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The prevalence and risk factors of mental disorders among students in Ilam: A cross-sectional study

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ABSTRACT

Background and aims: Students experience some degrees of mental disorders during their life. Therefore, the present study was conducted to determine the prevalence and risk factors of mental disorders among the secondary school students in Ilam, Iran.

Methods: This is a cross sectional study, carried out among the secondary school students in Ilam, Iran. We assessed 841 students including 446 males and 395 females from all grades of secondary school. A multistage cluster sampling method was used. Data were collected using two instruments including both demographic information questionnaire and DSM-IV. SPSS software was used to analyze the data of this project.

Results: Totally, 841 secondary students were studied. Overall 34.96% of all the participants of the study had mental disorders. The Mean ± SD of participants' age and gender has not significant differences between groups (P>0.05). The results show that anxiety disorders are the most common disorder among the study population. Although no one in the study population had an adaptation disorders.

Conclusion: About a third of students in Ilam province experience the mental disorders. So, we suggest that the school counselors consider pay attention to this important issue in their consulting planning.

Keywords: Anxiety disorders, DSM-IV, Mental disorders.

Original article

INTRODUCTION

Students are one of the most important resources of each country. Students' health helps a country to have a more prosperous future.[1]

Previous studies reported that several factors such as age, gender, income, health care services, physical and social environments, education and literacy, personal health practices, coping skills and healthy child development are main influencing variables on health state.[2,3]

Changes of puberty create some challenges in adolescent students.[4] Mental disorders are common situations in young adults and adolescent period. However, determining how many people have a mental

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illness can be difficult; but also, researchers estimated it's as 50% of the total burden of disease among American young adults.[5] Results of a large study in Iran showed that 23.6% of Iranians population has psychiatric disorders.[6] Another study evaluated a large sample of Iranian and reported that about 11% of Iranian experiences some degree of mental disorders.[7]

The Diagnostic and Statistical Manual of Mental Disorders (DSM) introduced a standard language for professionals and therapists in the United States.[8] Although, this tool has been revised several times, it is widely used in the study of mental disorders throughout the world.[9-11]

With regard to age group, physiological changes and other factors, some students experience degrees of stress, anxiety, and depression during their time in school. Therefore, the present study was conducted to determine the prevalence of mental disorders among the secondary school students in Ilam, Iran using the DSM-IV.

METHODS

This is a cross sectional study which was carried out among the secondary school students in Ilam, Iran during 2009. We assessed 841 students including 446 male and 395 female students from all grades of secondary school. A multistage cluster sampling method was used as described in previous study.[12]

In details, first of all we provided a list of all Ilam province's regions and cities. Then we chose 6 of 14 regions and cities randomly. The sample size required for each city or area determined by the proportion of students in the area to the whole student population. Then in each city or area, the study samples were randomly selected proportional to the population size in schools from all levels. Then, considering sex, school grade some classes were randomly selected among these schools. At the end, the sample size was randomly selected among these classes. The sample size was calculated using Cochran formula, as follows:

$n= z2pqNd2(N-1) + z2 pq$

N= Statistical population size: All students of Ilam province were 39000
n= Sample size
Z= Standard normal variable, which is 1.96 at 95% confidence interval
p= Ratio of a trait in the population, which can be considered as 0.5 if not available
q= Percentage of those without that trait in the population (q= 1-p)
d= Acceptable margin of error, which is considered as 0.05

In the last stage of the research, parents of these 841 students were invited to attend to schools in order to participate in the study. This study was undertaken with the approval of the Ethical Committee of the Islamic Azad University of Ilam, Iran. In ethical issues the aim of the study was described and a written consent was obtained from the parents before the enrollment of students in the study. To enhance confidentiality, all questionnaires were completed anonymously and only required information was collected. Also, we mentioned that all participants can leave the survey any time during the study.

Data were collected using two instruments including both demographic information questionnaire and DSM-IV.

Demographic information questionnaire was designed by the authors and assessed variables such as age and education level. The variables such as parents' occupation were divided into 2 groups including governmental and non-governmental groups. Also in parents' education variable, the participants were divided into 5 groups including, illiterate, primary, secondary, diploma and academic education levels.

The DSM-IV is a standard instrument applied for classification of mental disorders

in clinicians, researchers and public health officials. DSM-IV was published in 1994.[13] Demographic questionnaire was completed by the students. Also, DSM-IV was completed by interview and a trained psychologist researcher.

Results are expressed as Mean±SD. The Kolmogorov-Smirnov test was used to test the normality in continuing variables. The independent *t*-test was used to compare the mean age in two groups. Chi-square (χ^2) test was used to explore the relationship between gender, parents' education, parents' occupation and the number of children. SPSS software package 16 was used to analyze the data of this project.

RESULTS

A total of 841 secondary students were studied. Overall, 249(34.96%) of all participants of the study had one type of mental disorders. The Mean±SD of participants' age has not significant differences between groups (P>0.05). The prevalence of mental disorders was higher among female students than male students (P=0.003).

Prevalence of mental disorders according to DSM-IV criteria was included; anxiety disorders 166(19.74%), mood disorders 83(9.87%), somatoform disorders 20(2.38%), sleep disorders 3(0.36%), adaptation disorders 0(0%) and communication disorders 22(2.62%). Also, the social anxiety disorder had the highest prevalence of anxiety disorders, So that 78 (166) of anxiety disorder were social anxiety disorder (47%). In mood disorders, minor depression (63%) was the most common type of mood disorders (52 of 83).

Variables such as school grade, father occupation, and parental education were different between groups (P>0.05). The results are presented in Table 1.

Table 1: The association between students' mental disorder and other variables using Univariate Logistic Regression Analysis

Characteristics		B	SE	OR*(95%CI)	P
School grade	1st secondary school			1.0(ref)	0.003
	2nd secondary school	-0.040	0.313	0.961(0.520-1.775)	
	3rd secondary school	0.700	0.300	2.13(1.118-3.634)	
Father´s occupation	Non-governmental	0.165	0.315	1.95(1.2-2.71)	0.04
	Governmental			1.0(ref)	
Mather´s occupation	Non-governmental	-2.770	1.02	0.06(0.01-0.47)	0.07
	Governmental			1.0(ref)	
Father´s education	Illiterate	1.83	0.582	4.2(2.1-6.4)	0.000
	Primary	0.165	0.315	1.3(0.9-2.5)	
	Secondary	0.056	0.488	1.4(0.5-3.02)	
	Diploma	1.1	0.298	1.1(0.7-2.08)	
	Academic			1.0(ref)	
Mather´s education	Illiterate	0.557	0. 286	1.83(0.1-3.46)	0.012
	Primary	-0.080	0.269	0.923(0.5-1.6)	
	Secondary	-0.934	0.328	0.49(0.31-0.95)	
	Diploma	0.046	0.333	0.33(0.06-0.56)	
	Academic			1.0(ref)	

DISCUSSION

The present study evaluated the prevalence of mental disorders among 841 secondary school students in Ilam, West of Iran using the DSM-IV. Due to the importance of teens and adolescents in the future of any society, so far, many studies have investigated the state of teens and adolescents health.[14-17]

In the present study, the prevalence of mental disorders was determined using DSM-IV and the results showed that about 35% of study population suffers from one or more types of mental disorders. Other previous studies evaluated the prevalence of mental disorder in Iranian population using the same instrument.[6,7] However, they reported the lower prevalence of mental disorders (23% and 10%, respectively). In older study, 11.9%-23.8% of study population suffered from mental disorders.[12]

We found that anxiety and mood disorders are the most common mental disorder in our study population, so that about one-fifth of the students surveyed in the present study had experienced anxiety disorders. Another study in line with present result shows that the anxiety disorders are the most common mental disorders among Iranian students.[18] Also, the highest prevalence of anxiety disorders has been confirmed among general Iranian population and fallowing mood disorders.[7] Overall, a significant proportion of surveyed students suffered from one or more mental disorders, while we well know the mental health helps help to increase the creativity and the learners' abilities and cannot ignore the importance of mental disorders in this group.[19,20]

We found a significant difference in gender variable between our studies group. Other studies have been confirmed the higher prevalence of mental disorder in female than male.[7,18]

Our results demonstrated the significant relationship between school grade, parental occupation, and parental education and students' health. So, the students with non-governmental fathers occupation have 2 times risk for mental disorder than the others. This result is in line with our previous study.[18]

Our results showed that mental disorders are more likely to be illiterate parents, OR=4.2 and OR=1.83 among illiterate father and mothers respectively. The significant relationship between parents' education and students' health has been confirmed in our previous study.[18]

CONCLUSION

About a third of the students in Ilam province experience the mental disorders. We suggest that the school counselors consider pay attention to this important issue in their consulting planning.

As far as researchers have investigated, previous studies have been conducted only in urban areas in Ilam province. While in the current study, were studied all urban and rural areas of the province. Actually, the results of the current study highlighted the real aspect in the study population. In fact, this is the main the strength of our study. However, it should not be forgotten that there is a limitation of our study. However, we used of the DSM-IV like the other

studies, but also, the DSM-V has been introduced in recent years.[6,7] Therefore, using of DSM-IV is a limitation of the current study's. Therefore, it was recommended the comprehensive studies in urban and rural areas using the new tools.

CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest.

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