

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

Methods: The statistical population of this cross-sectional field survey consisted of residents of urban and rural areas of Qazvin 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 Qazvin, Alvand, Mohammadiyeh and Abhar 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, 25.8% of the subjects were shown to be at risk of mental disorders (29.5% of females and 22.1% of males). Urban areas (27%) were more at risk of mental disorders compared with rural residents (23.3%). 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. These disorders were more common in females, age group of 65 and above, people living in rural areas, divorced and widowed, illiterate and unemployed 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. 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, Qazvin province

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Introduction

Qazvin Province is located in the center of Iran, with an area of 15626 km². Its population is about 1,312,867 people, of whom 1,018,746 live in urban areas (77.5 %) and 294,121 in rural areas (22.4%). In this province, 675,924 of the population are males (51.5%) and 636,943 are females (48.5%). This capital is Qazvin. Their religion is Islam. People mostly speak the Farsi language. Literacy rate of this province is 84.1% and the family size is 3.5.1

Concerning health facilities, this province has 87 health centers, of which 44 centers are urban and 43 are rural. A total of 277 health houses in rural areas provide health services for

people. Regarding treatment facilities in this province, there are 17 general hospitals (12 publics and 5 private) with 1824 beds. There are 81 psychiatric beds in this province, including 60 beds to provide inpatient services to psychiatric patients in the psychiatric hospital as well as 21 beds in the psychosomatic ward and child psychiatric ward in a general hospital allocated to these patients. So, there are 0.6 psychiatric beds per every 10,000 people. Totally, 112 Methadone Maintenance Therapy (MMT) clinics and one DIC provide services of prevention and treatment to addicts. Regarding mental health human resource specialists, there are 20 psychiatrists and 35 clinical psychologists in Qazvin province. The number of physicians working in health centers is 144, who provide mental health services to the urban and rural population of the province, especially delivering mental health services to 8618 patients who are under coverage of the national programs of mental health through the family physician system.²

In the first national mental health survey conducted by Noorbala, et al. (1999), 487 individuals aged 15 and above were studied in the province. The result showed that 28.8% of them were suspected to suffer from mental disorders: 20.4% of males and 34.6% 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.

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Materials and Methods

This research was performed in the form of a cross-sectional and field survey in Qazvin province in the year 2015. The population sample of this survey consisted of urban and rural residents of the province in the age group of 15 and above. The sample size was estimated as 1200 people who were selected through systematic random cluster sampling and from among the people living in urban and rural areas of Qazvin (provincial center), Alvand and Mohammadieh cities. 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 years, 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 1010 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 25.8% of the samples (29.5% of females and 22.1% of males) were suspected to suffer from mental disorders. The highest prevalence of mental disorders was in the urban areas (27%), individuals aged 65 and over (36.7%), divorced or widowed (35.2%), illiterate (36.6%) and unemployed people (30.5%).

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 1.419 compared with males. The risk of mental disorders increased significantly with age. Divorced or widowed people were 1.996 times more at risk of mental disorders compared with married people. The highest risk of mental

Table 1. Prevalence of mental disorders in terms of the demographic variables (n= 1010)

Variables	Sample size (n)	Suspected cases (n)	Prevalence rate (%)
Gender			
Male	502	111	22.1
Female	508	150	29.5
Place of residence			
Urban	693	187	27.0
Rural	317	74	23.3
Age group (years)			
15-24	148	32	21.6
25-44	347	70	20.2
45-64	337	93	27.6
+65	177	65	36.7
Marital status			
Unmarried	728	181	24.9
Married	176	43	24.4
Widowed, or divorced	105	37	35.2
Occupation			
Employed	236	50	21.2
Unemployed	131	40	30.5
Student	144	28	19.8
Housewife	361	108	29.9
Retired	129	31	24.0
Education			
Illiterate	336	123	36.6
Primary & secondary	296	63	21.3
Diploma	217	43	19.8
Graduated	126	27	21.4
Post Graduated	30	4	13.3
Total	1010	261	25.8

Table 2. Estimated logistic regression coefficients and odds ratios

Variables	B	S.E.	Sig.	OR	95% C. I. for OR	
					Lower	Upper
Marital Status						
Unmarried	---	---	---	---	---	---
Married	0.456	0.320	0.154	1.578	0.843	2.952
Widowed, or divorced	-0.253	0.262	0.035	1.996	0.464	1.298
Gender						
Male	---	---	---	---	---	---
Female	0.350	0.233	0.132	1.419	0.899	2.239
Age	0.012	0.007	0.092	1.012	0.998	1.026
Place of residence						
Rural	---	---	---	---	---	---
Urban	0.375	0.177	0.035	1.455	1.027	2.060
Occupation						
Employed	---	---	---	---	---	---
Unemployed	0.205	0.273	0.015	2.017	0.719	2.095
Student	0.142	0.386	0.714	1.152	0.541	2.456
Housewife	-0.064	0.277	0.041	1.938	0.545	1.614
Retired	-0.344	0.289	0.152	1.562	0.402	1.250
Education						
Post Graduated	---	---	---	---	---	---
Graduated	0.802	0.657	0.222	1.230	0.616	2.080
Diploma	0.855	0.644	0.185	1.351	0.665	2.313
Primary & Secondary	0.946	0.638	0.138	1.476	0.738	2.991
Illiterate	1.728	0.652	0.008	2.631	1.568	3.219
Constant	-3.226	0.708	0.000	0.040		

disorders pertained to unemployed people who were 2.017 times more at risk of mental disorders compared with employed people. Illiterate individuals were 2.631 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 one fourth of people (25.8%) were suspected to suffer from mental disorders in Qazvin province. The prevalence rate of the mental disorders in the first mental health survey in this province was 28.8%,⁸ which demonstrates a decrease in the prevalence rate of mental disorders.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, economic and political structures of the province at the time of research.

In this study, the prevalence rate of suspected cases of mental disorders was 29.5% in females and 22.1% in males, in comparison with the first study in 1999 in which the prevalence rate of suspected cases of mental disorders was 34.6% in females and 20.4% in males. A comparison of the two studies shows that females are more vulnerable to mental disorders than males. Review of studies conducted worldwide¹⁰ and in Iran¹¹⁻¹³ indicates that the prevalence rate of mental disorders is higher in females. The higher prevalence rate of suspected cases of mental disorders

in female in comparison to males can be due to the biological factors, environmental stressors and also social participation restrictions.

Based on place of residency, the prevalence rate of suspected cases of mental disorders was higher in people living in urban areas than rural areas, which is consistent with the findings of the first mental health survey in this province in 1999 (21.9% in rural areas and 33.2% in urban areas).⁸ Economic difficulties and changing life styles of people living in urban areas can be reasons behind the higher prevalence rate of mental disorders in comparison to the rural residents of this province.

The results of this study showed that the prevalence rate of suspected cases of mental disorders increased with aging and highest rate pertained to the age group of 65 years and above with 36.7%, which is consistent with the findings of the first mental health survey in the province in 1999.⁸ Most of the studies conducted in Iran¹¹⁻¹³ and the world,¹⁰ have indicated a higher prevalence rate of mental disorders in the elderly which can be due to factors like disability in retirement period, menopause and biological changes in elderly females.

Regarding literacy, the results showed a higher rate of mental disorders in illiterates with 36.6% in comparison with the other groups, which is consistent with the first study in 1999 and the findings of other studies in Iran.⁸ Social and cultural restrictions and also disability of illiterate individuals in using effective methods of stress management, 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 findings of this study showed a higher rate of mental disorders in unemployed individuals compared to the other groups, which is consistent with the first study and the findings

of other studies in Iran.¹¹⁻¹³ The economic problems and social restrictions due to unemployment can be considered among the reasons behind the higher prevalence rate of the mental disorders in unemployed people.

Regarding marital status, the results indicated the higher prevalence rate of suspected mental disorders in widowed or divorced compared to unmarried and married groups which is consistent with other studies in Iran.^{11,13} Problems caused by losing the dear ones or social restrictions due to separation can be considered among the reasons behind the higher prevalence rate of mental disorders in comparison with the other groups.

The findings of this study showed that the prevalence rate of somatization and anxiety was higher than social dysfunction and depression which were higher in females than males. However, according to the findings of the 1999 study, the prevalence rate of depression and anxiety was higher than somatization and social dysfunction.³ The reasons for these changes in symptoms during the last 15 years can be environmental stressors and changes in the economic, cultural and social status of this province in comparison with the research conducted in 1999.

Conflict of interest

The authors declare that they have no conflict of interest.

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