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Stress among Nursing Students; Effectiveness of Structured Teaching Programme on Academic Stress

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Abstract

Background: Stress is a mental and physical exhaustion that forces an individual to adjust. It is a characteristic that unites all of our lives. Stress in School Students deal with various academic issues in today's fiercely competitive society, such as exam stress and lack of interest in class. Student nurses experience stress from scholarly sources such as exams, extended study sessions, assignments, grades, lack of leisure time, delayed feedback following performance, and unique program components such as organizing and leading workshops. **Methodology:** The approach employed in the present study was a quantitative evaluative research approach with a quasi-experimental - group pre-test and post-test design. Subjects (n=50) were selected from a selected College of Nursing in Kerala. Data was collected using a structured knowledge questionnaire with 30 items. The reliability of the structured knowledge questionnaire was found to be 0.9. A self-structured teaching program was administered after conducting a pre-test, and a post-test was performed seven days after the pre-test. Data was analyzed using descriptive and inferential statistical (chi-square test, paired 't' test). **Results:** The collected data was analyzed by using descriptive and inferential statistics. The study findings revealed that on assessing pre-test levels of knowledge, the majority of the subjects (70%) had moderate knowledge levels, and the assessment of post-test levels of knowledge showed that the majority (86%) of the subjects had moderate knowledge, 12% had adequate knowledge while 2% had inadequate knowledge. **Conclusion:** Based on the study's findings, recommendations were drawn for nursing service, administration, education, and research. The study concluded that the knowledge from structured teaching programs in reducing academic stress among first-year B.Sc. nursing students was moderately adequate and favorable.

Keywords

Effectiveness, Structured teaching program, Knowledge, Academic stress, Nursing students

Introduction

The nursing profession is a disciplined field that provides healthcare to the general public. In addition, it is a helping profession that combines science and art while maintaining the health and well-being of individuals. Exams, lengthy study sessions, grades, a lack of leisure time, not receiving timely feedback on their performance, and unique aspects of the academic program, such as organizing and leading workshops, are among the academic stressors[1]. Taking care of sick patients, interpersonal conflicts with peer groups, fear of

not meeting clinical requirements, insecurity about one's clinical competence, managing uncooperative patients, workload, prolonged standing while learning psychomotor skills, such as bathing patients, and vital sign monitoring, have all been linked to high levels of stress[2].

The student experiences exam stress, loses interest in studying, becomes unable to follow the professor, and becomes disinterested in attending classes due to parents' and friends' reactions to the results[3]. The overwhelming weight of academics, demanding exam schedules, uncertainty about nursing as a vocation, feelings of inadequacy and nervousness in clinical settings, fear of making mistakes, and personal inadequacies are some leading causes of stress among nursing students. Prolonged stress can impair memory and make it difficult to focus when studying. In therapeutic settings, high levels of stress can lead to mood swings and feelings of isolation and loneliness[4].

Nursing college students said that changes in sleeping patterns, holidays, breaks, eating habits, and increased workload and responsibilities were the top five primary sources of stress. Additionally, the structure of the college academic experience, the change from a personal to an impersonal academic atmosphere, and the first experience of being away from home can all lead to stress5. It is now widely acknowledged that nursing school is a demanding setting that frequently has a detrimental impact on student's academic performance and psychological health[6]. Although everyone suffers stress occasionally, students are more vulnerable to stressors because of the transitory nature of their time in school, which necessitates forming new acquaintances and adhering to social standards[7].

Accordingly, students' perception of an event is affected as a stressor based on their living environment and selecting coping strategies they use in particular situations. These groups should cope with the increasing global demands, i.e., decision-making about issues such as occupation, lifestyle, friends, family, religion, and politics. They should also meet the needs of family, teachers, friends, and other groups[8]. Therefore, they establish critical emotional ties with the environment or non-family members and develop their value systems, which, in most cases, are influenced by the family and their culture.

Amr A M et al. assessed the perceived stress among 373 baccalaureate Mansoura nursing students and analyzed the factors responsible for it. Sociodemographic information, stressor types, perceived stress, physical well-being factors, and anxiety and depressive symptoms were all included in a self-administered questionnaire. The results showed that nursing students had significant rates of stress (40.2%), anxiety (46.6%), and depression (27.3%), with academic pressure being the main contributor to stress (mean score 4.6). This highlighted how important stress management initiatives are in nursing homes[9].

A comparison study was carried out by Bartlet L. Michelle et al. to evaluate the stress and mental health traits of baccalaureate nursing students against non-nursing students. This study aimed to educate student nurses on stress symptoms and provide them with coping mechanisms for high levels of stress encountered in the nursing profession. The National College Health Assessment II, a paper-and-pencil tool, was used in the study to investigate the causes of stress in nursing students and compare them with non-nursing students. Stress levels were higher for nursing students than for general students[10]. To make recommendations for setting up a stress management program on progressive muscle relaxation techniques so that nursing students can manage their stress in any setting, it will be helpful to determine the stress level among nursing students[11].

To examine the stress of 282 North Indian undergraduate nursing students in Haryana, a descriptive cross-sectional study was conducted. The stress level was determined using the perceived stress scale, which had a median score of 26 (IQR = 22–34) and a standard deviation of 5.32, or 28.67. Compared to male students (26.01), female students had a greater stress level (31.33). Third-year students displayed the lowest stress score (26.28), while second-year students displayed the highest stress level (29.66). This demonstrated the necessity of stress-reduction strategies in nursing schools[12].

Nursing cannot attempt to eliminate stress because it is an inherent component of life and affects all living things. A nurse's job at this point is to support health promotion because stress can lead to unhealthy responses. Techniques for stress management and reduction are part of health promotion. The nursing process is another tool the nurse can use to control stress[7]. The investigators intended to evaluate the impact

of structured instructional programs on stress, knowledge of academic stress, and the factors influencing stress.

Material and Methods

Pre-experimental, one group pre-test post-test, was the research design chosen for this investigation. This design included a pre-test, an organised teaching programme that day, and a post-test that was given to the same group seven days after the pre-test. This study's conceptual framework was developed using Dorothy Johnson's open system theory as a foundation. The researcher was able to emphasize and support the study by using a review of related literature. It inspired the investigators to conduct data analysis and assess the efficacy of the instructional program. Suggestions for the instrument had been given to the specialists. Both viability and dependability were noted. A reliability value of $r = 0.96$ ($p < 0.05$) was discovered.

In this study, first-year BSc nursing students' awareness of academic stress was the dependent variable, while the structured teaching program (STP)'s ability to lower academic stress levels was the independent variable. Age, sex, religion, mother's and father's educational attainment, occupations, stay during the study, percentage of plus two marks, language used in school, hobbies, and participation in any programs on stress reduction in the classroom are examples of demographic variables. Participants were 1st-year Basic B.Sc. Nursing students from the designated College of Nursing, Kerala. The sample was selected using a nonprobability convenience sampling technique. For this study, a structured knowledge questionnaire was chosen as the instrument. Descriptive and inferential statistics will be used to organize and analyze the numerical data obtained from the sample.

Results

With regard to socio-demographic variables of the selected first-year Basic B.Sc. Nursing students, 82.0% of the respondents belonged to the age group of less than 19 years, 16.0% of the respondents belonged to the age group of 20 years and the remaining 2% were in the age group of 21 years. In relation to gender, 16 (32%) were males and 34 (68%) were females. 39 (78%) respondents were Hindus, 05 (10%) respondents were Muslims, and 06 (12%) were Christians. In relation to the education of mothers, 22 (44%) completed primary school, 17 (34%) completed secondary school, 6 (12%) received higher secondary education, and only 5 (10%) completed graduation. In relation to the education of the father, of the participants, 04 (08%) worked for the government, 09 (08%) for private companies, 28 (56%) for themselves, and 09 (18%) for daily wagers. Regarding the mothers' occupations, of the respondents, 29 (58%) worked as stay-at-home moms, 14 (28%) were independent contractors, 02 (04%) had private employment, and 05 (10%) were employed by the government.

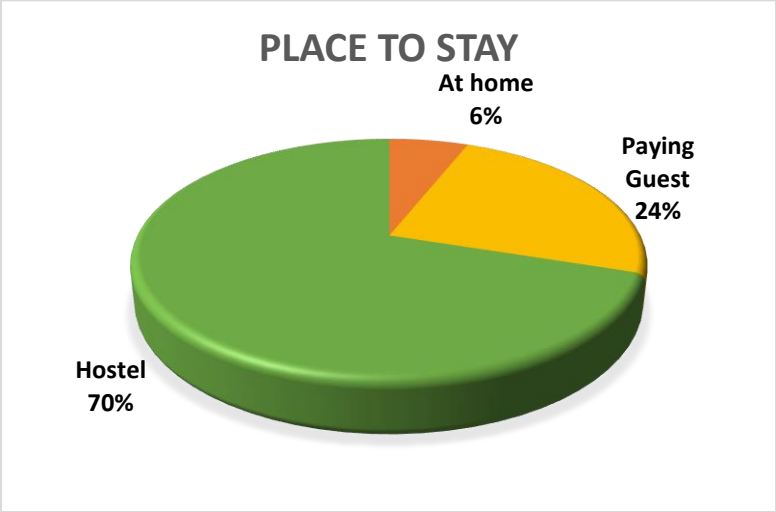

Fig 1: Frequency, Distribution, and Percentage of students based on place to stay

Of the fifty responders, six percent stayed at home, twenty-four percent stayed as paying guests, and seventy percent stayed in a hostel. Based on the pre-university (10+2) course grades, 46% of students received first class, 26% received second class, 18% received distinction, and 10% received passing grades. Regarding the language used for instruction, 72% of students studied in Malayalam, while 28% studied in English. Sports

participation accounted for 14% of the respondents' hobbies, while television watching accounted for 20%. 34% of respondents said they preferred to read books, while 22% said they practiced yoga or meditation as a hobby. Of the 50 responses, 52% of participants attended the stress reduction programme, whereas 48% did not.

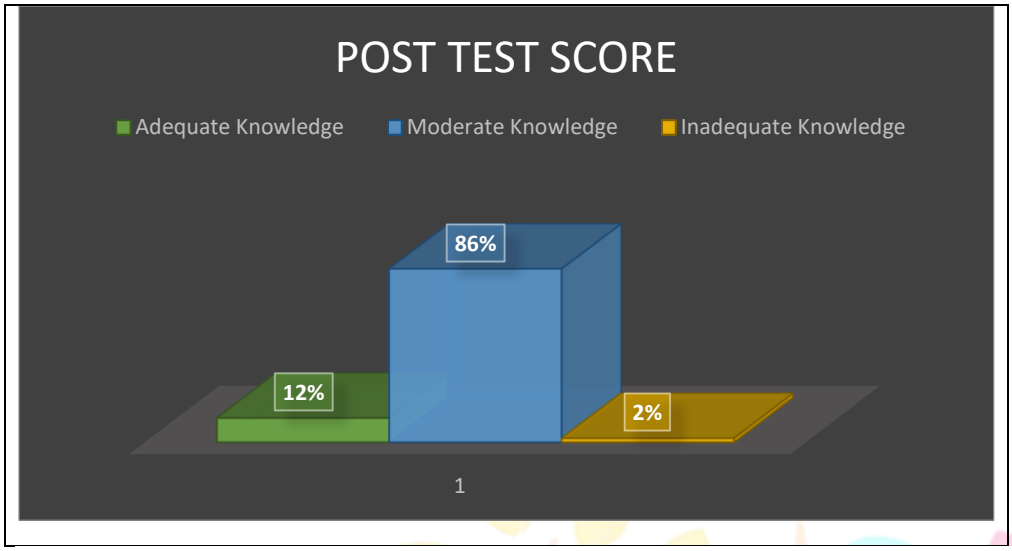

Fig 2: Classification of respondents based on post-test level of knowledge

The majority of respondents, 43 (86%), had moderate knowledge, 6 (12%) had appropriate knowledge, and 1 (2%) had inadequate knowledge, according to the respondents' post-test knowledge levels.

Table 1: Showing mean and standard deviation of the sample on academic stress

Sample size (n)	Mean	SD
50	7.34	4

The median was 27, and the range was 18 with a mean SD of 3.8; the post-test mean percentage knowledge score was 66.5%. There was a range of 18 and a median of 27. With a mean difference of 18.5 and SD 4.0, the average percentage improvement of knowledge was 7.34. A paired t-test was employed to evaluate the efficacy of a program of structured instruction. At $p \leq 0.05$, the computed test value was 12.72, df=49.

Table 2: Indicators of Academic Stress among Nursing Students

n=50

Sl. No	Factors	Mean	SD
1	Cognitive Indicators	19.78	2.223
2	Affective Indicators	6.7727	3.09678
3	Physical Indicators	6.1091	3.53578
4	Social Indicators	4.1727	2.55529
5	Motivational Indicators	3.9545	2.66608

Table 2 demonstrates that while motivational indicators are low (x=3.95, SD=2.66), cognitive indications are high (x=19.78, SD=2.22). On the other hand, there is a moderate degree of affective (x=6.772, SD=3.09) and physical (x=6.109, SD=3.53) indices.

Table 3: Factors contributing to Academic Stress among Nursing Students.

n=50

Sl. No	Factors	Mean	SD
1	Interpersonal Factors	1.8000	1.54326
2	Academic Factors	6.7818	2.81667
3	Environmental Factors	1.6182	1.35445
4	Intrapersonal Factors	2.8091	1.77390

Table 3 demonstrates that academic factors have a greater impact (x=6.78, SD=2.8) on academic stress in nursing students, with intrapersonal factors (x=2.8, SD=1.7), interpersonal factors (x=1.8, SD=1.54), and environmental factors (x=1.6, SD=1.35) coming in second and third, respectively.

Findings related to the association between the pretest knowledge scores with selected demographic variables

Pretest knowledge scores showed a substantial correlation with demographic factors, including sex, mother, and father education levels, occupation, length of stay during the study, percentage of plus two marks, hobbies and extracurricular activities, and involvement in stress management programs. Pre-test knowledge results did not significantly correlate with the father's career, age, region of residence, religion, or language of instruction.

Discussion

Stress has two opposing effects on students: it can inspire and drive them to achieve at their best or render them ineffectual[12]. Fifty volunteers in particular institutions in Kerala were chosen for the current study via stratified random procedures. There is compelling evidence that stress and a deficiency in professional knowledge among nursing students are inversely correlated[13].

The study's results showed no correlation between the mother's level of education, her family type, her residential area, or her religion. However, the current study produced the contradictory result that there was a correlation between the mother's education and her father's presence during the study. A prior survey among nursing students found that the degree of stress was higher in female students (31.33) than in male students (26.01), which is similar to the findings of the current study that the majority of stressed students (68%) were female[9]. In contrast, another study[14] found that male students felt more stress than female students.

Conclusion

Recommendations for nursing administration, education, research, and services were made based on the findings. The study found that first-year B.Sc. nursing students' understanding of reducing academic stress levels was somewhat favorable and adequate due to structured teaching programs. Nursing students encounter various academic stressors throughout their studies, including cognitive, affective, physical, social, and motivational stresses. Stakeholders in nursing education must recognize signs of stress, take appropriate action, and assist students in developing coping mechanisms. Therefore, the study suggests that it is crucial to set up some relaxation strategies at the start of each semester so that students can learn how to manage their stress and do well in their coursework.

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Conflict of interest

None declared

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