



Original Article

Frequency of Anxiety and Depression among Medical Students During Viva Exam

 Muhammad Ashar Rafi¹, Namal Shahzadi², Iqra Imtiaz³, Mahnoor Fatima³, Masooda Batool³, Seema Gul³ and Aamer Naeem¹
¹Kulsum International Hospital, Islamabad, Pakistan²Ibadat International University, Islamabad, Pakistan³Shifa Tameer-E- Millat University, Islamabad, Pakistan

ARTICLE INFO

Key Words:

Mental Health, Anxiety, Depression, Medical Students, Viva Examination

How to Cite:

 Ashar Rafi, M. ., Shahzadi, N. ., Imtiaz, I. ., Fatima, M. ., Batool, M. ., Gul, S., & Naeem, A. . (2023). Frequency of Anxiety and Depression Among Medical Students During Viva Exam: Anxiety and Depression among Medical Students. *Pakistan Journal of Health Sciences*, 4(03).
<https://doi.org/10.54393/pjhs.v4i03.559>

*Corresponding Author:

 Muhammad Ashar Rafi
 Kulsum International Hospital, Islamabad, Pakistan
ashar.dpt@outlook.com
Received Date: 7th February, 2023Acceptance Date: 13th February, 2023Published Date: 31st March, 2023

ABSTRACT

Examinations are an integral part of medical school education and negative emotional states affect the memory, recalling and timely response of the students during the examination.

Objective: To find out the frequency of anxiety and depression among medical students at the time of taking the viva examination. **Methods:** A cross-sectional study was conducted on medical students at the Department of Rehabilitation Sciences, Shifa Tameer-e-Millat University Islamabad, Pakistan. For data collection, Beck Anxiety Inventory and Beck Depression Inventory questionnaires were used. A total of 207 participants were included via inclusion criteria. Inclusion criteria were medical students of age 18-25 years, both males and females having viva examination at the time of data collection. Those students who were already diagnosed with psychological issues were excluded from the study. For the analysis of data SPSS version 21.0 was used. **Results:** 207 students participated in this research. The majority of the students 115 (56.6%) have mild anxiety levels whereas 103 (49.8%) students were having normal ups and downs that were not considered as depression. 45 (21.7%) students have mild mood disturbance. **Conclusions:** This study concluded that medical students face a mild level of anxiety and mood disturbance during viva exams.

INTRODUCTION

According to World Health Organization (WHO) reports mental health of students is considered an important public health concern globally [1]. Medical education is challenging and has considerable effects on the physical and intellectual health of medical students [2, 3]. A higher prevalence of psychiatric disorders including anxiety and depression was reported in multiple studies [4]. Gender-based comparison of symptoms associated with anxiety and depression in medical students showed diverse findings, ranging from no difference to high prevalence in females. Comparisons of depressive and anxiety symptoms by gender among medical students yielded

mixed findings, showing either no difference or high prevalence among females [5, 6]. Students of medical may feel stress when academic demands exceed their abilities to deal with [7] and studies show that they suffer from high perceived stress in comparison to the general population and students of other pedagogical domains [8, 9]. In Pakistan, anxiety and depression were found to be present in 70% of medical students [2]. Various stressors have been identified to cause impairment in mental health of medical students, including excessive workload, poor sleep, financial issues, peer pressure to score good grades and pressure of career choices [10]. Three important

factors that trigger anxiety in medical students are examinations, extensive course content and not enough time for revision [11]. Students experience psychological distress, especially during the examination that showed against failure or the impact of that failure on their self-esteem [12]. The prevalence of examination related anxiety and psychological distress among medical students was found to be 25% to 56% [13]. These psychological problems during examination lead to poor academic performance, professional incompetency and poor wellbeing of medical students [14]. Current study aimed to investigate the frequency of anxiety and depression in medical students during exams which has a great impact on students' performance, their results and overall grading.

METHODS

A cross-sectional study was carried on medical students having viva exams. It was 6 months duration study starting from January 2019 to June 2019. The study was conducted at the Department of Rehabilitation Sciences, Shifa Tameer-e-Millat University Islamabad, Pakistan. The sample size was 207 participants. The non-probability convenient sampling technique was used. The participants were recruited in the study on the basis of pre-determined inclusion and exclusion criteria i.e. the students (both males and females) having age range 18-24 years, having exams were included in the study. Whereas students with diagnosed psychological problems were excluded from the study. The selected participants were given a consent form before being recruited in the study. After their consent to participate in the study, Self-structured questionnaire was provided and the participants were asked to answer all the questions. Valid and reliable tools were used: such as Beck Anxiety Inventory (BAI) [15] to assess the level of anxiety experienced by the individuals before going for Viva Exams and the Beck Depression Inventory (BDI) [16] to assess the level of Depression in medical students. BAI raw scores ranging from 0 to 63. The BAI scores are divided into four categories: minimum anxiety (0-7), mild (8-15), moderate (16-25) while severe (30-63) [17]. The BDI scores are translated as, score of 1 to 10: These fluctuations are regarded as normal. 11 to 16 points equals a mild mood disorder, grade of 17 to 20: clinically borderline depression, 21 to 30 indicate moderate depression, 31 to 40 represents severe depression, score of 40 or higher: Extreme depression [18]. After having the participant's response, the data were then analyzed using the SPSS version 21.0.

RESULTS

The mean age of the participants was 20.84 ± 2.50 (years). Majority of the students were female 56(82.4%), majority 48% students attended all their lectures. Majority 44% students covered all their course. Majority 36% students

have revised their course only once. Majority 48% students find that particular subject interesting. Majority 52% students memorizing method was by reading. Majority 57% students preferred method of preparation was group study. Majority 29% students' previous grade in that particular subject was above 75%. According to Beck's anxiety inventory scale majority 115(56.6%) of the students have mild anxiety followed by moderate and severe levels. Among those students who have mild level of anxiety, 27% were those who have attended all the lectures. 20% with mild level of anxiety were those who had revised the lectures only once. The anxiety level was more prevalent (30%) in those students who found that subject interesting. Those who revised all of their courses only once (29%) and those who revised two times (23%) also had mild level of anxiety. Those who preferred their memorizing method by writing (7%) had mild level of anxiety as compared to those who used reading method (30%). Similarly, those who preferred group study (31%) have mild level of anxiety as compared to those who preferred self-study (19%) (Figure 1).

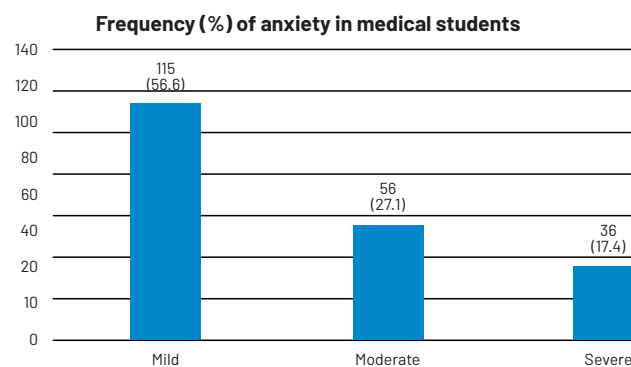


Figure 1: Frequency (%) of anxiety in medical students

According to Beck's depression inventory scale majority 103 (49.8%) students were normal and do not have depression at all and 45 (21.7%) have mild mood disturbance whereas very few participants reported severe and extreme level of depression (Figure 2).

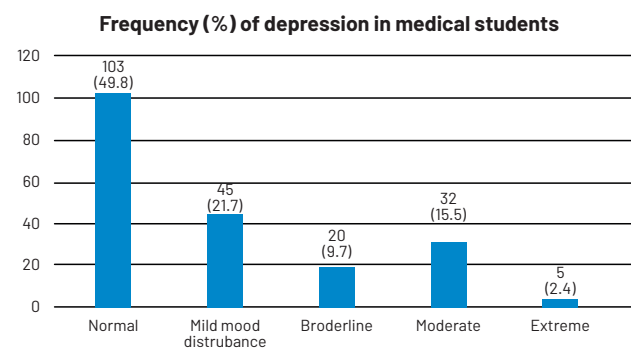


Figure 2: Frequency (%) of depression among medical students

DISCUSSION

Examinations are fundamental part of medical schooling

and serve various purposes such as screening of students. When students fail in exam, they normally reappear in exam; although, frequent failures lead to time delays and eventually elimination from medical school. As a consequence, examinations are observed quite stressful and anxiety-inducing part of medical education [19]. During the training period of medical students their emotional status has been a point of concern, reported as early as 1956 [20]. Because of increasing reports on depression in medical students during their academic years, we were focused, whether Viva exam is really the cause of anxiety and depression among medical students or not. It's observed in many studies that medical students are greatly affected by stress [21]. Beside this, results of some research show minor to no evidence of stress in medical students [8, 9]. In the current study mild level of anxiety was reported in majority of the students during viva exam and maximum number of students were normal with respect to depression symptoms. Study conducted in 2018 by Hamzah *et. al* showed similar results, where stress and anxiety was reported by the students during viva exams whereas, no depressive symptoms were observed in students [22]. According to Guraya *et al.*, study results examiner based assessment including viva exams induce more anxiety among students than other modes of assessment [11]. Another study by Hussain *et al.*, results were in accordance with the current study where medical students reported negative emotions including stress and anxiety during examination [23]. In comparison of our study, a systematic review and meta-analysis published in JAMA Network Open found that the pooled prevalence of depression among medical students was 27.2%, while the pooled prevalence of anxiety was 33.8%. The study also found that the prevalence of anxiety and depression was higher among medical students than among the general population [24]. The results of our study showed that 27.1% of the students have moderate levels of anxiety. Studies have found that the prevalence of anxiety and depression among medical students can vary widely, depending on the population studied, the tools used for assessment, and the timing of the assessment. However, research suggests that the prevalence of anxiety and depression among medical students can range from 20% to 50% [25].

CONCLUSIONS

The study concluded that majority of the medical students experience mild anxiety taking viva exams while the majority of the students don't experience depression but mild mood disturbances during the exam. Further studies should find the effectiveness of different techniques to reduce anxiety during exams to enhance memory and recall of the students taking exams.

Conflicts of Interest

The authors declare no conflict of interest.

Source of Funding

The authors received no financial support for the research, authorship and/or publication of this article.

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