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A Cross-Sectional study of Psychiatric disorders in Medical Sciences Students

Farkhondeh Jamshidi[1,2], Sasan Mogehi[3], Maria Cheraghi[1,4], Seiedeh Farzaneh Jafari[5], Iman Kabi[5], Leila Rashidi[1]

[1]Social Determinant of Health research Center, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

[2]Department of Forensic Medicine and Clinical Toxicology, School of Medicine, Ahvaz Jundishapur University of Medical Sciences,Ahvaz, Iran

[3]Deputy of Culture and Student, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

[4]Department of Public Health, Health School, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

[5]Counseling office, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

Correspondence author:
Maria Cheraghi, Social Determinant of Health research Center, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran. ORCID ID: http://www.orcid.org.E-mariacheraghi@gmail.com; Cheraghi_m@ajums.ac.ir

ABSTRACT

Introduction: Aim of article was to investigate the prevalence of psychiatric disorders (depression, social dysfunction, anxiety and somatic symptoms) and some of its influencing factors in freshmen at Ahvaz Jundishapur University of Medical Sciences. **Methods:** This was a cross-sectional study which has conducted among 781 new students of all faculties of University in 2014. A study tool was the General Health Questionnaire (GHQ28). **Results:** Founding of this study has shown that from 781 students under study (33% male and 67% female). 27.9% of students have been suspected of some degree of mental disorders. The average total score of the questionnaire for male students was18.04±12.02 and for female students was18.69±12.13, but no significant difference was observed between the average score of mental health and sex(p<0.05). The average overall score in Ph.D students was higher than this score in undergraduates and masters that it shows there is more mental disorders in this group. But no significant difference between level of education and average mental health score, anxiety and health problems was observed(p<0.05). In terms of depression subscale(p<0.05) and social adjustment(p<0.001), this difference was significant. **Conclusion:** Due to high prevalence of mental disorders in these students, counseling and therapeutic interventions to eliminate or reduce these problems must be designed.

Keywords: prevalence, psychiatric disorders, student, Ahvaz.

1. INTRODUCTION

It has been estimated that 37% of young people are among 15-24 years old, and majority of them are students which has at least one recognizable psychological disorder (1). They have to enter the university and to pass the great barrier of the Entrance Exam, students are suffering many hardships, including a long-term insomnia and refusing to have fun. Also due to fear of getting into a stressful and great environment, staying away from family, economic problems, and lack of sufficient income, they may be prone to mental disorders (2).

Depression is the most common mental disorder that can consist of a set of different psychological signs and symptoms like mild feeling of fatigue and boredom and refusing to do everyday activities. Most of the people who suffer from depression do not seek medical attention, and those patients who seek medical attention are more likely to complain of physical discomfort, lack of energy or feeling of fatigue so their illness are not often recognized (3). It is estimated that 10-20 percent of people experience mild or severe depression at least one time in their lives (4). This disorder is considered as one of the most important affective subjects on the students' health. Recent studies have shown that recently depression has decreased 56% in this group (5). Other undesirable consequences of depression can be reduction of learning, high likelihood of drug use, increasing the risk of other mental illnesses and suicide (6-10).

Despite of high prevalence of depression in students, it is not often diagnosed and also some of them do not feel the necessity of receiving help and health services (11, 12). According to data, only 10 percent of 30 percent of students who have experienced depression, proceed to receive health care so their depression are recognized (13). Out of main reasons of this issue can be fear about the stigma of having a mental illness, (14) lack of awareness of health counseling services as well as lack of awareness of confidentiality of their information in those centers (15). Some studies have shown that the prevalence of depression among students in medical sciences is 7-18 percent (16) and demographic factors like age, sex and level of education are effective on the incidence of depression (17).

Type of disorder	Gender	Number	Mean	SD	P- value
Physical problems	Male	258	4.05	3.19	0.008
	Female	523	4.76	3.62	
Anxiety	Male	258	4.29	4.11	0.72
	Female	523	4.18	3.68	
Social Adjustment	Male	258	7.48	3.43	0.60
	Female	523	7.32	3.52	
Depression	Male	258	2.31	3.55	0.70
	Female	523	2.42	3.82	
Total score	Male	258	18.4	12.2	0.48
	Female	523	18.69	12.13	

Table 1. Relationship between mean of general health and its subscales with gender (n=781 people)

One of the most common psychological diseases is anxiety which estimated that the prevalence is approximately 29% in whole lifetime (18). Anxiety as a common detrimental phenomenon among students plays an important role in the onset of psychosomatic diseases such as hypertension, coronary heart disease, angina, as well as psychiatric disorders such as depression (19).

Numerous researches have been performed to study the prevalence of mental disorders in a group of students. Due to the importance of these disorders in this group, who are considered as the future makers of each society, this study was designed to study the prevalence of mental disorders and some of their effective factors on freshmen of Ahvaz Jundishapur University of Medical Sciences in 2014-2015.

2. MATERIALS AND METHODS

This was a cross-sectional study which has conducted among 781 new students of all faculties of Ahvaz University of Medical Sciences from August to October in 2014. We have explained the aim of this study for subjects, and were made sure that all the responses were kept secret by researcher. They had informed consent and filled the questionnaire. The tool of this study was a standard questionnaire called as the mental health questionnaire (GHQ-28) and additional questions. The questionnaire gives to each person 5 scores which its 4 scores were related to the subscales of depression, anxiety and insomnia, social dysfunction and physical symptoms and 1 score is the total number which has contain of calculated all scores. General Health Questionnaire scoring method was in this way that the options A to D were scored zero, one, two and three respectively. As a result, the individual's score on each of the subscales will be from zero to 21 and totally the questionnaire will be from zero to 84. At every scale, the score above 6 and in total above 22 from grade 6 indicates symptoms of illness. According to Williams and Goldberg meta-analysis study (21), sensitivity is 84% (77% to 89%) and specificity of this test is 82% (78% to 85%). In Iran, Yaghoobi (20) has reported that sensitivity was 86% and its specificity was 82%.

After gathering data, in descriptive statistics for qualitative variables frequency and relative frequency and for continuous variables mean and standard deviations were calculated. The analytical data were used by, one-way analysis tests for determining the difference between the average scores in the multistate qualitative variables, independent T test for comparing the average scores and dual-mode qualitative variable

Variables		Gender		P-value
		Male Number (%)	Female Number (%)	
Physical problems	Normal	204(79.1)	408(78)408	0.23
	Mild	44(19.1)	(15.5) 81	
	Medium	(3.9) 10	(5.2) 27	
	Severe	(0) 0	(1.3) 7	
Anxiety	Normal	(76.4) 197	(79.5) 416	0.64
	Mild	(17.4) 45	(14.9) 78	
	Medium	(4.3) 11	(4.4) 23	
	Severe	(1.9) 5	(1.1) 6	
Social adjustment	Normal	(44.6) 115	(45.7) 239	0.99
	Mild	(42.6) 110	(41.9) 219	
	Medium	(10.9) 28	(10.5) 55	
	Severe	(1.9) 5	(1.9) 10	
depression	Normal	(88.8) 229	(88.1) 461	0.64
	Mild	(7.4) 19	(7.5) 39	
	Medium	(3.1) 8	(2.5) 13	
	Severe	(0.8) 2	(1.9) 10	
Mental health	Normal	(72.1) 186	(72.1) 377	0.96
	Mild	(22.5) 58	(21.6) 113	
	Medium	(4.3) 11	(5) 26	
	Severe	(1.2) 3	(1.3) 7	

Table 2. Relationship between mod of mental disorders and gender (n = 781). SD= Standard deviation

and Chi-square test for determining the relationship between qualitative variables. The data were analyzed by statistical software SPSS (version 17) . The level of significance was statistically considered less than 0.05.

3. RESULTS

Out of 810 students in 2015, 781 persons completed the questionnaires and entered into the study, so response rate was 96.42%. 67% of them was female (523 persons) and 33% was male (258 persons), even 27.9% of students have mild to severe mental disorder.

In this study, the prevalence of health problems was 21.63%, anxiety 21.51%, social adjustment 54.67% and depression 11.65% were observed. Results showed that the mean score of mental health was 18.47 ± 0.43, in the sub-scale of health problems 18.47 ± 0.43, Anxiety 18.47 ± 0.43, social adjustment 18.47 ± 0.43 and depression 18.47 ± 0.43.

The average score of students' mental health in men was 18.04 ± 12.02 and in female students was 18.69 ± 12.13, but there was no significant difference between these two groups. No significant difference was also observed between gender and anxiety, social adjustment and depression ($p< 0.05$) and there was statistical significant difference between sex and subscale of physical problems ($p> 0.05$) (Table 1)

The results showed that in terms of subscales of physical problems, 54 (20.93%) men and 115 (21.99%) female, in terms of subscale of anxiety 61 (23.64%) were men and 107 (20.46%) were female, in social adjustment 143 (55.43%) male and 284 (54.30%) female and in depression 29 (11.24%) male and 62 (11.85%) female had mild to severe disorder but no significant statistical relationship between the severity of mental disorders in both genders was observed ($p< 0.05$) (Table 2).

The average total score of mental health and subscales of depression, social adjustment, and anxiety was higher in Ph.D. students than in both undergraduate and graduate stu-

Type of disorder	Education Status	Number	Mean	SD	P- value
Physical problems	MA	45	4.22	2.96	0.69
	Ph.D.	280	4.44	3.54	
	BA	456	4.60	3.52	
Anxiety	MA	45	3.62	3.63	0.33
	Ph.D.	280	4.43	4.05	
	BA	456	4.14	3.71	
Social adjustment	MA	45	7.24	2.97	< 0.001
	Ph.D.	280	8.01	3.64	
	BA	456	6.97	3.40	
Depression	MA	45	1.07	1.71	0.04
	Ph.D.	280	2.56	40.7	
	BA	456	2.41	3.63	
Total score	MA	45	16.28	9.31	0.21
	Ph.D.	280	19.32	12.91	
	BA	456	18.17	11.80	

Table 3. Relationship between Mean score of general health with educational level (n=781). SD= Standard deviation

dents. In term of physical problems, undergraduate students had higher scores. Results showed that there was a significant difference between the social adaptation and educational level (p> 0.001), depression and level of education (p> 0.05). But in scales of physical problems, anxiety and the total score of mental health in different educational levels no significant statistical difference was observed (p< 0.05) (Table 3).

4. DISCUSSION

Various studies shown that the prevalence rate of mental disorders in countries, cities, and cultures was different. The findings of this study showed that among the mental disorders, social adjustment disorder has the highest percent of frequency among the students of Jundishapur University. Due to this fact that students in campuses and dormitories must have high social adaptation to live together, designing the necessary interventions to solve or reduce this disorder should be specifically considered.

The overall prevalence of mental disorders in subjects was 27.91%. According to a study conducted by Shariati and colleagues on students in the Iran University of Medical Sciences, the prevalence of psychiatric disorders was reported 42.6% (22). And also based on the studies by Hashemi 11.1% (23), Abbasi 17.3% (24), Akkashe 28.4% (25) and Besharat 72% (26) of students are affected to some degree of mental disorder and do not have good mental health.

In the Makhal study, average score of overall health GHQ-28 was 5.33 ± 4.85, which shows a lower level than our study's level (1). In the results of this study, no relationship between educational level variable and rate of those who are suspected of mental disorders was observed. In the study of Akbari (27) and Tavakkolizadeh (28) the same result was obtained.

In this study, just in terms of physical problems, there was a significant correlation between the average score and gender (p> 0.001), but in the study of Shariati on students of Iran University of Medical Sciences, the prevalence of mental disorders had a significant relation with gender variable (22).

In our study, the mean score of anxiety in male students was higher than this score in female students. Conversely, in Rezai's (29) and Besharat's (26), anxiety in female subjects were higher than in male. It is perhaps related to students'

social and cultural characteristics.

The prevalence of depression in the subjects was 11.65% which was lower than this number in Moreno (5) and Dehdari study (30) and higher than Quince study (31). The results of this study showed that depression disorder in female was higher than in male, which were consistent with the Besharat study (26).

5. CONCLUSIONS

Since psychiatric disorders, especially anxiety and depression among students suffer the process of learning and adapting to the new environment of university, so it is necessary to activate the Psychological Counseling centers in academic environments and screen students regularly and make them to have counselling and if it is necessary cure them Psychiatrically.

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