Original Article

The Prevalence of Depression and Its Relationship with Demographic Variables in the Employees of Fasa University of Medical Sciences

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Abstract

Background & Objective: Depression is one of the most prevalent psychiatric disorders. It causes enormous amount of costs for employees and leads to reduced social and occupational functions severely. This investigation was conducted to study depression prevalence and its relationship with demographic variables among Fasa University of Medical Sciences employees in 2017.

Materials & Methods: This descriptive-analytical study was conducted among 149 employees working at Fasa University of Medical Sciences in 2017. The data collection instruments included a demographic questionnaire and the Beck II standard questionnaire. The data were analyzed by SPSS (version 18) and through descriptive, Chi-2 and correlation tests. The significance level was considered at P<0.05.

Results: 44.8 and 55.2 percent were males and females respectively. Their mean age was 34.41 ± 7.01 with age range from 22 to 55 years old. The mean year of working record was 8.6 ± 16.36 with range of 1-27. Most of employees (77.9 percent) were married and 44.8 percent of them had B.S level of education. The results of present study show that 38.6 percent of employees suffered from different levels of depression so that 16.6, 17.9 and 4.1 percent of them had mild, average and severe to very severe depression, respectively. There was a significant correlation between employee's depression and their education level (p=0.02).

Conclusion: Consequently, it is suggested to establish consulting centers in universities in order to screen employees' health status. They can find susceptible cases and provide them with any necessary interventions to control their depression and cure them.

Keywords: Depression, Occupational Groups, Demographic variables, Psychiatric

Introduction

Depression is one of the most prevalent psychiatric and mood disorders known as a considerable health global problem. It is not specified to any definite group of people and has been defined as a mental challenge for centuries (1,2). It is believed that 10 to 20 percent of people suffer from different levels of depression. Depression is clinically classified into 3 levels : mild, moderate or severe as adopted in DSM–IV with regard to major depressive disorder, duration and course of the disorder and subtype based on symptom profile (2). In the U.S., 19 percent of people experience depression (3,4) . WHO announced that 121 million individuals suffer from depression globally (5) .According to the conducted research Baghiani Moghaddam et al. (2012), 7 million people suffer from a type of mental problems and 15 to 25 percent of Iranians experience mild to severe depression (4). The prevalence of depression among the people

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referring to general physicians and specialists are reported 10 and 15 percent, respectively. Meanwhile, only half of the depressed individuals receive basic treatment (6). Therefore, it is expected to increase depression prevalence increasingly due to social, economic, and environmental pressures and some physical diseases (4). Depression is the cause of many physical problems such as constipation, diarrhea, body pain, anemia, insomnia, fatigue, decrease in libido, amnesia, extremities trembling, and so on (6,7). This disorder can lead to disturbing occupational function and social and interpersonal relations. More than 80 percent of depressed patients regard themselves as disabled persons and they feel they are incapable with respect to having emotional intelligence, appetite, attractiveness, general health and working ability (6). Based on WHO and World Bank reports, depression is the major cause of disability and dysfunction globally, so that low tendency of working and activity are some of the most harmful impacts of depression (3,8,9). The role of job qualification in life is crystal clear, because it supplies people's financial needs and satisfies most of their requirements. Therefore, a person can work efficiently, if he/she feels to be efficient in his career to some extent (10). However, depression can affect staff's behaviors, cognition, physical function, and interpersonal relations considerably so that depressed persons are more prone to lose their jobs and face occupational depression (11). Depression can impact some professional facets of working disciplines such as punctuality in daily work, absence rate from work and efficiency dedicated to doing duties (12, 13). Depressed employees have been reported to take fewer safety measures in the workplace and are exposed more to occupational damage. These can disturb the workplace atmosphere and make interpersonal tensions in working processes (14, 15).

People suffering from depression are more susceptible and when they are in public places, they seem to be different from others culturally and intellectually. They lose their social character and feel empty (16). Demographic studies have shown that depression is one of the most costly diseases related to the workforces so that depressed people face 27 times more with a disability rather than healthy people. Approximately, 30 percent of the reduction in their efficacy and work absence is due to this disorder. Also, the cause of 70 percent of these two problems is their disability and pitfalls in doing affairs owing to the signs and complications of depression (17, 18). These patients suffer from considerable burnout and impact other people and even their surroundings inappropriately. This diminishes their personal, occupational, social and familial function (19). Fallah et al. (2012) found that 40 percent of the employees at Zanjan University of Medical Sciences suffered from depression (13). Rezaei et al. (2015) revealed a high level of depression prevalence among the employees of Isfahan University of Medical Sciences (10). Since human-beings spend most of their social life in occupational places and working is an important aspect of their life, it seems that people's occupation should be taken into account more considerably (20). Depression causes decreased workplace productivity and increased absenteeism resulting in lowered income or higher unemployment. Absenteeism and presenteeism resulting from depression are estimated to cost US$36.6 billion per year in the United States (21). Many studies have reported on this association before. However, whether depression is causing the lower economic status or lower economic status causes depression has long been debated (22). Meanwhile, society's awareness about depression, its prevention approaches, self-care styles, and even therapeutic and mental strategies are so limited (23, 24). Around 50 percent of sufferers have done no measure to be cured (10). Therefore, investigating depression status among employees in every department is necessary. This is more remarkable when they are regarded as a group of people who take care of their health are associated closely with the society's health. Based on the findings achieved from studying the health status of the employees of Medical Sciences Universities, it has been revealed that sufficient measures have to be conducted to promote their mental health (10). As a result, recognizing the causes and contributing factors connected with depression and its prevalence among department's employees is crucial for carrying out urgent interventions. Since no investigation to determine the depression rate of employees working in Fasa University of Medical Sciences has been done, this study was conducted to explore the depression prevalence rate and its demographic variables among the mentioned University's employees.

Materials & Methods

This descriptive-analytical study was conducted among all employees working at Fasa University of Medical Science by convenience sampling. The following formula determined sample size:

$$n = \frac{Z^2 . SD^2}{d^2}$$

N, Z, SD and D are represented, turn, sample size, assurance rate (95%), standard deviation (based on previous studies (13) supposed 1.5) and acceptable error (0.05). According to the mentioned suppositions, the sample size was measured by 386 employees. Since the ratio of the calculated sample size to the population is 20 percent, the sample size was determined 149 ones based on statistical consultant and population edition formula and random sampling method was used in the present study. The inclusion criteria included having more than one year of work experience, being interested in participating in research, not having manifestation of mental illness, not having history of taking drugs that affect the psyche, not having chronic and incurable physical illnesses. The exclusion criteria included incomplete filling of the questionnaire and reluctance to participate in the study. Data collection instruments included two questionnaires encompassing the demographic one and Beck II Depression questionnaire. Participants were informed of the study goals and asked to fill informed consent form. They also were assured that their data would have been kept confidential and questionnaires were anonymous. The demographic questionnaire consisted of age, gender, marital status, education level, work year record, and accommodation type. Beck II Depression questionnaire (10) included 21 questions related to evaluating depression signs. These questions had four options, from 0 to 3. The scores equal or less than 9, 10-17, 18-26 and 17-30 represented lack of depression, mild depression, Moderate depression (clinical depression) and severe or very severe depression, respectively. Questionnaire reliability Beck depression was reported to be 78% by the Kuder-Richardson method and 75% by the retest method. In Iran, Porshahbaz has estimated the correlation coefficient of this questionnaire to be 23 to 68% and its internal consistency to be 85% (10). The achieved data were analyzed by SPSS (version18) and through descriptive, Chi-2 and correlation tests.

Results

The results showed that 149 employees of Fasa University of Medical Sciences participated in the study and four ones were excluded due to filling out questionnaires incompletely. Out of all studied employees, 65 and 80 employees (44.8 and 55.2 percent) were males and females. Their mean age was 34.41 ± 7.01 with age range from 22 to 55 years old. The mean year of working experience was 8.6 ± 16.36 with range
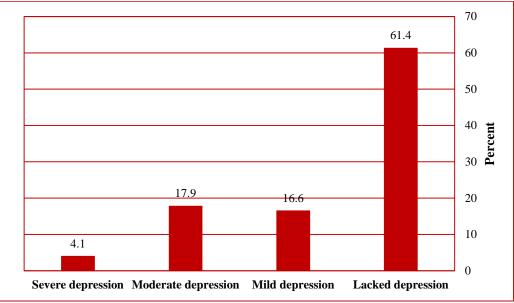

Chart 1: Frequency Distribution of Studied Employees Based on depression rate

of 1-27. Most of the employees (77.9 percent) were married and 44.8 percent of them had B.S level of education. Generally, 89 employees (61.4%) lacked depression. Also, 56(8.6%), 24(16.6%), 26(17.9%) and 6(4.1%) studied employees had, in turn, mild, moderate and severe to very severe depression (Chart 1).

The results showed that 31(37.30%) and 25(38.25%) out of 80 and 65 females and males had different depression levels respectively. There was a significant correlation between depression level and education (P=0.02) in the present investigation, in which the same correlation was not seen among other demographic variables (Table 1).

variables among Employees of Fasa University of Medical Sciences. Based on the present study's finding, 38.6 percent of the studied employees suffered from depression at different levels. This rate is 21 percent in the whole Iranian population (25). Rezaei et al (2014) reported that 46 percent of their studied cases were depressed (10). Vakili et al. stated that 46 percent of their studied health staff had depression (26). However, the depression rate among the general population was reported 8.5 percent in Rasht (2007). It was 14.8 percent in the same year in Yazd based on Vakili et al's investigation. The comparison of the mentioned studies shows a difference between the depression rates in the

Table 1. The Relation between Depression Ranges with Demographic Variables of Employees among Employees Working in Fasa University of Medical Sciences

Variable		Lack of Depression	Mild Depression	Moderate Depression	Severe Depression	P-Value
		Number (Percentage)	Number (Percentage)	Number (Percentage)	Number (Percentage)	
Age	Under 35	44(63.80)	11(15.90)	11(15.90)	3(4.30)	
	Between 35-45	29(61.70)	9(19.10)	7(14.90)	2(4.30)	0.89
	Over 45	7(58.30)	1(8/30)	3(25)	1(8.30)	
Gender	Female	49(61.30)	13(15)	14(17.50)	5(6.30)	0.56
	Male	40(61.50)	12(18/50)	12(18.50)	1(1.50)	
Marital Status	Single	19(16.30)	6(19/40)	5(16.10)	1(3.20)	0.58
	Marries	70(16.90)	17(15)	21(18.60)	5(4.40)	
Working Record	less than 10 Years	49 (61.30)	13(16.30)	15(18.80)	3(3.80)	
	10-20 Years	27(62.80)	7(16.30)	6(14)	3(7)	0.97
	Over 20 Years	4(66.70)	1(16.70)	1(16.70)	0(0)	
Education Level	Diploma	10(37)	5(18.50)	10(37)	2(7.40)	
	Under Graduate	8(47.10)	6(35.30)	3(17.60)	0(0)	0.02
	B.S	44(67.70)	9(13.80)	8(12.30)	4(6.20)	
Accommodation Type	Domestic	82(61.70)	23(17.30)	22(16.50)	6(4.50)	0.68
	Non-domestic	6(54.50)	1(9.10)	4(36.40)	0(0)	

Discussion

The aim of study was to determine the depression prevalence rate and its demographic

general population and specific ones. Nevertheless, it is not so different among people situated in similar groups (18,26,27). This research indicated that 16.6,17.9 and 4.1 percent

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of the studied employees had mild, moderate and severe depression levels, respectively. The findings of Rezaei et al's research (2014) showed that 28.3, 15.3 and 2.2 percent of the studied samples suffered from mild, moderate and severe depression respectively (10). The results indicated that no significant relation was seen between employees' gender with their depression. This was consistent with the studies done by Rezaei (2014) and Mahmoodi (2013) (10, 27). The present research demonstrated significant relation between depression of employees and their education level so that depression decreased as their education level was higher. This converse relation was also reported from the studies of Fallah (2011), Rezaei (2014) and (10,29). This can be justified by this fact that lower education is accompanied by less working skills and, hence, they were more prone to face with stress and inefficacy feeling. Meanwhile, direct relation was reported between education level with people's income which justifies the correlation between higher depression level and lower education level (20). The current study showed insignificant relation between marital status of employees with their depression as revealed this result in Dehghan (2013) and Rezaei's studies (2014) (10,28). The findings demonstrated no significant relation between age, working experience and accommodation type with depression of the studied employees like other studies such as Shajari et al. (2015), Rezaei (2014), Dehghan (2013) and (9,10,29). However, there was significant relation between depression of University's employee with their accommodation type (13). Also, Vakili et al's study found significant relation between age and working experience with depression of the studied samples (26). All these varieties can be attributed to the homogeneity of the studied samples, the differences in data collection tools, sample size and also inclusion and exclusion criteria.

The study done by Yousefnezhad et al (2018) showed a significant relationship between age, marital status, kind of work done by people and prevalence of depression, and there was no significant relationship between educational level and depression. The results of that study are contrary to the present study, this may be due to the low number of samples (6). In the study Yohannes et al (2018) in Ethiopia, a significant relationship was found between the prevalence of depression and gender, so that the prevalence of

depression is higher in women. The results of this study are contrary to the present study which can be due the difference in geographical area and culture of life. In this study, there was a significant relationship between job and depression, so that the prevalence of depression in businessmen is higher than employees (30). In a study conducted by Nabipour et al (2015) the prevalence of depression was 34.7% including 2.4% severe depression cases. There was a significant relationship between depression and female gender and there was no statistically significant relationship between depression and other variables including age, educational level. The results of this study indicate that increasing the level of education does not play an effective role in increasing awareness and preventive behavior related to depression, which is contrary to the present study, which can be due to the heterogeneity of the samples and difference in the depression questionnaire.

Conclusion

Since the rules related to work are changing consistently and any criteria judge the individuals, it is vitally important that employees can manage themselves with these changes. Also, the employees of universities are exposed to psychological problems such as depression due to consistent changes and fluctuation which happen in these educational environments. This can be very hazardous for society's health, which requires urgent interventions. Consequently, it is suggested to establish consulting centers in universities to screen employees' health status. They can find sensitive cases and provide them with any necessary interventions to control their depression and cure them.

Ethical Considerations

This investigation was done based on the following ethics code (IR.FUMS.REC.1396.194). Before the

investigation, the participants were informed of the study goals and asked to fill an informed consent form. They were also assured that their data would have been kept confidential.

Conflicts of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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