11 (20%)
3 rd	11 (20%)
4 th	10 (19%)
Accommodation	
Hostellite	46 (85%)
Day scholar	8 (15%)

Table II Findings of the Perceived Stress Scale

PSS questions	Percentage distribution of items					Mean ± SD
	0	1	2	3	4	
pss1	23	33	23	15	6	1.45 ± 1.18
pss2	27	36	24	8	5	1.29 ± 1.11
pss3	14	30	37	13	6	1.67 ± 1.09
pss4	9	25	28	21	17	2.14 ± 1.23
pss5	25	33	29	9	4	1.32 ± 1.11
pss6	32	31	20	11	6	1.29 ± 1.23
pss7	7	19	24	28	22	2.34 ± 1.26
pss8	16	21	20	26	17	2.03 ± 1.34
pss9	25	29	25	15	6	1.49 ± 1.20
pss10	32	29	21	13	5	1.26 ± 1.20
total PSS	21	29	25	15	10	16.28 ± 5.93

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Table III Percentage evaluation of coping strategies adopted by students

Coping Strategies		Never	Sometime	Often	Always
1	Can you deal with anger without repressing or revealing it to others?	37%	36%	13%	14%
2	Do you share your stressors [cares, problems, struggles, needs] with others & with your CREATOR?	19%	41%	9%	31%
3	Do you practice any muscle relaxation or slow breathing techniques?	21%	4%	13%	42%
4	When dealing with a problem, do you consider several alternatives for handling the problem?	25%	32%	22%	21%
5	Do you listen to your body's messages (symptoms, illnesses, etc.)?	27%	46%	17%	10%
6	Have a creative hobby time (E.g., Gardening, reading, music)?	12%	28%	20%	40%
7	Do you practice forgiveness of others who have hurt you?	31%	33%	13%	23%
8	Do you do something for fun or enjoyment, E.g., Games, movies, mobile surfing?	16%	49%	17%	18%
9	Do you have time to think, reflect, meditate, and pray?	10%	29%	22%	39%
10	Do you do some aerobic exercises for at least half an hour at a time?	53%	33%	10%	4%

Discussion

Though college life is part of the memorable experiences of one's life, it is attached to stress. In this study, we evaluated stress levels among nursing students and the coping strategies they adopted to manage stress. In the current study, 69% of students had moderate stress levels and felt angry and nervous. These findings aligned with previous studies' results (Ossai et al., 2019; Sundler et al., 2019). This may be because of overwhelming academic and social stressors in college/university. Social stressors may be caused by intermingling students from different cities who try to adjust to new environments. Most students live in hostels away from family, which may cause social stress. This stress is more common among students during the first years of medical education. In the current study, 10% of students had severe stress. A previous study reported that 9% of nursing students had high-stress levels, mainly due to social, financial, and academic factors (Rezaei et al., 2020). In the current study, we have seen those academic scores and stress level is not significantly correlated. However, an American College Health Association study showed that stress negatively impacts academic performance (Miguel et al., 2021). In the present study, age and stress were significantly correlated. Students of 1st and 2nd year had higher stress compared to other years. However, this was contradictory to the findings of a previous study, which reported higher stress levels among students in their 3rd and 4th years (Chen et al., 2020).

Generally, nursing education is associated with stress. The current study's highest PSS core was associated with academic stressors. This can be associated with exam stress, study hours, clinical performance, and lack of guidance. A previous study found that objective self-directing learning, structured clinical exams, and problem-based learning cause. Another study also reported that a problem-based curriculum

designed to increase learning and decision-making among nursing students might be a source of academic stress (Khan and Ali, 2019).

Coping strategies are important for understanding the reaction of adolescents to stressors. The current study showed that most students used "relaxing techniques," "self-reflection," and did activities to deal with stress. A previous study showed that most students (62%) seek social help, followed by planning (23.7%) and accepting responsibility (8.4%) to cope with stress (Dyrbye et al., 2021). Another study reported that the most commonly used coping strategies were praying, talking to parents, listening to music, and positive thinking (Chaabane et al., 2021). Studies show that students who can regulate emotions are less vulnerable to inappropriate reactions (Sattar et al., 2022). In current most students are unable to vent without showing anger. Cultural barriers and the absence of proper counseling can explain such responses. The limitation of this study is a small sample size, due to which results cannot be generalized.

Conclusion

Most nursing students suffer moderate stress due to workload, patient care, peer pressure, and academic stressors. The most common coping strategy is practicing relaxation techniques. Faculty members should know students' stress levels and concentrate on providing a program to help them manage it.

Conflict of interest

The authors declared absence of conflict of interest.

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