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DEPRESSION IN UNIVERSITY STUDENTS ACCORDING TO THE BECK DEPRESSION INVENTORY IN AHVAZ, IRAN: A CROSS-SECTIONAL STUDY

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ABSTRACT

Depression is a leading cause of disability worldwide. It can lead to academic failure and the reduction of social status as well. The aim of this study was to investigate depression among university students of Ahvaz. This was a descriptive - analytical and cross-sectional study. Subjects of this study were 1933 students studying in Ahvaz. Data were collected from 2012 to 2014. Data were analyzed via mean and Pearson correlation and Post Hoc tests by SPSS. All respondents reported some degree of depression. Most of the estimated depression were of moderate level. A significant difference was found between the depression levels of different groups in demographic variables. Due to the impact of depression on the success rate of students it seems necessary to design appropriate interventions to reduce depression.

Keywords: *Depression, Students, The Beck Depression Inventory, Iran*

INTRODUCTION

Mental health is considered as one of the most important indexes of health of a society (Partooinjad, 2000). Psychiatry diseases, considering their prevalence, are one of the priorities of mental health services system (Tavakoli, 2010). Depression is one of the causes of impotency all over the world (Schuch, 2014). The costs of the health care for depression are 26 billion dollars a year and the indirect costs of it are 52 million dollars in a year. It is estimated that by 2020, the depression disorder will be the second cause of the DALY in the world (Singh, 2011; Kalsekar, 2012; Daley 2000) and one of the important mortality factors (Cooney, 2013). The rate of its prevalence in women is more than that in men (JM, 2011). About 1/3 of world population in some parts of their own life have suffered from a minor period of depression (Alavi, 2011).

Depression leads to job disorder, social and interpersonal relationship dysfunction (Ayldrabady, 2004). Among the most destructive side effects of depression is the decrease of tendency to work and activity (Ayldrabady, 2004; Bahadori-Khosroshahi, 2011). Depression is accompanied with feeling of hopelessness, worry, lack of motivation and hope and reduction of the level of self-confidence as well as being pessimistic (Farsham, 2014). Depression does not belong to any specific group. However, some believe university students due to their specific situation are more vulnerable (Rostami, 2012).

The role of stressful environments in creating the signs of depression is completely recognized. The stressful events of life can enable us to predict the signs of depression (Mohammad Beigi, 2009). The university students' population is among the important social groups among which the occurrence of depression is very widespread (Hejazi, 2009; Gomes, 2009). They from a remarkable number of youngsters. For many of the students, the transition from high school to university may create some difficulties (Michael, 2006; Dehdari, 2013). The start of depression symptoms is often in the early period of adulthood. Therefore, university students are among the groups that are in exposure of getting depressed (Sameere, 2006). They need to manage their own stress (Kai-Wen, 2010).

Students who suffer from depression confront more difficulties in their student life. Their grades are always lower than those of otherwise normal students (Hejazi, 2009). Depression can also cause disorder in acquiring the social skills and evaluation of personality. It can hinder the individuals from reaching the

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positions that they expect. In serious cases, it causes frustration and disappointment in life and it causes the derangement in the progress of society (Shmshyrynzam, 2006). Therefore, through on time recognition of this disorder in the university students, we can prevent their educational failures and then provide the opportunity for enhancing social success in the studying period and eventually provide the mental health of the society (Vafae, 2013). Therefore, this study aimed to determine depression level in university students in Ahvaz, Iran.

MATERIALS AND METHODS

This research was a cross-sectional study. The population of the study was Ahvaz university students. Their number was 70867 which was calculated based on sample size formula. A categorized random sampling conducted based on the research population distribution in 7 universities. Data were collected from 2012 to 2014. Data gathering tool included demographic and depression questionnaires.

The demographic questionnaire included age, sex, Occupation, Birth Rank, Family income and field of the study and the mean grades of last semester. The Beck Depression Inventory is a self-reporting index which includes 21 multiple questions. It shows the experienced depression in the last two weeks. The sum number of questionnaire include zero to 63 where the higher number indicates more depression. The points of participants are interpreted as follows. The point 1-10 shows that the person is not depressed. The point 11-16 shows that the person has slight depression. The point 17-30 shows that the person would better consult a psychologist as soon as possible. The point 31-40 shows that the person has a serious depression. The point more than 40 shows that the depression is very serious. It is urgent for the individual to consult a psychologist. Alpha Cronbach of the questionnaire between 73 to 93% is reported. Descriptive statistics and central tendency statistics such as mean and Pearson correlation test and Post Hoc test were analyzed by SPSS version.

RESULTS AND DISCUSSION

During the data gathering, the scratched and incomplete questionnaires were replaced, and finally 1993 correct and complete questionnaires were obtained. Most participants belonged to a group with an age higher than 23. The majority of participants were not busy with another job except studying at university. Most of the participants were the second or the third child of the family. The income level of most participants was moderate. The demographic information of the participants is shown in Table 1.

All respondents reported some degree of depression. Most of estimated depression was moderate level. Severity of depression in university students in Ahvaz based on Beck questionnaire is shown in Figure 1.

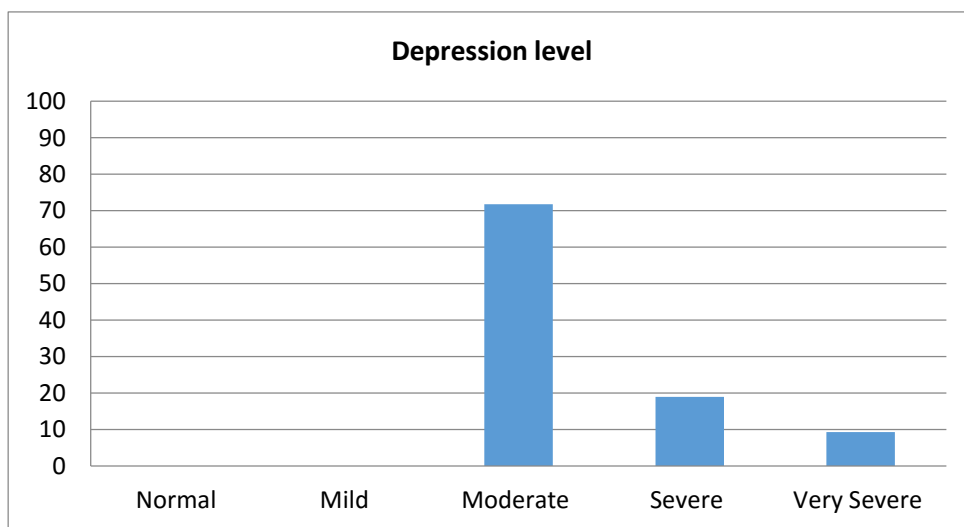


Figure 1: Severity of Depression in University Students in Ahvaz Based on Beck Questionnaire
Table 1: Demographic characteristics of the respondents in the university city of Ahvaz

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Demographic Characteristics	Classification	Frequency(Percent)
Age	>20	182(9.4)
	21-23	695(35.8)
	+ 23	1058(54.8)
Sex	male	627(32.3)
	female	1306(67.7)
Average Grade	>15	867(45.6)
	15-17	680(35)
	+ 17	377(19.4)
Occupation	Yes	668(34.4)
	No	1265(65.6)
Birth Rank	1 St	299 (15.4)
	2th &3rd	1011(52.6)
	4 th & more	623(32)
Family Income	Very low	102(5.2)
	Low	727(37.4)
	Average	826(43.1)
	High	278(14.3)
Field of the Study	Medical	35(1.8)
	Paramedical	114(5.6)
	Engineering	542(27.9)
	Literature Philosophy	219(11.3)
	Basic Sciences	1023(53.4)
Total	1933(100)	

The ANOVA test showed that there was a significant difference between the rate of depression and employment (P-value). Pearson's coefficient factor 133/82 was used. Beck's depression showed a weak relationship with employment. The T-test showed that the employed students suffered from more depression. The T-test also showed a significant difference with sex and the rate of depression (P-value). The frequency of depression was observed 33/3% in women and 66/8% in the men. Average Rating Beck questionnaire with demographic characteristics in response at the University of Ahvaz is shown in Table 2.

In the present study, a significant relationship was seen between the age and the severity of depression. The findings of this study were similar to those of Barat-Dastjerdi study (2013) and Ahmari Tehran study (2012). In Vafaei study (2012), Miri *et al.*, (2003), Rafati *et al.*, (2013), Ranaii *et al.*, (2010) the age of participants was 19 to 30 years. However, in Jallilan *et al.*, (2012), Dehdari *et al.*, (2013), Mohamadzadeh *et al.*, (2011) and Alvi (2008) there was no significance relation between the age and the depression severity. The reason of the observed difference among the findings of different students is probably because of the study population differences.

In this study, there was a significant difference in severity of depression between different gender groups. Most of the participants were female which was similar to Ahmari Tehran study (2012), Parvaresh *et al.*, (2013), Barat Dastjerdi study (2013), Azizi (2013), Kezemi *et al.*, (2006), Bayani *et al.*, (2013), Singh (2008) and Rezanejad *et al.*, (2013). It is empirically proven that stress and depression symptoms in women are more than men. In Bagheri Nejad *et al.*, (2007) there was no difference between genders, but females showed higher severity of depression than men. In Rafati *et al.*, (2011), Mohamadzadeh *et al.*, (2011), Mohammad Beygi *et al.*, (2007) and Quince *et al.*, (2015) there was not any significant difference between depression in females and males. In Amani *et al.*, (2003), female showed more minor depressions.

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Table 2: Average Rating Beck Questionnaire with Demographic Characteristics in Response at the University of Ahvaz

Demographic Characteristics	Classification	$\bar{X}\pm SD$	P-Value	Post Hoc	LSD P-Value
Field of Study	Medical	27.78± 8.76	0.019	4<2	0.31
	Paramedical	28.73± 8.34		4<3	0.001
	Engineering	28.78±8.56		5<3	0.035
	Literature &Philosophy	26.62±8.13			
	Basic Sciences	27.82±8.43			
Birth Rank	1 St	29.68±8.66	0.001	1>2	<0.001
	2th &3rd	27.62±8.31		2<3	0.005
	4 th & more	27.98±8.64			
Family Income	Very Low	31.46±11.32	>0.001	1>2&3&4	0.005
	Low	27.09±8.11		2<4&3	0.005
	Average	28.68± 8.15		4>2	0.023
	High	28.64±9.51		3>4	0.708
Average Grade	<15	27.42±7.92	0.26	1<3	0.008
	15-17	27.70±8.46		2<3	0.37
	+ 17	28.82±8.93			

Most participants of this study were studying in the science fields. Furthermore, there was a significant difference among the fields of study. In Ahmari Tehran study (2007), environmental health students showed the most depression. In Hosseini and Mehdizadeh Ashrafi's study (2011), the students of engineering had the most depression while the humanistic students had lowest depression. It seems that students which are not Interested in their education, experience more depression than others.

In this study, most participants were just students and did not work somehow. There was a significant difference in severity of depression between different employment conditions, which was similar to Ahmari Tehran study (2012), but Amini *et al.*, (2003) found no significant difference. The observed difference may be because of being busy with another job rather than studying at university. Sometimes making money and having income reduce the students' depression and sometimes the hard situation of work and lack of time for studying increase the depression.

In this study, most participations were the second and third child of the family. There was a significant relation between being the first child and the severity of depression. In Hassanzadeh Taheri (2009), the prevalence of depression in families with more than two children was 25% more than families with one or two children. Parents with the birth of their first child, usually do not have enough experience. And they want their child to be the best, thus, they are usually more stringent than are their first children. Parents are trying all things to prepare for their first child. As a result, their children too vulnerable in dealing with the problems. His face any problem, you may feel depressed.

In this study, there was a significant relationship between the economic situation and severity of depression. Most participants were in weak economic situation. The group of participants with low income had the most depression. The rate of depression was so high that they needed to consult a psychologist or psychiatrist. This was similar to Rivaz's (2013) and Hassanzadeh Taheri's (2009) studies. However, in Kazemi *et al.*, study (2006), most of the sample had moderate economic situation. It seems that the poor economic situation and lack of economic security are leading to losing hope to the future and can raise the risk of depression.

None of the respondents showed normal or mild level of depression. Moderate depression was the most estimated kind of depression which was different from the findings of Ahmari Tehranstudy (2007), Rivaz (2013), Azizi (2013), Vafaei (2013), Miri *et al.*, (2008), Hassanzadde Taheri (2009), Bagharin Moghadam

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(2008), Rafati *et al.*, (2011). Participants in Amani *et al.*, study (2003) were 42/6% psychologically normal and 57/4% depressed, while in other study 76/1% of participants in the Mohamadzadeh study (2011) were depressed. The study of Singh *et al.*, reported 49/1% of the depression. In Furr (2001), 53% of the participants reported signs of depression. In Zoccolollo (1986) the prevalence of depression among students was 15% which was more than the normal population. Being far from the families, economic problems because of unemployment, and the challenges of entering a new environment of the university may influence the rate of depression. It is recommended that by improving the welfare facilities at dormitories and planning recreational activities for them, developing financial support systems, improving psychological consulting centers as well as some educational programs such as stress management can be useful in order to control depression level among students.

Conclusions

Most of students estimated suffered from moderate depression. It seems aimed at decreasing depression level among students in Ahvaz, some practical improvements needs to be done in universities for students' entertainment, morale raising and welfare.

Conflict of Interests

The authors declare that there is no conflict of interests regarding the publication of this paper.

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