

Research article**Perceived stress and coping strategies in clinical practice among B. Sc. Nursing students at college of nursing, PIMS (DU), Loni****Sharadchandra Vinayak Dighe**

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Abstract

Introduction: Evidence reports that undergraduate nursing students' experiences moderate to high stress. Clinical posting is a major stressor for them because they are supposed to carry out a variety of tasks such as taking care of patients, completing assignments, responding to teachers and staff nurses etc. Stress may affect their health, academic and clinical performance. **Methodology:** the Descriptive cross-sectional study was undertaken to assess the stress and coping strategies among B. Sc. Nursing students in clinical practice. 55 participants were selected by adapting random sampling (lottery) method. Data were collected by using self-administered Perceived stress scale and Coping strategy inventory developed by Sheu et al. (1997). **Results:** Findings of the study revealed that male and female participants were 50.9% and 49.09% respectively. 32.72% of the participants were aged 20 years, 36.36% of the participants were studying in second year B. Sc. Nursing, and most of them i.e. 96.36% participants have interest in nursing. The majority (78.18%) of the participants' experiences moderate level of stress. Taking care of patients (mean 11.12 ± 5.78) and stress from teachers and nursing staff (mean 11.12 ± 4.11) are the major stressors for them. Participants mostly used problem-solving (mean 16.01 ± 4.73) and staying optimistic (mean 10.38 ± 3.00) coping strategies to overcome their stress. **Conclusion:** It is concluded that nursing students experience moderate level of stress. Equipping students with clinical knowledge and skills, appropriate communication and interpersonal relation skills can be instrumental in relieving stress and effective coping.

Key words: Stress, coping strategy, nursing students.

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1. Introduction

Stress: Stress may be viewed as an individual's reaction to any change that requires an adjustment or response, which can be physical, mental or emotional. [1] Stress is a major psychosocial constraint that has been proposed to influence health and illness. In general terms, stress occurs when people face demands which threaten their ability to adapt. Stress may refer to situational variables (e.g. stressful work), a physical or mental reactions (feeling stressed), or the person environmental interaction (interaction between the person and the situation). [2] Stress occurs when equilibrium or wellbeing of the person is perceived to be threatened.

Stress in nursing students during clinical training is well documented in the nursing literature. Nursing students experience unique stressors. Clinical practice, an essential element in nursing education can be stressful for nursing students. Some of the clinical stressors that are reported by nursing students include initial clinical

experience, clinical procedures, assignments, and workloads, clinical evaluations and relationships with clinical staff, peers and patients. [3]

The sources of stress among nursing students could be related to academic aspects (e.g. workload and study related problems) or to clinical aspects (e. g. fear of the unknown, handling of technical equipment etc.). Stress among nursing students could have significant consequences (positive or negative), on both thinking and learning. It is known that students with high levels of stress have difficulties in their education, which could lead to several mental and physical health-related problems.

Coping strategies:

Coping refers to the dynamic cognitive and behavioural attempts to handle external and or internal stressors. [4] Nursing students cannot avoid stressors; however, their coping ability is vital in determining the outcomes of

these stressors. [5] Stress in their clinical practice can be altered and influenced by the coping strategies they choose to employ. Effective coping strategies help students to perform markedly better in regards to their studies; coping strategies also aid in relieving students stress.

There is a scarcity of research studies examining perceived stress and coping strategies among nursing students in India and especially in Maharashtra. This important area has largely remained unexplored. Hence the investigator conducted a study to explore this area in detail with the objectives (i) to assess the level of perceived stress among B. Sc. Nursing students in clinical practice. (ii) to assess the coping strategies among B. Sc. Nursing students in clinical practice

2. Methodology

Research approach: Cross-sectional survey approach was used for the present study.

Research design: A descriptive study design was used to assess the level of stress and coping strategies adopted by nursing students in clinical practice.

Setting: This study was conducted in College of Nursing, Pravara Institute of Medical Sciences (DU), Loni.

Study population: Students studying in the second, third and fourth year of degree nursing programme comprises the study population. Each batch consisted of 30 students. Hence study population was 90.

Sample size: 55 B.Sc. nursing students were recruited for the study.

Sampling technique: Simple random sampling (lottery method) was used to select the study participants. Each participant was assigned a number and written on a chit. 90 chits were prepared and put in a box and 55 chits were hand-picked randomly. Also, these 55 participants were judged based on the eligibility criteria. The inclusion criteria were B. Sc. Nursing students (i) studying in the second, third or fourth year (ii) both gender male or female students (iii) willing to participate in the study. Students studying in the first year B. Sc. Nursing were excluded

Data collection instruments: It consists of (1) Socio-demographic data (2) Perceived Stress Scale (3) Coping Strategies Inventory.

(1) Socio-demographic data: It includes information regarding demographic characteristics of the participants such as gender, age, year of study, religion, and interest in nursing.

(2) Perceived stress scale (PSS): PSS is a standardized scale developed by Sheu et al. (1997). It is a five point Likert scale, consisting of 29 items. The items are scored based on the rating options from never (0) to always (4). The total score ranges between 0-116. PSS encompasses 6 components as [a] stress from taking care of patients (8 items), [b] stress from assignments and workload (5 items), [c] stress from lack of professional knowledge and skills (3 items), [d] stress from the environment (3 items), [e] stress from peers and daily life (4 items) and [f] stress from teachers and nursing staff (6 items).

(3) Coping strategies inventory: This study utilized the Coping Strategies Inventory developed by Sheu et al. (2002). It consists of 19 items classified into four categories. Each item is scored on 5 options from never (0) to always (4). The four categories are [a] avoidance (6 items), [b] problem solving (6 items), [c] stay optimistic (4 items) and [d] transference (3 items)

Method of data collection: Respective class coordinators were contacted and explained about the study objectives. List of the students was obtained from them. By using lottery method 55 students were selected for data collection. Students were asked to sit in their classroom and provided with data collection instrument. Self-administered questionnaire method was used for data collection. 30 minutes were allotted to participants to fill the questionnaires.

Ethical aspects: A study proposal was presented before Institutional Ethics Committee, Pravara Institute of Medical Sciences (DU), Loni and ethical approval was obtained. (PMT/PIMS/RC/2015/17). Before data collection, permission was obtained from the Principal, College of Nursing. Study objectives were explained to the participants. Also, voluntary nature of participation was explained to them. They were ensured about the confidentiality of data. Before data collection commences, written informed consent was obtained from the participants

3. Result

Demographic data: Study revealed that male and female participants were 50.9% and 49.09% respectively. 32.72% of the participants were aged 20 years, 36.36% of the participants were studying in second year B. Sc. Nursing, 76.36% participants were Hindu by religion and most of them i.e. 96.36% participants have interest in nursing

Perceived stress and stressors:

Table no 1: Perceived stress among nursing students in clinical practice.

SN	Factor	Mean	SD
1	Stress from taking care of patients	11.12	5.78
2	Stress from teacher & nursing staff	11.12	4.11
3	Stress from assignments & workload	10.09	3.5
4	Stress from peer & daily life	7.4	3.15
5	Stress from the clinical environment	5.90	2.38
6	Stress from lack of professional knowledge & skills	4.01	2.24
	Overall	48	12.75

Table no 1 shows the perceived stress and different stressors encountered by nursing students in clinical practice. It reveals that stress from taking care of patients (mean= 11.12, SD= 5.78) and stress from teachers and nursing staff (mean= 11.12, SD= 4.11) were highly and equally stressful areas for nursing students. The second most stressful area for the student is assignment and workload (mean= 10.09, SD= 3.5). Whereas stress from peer and daily life (mean= 7.40, SD= 3.15) and stress from clinical environment (mean= 5.90, SD= 2.38) were comparatively less stressful areas for students. Another stressor that is lack of professional knowledge and skills was least stressful for nursing students (mean= 4.01, SD= 2.24). Overall mean score for stress was found to be 48 with SD 12.75, it shows that nursing students experience a moderate level of stress in clinical practice

Table no 2: Level of perceived stress among nursing students in clinical practice

Sr. No.	Level	Score	Frequency (n)	(%)
1	Low	0 – 38	12	21.82
2	Moderate	39 – 77	43	78.18
3	High	78 – 116	00	00

The study found that majority of the participants i.e. 78.18% experiences a moderate level of perceived stress in clinical practice, whereas 21.82% experiences low stress. None of the participants perceived high stress. (Table 2, Fig. 1)



Figure No 1: Level of perceived stress among nursing students

Table 3: Coping strategies utilized by nursing students in clinical practice

Sr. No.	Coping strategy	Mean	SD
1	Problem Solving	16.01	4.73
2	Stay Optimistic	10.38	3.00
3	Avoidance	7.52	3.87
4	Transference	7.05	2.79

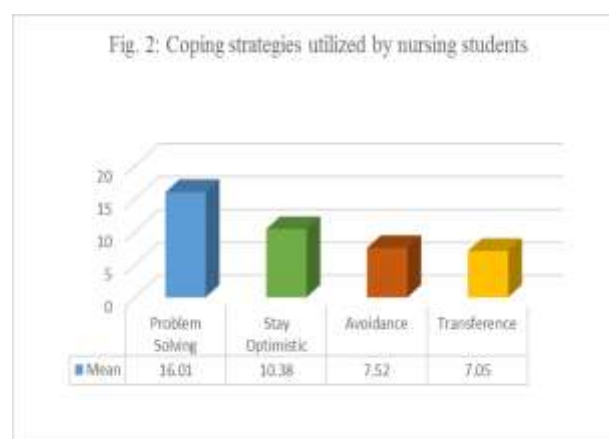


Figure no 2: Coping strategies utilized by nursing students

It is evident from the findings that, most commonly used coping strategy was problem-solving (mean = 16.01, SD= 4.73). Second most commonly used coping strategy was found to be staying optimistic (mean= 10.38, SD= 3.00). Whereas transference (mean= 7.05, SD= 2.79) was the least commonly used coping strategy. (Table 3, Fig. 2)

4. Discussion

Perceived Stress and Stressors: In this study, stress from taking care of patients and stress from teachers and nursing staff were found to be most stressful areas for nursing students. These were followed by stress from assignment and workload. Whereas stress from peer and

daily life and stress from the clinical environment were comparatively less stressful areas for students. Another stressor that is lack of professional knowledge and skills was least stressful for nursing students. These findings are supported by many studies conducted in different parts of the world. Abdulkarim S. A. et al. (2014) assessed stress and coping strategies among Jordanian nursing students. They found that stress from taking care of patients, stress related to teachers and nursing staff, and assignments and workload were the most prominent stressors among students. [6] Study by Al-Gamal et al. (2017) among Saudi nursing students also reported that stress from taking care of the patient subscale ($M = 12.0$, $SD = 5.0$) was ranked the highest mean among all perceived stress subscale scores. [7]

A literature review on stress and coping strategies in nursing students by Labrague LJ et al identified main stressors which included stress through the caring of patients, assignments, and workloads and negative interactions with staff and faculty. [8] Very recently Hamaideh SH et al. (2017) also reported that "assignments and workload" as well as "teachers and nursing staff" were the highest sources of stress among nursing students in clinical training. [9] Zhao FF et al. (2015) examined stress and coping strategies among Chinese nursing students. The results showed that during clinical practice, assignments and workload were the most common stress to students. [10]

Level of Stress: It is evident from the findings of this study that majority (78.18%) of nursing students experiences a moderate level of stress. This finding is supported by previous research studies

Chan CK et al. (2009) reported that Hong Kong baccalaureate nursing students perceived a moderate level of stress. [11] Leodoro J. Labrague et al. (2017) found that stress levels in nursing students range from moderate to high. [8] Samson-Akpan, P. E et al. illustrated in his study that 101(65.6%) of the undergraduate nursing students experienced moderate stress and 52 (33.8%) had high or severe stress. [12]

One of the Indian study conducted by C Viji Prasad et al. (2013) revealed that (1.7%) of the nursing students have severe stress, 46.7% has moderate stress, and remaining 51.6% has mild stress. [13]

Coping strategies: Present study revealed that most commonly used coping strategy by nursing students in clinical practice was problem-solving (mean- 16.01, $SD=4.73$). The second most commonly used coping strategy was staying optimistic (mean- 10.38, $SD=3.0$). Relatively less utilized coping strategies were avoidance and transference

These findings are consistent with many studies conducted across different parts of the world. Very recently Gamal et al. (2017) demonstrated in their study that Saudi nursing student's most commonly utilized problem solving coping behaviour in response to stress in clinical practice. ($M = 15.8$, $SD = 4.3$). [7]

An integrative review conducted by Labrague LJ et al. (2017) demonstrated that nursing students utilized problem-focused coping strategies rather than emotion-focused coping strategies. Specific coping behaviours utilized included problem-solving behaviours, self-confident approaches and seeking support from family and friends. [8]

Hamaideh SH et al. (2017) found that the most common coping behaviours used by nursing students in Saudi Arabia were "problem-solving" and "staying optimistic. [9] Shaban IA et al. (2012) also found that the most common coping strategy used by Jordanian nursing students was problem-solving behavior followed by staying optimistic and transference. [14]

On the contrary, Zhao FF et al. (2015) found that transference was the most frequently used coping strategy by Chinese undergraduate nursing students. [10]

Recommendations: Based on the findings of the study, following recommendations are made:

- 1) The study may be replicated in larger samples.
- 2) A multisite study may be conducted.
- 3) A comparative study may be conducted between male and female nursing students.
- 4) A comparative study may be conducted in degree and diploma nursing students.

Conclusion

It is evident from the findings of the study that the majority of B. Sc. Nursing students experiences a moderate level of stress. Taking care of patients and stress from teachers and nursing staff being the highest stressful areas for them. Another important area which is highly stressful for them is assignments and workload. Students try to cope with stress by using positive coping strategies namely problem solving and staying optimistic. Improving clinical knowledge and skills of students, equipping them with appropriate communication and interpersonal relation skills can be instrumental in relieving their stress level and effective coping.

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