



Original Research Article

Depression causes among medical students at KUMS: A quantitative study

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ABSTRACT

Background: Depression is an important contributor to the global burden of diseases that affect people around the world regardless of their social status and level of education. Students are more vulnerable to this condition as a result of the high level of study demand and performance pressure, especially medical students, who are more prone to extreme stress. Despite this, there have been no recent, multicentre, quantassessing medical students' greatest stressors. Thus, the aim of this study is to explore and identify the main causes of depression among medical students at Kabul University while examining corresponding data on depression among medical students.

Materials and Methods: 129 medical students at Kabul Medical Sciences were assessed using an online questionnaire form.

Result: There are approximately 3000 students currently studying medicine at KUMS from the 1st year to the practical period for MD and DMD. Approximately 400 questionnaires were distributed among the students. 129 students filled out and returned the questionnaires either by hand or by email. 52.8% of students said that the contents of the university's books cause depression. The total percentage of depression among the medical students was found to be 65.5%. Significance with gender was seen, but no change with age was seen.

Conclusion: The study showed that the prevalence of depression among Kabul University of Medical Science students is due to the university's curriculum. Therefore, attempts should be made to reform the curriculum and teaching methods of the instructors by providing a comprehensive educational program at the university that eliminates the causes and factors that have a direct relationship with educational stressors among medical students. Future research should seek to identify other stressors and suggest possible methods of eradicating them.

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1. Introduction

Depression is a frequent mental ailment that affects over 264 million people worldwide.¹ It is characterized by persistent disappointment and a lack of hobby or pleasure in formerly beneficial or fun activities.² It can also disturb sleep and appetite, develop tiredness, and cause negative attention.

Depression is a leading cause of disability around the world and contributes substantially to the international burden of diseases. The causes of depression are complicated. There are multiple causes of major depression, such as genetic vulnerability, severe life stressors, narcotic substances, some medications, alcohol, and clinical stipulations.³ Depression is very common among medical students in Afghanistan because of the study pressure imposed on them during their academic years at university, the stress

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of examinations, the particular culture of Afghanistan, war, and insecurity.⁴ However, this paper covers the incidence of depression and anxiety only among medical students. These aforementioned factors are the most common causes of mental disorders that affect people of different ages. It is stated that anxiety and depression had the highest percentage of incidence among medical students. At their worst, depression and anxiety can lead to suicide. Close to 800,000 people die due to depressive suicide every year⁵ which is the second leading cause of death.⁶

2. Materials and Methods

The research methodology was cross-sectional and conducted among students of Kabul University of Medical Science through an online survey. The university has over 3000 medical students in an academic year; however, this study covered a sample size of 129. The method of data collection for this research was quantitative through survey questionnaires using online mediums while strongly maintaining the confidentiality of the data. We gathered all the data who voluntarily participated and filled the questionnaire. The standard questionnaire was prepared with the consultation of a psychiatrist and also using several academic sources, including books and websites. Then the link to the survey was shared with the medical groups, in which all of the members were medical students at KUMS, and they collected the answers online. The research was based on anonymity and self-reporting. Both female and male students participated in the survey.

2.1. Problems and limitations

Stigma associated with mental disorders and the absence of sufficient previous research on the prevalence of depression and its factors among medical students in Afghanistan were the main challenges we encountered during the research. Moreover, since the research was conducted online, it is possible that other than medical students at Kabul Medical University might have participated too, which could question the reliability of the research since it relies on self-reported information.

2.2. Data analysis and results

In this research, 129 subjects filled out the questionnaire; 68.8% were female and 31.1% were male. Depression among medical students as a result of the curriculum: 65.5% felt unhappy and depressed due to a lack of free time and enough rest and sleep. Moreover, 52.8% said that the contents of the university's books cause depression since the contents are translated from the original language to the native language carelessly, while 55.1% said that the behaviour of teachers is another factor. Among all participants, only 22% were satisfied with the university's educational system, and the other 78% were not.

Fortunately, 78.1% of participants had thought of a solution for their depression; 79.1% had chosen praying; and only 12.6% said that visiting a doctor is a good option to treat depression, as shown in Figure 1.

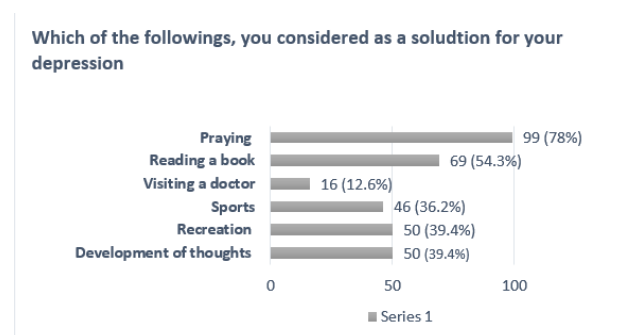


Figure 1: Chart bar shown solution for depression and stress

The study explored the prevalence of depression and the specific causes of it, including the university's curriculum, the surrounding community, the conduct of the lecturers, the financial circumstances of the students, and family status. A descriptive analysis of the data was performed using Microsoft Excel after it had been obtained via an online survey. There are 17 questions on the survey. 40 of the 129 responders were men and 88 were women. According to Table 1, the age range of the students that participated was between 18 and 26, with an average age of 21.18.

Table 1: Shown the average age of students who participated in this research

Gender	Number	Percentage
Female	88	68.8%
Male	40	31.1%
Blank	1	
Total	129	100%

After being admitted to the university, it was discovered that the prevalence of depression increased. According to the report, 66.9% of the pupils experienced depression. presented in Table 2.

Table 2: Prevalence of stress before and after admission to the university

Manifestation of depression	Number
Before university admission	7
After university admission	85
Both	35
None	2
Total	129

Interestingly, it was found that 66.9% admitted that the cause of depression is the university curriculum, as shown in Table 3.

Table 3: Show prevalence stress associated to the university curriculum

Curriculum	Numbers	Percentage
Yes	85	69.9%
No	42	33.1%
Blank	2	
Total	129	100%

Another main cause of student’s depression was their book contents, as shown in Table 4.

Table 4: Prevalence of stress according to the university curriculum

Books’ content	Number	Percentage
Yes	67	52.8%
No	60	47.2%
Blank	2	
Total	129	100%

Studying possible measures like their religious beliefs, we find out that a high percentage of students were coping with depression through their religious thoughts and beliefs; however, a small number of students were consulting with a psychiatrist to alleviate the situation. Religious coping refers to the use of religious beliefs or practices to cope with stressful life situations.⁷ In our study, we discovered that while a significant portion of students use their religious convictions and practices to cope with stress, very few of them seek out psychiatric help. Another cause of depression that this study indicates is the behaviour of the instructors. A high percentage of students were unsatisfied with the instructors’ teaching methods. As shown in Table 5. Show percentage of stress according to the instructors’ teaching methods

Table 5: Show percentage of stress according to the instructors’ teaching methods

Behavior of instructors	Number	Percentage
Yes	70	55.1
No	57	44.9%
None	2	
Total	129	100%

According to the research, 49.1% of the subjects had experienced apathy for more than two weeks, as shown in Figure 1.

Among these people, 66.9% had faced depression during the university period; 76.4% of participants didn’t have a family history of depression; and 66.9% thought that the education system was a factor.

Which of the following signs and symptoms you have experienced in more than two weeks?

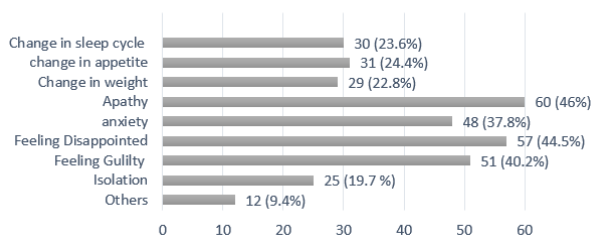


Figure 2: Chart bar shown sign and symptoms of stress and depression in more than two weeks

3. Discussion

The findings show that most students at Kabul University of Medical Sciences became depressed after admission to the university. As the findings show, 66.9% of students became depressed after their admission, and 27.6% had depression symptoms prior to their university admission. This finding is comparable with the results of a similar study done in the Kathmandu University Medical Journal, in which they found that the prevalence of depression is higher among first-year students than third-year students.⁸ But in another study at the Dow University of Health Sciences in Pakistan, the findings were unlike this: they found that depression was significantly higher in third-year students compared to first, second, and fourth-year students. Additionally, a cross-sectional study on stress and depression found that female students were more depressed than male students, with medical students having greater depression rates than the general population.⁹ This can be comparable to our research because students became depressed after starting university.

In addition, one of the causes of depression, as this paper indicates, could be correlated to the sudden shift of subjects from school to applied science. On the other hand, excessive workload and the pressure of exhausting clinical hours with very little recreational time could also be contributing factors.

Increased levels of stress and consequently depression indicate different problems for medical students according to the answers they reported to the university, like the curriculum, the contents of books, the manners of their teachers, the social state and environment of the university, and the scores of their exams. Hypothetically, medical books and the way they are written and taught could be one of the most important causes of depression among the students of Kabul University of Medical Sciences.

Previous studies have proven an excessive range of symptoms of depression among scientific students. One of the worst complications of depression is suicide, which is the most common cause of death among individuals aged 15 to 29 years, according to the Association of

American Medical Colleges (AAMC).¹⁰ It was recorded that the average age of suicide among medical school students is 24 years old.¹¹ This encourages the notion that the main reason for loss of life in clinical schools and faculties is suicide due to depression. In the US alone, 17.3 million adults (7.1% of the adult population) have had at least one major depressive episode.¹² So, in Afghanistan, as a developing country, the statistics tend to be much higher; almost half or more of Afghanistan's population is depressed. In a developing country like Afghanistan, a lot of psychiatric and mental illnesses are neglected and almost always left untreated. The prevalence of depression in Afghan society could be due to stress associated with different social-economic factors.¹³ In the Goubert et al. study, results showed that depression is a significant issue both among medical students and among residents. The total response rate was 21.2 percent, suggesting that the rate of depression is higher in graduate students and other young adults.¹⁴ The aim of this study was to explore and understand the causes of stress among medical students and the consequences of stress on their daily lives. According to studies by Dahlin et al., first-year medical students indicate a high level of pressure among them. Gender differences were also noted; women experienced a higher level of stress than men.¹⁵ Another study conducted on 240 medical students showed that 30% of these students had mental issues; however, this study found no difference in the prevalence of mental distress in different genders.¹⁶ Another study that focused on depressive disorders revealed that about a third of participants (students) showed major depressive disorders, including mild, moderate, and moderately depressive episodes. The study found that major depressive disorder among medical students in Cameroon is linked to conditions such as being female, having chronic disease, having traumatic life events, and having practices in clinic.¹⁷ In Chang et al.'s study, the occurrence of burnout, depression, and stress was greater among third-year clinical college students in contrast with other clinical college students from previous studies.¹⁸ In 35 studies carried out in Iran from 1995 to 2012, the prevalence of depression among university students was estimated to be 33%. The incidence of despair among boys was estimated to be 28%, in girls 23%, in single college students 39%, and in married students' 20%, while the ordinary pooled crude occurrence of despair or depressive signs was 27.2%.¹⁹

In the nine longitudinal studies that assessed depressive symptoms before and during medical school, the median absolute increase in symptoms was 13.5%, prevalence estimates did not significantly differ between studies of only preclinical students and studies of only clinical students, and the percentage of medical college students screening for despair who sought psychiatric cure used to be 15.7%.²⁰ Another study showed that moderate despair and nervousness confirmed an increase from 4.3% to 29.8%; only 4.3% had stated growing stages of burnout, in contrast

to the 55.3% of college students at the end of the year that had reported the identical experience, resulting in a large association of sleep deprivation with depression.²¹ In Sobowale et al.'s study, quotes of melancholy and suicidal ideation are excessive among medical university and college students in mainland China.²²

Hypothetically, medical books and the way they are written and taught could be one of the most important causes of depression among the students of Kabul University of Medical Sciences. Maybe this is a unique case in underdeveloped countries where the books cause depression, including Afghanistan. According to the medical students, the book's contents are so difficult to memorize, recall, and pass their exams.

Despite that, they are obligated to read those specific books to pass the exams. The reason that students can't read the books properly is that most of them have been translated by automatic engines or by unprofessional translators, lack editing and proofreading, and have grammar and spelling mistakes.

4. Recommendations

1. Creation of widespread awareness programs by the Ministry of Public Health for families and students on the signs, symptoms, and consequences of depression.
2. Reformation of teaching methods in the university to decrease the incidence of depression
3. Raising community awareness to deal with depression
4. Create useful entertainment programs in universities with the direct supervision of the ministry of higher education.
5. Establishing counselling centres for students to solve their problems and give proper information on how to deal with stressors during their academic years at the university
6. Investigating the psychiatric health of students regularly and helping patients who have psychiatric disorders
7. Encouraging the students to refer to psychiatric specialists when they have felt depressive symptoms

5. Source of Funding

None.

6. Conflict of Interest

None.

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