Original Article

The Prevalence of Anxiety Among students of Hormozgan University of Medical Sciences in 2007

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ABSTRACT

Introduction: Anxiety is one of the most common mental disorders of community that affects the quality of life. Hospitals are associated with human's life and death and their environment is very stressful. The aim of this study was to determine the prevalence of anxiety among medical students of Hormozgan University of medical sciences.

Methods: This cross-sectional study was carried out in Hormozgan University of Medical Science in 2006-2007. In this study, 919 students were randomly selected. The S7A7-x Spilberger questionnaire was used to collect data. The first part of this questionnaire contained questions regarding age, gender, educational field, smoking, interest the educational field, and having free time in the weekly program. The second part evaluated the status of state anxiety. Data was entered into the SPSS 18 software and descriptive statistics, chi square and t test were used for analysis.

Results: Among 919 students, 596 (64.9%) were female and 323(35.1 %) were male. The average age of the participants was 21.7 ± 1.8. The level of anxiety was significantly related to gender, the students' interest in their academic field, smoking and amount of free time (P < 0.05). Also, the level of anxiety was higher among medical students.

Conclusion: According to the results, it is recommended to educate coping skills to ~~the~~ students and conduct programs that prevent anxiety disorders in order to increase quality of life of students of all medical fields. Also, studies need to be carried out to identify the risk factors of anxiety in students.
Key words: Anxiety, Medical Students, Prevalence

Introduction:

Anxiety is one of the most common mental disorders of community that affects the quality of life. The mental status of a person is indicated by the level of anxiety of that person (1). Anxiety causes dramatic effects on the economy of society. It impairs the physical and psychological aspects of an individual (2). Hospitals are associated with human's life and death, their environment is very stressful (3). Several studies have been carried out on different stressors that can influence the prevalence of anxiety among medical students.

Evidence shows that at the beginning of medical school, stressors such as enormous amounts of new information, alterations in study methods and longtime duration of medical education affect students' lives and lead to anxiety and other mental disorders. Studies have shown that several stressors such as enormous amounts of information, duration of medical school education, excessive working hours, exams, sleep deprivation, difficulties of finding a job, social, emotional and family factors can influence their learning ability and lead to academic failure (4-6). Uncertain labor market is another stressor that influences the medical market (7).

The environment of medical schools and colleges is a stressful work place that dramatically affects the academic performance, psychological and physical health of the students (8). This environmental stressors in addition to negative effects on the academic performance can affect their personality formation and behavioral impairment (3). Evidence indicates that other psychological disorders such as depression and suicide are seen in physicians and medical students (9).

Considering appropriate and preventive approaches for these mental disorders in these populations seems to be necessary (10). The aim of this study was to determine the prevalence of anxiety among medical students of Hormozgan University of medical sciences.

Methods:

This cross-sectional study was carried out in Hormozgan University of Medical Science in 2006-2007. In this study, 919 students were randomly selected. The students participated in this study voluntarily and students' identity remained concealed. Data was collected using standardized S7A7-x Spilberger questionnaire. This questionnaire includes two parts:

Part 1: general questions such as age, gender, educational field, smoking, interest in educational field, and having free time in the weekly program.

Part 2: 20 questions that assess state anxiety.

Each answer to the questions of Part 2 was scored between 1 to 4. Students who achieved 20-42 points were considered as having mild anxiety, those with 43-64 points were known as having moderate anxiety. The students were classified in the severe anxiety group if their score was 65, or above. Data was entered into the SPSS 18 software and descriptive statistics, chi square and t test were used for analysis.

Results:

Among 919 students, 596 (64.9%) were female and 323(35.1 %) were male. The average age of the participants was 21.7 ± 1.8. Among these participants 242 (26.3%) were Bandar Abbas residents, 77 (8.4%) of students were smokers while 842 (91.6%) of participant were nonsmokers. Among the participants 216 (23.5%) were married and 703 (76.5%) were single.

As shown in table 1, the prevalence of severe state anxiety was different in women compared to men and it was statistically significant (p<0.05).

Table-1: severity of state anxiety in men and woman:

Gender		Severity of state anxiety				P-value
		Mild	moderate	severe	total	
Female	Number	230	207	159	596	
	Percent	38.6%	34.7%	26.7%	100%	<0.05
Male	Number	155	109	59	323	
	Percent	48.2%	33.8%	18%	100%	<0.05
total	Number	385	316	218	919	
	percent	41.9%	34.3%	23.8%	100%	<0.05

Among Bandar Abbas residents 9 (3.7%) suffered from severe state anxiety, while 209 (30.1%) of indigenous students were diagnosed with severe anxiety. The prevalence of state anxiety was statistically different among these groups (p<0.05).

Severe state anxiety in students who were interested in the medical fields was less than the others. According to table 2, students who were not interested in their academic field had the highest severity of anxiety among participants.

Table-2: Severity of state anxiety among participants according to their interest in their academic field:

Interest		Severity of state anxiety			
		Mild	moderate	sever	Total
Interested	Number	294	205	104	603
	Percent	48.8%	33.9%	17.3%	100%

Not interested	Number	91	111	114	316
	Percent	28.8%	35.1%	36.1%	100%
Total	Number	385	316	218	919
	percent	41.9%	34.3%	23.8%	100%

Among smokers, 53 (68.8%) suffered from severe state anxiety, while 165 (19.6%) of the nonsmokers were diagnosed with it. This difference was statistically significant ($p < 0.05$).

In this study, 489 (53.2%) students had a free time at least one day a week and 250 (27.2%) students didn't have any free time. Among those without leisure time, 145 (58%) suffered from severe state anxiety, while only 73 (18.7%) participants that had at least one free day in their weekly program suffered from mild anxiety. prevalence of severe state anxiety in these groups was significantly different ($p < 0.05$).

Among participants 291(32.7%) were medical students and the rest of the participants were educated in paramedicine fields. Severe state anxiety was more common in medical students than other fields. The prevalence of severe anxiety in medical students was 48.1%. Among the participants, the lowest level of anxiety was in health and nursing fields. Among health students, 7 (8.9%) and among nursing students, 10 (12%) suffered from severe state anxiety.

Discussion:

This study was conducted to evaluate state anxiety in students of Hormozagn University of Medical Sciences. In this study, 48.1% of the medical students had anxiety, which was consistent with similar studies conducted in the United States of America (49%) [11], Brazil (40.2%) [12], Pakistan (43.89%) [13] but lower than the University of Beirut (69%)[14]. On the other hand, the prevalence of anxiety was higher than the medical students of the United Arab Emirates (28.7%) [15], Turkey (27.1%) [16], Sweden (12.9%) [17].

The results of our study showed that women had higher level of anxiety that was similar to studies carried out by Chandavarkar et Al. and Dyrbye et Al. [18, 19]. This may be due to the trend of women to over report concerns and anxiety symptoms [20].

In this study, the prevalence of anxiety was higher in medical students than paramedical students. This can be attributed to the increased workload and difference in sleep duration. Also, marital status, smoking and living in the university dormitories were related to anxiety.

One of the limitations of this study was voluntary participation. Also, there was no information regarding the mental status of students at the time they entered university. Another limitation was that the diagnosis was not confirmed by a psychiatrist and was based on the questionnaire.

According to the results, it is recommended to educate coping skills to the students and conduct programs that prevent anxiety disorders in order to increase quality of life of students of all medical fields. Also, studies need to be carried out to identify the risk factors of anxiety in students.

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