

Assessment of Frequency and Severity of Stress among the Students of State School of Nursing Mirpur AJK by application of Perceived Stress Scale

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ABSTRACT

Objective: To assess perceived stress frequency, sources of stress and their severity in the nursing profession during their training era.

Study Design: Cross-sectional, questionnaire-based survey

Place and Duration of Study: School of Nursing Mirpur AJK from 1st November 31st March 2020

Methodology: The total rate of response was 90% (198 students out of 220). Stress was assessed using the perceived stress scale. A 10-item questionnaire was used to assess sources of stress and their severity.

Results: The overall mean perceived stress was 45.50±7.01. By logistic regression study, stressed cases were correlated with frequency of psychosocial (OR 5.01, 95 percent CI 2.44-10.29) and academic related stressors (OR 3.17 95 percent CI 1.52-6.68). There was a negative but negligible association between perceived stress and academic success ($r = -0.099$, $p > 0.05$).

Conclusion: A higher level of stress was reported by the students including all domains. Academic, familial and psychosocial problems were the main stressors. Further studies are required to test the association of stressed cases with gender, psychosocial and academic stressors.

Key words: Perceived stress scale, Logistic regression analysis, Nursing students, Stressors, Frequency, Severity, Psychosocial domains

INTRODUCTION

Stress is involved in all circles and matters of human life. A known reality is that that students have to face various different kinds of stressors, including academics, with surety for success in examinations, feelings of future without a handsome job, and sometimes hurdles to adjust themselves in zigzag educational system. Now-a-days institutes imparting nursing and technical education have negative impact on academic activities and overall psychological and mental health of the graduation students. so it's very important for the teaching faculty of these institutes to well aware of psychological status of nursing students and their effective management. A study in nursing school of Haryana India was conducted to assess stress and academic related issues among nursing students from (1st to final year) and explored all matters relating to stress phenomenon in nursing students.¹ Kumar et al² was conducted to assess both the "increase stress prevalence" and "management /planning options among the students.

Another Indian study revealed that sources of stress could be hostel stay, parental unusual expectations in exams and high achievements, lengthy syllabus, fear of class assessments and exams, non-availability of facilities for students and stress in both academic and clinical parts of examinations.³ A study in Chandigarh India used perceived stress scale and results showed that in wards and practical work 2/3 of candidates of semester had moderate to severe stress. Most of the students modify themselves by using techniques such as transference, problem solving skills, stress coping strategies, sometimes use phenomenon of optimism to cope in such high levels of

stress which may affect student's health and academic capabilities.⁴ Previous studies have shown fairly high levels of depression and even suicidal ideations, thoughts are results of high prevalence of stress among the students. The negative effects could be poor academic performance, decreased achievements in clinical practice, and stress related psychiatric manifestations. Student's social, emotional, physical status and family problems may influence their educational tenure and academic performance.⁵ Stress can cause serious harm to student's skills, patients care, working capacity, clinical procedure and practice, thus increasing number of mistakes and overall deterioration in clinical rotations.

A study in Ghana, nursing students by using self-administered questionnaires on stress, analysis done and concluded increased levels of Personal stressors, educational and community and social stress.⁶ Consequences to stress may be in form of physical, psychological and behavioral issues, such as infections, lack of sleep, GIT ulcers, neurotic symptoms, anger, social isolation, and drug abuse.⁷ Stress is considered a predisposing, precipitating and triggering, factor for multiple diseases, which can become lethal with the passage of time and mostly present in form of somatic symptoms. Other stressors could be competitions among students for good grades, constant examination pressure, increased studies workload, reports and papers submission on time, assignments, relationship with colleagues and teaching staff.⁸

According to various studies conducted worldwide it is concluded that stress among the nursing students could be a main hurdle in academic carrier and best skill and

expertise achievements and the current study is conducted to assess the "stress level" and "coping strategies" used by nursing students as well to discuss effective ways of dealing that stressors.⁹ We conducted present study to examine the frequency and severity of stress among the student of state school of nursing Mirpur AJK.

MATERIALS AND METHODS

The study was conducted at the state School of Nursing Mirpur AJK. It was Descriptive Cross Sectional study with Simple random sampling and study completed in 2 months (Nov-Dec 2019). Total 220 Students from 1st - 4th years, female gender, Ages 18-25 years and Capable of giving informed consent were included in study. Any participants have psychiatric illness and on psychiatric treatment already were put in exclusion list. All participants filled perceived stress scale having 10 questions. While interpretation shows Score belowe13= No stress, Score - 13-20= Average stress, and Score >20= High stress. Data was analyzed with SPSS 18. Descriptive statistics were calculated for quantitative variables including Mean, ± S.D, Age distribution. Frequency and percentages were calculated for qualitative variables i.e. boarding status, educational background, monthly income and severity of stress. Effect modifiers like age, gender, education, were stratified. Post stratification chi-square test was applied, keeping p-value < 0.05 significant.

RESULTS

One hundred and fifty four (70%) were ages 17 to 20 years and 66 (30%) had ages 21 to 24 years. 44 (20%) were student of 1st year, 73 (33.2%) 2nd year, 73 (33.2%) 3rd year, and 30 (13.6%) were student of 4th year. According to the boarding status, 174 (79.1%) were hostel life and 46 (20.9%) were day-scholars. 115 (52.3%) participant's family income were <25000 rupees, 59 (26.8%) had family income 25k to 50k, 30 (13.6%) had 51k to 75k, 14 (6.4%) had 76k to 100k and 2 (0.9%) had family income above 100k (Table 1). According to the stress level, 22 (10%) participants had no stress, 112 (50.9%) had average stress level and 86 (39.1%) had high stress level (Table 2).

Table 1: Demographics of all the participants

Variable	No.	%
Age (years)		
17 – 20	154	70.0
21 – 24	66	30.0
Education		
1st year	44	20.0
2nd year	73	33.2
3rd year	73	33.2
4th year	30	13.6
Boarding status		
Hostel life	174	79.1
Day-scholars	46	20.9
Family income		
<25000	115	52.3
25k - 50k	59	26.8
51k - 75k	30	13.6
76k - 100k	14	6.9
>100k	2	0.9

When we stratified severity of stress with age we found that majority of students 53.25% had moderate stress with ages 17 to 20 years and high stress found most frequent in the age group 21-24 years. 3rd and 4th years students had high frequency of moderate and severe stress level as compared to 1st and 2nd and third years student. Moreover we found that hotelise students had high rate of moderate and severe stress level and those with family income <25000 rupees had high frequency of moderate stress 63.48% and sever stress higher frequency was found in students whom family income 25k to 75k (Table 3).

Table 2: Frequency and severity of stress among participants

Stress score	No.	%
less than 13 (No stress)	22	10
13-20 (Average stress)	112	50.9
> 20 (High Stress)	86	39.1
Total	220	100

Table 3: Stratification of stress level with age, education, boarding status and family income

Variable	No Stress	Average stress	High Stress
Age (years)			
17 - 20	14 (9.09)	82 (53.25)	58 (37.66)
21 - 24	8 (12.12)	30 (45.45)	28 (42.42)
P-value	>0.05	>0.05	>0.05
Education			
1st year	6 (13.64)	26 (59.09)	12 (27.27)
2nd year	10 (13.70)	41 (56.16)	22 (30.14)
3rd year	6 (8.22)	29 (39.73)	38 (52.05)
4th year	0 (0)	16 (53.33)	14 (46.67)
P-value	>0.05	>0.05	<0.05
Boarding status			
Hostel life	17 (9.77)	84 (48.28)	73 (41.95)
Day-scholars	5 (10.87)	28 (60.87)	13 (28.26)
P-value	>0.05	>0.05	<0.05
Family Income			
<25000	12 (10.43)	73 (63.48)	30 (26.09)
25k - 50k	5 (8.47)	22 (37.29)	32 (54.24)
51k - 75k	3 (10)	8 (2.67)	19 (63.33)
76k - 100k	2 (14.29)	7 (50)	5 (35.71)
>100k	0	2 (100)	0
P-value	>0.05	<0.05	<0.05

DISCUSSION

Knowledge of stressors and sources and their severity among nursing students can help to manage and consult students efficiently and teach us how to cope with stressors and how to adapt to them. Therefore, the researchers are interested in evaluating stress levels among different student categories. Therefore the current study explored the experience of stress among the students of the General Care and the Midwifery of the Mirpur AJK Care School. Future researchers obtained the results of the study. In the present research, the stress levels in demographic information such as gender and education were also examined. This study was conducted in the nursing school Mirpur AJK, average age of participants were between 17-24 years old nursing students with a sample size of 220 participants, for a period of 2 months. Most participants were students of year 2 and 3. 80% students have educational background of Fsc. and 80% participants were

hostelized. Stress reported to be absent in 10% students. 50% have average level of stress and 40% have highest percentage of stress. A cross-sectional study conducted by Shah et al¹⁰ regarding perceived stress among medical students and they reported that the overall mean perceived stress was 30.84±7.01.

Another study regarding stress among bachelor nursing students conducted by Devkota et al¹¹ reported that majority of students had moderate stress level which was similar to our study findings and perceived stress mean value was 2.53±0.44. They also reported that assignment workload, environment and females were the common risk factor of stress among nursing students.

Some risky habits, such as in-school drinking, smoking, substance abuse and lack of physical activity, disrupted sleep and healthy eating practises seem directly linked to increasing levels of stress.¹²

In present study when we stratified severity of stress with age we found that majority of students 53.25% had moderate stress with ages 17 to 20 years and high stress found most frequent in the age group 21-24 years. 3rd and 4th years students had high frequency of moderate and severe stress level as compared to 1st and 2nd and third years student. Moreover we found that hotelise students had high rate of moderate and severe stress level and those with family income <25000 rupees had high frequency of moderate stress 63.48% and sever stress higher frequency was found in students whom family income 25k to 75k. These results showed similarity to some previous studies in which low family income, year of education, hostel residence and female gender were the most common risk factors of stress among nursing and medical students.^{13,14}

A Pakistani study in Karachi nursing school assessed n=305 students, in results Qualitative analysis showed that participants had good self-esteem, increased confidence levels, positive attitudes towards learning, time management and decision-making skills, and for achievement of these factors a professional support system is an obligation at levels of school administration which help and advice students to cope well with all on-going stressors.¹⁵ In Jordan a study concluded that its responsibility of hospital administration to adopt such laws and policies so that a training circumstances can be provided to students in order to improve all their hidden qualities.¹⁶ The study by Clark et al¹⁷ revealed that levels of stress are higher for health professionals than for other workers and students of other institutes.

The document highlights the need for strategies to use knowledge for decision-making, namely, a range of professional knowledge, skills and attitudes. Because we know the ability of students to applied knowledge and to intervene in critical needs, high levels of anxiety can hinder learning. We can therefore confidently state that student performance is directly proportionate to student anxiety.18

CONCLUSION

Nursing students had psychological and physiological stress manifestations more often than other areas' students. Financial status differences contribute to the emergence of several stress factors, and gender (whether

male or female) is not a relevant factor when analyzing stress manifestations among nursing students.

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