

Assessing Level of Stress among Nursing Students: A Cross-Sectional Survey

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Abstract: Background: Stress is defined as mental, physical, emotional and behavioural reactions to any perceived demands or threats. Stress may affect every age-group and there may be various reasons which can cause stress to a person. The intensity of stress is found to be higher in health care profession. Nursing students are found to face both academic as well as professional stress during their training period. Since stress has become one of the major issues; it has become very important to assess the severity of stress level among nursing students. Thus, the study aims to assess the severity of stress among nursing students. Methods: A cross-sectional survey was conducted among 122 nursing students of B.Sc Nursing 1st semester, GNM 1st year and Post Basic B.Sc Nursing 1st year of Arya Nursing College by Convenience Sampling Technique. The UN Management Stress tool was used to collect data. Results: The result revealed that majority 94(77%) had moderate stress level, followed by 21(17.2%) had no stress or normal and only 7(5.8%) had under severe stress. Moreover, among all the courses the stress level was found highest among students pursuing B.Sc Nursing 74.6 % (SD=2.810) followed by GNM 58.30% (SD=3.116) and least was found for the Post Basic B.Sc Nursing 57.76% (SD=3.898). Significant association was found between level of stress and age ($p=0.038$), course undergoing ($p=0.001$), source of funding course fees ($p=0.001$). Conclusion: The study concluded that majority of the students have moderate level of stress.

Keywords: Stress, Nursing Students, Stress level, Profession, Health.

1. Introduction

In modern scenario, stress is being reported as one of the most common feature in everyone's lives. Stress is a non-specific response of the body to any demand.^[1] Stress is defined as mental, physical, emotional and behavioural reactions to any perceived demands or threats.^[2] Stress may affect every age-group and there may be various reasons which can cause stress to a person like issues related to job, money, relationship or family member or family who is ill or in crisis. The intensity of stress is found to be higher in health care profession. Studies have showed that that prolonged exposure to the stressful situation has huge effect on health of an individual.^[3]

Nursing colleges are now recognized as a stressful environment that often exerts a negative effect on the academic performance and psychological well-being of the students.^[4] Nursing profession is a disciplined profession involved in the delivery of health services to the society, an art and science. Studies show that nursing students face both academic as well as professional stress during their training period.^[5]

Baret LM et al conducted a comparative study to assess the mental health characteristics and stress between baccalaureate nursing students and non-nursing students with an aim to prepare the student nurse to cope with extremes of stress in the field of nursing profession, to make them understand about the signs of stress. The result revealed that nursing students were exposed to higher level of stress when compared to general students.^[6]

Another study conducted by Konwar G revealed that majority (70%) of the students had moderate stress.^[7] From the beginning of their clinical experiences, nursing students

face stressful factors that influence their academic performance and quality of life.^[8] Nursing students are important and beneficial human assets. Detection of stress is extremely important as it can be the reason of low productivity, decreased quality of life and suicidal thoughts which are due to examination, assignments submissions and assessment.

However, looking into the present scenario, as stress has become one of the major issues; it has become very important to assess the severity of stress level among nursing students. Therefore, the researcher felt the need to conduct a research on topic titled "ASSESSING THE LEVEL OF STRESS AMONG NURSING STUDENTS: A CROSS-SECTIONAL SURVEY."

2. Problem Statement

Assessing the Level of Stress among Nursing Students: A Cross-Sectional Survey.

Objectives

- To assess socio-demographic variables among nursing students.
- To assess the level of stress among nursing students.
- To determine the association between level of stress with selected socio-demographic variables.

Hypothesis (Hypothesis will be tested at 0.05 level of significance)

H1- There will be significant association between the stress level and selected socio-demographic variables.

Delimitation-

The study is delimited to

The 1st year nursing student of B.Sc Nursing, P.B.B.Sc Nursing and GNM course of Arya Nursing College, Guwahati Assam India.

3. Methods

A descriptive study (cross-sectional survey) was conducted among 122 1st year nursing students of PBBSc Nursing, BSc Nursing and GNM course of Arya Nursing College, Guwahati Assam India from 2nd May 2024 to 7th May 2024. The selected research approach was Quantitative Research Approach. In the present study, a sample of 122 nursing students studying in 1st year of various nursing course i.e. PBBSc Nursing, BSc Nursing and GNM of Arya Nursing College who fulfilled the desired criteria were selected through convenience sampling technique. The students who were not accessible on the day of data collection and did not gave informed consent were excluded from the study. The study was approved by the Institutional Ethical Committee and participants were included in the study after taking permission from Principal of the College and students were assured for the confidentiality of the information that they provided. Data was collected using a self-structured socio-demographic tool and a standardized stress management tool for assessing the stress. The analysis of data was done using descriptive and inferential statistics.

Population: Nursing students

Target Population: 1st year PBBSc Nursing, BSc Nursing and GNM course.

Accessible Population: 1st year of various nursing course i.e. PBBSc Nursing, BSc Nursing and GNM of Arya Nursing College

Development of the tool

Section A: A structured Performa containing socio-demographic variables including the basic information such as Age, Gender, Religion, Marital Status, Area of Residence, Type of Family, Socio – economic Status, Status of selecting the course willingly, Fees Payment Mode, Use Of Any Stress Relieving Technique, Medium of Education Up to Class X.

Section B – A Standardized Questionnaire Tool was taken from the “UNO Management of Stress Management”. In this tool, 10 questions were given to assess stress and it had maximum score of 30 and minimum score of 15. The score under 15 is considered normal, 15-25 considered as moderate stress level and 26-30 considered as severe stress level.

4. Analysis

Results were reported as mean standard deviation (SD). The association between stress level and socio-demographic variables were assessed using chi-square value.

Data presented in table 2 revealed that among all the students majority 94(77%) had moderate stress level, followed by 21(17.2%) had no stress (or normal) and only 7(5.8%) had under severe stress. Also, the mean stress score among students pursuing B.Sc Nursing was found to be 22.38 ± 2.81 followed by mean stress scores for GNM was 17.49 ± 3.11 and least was found for the Post Basic B.Sc Nursing 17.33 ± 3.89 .

Further the table 3 depicts level of stress among different courses; among B.Sc Nursing students majority 42(89.3%) had moderate stress level followed by 5(10.7%) had severe stress and none of the students were normal that explains that each and every students undergoing B.Sc Nursing course were having some level of stress. Among the students undergoing Post Basic B.Sc Nursing, majority 18(60%) had moderate stress level followed by 11(36.7%) had no stress (or normal) and only 1(3.3%) had severe stress. Among the students undergoing GNM course, majority 34(75.6%) had moderate stress level followed by 10(22.2%) had no stress (or normal) and only 1(2.2%) had severe stress.

On analysing the association between level of stress with selected socio-demographic variables, it was observed that there was a significant association level of stress and age of the subject (The calculated value of chi-square was 10.17 with $df=4$, $p=0.038$), course undergoing (The calculated value of chi-square was 20.65 with $df=4$, $p=0.001$) and source of funding course fees (The calculated value of chi-square was 17.80, $df=2$, $p=0.001$).

Table 1: Frequency and Percentage Distribution according to the selected socio- demographic variables, N=122

S. No	Demographic Variables	Frequency	Percentage
1	Age in years		
	a. 18-21 years	76	62.3
	b. 22-25 years	42	34.4
	c. 26-29 years	4	3.3
2	Gender		
	a. Male	10	8.2
	b. Female	112	91.8
3	Religion		
	a. Hindu	78	63.9
	b. Muslim	22	18.1
	c. Christian	20	16.4
	d. Buddhist	1	0.8
	e. Khasi	1	0.8
4	Marital status		
	a. Married	0	0
	b. Unmarried	122	100

	c. Widow	0	0
	d. Divorced	0	0
5	Area of residence		
	a. Rural	94	77
	b. Urban	28	23
6	Type of family		
	a. Nuclear	105	86
	b. Joint	14	11.5
	c. Extended	3	2.5
7	Family income		
	a. ≥ 123322	5	4.1
	b. 61,663-123,321	18	14.8
	c. 46129-61,662	26	21.3
	d. 30,831-46128	32	26.2
	e. 18497-30,830	21	17.2
	f. 6175-18496	18	14.8
	g. ≤ 6174	2	1.6
8	Name of the course		
	a. B.Sc Nursing	47	38.5
	b. PB B.Sc Nursing	30	24.6
	c. GNM	45	36.9
9	Status of selecting the course willingly		
	a. Yes		
	b. No	109	89.3
10	Medium of education up to class X		
	a. Assamese	70	57.4
	b. English	48	39.3
	c. Others (Bodo)	4	3.3
11	Source of funding the course fees		
	a. Parents Income	90	73.8
	b. Loan	32	26.2
12	Use of any stress relieving technique		
	a. No	76	62.3
	b. Yes	46	37.7
	If yes Specify		
	a. Yoga	2	4.3
	b. Meditation	5	10.9
	c. Music therapy	37	80.5
	d. Recreating therapy	0	0
	e. Any other	2	4.3

Table 2: Distribution of level of stress among nursing students, N=122

Level of stress	Frequency (f)	Percentage (%)	Score Range	Median	Mean	SD
Normal	21	17.2	10-27 17	19	19.34	4.005
Moderate stress	94	77				
Severe stress	7	5.8				

Table 2: Distribution of level of stress among different courses, N=122

Level of stress	B.Sc Nursing (n=47)		Post Basic B.Sc Nursing (n=30)		GNM (n=45)	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Normal	0	0	11	36.7	10	22.2
Moderate stress	42	89.3	18	60	34	75.6
Severe stress	5	10.7	1	3.3	1	2.2

5. Discussion

In present study that showed that maximum of the participants were 76 (62.3%) from 18-21 years of age, maximum respondents were 112(91.8%) from female gender, all the participants 122(100%) were unmarried, majority of the participants were 94 (77%) from rural area of residence. The study finding can be supported by a similar study⁹ in which the result were that with majority of the participants were 24(38%) from 19-22 years of age ,

maximum participants were from 61(97%) female gender, maximum of the respondents were 47(75%) rural area of residence, majority of the respondents 57(92%) were unmarried. As majority of the nursing students are found to be female in various study results, it is because nursing was considered to be a female dominant profession. Although nowadays many male students are also seen to be choosing nursing profession.

The data in the present study shows that the level of moderate stress was higher than normal and severe stress. The level of moderate stress among 122 students were 94(77%), followed by 21(17.2%) had normal stress and only 7(5.8%) had severe stress, with median score of 19 and mean stress score was 19.4 with standards deviation 4.005. The study findings can be supported by a similar study conducted by Kaur M¹⁰ where 25 (63.5%) study subjects had moderate stress, 15(37.5%) study subjects had high perceives stress and none had low stress level.

In present study also found that out of all the courses the stress level among B.Sc nursing students had higher Mean 47 and Mean percentage 74.6% as compared to GNM and Post Basic B.Sc Nursing course.

The present study findings reveals that among 47 nos of B.Sc Nursing students 42 (89.3%) had moderate stress followed by 5 (10.7%) had severe stress, among 30 nos of Post Basic B.Sc Nursing students 18(60%) had moderate level of stress followed by 11(36.7%) had normal stress and 1 (3.3%) had severe stress, among 45 nos of GNM students 34(75.6 %) had moderate level of stress followed by 10 (22.2%) had normal stress and 1 (2.2%) students had severe level of stress. According to a study conducted on level of academic stress among B.Sc Nursing 1st year students, Jammu by Frank J.C, Bharti Sharma among 50 B.Sc Nursing 1st year students, 56% (28) had moderate stress, 28% (14) students had severe stress, 14(7%) had mild stress and 2(1%) had extreme stress¹¹. Another study to assess the level of stress among nursing students also revealed that level of moderate stress was higher than mild stress. The level of moderate stress among students of GNM 1st year was 35(97%), 1(3%) had mild students with Mean±SD 3±3.5 and among B.SC Nursing post basic 1st year 18(67%) had moderate stress, 9 (33%) had mild stress⁹.

On analysing the association between level of stress with selected socio-demographic variables, it was observed that there was a significant association level of stress and age of the subject (The calculated value of chi-square was 10.17 with df=4, $p=0.038$), course undergoing (The calculated value of chi-square was 20.65 with df=4, $p=0.001$) and source of funding course fees (The calculated value of chi-square was 17.80, df=2, $p=0.001$). On contrary another study conducted by Kumari S¹² revealed that there was no statistically significant association between the stress score of first year nursing students with demographic variables such as age, gender, religion, family type, area of residence and source of information at the probability level of $p<0.05$. The significant association for age can be possibly due to the factor that the younger the age the more the stress level. Some students opt for education loan as their source of funding, so it is significant that the students studying through educational loan will be having more stress as compared to the ones whose socio-economic condition is sound.

6. Limitations

The study is limited to only assessing the level of stress among nursing students.

7. Recommendations

Based on the findings of the study, the following recommendations can be ruled out:

- A similar study can be done to assess the stress level, sources of stress and coping strategies used by the nursing students.
- A similar study can be done among large sample for better generalization.
- A comparative study can be conducted to find level of stress in nursing students and non-nursing students.
- Another study can be carried out by using different tools to assess the level of stress among students. As there are various types of academic stress assessing scales are available.

8. Conclusion

Nursing students experience stress during education. It is a serious problem that affects the students mental health and physical health. Thus, focus should be given to find out the stressors and measures to be taken to reduce it. Educators should provide social support for the students which will help improve their over-all health and well-being. Counselling sessions can be organized periodically. Time-management strategies should be taught to students so that they can learn to schedule their time thus reducing academic stress.

References

- [1] Robotham D. Stress among higher educational students: Towards a research agenda. High Educ 2008; 56: 735-46
- [2] Online stress management workshop (online). Available from: <http://www.allaboutdepression.com/workshops/stress/stress02.html>
- [3] Waghachavare VB, Dhumale GB, Kadam YR, Gore AD. Study of stress among students of professional colleges from an urban area in India. Sultan Qaboos Univ Med J 2013; 13: 429-36
- [4] Vajral B, Debore SJ (2018). Level of Stress and Coping Strategies among BSc Nursing Students. International Journal of Indian Psychology, 6(3), 108-114. DIP:18.01.070/20180603, DOI:10.25215/0603.070
- [5] Pulido MM, Augusto- Landa JM, Lopez ZE. Sources of stress in nursing students: a systematic review of quantitative studies. Int Nurs Rev [Internet]. 2012;59(1):15-25. Available from: <http://www.scopus.com/inward/record.url?eid=2-s2.0-84857037280 & partnered=tZ0tx3y1>
- [6] Michelle BL, Taylor H, Nelson DJ (2016) Comparison of mental Health Characteristics and Stress between Baccalaureate Nursing Students and Non-nursing students. Journal of Nursing Education 55(2):87-90
- [7] Konwar G, Ahmed A. A study to assess the relation between stress and coping among the nursing students. J Prev Med Holistic Health 2019;5(1):48-51
- [8] Sheu S, Lin HS, Hwang SL. Perceived stress and physio-social status of nursing students during their initial period of clinical practice: the effect of coping behaviours. Int J Nurs Stud 2002; 39: 165-75

- [9] Kaur M, Guleria K. Study to assess the level of stress among nursing students. Medico-Legal Update. 2021 Jan 1;21(1).
- [10] Mushtaq B, Mir JA, Mushtaq OA. A study to find the effect of stress on gender and their demographic variables among nursing students. IP Journal of Paediatric and Nursing Science.2023 Jan 18;4(3):93-7
- [11] Frank J, Sharma B. Level of Academic Stress Among B.Sc Nursing 1st Year Students, Jammu. International Journal of Advances in Nursing Management.2022;10(1):57-60.
- [12] Kumari S. A study to assess the level of stress among nursing students in selected nursing institutions of Karnataka, India. Journal Of Nursing Sciences & Practice.2018;8(2).