

Original Article

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

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

Results: The results of this study showed that using the traditional scoring method, 23.4% of the subjects (29% of females and 14.7% of males) were suspected of mental disorders. The prevalence of suspected psychiatric disorders in rural areas (24.5%) was more than the prevalence of these disorders in urban areas (22.8%). 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 cases of mental disorders increased significantly with age. The prevalence of suspected cases of these disorders was higher among females, the age group of 65 and older, people living in rural areas, divorced and widowed, students and primary and secondary education 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 21.3% in 1999 to 23.4% 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, Bushehr province, general health questionnaire (GHQ-28), mental health status

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Introduction

Bushehr Province is located in the south of Iran, with an extensive coastline along the Persian Gulf and an area of 27653 km². Its population is about 1,035,804 people, of whom 759,113 live in urban (73%) and 276,691 live in rural areas (27%). Totally, 52% of the province population are males and 48% are females. The population inhabit 10 cities and the

provincial center is Bushehr. Their religion is Islam. They speak Persian. In total, 83.6% of residents are literate. The rate of unemployment is 9.7%, and the family size is 4.6.¹

Concerning health facilities, this province has 87 health centers, 57 of which are urban and 30 are rural. A total of 223 health houses in rural areas provide health services for people. Regarding treatment facilities in this province, there are 20 general hospitals with 1417 beds. There is not any psychiatric hospital in the province, but 52 beds in the psychiatric ward of a general hospital are allocated to psychiatric patients. So, there are 2.4 psychiatric beds per 10,000 people in Bushehr Province. A total of 27 Methadone Maintenance Therapy (MMT) clinics and 2 centers of control and management of substances provide services of prevention and treatment to addicts. Regarding mental health human resource specialists, there are 14 psychiatrists in Bushehr province. The number of general physicians working in health centers is 166. These physicians and 70 trained psychologists provide mental health services to the urban and rural population of the province, especially delivering mental health services to 2813 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), 489 individuals aged 15 and more were studied in the province. The result showed that 18.6% of them were suspected

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of mental disorders: 15.9% of males and 20.6% 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 designed to investigate and compare the mental health condition of this province's residents in the past 15 years.

Materials and Methods

This research was conducted in the format of a cross sectional and field study in Bushehr 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 Bushehr (provincial center), Deilam and Borazjan 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 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 where more than one individual was eligible, the sample was selected randomly.

Data related to the survey were analyzed using SPSS-18. Logistic regression modeling was used to determine the factors that affect mental disorders. The average time to complete each questionnaire was 45 minutes.

Results

A total of 1045 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 23.4% of the subjects were suspected of having mental disorders (14.7% of males and 29% of females). The highest susceptibility to mental disorders in each of the variables studied pertained to those living in rural areas by 24.5%, people from the age group of 65 and older (30.1%), divorced and widowed (57.1%), primary and secondary education (32.8%), and student (32.5%).

Data in Table 2 shows that the risk of developing a psychiatric disorder in females was 1.648 times more than that in males and the risk increased incrementally with age. The risk was 4.194 times higher in divorced and widows compared to married individuals, 2.729 times higher in students compared to persons who had a

Table 1. Prevalence of mental disorders in terms of the demographic variables (n= 1045)

Variables	Sample size (n)	Suspected cases (n)	Prevalence rate (%)
Gender			
Male	408	60	14.7
Female	637	185	29.0
Place of residence			
Urban	637	145	22.8
Rural	408	100	24.5
Age group (years)			
15-24	162	51	31.5
25-44	357	67	18.8
45-64	383	84	21.9
+65	143	43	30.1
Marital status			
Unmarried	757	135	17.8
Married	181	50	27.6
Widowed, or divorced	105	60	57.1
Occupation			
Employed	218	22	10.1
Unemployed	86	22	25.6
Student	123	40	32.5
Housewife	452	131	29.0
Retired	164	30	18.8
Education			
Illiterate	343	69	20.1
Primary & secondary	204	67	32.8
Diploma	254	56	22.0
Graduated	224	52	23.2
Post Graduated	20	1	5.0
Total	1045	245	23.4

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	0.173	0.355	0.625	1.189	0.593	2.384
Widowed, or divorced	1.824	0.445	0.000	4.194	2.587	6.831
Gender						
Male	---	---	---	---	---	---
Female	0.500	0.263	0.057	1.648	0.985	2.757
Age	0.006	0.008	0.509	1.006	0.989	1.022
Place of residence						
Rural	---	---	---	---	---	---
Urban	0.028	0.158	0.859	1.028	0.754	1.403
Occupation						
Employed	---	---	---	---	---	---
Unemployed	0.999	0.336	0.003	2.216	1.406	2.247
Student	1.442	0.429	0.001	2.729	1.825	3.798
Housewife	0.554	0.316	0.079	1.741	0.938	3.233
Retired	-0.143	0.331	0.665	0.866	0.452	1.659
Education						
Post Graduated	---	---	---	---	---	---
Graduated	1.099	1.055	0.298	1.301	0.580	2.724
Diploma	1.472	1.056	0.163	1.458	0.651	2.598
Primary & Secondary	1.638	1.059	0.000	2.147	0.946	5.026
Illiterate	0.836	1.068	0.434	1.108	0.285	2.118
OR= Odds Ratio						

job and 2.147 times higher in people with primary and secondary compared to educated persons

Considering sub scales, the data show that 37.9% had 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 about one fourth of the subjects in the province (23.4%) were suspected of mental disorders. The prevalence of suspected psychiatric disorders in the first national survey conducted in the province (1999) was 18.5%,⁸ which indicates an increase in the prevalence of these disorders in 2015 compared to 1999.⁹ This rise in prevalence of these suspected disorders can be attributed to changes in the livelihood as well as social, economic and political structure of the province.

In this study, the prevalence of suspected psychiatric disorders was 29% in females and 14.7% in males. The prevalence of suspected psychiatric disorders in the first national survey in 1999 was 20.4% in females and 15.9% in males.⁸ Comparison of the results of the two studies shows that in the province, women are more vulnerable than men. A review of studies conducted in countries around the world¹⁰ and Iran,¹¹⁻¹³ confirms the finding that the prevalence of mental disorders is higher in women than men. The reason for the higher prevalence of suspected women's

mental disorders in comparison to men in the province can be biological factors, environmental stress, as well as the limited social participation of women in the society.

The prevalence of suspected psychiatric disorders in rural areas was 24.5% higher than the prevalence of these disorders in urban areas with 22.8%, which is consistent with the findings of the survey in 1999 (23.4% of rural residents and 19.2% of urban residents).¹¹ Economic constraints and lack of appropriate welfare facilities as well as the limitations of rural people in using effective communication factors can account for the higher prevalence of these disorders in rural compared to urban people.

The results of this study indicate that with increasing age, the prevalence of mental disorders increased and the highest incidence pertained to people 65 years of age and older with 30.1% of cases, which is in line with the results of the same survey in 1999 in the province.¹¹ Most studies in Iran and the world¹⁰ indicate a higher prevalence of suspected mental disorders in the elderly. The inability of people at retirement age, menopause and biological changes in elderly women can account for the increase in suspicious cases of mental disorders in the province.

In this study, the prevalence of suspected psychiatric disorders in primary and secondary was 32.5% higher than other groups which is inconsistent with the findings of the previous survey in this area.¹¹ At that time, the highest rate of mental problem pertained to illiterate persons. This can be explained by occupational status in the providence: establishment of a nuclear power plant in this province provided occupational status for two groups of work forces, post graduated and illiterate ones.

The findings of this study showed that the rate of mental

disorders was higher in students compared to other groups, which is not in line with the findings of studies done in Iran.¹¹⁻¹³ This can be explained by worries about economic and occupational condition in the future.

With regard to marital status, similar to the other studies worldwide,¹⁰ the results indicated that widowed or divorced population were more vulnerable compared to other groups. Problems caused by losing 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 rate of somatization and anxiety was higher than social dysfunction and depression. These complaints were more common in females than males, which is not in line with the findings of the research done in 1999; in that study, depression and social dysfunction were more commonly reported than other subscales. A review of the related research literature indicated that anxiety and social dysfunction symptoms are more common in males and depression and somatization in females.⁸ Regarding these subscales, the reasons for changes that occurred in the past 15 years can be the changes in the economic, cultural and social status of females in comparison to males.

Conflict of interest

The authors declare that they have no conflict of interest.

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