Original Article

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

Ahmad Ali Noorbala MD•[1], Seyed Abbas Bagheri Yazdi MSc[2], Soghrat Faghihzadeh PhD[3], Koorosh Kamali MD PhD[4], Elham Faghihzadeh PhD Candidate[5], Ahmad Hajebi MD[6], Shahin Akhondzadeh PhD[7], Seyed Mojtaba Yasini Ardekani MD[8], Taherah Golamzadeh MD[9]

Abstract

Introduction: This research aims to determine the mental health status of population aged 15 and over in the province of Hormozgan in 2015.

Methods: This cross-sectional field study was conducted on the residents of both urban and rural areas of the Hormozgan province. Through systematic random cluster sampling, 1200 individuals were selected from the residents of urban and rural areas of Bandar Abbas, Bandar Lengeh and Minab. The 28-item version of the General Health Questionnaire was applied as the tool of screening. The data were analyzed using SPSS, version 18.0 for windows.

Results: This study indicates that using the traditional scoring method, 28.2% of study population are highly suspicious for psychiatric disorders (35.4% of females and 21.1% of males). The prevalence of probable psychiatric disorders in urban areas (28.9%) was higher than rural areas (26.5%). The prevalence of probable somatization and anxiety was higher than the prevalence of social dysfunction and depression, and also the prevalence of these disorders was higher in women. The findings of this study show that the prevalence of probable psychiatric disorders has a direct relationship with increasing age and the prevalence of such disorders is higher in women, urban residents, individuals aged more than 65 years, divorced and widowed individuals, illiterate, housewives and unemployed people.

Conclusion: The results of this study show that 28.2% of study population (more than a fourth) are suspicious for psychiatric disorders, and the prevalence of these disorders increased from 22.9% in 1999 to 28.2% in 2015. So, health authorities in this province have to do their best for provision, maintenance and improvement of mental health.

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

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Introduction

Hormozgan is one of the southern provinces of Iran; it is spread over an area of 68379 square kilometers. The population is 1,630,317, of whom 53% are urban and 47% are rural. The male population is 51% and the female population is 49%. The capital city is Bandar Abbas, the language is Persian and the religion is Islam. The life expectancy rate is 75 years, the unemployment rate is 11.2% and the average family size is 4 persons.[1]

Considering health and therapeutic facilities, the province has 154 health and therapeutic centers, of which 64 centers are in urban and 95 centers are in rural area. A totally of 557 health houses provide health services to people in rural areas. There are 21 hospitals with a total of 2084 beds. The mental hospital has 72 beds and there is no bed for psychiatry patients in general hospitals, translating to 0.45 psychiatry beds per 10000 persons. There are 113 methadone maintenance centers and 4 harm reduction centers for provision of therapeutic and preventive services for addicts. Considering mental health human resources, there are 8 psychiatrists and 24 psychology MSc for provision of mental health services. There are also 227 general practitioners who work in health centers for provision of mental health services to rural and urban people and especially for 12000 psychiatry patients enrolled in mental health project.[2]

In terms of the prevalence of psychiatry disorders, the results of the 1999 study by Noorbala, et al. on 520 individuals aged 15 years or above showed that the prevalence rate of suspicion for a psychiatric disorder was 22.9% totally: 10.7% of males and 32.5% of females.[3]

Considering the important role of epidemiological studies of psychiatric illness in the mental health status, demographic data of the population with psychiatry disorders and knowing about health provisional services, resources and facilities could be important.

Authors' affiliations: [1]Psychosomatic Medicine Research Center, Imam Khomeini Hospital, Tehran University of Medical Sciences, Tehran, Iran, [2]Department of Mental Health, Ministry of Health and Medical Education of Iran, Tehran, Iran, [3]Department of Biostatistics and Epidemiology, Faculty of Medicine, Zanjan University of Medical Sciences, Zanjan, Iran, [4]Department of Public Health, School of Public Health, Zanjan University of Medical Sciences, Zanjan, Iran, [5]Department of Biostatistics, Paramedical School, Shahid Beheshti University of Medical Sciences, Tehran, Iran, [6]Research Center for Addiction and Risky Behaviors (ReCARB), Psychiatric Department, Iran University of Medical Sciences, Tehran, Iran, [7]Psychiatric Research Center, Roozbeh Hospital, Tehran University of Medical Sciences, Tehran, Iran, [8]Depratment of Psychiatry, Research Center of Addiction and Behavioral Sciences, Shahid Sadoughi University of Medical Sciences, Yazd, Iran, [9]Responsible Manager of Mental Health office of Hormozgan Provincial Health Center, Hormozgan University of Medical Sciences, Bandar Abbas, Iran.

•Corresponding author and reprints: Ahmad Ali Noorbala MD, Head of Psychosomatic Medicine Research Center, Imam Khomeini Hospital, Keshavarz Blv., Tehran, Iran. Tel: +98-21-61190000, E-mail: noorbala1@tums.ac.ir.

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Materials and Methods

In this cross sectional study, 1200 individuals aged 15 years or above were enrolled through systematic clustered random sampling method from rural and urban areas of Bandar Abbas (provincial center), Bandar Lengeh and Minab cities of the Hormozgan province. A cross-sectional field study was carried out in December and January (2014 – 2015) and included the population of the age group 15 years and above living in both urban and rural regions of the province. 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 1147 persons completed the questionnaire. Frequency distribution of psychiatry disorders in population study of this province is shown in Table 1. Totally, 28.2% of the study population had psychiatric disorder: 35.4% of females and 21.1% of males. Urban areas had a higher rate of psychiatric disorder (28.9% VS 26.5%). The rate was very high in persons aged more than 65 years (40.8%), divorced and widows (48.1%), illiterates (38.2%), housewives (34.1%) and unemployed persons (32.6%).

Data in Table 2 shows that risk of developing a psychiatric disorder in females is 2.488 times more than such risk in males and the risk increased incrementally with age. The risk is 2.267 times higher in divorced and widows than married individuals, 2.054 times higher in unemployed than persons who have a job and 2.354 times higher in illiterates than the educated. Considering subscales, the data shows that 37.9% have somatization, (27.8%

Table 1. Prevalence of mental disorders in terms of the demographic variables (n= 1147)

Variables	Sample size (*n*)	Suspected cases (*n*)	Prevalence rate (%)
Gender			
Male	582	123	21.1
Female	565	200	35.4
Place of residence			
Urban	803	232	28.9
Rural	344	91	26.5
Age group (years)			
15–24	156	33	21.2
25–44	403	96	23.8
45–64	381	110	28.9
+65	206	84	40.8
Marital status			
Unmarried	848	224	26.4
Married	165	34	20.6
Widowed, or divorced	133	64	48.1
Occupation			
Employed	324	59	18.2
Unemployed	144	47	32.6
Student	66	11	16.6
Housewife	434	148	34.1
Retired	179	58	32.4
Education			
Illiterate	380	145	38.2
Primary & secondary	374	101	27.0
Diploma	260	55	21.2
Graduated	120	20	16.7
Post Graduated	12	2	16.7
Total	**1147**	**323**	**28.2**

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	0.146	0.262	0.345	1.157	0.693	1.934
Widowed, or divorced	0.237	0.215	0.001	2.267	0.831	1.931
Gender						
Male	- - -	- - -	- - -	- - -	- - -	- - -
Female	0.912	0.226	0.001	2.488	1.599	3.873
Age	0.011	0.006	0.432	1.011	0.999	1.022
Place of residence						
Rural	- - -	- - -	- - -	- - -	- - -	- - -
Urban	0.361	0.158	0.022	1.435	1.053	1.956
Occupation						
Employed	- - -	- - -	- - -	- - -	- - -	- - -
Unemployed	0.720	0.233	0.002	2.054	1.301	3.244
Student	-0.211	0.431	0.625	0.810	0.348	1.885
Housewife	-0.115	0.263	0.661	0.891	0.532	1.493
Retired	0.173	0.246	0.482	1.189	0.734	1.925
Education						
Post Graduated	- - -	- - -	- - -	- - -	- - -	- - -
Graduated	0.064	0.823	0.438	1.066	0.213	2.345
Diploma	0.327	0.805	0.296	1.387	0.286	2.724
Primary & Secondary	0.569	0.803	0.015	1.766	0.366	3.523
Illiterate	0.856	0.814	0.003	2.354	0.478	4.600

OR= Odds Ratio

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 show that 28.2% of Hormozgan province population are suspected of a psychiatric disorder. This rate was 21.9% in the first national study done in 1999,[8] which has increased in the national study in 2015.[9] This rise in the rate of the prevalence of psychiatric disorders could be due to changes in the economic, political, social and income status in this province.

In this study, the prevalence rate was 21.1% for males and 35.4% for females, while the prevalence rate in the 1999 study was 32.5% in females and 10.7% in males. Comparing the results of these two studies is in favor of higher susceptibility of women to developing psychiatric disorders. Review of studies conducted in different countries,[10] and Iran,[11–13] shows results similar to ours. The explanation for this higher rate could be the sexuality, biology of the women, environmental stresses and restricted sources of satisfaction for women.

The prevalence rate of suspicion for a psychiatric disorder is higher for urban residents (28.9%) than rural residents (26.5%) which is not in line with the 1999 study[8] in which the rate was 16.9% for urban resident and 28.6% for rural residents.[9] The explanation for this higher rate in rural areas could be economic difficulties, money making rate and environmental pollution of the Hormozgan province.

The results of this study show that with increasing age, the incidence of suspicion for a psychiatric disorder increased and the highest rate of such problem (40.8%) pertained to persons aged 65 years or above which is in the line with the results of the 1999 study.[11] The results of most studies conducted in Iran and the world are in favor of higher psychiatric disorders in 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 is 38.2% in illiterate persons which is in line with the results of the 1999 study and other studies from Iran and the world.[11] Inability of illiterate person in stress management and social limitations could be the causes of this high rate.

The results of this study show that the prevalence of suspicion for a psychiatric disorder is 34.1% in housewives and 48.1%i n divorced and widows, which is in the line with the 1999 study,[8] other studies conducted in Iran[12,13] and the world.[10] Economic problems, decreased money making rate and life difficulties of housewives and unemployed persons and also loss of beloved ones and social limitation secondary to separation and divorce could explain this high prevalence rate.

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 conducted in Iran[9] and the world show similar results.[10] This higher rate may

be due to environmental stresses, economic difficulties and social changes and inability of individuals in expression of their feeling.

Conflict of interest

The authors declare that they have no conflict of interest.

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