Original Article

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

Methods: The statistical population of this cross-sectional field survey consisted of residents of urban and rural areas of Markazi 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 Arak, Delijan, and Saveh 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 computer software.

Results: This study showed that using the traditional scoring method, 25.1% of the subjects (31% of females and 18.9% of males) were suspected of having mental disorders. The prevalence of suspected psychiatric disorders in urban areas (25.2%) was higher than the prevalence of these disorders in rural areas (24.8%). The prevalence of suspected anxiety and the somatization of symptoms was higher than the prevalence of social dysfunction and depression, and the prevalence of these components was higher in women than men. The findings of this study also showed that the prevalence of suspected mental disorders increased significantly with age. The prevalence of suspected cases of these disorders among women, the age group of 65 and older, people living in urban areas, divorced and widowed, illiterate, and housewives people was higher than other groups.

Conclusion: The results of this study show that more than one fourth of the sample were suspected of mental disorders, and the prevalence of these disorders has increased from 18.6% in 1999 to 25.1% 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), Markazi province, mental health status

Introduction

Markazi province is one of the provinces located in the center of Iran, covering an area of 2950 km². The population of the region is 1,454,521, of whom 1,090,575 people live in urban areas (75%) and 363,946 people in rural areas (25%). The population of males in the province is 737,595 (50.7%) and the female population is 716,926 (49.3%). It has 12 counties. The people of the province mostly speak Persian, and their religion is Islam. Life expectancy is 76 years, unemployment is 5.9% and the household size is 3.2.[1]

Concerning health facilities, this province has 124 health centers, 58 of which are urban and 66 are rural. A total of 392 health houses in rural areas provide health services to the public. In the province, there are 16 hospitals with 1780 beds. The province lacks a mental hospital, but there are 30 psychiatric beds in the general hospitals. Therefore, there are 0.2 psychiatric beds per 10,000 populations in the province. Totally, 120 Methadone Maintenance Therapy (MMT) clinics and 2 centers of harm reduction provide services of prevention and treatment to addicts. Regarding the mental health human resource specialists, there are 15 psychiatrists, and 28 Master of Science in clinical psychology in Markazi province. The number of doctors employed in health centers is 278 who provide coverage to the population and 5244 patients with active mental health records in the family physician system.[2]

In the first national mental health survey conducted by Noorbala, et al. (1999), which evaluated 677 people aged 15 years and older in the province, the prevalence of suspected psychiatric disorders was 18.6%.[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 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 Markazi province in 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 among the people living in urban and rural areas of Arak (provincial center), Delijan and Saveh. By random systematic and cluster sampling. This sample was extracted from the urban and rural population of the three cities with the help of 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 1113 persons completed the questionnaire. The distribution of the prevalence of mental disorders in the population studied in the province is given in Table 1. The information in table 1 shows that 25.1% of the subjects were suspected of mental disorders (31% of females and 18.9% of males). The highest susceptibility to mental disorders in each of the variables studied pertained to those living in urban areas by 25.2%, people from the age group of 65 and older (31.2%), divorced and widowed (35.5%), illiterate (33.3%), and Housewives (32.3%).

Data in table 2 shows that risk of developing a psychiatric disorder in females was 1.731 times higher than such risk in males and the risk increased incrementally with age. The risk was 1.403 times higher in divorced and widows than married individuals, 2.250 times higher in housewives than persons who have a job

Table 1. Prevalence of mental disorders in terms of the demographic variables (n= 1113)

Variables	Sample size (n)	Suspected cases (n)	Prevalence rate (%)
Gender			
Male	545	103	18.9
Female	568	176	31.0
Place of residence			
Urban	746	188	25.2
Rural	367	91	24.8
Age group (years)			
15–24	160	22	13.8
25–44	372	88	23.7
45–64	381	106	27.8
+65	199	62	31.2
Marital status			
Unmarried	844	216	25.6
Married	174	30	17.2
Widowed, or divorced	93	33	35.5
Occupation			
Employed	287	43	15.0
Unemployed	140	44	30.8
Student	77	13	16.9
Housewife	467	151	32.3
Retired	142	28	19.7
Education			
Illiterate	363	121	33.3
Primary & secondary	324	86	26.5
Diploma	260	47	18.1
Graduated	140	20	14.3
Post Graduated	26	5	19.2
Total	1113	279	25.1

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	0.155	0.304	0.611	1.167	0.643	2.118
Widowed, or divorced	0.003	0.404	0.164	1.403	0.454	2.217
Gender						
Male	- - -	- - -	- - -	- - -	- - -	- - -
Female	0.549	0.286	0.030	1.731	0.989	3.032
Age	0.012	0.006	0.053	1.012	1.000	1.024
Place of residence						
Rural	- - -	- - -	- - -	- - -	- - -	- - -
Urban	0.314	0.169	0.063	1.369	0.983	1.909
Occupation						
Employed	- - -	- - -	- - -	- - -	- - -	- - -
Unemployed	0.893	0.314	0.025	1.943	1.321	2.720
Student	0.573	0.425	0.178	1.774	0.770	2.083
Housewife	0.371	0.317	0.003	2.250	0.778	3.701
Retired	-0.018	0.294	0.951	0.982	0.552	1.746
Education						
Graduated	- - -	- - -	- - -	- - -	- - -	- - -
Post Graduated	-0.637	0.581	0.273	0.529	0.169	1.652
Diploma	-0.378	0.561	0.501	0.685	0.228	2.059
Primary & Secondary	0.107	0.561	0.249	1.113	0.371	3.340
Illiterate	0.108	0.582	0.153	1.484	0.356	3.488
OR= Odds Ratio						

and 1.484 times higher in people with illiteracy than the educated.

The results also showed that 29.3% of the sample experienced somatization (20.9% male and 37.4% female), 30.7% were suspected of anxiety25.1 (% male and 36 % female), 19.1% were suspected of social dysfunction (15.6% male and 22.4% female), and 12.6% were suspected of depression (9.2% male and 15.8% female).

Discussion

The results of this study showed that a quarter of people (25.7%) were suspected to suffer from mental disorders in Markazi province. The prevalence of suspected mental disorders in the first country survey conducted in the province was 18.6%,[8] which indicates significant increase in the prevalence of these disorders in 2015 compared to 1999.[9] The increase in 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 province.

In this study, the prevalence of suspected mental disorders was 31% in females and 18.9% in males. The prevalence of suspected mental disorders in the first national study in 1999 was 24.5% in females and 12.8% in males. Comparison of the two studies shows that in the province, women are more vulnerable than men. Reviewing studies in the countries of the world[10] and Iran,[11–13] confirms the finding that the prevalence of mental disorders is higher in women than men. This higher prevalence rate can be due to biological factors, gender role, environmental and economic problems, limited satisfaction and also social participation restrictions.

The prevalence rate of suspicion for psychiatric disorder was higher for urban residents (25.2%) than rural residents (24.8%), which is in line with the 1999 study in which the rate was 24.4% for urban resident and 10.6% for rural residents.[11] The explanation for this higher rate could be economic difficulties, money making rate and characteristics of urban living situations.

The results of this study show that with increasing age, the prevalence of suspicion for a psychiatric disorder increased and the highest rate of such problem pertained to persons aged 65 years or above (31.2%) which is in line with the results of the 1999 study. The results of most studies conducted in Iran and the world are in favor of more prevalent psychiatric disorders in the geriatric age.[9–13] The explanation for this finding could be physical disabilities, retirement, menopause and biological changes in women.

This study shows that the prevalence rate of psychiatric disorders was very high in illiterate persons which is in line with the results of the 1999 study and other studies in Iran and the world.[9–13] Inability of illiterate person for management of stresses and social limitations could be the causes of such high rate.

The results of this study show that the prevalence of suspicion for a psychiatric disorder was 32.3% in housewives, which is in line with the 1999 study and other studies in Iran and the world.[9,13] Economic problems, decreased money making rate and life difficulties of jobless persons and also loss of beloved ones and social limitation secondary to separation and divorce could explain such a high prevalence rate.

The findings indicated that widowed or divorced were more vulnerable compared to the other groups. Stress secondary to loss, and social and economic pressure on divorced or widowed

people, are among contributing factors for these results.

The results of this study show that the prevalence rate of suspicion for anxiety and somatization was higher than depression or social dysfunction. The national 1999 study and other studies in Iran[11-13] and the world report similar results.[10] This higher rate may be due to environmental stresses, economic difficulties and social changes.

Among limitations of our study was the fact that we focused on the household population and excluded population sections likely to have high proportions of severe mental illnesses (e.g., the homeless and people living in institutions). Moreover, systematic survey non-response (i.e., people with mental disorders having a higher survey refusal rate than those without disorders) and systematic non-reporting (i.e., recall failure, conscious no reporting, or error in the diagnostic evaluation) could lead to bias in the estimates of suspected in these surveys, particularly for lifetime events. It is likely that suspected disorders were underestimated. Further studies with more accurate diagnostic methods such as clinical interviews are recommended.

Conflict of interest

Acknowledgments

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