RESEARCH ARTICLE

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Comparison of Prevalence of Depression, Anxiety, and Stress among GNM and B.Sc. Students

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Abstract

Background: College life has become synonymous with many challenges in the demanding landscape of higher education. The transition of age, with academic pressures and social expectations, creates a vulnerable environment where psychological distress can occur. **Aim:** The study aimed to investigate the occurrence of depression, anxiety, and stress within B.Sc. and GNM nursing students and examine the potential connections between these mental health factors. **Methodology:** A comparative study design was used. Using a convenient sampling technique 350 samples were screened. The study was conducted among 120 GNM and 230 BSc students enrolled in a Bengaluru Nursing College. Information was gathered using a formal questionnaire and DASS-21. **Result:** Most of the participants were aged between 18-20 years (73.7%), 68.3% were females and 65.7% belonged to B.Sc. Nursing students were more depressed and anxious. (Level of normal and mild depression: B.Sc. were 148 and 27 and GNM were 113 and 6; Level of extremely severe and moderate anxiety: B.Sc. were 1 and 48 and GNM were 1 and 33) and less stressed than GNM students. (Level of normal and moderate stress: B.Sc. were 216 and 0 and GNM were 73 and 26) A positive correlation was there between Depression and Anxiety (r=.461; p=0.01), a significant positive correlation between anxiety and stress (r=0.461; p=0.01), and stress and depression and depression and anxiety were found. No statistical associations of these variables with sociodemographic factors were established. **Conclusion:** Academics and peer dynamics create subdue pressure and may result in small a for anxiety, small d for depression and small s for stress among the students. Programmes to reduce such should be planned.

Major Findings: B.Sc. Nursing students showed lower anxiety and stress levels but higher mild depression compared to GNM students, who experienced higher anxiety due to financial and background challenges. A significant correlation existed between depression, anxiety, and stress, with no association to sociodemographic factors. Interventions like counseling and stress management are recommended.

Keywords: Anxiety, B.Sc., Depression, GNM, Stress

1. Introduction

India has surged ahead economically, with its GDP soaring to 3.75 trillion USD in 2023. This remarkable growth has propelled India from the 10th to 5th largest economy in the world and labelled as a "shining star in the global economy". India also has a marked shift in prevalence rates of depression rates ranging from 31% to 57% frequency[1]. With 38 million suffering from anxiety disorders as reported by the country's leading newspaper[2].

Nursing students are at high risk of experiencing a heightened magnitude of stress and anxiety because of the diverse challenges they encounter[3], to a new environment, academic expectations, obligation to succeed, dealing with patients and their relatives, uncertainties regarding the future, financial pressure, etc. Stress during the academic years is the major factor in anxiety and depression among nursing students[4]. Anxiety can be described as an emotional experience condition marked by sensations of unease, troubling thoughts, and physiological alterations

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in the body. Depression is a prevalent mental condition characterized by feelings of sadness, lack of interest, feelings of guilt, diminished self-esteem, disturbances in sleep patterns and difficulties in maintaining focus. It substantially disrupts an individual's ability to function and cope with everyday life. Nursing students are the care providers, for the next generation, their sound overall health and balanced life are of utmost importance. Clinical training, understanding and performing critical and complex tasks need a healthy mind. Researchers using this thought identified the prevalence of depression and stress as these are the most common mental disease conditions initiated at the adolescent age and can be cured if diagnosed early. The study aimed to compare the occurrence of symptoms of depression, anxiety and stress among B.Sc. and General Nursing and Midwifery (GNM) nursing students and to find out whether a correlation exists between anxiety, depression and stress.

2. Materials and Methods

2.1 Design and Samples

A study was conducted at Krupanidhi College of Nursing, Bengaluru on a total of 350 samples. 230 B.Sc. and 120 GNM nursing students, were selected through a convenient sampling technique. Students willing to participate, knew English and were not sensitized to similar programs before, between the age group of 18-20 years were selected. After, following the standard protocol consent was obtained and tools were provided via Google Forms. The study questionnaire consists of 3 different sections as mentioned below.

2.2 Study Tools and Data Collection Method

The questionnaire was divided into 2 sections.

Section A consisted of sociodemographic variables of the students including age, sex, gender, socioeconomic status, income of father and mother, education of father and mother etc.

Section B standardized DASS scale was used. Its 4-point Likert scale indicates– it didn't apply to me at all; 1 suggests- it applied to me to some extent; 2 indicates it applied to me to a significant degree or a substantial part of the time; 3 suggests it applied very strongly or most of the times.

2.2.1 DASS-21 Scale

The DASS Scale uses consolidated sub-scores.

1. Depression score is computed by adding up values from items 3,5,10,13,16,17 and 21.
2. Anxiety scores are added, summing up values from items 2, 4,7,9,15,19 and 20.
3. Stress score is computed by adding up values from items 1, 6, 8,11,12,14 and 18.

2.3 Statistical Analysis

Data was entered in MS Excel and examined using SPSS 20.0. to perform the descriptive analysis. The frequencies and percentages of outcome variables such as stress, anxiety and depression were found out. Each domain was categorized as normal, mild, moderate, severe and extremely severe and any significant associations of outcome variables with socio-demographic factors and other academic variables were analyzed by applying a chi-square test, $p < 0.05$ was considered as significant. The correlation was found using Karl Pearson's formula.

3. Results

The study participants included overall 350 students with 230 B.Sc nursing and 120 GNM nursing students. Most students belonged to the age group of 18 to 20 years (258), among which 239 were females. The majority of (200) students were Hindus.

3.1 Depression

The GNM nursing students' majority (45.9%) reported moderate symptoms of depression, and only 20.4% were normal. In B.Sc. student's majority (59.2%) were found with normal levels, fewer with mild symptoms of depression (26.5%) and very few with moderate levels of depression (8.5%). Overall, most of the students (63%) had reported normal levels, 22% had mild, and 13% had moderate symptoms of depression.

3.2 Anxiety

A major proportion of GNM students had shown normal symptoms (45%) but 16.6% were found with severe symptoms of anxiety. Among B.Sc. students more students had normal levels (65.5%) and very few were found with a severe level of anxiety. Overall (59%) of students had

normal levels 23% had moderate levels and 6.6% had severe levels of anxiety.

3.3 Stress

Both the groups had normal levels (94%) and very few (5.6%) were found with mild levels of stress. Overall, only 5.4% had mild levels and 0.6% had moderate and majorly 94% had normal levels of stress.

The study revealed the overall proportion of nursing students having depression, anxiety and stress as 35.9%, 34% and 6% respectively. The distribution of severity of depression, anxiety and stress from mild to extremely severe is shown in Figures 1, 2 and 3.

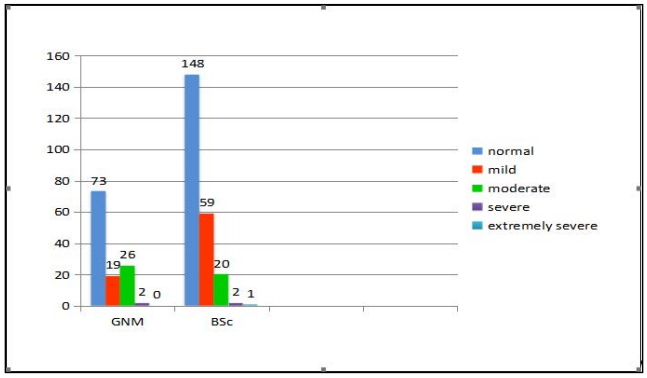


Figure 1. The distribution of severity of depression.

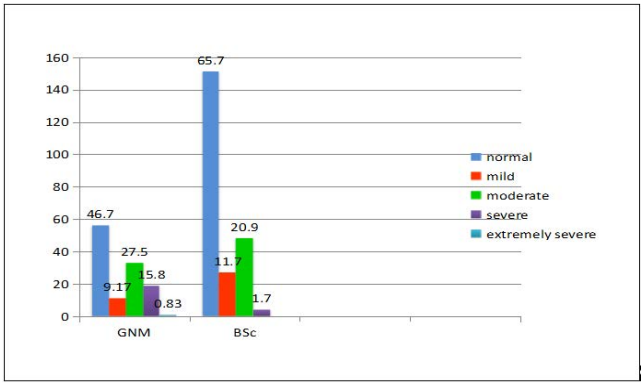


Figure 2. The distribution of severity of anxiety.

No significant association is observed between sociodemographic variables and depression, anxiety and stress scores.

The constructive correlation was identified among depression, anxiety and stress, as evidenced by a correlation coefficient (r) of 0.461, which, was found to be statistically significant at a 0.01 level of p.

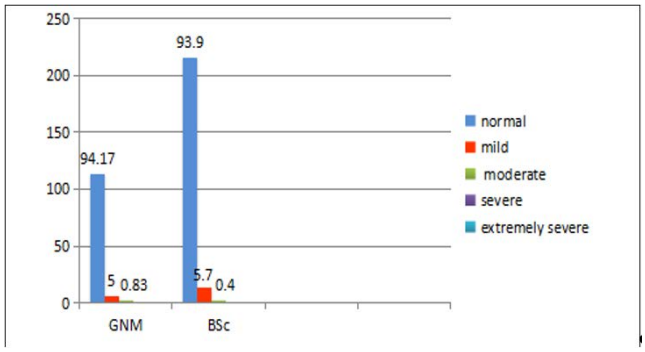


Figure 3. The distribution of severity of stress.

4. Discussion

4.1 Depression, Anxiety and Stress Among GNM and B.Sc. Nursing Students

Statistical measures of the current study revealed that the overall occurrence of depression, anxiety and stress among GNM students was 39%,53.3%, and 5.8%. Prevalence among B.Sc. nursing students for depression, anxiety and stress were 35.6%, 34.3% and 6 %. (Figures 1-3).

The results are notably lower when contrasted with the investigation conducted in the past among B.Sc. Nursing students by Das *et.al*, at Hyderabad[5]. Also supported, by a similar study done among 212 B.Sc. Student at Dibrugarh Medical College Assam. The rates of depression, anxiety and stress were recorded at 55.1%, 63.1% and 29.9% respectively[6].

Higher levels of anxiety among GNM (62%) can be subjected to financial inadequacy, lifestyles of metropolitan cities, peer pressure and major nonscience background. Reasons for low depression and stress rates can be the student-friendly college campus environment, excellent infrastructure, individual mentoring, remedial and counselling sessions provided to the students including sports and cultural growth in the college.

4.2 Comparison of Overall Grades of Depression, Anxiety and Stress Among GNM and B.Sc

Comparatively both the batches have equal levels of depression and stress. The level of anxiety was comparatively higher among GNM students as depicted in Figures 1-3.

The findings for higher levels of anxiety in GNM students are much higher in comparison to the study conducted among similar groups in Nellore[7].

Higher level of stress among GNM students was accounted for by a similar study conducted in Madhya Pradesh[8]. The mixture of cultural practices, norms and beliefs, eating patterns and language barrier can be a few major contributing factors as GNM students majorly belong to West Bengal.

4.3 Correlation Between Depression, Anxiety and Stress

Positive two-tailed correlation was detected among depression, anxiety, and stress with a correlation coefficient (r = 0.461, p = 0.01 for all).

This connection was supported by a similar investigation conducted on nursing students where a moderately positive correlation among Anxiety with BDI (r = 0.612) and GHQ (r = 0.509) and T-Anxiety BDI (r = 0.473) and GHQ (r = 0.512) was found (p=0.001 for all)[9].

Similarly, it was supported by a study conducted on B.Sc. nursing students in Hong Kong, where a significant correlation was observed between depression, anxiety and stress (all p<0.001, two-tailed, r- =0.581 for depression; for anxiety r = 0.599; for stress, r = 0.581.12[10].

4.4 Depression, Anxiety, and Stress are Related to Socio-Demographic Factors

Social and demographic factors did not significantly correlate with depression, anxiety, or stress. In one of the studies, the level of stress among working men and women was used for employee-employer interaction to improve organizational behaviour[11]. A contrary study with opposite findings was found where years of study, physical inactivity, and years of study in past were significantly correlated with depression, an imbalanced diet with anxiety[10]. Another study reported contradictory findings against the findings when compared with the present study where 'dissatisfaction with major' and 'dissatisfaction with social activities' were highly significant with T-Anxiety[9].

5. Conclusion

Student nurses are the army who aid in healing clients and patients. It is of utmost importance for them to be mentally and physically healthy first. The present study is very helpful in finding out and screening the victims, such studies at any student level promote screening at an early level and with prompt treatment, we will be able to have a reduction in the burden of psychological disorders and a better tomorrow with the aids of healthy nurses. There is an urgent need for nursing educators to organize stress management camps components of peer groups, mentorship programs and feedback policy, soft skills training counseling etc. in the institute to reduce stress and make the nursing students better trained to face various challenges of professional life. Assertive communication should be embedded through various practical simulations. More leisure activities such as sports, other field trips, internships, simulation labs with hands-on training facilities and outdoor learning activities should be planned to prevent stress and provide confidence in the clinical settings.

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