

Research Article

Depression among Medical Students of a Public Sector Medical University in Pakistan

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Abstract

Medical students have several risk factors for depression like lack of sleep, heavy work burden and loads of competition that puts them under enormous pressure.

Objective: The objective of this study was to study the burden and severity of depression in medical students and the factors that contribute towards it.

Methods: This comparative cross-sectional study was conducted at a public sector medical university in Pakistan in February 2018. Study subjects were selected using stratified random sampling. Burn's depression checklist, an internationally validated tool for depression, was used for identification of depression and assessment of severity of symptoms.

Results: Out of 300 medical students who were included in the study, 124 (41.3%) were males and 176 (58.7%) were females. 61 (20.3%) subjects were from 1st year MBBS, 61 (20.3%) from 2nd year, 65 (21.6%) from 3rd year, 61 (20.3%) from 4th year, and 52 (17.3%) from final year. The ages of subjects were between 17 Years to 26 years with mean age of 22.

Out of 300 medical students, 12 students (4%) did not have depression at all, 20 students (6.7%) did not have depression but were unhappy, 102 students (34%) had mild depression whereas 117 students (39%) had moderate depression, 39 students (13%) had severe depression whereas extreme depression was seen in 10 students (3.3%). Students who had no extracurricular or time pass activities were depressed the most. One way ANOVA was applied between various extracurricular/free time activities and mean depression score revealed a significant association between them with a p-value of 0.035.

Conclusion: Psychological and social support with healthy extracurricular activities for medical students is needed to improve mental health condition and quality of life of future physicians.

Keywords: Depression; Medical students; Medical university; Extracurricular activities

Introduction

While we all feel sad, moody or low from time to time, some people experience these feelings intensely for longer periods of time, weeks, months or even years and sometimes without any apparent reason. Depression is more than just a low mood, it's a serious condition that affects a person's physical and mental health [1]. A depressive disorder is not passing blue mood but rather persistent feeling of sadness and worthlessness and a lack of desire to engage in formerly pleasurable

activities [2]. Depression, in psychology, is a mood or emotional state that is marked by feelings of low self-esteem or guilt and a reduced ability to enjoy life. A person who is depressed usually experiences several of the following symptoms, feelings of sadness, hopelessness, pessimism, low self-esteem and heightened self-depreciation, a decrease or loss of ability to take pleasure in ordinary activities, reduced energy and vitality, slowness of thoughts or actions, loss of appetite or disturbed sleep [3].

Almost 30% of medical students suffer from depression or symptoms of depression and 1 out of 10 medical students report experiencing suicidal thoughts which means medical students are 5 times more susceptible to depression than general population [4]. A study conducted on students of MBBS in Sargodha Medical College in March 2017, showed that frequency of depression in medical students during the academic years is very high and about 75.5% students reached depression criteria [5]. Another study conducted at Shalamar Medical and Dental College showed the prevalence of depression to be 63% [6]. Study conducted in Nishtar Medical College in 2010 showed the prevalence of 43% [7].

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Medical students have several risk factors for depression like lack of sleep, heavy work burden and loads of competition [8]. All these factors along with the social sacrifices that the young medical students have to make in order to maintain a good academic record in highly competitive educational system puts them under enormous pressure. It not only interferes with the daily life and normal functioning but also causes pain for the person and also for the people around him. In a society like ours, depression is overlooked due to failure to recognize the symptoms and the stigma associated with it, which prevents young people from getting the help they deserve. As it is a medical illness, most people who experience it need a proper treatment that might last for days, weeks, months and even years and if left untreated can result into horrific consequences [9]. Depression awareness among general public can help to decrease the stigma around the disease making help and treatment more viable option.

King Edward Medical University is the most prestigious and the oldest Medical institution in Pakistan getting the highest merit students from across the country [10]. Keeping in view the high prevalence of depression among medical students of different institutions and scarcity of data related to depression and its related symptoms in medical institutions in Pakistan, this study has been designed to see the burden of depression in medical students in this University [4-7]. Furthermore this study will highlight the correlation between depression and various socio-demographic factors so that therapeutic measures can be taken by the University administration including assessment, education and provision of mental health services.

Materials and Methods

Study designs

This comparative cross-sectional study was conducted at a public sector medical university in Pakistan in February 2018.

Ethical approval and consent

Ethical approval was obtained from the Institutional Review Board. Consent was obtained from participants for study participation. Both in English and local language as per criteria of World Health Organization. Ethical considerations like confidentiality and anonymity of subjects were observed.

Sampling procedure

Sample size was calculated to be 300 using online sample size calculator keeping 95% significance level and 5% margin of error [11]. Study subjects were selected using stratified random sampling. Burn's depression checklist, an internationally validated tool for depression, was used for identification of depression and assessment of severity of symptoms [12].

Statistical analysis

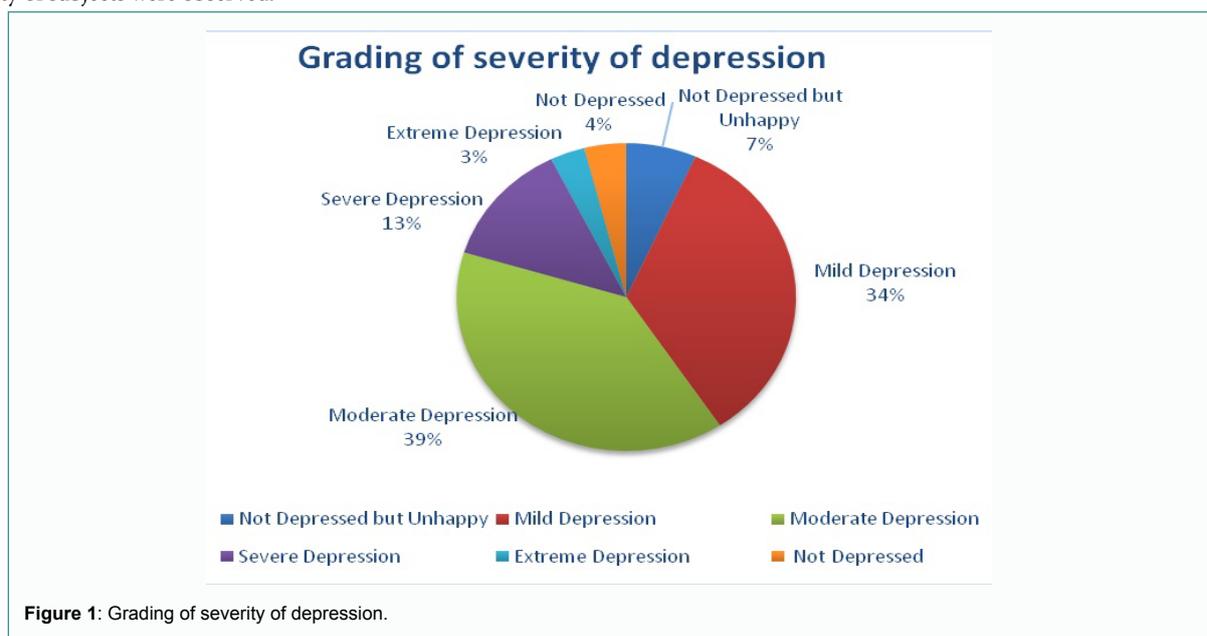
SPSS version 26 was used for entry and analysis of data. Chi square test was used for descriptive statistic to analyze the data. Results were represented in the form frequencies in figures.

Results

Out of 300 medical students who were included in the study, 124 (41.3%) were males and 176 (58.7%) were females, 61 (20.3%) subjects were from 1st year MBBS, 61 (20.3%) from 2nd year, 65 (21.6%) from 3rd year, 61 (20.3%) from 4th year, and 52 (17.3%) from final year. The ages of subjects were between 17 years to 26 years with mean age of 22, 288 (96%) belonged to Punjab, 2 (0.6%) to Sindh, 2 (0.6%) to Baluchistan, 5 (1.6%) to Gilgit Baltistan, and 3 (1%) to Azad Kashmir.

When the presence of depression as well as the severity of symptoms was calculated, it was observed that in the 300 medical students 12 students (4%) did not have depression at all, 20 students (6.7%) did not have depression but were unhappy, 102 students (34%) had mild depression whereas 117 students (39%) had moderate depression, 39 students (13%) had severe depression whereas extreme depression was seen in 10 students (3.3%) (Figure 1).

When gender was taken as a contributing factor towards depression, it was revealed that out of male students, 6 (4.8%) were not depressed at all, 10 (8.1%) were not depressed but unhappy, 40 (32%) had mild depression, 53 (42.7) had moderate depression, 13 (10.5%) had severe depression, and 2 (1.61%) were extremely depressed. Out of 176 female students, 6 (3.4%) were not depressed at all, 10 (5.7%) were not depressed but unhappy, 62 (35.2%) had mild depression, 64 (36.4%) had moderate depression, 26 (14.8%) had severe depression, and 8 (4.5%) were extremely depressed (Figure 2).



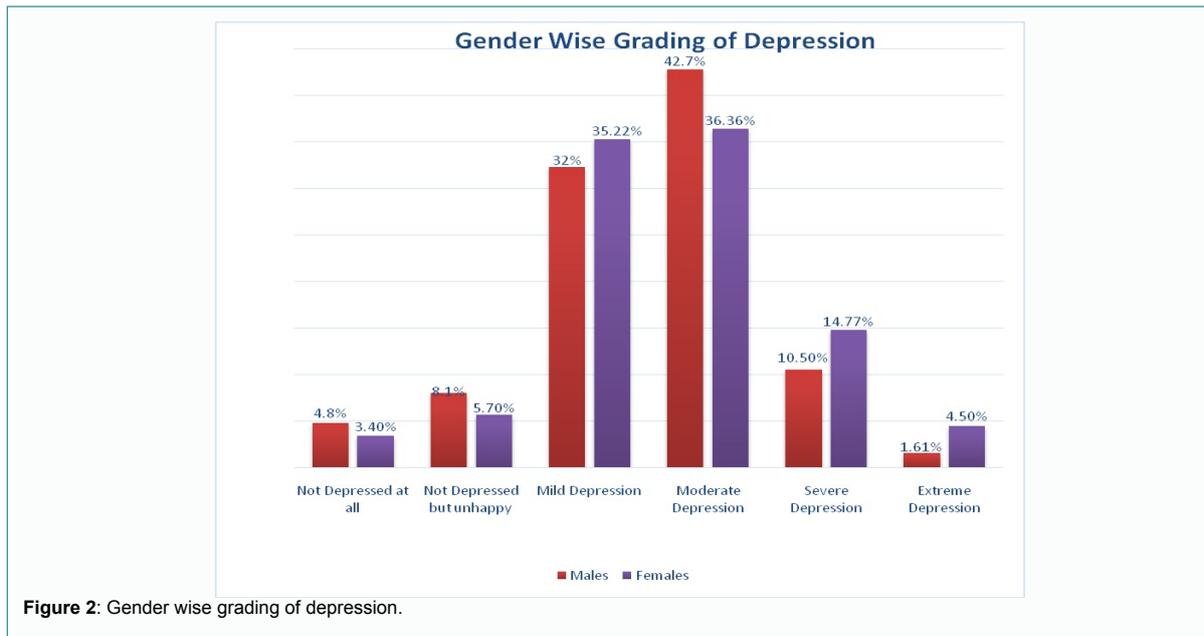


Figure 2: Gender wise grading of depression.

When extracurricular activities and time pass hobbies were seen as an influencing factor over depression it was revealed that students who read books, novels or play sports and games to spend their free time are less depressed as compared to those who play video games or hang out with friends in their free time. Students who had no extracurricular or time pass activities were depressed the most. One way ANOVA was applied between various extracurricular/free time activities and mean of depression score which revealed a significant association between them with a p-value 0.035 (Figure 3).

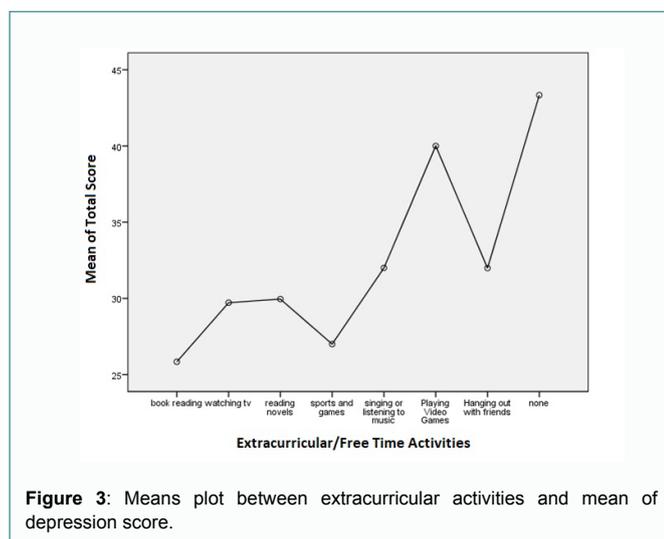


Figure 3: Means plot between extracurricular activities and mean of depression score.

Discussion

Medical institutions have long been notorious for giving stress and depression to students [13]. The stressors at medical institutions like excessive work burden, competition anxiety, repeated tests and examinations and large amount of contents to be learnt, affect the physical as well as the mental wellbeing of students and can lead to self-harming or suicide ideation [14]. Depression in medical students can perfectly be explained using the iceberg phenomenon of health and disease where the tip of iceberg indicates the diagnosed cases of depression and the large submerged portion of iceberg indicates the

undiagnosed and untreated cases of depression present in the medical institution [15].

This cross sectional study outstandingly revealed the hidden burden of depression in the medical students studying at King Edward Medical University, Lahore. Out of 300 medical students who were studied, only 12 (4%) did not have depression of any kind. This small number of students free from depression is a shocking fact. The rest 288 students were depressed to one extent or another. Mild and moderate depression affected most of the students the percentage reaching to about 73%. These are the cases that need to be addressed in the beginning so that disease progression could be hampered and early treatment can be started that definitely have very positive outcomes [16]. Extreme depression was seen in only 3% of subjects which definitely gives a sigh of relief that although mild to moderate depression is quite high but cases of extreme depression are quite less.

When gender-wise comparison was done it was seen that the percentage of non-depressed males was more than females, though the difference wasn't too large. Moderate depression was significantly more in males than in females which are an interesting finding as females are usually thought to be more prone to be depressed [17]. Mild depression, severe depression and extreme depression were significantly more in females as compared to males. The finding goes with the trend observed in the west [18,19]. The reason can be the female hormones, premenstrual syndrome or the fact that females experience more negative events in families as compared to males. Another possible explanation to it can be the fact that men usually do not express their symptoms or seek mental health help [20,21].

Extracurricular activities along with free time hobbies definitely influence the state of mind as well as the mood of a person. When the students were inquired about their free time hobbies as well as their extracurricular activities a list of activities were seen which had strong influence on the mental health of students. It was observed that the students who engaged in healthy activities like reading books, reading novels as well as playing sports and games suffered from depression less than those who did not engage in any of these activities. This finding goes with the findings in previous researches [22,23]. Depression was observed more in students who listen to music in their free time and

also those who play video games. This finding can be justified in the opposite way that people who are depressed usually listen to music more than those who are not depressed [24].

Conclusion

Medical students, especially females, constitute a vulnerable group of people that has a high risk of developing incapacitating depression. Psychological and social support including counselling, easy access to mental health services and promoting healthy activities like sports and book reading at medical institution level are needed for improvement in mental health condition and quality of life of future physicians.

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