

Depression Prevalence Among Students of Jahrom University of Medical Sciences

Mohammad Radmehr^{1,3}, Rasoul Eslami Akbar², Zahra Kargar⁴, Navid Kalani^{3,5*}

¹*Pain Fellowship, Assistant Professor of Anesthesiology, Jahrom University of Medical Sciences.*

²*Dept of Nursing, Nursing School of Jahrom University of Medical Sciences, Jahrom, Iran.*

³*Medical Ethic Research center, Jahrom University of medical sciences, Jahrom, Iran.*

⁴*Research Center for Social Determinants of Health, Jahrom University of Medical Sciences, Jahrom, Iran.*

⁵*Department of Anesthesiology, Jahrom university of medical sciences, Jahrom, Iran.*

***Corresponding Author:** Navid Kalani, Email: navidkalani@gmail.com, Tel:+989175605412

Abstract:Background: Depression has been known as one of four leading disorders and one of most prevalent disabilities throughout the world. Due to their close involvement with and responsibility for patients' health and, students of different fields related to medical sciences are more liable to be exposed with depression. This investigation is aimed to explore the prevalence of depression among medical students of Jahrom University of Medical Sciences through 2013-2014. Methods & Materials: This study was a cross-sectional and descriptive study done on 360 students of Jahrom University of Medical Sciences during 2013-2014. Data were obtained by Beck depression test and analyzed by SPSS software version 15. Results: Results associated with the prevalence of depression in medical students in terms of the severity showed that 47 students (13.1%) had moderate depression and 32 students (18.9%) had severe depression. Fisher's accurate test did not reveal any statically differences between family history of the disorder with depression disorder of students ($P=0.21$). Conclusion: In accordance to our finding, a number of policies should be taken into account to reduce factors conducive to depression and prevent its consequences through quick and timely diagnosis.

Keywords: Depression, students of Medical Sciences, Beck depression test, prevalence.

Introduction

In today's stressful world, mental disorders have found special significance among which depression has earned a special place due to high prevalence and long history. Depression is a reaction to stress in which nothing seems to be worthwhile. In the history of psychology, this disorder has been the focus of attention due to its high prevalence and grave consequences. Hence, a lot of research has been done in this regard and a considerable range of financial and human resources have been allocated to it. The World Health Organization estimates that the prevalence of this disorder in developing countries is increasing.

According to this organization, depression is the fourth leading cause of disability in human societies and this disease will account for the second most likely cause of disability derived from diseases until 2027. According to recent studies of Anxiety and Depression Association of United States of America, 6-month prevalence of major depression varies from 3.8 to 9.9 per cent in various European countries. According to studies conducted in Iran, depression with the prevalence of 3.8 percent was at the top of mental disorders and accordingly 21% of studied participants suffered from symptoms of depression and anxiety (1-2).

Due to their specific situation, the students are more vulnerable and therefore more likely to have psychological damage. Thus, the presence of depressed student at the universities would make the universities a cold and lifeless environment and the community, as a result, will sink into atrophy (3). University students are the builders of the future of their country and a significant number of them are young people.

And this number is increasing with the expansion of universities and centers of higher education. Depression in youth is considerable because nearly 30 percent of students in admission to universities suffer from some degree of depression (4). Cases such as unfamiliarity with the culture on campus or with culture of the region in the event of being non-native, being detached from family and lack of interest in their field of study, incompatibility with other people can create problems like depression and lead to a drop in student performance (5).

Because of the nature of education and risk factors that are in college and in being university students, students are exposed to the risk of changes and disorders like depression. Furthermore, due to their tasks and mission, medical students are of greater significance in this respect. Because of the importance of the issue that was briefly mentioned, numerous studies have been conducted on students' disorders like depression, so far. Amin et al in a report on research carried out by Beck et al suggest that in student populations, high prevalence of depression can be seen, to the extent that 78 percent of students suffer from some symptoms and 46 percent suffer from severe depression (6).

The results of the study conducted by Rafati et al on nursing students of Shiraz indicative of 59.8% of depression in varying degrees (7). Abedini, et al (2006) the prevalence of depression in nursing students and medical students of Bandar Abbas University of Medical Sciences equal to 60% and 49.5%, respectively (8), Najafipour and colleagues reported 45.4 percent in Jahrom University of Medical Sciences (9), Taheri and colleagues reported 12.1% in Birjand University of Medical Sciences (10).

According to the results of the mentioned research and the high prevalence of mental health problems and the importance of the period of being a university student, in recent years in academic communities, especially among students, there has been a discussion on frustration and loss of motivation, sometimes it is more common in its more extreme aspects that are boredom and lethargy which unfortunately has been neglected and ignored. As a result, the incidence of these disorders, especially depression, not only will reduce the performance of the young and educated generation of the country, but also reduce liveliness and freshness in university students.

This, in turn, will not only create huge political and social problems, but also compromise the future progress and development of the country. Consequently, the aim of this study was to investigate the prevalence of depression in medical students in different academic fields Jahrom University of Medical Sciences in terms of gender, family history of the disease, being indigenous and non-indigenous, living or not living in dormitories.

Materials and Methods

This study was a cross-sectional and descriptive study done on 360 students of different fields in Jahrom University of Medical Sciences in 2013. The sample size in this study was determined based on Morgan table. Sampling was accessible and easy. Inclusion criteria for this study included that students are interested in participating in the study and the exclusion criteria for this study were being a visiting or transfer student and non-completion of the questionnaire.

The tools used in this study included a demographic form (age, gender, education, education level, location, native or non-native, family history of depression, etc.), and a questionnaire including standard Bk11 depression questionnaire (long form) to investigate the level of depression. Bk11 depression questionnaire has 21 questions that the score of answers to each question range from 0 to 3 and the total

scores obtained from the questionnaire can range from 0 to 63. Classification of grades obtained from the questionnaire is as follows: 13-0 means minor depression in person, 19-14 (mild depression), 28-20 (moderate depression) and 63 -29 (severe depression). Psychometric studies conducted on the second edition of Beck questionnaire show that this questionnaire has good reliability and validity and in general this questionnaire is suitable alternative for its first edition. Beck reported the internal consistency of this instrument as 0.73 to 0.92 with a mean equal 0.86 and an alpha coefficient for the patient and non-patient groups equal 0.86 and 0.81, respectively.

In addition, in a study conducted on 125 students of Tehran University and Allameh Tabatabai University to investigate the validity and reliability of standard Beck depression questionnaire (long form) on Iranian population, the results were indicative of Cronbach's alpha equal 0.78 and test-retest interval of two weeks equal 0.73 (11). To implement study on the mentioned questionnaire at the right time (at the end of morning and evening classes in the studied colleges or at break time of students in clinical situations), a quiet and conducive place to answering was offered to the ones interested in participating in the study. Data were analyzed using SPSS statistical software (version 15) and descriptive tests (mean, percentage and standard deviation) and inferential Fisher and Chi-square tests.

Results

Participants in this study were 360 students of different fields in Jahrom University of Medical Sciences including (anesthesia, operating room, medical emergency, health, nursing, laboratory science and medical).

Table (1) demonstrates the students' information participating in the study in terms of disciplines and semester. Participating students had an average age of 21/31. The studied samples were (70.0%) female (29.0%) male. 40 students (11.1%) were indigenous and 319 (88.9%) were non-indigenous. Location of the majority of students, 320 people, (89.4%) was dormitory, 31 (8.7%) lived with their

families and only 7 patients (7/4%) lived in student housing, personal home or were tenants.

Results in relation to the prevalence of depression in students showed that 219 (60.7%) had minor depression and 141 patients (39.1%) had mild or severe depression. Results in relation to the prevalence of depression in medical students in terms of intensity also showed that: 219 (60.8%) had minor depression, 62 patients (17.2%) had mild depression, 47 (13.1%) had moderate depression and 32 patients (18.9%) had severe depression. Determining the prevalence of depression disorder in terms of field of study showed that the highest incidence of this disease was among BA students of public health ($n = 23$, 42.2%), and the second highest prevalence was in the operating room students ($n = 19$, 42.2%) and in nursing students (37 people, 41.6%).

However, Chi-square test showed no significant difference in the incidence of depression with different intensity among the majors and there was no association between depression and academic disciplines.

Table 2 shows the prevalence of depression based on gender. Determining the prevalence of depression by gender showed that 43 male students (30.5%) and 98 females (38.4%) suffered from mild to severe depression. Analysis by using Fisher's accurate test showed that no statistically significant difference in the risk of depression was found between male and female students and that there was no association between depression and gender. The prevalence of depression in terms of family history showed that 19 (59.4%) students suffering from depression had a positive family history and 120 patients (36.9) lacked a family history of the disease. Fisher's accurate test showed no statistically significant difference in connection with the family history and depression disorder ($P = 0.21$). There was no association between family history of the disease and depression.

The prevalence of depression in students in terms of family history is shown in Table 3.

Determining the prevalence of depression in terms of being indigenous or non-indigenous showed that the prevalence of moderate to severe depression in indigenous students was 8 people (27.5%) and in non-indigenous students it was 128 cases (40.3%). Fisher's accurate test showed no significant

difference in this regard. Determining the prevalence of depression in terms of location showed that 130 (40.8%) student living at the dormitory had mild to severe depression and 8 students residing outside the dorm (21.1%) had this disease.

Table 1: Frequency distribution and percentage of students participating in the research in terms of field of study and semester

Percent	Number	Statistics / Variable
25.5	91	Medical
24.9	89	Nursing
16	57	Anesthesiology
14.6	52	Hygiene
12.6	45	Operating room
4.2	15	Laboratory
2.2	8	Medical emergency
17.9	63	Term 1
16.2	57	Term 2
6.8	24	Term 3
17	60	Term 4
12.2	43	Term 5
10.8	38	Term 6
8.5	30	Term 7
9.4	33	Term 8
1.1	4	Term 9
100	352	Total

Table 2: The prevalence of depression in terms of students' academic disciplines

Mild to severe depression	Minor depression	Statistics / Field of study
31(34.1%)	60 (65.9%)	Medical
5 (35.7%)	9(63.4%)	Laboratory
21(36.8%)	36(63.2%)	Anesthesiology
3(37.5%)	5(62.5%)	Medical emergency
37(41.6%)	52(58.4%)	Nursery
19(42.2%)	26(57.8%)	Operating room
23(42.2%)	29(55.8%)	Hygiene
139(39%)	217(61%)	Total

Table 3: Determining the prevalence of depression among students based on family history

Lack	Have	Family history
205	13	Depression disorder
63.1%	40.6%	Minor depression *
120	19	Mild to severe depression *
36.9%	59.4%	

p=0.21*

Discussion and Conclusion

The present study showed that 39.1 percent of students of Jahrom University of Medical Sciences are suffering from varying degrees of depression. In a study on 717 students of different fields in Kordestan University of Medical Sciences, the prevalence of depression was reported 1.37 percent, which

was consistent with the results of the present study (12). However, the results of

this study were consistent with other studies that have been done in this case and the prevalence of this disorder among the students of Jahrom University of Medical Sciences is less than other similar studies conducted on the students of other

universities which requires the analysis of individual, environmental and social factors that are effective in this regard. Perhaps, this result is the outcome of the presence of appropriate facilities in the dormitories of

Jahrom University of Medical Sciences, cultural conditions of the University that enhance religious, sports and extra-curricular activities in students and set the stage for mental health in students along with academic pressures, and the possibility of having psychological support of families for students because of the proximity of cities of Fars province that makes students' visiting their own weekends easier. Of course, all of these cases are based on the principles of probability and should be studied in a separate study.

So that in the studies that were conducted in 2001, the prevalence of depression in medical students of Gonabad was reported 62.5, in nursing and midwifery students of Yasuj University of Medical Sciences 69.2, in medical students in West Azerbaijan 52.6 percent (5) and in students of Zahedan University of Medical Sciences was 47% (13).

The results of the study conducted by Najafipour and colleagues (2008) on the prevalence of depression at Jahrom University of Medical Sciences indicated that 29.3 percent of students felt mild depression, 12.6% had moderate depression and 3.5 percent suffered from severe and very severe depression (9). However, Kushan et al reported the prevalence of depression 21.3 percent in their study (14). The present results indicated that depression was higher in health and operating room students compared to other disciplines. The results of Khairabady et al that dealt with the prevalence of depression in students of Kurdistan University of Medical Sciences showed that the level of depression in nursing students was higher than other disciplines (40.5%) (15).

Amani et al also stated that there is no significant relationship between field of study and depression, although the disease was most prevalent among operating room technician students (16). It seems that the

high prevalence of depression in some fields of Medical Sciences is due to uncertainty about social and job prospects on the one hand and disillusionment with the possibility of continuing education on the other hand.

According to the present study, the rate of depression among male students was lower than in female students, but there was no significant relationship between sex and depression. However, in all countries and cultures, the prevalence of depression in women is almost two times more than men (17). It seems that increased job stress and social future of boys are probably the most important factors of increase in depression among them.

In the research by Hamzei Moghadam et al on medical students of Kerman (18), that of Rashid on the students of Zanjan University of Medical Sciences (19) and that of Tavakkolizadeh and Mohammadpur (20) the rates of depression was also lower in male students compared to female students, which is consistent with our results. However, conflicting results were observed in other studies (21). The present study showed that the rate of depression among non-native students was higher than native students. Most studies were indicative of higher mental health and lower depression among native students compared to non-native students (14).

Immigration seems to be known as one of effective factors in the incidence of depression among non-native students. The results of Aghakhani and Baghaili study that was carried out on 700 students from Medical University of Western Azerbaijan Province (5) showed that non-native students were more depressed, that in this respect the results of this study are consistent with the present study. In the meantime, what it is interesting that the lower incidence of depression among students of Jahrom University of Medical Sciences compared to some other studies in this regard at other universities of Medical Sciences.

The results of this study can be used as the basic data about the prevalence of depression among university students according to demographic variables such as

education and field of study by authorities, including managers and Student and Cultural Affairs staff and those involved in education at the Educational faculty of university. According to the descriptive information of the present study, future

steps will be taken in order to improve the present situation and promote physical and mental health of students that are

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