



AN INVESTIGATION ON ANXIETY DISORDERS IN RELATION TO DYSFUNCTIONAL ATTITUDE

*Jagriti Sharma, Research Scholar, Dept. of Psychology, Himalayan Garhwal University,
Uttarakhand*

*Dr. Pankaj Chaturvadi, Associate Professor, Dept. of Psychology,
Himalayan Garhwal University, Uttarakhand*

ABSTRACT

The Depression, Anxiety, and Stress Scale-21 (DASS-21) was used to assess the mental health of undergraduate Indian nursing students, as well as to identify potential risk factors. The study's goal was to determine the prevalence of depression, anxiety, and stress symptoms among undergraduate engineering students at the top engineering college, Bhopal. The researchers also wanted to find out if there were any potential risk factors in the study population for depressed, anxiety, and stress symptoms. The research was conducted on engineering students at the top engineering college. It was an analytical, cross-sectional, questionnaire-based study.

The DASS-21 questionnaire, which was administered in English to the participants, was used to collect data on depression, anxiety, and stress symptoms. The prevalence of depressed, anxiety, and stress symptoms was calculated as a proportion of the total population. The researchers used a binomial logistic regression analysis to discover characteristics linked to moderate-to-severe symptom severity. The prevalence of moderate to severe depression symptoms was found to be 34.1 percent in our study. Anxiety and stress symptoms were reported to be prevalent in 61.9 percent and 17.7 percent of the population, respectively. Family relationship was revealed to be substantially linked with depression ($P = 0.00$, odds ratio [OR] 0.638 [95% confidence interval (CI) 0.877–0.464]) and stress ($P = 0.002$, OR 0.582 [95% confidence interval (CI) 0.822–0.412]) symptoms using binomial logistic regression analysis. Appropriate friend support was also linked to anxiety ($P = 0.04$, OR 0.785 [95 percent CI 0.923–0.602]) and stress symptoms ($P = 0.007$, OR 0.645 [95 percent CI 0.885–0.469]).

The prevalence of depression, anxiety, and stress symptoms among nursing students is disturbingly high, according to our findings. In our research, we discovered that a lack of strong family relationships and a lack of friend support are two major risk factors for melancholy, anxiety, and stress. There is a need to recognize nursing students' mental health difficulties and establish techniques to effectively address them.

Keywords: *Anxiety, Depression, DASS-21*



1. INTRODUCTION

Anxiety is an emotion that may have been around before the rise of man. It is an essential clinical focus because of its prevalence in humans and its occurrence in a variety of anxiety disorders. In recent years, advances in the study of anxiety disorders have been made in the fields of neurology, epidemiology, and psychobiology. Patients with these diseases now have reasonable expectations for symptom alleviation and functional improvement thanks to advances in medication and psychotherapy.

1.1 ANXIETY SYMPTOMS

- **Mood symptoms:** Anxiety, tension, panic, and apprehension are the most common mood symptoms in anxiety disorders. Anxiety causes a sense of impending dread and calamity in those who suffer from it. Depression and irritability are two common anxiety-related secondary mood disorders.
- **Symptoms of the mind:** The doom-and-doom scenarios that the individual anticipates are the focus of cognitive symptoms in anxiety disorders. Because the individual's attention is drawn to possible disasters, he or she overlooks the genuine issues at hand, becoming inattentive and distractible as a result. As a result, the person frequently fails to work or study successfully, which can exacerbate his or her anxiousness.
- **Physical symptoms:** There are two types of physical symptoms associated with anxiety. Sweating, dry mouth, shallow breathing, quick pulse, raised blood pressure, throbbing sensations in the head, and feelings of muscular tension are among the first group of symptoms. A high level of arousal in the autonomic nervous system causes these symptoms.
- **Motor symptoms:** Anxious people often exhibit restlessness, fidgeting, useless motor activity like toe tapping, and excessive startle responses to startling noises due to their high arousal levels.



1.2 TYPES OF ANXIETY DISORDERS

Several Types of Anxiety disorders, including:

Generalized Anxiety Disorder (GAD): Even if there is nothing to elicit these sensations, GAD can cause you to experience a heightened sense of anxiety and stress. Most days, you may be preoccupied with a variety of issues, such as your health, your job, your studies, or your personal connections. Worry may seem to be a never-ending cycle for you. Restlessness, difficulty concentrating, and difficulty sleeping are all physical signs of GAD.

Panic Disorder: It's a state of intense fear, accompanied with severe bodily symptoms, that occurs suddenly and without any obvious cause. One of the scariest things about panic attacks is how quickly they may come on. When you experience a panic attack, you may believe that you are losing control, experiencing a heart attack, or perhaps about to die.

Phobias: It's an intense fear of certain situations or objects. Some of these fears may make sense such as a fear of snakes, height etc.

Separation Anxiety: The majority of people who suffer from this ailment are youngsters or teenagers who fear being away from their parents. Fears of harm or non-compliance with promises are common in children with separation anxiety. Preschoolers are notorious for this. Even individuals who have experienced a severe event may develop separation anxiety disorder.

2. OBJECTIVES OF THE RESEARCH

To find out how common depression, anxiety, and stress are among engineering students in a top engineering college.

To investigate the relationship between several factors linked to depression, anxiety, and stress in engineering students at a Central Indian tertiary care teaching hospital.

3. MATERIALS AND METHODS

Study design

The study design used in this study was cross-sectional study. This study was done at an Engineering College. Engineering students of a college are asked to take part in this study and they proactively took part in it.



Sample size

In this study, 180 engineering students were asked to fill out a questionnaire called the DASS-21. Out of these, 176 people filled out their questionnaires completely. Four questionnaires were sent in that were not filled out completely, so they were not included in the analysis. There were 176 out of 180 people who took part in the study.

Mode of selection

Inclusion criteria

One hundred and eighty nursing Engineering students studying at a the top engineering college, Bhopal.

Exclusion criteria

- Individuals who deny participation in the study
- Individuals who do not fill the administered questionnaire or submit an incompletely filled questionnaire.

Data collection procedure

In order to get information about depression and anxiety disorders, the DASS-21 questionnaire, a 21-item self-reported questionnaire, was given to all of the people who took part in the study in English.

Depression, Anxiety, and Stress Scale-21 questionnaire

Originally DASS consisted of 42 items, and later this 42-item DASS of Lovibond was modified into a shorter 21-item version. Previously published studies have confirmed its reliability and validity worldwide, all showing the DASS-21 is a well-established instrument to measure symptoms of depression, anxiety, and stress in both clinical and nonclinical samples of adults.

Plan of analysis

IBM SPSS Statistics software (Ref: IBM Corp. Released 2017) was used to analyse the data. Version 25.0 of IBM SPSS Statistics for Windows (IBM Corp., Armonk, NY, USA). Frequency and percentage were used to summarise categorical variables. The mean and standard deviation, or median and interquartile range, were used to summarize numerical variables. The DASS-21 was scored according to established recommendations, and the severity of the depression, anxiety, and stress components was determined using suggested cutoffs. Two categories were created based on the



DASS-21 score: symptoms present or absent. It was accomplished by categorizing severity ratings as normal to mild in one group and moderate to severe in the other. To find drivers of the severity of anxiety, sadness, and stress symptoms, researchers used binomial regression analysis.

4. RESULTS

In our study, 180 questionnaires were distributed, and after deleting incompletely filled questionnaires, the final number of participants was 176. As a result, our study had a response rate of 97.77 percent. Our participants' average age was 20.62 years, with a standard deviation of 1.46 years. [Table-1] shows that all of the participants (n = 176) were female.

TABLE 1 SOCIO DEMOGRAPHIC CHARACTERISTICS

	Frequency, <i>n</i> (%)
Gender	
Male	0
Female	176 (100)
Religion	
Hindu	122 (69.32)
Muslim	5 (2.84)
Sikh	5 (2.84)
Christian	40 (22.73)
Others	4 (2.27)
Category	
General	57 (32.4)
OBCs	60 (34.1)
SC	38 (21.6)
ST	21 (11.9)

ST: Scheduled tribes, SC: Scheduled castes, OBCs: Other backward categories

Out of a total of 176 pupils, 122 (69.32 percent) were Hindus, 5 (2.84 percent) were Muslims, 5 (2.84 percent) were Sikhs, 40 (22.73 percent) were Christians, and 4 (2.27 percent) were Buddhists or Jainists (n = 176) [Table-1]. Out of a total of 176 participants, 57 (32.40%) were from the general category, 60 (34.1%) were from other backward classes, 38 (21.6%) were from scheduled castes, and 21 (11.9%) were from scheduled tribes (n = 176) [Table-1]. We collected data on participants' depressed, anxiety, and stress symptoms using the DASS-21 questionnaire. The maximum achievable score in each of the three categories is 42. Patients are divided into normal, mild, moderate, severe, and extremely severe categories depending on their score out of 42. When data on depressive



symptoms was analysed, 53.4 percent (n = 94) of the subjects were found to be normal. Mild depression was prevalent in 12.5 percent of individuals (n = 22), moderate depression in 23.9 percent (n = 42), severe depression in 6.8 percent (n = 12), and extremely severe depression in 3.4 percent (n = 6) [Table-2].

Table 2 Based on Depression, Anxiety, and Stress Scale 21 scores, the prevalence of depression, anxiety, and stress symptoms.

Severity	Depression Score N (%)	Anxiety Score, n(%)	Stress Score, n(%)
Normal	94 (53.4)	49 (27.8)	115 (65.3)
Mild	22 (12.5)	18 (10.2)	30 (17.0)
Moderate	42 (23.9)	49 (27.8)	16 (9.1)
Severe	12 (6.8)	26 (14.8)	11 (6.3)
Extremely Severe	6 (3.4)	34 (19.3)	4 (2.3)

When data on anxiety symptoms was analyzed, 27.8% (n = 49) of subjects were found to be normal. Mild anxiety was seen in 10.2 percent of participants (n = 18), moderate anxiety in 27.8 percent (n = 49), severe anxiety in 14.8 percent (n = 26), and extremely severe anxiety symptoms in 19.3 percent (n = 34). [Table-2].

When data on stress symptoms was analyzed, 65.3 percent of subjects (n = 115) were found to be normal. Mild stress was seen in 17.0 percent (n = 30), moderate stress in 9.1 percent (n = 16), severe stress in 6.3 percent (n = 11), and extremely severe stress symptoms in 2.3 percent (n = 04) of subjects. [Table-2].

5. DISCUSSION

Our study found 34.1 % of undergraduate nursing students had moderate-to-severe depressive symptoms, which matches earlier findings. If mild depression is included, the prevalence climbs to 46.6%. In a study by Basu et al., depression symptoms were found in 33.33 % of undergraduate nursing students in Kolkata. Similarly, Manpreet and Maheshwari found 38% of postgraduate nursing



students to be depressed. Anxiety was found to be 63.3 percent prevalent, depression 56.05 %, and stress symptoms 36.17 percent in a cross-sectional study by Kishore et al. among nurses working in a tertiary care hospital in South India. In a similar study, Kadappuran found that 53.6 % of nursing students in Kerala had moderate depression, 37.9% had moderate anxiety, and 46.4 % had moderate stress. . Our study found a 34.7 percent prevalence of stress symptoms. 17.7% of pupils had moderate to severe stress symptoms. The pupils were divided into two categories based on their DASS scores: normal to mild symptoms, and moderate, severe, and extremely severe symptoms. The degree of depressed, anxiety, and stress symptoms were assessed in relation to risk factors such as friend and family support, academic pressure, study satisfaction, and perceived adequacy of study resources. In our study, the most important component connected with depression and stress was good interpersonal ties within the family.

6. CONCLUSION

According to the findings of our study, the prevalence of depression, anxiety, and stress symptoms among nursing students is frighteningly high, particularly among female nursing students. We discovered that the absence of strong family relationships and the absence of friend support were the two most significant risk variables related with depression, anxiety, and stress in our study. Considering that nursing students are critical pillars in the future of our country's health care system, considerable actions must be taken at both the institutional and policy levels to protect and improve their mental health.

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