



Study of the Rate of Depression in the Pharmacy Students in the First Two Years of Study and the Factors Affecting It



Bahareh Taati^{1*}, Kaveh Islami², Armaghan Islami³, Seyedeh Farzaneh Jaafari⁴, Maryam Niruie²

1. Department of Clinical Pharmacy, Student Research Committee, Faculty of Pharmacy, Ahvaz Jondishapoor University, Ahvaz, Iran

2. Department of Clinical Pharmacy, Faculty of Pharmacy, Ahvaz Jondishapoor University, Ahvaz, Iran

3. Department of industrial psychology, Faculty of psychology, Shahid Chamran Ahvaz University, Ahvaz, Iran

4. Department of general counseling, Faculty of psychology, Ahvaz Jondishapoor University, Ahvaz, Iran



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ABSTRACT

Background: Depression is one of the most important causes of pathogenesis and disability in individuals. Through the timely diagnosis of this disorder, it can be prevented from progressing, and finally, ensure the mental health of students and the community. The issues, such as non-familiarity with the university environment or culture of the area, being non-indigenous and away from family, lack of interest in the field of study, and incompatibility with other people, can result in mental illnesses, such as depression and a decline in the students' academic performance. This study was performed to measure the rate of depression in the pharmacy students in the first two years of study and its influencing factors.

Methods: This longitudinal-descriptive study was done to measure the rate of depression in pharmacy students of the Ahvaz Jondishapur University of Medical Sciences from 2015 to 2017. To the end, the students first were evaluated using the Beck questionnaire, and then they answered the same questionnaire in 2017. The obtained data were evaluated using SPSS v. 21 software and the t-test.

Results: In this study, 37 students were studied for two years. In the first year, the average score of depression was 6.21 ± 7.02 and in the third year, it was 8.83 ± 11.49 . Despite an increase in the depression score, it was not in the depression range. Also, the results of the t-test showed that the students in the third year showed no significant difference compared with the first year of the university in terms of depression score ($P=0.242$).

Conclusion: Because of the high prevalence of depression in non-native students, the officials of this university have to pay more attention to the non-native students and adapt the dormitories environment appropriately for them. They also can provide cultural programs to change the students' morale. In addition to these activities, holding workshops on psychology, proper training, and motivating students to pass lessons difficult to learn by university counselors can be effective in reducing the prevalence of depression.

* Corresponding Author:

Bahareh Taati, Pharmacy student.

Address: Department of Clinical Pharmacy, Faculty of Pharmacy, Student Research Committee, Ahvaz Jondishapoor University, Ahvaz, Iran.

E-mail: bahareh_taati@yahoo.com

1. Introduction

Depression as one of the most prevalent human mood disorders and mental problems is observed among different social groups and is considered an important indicator of their mental health. Although various factors can contribute to the incidence or exacerbation of depression, in humans, it can occur for different reasons and create a variety of abnormal states and behaviors. Depression is a disorder characterized by decreased energy and interest, feeling guilty, difficulty in concentration, anorexia, and thoughts about death and suicide. It is associated with changes in the level of activity, cognitive abilities, speech, sleep, and appetite. Depression is a disorder that affects job performance, social communication, and interpersonal communication [1-3].

It is believed that 10%-20% of people experience depression to mild to a severe degree. It is a common disease affecting 15% of people at least once during their lives. Also, the number of depressed individuals is increasing due to the pressures from social and environmental changes and the increase of some physical diseases. An increase in the number of patients at different ages referring due to this disorder to the health centers can indicate the high incidence of depression [4, 5].

Depression imposes a high direct cost to the health services and also indirect costs due to a reduction in the performance for individuals and society [6]. The results of a study at Michigan University, USA, showed that 15% of students had symptoms of depression [7]. Almost half of the students of Oxford University lose a semester because of mental illnesses, especially depression [8].

Depression among the students is very important because the students play an important role in the future of their countries and constitute a significant population of young people and this number is increasing with the development of universities and higher education centers. According to the World Health Organization (WHO), depression is estimated to become the second leading cause of dysfunction by the year 2020. Also, depression is a very important health issue in Iranian young people, especially students [9].

Pharmacy students due to the relatively long education period and the first experience of being away from the family for a long time are at the risk for depression; thus, social interventions are very important for them because the occurrence of any disruption in their lives

prevents the growth and prosperity of their talent. Students due to the pressure of education, test stress, and other stressful factors during their study course are subjected to different mental disorders, and depression with different degrees is observed in this group [10].

Regarding the critical role of pharmacists, the level of their mental health has an important role in the health system. The timely diagnosis of depression in the primary education course of students can prevent irreparable damages in their future career in society. This study was performed to measure the rate of depression in the pharmacy students in the first two years of study and its influencing factors.

2. Methods

This longitudinal-descriptive study was conducted on 80 pharmacy students of Chamran University, Ahwaz, of whom 37 students were selected by the available sampling method. According to the study objectives, the students were evaluated in two periods before and after studying the basic sciences from 2015 to 2017. Notably, only 29 out of 37 questionnaires were completed. In the third year, only 27 students were ready to participate in the test. Thus, we had the data from 29 students in the first year and 27 students in the third year. The study instruments included the demographic information questionnaire and the Beck Depression Inventory (BDI).

Beck Depression Inventory (BDI): BDI is a 21-item questionnaire presented in multiple-choice format to measure the presence and degree of depression in adolescents and adults [3, 4]. Each item of the BDI attempts to assess a specific symptom or attitude, which appears to be specific to depressed patients and is consistent with descriptions of the depression noted in the psychiatric literature. This questionnaire is scored on a four points Likert scale (0-3). The minimum score is 0 and the maximum is 63. The score of 1-10 is considered as the minimum range (normal), 11-16 as the minor mood disturbance, 17-20 as the average clinical depression, 21-30 as the moderate depression, 31-40 as severe depression, and over 40 as the severe depression.

We considered the score of ≥ 40 as the higher level of depression. BDI measures the following characteristics in the subjects: Disappointment feeling of defeat, hopelessness, feelings of guilt, worthlessness, dissatisfaction, sinfulness, being punished, being disgusted, being reproached, suicidal tendency, being sensitive, indifference to people, inability for making a decision, bad feelings about his/her appearance, insomnia, fatigue,

loss of appetite, weight loss, anxiety about health and decrease in sexual activities, loss of interest or pleasure in hobbies, and decreased energy. The validity and reliability of the Persian version of the BDI have been demonstrated in Iran. The level of inner consistency (validity) of this questionnaire was obtained 0.8 in the study by Lashgari et al. and also Abedini et al. also reported its reliability coefficient through re-test as 0.7 [11, 12].

In order to meet the ethical principles, the students were willing to participate in this study, and questionnaires were completed without mentioning their names, and results were kept completely confidential and recorded in their files. The data were analyzed using SPSS v. 21 software and a t-test.

3. Results

Of the studied students, 52.3% were female and 44.7% were male and also 97% were single and 3%

were married. Also, 21.7% of these students were indigenous and 78.3% were non-indigenous and the rate of depression showed a significant difference between these two groups ($P=0.017$).

In the first year, 78.4% of the students were in the normal range that this rate decreased to 75.7% in the third year and 10.8% of them were in the range of minor mood disturbance that increased to 13.5%. Also, 5.4% were in the range of average clinical depression that this rate declined to 2.7% in the next two years. Moderate depression was found in 2.7% of these individuals that this value did not change in the thirds year. Also, 20.7% of them had severe depression that increased to 5.4%. In this study, a participant was found with very severe depression (Tables 1-3 and Figure 1).

In the first year, the average score of depression using the BDI was 6.21 ± 7.02 and in the third year, it was 8.83 ± 11.49 . Despite an increase in this score, it was not

Table 1. The Beck Depression Inventory scoring

Depression Level	Score Range
Normal	1-10
Minor mood disturbance	11-16
Average clinical depression	17-20
Moderate depression	21-30
Severe depression	31-40
Very severe depression	Over 40



Table 2. Comparison of the rate of depression in the first and third years

Depression Level	First Year		Third Year	
	Number	Rate	Number	Rate
Normal	28	75.3	29	78.4
Minor mood disturbance	5	13.5	4	10.8
Average clinical depression	1	2.7	2	5.4
Moderate depression	1	2.7	1	2.7
Severe depression	2	5.4	1	2.7
Very severe depression	0	0	0	0
Total	37	100	37	100



Table 3. Descriptive data of the participants

Groups	No.	Mean±SD
First year	37	6.21±7.02
Third year	37	8.83±11.49



in the depression range. Also, the results of the t-test showed that the students in the third year showed no significant difference compared with the first year of university in terms of depression score (P=0.242).

4. Discussion

Depression during the recent decades has been identified as one of the factors leading to disability of individuals that has irreparable outcomes, including suicide [1, 2]. To the best of our knowledge, this study is the first one to address the incidence of depression longitudinally in the first year of entering university to the third year. The changes in the rate of depression in the pharmacy students were evaluated from 2015 to 2017 and no significant difference was observed during these two years.

Khoshkhati and Jaafari evaluated the incidence of depression in the students entering the pharmacy at Zanjan University in their descriptive-cross-sectional study. The obtained results indicated a total depression rate of 9.4% in the students. The incidence of depression showed a significant difference between indigenous and non-indigenous students (P<0.0001). The results of this study showed that being away from family can contribute to the incidence of depression in students.

In order to reduce the incidence of depression, it is suggested to consider training programs to promote the mental health of these students [10].

According to the study in the Health and Paramedicine Faculties of Sabzevar city in 2010-2011, the incidence of depression was reported as mild [13]. In another study conducted in 2001 in the Azad University of Yasooj city, 62% of the students were in the mild to moderate ranges [14]. In these studies, the incidence of depression was measured using the Beck questionnaire (similar to the present study) [13, 14].

Also, there was a significant difference in terms of being indigenous and non-indigenous that is similar to the results of Sahrifi and Abdedini study [12, 15]. Gender had no significant difference in the results obtained like the study that was conducted by Ildarabady [16]. In these studies, similar to the present study, the incidence of depression has been measured using BDI [14-16].

Among the positive points of this study was investigating the rate of depression in the two periods (before and after passing basic science courses) and the effect of the difficulty of lessons after passing the courses were considered. We faced also some problems; for example, some participants were scared of participating in the test and one student had depression that prevented him/her from participating.

5. Conclusion

Because of the high prevalence of depression in non-indigenous students, the officials of this university should pay more attention to these students, make the dormitories environment appropriate for them, and provide cultural programs to change their mood. In addition to these activities, holding workshops on psychology and proper training and motivating them to pass lessons difficult to learn by the university counselors can be effective in reducing the prevalence of depression.

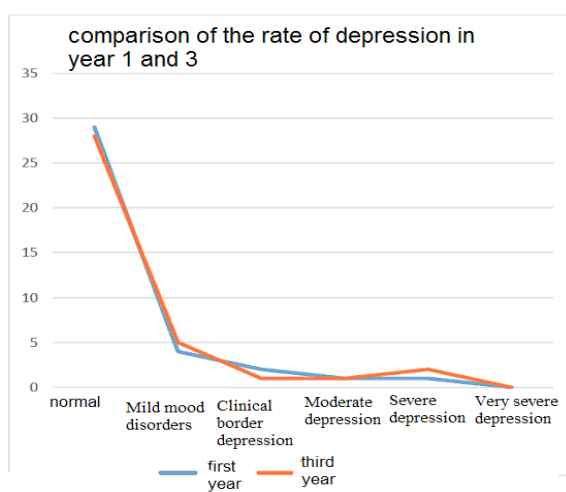


Figure 1. Comparison of the rate of depression in the first and third years



Ethical Considerations

Compliance with ethical guidelines

All ethical principles are considered in this article. The participants were informed of the purpose of the research and its implementation stages.

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Authors' contributions

All authors equally contributed to preparing this article.

Conflict of interest

The authors declared no conflict of interest.

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Resources

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