Prevalence of Depression amongst Students of Shaheed Sadoughi University of Medical Sciences, Yazd, Iran

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Objective: University students account for human resource of each society and will make the future of their country. Psychological disturbances such as depression and hopelessness can affect daily life and scholastic process of university students. The authors intended to determine the prevalence of depression amongst students of Shahid Sadoughi University of Medical Sciences, Yazd, Iran.

Methods: Fifteen percent of the total population of students of the mentioned university [254 subjects consisted of 73 (28.7%) males and 181 (71.3%) females] were selected by stratified random sampling method. The tools of enquiry were interview and Beck Depression Inventory. The association of demographic factors such as sex, marital status, residence place, and educational characteristics like course and mean of educational scores with levels of depression were studied.

Results: Half of the students (50%) were suffering from different grades of depression; 35.4% mild, 13.4% moderate and only 1.2% were in the sever grade of depression. Mean pre-university score, National University Entrance Examination score, interest rate of the students to the selected university course, lose of friends and relatives and important events in their life were those factors which were significantly associated with depression.

Conclusion: A considerable number of the students had depression. Specific attention to the factors which showed significant association with the presence of depression should be made.

Declaration of interest: None.

Introduction

University students account for human resource of each society and will make the future of their country. Psychological disturbances such as depression and the feelings of hopelessness can affect daily life and performance level of university students [1]. Depression is one of the most prevalent mood disorders. Its main characteristic is changes of mood status presented by feeling of sadness that may fluctuate from light hopelessness to sever feeling of disappointment. Moreover, these changes can involve behavior, thinking, attitude, efficiency, interests, and motivation that often lead to disorder in scholastic and occupational function or social relationships [2]. Most depressed people have a way of thinking combined with criticizing and blaming themselves, feeling of disability, cheapen their successes, inefficacy, inferiority and vacuity. They often exaggerate their failures and cheapen their successes [3].

In Iran, studies have showed that prevalence rate of depression amongst students of universities varies from 36% to 66% with about 2-5% in a severe form of disorder [4-7]. Due to lack of a clear view of depression among university students in Iran, the present study was done to determine the prevalence of depression and possible factors associated with this disorder among the students of Shaheed Sadoughi University of Medical Sciences, Yazd, Iran.

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Materials and Methods

Two-hundred fifty four students (181 females and 73 males) were selected by stratified random sampling method and invited to the Consultation Center for interview and filling out a questioner in 2008. The collected data included personal and educational information, interest rate to the selected university course, mean score of pre-university course, grade of the National University Entrance Exam, and recent life events. Beck Depression Inventory (BDI) which is one of the famous tests for the evaluation of depression was used as well. Validity and reliability of Farsi version of BDI has been demonstrated in Iran (8). This questionnaire has made from 21 multiple choice questions scored by simple Likert method [0, 1, 2, 3] (9). Minimum score is 0 and maximum is 63 and range of 0-9 is considered normal, 10-19 mild depression, 20-29 moderate, 30-39 sever and ≥ 40 shows highly sever depression (10).

Data were analyzed by SPSS software for Windows (Ver. 13.0) using descriptive indices including frequency, percentages, and mean (standard deviation, SD) as well as the chi-square for comparison of categorical variables.

A significance level of 0.05 was considered statistically significant.

Results

Our findings indicated that 181 (71.3%) subjects were female and 73 (28.7 %) were male; 66.9% and 33.1% of the subjects were studying in daily and night courses, respectively. Also, 85.8% of the students were single and 14.2% were married. Only 57.1% of the students were living in dormitory. 42.9% of the students were in the levels of high diploma, 41.3% in bachelor of sciences and 15.7% in Medical Doctor Program. Moreover, 46.1% were studying public health, 22.4% nursing and midwifery, 15.7% paramedical and 15.7% medicine and dentistry. Nearly half of the students (50%) were suffering from different grades of depression; 35.4% were mild, 13.4% moderate and only 1.2% of those were in the sever grade of depression. In this study, no significant association was seen between being depressed and gender, marital status and residence place of the students (p>0.05) (Table 1). However, there was a significant

Table 1. Frequency distribution of depression levels according to demographic and educational status of students

	Depression	No n (%)	Mild n (%)	Moderate & sever n (%)	Total n (%)
Sex	Female	95 (52.8)	57 (31.7)	28 (15.6)	180 (100)
	Male	32 (43.8)	32 (43.8)	9 (12.3)	73 (100)
	Total	**127 (50.1)**	**89 (35.1)**	**37 (14.6)**	**253 (100)**
			p=0.5		
Marital status	Single	108 (49.8)	80 (36.9)	29 (13.4)	217 (100)
	Married	18 (50)	10 (27.8)	8 (22.2)	36 (100)
	Total	**126 (49.8)**	**90 (35.6)**	**37 (14.6)**	**253 (100)**
			p=0.3		
Residence place	Dormitory	72 (50.3)	48 (33.6)	23 (16.1)	143 (100)
	No-dormitory	54 (49.5)	42 (38.5)	13 (11.9)	109 (100)
	Total	**126 (50)**	**90 (35.7)**	**36 (14.3)**	**252 (100)**
			p=0.7		
Mean score of pre- university course	14-16.99	16 (34.8)	25 (50)	9 (15.2)	50 (100)
	17-18.99	64 (51.6)	41 (33.1)	19 (15.3)	124 (100)
	19 >=	28 (65.1)	13 (30.2)	2 (4.7)	43 (100)
	Total	**92 (55)**	**54 (32.3)**	**21 (12.7)**	**167 (100)**
			p=0.001		
Mean grade of the National University Entrance Exam	<500	13 (68.4)	6 (31.6)	0 (0)	19 (100)
	501-2000	12 (54.5)	8 (36.4)	2 (9.1)	22 (100)
	2001-5000	14 (58.3)	6 (25)	4 (16.7)	24 (100)
	>5000	65 (45.5)	54 (37.8)	24 (16.8)	143 (100)
	Total	**104 (50)**	**74 (35.6)**	**30 (14.4)**	**208 (100)**
			p=0.01		
Interest rate to selected course	High	34 (54)	19 (30.2)	10 (15.9)	63 (100)
	Moderate	78 (54.2)	49 (34)	17 (11.8)	144 (100)
	Low	14 (34.2)	20 (47.4)	9 (18.4)	43 (100)
	Total	**126 (50.4)**	**88 (35.2)**	**36 (14.4)**	**250 (100)**
			p=0.03		

association between the grade of depression and the mean score of pre-university course (p=0.001). The highest proportion of disorder (%50 mild and 15.2% moderate and severe) was belonged to the students who had lowest mean scores (14-16.99) whereas the respected proportions amongst students with mean score of ≥ 19 were 30.2% and 4.7%, respectively (Table 1). Similar significant findings were observed in relation to the grade of National University Entrance Exam and disorder; where students with the better grades of exam showed lower proportions of depression. However, no significant association was seen between mean score of University and depression levels (p>0.05). There was a significant association between interest rate to the selected university course and depression. About fifty percent of students with low interest rate had mild and 18.4% of those had moderate and sever grades of disease (p<0.05) (Table 1). Lost of relatives and friends (p=0.006) as well as important events occurred in the preceding year (p=0.001) were factors which were significantly associated with depression syndrome. Twenty seven point three percent of the students who had lost their near friends and relatives, had moderate and sever depression whereas the respected proportion of disease among students without lost of a friend or relative was only 11.7%. Also, 24% of the students who had experienced important events in their life had moderate and sever depression.

Discussion

Our findings indicated that fifty percent of the students were suffering from different grades of depression that 35.4% was mild, 13.4% moderate, and only 1.2% of them had severe depression. Similar studies have shown prevalence rates close to our results. For example, Ahmadi et al. showed a depression prevalence rate of 54.47% amongst the students of Shiraz University of Medical Sciences, Iran. In their report, 44.66% of the students had mild depression, 8.66% moderate, and 2.33% were in the severe grade of depression (4).

In a study done in Ardabil University of Medical Sciences, it was identified that 57.6% of students were suffering from depression that 39.8% was mild, 14.8% moderate and 3% were in the severe grade of syndrome. Another prevalence rate of disease reported from Ardabil University of Medical Sciences (2003) was 45.7% (7). Similarly, the prevalence rates of 41.1%, 31.7% and 45.3% have been reported from universities of medical sciences in Bandar Abbas, Kurdistan and Shahrood, respectively (5-7).

Recent studies on newly registered students have shown that noticeable amount of students were suffering from different levels of depression while entering to universities. Stress of the National University Entrance Exam that determines students' fate after 12 years of education, hard competitions added with educational pressures resulted from studying during educational years and limitation in social relations can lead to mental tiredness and depression among students before entering to universities.

Although no significant association was seen between gender and depression in our study, female students had higher proportions of moderate and sever grade of depression than males (15.6% vs. 12.2%). The results of studies carried out by two researchers are in accordance with our results that higher rates of depression were found in female students in comparison to males (6,11). However Nejabat et al. have reported higher prevalence of depression in males than females which was not similar to our results (6). An explanation for not detecting significant association between gender and the rate of depression in the current research could be related to the low sample size included.

Being far from families, lower levels of psychological supports, living with people having different cultures, overcrowding along with noise pollution and inadequate facilities and cultural programs are factors which can predispose depression disorder among students residing in dormitories. Relation between residence place (living in dormitory or not) and depression was not shown to be significant in our study, but the rate of moderate and sever forms of depression in students who

were residing in dormitories was higher (16.1% compared with 11.9%). Similar results have been reported by different studies (11-13).

In this study, mean scores of pre-university course and National University Entrance Exam were two factors which showed significant association with depression; students with higher scores of pre-university course had lower rates of moderate and severe forms of depression. In contrast, students with better grades of the National University Entrance Exam had lower rates of moderate and sever depression. However, mean score of university did not show such a significant association. These findings show that although different factors can affect educational development of students before entering to university, it might be resulted from depression in some students.

Regarding the subject studied at university, higher and lower rates of depression were seen amongst students of paramedical subjects and medical school, respectively (25% vs. 5%). It is in agreement with some former reports (6,14,15). This discrepancy is maybe due to higher proportion of high diploma students and more ambiguity toward the occupational future in the paramedical students. But more evaluations are required.

Sixty five point eight percent of the students who had low interest to their university courses were suffering from depression (47.4% mild depression, 18.4 % moderate and sever depression). Although this can be primarily resulted from depression, however, more analytic studies are required with this regard.

Sixty three point three percent of the students who had lost their close relatives and friends during the preceding year showed various levels of depression. The respected percentage for those who had experienced important events in their daily life was 76%. Similar high proportions of depression have also been reported by two studies (6,14). It shows that stressful events can initiate or increase the severity of depression.

In conclusion, the prevalence rate of depression amongst students of Shaheed Sadoughi Mesical Sciences was 50% with 14.6% of the students had moderate and severe forms of this mood disorder. The educational measurements of students before entering to university are of important factors which can increase the probability of depression in university students.

Acknowledgment

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Lotfi M H , Aminian A H , Ghomizade A , et al.

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