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A Study to Assess the Perceived Stress among Nursing Students in Selected Nursing College

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ABSTRACT
Stress is a common psychological concern among nursing students due to intensive academic demands, clinical responsibilities, and personal adjustments. Elevated stress levels can negatively influence student's well-being, learning outcomes, and professional development. Understanding the prevalence of perceived stress and its associated factors is crucial for developing effective support strategies. To assess the level of perceived stress among first-year B.Sc. Nursing students and to determine its association with selected demographic variables. A descriptive research design was employed among 91 first-year B.Sc. Nursing students at Sri Venkateswaraa Nursing College. A convenience sampling technique was used. Data were collected using a structured questionnaire comprising demographic variables and the Perceived Stress Scale (PSS-10), which demonstrated acceptable reliability (α = 0.78). Data were collected through Google Forms, ensuring anonymity. Descriptive statistics (frequency and percentage) were used to summarize the distribution of stress levels, while inferential statistics using the Chi-square test (χ^2) were applied to assess associations between stress levels and demographic variables, with significance set at p < 0.05. Most participants reported moderate perceived stress, followed by low and high stress levels. A significant association was found between gender and perceived stress (p = 0.001). Other demographic variables did not show significant associations. The study concludes that first-year nursing students experience notable stress requiring early identification and structured institutional support to promote their well-being and academic success.
Keywords: perceived stress, nursing students, PSS-10, academic stress, psychological well-being.

INTRODUCTION

Stress is a complex biopsychosocial response that arises when individuals perceive an imbalance between external demands and their capacity to cope. It manifests through emotional, cognitive, and physiological changes, including disturbed sleep, reduced concentration, irritability, and somatic discomfort. Among students in higher education, stress is widely recognized as a significant barrier to academic success and psychological well-being. This concern is particularly pronounced in health-professional education, where learning environments are characterized by high expectations, prolonged academic workloads, and early exposure to clinical responsibilities.

Nursing education is inherently demanding, requiring students to integrate theoretical knowledge with clinical competence while adapting to professional norms and responsibilities. These pressures contribute to elevated stress levels among nursing students, which may adversely affect their learning outcomes, decision-making abilities, mental health, and overall academic performance. Multiple studies have reported that nursing students frequently experience moderate to severe levels of perceived stress, highlighting the importance of early assessment and timely intervention [1–4]. Evidences observed that a substantial proportion of nursing students demonstrated moderate to severe stress, underscoring the need for institutional support systems [2]. Similarly, studies reported high stress among first-year nursing students, suggesting that the transition into nursing programs may be a particularly vulnerable period [4].

Thus, understanding the magnitude and distribution of stress among nursing students is essential for developing evidence-based strategies to support their well-being. Assessing perceived stress enables academic institutions to identify high-risk groups, evaluate contributory demographic factors, and implement proactive mental-health interventions such as counseling services, resilience-building

programs, and structured peer-support networks. As the rigorous academic and clinical expectations placed on first-year B.Sc. Nursing students, it is imperative to examine their stress levels to promote healthier learning experiences and ensure their readiness for professional roles. The present study assesses the level of perceived stress among first-year B.Sc. Nursing students at Sri Venkateswaraa Nursing College and explores its association with selected demographic variables. The findings are expected to guide educational institutions in enhancing student support systems and fostering environments conducive to academic and emotional well-being.

MATERIAL AND METHODS

This study adopted a quantitative research approach using a descriptive design to assess the level of perceived stress among first-year B.Sc. Nursing students at Sri Venkateswaraa Nursing College, Redhills. This design was considered appropriate for obtaining an accurate representation of stress levels within the target student population without manipulation of variables. The study was conducted in the college campus setting where routine academic activities take place. The population consisted of all first-year B.Sc. Nursing students enrolled in the institution, and a total of 91 students participated. The sample was selected using a convenience sampling technique to ensure equal opportunity for participation. Students who were present at the time of data collection, willing to participate, and enrolled in the first-year program were included in the study. Those who were practicing relaxation techniques, attending counselling classes, or unwilling to take part were excluded.

Data collection was carried out using a structured questionnaire composed of two sections. Section A obtained demographic information such as age, gender, time spent using mobile phones daily, type of family, place of residence, and current living arrangements. Section B consisted of the Perceived Stress Scale (PSS-10), a widely recognized instrument for measuring perceived stress. The PSS-10 is known for its strong psychometric properties and has demonstrated adequate internal consistency with a reliability coefficient of $\alpha = 0.78$. Students rated each item based on their experiences over the past month, and the resulting scores were categorized into low, moderate, or high levels of perceived stress. The questionnaire was administered using Google Forms, enabling students to respond electronically. Prior to completing the tool, students were briefed about the purpose of the research and assured that their responses would remain confidential. Completion of the form served as implied consent.

Ethical principles were adhered to throughout the study. Permission was obtained from institutional authorities, and participants were informed about the voluntary nature of the study and their right to withdraw at any stage. No personal identifiers were collected, ensuring anonymity and confidentiality. The data obtained were analysed using both descriptive and inferential statistics. Frequencies and percentages were used to summarize demographic variables and stress levels, while the chi-square test (χ^2) was employed to determine associations between perceived stress and selected demographic variables. A p-value of less than 0.05 was considered statistically significant. These methods collectively enabled the researcher to systematically evaluate stress levels among nursing students and explore relevant demographic associations.

RESULTS

The study included a total of 91 first-year B.Sc. Nursing students. Table 1 revealed the analysis of demographic variables. It showed that slightly more than half of the participants were male (52.7%), while females constituted 47.3%. An equal proportion of students (52.7%) belonged to the 17–18-year age group. (47.3%) reported spending more than five hours per day on mobile phones, suggesting high digital engagement among the cohort. Most participants were from nuclear families (70.3%), and a majority resided in hostels (63.7%), while 62.6% belonged to urban areas. These findings reflect a relatively homogeneous student group in terms of age and family type, with substantial exposure to technology and institutional living.

Figure 1 shows the levels of perceived stress, The Perceived Stress Scale (PSS-10) revealed that 62.64% of students experienced moderate stress. Additionally, 27.47% shown low stress, while 9.89% reported high stress levels. These findings indicate that the majority of first-year nursing students experienced stress of at least a moderate level of stress.

Table 1 : Frequency and distribution of demographic variables N=91

| Demographic Variables	Frequency (f)	Percentage (%)
Age in years		
17–18	48	52.7
19–20	42	46.2
≥ 21–22	0	0
≥ 23	1	1.1
Gender		
Male	48	52.7
Female	43	47.3
Time spent on mobile (daily)		
< 1 hour	0	0
1–2 hours	17	18.7
3–4 hours	31	34.1
> 5 hours	43	47.3
Type of family		
Nuclear family	64	70.3
Joint family	22	24.2
Single-parent family	5	5.5
Presently residing with		
Family	33	36.3
Hostel	58	63.7
Staying outside	0	0
Area of residence		
Urban	57	62.6
Rural	34	37.4
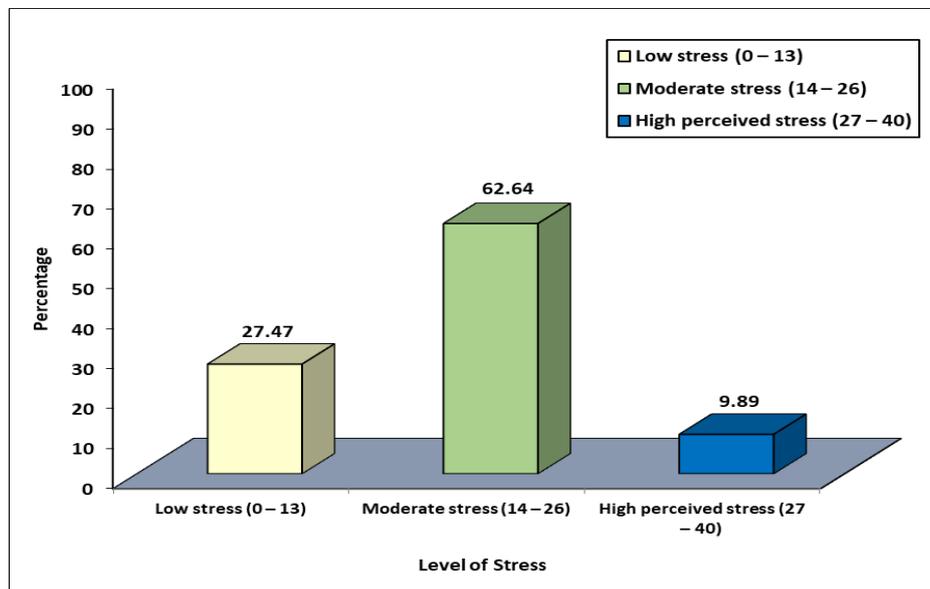
FIGURE 1: LEVELS OF PERCEIVED STRESS AMONG PARTICIPANTS

Inferential statistical analysis using the chi-square test showed a significant association between gender and perceived stress level (χ^2 = 13.560, p = 0.001), indicating that stress levels varied meaningfully across males and females. Other demographic variables including age, family type, hours spent on mobile phones, place of residence, and living arrangement did not exhibit statistically significant associations with stress levels at the p < 0.05 level.

Table 2: Association of level of perceived stress among Nursing Students with selected demographic variables. N=91

Demographic Variables	Low Stress F (%)	Moderate Stress F (%)	High Stress F (%)	Chi-square & p-value
Age in years				
17–18	13 (14.3%)	32 (35.2%)	3 (3.3%)	χ^2 = 2.408, df = 2, p = 0.661 (NS)
19–20	12 (13.2%)	24 (26.4%)	6 (6.6%)	
21–22	0 (0%)	1 (1.1%)	0 (0%)	
≥23	0 (0%)	0 (0%)	0 (0%)	
Gender				
Male	21 (23.1%)	23 (25.3%)	4 (4.4%)	**χ^2 = 13.560, df = 2, p = 0.001 (S)**
Female	4 (4.4%)	34 (37.4%)	5 (5.5%)	
Time spent on mobile				
<1 hour	3 (3.3%)	11 (12.1%)	3 (3.3%)	χ^2 = 4.667, df = 4, p = 0.323 (NS)
1–2 hours	3 (3.3%)	16 (17.6%)	1 (1.1%)	
3–4 hours	8 (8.8%)	24 (26.4%)	4 (4.4%)	
>5 hours	11 (12.1%)	26 (28.6%)	5 (5.5%)	
Type of family				
Nuclear family	17 (18.7%)	41 (45.1%)	6 (6.6%)	χ^2 = 1.547, df = 2, p = 0.461 (NS)
Joint family	5 (5.5%)	15 (16.5%)	2 (2.2%)	
Single-parent family	3 (3.3%)	1 (1.1%)	1 (1.1%)	
Presently residing with				
Family	18 (19.7%)	23 (25.3%)	3 (3.3%)	χ^2 = 1.184, df = 3, p = 0.053 (NS)
Hostel	7 (7.7%)	31 (34.1%)	3 (3.3%)	
Staying outside	0 (0%)	0 (0%)	0 (0%)	
Area of residence				
Urban	14 (15.4%)	40 (44.0%)	3 (3.3%)	χ^2 = 5.157, df = 2, p = 0.076 (NS)
Rural	11 (12.1%)	17 (18.7%)	6 (6.6%)	

DISCUSSION

The findings of the present study are supported by several recent investigations on stress among nursing students. Singh and Kaur (2023) conducted a descriptive study among 110 first-year B.Sc. Nursing students in Punjab and reported that 69(62.7%) students experienced moderate stress, closely paralleling the 57(62.64%) moderate stress cases identified in the present study. Their results further showed that only 8(7.2%) students had high stress, which is comparable to the 9(9.89%) high-stress students observed here. Similarly, Mohammed and Abdelrahman (2022) examined perceived stress among 150 nursing freshmen in Saudi Arabia and found that 92(61.3%) had moderate stress and 14(9.3%) had high stress during their first semester. The similarity in proportions highlights that moderate stress is consistently the predominant level among first-year nursing students internationally, reinforcing the present study's findings. In line with these results, Park et al. (2021) conducted a cross-sectional study among 180 undergraduate nursing students in South Korea. They reported that 112(62.2%) had moderate stress and 17(9.4%) experienced high stress figures highly comparable to the distribution found in this study. Their analysis also showed that stress levels were significantly associated with gender and living arrangements, supporting the demographic associations observed in the present research. A more recent 2024 study by Al-Ghamdi et al. involving 200 first-year nursing students in Oman similarly identified moderate stress in 126(63%) participants and high stress in 21(10.5%). They reported that gender, hostel residence, and academic workload were significantly related to stress levels, a pattern consistent with the associations noted in the present study. Likewise, Patel and Desai (2023) assessed 130 nursing students in Gujarat and found moderate stress in 78(60%) and high stress in 13(10%) participants. Their findings also emphasized that demographic factors such as gender and time spent on digital devices showed meaningful associations with stress.

These findings collectively affirm that moderate perceived stress is the most common pattern among nursing students across various countries, and a smaller but significant proportion consistently experiences high stress. The demographic associations found in the present study particularly with gender are also in line with these recent studies, reinforcing that stress among first-year nursing students is shaped by both academic demands and personal characteristics. Consistent with the broader literature, the present study underscores the need for early institutional interventions such as counseling support, stress-

management workshops, and structured peer-mentoring programs to safeguard student well-being and academic performance.

CONCLUSION
The present study demonstrates that first-year B.Sc. Nursing students commonly experience measurable levels of perceived stress as they adapt to the academic, clinical, and personal demands of nursing education. The transition into the nursing profession involves numerous challenges, and students often encounter psychological pressures that may influence their learning, performance, and overall well-being. While some demographic factors showed an association with stress, others did not, suggesting that stress among nursing students is influenced by a combination of personal, academic, and environmental factors rather than any single variable. These findings highlight the importance of providing structured support systems within nursing institutions. Early identification of stress, regular psychological monitoring, accessible counseling services, stress-management programs, and peer-support initiatives can help students cope more effectively with the demands of their training. Creating a positive and supportive educational environment is essential for promoting emotional resilience, improving academic engagement, and preparing future nurses to deliver safe and compassionate care.

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