Original Article

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

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Abstract

Introduction: The main objective of this study was to determine the mental health status of population aged 15 and over in the province of Fars in 2015.

Methods: The statistical population of this cross-sectional field survey consisted of residents of urban and rural areas of Fars in Iran. Through systematic random cluster sampling, 1200 individuals were selected from the residents of urban and rural areas of Shiraz, Jahrom and Kazeroun. The 28-item version of the General Health Questionnaire was applied as the screening tool. The data were analyzed using SPSS, version 18.0 for windows.

Results: This study showed that using the traditional scoring method, 22.5% of the subjects (26.9% of females and 18% of males) were suspected of having mental disorders. The prevalence of suspected psychiatric disorders in urban areas (24.3%) was more than the prevalence of these disorders in rural areas (18.6%). 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 was higher among women, the age group of 65 and older, people living in urban areas, divorced and widowed, illiterate, and retired compared to other groups.

Conclusion: The results of this study show that more than a fourth of the sample were suspected of mental disorders, and the prevalence of these disorders has decreased from 22.9% in 1999 to 22.5% in 2015. Therefore, it seems necessary for the provincial public health authorities to take the needed steps for providing requirements encompassing prevention and promotion of mental health in this area.

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

Cite this article as: Noorbala AA, Bagheri Yazdi SA, Faghihzadeh S, Kamali K, Faghihzadeh E, Hajebi A, Akhondzadeh S, Hedayati A, Rezaei F, Sahraeian L. A survey on mental health status of adult population aged 15 and above in the province of Fars, Iran. *Arch Iran Med.* 2017; **20(11 Suppl. 1):** S27 – S30.

Introduction

Fars Province is located in the south of Iran, with an area of 122842 km^2. Its provincial center is Shiraz. Fars is known for its rich Persian culture and history. Its population is about 4,596,658 people, of whom 3,121,308 live in urban areas (67.6 %) and 1,475,350 in rural areas (32%). In total, 50.4% of the province population are males and 49.6% are females. This population inhabit 29 cities. Their religion is Islam. The rate of unemployment is 16.7%, and the family size is 3.7.[1]

Concerning health facilities, this province has 1566 health centers, 1266 of which are urban and 300 are rural. A total of 1032 health houses in rural areas provide health services for people. Regarding the treatment facilities in this province, there are 66 general hospitals with 7457 beds. Among these hospitals, there are 4 hospitals with 647 beds which provide inpatient services to psychiatric patients and also 137 beds in the psychiatric ward of a general hospital are allocated to these patients. So, there are 0.6 psychiatric beds per 10,000 people in Fars Province. A total of 137 Methadone Maintenance Therapy (MMT) clinics and 18 centers of control and management of substances provide services of prevention and treatment to addicts. Regarding the mental health human resource specialist, there are 70 psychiatrists in Fars province. Also, 2013 physicians work in health centers, and they provide mental health services to the urban and rural population of the province, especially delivering mental health services to 49307 patients who are under coverage of the national programs of mental health through family physician system.[2]

In the first national mental health survey which was done by Noorbala, et al. (1999), 1982 individuals aged 15 and above were studied in the province. The result showed that 22.9 % of them

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Accepted for publication: 18 October 2017

were suspected of mental problem: 18.1% males and 26.5% females.[3]

Regarding the significance of epidemiological studies in determining the mental health status of general population, detecting demographic features associated with these disorders and also assessment of the required resources and facilities within the province, this study was conducted to investigate and compare the mental health status of population in this province in the past 15 years.

Materials and Methods

This research was conducted in the format of a cross sectional and field study in Fars province in 2015. The statistical population of the study consisted of people aged 15 and over residing in urban and rural areas of the province. The sample of the study in the province was determined as 1200 people who were selected from the three cities of Shiraz (provincial center), Jahrom and Kazeroun through 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 1104 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 this table shows that 22.5% of the subjects were suspected of having mental disorders (18% of males and 26.9% of females). The highest susceptibility to mental disorders in each of the variables studied pertained to those living in urban areas with 24.3%,

Table 1. Prevalence of mental disorders in terms of the demographic variables (n= 1104)

Variables	Sample size (*n*)	Suspected cases (*n*)	Prevalence rate (%)
Gender			
Male	551	99	18.0
Female	553	149	26.9
Place of residence			
Urban	754	183	24.3
Rural	350	65	18.6
Age group (years)			
15–24	165	22	13.3
25–44	373	59	15.8
45–64	370	101	27.3
+65	196	66	33.7
Marital status			
Unmarried	797	175	22.0
Married	189	29	15.3
Widowed, or divorced	118	44	37.3
Occupation			
Employed	347	49	14.1
Unemployed	117	26	22.2
Student	92	8	9.1
Housewife	403	116	28.8
Retired	142	49	34.5
Education			
Illiterate	298	105	35.2
Primary & secondary	346	77	22.3
Diploma	239	38	15.9
Graduated	177	27	15.3
Post Graduated	43	1	2.3
Total	**1104**	**248**	**22.5**

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	0.380	0.277	0.330	1.063	0.850	2.517
Widowed, or divorced	0.218	0.224	0.119	2.243	0.802	3.928
Gender						
Male	- - -	- - -	- - -	- - -	- - -	- - -
Female	0.416	0.254	0.102	1.515	0.921	2.493
Age	0.001	0.006	0.851	1.001	0.989	1.014
Place of residence						
Rural	- - -	- - -	- - -	- - -	- - -	- - -
Urban	0.842	0.176	0.000	2.322	1.645	3.276
Occupation						
Employed	- - -	- - -	- - -	- - -	- - -	- - -
Unemployed	0.154	0.268	0.566	1.166	0.690	1.970
Student	-1.087	0.447	0.015	0.337	0.141	0.810
Housewife	0.043	0.298	0.887	1.043	0.582	1.872
Retired	0.842	0.176	0.000	2.255	0.950	3.517
Education						
Post Graduated	- - -	- - -	- - -	- - -	- - -	- - -
Graduated	0.154	0.268	0.041	2.111	1.087	2.750
Diploma	-1.087	0.447	0.025	2.317	1.342	3.763
Primary & Secondary	0.043	0.298	0.006	2.846	2.282	2.867
Illiterate	0.842	0.176	0.001	3.419	1.966	4.941

OR= Odds Ratio

people from the age group of 65 and older (33.7%); divorced and widowed (37.3%), illiterate people (35.2%), and retired (34.5%).

Data in table 2 shows that the risk of developing a psychiatric disorder in females was 1.515 times higher than that in males and the risk increased incrementally with age. The risk was 2.243 times higher in divorced and widows rather than married individuals, 2.255 times higher in retired rather than persons who have a job and 3.419 times higher in people with illiteracy rather than educated persons

Considering sub scales, the data show that 37.9% have somatization, (27.8% of males and 48.3% of females), 35.8% had anxiety (28.4% of males and 43.3 of females), 18.7% had social dysfunction (17.2% of males and 20.3% of females) and 10.2% had depression (9.5% of males and 10.9% of females).

Discussion

The results of this study showed that a fourth of people were suspected to suffer from mental disorders in Fars province. The prevalence rate of mental disorders in the first mental health survey in this province was 22.9%,[8] which demonstrated a decrease in the prevalence rate of mental disorders to 22.5%.[9] The decrease in prevalence rate of mental disorders in the province can be related to the 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 (18%). Review of the studies conducted worldwide,[10] and in Iran[11–13] indicated that the prevalence rate of mental disorders is higher in females. This higher prevalence rate can be due to the gender role, biological factors, environmental and economic problems, limited satisfaction and also social participation restrictions. The process of changes in prevalence rate of mental disorders from the year 1999 to 2015 is also notable in both sexes.

Considering 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 not consistent with the findings of the first mental health survey in this province in 1999.[11] Economic constraints may contribute to the higher prevalence of these disorders in urban than to rural people.

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 (33.7%) which is consistent with the findings of the first mental health survey conducted in this province in 1999.[11] Most of the studies carried out in Iran[8] and other countries,[10] indicated that the higher prevalence rate of mental disorders in the retirement period can be due to factors like retirement, disability, menopause and biological changes of individuals.

Regarding literacy, the results showed a higher rate of mental disorders in illiterate individuals compared with other groups (35.2%), which is consistent with the findings of most Iranian researches.[9] Social and cultural restrictions and also disability

of individuals in using effective methods of stress management can be considered as the reasons for higher prevalence rate of mental disorders in this group. Of course, literacy status can affect occupational and economic conditions.

The findings of this study showed a higher rate of mental disorders in retired individuals compared to other groups, which is in line with the findings of most studies done in Iran. 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 other groups. Problems caused by losing the dear ones or separation can be considered among the 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 rates of somatization and anxiety were higher than social dysfunction and depression. These complaints were more common in females than males, which is not compatible with the findings of the 1999 research; in the previous study, social dysfunction and depression were more common than somatization and anxiety. One of the reasons for this change can be the immigration pattern from neighboring provinces such as Yasouj and Lorestan to Fars province. This cultural change can influence the presentation of mental disorders. Also, the economic, environmental pollution, cultural and social status changes can be the other reasons.

Conflict of interest

The authors declare that they have no conflict of interest.

Acknowledgments

This paper is the product of the national mental health and social capital survey in Iran in the year 2015 sponsored by the deputy of research and technology of the Ministry of Health and Medical Education of Iran and scientific research deputy of the Tehran university of Medical Sciences. Hereby, we thank all of them and particularly comprehensive support of Dr. Reza Malekzadeh, respectable deputy of research and technology of MOHME, and we are grateful for the support of the health deputy of Fars & Jahrom University of Medical Sciences. We also thank all the trained psychologists who undertook this research and provided a lot in collecting the data and appreciate the patience of participants and their respectful families in completing the questionnaires

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