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A Study of Mental Health of University Students in West Azerbaijan in Iran

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ABSTRACT

This study investigates the mental health among Iranian undergraduate students at Payam-e-Noor University in the west Azerbaijan. A sample of 3459 girls and boys was selected from junior and senior classes from undergraduate student in west Azerbaijan by a stratified cluster random sampling method. They were investigated by means of the 28-item General Health Questionnaire (GHQ-28) and demographic data in a cross-sectional study. Following the recommendations of Goldberg et al, the chosen cut-off point for the differentiation between individuals with and without psychiatric morbidity was a score of 23 because of the high mean score within the population. Of the participants, 1672 (46.6%) achieved a GHQ-28 score above the threshold. Significantly more girls (33.3%) than boys (27.7%) in both group of senior students had GHQ-28 scores indicating some psychiatric morbidity. On average, the senior students in both groups reported a higher level of mental health problems compared with junior students from undergraduate student in the same University year. A considerable proportion of undergraduate students experience mental disorders, with girls experiencing such disorders more frequently than boys. Periodic mental health surveys in Universities were proposed to identify students in need of counseling or treatment to improve their coping skills and problem-solving abilities. Findings suggest a need for increased attention to undergraduate student mental health needs especially the role of financial confidence in student well-being and the relationship of graduate students with their advisors.
KEYWORDS: Mental health; GHQ-28; Undergraduate students, West Azerbaijan, Iran

1. INTRODUCTION

About 450 million people worldwide are affected by mental, neurological, or behavioral problems at any one time, according to the World Health Organization (WHO) (1). A literature search of epidemiological studies of adolescent mental health provides a lot of evidence that depression, substance abuse, and suicide are among the three most common causes of death in adolescents (2) (3) (4) (5) (6) (7) .

Several studies have been conducted to evaluate mental health in Iran. In a recent study in the Northwestern part of Iran using a face-to-face interview conducted by psychiatrist based on the DSM-IV, 9.7% of the 17–24-year-olds were diagnosed as having a mental disorder. The number of cases was found to increase with increasing age, and women were diagnosed 2.7 times more often than men (8). The Noorbala et al nationwide investigation of mental health in 35,014 individuals using the General Health Questionnaire–28 (GHQ-28) included 11,448 adolescents and young adults aged 15–24 years (9). These investigators found that about one-fifth of the population (25.9% of women and 14.9% of men) experience mental disorders, with women facing a higher risk of such disorders than men. The risk of mental disorders also increased with age. Depression and anxiety symptoms were more common than somatization and social dysfunction. Narimani and Omidi also applied the GHQ-28 in an investigation of mental disorders in 2,367 students at the University of Tehran in 2000 and found that 16.3% of the students had a high probability of mental disorders (10) (11).

Within the last century, considerable changes in the health and illness pattern of children and adolescents have been observed. One characteristic of this phenomenon, which is referred to as the new morbidity ‘or even the millennial morbidity’, is the growing importance of mental health concerns (12).

However, despite the emergence of a large number of school-based programs that foster positive mental health, there is growing concern about the effective implementation of such programs (13) (14) (15) (16). Moreover, Domitrovich and Greenberg (2000) raised concerns regarding the lack of studies reporting the relationship between the quality of implementation of mental health promotion initiatives and student outcomes (14).

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By estimating and comparing emotional distress between first-year and end-year university student, it will be useful for planning of preventive programs by health, treatment and educational authorities.

Current study was conducted by Member of Psychology Department of Payam-e-noor University of Khoy, Iran. The aim of this study was to estimate the prevalence rate of mental disorders and its distribution by first-year and end-year of University student, occupational status, marital status, and residential area in the student population in west Azerbaijan, Iran.

2. METHODS

2.1. Sample

In 2011, a cross-sectional study was conducted in a representative sample of undergraduate students from Payam-e-Noor University. A stratified cluster random sampling procedure was used to obtain a sample of third and fourth year undergraduate students in west Azerbaijan. Payam-e-Noor University in west Azerbaijan had with about 38 thousands students.

According to the current data from Payam-e-Noor University, there were about 38,000 students studying in 20 branch of Payam-e-Noor University in west Azerbaijan with an average of 92 students in each school at the time of the study in Bachelor period in 2011. Each university was regarded as a cluster because the homogeneity between the students in classes was assumed to be higher than the homogeneity of students from different universities. In order to select a representative sample, we divided west Azerbaijan into three arbitrary geographical areas of north, south and central. Considering the economic and geographical condition, eight of 20 universities in three areas were randomly selected. All third and fourth year students from the chosen payam-e-Noor university were invited to participate in the investigation, with a total of 1883 boys and 1976 girls being selected to take part in the study.

Based on the prevalence of mental disorders estimated in previous mental health studies in Iran (9), we concluded that a sample of at least 3000 students would be needed to find a 20% proportion of students with mental health problems. Based on the sample size detection table in Shih W.J (17) (Regarding a $p = .20$, width of confidence interval = .10 and a two-tailed test with $p = .05$). Therefore, the total sample size based on two gender-related groups and eight university groups would be 4224.

2.2. Instrument

2.2.1. General Health Questionnaire

The General Health Questionnaire (GHQ-28) was developed by Goldberg in 1978 and has since been translated into 38 languages (18). This screening instrument was developed to detect those likely to have or to be at risk of developing psychiatric disorders. The GHQ-28 is a 28-item measure of emotional distress in medical setting. Through factor analysis, the GHQ-28 has been divided into four subscribe. These are: somatic symptoms (items 1-7), anxiety (insomnia) (items 8-14), social dysfunction (items 15-21) and severe depression (items 22-28) (Goldberg 1978).

Following the investigation of Montazeri et al in Iran (19), two additional items relating to overall quality of life were added to the GHQ ("How do you evaluate your quality of life?" and "How do you evaluate your general health?" with possible answers of very good, good, moderate, bad, very bad). Demographic data were also included in the questionnaire.

Written and verbal descriptions of the study's aims were presented prior to the investigation in order to establish informed consent. The participation was voluntary and anonymous.

2. DATA ANALYSIS

Data were analyzed by SPSS Windows 10.0.5 (SPSS, Chicago, IL). Student's t-test, Kruskal-Wallis, Mann-Whitney, and χ^2 test was used to compare groups of subjects with high and low scores on the GHQ-28.were used for statistical analysis. Significance level was considered to be < 0.05.

3. RESULTS

The study sample comprised 4224 subjects. A total of 365 students decided not to participate, giving a drop-out rate of 8.7% without any bias. Selected Students were in junior and senior students. Data sets of the 3859 remaining students were included in the calculations (Table 1).

Table 1. Distribution of the students and General Health Questionnaire–28

Gender	First Years	Last Years	Total
Boys	907	976	1883/48.7
Girls	972	1004	1976/51.3
Total	1879	1980	3859/100.0
GHQ-28; percentage related to cut-off at 23 points (N / %)			
	>23	>23	
Boys	270/27.6	313/32.1	
Girls	334/33.3	438/43/6	
Total	604/29.5	751/37.8	

The prevalence for girl students was about two time that of men (13.1% versus 6.4%, P < 0.001). Data regarding prevalence of the psychiatric disorders in terms of classes group, gender, marital status, educational level, occupation, and residential area are presented in Table 2.

Table 2. Prevalence (%) distribution of psychiatric disorders of the overall population by the sociodemographic factors (N = 38)

Demographic variable		Sample	Disorder			
			Cases	%	95% CI	P.Value
Sex	Men	1883	521	27.7	25.1-29.4	<0.001
	Women	1976	658	33.3	29.9-35.8	
Classes group	First class	1879	398	21.1	18.4-22.9	<0.001
	Last class	1980	781	39.4	37.3-41.1	
Marital status	Single	2867	321	11.2	9.8-13.1	<0.001
	Married	992	66	6.7	5.1-8.2	
Residential area	Rural	670	61	9.2	7.1-11.0	ns
	Urban	3189	309	9.7	7.3-11.4	
Occupation	Employee	1735	317	18.3	16.4-20.1	<0.001
	Self-employment	2124	512	24.1	22.0-25.9	
Total		3589	1179	30.5	27.5-32.6	

Ns: non-significant

This study has been done on 3859 junior and senior B.A students of Payam-e-Noor Universities in the west Azerbaijan. The results of this study clears that (%61) 2576 of the female students of the average age of 21/1 ± 21/4 that 1374 of them were the junior students with the age of 19/2 ± 2/1 and 12.2 of them were the seniors that the average age was 23/2 ± 1/3 and the other students were the male ones with the age of 23/4 ± 3/2 that 899 of them were the juniors and 749 of them were the seniors with the average of 25/2 ± 2.%34 of the females and 17 percent of the males were married. In the case of their residence 10.8 percent of the female and 24.3 percent of the male were from the rural areas. 81/8 percent of the female students were the native ones.

In considering their parents jobs, the results clears that 42/8 percent of the female students fathers and %47/2 of the male students fathers were the employees of the government. In the case of their educational levels, %49/2 the parents of the female samples and 37/3 percent of the male had university educational degrees.

The financial rates of their families per month for %21 of the students were lower class and %51 of them is middle class and in %28 of them were upper class.

The average value of the general health dimensions in female students were 24/7 ± 1/2 and in male students were 23/1 ± 1/3 which %27/7 of the males and %33/3 of the females marks were upper or equals 23, which this difference was significant. (P=0.02)

The comparison of average marks of Quad scale of junior and senior male and female students in social function disorder physical situation, depression and stress are shown in Table 3.

Table 3. The Prevalence of different type's psychiatric disorders by sex (Female)

	Variable	Somatic disorders	Anxiety disorders	Social dysfunction	Depression	p.value
		N (%)	N (%)	N (%)	N (%)	
Healthy	Junior	747(76.9)	565(58.1)	581(59.8)	785(80.8)	
	Senior	687(68.4)	462(46.1)	479(47.7)	696(69.2)	<0.001
Suspect	Junior	207(21.2)	313(32.2)	325(33.4)	101(10.4)	
	Senior	286(28.5)	410(40.8)	433(43.1)	170(17)	<0.001
Disorder	Junior	18(1.9)	94(9.7)	66(6.8)	86(8.8)	
	Senior	31(3.1)	132(13.1)	92(9.2)	138(13.8)	<0.001

Based on scoring of GHQ questionnaire results showed that male senior students have more mental health than females (Table 3) the comparison of different aspects of mental health of junior students showed that boys have more mental health than girls in all aspects (Table 4).

Table 4. The Prevalence of different type's psychiatric disorders by sex (Male)

	Variable	Somatic disorders	Anxiety disorders	Social dysfunction	Depression	P.Value
		N (%)	N (%)	N (%)	N (%)	
Healthy	Junior	754(83.1)	643(70.9)	676(74.5)	813(89.7)	
	Senior	757(77.7)	600(61.5)	603(61.8)	796(81.6)	<0.001
Suspect	Junior	143(15.8)	221(24.4)	202(22.3)	58(6.4)	
	Senior	195(20.1)	304(31.1)	320(32.8)	113(11.6)	<0.001
Disorder	Junior	10(1.1)	43(4.7)	29(3.2)	36(3.9)	
	Senior	24(2.2)	72(7.4)	53(5.4)	67(6.8)	<0.001

The comparison results between senior and junior students showed that there is a meaningful difference between boys and girls (P< 0.2).

The comparison of all junior groups with all seniors showed the increase of this difference with the increasing of the numbers increase of this difference with the increasing of the numbers increase of this difference with the increasing of the numbers of presence at University, comparing of girls and boys showed that there is a significant difference between both groups.

Table 5. Relationship between different aspects of mental health and sex

Mental health	Variable	SD±μ	P.Value
Somatic disorders	Male	4.2±3.1	0.01
	Female	7.1±3.1	
Anxiety disorders	Male	5.8±3.5	0.00
	Female	7.8±5.2	
Social dysfunction	Male	5.6±2.9	0.05
	Female	7.5±4.2	
Depression	Male	4.2±3.9	0.05
	Female	5.8±5.6	

Findings showed that in different variables there was a significant correlation between family income, educational degree and age. (P<0.06) the prevalence of mental health disorder in girls (43/6%) are more than boys (33/1%).

Female students had lower level of mental health than males and this relationship is clear in both senior and junior students of university junior girls had more mental health than senior girls.

This also causes strict mental disorders Depression and stress within other aspects in mental health in female students appeal more than males. There is not a significant relationship between these variables such as age, living place (location), education level of parents with students mental health, but there was a meaningful relationship between student's marriage and family income. (P<0.05)

Statistical analysis of data showed that there is meaningful difference between the social function of male and female, but in the field of depression, physical health and stress, boys have more mental health.

4. DISCUSSION

The paraphrasing of our findings is somewhat limited because of the particularly selective nature of the investigated sample, which is only representative first-year and end-year of University students from Payam-e-Noor University of West Azerbaijan. However, the findings might be representative of all Iranian third-year high school students because they are all subject to similar social pressure as well as pressure to perform well in the university entrance examination.

Generally from the conclusions of this study, we used the junior and senior students at the universities, because these two groups have more educational and social stresses than the others groups.

The conclusions of the different studies on students, psychological health reveals that the mental problems increase among university students in comparison to the other groups and the past, which could be associated with increasing student awareness and easy access to Student Counseling Centers (9) (20).

This study clears that %43/6 of the female students and %32/1 of the male ones, and generally %37/8 of the students were suspicious of the psychological disorders. The most important factors in this problem are the social and economical conditions which are similar to the other students that have been done in Iran (9) (21) (22). Also, Male students had better psychological health than the females. In the case of different psychological disorders, female students had more unsuitable situation than the male ones, which is similar to Eisenberg's study (23). Further, the students of the whole educational levels, who were in the lower levels at the economical and social condition, had more risks at the psychological health disorders, which there results were like many other studies (24) (25) (26).

In spite of this fact that the psychological health of the males and females have remarkable differences, but we could assign this difference to some professional factors among the students such as the environmental conditions, culture, society situations and the individual and social characteristics. In comparison to the boys, the girls have lower psychological health conditions, that one can attribute this matter to the sensitivity and physiological conditions and frangibility of them. This studies clears that in the difficult economical and social situations, the girls were more fragile than the boys (27) (28) (20).

The universities environments, exams stresses, individual competitions, and social environment changing could be stressful factors for students and in this matter needs to know the groups who were in the risk and to compare them with the other groups rather than students, which the results of the studies can clarify this matter (29) (30).

The results of this research indicates that the average marks of the subordinate scales of the questionnaire CHQ-28 among the senior students were upper than the junior ones, and this matter attributes the secondary criterion of the physical problems, stress and depression.

Vitaliano and his colleagues in their study on the senior students in ratio to the junior ones showed that the senior students were in more unsuitable situation than the juniors (31). Further, Fakhari and his colleagues in their research on the psychological health of the students and the women reached the same results as ours (8). The conclusions of this study showed that %43/6 of the female students and %32/1 of the male ones are suspicious of the psychological health disorder, which these result, were similar to Emami study in Tehran University and Zolfaghari,s research in Toyserkan, Iran (32) (22). The results of this study were higher than the results of some studies (33) (34) (35)

The comparison of the junior and senior female students clears that the senior students were in a unsuitable situation in the whole of the aspects except the Somatic health. Also, in the case of the comparison of the junior and senior male students it can be cleared that except the anxiety in the seniors were in a more unsuitable situation than the juniors. It can be explained because of the concern of the future, the families and universities circumstances, and the economical conditions of the families and societies. These results were consistent with most studies (36) (37) (38) (39).

In the case of the effect of marriage and single life in psychological health disorder, the conclusions clears that the married students have better psychological conditions than the single ones, that is related to the tranquility in the family and the married life, which can show that the sense of security and the existence of social protection of the individuals which in the married women are more than the single ones.

The conclusion of Horwitz's study clears that the married women in comparison to the single ones have better mental health, and in earning the educational successes are more prosperous than their single colleagues (40). Handbook of the psychological disorder of the American Psychology Association shows that in addition that the married women have better psychological health than the other individuals, but also have better physiological and physical conditions in comparison to the single and divorced women's. There were significant relationships between social success with family members that this positive relationship clears individual's psychological, social and Somatic health.

According to the same studies in the foreign countries, the result indicated that the students who are studying in the foreign countries have better situation than the student who were studied in this research (14) (15). It seems that the providing of the suitable facilities for omitting and solving student's problems can decrease their mental and psychological problems. In addition, according to CDC,S report, %12/3 of the women of 18 to 24 ages are suffering from the psychological problems, which this rate is exactly the same as this study's result (28).

The most common psychological disorders among the samples were depression and stress which in females are more than males. The results of this study clears that these students are in better situation in comparison to the other studies, results which had done in Iran, which can be related to the firmness and protection of the families (32) (34, 41). In these studies the disorders of depression and stress were more than the other aspects of mental health among the students.

The differences of the observations in varied dimensions of psychological health among the students could be explained according to the environmental conditions of the universities and their life's and it seems that the mutual understanding between the students and the professors can be effective in decreasing this problem. Because the stress and depressions of the individuals are among the first causes and factors that can cause other disorders, we should pay more attention to these problems.

Finally, the results of the studies show that there is a meaningful relationship between gender and general health and that was more observable in the case of depression which this problem among the girls were more than the boys. In the study which has been in Tehran, the same results were observed and in that depression and stress between girls were more than the boys (32).

6. Conclusion

By considering the above results, we can come to this conclusion that being the university student can be the source of the big change in the life of the individuals; which can be basically related to the family's economical problems and their features. Therefore it is recommended that the student consoling centers identify the students who are in the risk of stress and in addition to the finical protection, try to compensate their emotional lacks. From the students point of views, the most important and effective factor in causing stress is the warning of their future in the case of occupation and also the family disagreements which were similar To Tehran (32) and (42) studies.

7. Limitations of the study

The analyses of our results have some limitation because of choosing the sample among the senior and junior students of Payam-e-Noor University, Which can only introduce this group of university students.

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