

# Stress and Coping Strategies among Undergraduate Nursing Students: A Descriptive Assessment from Western Rajasthan

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## Abstract

**Background:** Nursing is a very challenging profession, which requires very stringent training since initial years of nursing education. Throughout the training period, students are exposed to various stressful situations. Inability to cope up with varied stressors may lead to psychological distress and impede students' pursuits of nursing career. **Objectives:** The aim of the present study is to assess stress and coping strategies among nursing students of Western Rajasthan. **Materials and Methods:** Two hundred and twenty-one undergraduate nursing students were recruited for the study through total enumeration. Standardized Student Nurse Stress Index and brief cope scale were used to assess stress and coping strategies. **Results:** Nearly 82.4% of the students reported moderate level of stress. Interface worries (mean score  $17.88 \pm 4.9$ ) and academic load (mean score  $17.6 \pm 4.78$ ) were the major source of perceived stress. Students considered attitude of other professionals toward nursing, lack of free time, and fear of examination as most likely reasons of their distress. Active coping was the most commonly used coping strategies. Level of stress was found to have significant association with the interest of students in nursing. **Conclusions:** Interface worries and academic-related concerns emerged as major source of stress. A positive trend was evident in the use of adaptive coping strategies over succumbing meekly. However, there is a great need to plan and implement stress management programs so that these budding health professionals could be better equipped and trained to face various challenges of the profession.

**Keywords:** Coping strategies, nursing students, stress, stressors

## INTRODUCTION

Professional health courses have been reported to be very exhaustive and stressful which requires Herculean training and the ability to withstand highly stressful situations. The prevalence rates of stress among health professional students are estimated to be around 14.3%–56% globally.<sup>[1]</sup>

Nurses are the backbone of health-care system and to be a proficient nurse, it needs hours and days of extensive training since the 1<sup>st</sup> day of nursing school or college. Within the whole duration of training, nursing students are often subjected to stressful situations. Varied stressors such as academic expectations, adjustment to college and hostel life, separation from family, dealing with different kinds of patients put a great threat on the health of the students.<sup>[2-6]</sup> Stress during nursing training is also propounded by role transition, role demand, and ambiguity.<sup>[7]</sup>

Persistent stress from various sources often effect health of students and could lead to psychological distress and

psychosomatic illness. The perception of stress and ability to handle stress is largely determined by the coping styles used by the students. The students who perceive their stress levels as very high and are not able to cope effectively with the situation may often become prey to many physical and psychological health issues.<sup>[8-13]</sup>

Improper coping skills could be barrier in achieving challenges of nursing profession. Number of research studies have been conducted worldwide to address this important issue, but there is paucity of data from Western India. Further, the decreasing resilience and increasing referrals of nursing students for psychiatric consultation indicate that this group of population

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experience considerable stress. With this view, the current study was conducted to assess stress and coping strategies among nursing students studying in a Nursing College of Western Rajasthan.

## MATERIALS AND METHODS

This descriptive study was conducted among nursing students studying at a Nursing College of Tertiary Care Hospital, Western Rajasthan between October 2016 and December 2016. B.Sc.(Hons.) Nursing students of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> year of study who were available at time of data collection and were willing to participate were included in the study through total enumeration sampling. Approval was obtained from the Institute Ethics Committee of Institute, in which this study was carried out and necessary permissions were taken from the authorities. The students of the respective years were approached on a predetermined day and were explained about the objectives of the study, assured of confidentiality, and a written informed consent was obtained from each one of them.

Standardized data collection tools were used. Stress levels and factors were assessed using Student Nurse Stress Index (SNSI) developed by Jones and Johnston. The subscales of the index which showed reliability coefficient (Cronbach's alpha) ranging from 0.68 to 0.80 was used with permission from the author.<sup>[13]</sup> The coping strategies of students were identified using 28 item brief COPE scale developed by Carver. The various subscales of the scale were found to have reliability coefficient (alpha) ranging from 0.57 to 0.90. The Brief COPE scale was free to use.<sup>[8]</sup> The sociodemographic details were collected using self-structured sociodemographic data sheet.

Collected data were analyzed using SPSS 20.0 (IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp). In total, 228 survey questionnaires were distributed to students. Of these, 7 questionnaires were excluded because of incomplete responses, with 221 included in the final analysis. Descriptive statistics were calculated to summarize demographics and key variables. Inferential statistics were applied (Chi-square, Fisher's Exact test and One-way ANOVA) to determine the association of level of stress with selected personal variables and comparison of mean values of coping strategies in relation to personal variables, respectively. For all associations and comparisons,  $P < 0.05$  was considered statistically significant.

## RESULTS

Of 221 participants, 136 participants belong to 16–20 years of age group. The mean age of the participants was  $20.19 \pm 1.3$  years. Almost equal number of subjects were enrolled from the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> study years. Most of the participants (92%) were hostelites. Few of them ( $n = 66$ ) reported the presence of health professional in their family. Sixty-two percent reported interest in nursing. Only 6% of

the total participants at one or another point of time attended stress management program in the past.

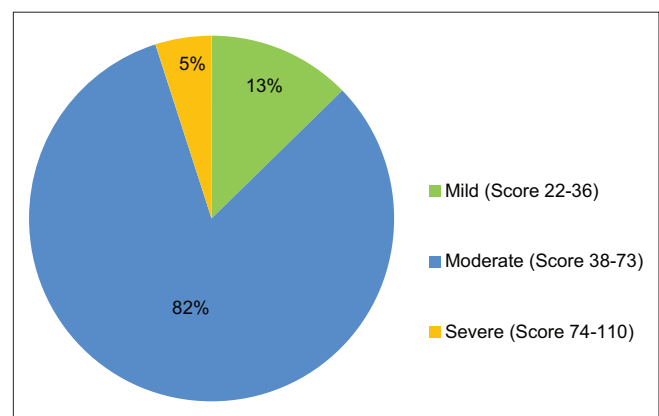
Figure 1 depicts the level of stress of the students. Most of participants (82.4%) reported moderate level of stress followed by mild (12.6%) and severe level of stress (5%). Table 1 describes the item-wise highest and lowest mean stress score. Highest mean score was reported for item no. 05, i.e., attitudes/expectations of other professionals toward nursing, whereas the least stressful item was item no. Eleven i.e., relationships with parents. The overall SNSI mean score was  $50.33 \pm 12.89$ . The subscale score for different factors such as academic load, clinical concern, personal problem, and interface worries shows that the foremost factor affecting stress level is interface worries (mean score  $\pm$  standard deviation [SD] =  $17.88 \pm 4.9$ ) and the least scored factor is personal problems (mean score  $\pm$  SD =  $7.53 \pm 3.22$ ).

Students used varied types of coping strategies as depicted in Table 2. The use of adaptive coping strategies was more evident as compare to maladaptive coping strategies. Active coping (mean score  $6.1 \pm 1.4$ ) was the most commonly used coping strategies whereas the least reported coping strategy was the use of substance use (mean score  $2.1 \pm 0.4$ ).

Level of stress among the students was found to be significantly associated with interest of students in nursing ( $P < 0.05$ ). Further participants with interest in nursing significantly used active coping ( $P = 0.0016$ ) as compared to participants who did not have interest in nursing. Denial ( $P = 0.006$ ), venting ( $P = 0.007$ ), and self-blame ( $P = 0.020$ ) were significant coping strategies used by students with no interest in nursing. Participants who had attended any stress management program in the past found to have used self-distraction as main coping strategy ( $P = 0.001$ ) [Table 3].

## DISCUSSION

Student nurses are often exposed to one or other type of stressor throughout the training period and if appropriate coping strategy is not used, it may lead to physical, psychological,



**Figure 1:** Level of stress as measured on Student Nurse Stress Index ( $n = 221$ )

academic, and social problems in their life. Overall perceived stress was high among students. Nearly 82% of the students

**Table 1: Student Nurse Stress Index factor-wise mean score (highest and lowest)**

SNSI Item number	SNSI items	Mean score±SD
	Overall SNSI score	50.33±12.89
	Factor-wise highest and lowest item scores	
	Academic load	17.6±4.78
3	Examination and/or grade	2.9±1.1
18	Atmosphere created by teaching staff	1.98±1.1
	Clinical concern	14.6±4.98
14	Too much responsibility	2.5±1.13
16	Client attitudes towards me	1.65±0.88
	Personal problems	7.53±3.22
10	Physical health of other family members	2.13±1.2
11	Relationships with parents	1.4±0.9
	Interface worries	17.88±4.9
5	Attitudes/expectations of other professionals toward nursing	3.1±1.3
21	I have no time for entertainment	2.19±1.04

SNSI: Student Nurse Stress Index, SD: Standard deviation

**Table 2: Coping strategies mean score of study subjects**

Coping strategies	Mean±SD
Active coping	6.1±1.4
Positive reframing	5.8±1.5
Planning	5.8±1.3
Acceptance	5.4±1.7
Instrumental support	5.4±1.5
Religion	5.2±1.7
Self-distraction	5.2±1.3
Emotional support	5.1±1.4
Behavioural disengagement	4.6±1.5
Venting	4.5±1.4
Self-blame	4.4±1.6
Denial	3.7±1.5
Humor	3.5±1.6
Substance use	2.1±0.4

SD: Standard deviation

**Table 3: Relationship of coping strategies with selected personal variables**

Coping strategy	Interest in nursing				Attended any stress management programme in past			
	Yes (mean±SD)	No (mean±SD)	t-test	P	Yes (mean±SD)	No (mean±SD)	t-test	P
Self distraction					6.38±1.32	5.14±1.31	3.308	0.001
Activecoping	6.277±1.33	5.82±1.40	2.417	0.016				
Denial	3.48±1.3	4.04±1.67	-2.75	0.006				
Venting	4.30±1.2	4.8±1.5	-2.731	0.007				
Planning	5.89±1.34	5.55±1.21	1.837	0.06				
Self blame	4.02±1.49	4.94±1.71	-4.184	0.020				

SD: Standard deviation

reported moderate level of stress in their day-to-day college life. One of the studies conducted at Haryana, India by Singh *et al.* in 2013 also reported high levels of psychological disturbance among nursing undergraduate students in the middle phase of the course.<sup>[5]</sup>

The findings of the current study identified interface worries and academic load as major factors leading to stress. A significant number of students perceived stress arising due to attitude of other professionals toward nursing and/or lack of free time and fear of examination. These findings are consistent with the findings of previous studies conducted by Shukla *et al.*<sup>[14]</sup> in 2012 and Eldeeb *et al.*<sup>[15]</sup> in 2014 where major stressor was academic in nature. In other studies conducted by Al-Dubai *et al.*<sup>[16]</sup> from Malaysia and Hamill C<sup>[17]</sup> from Ireland, worry about future and financial difficulties emerged as main stressors.

The current study showed that students used adaptive coping skills more often than maladaptation. Students dominantly focused on positive strategies such as active coping, positive reframing, and planning to cope up with their day-to-day stress. This difference is contrary to the previous study by Shiferaw *et al.*,<sup>[7]</sup> Ab Latif R,<sup>[18]</sup> Wejdan *et al.*<sup>[19]</sup> and Singh *et al.*,<sup>[20]</sup> respectively, which reported the use of unhealthy coping strategies such as avoidance, blaming, use of problem solving, optimism, and leisure activities as main coping strategies.

Stress and use of coping strategies are highly dependent on and associated with multiple factors. The findings of the present study reported that only interest in nursing was found to have significant association with level of stress. The study participants with interest in nursing dominantly used adaptive coping strategies as compared to noninterested students. Shiferaw *et al.* in their study in 2015 observed significant association between family size, responsibility, and opting for a nursing career by choice with stress and coping patterns of students ( $P < 0.05$ ).<sup>[7]</sup>

## CONCLUSION

Stress is a universal phenomenon to which every single individual is being exposed. Student nurses being part of extensive skill training program are always at risk. This study highlights the important issue of stress and the kind of coping strategies used by nursing students. Stress was highly prevalent

among student nurses' owing to their herculean training. The study has helped to identify key factors leading to stress among student nurses and would serve as an important input in planning stress management interventions to produce more resilient future nurses

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### Conflicts of interest

There are no conflicts of interest.

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