

Prevalence of generalized anxiety disorder among students of doctor of physical therapy

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Objective: To investigate the prevalence of generalized anxiety disorder (GAD) among students of Doctor of Physical Therapy.

Methodology: This cross-sectional study enrolled 188 participants from four different Medical Universities of Lahore Pakistan. Participants were asked to fill the GAD-7 Questionnaire.

Results: Out of 188 participants, 107 were female and 81 male. Mean age was 23.33 ± 1.12 years. We found 46.8% had GAD. Those with GAD, more were females (29.26%) compared to the males

(17.55%). Severity of GAD was found as; 16% had mild, 21.8% had moderate and 8.5% had severe GAD. However, 10.64% females had mild GAD, 13.83% had moderate GAD and 4.79% had severe GAD. While 5.32% males were presented with mild, 7.98% with moderate and 3.72% with severe GAD.

Conclusion: Prevalence of GAD in DPT students was found to be 46.8 %. Female students suffered more from GAD. (Rawal Med J 202;46:423-425).

Keywords: Anxiety disorder, academic stresses, DPT.

INTRODUCTION

Anxiety is an emotional state that includes feelings of apprehension, tension and nervousness.¹ Students are at high risk due to multiple academic stresses.^{2,3} Academic assignment and patient's care during their training is stressful.⁴ Higher level of stress may negatively affect the physical, mental and emotional health of students.^{5,6}

Eating disorder is also common in medical students which may also lead to high risk of development of mental health problems.⁷ Factors associated with poor mental health may include serious thoughts of dropping out from medical college, prolonged working and study hours, overburdened learning environment, poor sleep cycle and substance abuse.⁸ These stresses could affect their academic performance and patient care.⁹ This study provides us information regarding GAD in students of doctor of physiotherapy.

METHODOLOGY

This cross sectional study collected data from four different Medical Universities and colleges of Lahore, Pakistan. It enrolled 188 participants using the incidence of anxiety disorder among females to be 50%, level of confidence 90% and

absolute precision 0.06.¹⁰ Non probability convenient sampling was used. Inclusion criteria were final year DPT students of age range between 20-26 years. Exclusion criteria were athlete students and those who were doing part time job. Informed consent was taken from all the participants.

After taking demographic information, all the participants were asked to fill the GAD-7 questionnaire, which has shown 89% sensitivity and 82% specificity.¹¹ Severity of the GAD was categorized as mild, moderate and severe with score of equal to or more than 5, 10 and 15 respectively.¹²

Statistical Analysis: Statistical analysis was performed using SPSS version 21.

RESULTS

Out of 188 participants, 107 were female and 81 male. Mean age was 23.33 ± 1.12 years. Out of 188 students, 88(46.8 %) were suffering from GAD (Table 1). Five participants were found to have hypertension. Females with GAD were 29.26% where as 17.55% males had GAD. Participants showed mild, moderate and severe GAD with the percentages of 16%, 21.8% and 8.5%, respectively (Table 2).

Table 1. GAD in relation to gender.

	Frequency	Percent
Negative	100	53.2
Positive	88	46.8
Gender	GAD	
	Negative	Positive
Male	48	33
Female	52	55

Table 2. Severity of anxiety.

Severity	Number	%
Mild	30	16.0
Moderate	41	21.8
Severe	16	8.5

We found that 10.64% females had mild GAD, 13.83% moderate and 4.79% had severe GAD. In males, 5.32% had mild, 7.98% moderate and 3.72% severe GAD.

DISCUSSION

Although previous studies were conducted to find the prevalence of GAD among students and general population but the present study focused on students of Doctor of Physical therapy. The associated factors that may increase depression and anxiety include female gender, distant university or college location, tuition scholarship by winning good grades etc.¹³ High rates of psychological distress were experienced by those medical students who had insufficient income and were female.³ A study from Nepal found high prevalence of GAD and poor mental health.¹⁴

A cross sectional study found higher level of stress and depression in students but lower level of anxiety.³ The results of our study revealed that students suffer more from GAD during the final year of their education, more so in females. A study reported 16.3% prevalence of anxiety.¹⁵ In this study, the prevalence was higher than in the previous studies.

A study on pharmacy students reported reduction in anxiety and improvement in self-efficacy with exposure to academic support and other academic activities.¹⁶ We recommend that further studies should be conducted to find the main cause of GAD in students. Limitations of study include shortage of

time to collect data from different universities and study was limited to city of Lahore.

CONCLUSION

Students of Doctor of physical therapy (DPT) had GAD in 46.8%. Study also revealed that female students suffer more than male students from GAD.

Author Contributions

Conception and design: Asthma Abbas
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REFERENCES

1. Spielberger CD. State-Trait anxiety inventory: Wiley Online Library; 2010.
2. Farrer LM, Gulliver A, Bennett K, Fassnacht DB, Griffiths KM. Demographic and psychosocial predictors of major depression and generalised anxiety disorder in Australian university students. *BMC Psychiatry* 2016;16:241-4.
3. Al Saadi T, Addeen SZ, Turk T, Abbas F, Alkhatib M. Psychological distress among medical students in conflicts: a cross-sectional study from Syria. *BMC Med Educ* 2017;17:173-5.
4. Ghodasara SL, Davidson MA, Reich MS, Savoie CV, Rodgers SM. Assessing student mental health at the Vanderbilt University School of Medicine. *Acad Med* 2011;86:116-21.
5. Moutinho ILD, Maddalena NdCP, Roland RK, Lucchetti ALG, Tibiriçá SHC, Ezequiel OdS, et al. Depression, stress and anxiety in medical students: A cross-sectional comparison between students from different semesters. *Revista da Associação Médica Brasileira* 2017;63:21-8.
6. MacLean L, Booza J, Balon R. The impact of medical school on student mental health. *Acad Psychiatry* 2016;40:89-91.
7. Memon AA, Adil SE-e-R, Siddiqui EU, Naeem SS, Ali SA, Mehmood K. Eating disorders in medical students of Karachi, Pakistan-a cross-sectional study. *BMC Res Notes* 2012;5:84-7.
8. Adhikari A, Dutta A, Sapkota S, Chapagain A, Aryal A, Pradhan A. Prevalence of poor mental health among medical students in Nepal: a cross-sectional study. *BMC Med Educ* 2017;17:1-7.
9. Mousa OY, Dhamoon MS, Lander S, Dhamoon AS. The MD blues: under-recognized depression and anxiety in

- medical trainees. *PloS one* 2016;11:e0156554.
10. Khan H, Kalia S, Itrat A, Khan A, Kamal M, Khan MA, et al. Prevalence and demographics of anxiety disorders: a snapshot from a community health center in Pakistan. *Ann Gen psychiatry* 2007;6(1):30-6.
11. Zhong Q-Y, Gelaye B, Zaslavsky AM, Fann JR, Rondon MB, Sánchez SE, et al. Diagnostic validity of the Generalized Anxiety Disorder-7 (GAD-7) among pregnant women. *PloS one* 2015;10:e0125096.
12. Pascal Jordan MCS-M. Psychometric analysis of the Generalized Anxiety Disorder scale (GAD-7) in primary care using modern item response theory. 2017 [cited; Available from: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0182162>.
13. Mayer FB, Santos IS, Silveira PS, Lopes MHI, de Souza ARND, Campos EP, et al. Factors associated to depression and anxiety in medical students: a multicenter study. *BMC Med Edu* 2016;16:282-5.
14. Adhikari A, Dutta A, Sapkota S, Chapagain A, Aryal A, Pradhan A. Prevalence of poor mental health among medical students in Nepal: a cross-sectional study. *BMC Med Edu* 2017;17:232-5.
15. Alsleman ET, Baker NA, Dalky H. Mood and anxiety disorders among adolescent students in Jordan. *East Mediterranean Health J* 2017;23:604-10.
16. Maharajan MK, Rajiah K, Tam AM, Chaw SL, Ang MJ, et al. Pharmacy students' anxiety towards research during their undergraduate degree; How to reduce it? *PloS one* 2017;12:e0176095.