# A descriptive study of perceived stress among the North Indian nursing undergraduate students

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# ABSTRACT

**Background:** In recent years, there is a growing appreciation of the stresses involved in nursing training. It is important for nursing educators to know the prevalence of psychological distress and psychological well-being among nursing students. The present study aimed to assess perceived stress in the undergraduate students studying in a nursing college located in North India.

**Materials and Methods:** The present cross-sectional study was carried out at College of Nursing, Maharishi Markandeshwar University, Haryana, in the month of August 2011 using pretested self-administered questionnaire. Perceived stress score was measured using perceived stress scale (PSS).

**Results:** The mean perceived stress score of all 282 students was 28.67 (SD = 5.32), with a median of 26 (IQR = 22–34). Female students had more perceived stress score (31.33) than male students (26.01). The maximum mean perceived stress score (29.66) was observed in  $2^{nd}$  year students, and the least mean perceived stress score (26.28) was found in 3rd year students.

**Conclusion:** The present study indicates high levels of psychological disturbance among nursing undergraduate students in the middle phase of the course. Hence, there is an urgent need to take measures by the authorities to reduce stress among the nursing students.

Key words: Nursing school, stress, students

## INTRODUCTION

Stress is a part and parcel of human lifestyle. It can serve as a driving force in terms of obtaining results, but on the other hand, non-stop stress can act as a killer in terms of performance.<sup>[1]</sup> It is a known fact that students are subjected to different kinds of stressors, such as the pressure of academics with an obligation to succeed, an uncertain future, and difficulties of integrating into the system.<sup>[2]</sup>

The World Health Organization (WHO) has estimated that stress-related disorders will be one of the leading

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Address for correspondence: Dr. Abhishek Singh, Assistant Professor, Department of Community Medicine, Major S.D. Singh Medical College, Fatehgarh, Uttar Pardesh, India. E-mail: abhishekparleg@gmail.com causes of disability by the year 2020.<sup>[3]</sup> Nursing schools are now recognized as a stressful environment that often exerts a negative effect on the academic performance and psychological well-being of the students.<sup>[4]</sup> Studies from the United Kingdom and India have reported increasing levels of stress among nursing students.<sup>[5,6]</sup>

It is important for nursing educators to know the prevalence of psychological distress and psychological well-being among nursing students. As psychological disorders are projected to be among the top four leading causes of disability in the future, research on its effects and association among those who are expected to be future professional mental and health providers would be useful. The present study was therefore conducted to assess perceived stress among nursing undergraduate students across the entire curriculum (first to final year) in rural Haryana.

## MATERIALS AND METHODS

The present descriptive cross-sectional study was conducted at College of Nursing, Maharishi Markandeshwar University, Mullana (Ambala) in the month of August 2011 using pretested self-administered questionnaire. The study population consisted of students who were currently studying in the nursing college. At the time of study, there were four batches of nursing students, each with 100 students. All 400 students were included in the study. Those students who could not be contacted despite three attempts were excluded from the study. Students were explained about the nature and purpose of study, and were requested to fill the questionnaires that were distributed by authors in the classrooms just after the completion of classes. Out of a total 400 students, 282 completed and returned the questionnaires.

Stress among nursing students was measured using a previously validated (Cronbach's  $\alpha$  coefficient of internal consistency 0.85) perceived stress scale (PSS).<sup>[7,8]</sup> The scale yielded a single score, with high scores indicating higher levels of stress and lower levels indicating lower levels of stress.

Data were analyzed using SPSS version 11.5. Interpretation of the collected data was done by using appropriate statistical methods.

# RESULTS

Out of a total 400 students, 282 completed and returned the questionnaires, giving an overall response rate of 70.5%. One hundred and fourteen (40.4%) of the respondents were males, while 168 (59.6%) were females. The mean age of study subjects was 19.12 years, with a standard deviation of 1.5. The mean perceived stress score of all 282 students was 28.67 (SD = 5.32), with a median of 26 (IQR = 22-34). Female students significantly had more perceived stress score (31.33) than male students (26.01). The maximum mean PSS (29.66) was observed in the 2nd year students, and the least mean PSS (26.28) was found in the  $3^{rd}$  year students.

#### Table 1: Responses to the perceived stress score

Statement	Never n (%) (SD)	Almost never n (%) (SD)	Sometimes n (%) (SD)	Fairly often n (%) (SD)	Very often <i>n</i> (%) (SD)
In the last month, how often have you felt that you were unable to control the important things in your life?	49 (17.4) (4.6)	38 (13.5) (4.1)	123 (43.6) (5.5)	51 (18.1) (5.0)	21 (7.4) (2.4)
In the last month, how often have you felt nervous and "stressed"?	39 (13.8) (4.2)	27 (9.6) (3.6)	143 (50.7) (7.7)	57 (20.3) (5.3)	16 (5.6) (2.5)
In the last month, how often have you felt confident about your ability to handle your personal problems?	12 (4.2) (1.3)	28 (9.9) (3.1)	80 (28.4) (4.3)	76 (26.9) (3.9)	86 (30.5) (4.7)
In the last month, how often have you felt that things were going your way?	23 (8.1) (2.3)	34 (12.1) (3.3)	112 (39.7) (7.2)	81 (28.7) (5.1)	32 (11.4) (3.5)
In the last month, how often have you found that you could not cope with all the things that you had to do?	55 (19.5) (5.2)	38 (13.5) (4.3)	112 (39.7) (6.3)	46 (16.3) (4.1)	31 (10.9) (3.5)
In the last month, how often have you been able to control irritations in your life?	33 (11.7) (4.1)	24 (8.5) (3.8)	118 (41.8) (7.6)	68 (23.7) (4.8)	39 (14.2) (4.3)
In the last month, how often have you felt that you were on top of things?	37 (13.1) (4.5)	53 (18.8) (4.7)	114 (40.4) (7.3)	43 (15.3) (3.6)	35 (12.4) (4.5)
In the last month, how often have you been angered because of things that were outside your control?	33 (11.7) (3.9)	35 (12.4) (4.0)	115 (40.8) (8.3)	61 (21.6) (4.2)	38 (13.5) (3.9)
In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	55 (19.5) (5.2)	63 (22.3) (5.5)	101 (35.8) (6.3)	47 (16.7) (4.1)	16 (5.7) (1.3)
In the last month, how often have you been angered because of those things that happened which were outside your control?	55 (19.5) (4.7)	45 (15.9) (4.1)	109 (38.7) (7.7)	38 (13.5) (4.2)	35 (12.4) (2.8)
In the last month, how often have you found yourself thinking about things that you have to accomplish?	23 (8.1) (2.1)	26 (9.2) (3.5)	81 (28.7) (4.9)	86 (30.5) (5.2)	66 (23.5) (4.4)
In the last month, how often have you been able to control the way you spend your time?	25 (8.9) (2.3)	44 (15.6) (2.9)	107 (37.9) (7.3)	68 (24.1) (5.3)	38 (13.5) (2.5)

#### **Responses to the perceived stress score scale**

As can be seen, most of the subjects responded in the "sometimes" category for the 12 questions of the scale (29.3%-47.7%). Majority (39.7%) said that they sometimes could not cope with all the things that they had to do, whereas only 23.7% were fairly often able to control irritations in their lives. Only 28.4% of students sometimes felt confident about the ability to handle their personal problems. A good number of students (34%) sometimes felt difficulties were piling up so high that they could not overcome them [Table 1].

# DISCUSSION

Stress is a double-edged sword that can either stimulate and motivate the students to peak performance or reduce the students to ineffectiveness.<sup>[9,10]</sup> Previous studies have reported that nursing education exerts considerable stress on students.<sup>[10-15]</sup>

In our study, it was observed that stress levels were higher among female nursing students. This finding can be attributed to differing patterns of psychological morbidity, as males are simply less expressive of their concerns.<sup>[10,13]</sup> This is in contrast to another study<sup>[11]</sup> which reported that males perceived more stress than female students.

It was seen in the present study that 2nd year nursing students presented with higher stress scores. The possible explanation may be excessive load of both para-clinical and clinical subjects, as compared to only preclinical subjects in the 1<sup>st</sup> year, and in the final year they are well versed with the subjects.

The current study observed that a majority of the nursing students were not confident enough to handle their personal problems. Only a few were able to manage stressful situations diligently, whereas others felt that difficulties piled up so high that they could not overcome them. This reflects their psychological and emotional immaturity. Interventions at this stage would enable them to handle stress in a much better way in the future.

## CONCLUSION

The findings of present study indicate that nursing students experienced higher levels of stress. Hence, there is an

urgent need to take measures by the authorities, such as creation of congenial environment to reduce stress among the nursing students.

### REFERENCES

- Dhar N, Nandan D. Stress a public health menace of the day Combat it. 2008, National Institute of Health and Family Welfare. Available from: http://www.nihfw.org/Publications/ News letter.html [Last accessed on 8 Apr 2012].
- 2. Kumar S, Dagli RJ, Mathur A, Jain M, Prabu D, Kulkarni S. Perceived sources of stress amongst Indian dental students. Eur J Dent Educ 2009;13:39-45.
- 3. Lamk AL. Stress in the Medical Profession and its roots in Medical School. SQU Med J 2010;10:156-9.
- 4. Sherina MS, Rampal L, Kaneson N. Psychological Stress Among Undergraduate Medical Students. Med J Malaysia 2004; 59:207-11.
- 5. Deary IJ, Watson R, Hogston R. A longitudinal cohort study of burnout and attrition in nursing students. J Adv Nurs 2003;43:71-81.
- 6. Sharma N, Kaur A. Factors associated with stress among nursing students. Nurs Midwifery Res J 2011;7:12-21.
- 7. Wolfgang AP. The health professions stress inventory. Psychol Rep 1988;62:220-2.
- El-Gilany AH, Amr M. Perceived stress among tomorrow's attorneys in Mansoura, Egypt. Int J Collab Res Intern Med Public Health 2010;2:20-30.
- 9. Gibbons C, Dempster M, Moutray M. Stress, coping and satisfaction in nursing students. J Adv Nurs 2011; 67: 621–32.
- 10. Sheu S, Lin HS, Hwang SL. Perceived stress and physiopsychosocial status of nursing students during their initial period of clinical practice. Int J Nurs Stud 2002;39:165-75.
- 11. Jones MC, Johnston DW. Reducing distress in first level and student nurses. A review of the applied stress management literature. J Adv Nurs 2000;32:66-74.
- 12. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. Nurse Educ Today 2004; 24:105-12.
- 13. Ruth Lo. Experiencing before and throughout the nursing career. J Adv Nurs 2002;39:119.
- 14. Sherring S, Knight D. An exploration of burnout among city mental health nurses. Br J Nurs 2009;18:1234-40.
- 15. Nolan G, Ryan D. Experience of stress in psychiatric nursing students in Ireland. Nurs Stand 2008;22:35-43.

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