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Assessment of the Students' Mental Health in the University of Garmian Using the Kurdish General Health Questionnaire

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ABSTRACT

It is predicted that Kurdish people, especially in Garmian District, face more mental health issues due to war, displacement and numerous political conflicts. On the other hand, different studies showed that mental health of university students decreases during their educational years. So, this study aimed to investigate the mental health of students in University of Garmian, using the Kurdish General Health Questionnaire (K-GHQ). In this cross-sectional study sample consists of 156 students selected by multistage cluster sampling among the students of five colleges from the University of Garmian. Furthermore, data were collected using Kurdish version of GHQ and demographic questionnaire. First, the GHQ successfully translated into Kurdish and back translated into English by independent professional bilingual translators. After preparing the finalized Kurdish GHQ, data were collected from May 2018 to February 2019. The investigation of reliability and validity of K-GHQ showed that this version is a valid and reliable tool for evaluation of mental health in university students. The average of mental health scores showed that only 3.25% of students were at normal mental health status and more than 96.75% of the participants were at risk. Of these, 37.6% suffered from mild problems, 51.9% had moderate, and 7.14% had severe problems. The higher scores were due to anxiety/insomnia (14.24) and social dysfunction (11.86). However, no differences were observed between the genders, but there were significant differences in global score and three sub-scales scores between freshmen and students of other grades. Because of the high prevalence of mental health problems in students of University of Garmian, effective interventions like CBT, MBSR and TFT are needed to reduce the effect of stressors and improve their mental health status.

Keywords: Mental health, College Students, Kurdish GHQ

1. Introduction

Mental health is one of the major criteria for people's general health condition. Mental health can be defined as feeling good, self-confidence, self-reliance, competition capacity, inter-generation affection, and manifesting potential capabilities [1]. Based on reports released by WHO, future decades will witness significant alterations in diseases and personal health requirements, since such non-epidemic illnesses as mental disorders (as a major cause of disabilities and unexpected death) will replace other types of diseases soon. It is anticipated that the rate of mental and nervous disorders will increase up to 50% by 2020, comprising 15% of total patients worldwide. Also, according to WHO world mental health survey mental disorders are common among college students and One-fifth (20.3%) of college students had 12-month DSM-IV/CIDI disorders [2].

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This striking surge in mental disorders will be even higher than increases in cardio-vascular ones. People with mental health disorders often suffer from a lower standard of life. They are more introversive with a higher rate of mortality [3]. These people are often neglected in the society. This is particularly worse for people who belong to ethnic minorities. Kurds are form one of these minority groups. Kurdistan is located in Turkey, Iran, Iraq and Syria; the Kurdish population settled in these regions is estimated to be up as high as 27–28 million. Some Kurds live in Russia and Lebanon and it is estimated that more than one million Kurds currently live in Europe, mainly in Germany. The Kurdish language has several dialects (e.g. Kurmanji, Sorani, Zazaki and Gorani), with Kurmanji being spoken most often in the northern region of Kurdistan and Sorani in the south. Moreover, the Kurdish language can be written in three different ways: Latin, Arabic and Cyrillic [4]. The majority of Kurds are Sunni Muslims but there are also Jewish and Christian, Yazidi and Yarsani/Kakai Kurds, this all means that the Kurdish population totally represents a diverse population in terms of ethnicity and religion. The Kurds and particularly those living in the Garmian region in

the Kurdistan Region of Iraq (KRI) have been among those who have experienced genocide, chemical attacks, displacement, and other forms of violence while there are extensive studies on the prevalence of mental health problem in most of the countries, but Kurdistan region is somehow neglected and a few studies were conducted in this region [2&5]. Despite the fact that people living in the region have experienced various calamities like chemical bombardment of Halabja, Anfal campaign which ended in a massacre of over 182 thousand people [6], numerous instances of other mortality causes like wars and displacement, flood, economic and social crises faced the region after ISIS invasion to Iraq in 2014. They are consequently more prone to suffer from various mental and physical disorders. This is attested in studies dealing with prevalence of special disorders in the general public or in the studies devoted to survivors of violent acts [7&8]. This highlights the need for study and assessment of mental health of people in the region.

Moreover, among different social strata, university students are result of humanistic and spiritual efforts of society. They are also more prone to mental health problems due to special factors they experience in college life [9] these include homesickness, entrance into a huge and stressful organization, economic problems, insufficient income, voluminous courses, and intense competitions [10].

It has also been noted that students with mental health problems experience disruptions in their developmental and educational tasks. As a result, students may not be able to perform well or obtain good achievement in their academic pursuit [11]. On the contrary, they may experience stress which is resulted from academic workload and extreme pressure for success, making them even prone to experience mental disturbances [12] or psychiatric illnesses such as substance abuse, depression, anxiety and eating disorders [13].

Thus, dealing with students' mental health is critically important. As a result, there are numerous studies assessing students' mental health in different countries, all of which denote to relative prevalence of mental health disorders among university students [14,15,16,17&18]. Of course, as mentioned earlier, similar studies on Iraqi Kurds are limited in the literature. Hence, it is required to assess the mental health of university students in Iraqi Kurdistan.

Furthermore, prevention and early diagnosis of mental disorders can reduce the destructive effects of these disorders. Although in psychology and psychotherapy, prognosis is mainly based on clinical interviews and according to Diagnostic and Statistical Manual of Mental Disorders (DSM), it is widely accepted that accurate prognosis requires multiple scales [19]. To this end, standard instruments can facilitate and refine the complicated issue of prognosis. In addition, one of the most common screening methods is the use of self-assessment tools. From these, the standard questionnaires, which are less expensive, easier to implement, valid, and reliable are often translated into other languages and then normalized. These instruments are capable of providing health and medical officials with reliable information in a less costly and less time-consuming manner.

Goldberg General Health Questionnaire (GHQ) is one the best-known instruments to assess the mental health of people. It was first devised in 1972, and then it was widely used for diagnosis of mild mental disorders [4]. It was adopted as a screening tool in an international World Health Organization (WHO) study of psychological disorders in primary health care, as it has been deemed the best validated among similar screening tools [20].

GHQ initially included 60 items, but gradually and based on conditions shorter versions including 30, 28, or 12 items were devised and implemented in various studies [5] According to literature, the version with 28 items is more valid and sensitive [21]. This version is translated into over 30 languages. After approving the validity and reliability of GHQ-28, it was employed in psychometric studies of 70 countries [22]. Consequently, this instrument can be employed to investigate the mental health of people in different countries. Based on the above, the present study aimed to assess the mental health condition of students in University of Garmian, using the Kurdish version of GHQ.

2. Materials and Methods

2.1 Study design and setting:

This study was a descriptive cross- sectional study performed from May 2018 to February 2019 in University of Garmian.

2.2 Participants

The sample consists of 156 undergraduate students studying at the five college of University of Garmian. University of Garmian is a non-profit public higher education institution located in the suburban setting of the large town of Kalar with a population of more than 250,000 inhabitants. More than 4500 undergraduate and graduate students enrolled during the academic year of 2018-2019 in the university. Sample was selected using multistage cluster sampling method. The demographic characteristics of the sample is presented in Table 1.

Table 1: Demographic characteristics of the sample

	Variable	Frequency	Percent
Colleges	College of Education	50	32.1
	College of Basic Education	36	23.1
	College of Science	30	19.2
	College of Agriculture	19	12.2
	College of Literature and Human science	21	13.5
	Total	156	100
Stage	First	42	26.9
	Second	44	28.2
	Third	34	21.8
	Fourth	36	23.1
Gender	Female	82	52.6
	Male	74	47.4

The inclusion of the participants was based on being a first to fourth year student and to have the consent to participate in the study. Primarily, 200 students were selected but forty-four of the participants were excluded because either the questionnaires were incomplete, or they did not have the consent to participate in the

study. So, data from 156 students were obtained for final data analysis.

2.3 Procedures

Data were collected using two questionnaires: Demographic Questionnaire (stage, college, gender) and K-GHQ. According to previous studies, through factor analysis, the GHQ-28 has been divided into four subscales, which are somatic symptoms (items 1–7); anxiety/insomnia (items 8–14); social dysfunction (items 15–21), and depression (items 22–28). [21] The Likert method of scoring from 0 to 3 was used then, the scale ranging from 0 to 84.

The translation process for Kurdish GHQ was performed according to a standard methodology and Functional Assessment of Chronic Illness Therapy translation methodology (FACIT) [23]. The result of investigating reliability of using the test-retest (0.88), split-half (0.89) and Cronbach's alpha (0.82), showed that the K-GHQ has adequate reliability. The validity was evaluated using the concurrent reliability of K-GHQ and Pittsburgh Sleep Quality Index. Results showed that the correlation coefficient was significant ($r=0.72$, $p<0.01$). Also, the correlations between the global score with subscales of K-GHQ were all statistically significant ($r=0.23$-0.72, $p < 0.01$). It was concluded that the Kurdish version of General Health Questionnaire is a valid and reliable tool for screening mental Health in Kurdish communities [24] Based on the mean score from the previous studies, we used the cut-off point 23 for total score of the questionnaire.

Before providing the questionnaires to participants, verbal consent from the participants was obtained, aims of the study were explained and the confidentiality were cleared to them. Then instructions about answering the questionnaire were clearly given to the participants.

2.4 Statistical Analysis

After collecting main data, all analyzed using SPSS statistics version 22.0. Mean and standard deviation of somatic symptoms, anxiety/insomnia, social dysfunction, depression and global score for male and females have been measured. K-GHQ-28 total score and all sub scores were compared between groups by T-test and one-way analysis of variance (ANOVA) followed by Tukey test.

3. Results & Discussion

A total number of 156 students of University of Garmian took part in the study. Of these, 32.1% were from college of education, 23.1% college of basic education, 19.2 college of science,13.5% College of Literature and Human sciences, and 12.2% college of agriculture; 26.9% were first stage, 28.2% second, 21.8% third and 23.1 fourth stage. Regarding the gender, 52.6%of participants were female and 47.4 male.

Descriptive findings showed that only 3.25% of students were at normal mental health status and 96.65% of the cases were at risk. Of these, 37.6% had mild problems, 51.9% had moderate, while 7.14 % had severe problems (chart 1).

According to the results the mean scores of the four subscales of somatic symptoms, anxiety/insomnia, social dysfunction, and depression were 9.57, 14.24, 11.86, and 7.25 respectively. The mean of global score was 43.5 which were almost two times more than cut point. The higher scores were due to anxiety/insomnia (14.24) and social dysfunction (11.86) (table 2).

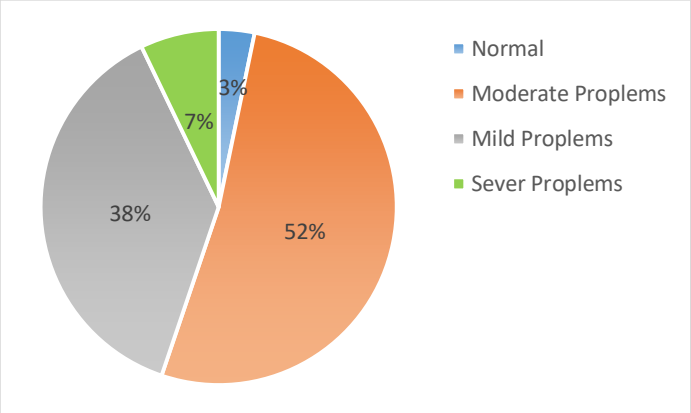

Figure 1: Mental Health status of students

Table 2: mean and standard deviation of global scores and 4 subscales

	Male		Female		Total	
	M	SD	M	SD	M	SD
Somatic symptoms	9.83	3.04	9.33	3.39	9.57	3.23
Anxiety/Insomnia	14.25	3.68	14.23	3.32	14.24	3.49
Social dysfunction	11.75	3.29	11.96	3.30	11.86	3.29
Depression	7.32	3.51	7.18	3.33	7.25	3.41
Global scores	43.17	11.66	42.95	11.07	43.05	11.32

There was no study in the literature dealing with prevalence of general health problems in the similar sample, but other findings in Iraq, which are somehow close to these studies, supported our findings [25&7]. Moreover, most of studies conducted out of Iraq attested a high prevalence of general health problems in university students [26,27&28] but, it seems that prevalence of mental health problem in University of Garmian is much higher than its counterpart universities. Further analysis revealed that the most common problems experienced by students were anxiety/insomnia and social function. Our findings are in line with similar studies [8,26&29]. Student's life is a period full of tension and anxiety. Thus, factors like homesickness, dislike of educational discipline, shortage of facilities, and economic problems can put students into pressure. Moreover, due to unemployment problem in Kurdistan and the role scores play in higher education, students suffer from anxiety and this may lead to insomnia. This is in line with the findings that showed as students approach their graduation, they experience more disorders [30].

Beside the stressful lifestyle of university students, this difference may stem from different reasons, one of which is peculiar socio-cultural condition of the sample. Kurdistan and particularly Garmian have experienced many upheavals including different forms of mass violence (e.g. war, displacement, chemical bombardment, civil war, and political conflicts). Based on studies, experiencing such kind of events may affect people's health [27]. This is not only true for people who were directly engaged in these upheavals, but also for observers and next generation comprised from their decedents [30&31]. Advent of ISIS and civil war in Iraq formed a new wave of socio-economic

tension, and many internally displaced people (IDPs) sought asylum in Kurdistan and especially Garmian that created its own consequences. It seems that the above factors as a whole, as well as contemporary and historical tensions, have negatively affected the general health condition of people.

There was a very little difference between the male and female students in 4 subscales, but global score was higher for male students then, T-test analysis revealed that, despite higher mean score of male students, mental health of male and female students was not statistically significant (table 3).

Table 3: the results of t-test for comparing the global scores between man woman

		Levene's Test		t-test		
		F	**Sig.**	**T**	**Df**	**Sig.(2-tailed)**
Total	Equal variances assumed	1.095	.297	-.123	152	.902
	Equal variances not assumed			-.123	149.475	.902

Then, it can be claimed that there is no difference in mental health of male and female students participating in the study. There are studies in the literature with similar findings [31, 32& 32], but there are others [34& 35] which report a significant gender-biased difference in prevalence of health problems. Despite the fact that intensity of symptoms is very high for both genders, there are cultural, social, and economic differences in different regions which may justify differences in findings. In addition, university provides similar opportunities and threat to both genders. It seems that both genders are faced with similar problems.

In order to compare the mean scores of mental health and sub-scales, the data were analyzed using one-way ANOVA (Table 4). The results showed that there was no significant difference between students in somatic symptom, but there were significant differences between the total score and three remaining sub-scales. Consequently, based on the results, in higher stage the mental health became worse. To locate the exact position of these differences, Tukey post hoc was employed which demonstrated that freshmen significantly scored lower than second, third and fourth students, in all three remaining subscales, as well as the total score, but no significant difference was observed between these three groups.

Table 4: One-way ANOVA Results to Compare Mean Scoresin Different Educational Grades

		Sum of Square	**df**	**Mean Square**	**F**	**Sig.**
Somatic Symptoms	Between Groups	44.05	3	14.68	1.41	.240
	Within Groups	1553..51	150	10.35		
	Total	1597.56	153			
Anxiety/Insomnia	Between Groups	342.55	3	114.18	11.22	.000
	Within Groups	1546.18	152	10.17		
	Total	1888.74	155			
Social dysfunction	Between Groups	362.84	3	120.94	13.93	.000
	Within Groups	1319.32	152	8.68		
	Total	1682.17	155			
Depression	Between Groups	302.57	3	100.85	10.20	.000
	Within Groups	1502.67	152	9.88		
	Total	1805.25	155			
Global sores	Between Groups	3614.04	3	1204.68	11.28	.000
	Within Groups	16018.42	150	106.79		
	Total	19632.47	153			

This finding is consistent with the findings of Jafari *et al* [26] but Sherina *et al* found no association between the years of study in medical school and mental health [35]. Although these studies all investigated the medical student, it seems that totally longer time exposure to stress during the educational years can cause this issue. It may also have deeper impact on students' mental health, such as developing anxiety and social problems overtime.

The current study suffered from several limitations, e.g. the small sample size which restricts the generalization of findings, the lack of clinical interviews according to guidelines like DSM-5, because of limitation in access to mental health profession in the whole region, ignoring some psycho-social factors like economic situation and ignoring the scientific branch of study in order to exclude the effect of the difficulty in the curriculum. Besides all limitations, investigation of general health of students is a very important and prioritized subject, yet one can see there is a lack of studies in Garmian region. This study provides fundamental information for future researches, educational and health policy making, and appropriate interventions in needed areas to help improve students' mental health, as it can have a great influence on their lives and career.

4. Conclusion

During applying of GHQ among students of University of Garmian, the result revealed that less than 4% of students scored lower than the cutting line and they were considered healthy, as a result. More than 96% suffered from mild, moderate, or severe problems. Moderate disorders with a prevalence of about 50% were more common. The highest scores were attributed to

anxiety/insomnia, and social dysfunction sub-scales, respectively. Further analysis demonstrated that while more than 90% of participants scored higher than the minimum limit, most of them only suffered from moderate health problems and fewer experienced severe problems.

In conclusion the general health problems are considerable among students of University of Garmian in Kurdistan. Future researches are required for searching the causes of these research findings and randomized control trial is needed for investigating the effectiveness of available interventions from research properties in this region. Utilizing the effective interventions like CBT, TFT or MBSR may reduce the effect of other stressors and improve students' health status. Also, longitudinal investigations need to be conducted to assess students' mental health.

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