Original Article

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

Method: The statistical population of this cross-sectional field survey consisted of residents of urban and rural areas of Sistan and Baluchestan province 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 Zahedan, Zabol, and Saravan 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 15.1% of individuals (17.2% of females and 13% of males) were suspected of mental disorders. The prevalence of suspected cases of mental disorders was 19% in urban and 13.5% in rural areas. It also showed 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, age group of 65 and above, people living in urban areas, divorced and widowed, illiterate and retired individuals compared with the other groups.

Conclusion: The results of this study showed that about a sixth 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, Sistan and Bluchestan province

Introduction

S istan and Baluchestan Province is located in the southeast of Iran, with an area of 181785 km[2]. Its population is about 2,859,000 people, of whom 1,481,000 live in urban areas (49%) and 1,999,000 live in rural areas (51%). Totally, 50.1% of the province population are males and 49.9% are females. This population inhabit 18 cities and its capital is Zahedan. Their religion is Islam (Shia and Sunni). In the south, east and west of Sistan and Baluchestan, the people are mostly Baloch and speak the Baluchi language. In the far north of this province, the people are mostly Persians and speak Sistani. Literacy rate of this province is 28.4%, the rate of unemployment is 40%, and the family size is 4.3.[1]

Concerning health facilities, this province has 231 health centers, 80 of which are urban and 151 are rural. A total of 936 health houses in rural areas provide health services to people. Regarding treatment facilities in this province, there are 18 general hospitals with 2554 beds. Among these hospitals, there is one hospital with 80 beds which provides inpatient services to psychiatric patients and also 46 beds in the psychiatric ward of a general hospital are allocated to these patients. So, there are 0.45 psychiatric beds per 10,000 people in Sistan and Bluchestan province. A total of 140 Methadone Maintenance Therapy (MMT) clinics and 31 centers of control and management of substances provide services of prevention and treatment to addicts. Regarding the mental health human resource specialists, there are 18 psychiatrists, 4 clinical psychologists and 57 mental health experts in Sistan and Bluchestan province. The number of physicians working in health centers is 420, and they provide mental health services to the urban and rural population of the province, especially delivering mental health services to

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13,436 patients who are under coverage of the national programs of mental health through family physician system.[2]

In the first national mental health survey conducted by Noorbala, et al. (1999), 664 individuals aged 15 and above were studied in the province. The result showed that 26.4% of them were suspected of mental disorders (14.3% of males and 30.9% of females).[3]

Considering 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 Sistan and Baluchestan 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 Zahedan (provincial center), Zabol, and Saravan 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 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 1106 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 15.1% of the samples (17.2% of females and 13% of males) were

Table 1. Prevalence of mental disorders in terms of the demographic variables (n= 1106)

Variables	Sample size (*n*)	Suspected cases (*n*)	Prevalence rate (%)
Gender			
Male	553	72	13.0
Female	553	95	17.2
Place of residence			
Rural	791	107	13.5
Urban	315	60	19.0
Age group (years)			
15–24	713	81	11.4
25–44	221	41	18.6
45–64	101	23	22.8
+65	71	22	30.9
Marital status			
Unmarried	675	83	12.3
Married	374	44	11.8
Widowed, divorced	57	17	29.8
Occupation			
Employed	327	31	9.5
Unemployed	275	43	16.1
Student	57	6	10.5
Housewife	387	75	19.4
Retired	60	12	20.0
Education			
Illiterate	344	76	22.1
Primary & Secondary	382	62	16.2
Diploma	229	17	7.4
Graduate	126	8	6.3
Postgraduate	25	3	12.0
Total	**1106**	**167**	**15.1**

Table 2. Estimated logistic regression coefficients and odds ratios

Variables	B	S.E.	Sig.	OR	95% C.I. for OR lower	95% C.I. for OR upper
Marital status						
Married	- - -	- - -	- - -	- - -	- - -	- - -
Unmarried	0.102	0.285	0.720	1.108	0.634	1.936
Widowed, or divorced	0.592	0.391	0.130	1.807	0.840	2.888
Gender						
Male	- - -	- - -	- - -	- - -	- - -	- - -
Female	- 0.003	0.277	0.690	1.197	0.579	1.716
Age group (years)	0.015	0.007	0.027	1.015	1.002	1.028
Place of residence						
Rural	- - -	- - -	- - -	- - -	- - -	- - -
Urban	0.075	0.184	0.682	1.078	0.752	1.545
Occupation						
Employed	- - -	- - -	- - -	- - -	- - -	- - -
Unemployed	0.505	0.349	0.147	1.659	0.837	2.588
Student	- 0.046	0.641	0.943	0.955	0.272	1.352
Housewife	0.342	0.407	0.401	1.408	0.633	2.829
Retired	0.328	0.440	0.456	1.388	0.588	2.288
Education						
Graduate	- - -	- - -	- - -	- - -	- - -	- - -
Postgraduate	410	0.700	0.620	0.707	0.179	2.787
Diploma	0.454	0.672	0.949	0.635	0.170	2.369
Primary & secondary	0.323	0.657	0.623	1.382	0.381	2.408
Illiterate	0.432	0.661	0.513	1.540	0.422	2.628
OR= Odds Ratio						

suspected to suffer from mental disorders. The highest prevalence of mental disorders was in the urban areas (19%), individuals aged 65 and over (30.9%), divorced or widowed (29.8%), illiterate (22.1%) and retired people (20%).

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 1.197 compared with males. The risk of mental disorders increased significantly with age. Divorced or widowed people were 1.807 times more at risk of mental disorders compared with unmarried people. The highest risk of mental disorders pertained to unemployment (unemployed people were 1.659 times more at risk of mental disorders compared with employed people). Illiterate individuals were 1.540 times more vulnerable to mental disorders than people with postgraduate degrees and above. The results also showed that 22.8% of the sample experienced somatization (17.7% of males and 27.6% of females), 17.5% were suspected of anxiety15.3% (of males and 19.6 % of females), 10.6% were suspected of social dysfunction (10.7% of males and 11% of females), and 6.6% were suspected of depression (6.1% of males and 7.1% of females).

Discussion

The results of this study showed that a sixth of people were suspected to suffer from mental disorders in Sistan and Baluchestan province. The prevalence rate of mental disorders in the first mental health survey in this province was 24.6%,[8] which demonstrates a considerable decrease in the prevalence

rate of mental disorders from 24.6% to 15.1%.[9] The decrease 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 country at the time of research. In this study, the prevalence rate of suspected cases of mental disorders was higher in females (17.2%) than males (13%). Review of the studies conducted worldwide[10] and in Iran indicates that the prevalence rate of mental disorders is higher in females.[11–13] This higher prevalence rate can be due to biological factors, gender role, environmental and economic problems, limited satisfaction and also social participation restrictions. Of course, the process of changes in prevalence rate of mental disorders from the year 1999 to 2015 is also notable because the prevalence rate of mental disorders in females has decreased from 31.2% to 17.1%, but in the males from 14.3% to 13%. It means that females can adjust themselves to stressful situations better than males in this province.[8,9]

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 consistent with the findings of the first mental health survey in this province in 1999.[3] Economic problems and environmental factors can be reasons behind the higher prevalence rate of mental disorders in comparison to the rural 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 (30.9%) which is consistent with the findings of the first mental health survey in the province in 1999. Most of the studies carried

out in Iran[11–13] and other countries,[10] have indicated 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 individuals compared with the other groups, which is consistent with the findings of most studies in Iran.[11,12] Social and cultural restrictions and also disability of individuals in using effective methods of stress management can be considered as reasons for the 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 individuals compared to the other groups, which is in line with the findings of most studies in Iran.[11,13] Economic problems, and biological factors influencing the life styles of the retired 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 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, anxiety, social dysfunction and depression was higher in females than males, which confirms the findings of the 1999 research.[3] Review of the related research literature indicates that anxiety and social dysfunction symptoms are more common in males and depression and somatization in females. 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 females in comparison to males.

Conflict of interest

The authors declare that they have no conflict of interest.

Acknowledgments

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