Original Article

A Survey on Mental Health Status of Adult Population Aged 15 and above in the Province of Kohghilouyeh and Bouyerahmad, 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 Kohghilouyeh and Bouyerahmad in 2015.

Methods: The statistical population of this cross-sectional field survey consisted of residents of urban and rural areas of Kohghilouyeh and Bouyerahmad 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 Yasuj, Dogonbadan, and Dehdasht 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: Using GHQ traditional scoring method, the results showed that 16.9% of the subjects showed to be at risk of mental disorders (20.1% of females and 13.4% of males). Urban areas (18.3%) were more at risk of mental disorders compared with rural residents (13.9%). Anxiety and somatization symptoms were more frequent than depression and social dysfunction among respondents. The obtained data revealed that the prevalence of mental disorders increased with age. The results also indicated that mental disorders were more common in certain subgroups; in particular women, those aged 65 years and above, the divorced and widowed, illiterate and retired adults.

Conclusion: Our findings suggest that one sixth of the participants are at risk of developing mental disorders. Although the prevalence of these disorders has decreased from 26.2% to 16.9% between 1999 and 2015, it is still of great importance to further promote mental health policies and advocate psychological welfare of those suffering from mental disorders along with their re-empowerment.

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

Introduction

Kohgilouyeh and Bouyerahmad Province is located in the southwestern of Iran, with an area of 16264 km[2.] Its population is about 725,535 people, of who, 414,113 live in urban (57 %) and 311,422 live in rural areas (43%). Totally, 50.1% of the province population are males and 49.9% are females. This population inhabit 8 cities and its capital is Yasuj. Their religion is Islam. In this province, people are mostly Persians and speak Lori and Qashqai Turkish. The unemployment rate of this province is 26%, and the family size is 3.83.[1]

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Concerning the health facilities, this province has 67 health centers, of which 25 centers are urban and 42 are rural. A total of 345 health houses in rural areas provide health services for people. Regarding the treatment facilities in this province, there are 8 general hospitals with 880 beds. Among these hospitals, there is one hospital with 30 beds which provides inpatient services to the psychiatric patients and also 20 beds in the psychiatric ward of a general hospital are allocated to these patients. So, there are 0.7 psychiatric beds per every 10,000 people. A total of 43 Methadone Maintenance Therapy (MMT) clinics and 4 centers of control and management of substances provide services of prevention and treatment to addicts. Regarding the mental health human resource specialists, there are 8 psychiatrists and 85 clinical psychologists in Kohgilouyeh and Bouyerahmad province. The number of physicians working in health centers is 136, who provide mental health services to the urban and rural population of the province, especially delivering mental health services to 19583 patients who are under coverage of the national programs of mental health through family physician system.[2]

In the first national mental health survey conducted by Noorbala, et al. (1999), 496 individuals aged 15 and above were studied in the province. The result showed that 26.2% of them were suspected to suffer from mental disorders (16.6% of males and 34.1% of females).[3]

Regarding the importance of epidemiological studies in determining the mental health status of general population,

detecting demographic features associated with these disorders and also estimating the required resources and facilities within the province, this study was performed to examine and compare the mental health status of population 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 Kohghilouyeh and Bouyerahmad 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 Yasuj (provincial center), Dogonbadan, and Dehdasht. 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

Of 1200 individuals approached by interviewers, 1102 (91.8%) agreed to participate in the study. 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 16.9% of the samples (20.1% of females and 13.4% of males) were suspected to suffer from mental disorders. The highest prevalence of mental disorders was in the urban areas (18.3%), individuals aged 65 and over (22.2%), divorced or widowed (24.7%), illiterate (18.8%) and retired people (21.7%).

Information related to logistic regression of variables and the odds ratio are 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 1.649 compared with males. The risk of mental disorders increased significantly with

Table 1. Prevalence of mental disorders in terms of the demographic variables (n= 1102)

Variables	Sample size (*n*)	Suspected cases (*n*)	Prevalence rate (%)
Gender			
Male	530	71	13.4
Female	572	115	20.1
Place of residence			
Urban	756	138	18.3
Rural	346	48	13.9
Age group (years)			
15–24	196	42	21.4
25–44	554	81	14.6
45–64	289	47	16.3
+65	54	12	22.2
Marital status			
Unmarried	753	127	16.9
Married	275	41	14.9
Widowed, or divorced	73	18	24.7
Occupation			
Employed	254	35	13.8
Unemployed	337	52	15.4
Student	105	18	17.2
Housewife	321	63	19.6
Retired	83	18	21.7
Education			
Illiterate	271	51	18.8
Primary & secondary	181	30	16.6
Diploma	238	39	16.4
Graduated	349	61	17.5
Post Graduated	58	5	8.6
Total	**1102**	**186**	**16.9**

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	0.684	0.281	0.015	1.982	1.144	2.135
Widowed, or divorced	0.867	0.410	0.035	2.379	1.064	3.318
Gender						
Male	- - -	- - -	- - -	- - -	- - -	- - -
Female	0.500	0.223	0.025	1.649	1.066	2.551
Age	-0.007	0.009	0.453	0.993	0.976	1.011
Place of residence						
Rural	- - -	- - -	- - -	- - -	- - -	- - -
Urban	0.418	0.221	0.058	1.519	0.986	2.341
Occupation						
Employed	- - -	- - -	- - -	- - -	- - -	- - -
Unemployed	0.075	0.284	0.792	1.078	0.618	1.879
Student	1.055	0.397	0.456	1.121	1.319	1.248
Housewife	-0.297	0.330	0.369	0.743	0.389	1.420
Retired	0.436	0.368	0.008	2.871	1.319	3.248
Education						
Post Graduated	- - -	- - -	- - -	- - -	- - -	- - -
Graduated	0.872	0.556	0.307	1.391	0.804	1.814
Diploma	0.900	0.570	0.254	1.460	0.805	2.120
Primary & Secondary	1.045	0.594	0.179	1.545	0.888	2.116
Illiterate	1.233	0.610	0.043	2.845	1.039	2.340
OR= Odds Ratio						

age. Divorced or widowed people were 2.379 times more at risk of mental disorders compared with married people. The highest risk of mental disorders pertained to retired people, who were 2.871 times more at risk of mental disorders compared with employed people. Illiterate individuals were 2.845 times more vulnerable to mental disorders than people with postgraduate degrees and above.

The results also showed that 32.6% of the studied sample scored high on somatization subscale (28.5% of males and 36.8% of females), 33.1% on anxiety subscale (31% of males and 35.3% of females), 15.8% on social dysfunction subscale (14.6% of males and 16.1% of females), and 11.6% on depression subscale (10% of males and 13.1% of females).

Discussion

The results of this study showed that a sixth of people (16.9%) were suspected to suffer from mental disorders in Kohghilouyeh and Bouyerahmad Province. The prevalence rate of the mental disorders health in the first mental survey (1999) in this province was 26.2%,[8] which demonstrated a considerable decrease in the prevalence rate of mental disorders from 26.2% to 16.9%.[9] The decrease in prevalence rate of mental disorders in the province can be related to some extent to the changes which have occurred in the social, living, economic and political structures of the country at the time of research.

In this study, the prevalence rate of suspected cases of mental disorders was higher in females (18.3%) than males (13.9%). The prevalence rate of suspected case of mental disorders in the first mental survey in this province was higher in female (34.2%) than males (16.6%). Comparison of the findings of the two studies shows that in this province, women are more vulnerable

than men. Review of the studies conducted worldwide[10] and in Iran,[11–13] indicated that the prevalence rate of mental disorders is higher in females. The higher prevalence rate of suspected cases of mental disorders in females in comparison to males can be due to biological factors, gender role, environmental and economic problems, limited satisfaction and also social participation restrictions. The heavier responsibility of women than men (most of the housework and education of children) and the fewer women referrals to a psychiatrist than men can be other reasons for the higher rates of these disorders in women.

Based on place of residency, the prevalence rate of suspected cases of mental disorders was higher in people living in urban areas (18.3%) than rural areas (13.9%), which is not consistent with the findings of first mental health survey in this province in 1999 (17.8% of the people living in urban areas and 32.4% of people living in rural areas).[11] Lower income, economic problems and environmental factors can be the reason behind the higher prevalence rate of mental disorders in comparison to the rural residents studied in this province. In addition, in rural areas, social support is higher and the rates of mobility and physical activity are higher.

The results of this study showed that the prevalence rate of suspected cases of mental disorders increased with aging and the highest rate pertained to the age group of 65 years and above with 22.2%, which is consistent with the findings of the first mental health survey in the province in 1999. Most of the studies conducted in Iran[11–13] and the world,[10] indicate a higher prevalence rate of mental disorders in the retirement period which can be due to factors like disability, menopause and biological changes in older women.

Based on literacy, the results showed a higher rate of mental disorders in illiterates (18.8%) compared to the other groups

which is consistent with the findings of most of the studies in Iran.[12,13] Social and cultural restrictions and also disability of individuals in using effective methods of stress management and problem solving can be considered among the reasons for the higher prevalence rate of mental disorders in this group and lower prevalence rate among graduated individuals.

The finding of this study indicate that the prevalence of suspected mental disorders in retired individuals was 21.7% higher than other groups. Uncertainty about the future of the post graduate career, stiffness within the university and schools can be the reasons for the high prevalence of these disorders among students.

The prevalence of these disorders in divorced and widowed people was 24.7% higher than other groups which is consistent with the finding of the 1999 survey and other studies conducted in Iran and the world.[9–13] Inflation and economic downturn, lack of income, loss of loved ones and social constraints due to separation and divorce and the attitude with regard to the issue of divorce can be considered as reasons for the significant increase in the prevalence of suspected cases of these disorders in these people.

The results of this study showed that the prevalence rate of somatization and anxiety was higher than the prevalence rate of social dysfunction and depression and the prevalence of these disorders was higher in women than men. But in the first mental health survey (1999),[3] the prevalence rate of somatization and depression was higher than the prevalence rate of anxiety and social dysfunction. The reasons for the shift in symptoms during the last 15 years can be the changes which have occurred in the economic, cultural and social status of females in comparison to males regarding these subscales.

Conflict of interest

The authors declare that they have no conflict of interest.

Acknowledgments

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