

Prevalence of Depression, Anxiety and Stress among University Students: A Cross-Sectional Study

Jaspreet Singh¹, Ritika Verma², Gurbinder Kaur³, Jasvir Kaur⁴, Sandeep Singh⁵

^{1,3}Assistant Professor, Department of Physiotherapy, RIMT University, Mandi Gobindgarh, Punjab, India

²BPT Student, Department of Physiotherapy, RIMT University, Mandi Gobindgarh, Punjab, India

⁴Assistant Professor, Department of Nursing, RIMT University, Mandi Gobindgarh, Punjab, India

⁵Associate Professor, Department of Nursing, RIMT University, Mandi Gobindgarh, Punjab, India

ABSTRACT

Introduction: Mental health disorders are one of the leading causes of disability followed by depression disorder. The main objective of the present study was to evaluate the prevalence of Depression, anxiety and stress among university students.

Methods: This study was conducted among 200 students from various departments of RIMT University between the age group of 18 to 25 (67 male and 133 female). Depression Anxiety Stress Scale - Short Form (DASS-21) was used to measure the level of depression, anxiety and stress.

Results: It was observed that there is more anxiety among female students (79.70%) as compared to male students (68.66%). The findings suggested that there is more depression among female students (75.19%) as compared to male students (62.69%). It was observed that there is more stress among female students (51.88%) as compared to male students (28.36%). Overall female students are more affected than male students according to scores of DASS-21 sub-scale.

Conclusion: The present study concludes that there is more prevalence of depression, anxiety and stress among both among male and female students. Hence, Teachers and parents need to be more aware of the multiple issues leading to stress among students to learn ways to handle and guide students.

KEYWORDS: *depression, anxiety, stress, students*

INTRODUCTION

Mental health is an integral part of health and well-being. According to the World Health Organization (WHO), mental health is “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community (Bhugra, 2013). It is well documented that healthcare university students experience a higher level of stress than their university peers (Dyrbye, 2006). Anxiety/depression symptoms/disorders in adolescents result in significant impairment in social and academic functioning; produces a substantial distress for both students and family (Lyneham, 2005). If, not treated, these symptoms tend to persist, and increase the risk for medical illnesses and various psychiatric disorders

particularly depression and substance abuse (Woodward L, 2001). Harmful consequences of depression anxiety and stress include: sleep deprivation, lack of concentration, impaired attention & decision-making capability, poor academics & performance of clinical duties, low tolerance levels, conflict with self & others, drop out from the course, substance abuse, welcoming of other non-communicable diseases, reduced productivity in future (Melaku L, 2015). As college students are subjected to various stressors such as academic, social or time management problems, it is necessary for the educators and mental health providers to have interventions to reduce anxiety and improve the quality of mental health education (Vitaliano PP, 1984).

How to cite this paper: Jaspreet Singh | Ritika Verma | Gurbinder Kaur | Jasvir Kaur | Sandeep Singh "Prevalence of Depression, Anxiety and Stress among University Students: A Cross-Sectional Study" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-8 | Issue-3, June 2024, pp.829-832, URL: www.ijtsrd.com/papers/ijtsrd65011.pdf



Copyright © 2024 by author (s) and International Journal of Trend in Scientific Research and Development Journal. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0) (<http://creativecommons.org/licenses/by/4.0>)



Material and Methods

A cross sectional study was conducted for period of 4 months i.e. January 2024 to April 2024 at RIMT University. Before the commencement of study, a voluntary online consent was received from each subject who took part in this study. The convenient Random sampling technique was used to select the participants for the study. Total 200 students from various departments between the age group of 18 to 25 (67 male and 133 female) are included in the study. Depression Anxiety Stress Scale - Short Form (DASS-21) was used to assess depression, anxiety and stress among university students. Scores are summed for each scale (D = Depression, A = Anxiety, S = Stress) and the total for each scale multiplied by 2.

Interpreting (DASS-21) scores	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-19
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely severe	28+	20+	34+

Reference: Adapted from: Lovibond SH, & Lovibond PF. (1995). *Manual for the Depression Anxiety Stress Scales (2nd. ed)*. Sydney, Australia: Psychology Foundation.

RESULTS:

The data was entered into Microsoft Excel and using SPSS for analysis.

Distribution of subjects according to mean and standard deviation scores of DASS-21 sub-scale.

DASS-21 sub-scale	Male students (N = 67)	Female students (N = 133)
	Mean ± Standard deviation	Mean ± Standard deviation
Depression	12.20 ± 8.36	15.08 ± 9.07
Anxiety	12.02 ± 8.55	14.36 ± 8.66
Stress	11.67 ± 7.85	15.45 ± 9.23

Table 1. shows distribution of subjects according to mean and standard deviation scores of DASS-21 sub-scale.

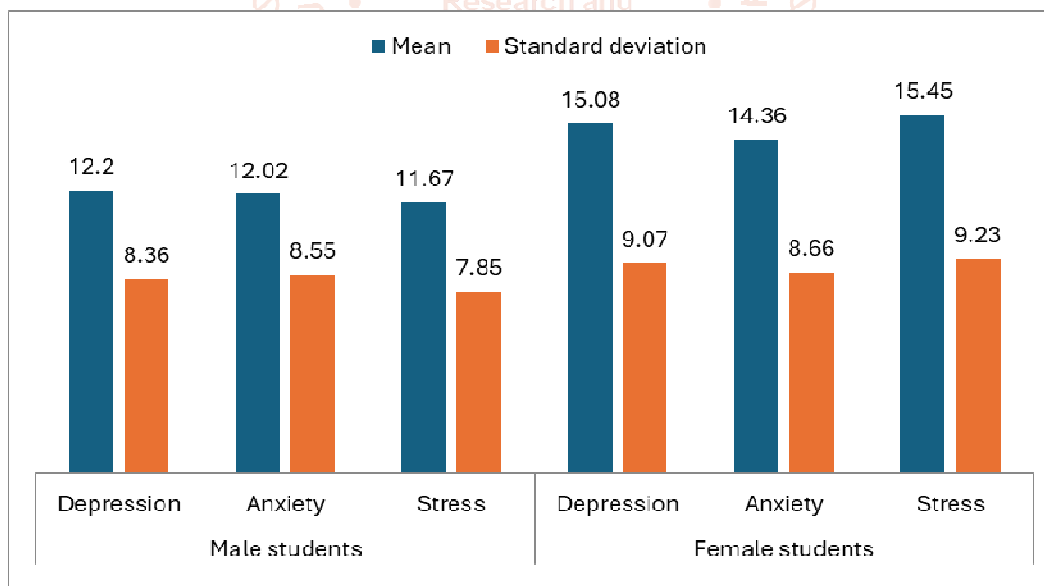


Figure 1: Mean and standard deviation scores of DASS-21 sub-scale.

Distribution of subjects according to frequency in weighted percentages of DASS-21 sub-scale.

DASS-21 sub-scale	Male students (N = 67)			Female students (N = 133)		
	Depression	Anxiety	Stress	Depression	Anxiety	Stress
Normal	(25) 37.31%	(21) 31.34%	(48) 71.64%	(33) 24.81%	(27) 20.30%	(64) 48.12%
Mild	(11) 16.41%	(6) 8.95%	(9) 13.43%	(24) 18.04%	(9) 6.76%	(23) 17.29%
Moderate	(23) 34.32%	(25) 37.31%	(5) 7.46%	(43) 32.33%	(42) 31.57%	(27) 20.30%
Severe	(4) 5.97%	(2) 2.98%	(5) 7.46%	(20) 15.03%	(20) 15.03%	(12) 9.02%
Extremely Severe	(4) 5.97%	(13) 19.40%	(0) 0 %	(13) 9.77%	(35) 26.31%	(7) 5.26%

Table 2. shows distribution of subjects having more anxiety among female students (79.70%) as compared to male students (68.66%). The findings suggested that there is more depression among female students (75.19%) as compared to male students (62.69%). It was observed that there is more stress among female students (51.88%) as compared to male students (28.36%). Overall female students are more affected than male students according to scores of DASS-21 sub-scale.

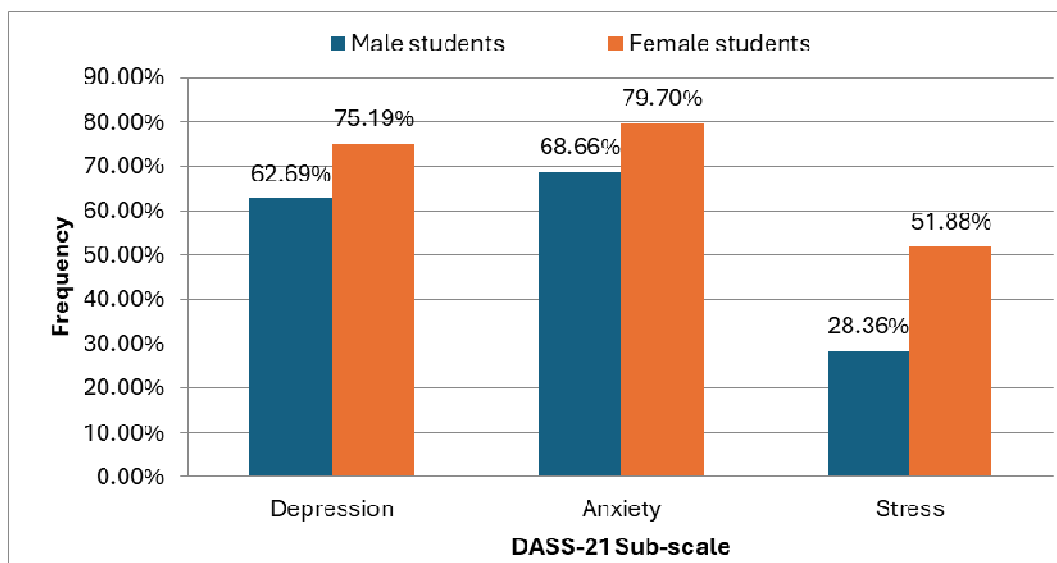


Figure 2: Prevalence ratio of (Depression, Anxiety and stress) DASS-21 sub-scale.

DISCUSSION:

Total 67 male subjects with mean age group of 20.58 ± 1.78 and 133 female subjects with mean age group of 20.30 ± 1.72 were included in the study. According to height of subjects, the mean height of male subjects was 5 feet. 59 inches ± 0.31 and mean height of female subjects was 5 feet. 32 inches ± 0.26 . According to weight of subjects, the mean weight of male subjects was $64.17 \text{ kg} \pm 10.68$ and mean weight of female subjects was $52.21 \text{ kg} \pm 9.28$. According to department of subjects, 23.88% male subjects and 24.81% female subjects were from Physiotherapy department, 17.91% male subjects and 23.30% female subjects were from Bsc. OTAT department, 19.40% male subjects and 17.29% female subjects were from Radiology department, 20.89% male subjects and 20.30% female subjects were from B. Pharmacy department, 17.91% male subjects and 14.28% female subjects were from BMLT department. According to degree of the study population it was found that 95.52% male subjects and 95.48% female subjects were from Bachelor degree. Only 4.47% male subjects and 4.51% female subjects were from Master degree. It was observed that 31.34% male subjects and 26.31% female subjects were from 1st year, 38.80% male subjects and 32.33% female subjects were from 2nd year, 4.47% male subjects and 16.54% female subjects were from 3rd year, 25.37% male subjects and 24.81% female subjects were from 4th year.

According to Mother's profession of the study population it was observed that Majority of mothers

of the male subjects (91.04%) and female subjects (81.20%) were Housewife. Only 8.95% male subjects and 18.79% female subject's mothers were found to be as working women. It was observed that according to education of mother and father, father was found to be more educated as compared to mother. According to father's profession it was observed that 52.23% male subjects and 59.39% female subjects father was doing job and 37.31% male subjects and 33.08% female subjects father was Businessman.

Prevalence of Depression, Anxiety and Stress among University students.

Prevalence of Depression, Anxiety and Stress among students of RIMT University was assessed by means of demographic details and (DASS-21) Questionnaire –Student Survey. According to distribution of subjects, mean and standard deviation scores of DASS-21 sub scale depression is (12.20 ± 8.36) in males and (15.08 ± 9.07) in females. Mean and standard deviation scores of DASS-21 sub scale anxiety is (12.02 ± 8.55) in males and (14.36 ± 8.66) in females. Mean and standard deviation scores of DASS-21 sub scale stress is (11.67 ± 7.85) in males and (15.45 ± 9.23) in females. According to distribution of subjects there is more anxiety among female students (79.70%) as compared to male students (68.66%). The findings suggested that there is more depression among female students (75.19%) as compared to male students (62.69%). It was observed that there is more stress among female students (51.88%) as compared to male students (28.36%). Thus, the study concluded that female

students are more affected than male students according to scores of DASS-21. Rina Tripathi et al in 2022 observed that overall DAS scores (mild to extremely severe), for the whole population of healthcare students put together, indicate that anxiety (78.6%) was the most common psychological condition, followed by depression (72.1%) and then stress (61.5%). Furthermore, the depression and anxiety levels were significantly higher in females than male participants, while stress levels among the two genders did not differ significantly. More female respondents (75%) suffer from depression, with 36.3% in the severe to extremely severe range, while a relatively smaller proportion (53.8%) of males had depression, and only 16.9% fall in the severe to extremely severe category. Also, anxiety is observed in 80.6% of the female population compared to that in the male population (66.2%), and severe to extremely severe anxiety existed in 49% of the females compared to males (18.5%).

CONCLUSION:

Following conclusions are drawn from the findings of the current study.

1. This study concludes that there is more anxiety among female students (79.70%) as compared to male students (68.66%) according to Depression, Anxiety and Stress Scale (DASS-21).
2. According to Depression, Anxiety and Stress Scale (DASS-21) the findings suggested that there is more depression among female students (75.19%) as compared to male students (62.69%).
3. It was observed that there is more stress among female students (51.88%) as compared to male students (28.36%) according to Depression, Anxiety and Stress Scale (DASS-21).

Thus the present study concludes that there is more prevalence of depression, anxiety and stress among both among male and female students. Hence, Teachers and parents need to be more aware of the multiple issues leading to stress among students to learn ways to handle and guide students.

Acknowledgements

The researchers acknowledgements given to all the study participants, of RIMT University for their

support from the beginning to the end of research process.

Ethical issues:

None to be declared.

Conflict of Interest:

The authors declare no conflict of interest in this study.

References:

- [1] Bhugra DA, Till, Sartorius N., 2013. What is mental health? *Int J Soc Psychiatry*; 59(1): 3–4.
- [2] Dyrbye LN, Thomas MR, Shanafelt TD., 2006. Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. *Acad Med*; 81(4): 354–73.
- [3] Lyneham HJ, Rapee RM., 2005. Evaluation and treatment of anxiety disorders in the general pediatric population: a clinician's guide. *Child Adolesc Psychiatry Clin N Am*; 14: 845–61.
- [4] Woodward L, Fergusson D., 2001. Life course outcomes of young people with anxiety disorders in adolescence. *J Am Acad Child Adolesc Psychiatry*; 40:1086–93.
- [5] Melaku L, Mossie A, Negash A., 2015. Stress among Medical Students and Its Association with Substance Use and Academic Performance. *Journal of Biomedical Education*; 10:11-55.
- [6] Vitaliano PP, Russo J, Carr JE &Heerwagen JH., 1984. Medical school pressures and their relationship to anxiety. *J NervMent Dis*;172(12): 730-6.
- [7] Lovibond SH, &Lovibond PF. (1995). *Manual for the Depression Anxiety Stress Scales (2nd. ed)*. Sydney, Australia: Psychology Foundation.
- [8] Schwenk T, Davis L, Wimsatt L., 2010. Depression, Stigma, and Suicidal Ideation in Medical Students. *JAMA*; 304(11):1181-6.
- [9] Sharif F, Armitage P., 2004. The effect of psychological and educational counselling in reducing anxiety in nursing students. *J PsychiatrMent Health Nurs*;11:386-92.