Original Article

Mental health status of entrance students in Mashhad University of Medical Sciences from the national university entrance exam in the academic year 2014-2015

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Abstract

Introduction: Psychological disorders have created many problems for students as the most prestigious and chosen sectors of society and have greatly affected students' academic performance and also disturb their mental, emotional and social developments. This study was conducted to determine the mental health of entrance students in Mashhad University of Medical Sciences from the national university entrance exam in the academic year 2014-2015.

Materials and Methods: This descriptive-analytical study was performed on 973 first year students (340 males and 633 females) from Mashhad University of Medical Sciences. Data were collected by General Health Questionnaire (GHQ-28) and analyzed with descriptive and inferential statistics using SPSS software version 22.

Results: The prevalence of mental disorders among students was 12.2%. This ratio was 11.8% in men and 12.5% in women. There was a significant correlation between students' mental health and gender as well as the place of study variable ($P<0.05$). Also, the students of the Health and Paramedics Faculties had the highest rate of disorder or suspected impairment. There was no significant relationship between mental health and native status, marital status and age group.

Conclusion: Attention to the mental health of students is important because of the prevalence of mental disorders among students in this study and that mental disorder reduces one's ability to perform activities and educational affairs and given the important point that many of these disorders can be evaluated and predictable.

Keywords: General health, Mental disorder, Students

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Introduction

Mental health is one of the centers of health assessment of different communities which plays an important role in ensuring the dynamism and efficiency of each community (1). WHO defines health as a complete physical, mental and social well-being and not just the absence of disease and disability. Mental health is also the balanced, rhythmic behavior in harmony with the society, the recognition and acceptance of social realities and the ability to adapt to them and the flourishing of innate talents (2).

Promoting mental health in the community improves the quality of life (3). Psychological disorders are one of the most important which increase infection, disability and the decreasing factor of life quality in all societies (4). According to the World Health Organization, out of every four people in each stage of life suffer from one or more mental disorders (5).

Mental health is one of the most important factors in the promotion and development of human beings. This is especially important in students. Attention to this point is important in this regard which entering the university makes a significant change in the social, personal and family life, and is considered a highly sensitive section. In this period, the person faces a lot of changes in social and human relations.

Along with these changes, we need to point out new expectations and roles that take shape simultaneously with entering the university. Exposure to these conditions is often accompanied by stress and affects the performance and efficiency of individuals (6,7). Although students are usually considered to be the favorite members of the community, several studies show that students are also affected with a variety of psychological disorders and problems (8).

Various factors can be effective on student's mental health. In general they can be categorized into three groups 1) personal factors, 2) factors related to the university and 3) social factors.

Many students not being familiar with the university environment at the time of entering, separating and moving away from the family, lack of interest in the field of study, incompatibility with other people in the living environment and lack of leisure and economic facilities are such conditions which can cause mental problems, discomfort and the drop in the performance (9).

Psychological disorders have created many problems for students who are from the talented and favorite strata of the society and the makers of tomorrow in each country, and greatly affect their academic performance and disturb their psychological, emotional and social development.

These disorders often emerge between the ages of 18 and 25 when young people enter adolescence. At this stage of life, many people start or continue their academic or educational course. Students with psychological disorders often experience problems related to education such as concentration problems, distraction, inappropriate behavior, lack of social skills, helplessness, impulsive behavior and excessive anxiety. These problems often place obstacles and complexities on their way of study, lecture and seminar (10).

In addition, psychological problems in students lead to disruption of homework assignments, motivation decrease, fear and anxiety, and cause a considerable part of their intellectual potentialities to waste dealing with such problems rather than working in educational and training affairs (11).

While students of medical sciences have problems of other students, they also have their own special problems including mental and emotional stresses of the environment (hospital, laboratory), dealing with issues and problems of patients, fear of the job position and future responsibilities and vague future jobs in some fields, and for this reason, it seems that they are more likely in danger of losing mental health than other students (12).

The results of a study at Chile Medical School show that 41 percent of students are at risk for mental disorders. Also, the students in the first year had higher grades (worse mental health status) than fourth year students (13).

In a study conducted in Yazd University of Medical Sciences in Iran, 15.7% of students had a serious psychiatric problem and needed psychiatric and psychological services (1).

Studies have shown that although many studies have been conducted on students' mental health in different universities, no research has specifically investigated the mental health of students of Mashhad University of Medical Sciences.

Therefore, the present study was conducted to understand the problems of freshmen of the academic year if 2014-15 and to identify vulnerable and suspected people with mental

disorders in Mashhad University of Medical Sciences, so that with using its results, besides providing mental health services, counseling, psychotherapy and drug therapy, causes improvement of the mental health of students; thereby, prevents the consequences of the effects of academic failure and the loss of manpower and the economic power of young and active members of society.

Materials and Methods

The present study conducted through descriptive-analytical method. Data gathering conducted with assistance of consultancy center of Mashhad University of Medical Sciences. The statistical community consist 973 entrance students in from the national university entrance exam in September-January of academic year 2014-2015.

All students were evaluated through General Health Questionnaire (GHQ-28) which is the most famous screening instrument to assess mental health (14).

This information is from the mental health monitoring plan of the country, which is administered by the Ministry of Health and Medical Education every year for new students, and all the questionnaires are archived in the student's mental health department, after deletion of personal information, including name and surname, number and contact information which are provided by the director of the center to the researcher.

This research plan was approved by the 940071 code at Mashhad University of Medical Sciences and all ethical issues were approved by the University's Ethics Committee, and then the implementation stages began.

The questionnaire used in the mental health monitoring plan was provided by the university counseling unit and was completed by the students after justification and guidance. The questionnaire was devised by Goldberg to identify psychiatric disorders. This tool has 28, 30, 60 and 12 questions.

Due to the time of implementation and widespread use, the form with 28 questions is often used (15).

In this questionnaire, the Likert method is scored (from zero to three), and the total score is up to 84, and the higher score indicates the less mental health. Here, the cutoff point 23 is used to determine students with mental health and suspected impairment. Therefore, a score of 23 and above represents or suspects mental disorders and below that is a sign of mental health (16). Several studies have been conducted on the validity and reliability of the general health questionnaire.

In a survey, Goldberg and Williams, the credibility of this questionnaire was reported at 95% (17). In the study, Kronbach's alpha coefficient was 93%. Various studies in Iran have shown that the reliability of this questionnaire as 91-84% (11).

After collecting initial data, the data were analyzed in two sections: descriptive statistics and inferential statistics. In describing the data, frequency tables and central indicators and dispersion were used such as mean and standard deviation. Chi-square test was used to compare qualitative variables. In this regard, SPSS version 22 was used.

Results

A total of 973 students from different disciplines participating in this study 340 (35%) were male and 633 (approximately 65%) were female. 474 (49%) were natives and 499 (51%) were non-native students.

The distribution of these students at different faculties was 353 (36%) of the faculty of medicine, 236 (24.25%) of the nursing faculty, 117 (12%) of the health faculty, 146 (15%) of the paramedical faculty, 5%) of the faculty of pharmacy and 68 (7%) of the faculty of dentistry. Students' mental health status was evaluated by GHQ standard test, which 119 (12.2%) had mental disorders and 854 (87.7%) were healthy.

Regarding the qualitative variables, Chi-square test was used.

There was a significant correlation between the variables studied in the gender and the faculty with the mental health status ($P<0.05$). The prevalence of mental disorders among female students was 12.5% and in men was 11.8%. The faculties of health, paramedical, medical, nursing, pharmacy and dentistry had the highest to the lowest levels of mental disorders, respectively. Regarding the marital status, in spite of the fact that married people had a better mental health status than single individuals but this difference was not statistically significant. About the other variables such as location, age, being a native or not there was no significant correlation with health status ($P>0.10$).

Table 1. The prevalence of mental health condition based on the variables among students of Mashhad University of Medical Sciences

Variable		Healthy N(%)	With disorder N(%)	P
Gender	Male	300(88.2)	40(11.8)	P=0.001
	Female	554(87.5)	79(12.5)	X2=41.198
Marital status	Single	804(88.3)	107(11.7)	P=0.077
	Married	50(80.6)	12(19.6)	X2=3.131
Residency	Native	410(86.5)	64(13.5)	P=0.238
	Non-native	444(89)	55(11)	X2=1.39
Age	0-23	493(88.7)	63(11.3)	P=0.323
	24-90	361(88.6)	56(11.4)	X2=0.977
Faculty	Nursing	215(91.1)	21(8.9)	
	Health	88(75.2)	29(24.8)	
	Para medical	122(83.6)	24(16.4)	
	Dentistry	66(97.1)	2(2.9)	P=0.001
	Pharmacology	50(94.3)	3(5.7)	X2=29.89
	Medicine	313(88.7)	40(11.3)	

Discussion

According to the findings of this study, the prevalence of mental disorders among students of Mashhad University of Medical Sciences was 12.2%. Conducted researches in Iran have reported the prevalence of mental disorders in the student population differently. Some of these studies such as the study of Omidian have achieved similar results to this study (18).

But some studies such as Yousefi and Barabadi have reported a different prevalence. Yousefi has reported the prevalence of mental disorders about 40.22% and Barabadi has reported 11.26% (15). Barabadi and Yousefi distinguish the differences in the prevalence of mental disorders among students due to the difference in sample population, time of examination, the tools, methods used and the age range of the studied subjects (19).

In this study, there was a significant relationship between gender and mental health and the probable prevalence of mental disorders in women was higher than that of men. The prevalence of mental disorders in men and women was respectively 12.5% and 11.8%. In the study of Brabadi and colleagues, this significant difference is also reported. (15). This finding was also consistent with the studies of Najafi et al. (20) Nourbala et al. (3) and Fonz et al. (21) but is different with the results of some studies such as Benitez et al. (13) and Omidian's study (18). These studies did not show significant difference in the prevalence of psychiatric disorders in both genders.

Nourbala et al. in their study, state the cause of these differences, which the higher prevalence of mental disorders in women than men can be due to biological factors, gender role, environmental stress and occupation, limited resources of satisfaction and the limitation of women's social participation in community (22). There was no significant difference between the two considered age groups for the age variable. However due to the close age intervals of the students in entering the university, this conclusion is not far from the mind. Also the results of this study did not show a significant difference between being native with non-native and mental health status, which is consistent with the global findings of

Hashemi et al. and the same with Rashidi Zavieh Veberabadi et al. (23,24); but, it differs from the results of the study of Ahmadi et al., and this study showed the difference between native and non-native students in terms of mental health (25). The causes of mental disagreements among non-native students can be the distance from the family, having financial and economic problems and the worry about providing accommodation.

The results of the study showed no significant difference in the mental health status of single and married students. Of course, the fact that the prevalence of psychiatric disorders is greater in single individuals or that married people, have different results in different studies; for example in Sadeghian and Heydarianpour (2) Yousefi et al. (19) as well as Barabadi et al. (15), single individuals in comparison to married people obtained higher scores in overall mental health scores and differences between single and married students in mental health was significant. However in the study of Ahmadi and present colleagues, there was no significant difference in mental health among students. In this regard, the results of the present study were consistent with these studies (25). Perhaps, this difference in the observed results can be justified in two ways, firstly, there is a difference between the studied groups and, on the other hand, the difference between the studied groups and the two-sectional studies may not allow the results to be generalized to the whole society, and therefore the conditions of the study are effective in the results.

In the present study, there was a significant relationship between different faculties and mental health which is different from Tavakoli Zadeh and Yousefi's research (19,26). In this study, the most suspected cases of disorder were among the students of faculty of health and then the faculty of paramedicine. Also, the pharmacology and dental faculties in this study had the lowest prevalence in mental disorders.

Shariati et al. in their study reported that psychiatric disorders among medical students were 42.6% (12), and Jahani Hashemi et al. in their study, reported the highest rate of suspected people with disorder among midwifery, anesthesia and operating room students (27). Karami and colleagues also reported cases of moderate and severe disorder among nursing, midwifery, operating room and medical students compared to other paramedical and public health fields. (28).

Gilasi mentioned the highest rate of disorder in the students of the faculty of nursing and midwifery followed respectively by paramedical, public health and medical fields (29). Of course, Yazdan Panah et al. in his study entitled "mental health assessment of medical students in Yasouj University" observed the highest level of mental disorders among anesthetists and the least amount of mental disorders among medical students which is different from the results of the present study (30). Of the limitations of the study we can mention the lack of availability of some other influential factors on mental health such as the level of household income or the status of separation or the death of parents. Also, the information in this study was only related to the freshmen of the year of 2014-2015, and the information of the other freshmen was not available, so it would not be possible to identify a specific process for students' mental health. It is suggested that in student's mental health monitoring, some other important variables are also measured, and this will be followed up over the next few years by regular follow ups for students.

Considering the fact that in this study, gender and faculty variables were considered as significant factors in mental health, these results suggest the model that female college students and faculties such as health and paramedical faculties should be paid more attention to, and more active counseling classes and offices should be used to support this group of students.

Also considering the fact that Mashhad is considered as a religious city, and religious function has a direct and positive effect on mental health and the source of internal control; therefore, considering the positive effects of religious beliefs and practices on mental health, the use of these capacities in the planning of mental health interventions, especially in medical students of Mashhad is recommended for existing capacities.

Conclusion
With the significant prevalence of psychiatric disorders among students, especially medical students who in addition to the mental and psychological pressures of other students, are directly connected to patients and their problems, mental disorders reduce their ability to perform activities and duties and can cause harmful consequences for the society. Considering that many of these disorders can be

evaluated, diagnosed, followed up and most importantly predicted, by understanding and identifying students' problems, identifying vulnerable and suspected people with mental disorders and providing mental health services, counseling, psychotherapy and medical therapy, we can provide the improvement of mental health levels of students and can prevent the complications of the consequences of academic failure and the loss of manpower and economic power of young and active people.

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