Original Article

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

Methods: The statistical population of this cross-sectional field survey consisted of residents of urban and rural areas of Razavi Khorasan 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 Mashhad, Torbate Jam and Sabzavar cities. The General Health Questionnaire-28 (GHQ-28) was used as the 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 23.7% of individuals (26.9% of females and 20.6% of males) were suspected of mental disorders. The prevalence of suspected cases of mental disorders was 23.6% in urban and 23.8% in rural areas. It was also shown that somatization and anxiety symptoms were more prevalent than social dysfunction and depression symptoms, and were more common in women than men. The results of this research also showed that the prevalence of suspected cases of mental disorders increased with aging. Such disorders were more common in females, people living in rural areas, divorced and widowed, illiterate, housewives and retired individuals compared with the other groups.

Conclusion: The results of this study showed that about a fourth of the people in the province were suspected to have mental disorders and the prevalence rate of mental disorders increased from 7.7% in 1999 to 23.7% in 2015. Therefore, it is mandatory for the provincial public health authorities to take the needed steps to ensure that necessary requirements encompassing prevention and promotion of mental health are implemented.

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

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Introduction

Razavi Khorasan Province is located in the northeast of Iran, with an area of 118854 km^2. Its population is about 6,434,501 people, of whom 4,700,924 live in urban areas (73.1 %) and 1,733,121 in rural areas (26.9%). Totally, 50.4% of the province population are males (3,245,185 people) and 49.6% are females (3,189,316 people). They mostly speak Persian, Kurdish and Turkish and their religion is Islam. Literacy rate of this province is 89.1%, and the family size is 3.5.1

Concerning health facilities, this province has 1329 health centers, 528 of which are located in urban and 801 centers are located in rural areas. A total of 709 health houses in rural areas provide health services to people. There are 1145 psychiatric beds in 2 psychiatric hospitals of the capital city of the province, and also 10 beds in the psychiatric ward of a general hospital in Ghochan city. So, there are 1.8 psychiatric beds per 10,000 people in Razavi Khorasan province. To provide curative and preventive services to addicts seeking treatment, there are 690 methane maintenance treatment (MMT) centers and 16 harm reduction centers in province. Regarding the mental health human resource specialists, there are 75 psychiatrists and 384 trained general physicians in Razavi Khorasan province who provide mental health services to the community. Currently, 23,934 mentally ill patients are under coverage of the national program of mental health.[2]

In the first national mental health survey conducted by Noorbala, et al. (1999), 3149 individuals aged 15 and above were studied in the Khorasan province (consisting of South Khorasan, Razavi Khorasan and North Khorasan provinces). The result showed that 17.7% of them (12.5% of males and 21.7% of females) were suspected of mental disorders.[3]

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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 conducted to determine the population's mental health status in 2015.

Materials and Methods

This research was performed in the form of a cross-sectional field survey in Razavi Khorasan 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 Mashhad (provincial center), Torbate Jam, and Sabzevar. 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 1122 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 23.7% of the samples (26.9% of female and 20.6% of males) were suspected to suffer from mental disorders. The highest prevalence of mental disorders was in the rural areas (23.8 %), individuals

Table 1. Prevalence of mental disorders in terms of the demographic variables (n= 1122)

Variables	Sample size (*n*)	Suspected cases (*n*)	Prevalence rate (%)
Gender			
Male	564	116	20.6
Female	558	150	26.9
Place of residence			
Urban	772	183	23.6
Rural	350	83	23.8
Age group (years)			
15–24	141	17	12.1
25–44	404	78	19.3
45–64	404	95	23.5
+65	213	76	35.7
Marital status			
Unmarried	932	199	23.4
Married	133	20	15.0
Widowed, or divorced	97	47	48.5
Occupation			
Employed	322	52	17.1
Unemployed	157	42	26.8
Student	76	13	14.5
Housewife	401	112	27.9
Retired	127	43	33.9
Education			
Illiterate	389	126	32.4
Primary & secondary	318	70	22.0
Diploma	230	40	17.4
Graduated	145	26	16.9
Post Graduated	32	4	12.5
Total	**1122**	**266**	**23.7**

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	0.185	0.347	0.594	1.203	0.609	2.377
Widowed, or divorced	0.893	0.428	0.037	2.444	1.055	3.658
Gender						
Male	- - -	- - -	- - -	- - -	- - -	- - -
Female	0.149	0.236	0.529	1.160	0.731	1.842
Age	0.010	0.006	0.067	1.010	0.999	1.021
Place of residence						
Urban	- - -	- - -	- - -	- - -	- - -	- - -
Rural	0.243	0.175	0.165	1.275	0.905	1.796
Occupation						
Employed	- - -	- - -	- - -	- - -	- - -	- - -
Unemployed	0.450	0.255	0.078	1.268	0.951	1.786
Student	0.361	0.469	0.442	1.334	0.572	2.594
Housewife	0.268	0.287	0.352	1.407	0.744	2.495
Retired	0.096	0.282	0.734	2.220	0.934	3.611
Education						
Post Graduated	- - -	- - -	- - -	- - -	- - -	- - -
Graduated	0.793	0.650	0.223	2.210	0.618	2.902
Diploma	0.860	0.634	0.175	2.363	0.682	2.188
Primary & Secondary	1.028	0.629	0.102	2.796	0.815	3.596
Illiterate	1.274	0.635	0.045	3.576	1.029	4.423

OR = Odds Ratio

aged 65 and over (35.5%), divorced or widowed (48.5%), illiterate (32.4%) and retired people (33.9%).

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 1.160 compared with males. The risk of mental disorders increased significantly with age. Divorced or widowed people were 2.444 times more at risk of mental disorders compared with married people. The highest risk of mental disorders pertained to retired (retired people were 2.220 times more at risk of mental disorders compared with employed people). Illiterate individuals were 3.576 times more vulnerable 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 of anxiety (27.1% male and 37.7% female), 17.6% were suspected of social dysfunction (16.8% male and 18.3% female), and 8% were suspected of depression (7.1% male and 8.8% female).

Discussion

The results of this study showed that the prevalence rate of mental disorders in this province is 23.7%. The prevalence rate of mental disorders in the first mental health survey in this province was 17.7%, which demonstrates a considerable increase in the prevalence rate of mental disorders from 17.7% to 23.7%.[8,9] The increase in the prevalence rate of mental disorders in the province can be related 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 (26.9%) than males (20.6%). Of course, the process of changes in prevalence rate of mental disorders from 1999 to 2015 is also notable because the prevalence rate of mental disorders in females has increased from 21.7% to 26.9%, and in the males from 12.5% to 20.6%. Review of studies conducted worldwide[10] and in Iran,[11–13] indicates that the prevalence rate of mental disorders is higher in females. This higher prevalence rate can be due to biological factors, gender role, environmental and economic problems, limited satisfaction and also social participation restrictions.

Considering place of residency, the prevalence rate of suspected cases of mental disorders was higher in people living in rural areas (23.8%) than urban areas (23.6%), which is consistent with the findings of the first mental health survey in this province in 1999 (18.7% in rural areas *vs.* 17.1% in urban areas)[3]. Economic problems, lack of proper facilities and lack of communication with the world around them can be reasons behind the higher prevalence rate of mental disorders in comparison to the urban residents studied in this province.

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 (48.5%) which is consistent with the findings of the first mental health survey in the province in 1999.[8] Most of the studies carried out in Iran and other countries,[9–13] indicate that the higher

prevalence rate of mental disorders in the retirement period can be due to factors like disability, menopause and biological changes of individuals.

Regarding literacy, the results showed a higher rate of mental disorders in illiterate's individuals (32.4%) compared with the other groups, which is consistent with the findings of most studies in Iran.[11-13] Social and cultural restrictions and also disability of individuals in using effective methods of stress management can be considered as reasons for higher prevalence rate of mental disorders in this age group and lower prevalence rate for graduated individuals.

The findings of this study showed a higher rate of mental disorders in retired men and housewives compared to the other groups, which is in line with the findings of most studies in Iran.[11–13] The economic problems in case of males and social restrictions and biological factors influencing the life styles of females can be considered as probable reasons behind the higher prevalence rate of mental disorders, which is consistent with the findings of other researches in Iran.

With regard to marital status, the results indicated that widowed or divorced population were more vulnerable compared to the other groups. Problems caused by losing the dear ones or separation can be considered among reasons behind the higher prevalence rate of mental disorders in this group compared with unmarried and married individuals.

The findings of this study on GHQ subscales showed that the prevalence rate of somatization and anxiety symptoms was higher than social dysfunction and depression and they were more common in females than males, which confirms the previous findings of the 1999 (depressive symptoms and anxiety symptoms were more prevalent than other subscales).[3] Regarding these subscales, the changes that have occurred in the past 15 years can be due to the changes in the economic, cultural and social status of the province.

Conflict of interest

The authors declare that they have no conflict of interest.

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