

## LEVELS OF STRESS, ANXIETY, DEPRESSION AND SELF-ESTEEM AMONG FEMALE NURSING STUDENTS AT A PUBLIC SECTOR NURSING COLLEGE IN PESHAWAR

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### ABSTRACT

**Objective:** To assess the levels of stress, anxiety, depression and self-esteem among female undergraduate nursing students.

**Subjects and Methods:** A total of one hundred (n=100), female nursing students from semester 1 and 3, BSN program, were included in this study. A self-administered Depression, Anxiety and Stress Scale 21 (DASS-21), and Rosenberg self-esteem scales were used for data collection.

**Results:** Out of hundred female nursing students, eighty-five were from semester 1, and fifteen were from semester 3, and majority of participants were in age group 18-22. Prevalence of stress, anxiety and depression, including mild, moderate and severe categories was found to be 93%, 95%, and 81% respectively. The level of self-esteem, however, was found with in normal range in majority (91.6%) of participants.

**Conclusion:** In the current study overall prevalence of stress, anxiety and depression is high among female student nurses which can be a potential impediment in their academic and clinical learning.

**Key Words:** Stress, Anxiety, Depression, Self-esteem, Nursing students, Female nursing Students

### INTRODUCTION

Mental health issues among university students is a global public health concern, and features of depression, anxiety and stress are frequently reported among these students, influencing their quality of life and academic achievements (1). Many research studies have reported that compared to the general population of their age group, university students are more vulnerable for mental health problems due to their developmental stage, exposure to new environment, intensity of educational programs and parental or academic expectation (2). In

addition to the challenges faced by other university students, nursing students have to deal with some extra issues specific to their educational and training needs in the field of nursing. There are many studies in the existing literature revealing that depression, anxiety and stress were common concerns in nursing students in various regions of the world (3). A literature review and meta-analysis by Tung et al. in 2018, reported the prevalence of depression among nursing students to be 34.0% whereas, in the general population of the same age group, it was reported to be 4.7% (4). Nursing is a caring profession that involve empathetic human

interaction, therefore, the higher level of anxiety, depression and stress experienced by nursing students can have negative influence on their physical and mental health. In addition, it may also negatively influence their academic and practical learning and the quality of care they render to their clients (5). Promotion and maintenance of the mental health and well-being of the future nurses is a crucial dimension of nursing education and it will have a great influence on their professional turnover and job satisfaction, in future (6).

Although various studies have assessed the levels of stress, anxiety and depression in registered nurses, scarcity of literature is noticed on the topic among nursing students. This study was therefore, conducted to fill this knowledge gap, by assessing the levels of anxiety, stress, depression and self-esteem among nursing students.

### Methods

This cross-sectional study was conducted at Khyber Teaching Hospital, college of nursing, in Peshawar, from May to June, 2024. A total of 100 female undergraduate nursing students from semester 1 and 3 were included in the study, after securing their informed consent. Out of one hundred nursing students, fifteen were from year 1, semester 1 and eighty five students were from year 2, semester 3. The Depression, Anxiety and Stress Scale 21 (DASS-21), an adopted self-reported questionnaire was used for data collection (7). The DASS 21 is a 4 points likert, standard screening tool used to assess features of depression, anxiety, and stress, worldwide. This tool comprises, as a whole, of 21 items divided into

three sub-parts of 7 items each, used for measurement of stress, anxiety and depression respectively. The Cronbach's alpha scores for depression, anxiety and stress scales were reported to be 0.82, 0.78 and 0.7 respectively, by the researcher. The Rosenberg Self-esteem Scale (RSE), was used for data collection on self-esteem. The RSE is a four points likert scale comprising of ten items. The cronbach's alpha for the scale is reported to be 0.709. Demographic information including age, marital status, year and semester of study, district of domicile, history of academic failure, family history of mental disorders and current residency were gathered, using a separate Proforma. Data were entered into computer program SPSS version 16 for analysis. Descriptive statistics like frequencies, percentages, means and standard deviations were used for data analysis.

### Results

A total of one hundred female nursing students participated in this study. Most of the participants (94%) belonged to age group 18-22 years, whereas, 6% of participants fall between 23-26 years. Similarly, majority (85%) of participants were from year 2, semester 3 and few (15%) were from year one semester 1. 93% of the participants were un-married and 7% did not respond to the question related to marital status. 63% of the participants were living in hostel, whereas, 33% were living with their families. Only 22% of the participants reported academic failure and only 4% of reported a family member suffering from mental health disorders. Table 1 shows demographic characteristics of the study participants.

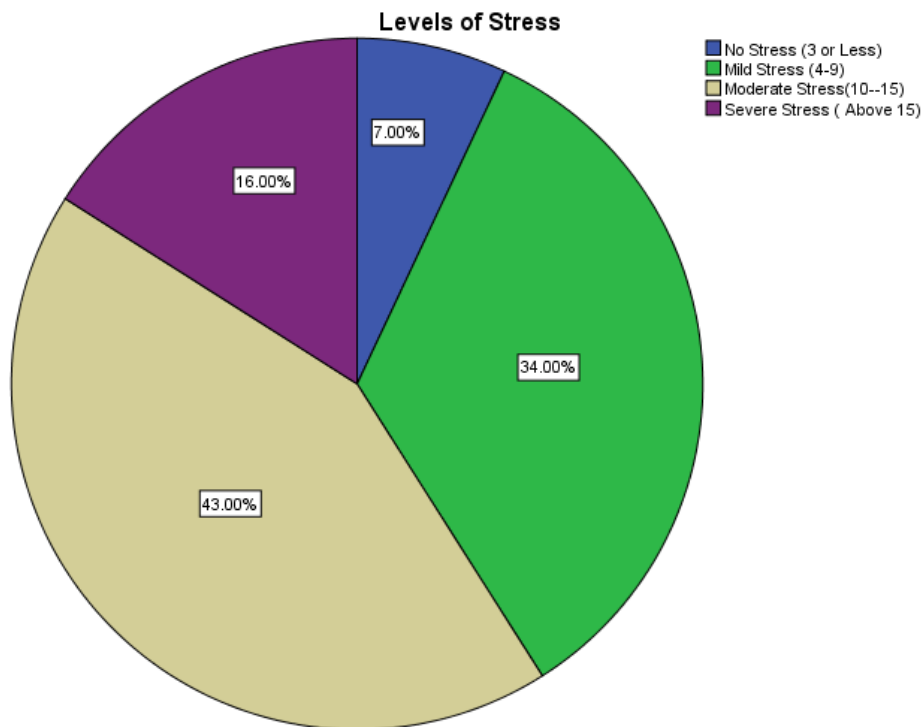
**Table 1: Demographic characteristics of the participants.**

Characteristic	No. of participants	Percentage
<b>Age Groups</b>		
1. 18-22 years	94	94%
2. 23-26 years	06	06%
3. Above 26 years	0	0%
<b>Year and Semester of study</b>		
1. Year 1, Semester 1	15	15%
2. Year 2, Semester 3	85	85%
<b>Marital Status</b>		

1.	Single	93	93%
2.	Missing Answers	7	7%
<b>Residence</b>			
1.	Hostel	63	63%
2.	Family	33	33%
3.	Missing Answers	04	04%
<b>Academic Failure</b>			
1.	Yes	22	22%
2.	No	71	71%
3.	Missing Answers	07	07%
<b>Family history of mental health problems</b>			
1.	Yes	04	04%
2.	No	85	85%
3.	Missing Answers	11	11%

The prevalence of stress was common among the study participants. The mean score of stress was 21.1 with standard deviation of 10.028. Majority of the participants (43%) were found to be experiencing moderate level of stress followed by

34% with mild level of stress. Similarly, 16% of the participants reported to be suffering from severe stress and only 7% reported to be free from stress. Figure 1 shows the level of stress among participants.



**Figure 1: Levels of stress among participants.**

Regarding prevalence of anxiety, the mean score was 19.36 with standard deviation of 8.6. 11% of the participants reported sever anxiety, and 34% of the participants reported moderate anxiety levels. The mild level of anxiety was reported by

majority (50%) of the participants, whereas, only 5% of the participants were found to be free from anxiety. Figure 2 shows different levels of anxiety among participants.

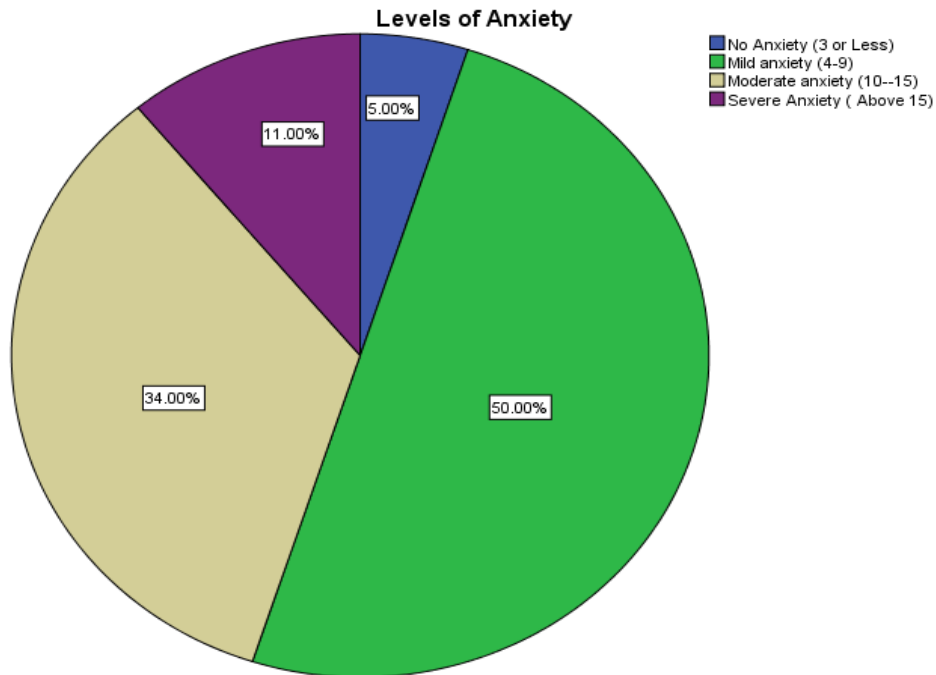


Figure 2: Levels of anxiety among participants.

Depression emerged as a very common mental health issue among the participants as 81% of the participants were found to be suffering from different levels of depression. Majority of the participants (43%) were suffering from mild depression, followed by moderated level of depression exhibited by 35% of participants. In

addition, 4% of the study participants were suffering from severe depression and 19% were found to be free from features of depression. The mean score for depression among participants was 16.32 with standard deviation of 8.204. Figure 3 depicts the levels of depression among participants.

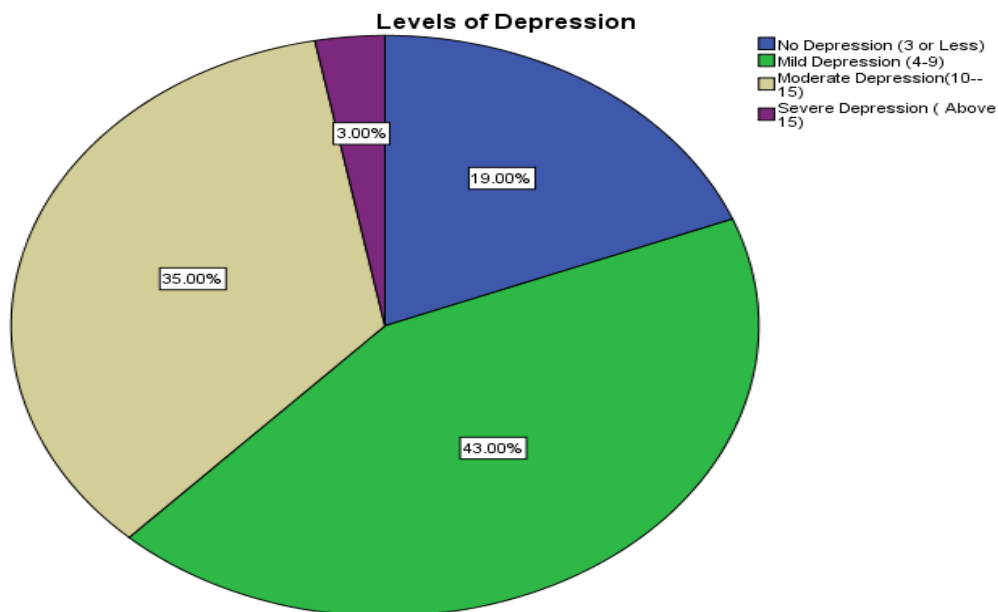


Figure 3: Levels of depression among study participants.

### Self-esteem

The level of self-esteem was found to be within normal range in majority (91.6%) of the participants. Only four (5.6%) of the participants

reported low self-esteem and two (2.8%) reported high self-esteem. The mean score for self-esteem reported was 20.24 with SD+3.405. See figure 4 for the level of self-esteem of the participants.



Figure 4: Level of Self-esteem among participants.

### Discussion

The current study was aimed to assess the level of stress, anxiety, depression and self-esteem among female nursing students. The findings of this study shed light on various potential areas for intervention, support and improvement with in the nursing education, by providing valuable insights in to the mental health and well-being of nursing students.

High prevalence of stress (93%) among female nursing students is one of the important findings of the current study. In this study 93% of the participants reported to be suffering from features of stress ranging from mild to moderate and severe

levels. The mean score of stress in this study is 21.1 with SD ±10.028. This finding is in line with existing literature, which reports an increased level of stress among nursing students due to various factors including elevated academic workload, clinical rotations and responsibility of caring for patients with complex nature of diseases (8). The findings of the current study is closer to a study from Sri Lanka which reported the mean score of stress among undergraduate nursing students to be 18.9 with SD ±10.0 (9). In contrast, another study from India, reported prevalence of stress, anxiety and depression among nursing students to be 55.2%, 60.2% and 57.7% respectively, which

are lower in terms of percentages, compared to the findings of the current study (10). Such elevated level of stress may have devastating effects on the academic achievements and psychological health of nursing students suggesting the need for exclusive interventions to help them effectively cope with these various stressors.

Another important aspect assessed in the current study was level of anxiety, in nursing students. The prevalence of mild to moderate levels of anxiety in participants of this study was 50%, which is a remarkable finding of the current study. The mean score for level of anxiety is 19.36 with SD  $\pm 8.6$ . This finding of the current study is also consistent with the existing literature where nursing students reportedly exhibited nearly the same level of anxiety. A study from Israel, reported the prevalence of anxiety of moderate to severe levels in nursing students to be 42.8% and 13.1%, respectively (11). In contrast, another study from Mardan, Khyberpukhtunkhwa, Pakistan, reported a low prevalence of anxiety among nursing students, reporting 32.3% students with mild to moderate levels of anxiety (12).

Assessment of level of depression was also an integral part of the current study. The findings of current study revealed that in total 82% of the participants were experiencing mild, moderate and severe levels of depression. The percentage of participants having mild, moderate and severe levels of depression were 43%, 35% and 4% respectively. Various studies from multiple sites have reported different levels of depression in nursing students. A systematic review and meta-analysis by Tung et al. reported prevalence of depression among nursing students to be 34.0%, which is very low compared to the current study (4). In addition, another study from Cameroon, reported a rise in prevalence of depression (69.57%), but still low compared to findings of the current study (13).

### Conclusion

Stress, anxiety and depression are frequently reported mental health disorders among adolescent university students in general and the nursing students in particular. These problems not only, badly affect physical and mental wellbeing of

the nursing students but also jeopardize their theoretical and practical learning. Achievement of the desired patient outcomes and patients safety are closely tied to physical and mental health and academic and practical learning of the nursing students. The current study revealed very high prevalence of stress, anxiety and depression among nursing students. Effective measures may be adopted to address this serious issue on priority basis.

### Ethical Considerations

Informed consent was secured from study participants. Risks and benefits related to participation in the study were explained. Anonymity and confidentiality of participants were ensured. Right of withdrawal from the study without any repercussions vested in the participants, all the times.

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