

Original Research Article

Prevalence of stress among paramedical students in Cuddalore District

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Abstract

Background: Stress is a word very difficult to define. No one is stress-free nowadays. Stress has an impact on mental and physical wellbeing. Everyone has an ideal level of stress, but it differs from person to person. A certain amount of stress is necessary to perform at the optimum. If the stress is perceived as negligible or as exceeding one's capacity to cope, then distress results. Stress among students of medical field (medical, dental and nursing) has gained more focus in recent years.

Aim of the study: To assess the magnitude of stress among First-Year Nursing students of RMMCH, Annamalai University, Tamil Nadu.

Materials and methods: The present study was a descriptive cross-sectional study. Data was collected using a proforma which included socio-demographic profile and PSS-14. Data were analyzed using SPSS software.

Results: Study showed that 96% of students had stress. 94% of students had mild to moderate stress while 2% had severe stress.

Conclusion: The prevalence of stress among Nursing students was high and there is a need for support services like stress management programs, relaxation techniques and so on. Support services may help to improve their ability to cope up with the demands of the course and also to have a stress free life.

Key words

Stress, Paramedical, Nursing students, PSS-14, Mental Health.

Introduction

Stress is a term that is being commonly used today but has become very difficult to define. Incidence and prevalence of stress are increasing nowadays. No one is stress-free nowadays, regardless of how sensible they are. Stress has an impact on mental and physical wellbeing. The term “stress” as it is being used currently was defined by Hans Selye, 1936 as “the response of the body to any demand”, while “stressors” are the demands and pressures that lead to stress [1, 2]. Stress occurs when one is confronted with a situation which is perceived to be overwhelming and one cannot cope up with such a situation (Agolla and Ongori, 2009) [3]. In an era of increasing work pressure, more gadget use and a decrease in interpersonal communication and lesser physical activities had made this modern world the most stressful one. Lifestyle changes in the modern world have led to a stressful life. Stress is a major risk factor for many diseases. Academic stress among college students has been a topic of interest for many years. That too stress among students of medical field (Medical, Dental, and Nursing) has gained more focus in recent years.

Materials and methods

The study was done in RMMCH, Annamalai University, Chidambaram, Cuddalore District, Tamil Nadu. Duration of study was from January 2018 to March 2018. First year Nursing Students belonging to the batch of 2017-18 were included in the study. Totally 100 Students participated in the study. Institutional ethical committee approval was obtained for the study. All the first year nursing students who attended the class (99 students) on the day of study and were willing for the survey were included in the study for convenience. Perceived Stress Scale -14 (PSS-14) by Cohen, a 14 item self-reporting questionnaire was used. Scoring- 0 to 14 had no stress; 15 to 28 had mild stress; 29 to 42 had moderate stress and 43 to 56 had severe stress. The PSS-14 contains seven positively worded ‘stress’ items and seven negatively worded ‘counter-stress’ items. Items were rated on a 5-

point Likert scale. The scoring was done based on the observations over the past 4 weeks (0 - never, 1 - almost never, 2 - sometimes, 3 – fairly often, 4 - very often). PSS scores were obtained by reversing the scores of the seven positive items (Items 4, 5, 6, 7, 9, 10, and 13) and summing up all 14 items. The PSS has adequate internal and test-retest reliability and is correlated in an expected manner with a range of self-report and behavioral criteria [4].

Inclusion Criteria: First year nursing students (2017 - 2018).

Exclusion Criteria:

- Students with a history of psychiatric illness.
- Students with a history of treatment for any chronic illness.
- Students with a history of treatment for any psychiatric illness at present.

Statistical analysis

Data was entered in Microsoft Excel sheet and Statistical analysis was done using descriptive statistics, t-test, and Chi-square test with the help of SPSS software. All tables were prepared using Microsoft Word.

Results

Table - 1 showed that out of the ninety-nine students, nine students were male and the remaining ninety students were female. According to **Table - 2**, all the students were in the age group of 17 to 18 years except for one student. Eighteen students were from urban area, while 81 students were from rural background. No student had a history suggestive of psychiatric illness and chronic illness in the past or at present. Systolic blood pressure was in the range of 100 to 124 mmHg. Diastolic BP was between 64 to 84 mmHg. Pulse was 70 to 87 beats per minute.

According to the study, the magnitude of stress among nursing students was 96% that was 95 out of 99 students had to stress. On the basis of PSS scoring, 4 students (4%) had a score between 0 to

14 which means they had no stress. Of the 95 students, 2 students scored between 43 to 56 and categorised under severe stress. Among the 93 students, 47 students (47.5%) had mild stress and 46 (46.5%) had a moderate level of stress. Nursing students experience mild to moderate level of stress at a younger age.

Table – 1: Gender distribution of students.

Sex	No. of students	%
Male	9	9.1
Female	90	90.9
Total	99	100.0

Table – 2: Age distribution of students.

Age (in years)	No. of students	%
17	47	47.5
18	51	51.5
19	1	1.0
Total	99	100.0

Table – 3: Distribution of stress level among students.

Stress	PSS Score	Frequency	%
No	0 - 14	4	4.0
Mild	15 - 28	47	47.5
Moderate	29 - 42	46	46.5
Severe	43 - 56	2	2.0
Total		99	100.0

The mean PSS score was 27.949 with a standard deviation of 6.7042. The mean score falls in the mild level of stress. The PSS-14 score was in the range 0 to 56, for the study participants score was between 12 to 45. The most frequently reported score was 25 seen in 13 students. 50% of the students had a score between 24 to 34 (**Table – 3**).

Discussion

Stress represented a deviation from some norm or steady state. Walter Cannon, who coined the term “fight and flight response” and expanded Claude Bernard’s concept of homeostasis used the term stress in 1926 to refer to external factors that disrupted homeostasis [5]. Stress can affect individuals physical and mental wellbeing.

Physical effects can range from common cold, flu-like symptoms, fever, gastric ulcer to Diabetes, Immunological disturbances, Hypertension and so on. Effects on mental health may be mood disturbances like depression and mania, anxiety, psychotic disturbances like delusions and hallucinations. In a similar study done by Natasha Sharma and Amandeep Kaur on GNM 1st year, nursing students in India reported that 97% of subjects had moderate stress whereas 3% had severe stress [6]. The results of this study was comparable to our study. Sheu et al. (1997) employed a cross-sectional design and used the Perceived Stress Scale (PSS) to address the initial clinical experience [7]. The sample consisted of 561 Taiwanese students from one nursing school. Results demonstrated that the students had a moderate level of stress [8]. Ross, et al. did a study on Depression, Stress, Emotional Support, and Self-esteem among 331 Baccalaureate Nursing Students in Thailand which revealed that 50.1% of the students were depressed [9]. Stress and stressors have been found to be significantly linked to depression and psychological distress in previous studies among different populations in various countries [10]. The findings were based on a self-reported questionnaire which relies on the honesty of those completing it and on the subjective impressions of stress and it also carries the risk that respondents might answer in a socially desirable manner. The data is only a one time measurement of the first year nursing students and so cannot be generalized. The high prevalence of stress among Nursing students is alarming. This shows the need for primary and secondary prevention measures, with the development of adequate and appropriate support services for this group. The students should be taught about different stress management techniques to improve their ability to cope with the demands of the course. Many studies have reported that stress management techniques had improved immunologic functioning [11]. Helps to decrease the development of depression and anxiety among subjects [12]. Also helps to improve sensitivity towards themselves, their

peers and their patients, reduced perceptions of isolation [13].

Conclusion

Nursing course is considered as a stressful one as suggested by many studies. Students have to balance their studies and ward work. They have to cope up with the patients and their attenders on one side and also their faculties on the other side. The present study concluded the general impression that there is a considerable amount of stress among nursing students.

Academic overload, lack of extracurricular activities, fear of faculty staff, difficulty to cope with patients and attenders may be the main reasons for their stress. Steps to ease the academic pressures, improve extracurricular activities, friendly faculties can decrease the magnitude of stress to some extent. Training in stress management as a part of the curriculum can be of use.

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