Original Article

A Survey on Mental Health Status of Adult Population Aged 15 and above in the Province of Kordestan, Iran

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Abstract

Introduction: This research aims to determine the mental health status of population aged 15 and over in the province of Kordestan in 2015.

Methods: The statistical population of this cross-sectional field survey consisted of residents of urban and rural areas of Kordestan in Iran. An estimated sample size of 1200 people was chosen using systematic random cluster sampling. The access was provided by the contribution of Geographical Post Office of Sanandaj, Divandareh and Bijar cities. The General Health Questionnaire-28 (GHQ-28) was used as a screening tool for mental disorders. Data analysis in the current study was carried out using the SPSS-18 software.

Results: With the traditional scoring method used, 30.4% of the participants (38.1% of women and 22.9% of men) were suspected of having mental disorders. The suspected prevalence of mental disorder was higher in urban (32.5%) than rural areas (25.3%). The suspected prevalence of somatic symptoms and anxiety was greater than the suspected prevalence of social dysfunction and depression, and these disorders were more prevalent in women than men. The findings also showed that the suspected prevalence of mental disorder increased with age. The suspected prevalence of these disorders was higher in women, urban residents, the over 65 age group, the divorced and widowed subjects, the illiterate, the retired and the housewives compared to the other groups.

Conclusion: The present findings showed that almost a third of the samples were suspected of mental disorder, and the prevalence of these disorders had increased from 21.8% in 1999 to 30% in 2015. The health authorities of the province should therefore take the necessary measures to protect and treat people with mental disorders and promote mental health in the community.

Keywords: Adult population, general health questionnaire (GHQ-28), Kordestan province, mental health status

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Introduction

Kordestan is a province in the west of Iran with an area of 29,137 km^2 and a population of 1,603,011, including 1,134,229 urban residents (70.75%) and 468,778 rural residents (29.25%). This population consists of 50.7% men and 49.3% women who live throughout ten cities, with Sanandaj being the provincial capital. The residents of this province are predominantly speak kurdish, Sunni Muslims and have a life expectancy of 71 years, an unemployment rate of 12% and a household size of 3.7.[1]

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In terms of health facilities, Kordestan has 148 health centers, including 75 urban and 73 rural, and 618 health houses provide health services to the rural people in this province. There are 14 hospitals across the province that provide medical services. In addition to its 130-bed psychiatric hospital, the general hospitals of the province have 22 beds for psychiatric patients and there is approximately one psychiatric bed available per 10,000 of the population. There are 62 methadone maintenance treatment centers and three harm-reduction centers providing medical and preventive services to addicts. In terms of psychiatric health professionals, there are 23 psychiatrists and 65 clinical psychologists with master's degrees in this province. A total of 208 general practitioners working in the province's health centers provide mental health services to the urban and rural population of this province, especially to the 1900 psychiatric patients covered by the healthcare program.[2]

In terms of the prevalence of mental disorders, a nationwide study conducted by Noorbala, et al. (1999) on 714 people aged 15 and over in this province reported the suspected prevalence of mental disorder in the study samples as 21.8%, including 19.4% in males and 24.2% in females.[3]

Epidemiological studies on mental disorders are crucial for determining the public mental health status, identifying the demographic characteristics contributing to these disorders and predicting health resources and services to meet the needs of the province. The present study was conducted to assess and compare

the mental health status of people in this province in the past 15 years.

Materials and Methods

This research was performed in the form of a cross-sectional field survey in Kordestan province in 2015. The population sample of this survey consisted of urban and rural dwellers in the age group of 15 and above. The sample size was estimated as 1200 people who were selected through systematic random cluster sampling among the people living in urban and rural areas of Sanandaj (provincial center), Divandareh and Bijar. The samples were selected using the Post Office Software.

The 28-item General Health Questionnaire (GHQ–28) was used as the screening tool for detection of mental disorders. This questionnaire was developed by Goldberg & Hillier (1979) for screening somatization, anxiety, social dysfunction and depression.[4] A review of studies on the validation of the GHQ–28 in different countries demonstrates its high validity and reliability as the screening tool for mental disorders in the community.[5] It includes four subscales with 7-item criteria related to the somatization, anxiety, social dysfunction and depression symptoms. There are different ways of scoring GHQ-28, such as Likert and the traditional scoring method.[6] Using the traditional scoring method, the best cutoff point for this questionnaire was score 6 and for each subscales were 2. These cutoff points were obtained through a research on standardization of this screening tool in Iran.[7]

The survey started in December 2014 and lasted until January 2015. The survey team (a man and a woman) referred to the samples' houses based on their 10-digit Postal Code and beginning with each of head clusters in accordance with the survey completion guideline manual. Based on six age groups (15 to 25 years, 26 to 35 years, 36 to 45 years, 46 to 55 tears, 56 to 65 years and 66 years and over), 12 adults (6 males and 6 females) were evaluated in each cluster. In each research unit (Household), only one person was examined. In cases when more than one individual was eligible, the sample was selected randomly.

Data related to the survey were analyzed using the SPSS-18. Logistic regression modelling was used to determine the factors that affect mental disorders. The average time to complete each questionnaire was 45 minutes.

Results

A total of 1158 persons completed the questionnaire. Data regarding prevalence of suspected cases of mental disorders in terms of gender, place of residence, age, marital status, education and occupation are presented in Table 1. The results showed that 30% of the samples (37.6% of females and 22.6% of males) were suspected to suffer from mental disorders. The highest prevalence of mental disorders was in the urban areas (32%), individuals aged 65 and over (42.5%), divorced or widowed (61.2%), illiterate (39%) and retired people (39.5%).

Information related to logistic regression of variables and the odds ratio is presented in Table 2. Based on the logistic regression analyses (Table 2), the results indicated that females had a relative risk of mental disorders of 1.723 compared with males. The risk of mental disorders increased significantly with age. Divorced or widowed people were 2.554 times more at risk of mental disorders compared with married people. The highest risk of mental disorders pertained to retired (retired people were 1.716 times more at risk of mental disorders compared with employed people). Illiterate individuals were 2.575 times more vulnerable

Table 1. Prevalence of mental disorders in terms of the demographic variables (n= 1158)

Variables	Sample size (*n*)	Suspected cases (*n*)	Prevalence rate (%)
Gender			
Male	589	133	22.6
Female	569	214	37.6
Place of residence			
Urban	812	260	32.0
Rural	346	87	25.1
Age group (years)			
15–24	133	28	21.1
25–44	423	110	26.0
45–64	390	120	30.8
+65	207	88	42.5
Marital status			
Unmarried	882	245	27.8
Married	173	39	22.5
Widowed, or divorced	103	63	61.2
Occupation			
Employed	405	83	20.5
Unemployed	110	38	34.5
Student	72	12	16.7
Housewife	433	160	37.0
Retired	129	51	39.5
Education			
Illiterate	456	178	39.0
Primary & secondary	303	75	24.8
Diploma	213	61	28.6
Graduated	157	27	17.2
Post Graduated	21	3	14.3
Total	1158	347	30.0

Table 2. Estimated logistic regression coefficients and odds ratios

Variables	B	S.E.	Sig.	OR	95% C. I. for OR	
					Lower	Upper
Marital Status						
Married	- - -	- - -	- - -	- - -	- - -	- - -
Unmarried	0.171	0.275	0.535	1.186	0.692	2.034
Widowed, or divorced	0.938	0.239	0.000	2.554	1.598	4.083
Gender						
Male	- - -	- - -	- - -	- - -	- - -	- - -
Female	0.544	0.234	0.020	1.723	1.089	2.725
Age	0.007	0.006	0.281	1.007	0.995	1.019
Place of residence						
Rural	- - -	- - -	- - -	- - -	- - -	- - -
Urban	0.384	0.158	0.015	1.468	1.078	2.001
Occupation						
Employed	- - -	- - -	- - -	- - -	- - -	- - -
Unemployed	0.385	0.255	0.132	1.469	0.890	2.424
Student	-0.311	0.412	0.451	0.733	0.326	1.644
Housewife	0.034	0.268	0.899	1.035	0.611	1.751
Retired	0.275	0.260	0.032	1.716	0.791	2.191
Education						
Post Graduated	- - -	- - -	- - -	- - -	- - -	- - -
Graduated	0.115	0.665	0.863	1.121	0.304	2.131
Diploma	0.720	0.649	0.145	1.454	0.576	3.533
Primary & Secondary	0.593	0.648	0.037	1.809	0.508	3.140
Illiterate	0.946	0.653	0.007	2.575	0.716	4.258

to mental disorders than people with postgraduate degrees and above.

The results also showed that 28.2% of the sample experienced somatization (20.6% male and 35.8% female), 32.4% were suspected to anxiety (27.1% male and 37.7% female), 17.6% were suspected to social dysfunction (16.8% male and 18.3% female), and 8% were suspected to depression (7.1% male and 8.8% female).

Discussion

The findings showed that almost a third of the participants were suspected of mental disorders. The suspected prevalence of mental disorders in the first nationwide study conducted in this province in 1999 was 21.8%,[8] which suggests an increase to 30% by 2015.[9] This increase may be attributed to the social structure, economic and political changes occurred in the province over this period.

In the present study, the suspected prevalence of mental disorder was 37.6% in females and 22.6% in males. In the first nationwide study of the province in 1999, the suspected prevalence of mental disorder was 24.2% in females and 19.4% in males. A comparison of these two studies shows the higher vulnerability of women in this province. A review of studies conducted in different countries in the world,[10] and in Iran,[11–13] supports the present finding regarding the higher suspected prevalence of mental disorder in women than men. In Kordestan Province, this higher prevalence can be attributed to biological factors, gender roles, environmental stress and the limited sources of happiness for women.

The prevalence rate of suspected cases of mental disorder was higher in urban (32%) than rural residents (25.1%), which concurs with the results obtained in 1999 (21.9% in urban residents and 21.8% in rural residents).[11] Economic problems, low income and the features of urban living can be considered as some of the reasons for the higher prevalence of mental disorder in urban residents compared to rural residents.

In this study, the prevalence of mental disorders increased with age, and the highest prevalence was observed in the over 65 age group (42.5%), which agrees with the results obtained in 1999 in this province.[8] The majority of studies conducted in Iran and the world indicate the higher prevalence of mental disorders in old age.[9–13] The physical disabilities associated with old age (retirement age) and menopause and the biological changes in women can be some of the reasons for the increase in the suspected prevalence of mental disorder in this age group.

With regard to literacy, the prevalence of mental disorders was higher in the illiterate individuals (39%) compared to the other groups, which agrees with the results of the 1999 study and other studies conducted in Iran[11–13] and the world.[10] The inability of illiterate people to use effective methods of coping with social limitations and stressors can be some of the reasons for the higher suspected prevalence of mental disorders in this group.

The prevalence rate of suspected cases was higher in the retired (39.5%) and the housewives (37%) and also among the divorced and widowed (61.2%) compared to the other groups, which agrees with the results obtained in 1999 and other studies conducted in Iran and the world.[9–13] The social constraints faced by housewives, economic inflation and recession and lifestyle changes after retirement as well as the loss of loved ones and social constraints due to separation and divorce can be some of the reasons for the significant increase in the suspected prevalence of mental disorder in these groups.

The findings of this study on GHQ subscales showed that prevalence of anxiety and somatic symptoms was higher than the suspected prevalence of social dysfunction and depression, and

these disorders were more prevalent in women than men, but in the 1999 study conducted in this province, the prevalence of anxiety and depression was higher than the prevalence of somatic symptoms and social dysfunction.[3] The disparity in the prevalence of these disorders between the present study and the 1999 study can be attributed to environmental stressors, economic problems and the social changes which have occurred in the province.

Conflict of interest

The authors declare that they have no conflict of interest.

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