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The prevalence of depression and its relationship with decline of students' educational performance in Iranian high school students; a correlation study

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ABSTRACT

Mental disorders are importance disorders in young adults. The present study aimed to investigate the prevalence of depression and its relationship with decline of students' educational performance among high school students. In a correlation study, the study population was consisted of all high school students enrolled in the academic year 2008-2009 in Ilam, Iran. A multi-stage sampling method was used. Data were collected by both demographic and Beck Depression Inventory questionnaires. The student's educational performance was evaluated from extracted on the first and second semester's average score. A decline of students' educational performance was considered if the student's semesters average score was lower in second semester in compared to the first semester. Totally, 25.7 % of the students have mental health. The depression distribution was 32.2% in mild mood disturbance, 14.6% in borderline clinical depression, 17.1% in moderate depression, 8.5% in severe depression and 2% extreme depression. Overall, 57.3% of students were experiencing a decline of students' educational performance. There was a statistically significant relationship between depression and a decline of students' educational performance. The lower the parent education was associated with the higher decline of students' educational performance. Depression remains a serious problem. Identify risk factors for depression disorder is necessary in order to promote health and students' educational performance.

Keywords: Beck Depression Inventory, Ilam, high school students

INTRODUCTION

Mental disorders are common situation in young adults and estimated as 50% of the total burden of disease for American young adults (1). Depression is one of the most common mental disorders. These disorders have a wide range of symptoms from feelings of sadness to major depression (2). The study of mental disorders was carried out in numerous studies among different groups of people (3-6). A study has mentioned the prevalence of the major depressive episodes and depressive symptoms cases in 4.5% and 11.5% of their study population, respectively (7). Depression is increasing among young adults. The effects of depression on human life are included; behavior, thinking, attitude, efficiency, interests, and motivation (8). Depression disorder is often under-diagnosed and under-treated. However, a severe depression can lead to suicide (9). Several studies have investigated depression status in Iranian population and reported the prevalence of psychiatric disorders from 10.81% to 58% of the respondents (10, 11). The mental health is affected by several factors including; demographic, socio-cultural, familiarity, and sources of publicity factors (3). Students are valuable resources of each country. Their physical and mental health can affect the future their countries' status. It should be noted that, the students encounter with various stresses can lead to

student mental disorders such as physical and mental health problems and reduce students' self-esteem. Therefore, the students' mental health is considered as an important topic in the educational system and health program planning. The present study aimed to investigate the prevalence of depression and its relationship with decline of students' educational performance among high school students.

MATERIALS AND METHODS

In a correlation study, the study population was consisted of all high school students enrolled in the academic year 2008-2009 in Ilam, Iran. A multi-stage sampling method was used. All high schools were divided into three clusters based on the location of the city. A female high school and a male high school were selected in each cluster. Then, 200 high school students were selected as study sample using simple random sampling. Data were collected by two questionnaires. The first questionnaire was containing demographic information. The content validity of the questionnaire was confirmed by an expert panel. The second questionnaire was included the Beck Depression Inventory. This questionnaire has an universal validity in the field of depression disorders. Studies around the world have confirmed the validity and reliability of this measurement instrument. The Beck Depression Inventory questionnaire contains 21 questions. Each questions sorted by a Likert score from 0-3. The zero total score is the minimum score and present of normal situation with any likelihood of depression. However, the maximum total score is 63. The high scores are accompanied by an increased the risk of depression. Based on the total score, study participants were divided into six subgroups, including; normal: 0-10, mild mood disturbance: 11-16, borderline clinical depression: 17-20, moderate depression: 20-30, severe depression 31-40 and extreme depression; over 40. The students' educational performance was evaluated after obtaining students' permission by extracted of the first and second semesters average score. Then the students' semesters average score was compared in two semesters for each student. A decline of students' educational performance was considered if the students' semesters average score was lower in second semester in compared to the first semester. This study was undertaken with the approval of the Ethical Committee of the Ilam University of Medical Sciences, Iran. The aim of the study was described an informed consent was obtained from all participants before the enrollment in the study. To enhance confidentiality, all questionnaires were completed anonymously and only required information was collected. Data entered in the SPSS software, then were analyzed using descriptive and inferential statistics. Tables, charts, mean, Mean \pm SD and percent were used in descriptive statistics.

In Inferential statistics, the association between depression and qualitative variables was determined by using X^2 and Fisher Exact test. According to data distribution, compare the differences between depressed and normal groups using t-test or Mann-Whitney tests.

RESULTS

A total of 200 students were enrolled. However, 25.7 % of the students did not experience depression, but also, other have some degree of depression. The depression distribution was 32.2% in mild mood disturbance, 14.6% in borderline clinical depression, 17.1% in moderate depression, 8.5% in severe depression and 2% extreme depression. The prevalence of depression was higher in female in compared with male (38% vs 36.5%). Depression severity was higher in female in comparison with male (Figure 1)

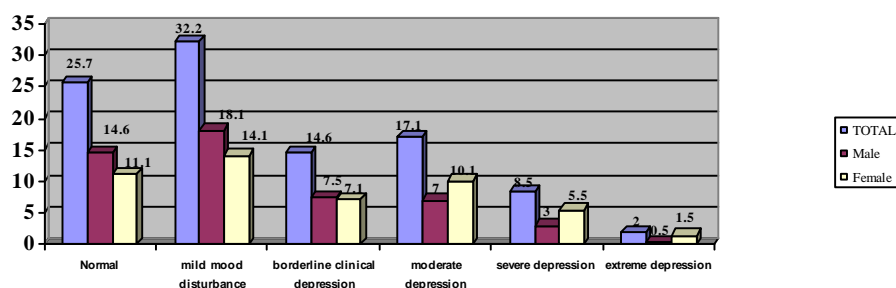


Figure 1. The distribution of depression severity based on the gender in study participants

In investigating the relationship between depression severity and the students' school grades, the results showed that students in the third year of high school have the highest prevalence of severe depression and students in the second year of high school have the lowest prevalence of severe depression, respectively.

The distribution of depression severity based on students' school grades in study participants is presented in Figure 2.

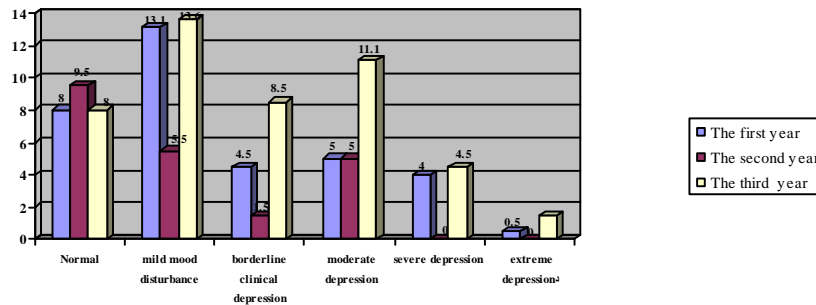


Figure 2. The distribution of depression severity based on students' school grades in the study participants

A total of 57.3% of students were experiencing a decline of students' educational performance. Overall, 22.8% of students with a decline of educational performance input in the normal group, while, 77.2% of students with decline of educational performance experience some degree of depression. The results showed a statistically significant relationship between depression and a decline in students' educational performance ($P = 0.04$). The distribution of depression severity among students without the decline of educational performance is presented in Figure 3.

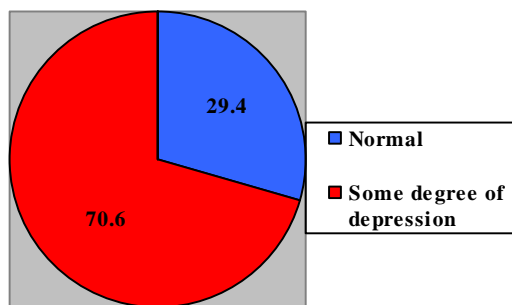


Figure 3. The distribution of depression severity among students without the decline of educational performance in the study participants

Based on our results, highest decline of students' educational performance occurred among those have semesters average score 16-18 and the lowest decline of students' educational performance occurred among those have semester's average score less than 12. Another part of results showed that the highest frequency of decline the students' educational performance among students with an elementary level mother's education (33%). While the lowest frequency of the decline of the students' educational performance observed among students with college-educated mothers (12.3%). On the other hand the lower the mother's education, was associated with a higher decline of the students' educational performance ($P = 0.03$, $r = 0.543$). Overall, 66.7% of students with decline of educational performance have fathers with illiterate or primary education level. Only 1.8% of students with decline of educational performance had fathers with college education levels. In the other words, the lower the father's education, was associated with a higher decline of the students' educational performance ($P = 0.006$, $r = 0.405$).

DISCUSSION

In the present study investigated the prevalence of depression and its relationship with decline of students' educational performance among 200 Iranian high school students. Based on the results, 25.7% of study participants put into the healthy mental status, however, others have experienced some degree of depression. The mild mood disturbance was the most common type of depression in our study population (32.2%). Also the minimum prevalence of depression has been reported in extreme depression subgroup (2%).

Because of the serious consequences of depression, studies have investigated the prevalence and severity of depression among students in different regions (12-16). A study reported that 62.7% of the Iranian students have some degree of depression, however, 10.9% of Iranian students experience severe depression (14). Another study found that 34% of Iranian students are depressed (17).

Based our results, about half of participants were experiencing a decline of students' educational performance. There was a statistically significant relationship between depression and a decline of students' educational performance. Several studies are in line with our results believed that the mental health can increase the students' learning abilities (18-20). Also in line with our results, a cross-sectional study reported a higher prevalence of depression among unsuccessful students compared with successful students (21).

Based our results, there was a significant relationship between parental education and students' educational performance. Usually, the higher education levels is associated with higher income in Iranian population, while there is a significant relationship between child health and their parent's income (22, 23). So that poorer families having significantly worse health than richer families (24), subsequently, health disorders such as mental and nervous system disorders have higher prevalence among poorer populations (25).

CONCLUSION

This study showed that depression is remains a serious problem. Identify risk factors for this depression disorder is necessary in order to promote health and students' educational performance.

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