

Original Article

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

Methods: The statistical population of this cross-sectional field survey consisted of residents of urban and rural areas of Isfahan in Iran. Through systematic random cluster sampling, 1200 individuals were selected from the residents of urban and rural areas of Isfahan, Kashan and Shahin shahr. 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, 30.6% of the subjects (38.5% of females and 22.5% of males) were suspected of having mental disorders. The prevalence of suspected psychiatric disorders in urban areas (32.1%) was higher than the prevalence of these disorders in rural areas (27%). 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 in women was higher 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 was higher than other groups.

Conclusion: The results of this study show that more than one third of the sample are suspected of mental disorders, and the prevalence of these disorders has increased from 21.3% in 1999 to 30.6% in 2015; therefore, it is up to the authorities and health managers of the province to take the basic steps to supply, maintain, and preserve the mental health of those in need and promote the mental health of the community.

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

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Introduction

Isfahan province is one of the central provinces of Iran that covers an area of 107045 km². The population of this province is 5,120,382 people, of whom 4,507,309 live in urban sites (88%) and 613,073 people live in rural areas (12%). The population of men of the province is 2,599,240 people (50.8%) and that of women is 2,521,142 people (49.2%). This population live in 23 towns. The majority of residents of the province speak

Farsi and the religion of the population of the province is Islam. The literacy rate in the province is 89.9%, the unemployment rate 14.6% and the family size 3.2 persons.¹

Concerning healthcare services and medical facilities, the province has 287 healthcare centers that includes 208 urban and 79 rural centers. A total of 517 rural healthcare centers offer health services to individuals. Isfahan province has 31 hospitals with 4671 beds that offer health services to people in need. Of this number, 793 beds pertain to psychiatric hospitals. Thus, for 10000 people, there are 1.5 beds in the province. Three Methadone Maintenance Therapy centers and four harm reduction centers offer medical and preventive services to addicted patients. Concerning trained Mental Health specialists, 23 psychiatrists work in towns of the province. Totally, 623 mental health trained general practitioners offer mental health services in health services and medical centers and 20795 psychiatric patients are under control of these centers.²

The national study performed by Noorbala, et al. (1999) on 2336 individuals aged 15 years and above reported that the prevalence rate of people suspected of psychiatric disorders in the analyzed sample was 17.6%; 12.8% in men and 21.7% in women.³

Considering the significance of mental health epidemiology studies in determining mental health state, identifying demographics and also estimation of required health and medical services and resources related to these disorders and diseases of the province, this study was conducted aiming to survey and

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compare the mental health state of individuals in the province throughout the last 15 years.

Materials and Methods

This research was conducted in the format of a cross sectional and field study in Isfahan 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 Isfahan (provincial center), Kashan and Shahin shahr, 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 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 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 1167 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 30.6% of the subjects were suspected of having mental disorders (22.5% of males and 38.7% of females). The highest susceptibility to mental disorders in each of the variables studied pertained to those living in urban areas by 32.1%, people from the age group of 65 and older (40.5%), divorced and widowed (60.4%), illiterates (43.4%), and housewives (39.6%).

Data in table 2 shows that the risk of developing a psychiatric disorder in females was 1.912 times higher than such risk in males and the risk increased incrementally with age. The risk was 3.836

Table 1. Prevalence of mental disorders in terms of the demographic variables (n= 1167)

Variables	Sample size (n)	Suspected cases (n)	Prevalence rate (%)
Gender			
Male	586	132	22.5
Female	581	225	38.7
Place of residence			
Urban	815	262	32.1
Rural	352	95	27.0
Age group (years)			
15-24	154	32	20.8
25-44	404	112	27.7
45-64	387	123	31.8
+65	222	90	40.5
Marital status			
Unmarried	885	263	29.7
Married	191	39	20.4
Widowed, or divorced	91	55	60.4
Occupation			
Employed	355	76	21.4
Unemployed	112	42	37.5
Student	102	22	20.4
Housewife	447	177	39.6
Retired	149	40	26.8
Education			
Illiterate	309	134	43.4
Primary & secondary	319	83	26.0
Diploma	295	81	27.5
Graduated	202	51	25.2
Post Graduated	40	8	20.0
Total	1167	357	30.6

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	0.455	0.269	0.091	1.576	0.930	2.671
Widowed, or divorced	1.344	0.369	0.000	3.836	1.861	4.906
Gender						
Male	---	---	---	---	---	---
Female	0.648	0.235	0.006	1.912	1.206	3.031
Age	-0.002	0.006	0.741	0.998	0.986	1.010
Place of residence						
Rural	---	---	---	---	---	---
Urban	0.496	0.162	0.002	1.641	1.196	2.253
Occupation						
Employed	---	---	---	---	---	---
Unemployed	0.609	0.254	0.016	1.839	1.118	3.024
Student	-0.011	0.357	0.976	0.989	0.491	1.993
Housewife	-0.013	0.269	0.005	1.988	0.583	1.674
Retired	0.024	0.258	0.926	1.024	0.617	1.700
Education						
Post Graduated	---	---	---	---	---	---
Graduated	0.290	0.435	0.504	1.337	0.570	2.437
Diploma	0.364	0.429	0.395	1.440	0.621	2.335
Primary & Secondary	0.332	0.433	0.444	1.394	0.596	2.259
Illiterate	0.901	0.461	0.002	2.463	0.998	3.076
OR= Odds Ratio						

times higher in divorced and widows than married individuals, 1.988 times higher in housewives than persons who have a job and 2.463 times higher in illiterates than the educated.

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 more than one third of the subjects in the province (30.6%) were suspected of mental disorders. The prevalence of suspected psychiatric disorders in the first national survey conducted in the province was 17.6%, which indicates an increase in the prevalence of these disorders in 2015 compared to 1999.⁸ 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 38.5% in females and 22.5% in males. The prevalence of suspected psychiatric disorders in the first national survey in 1999 was 21.7% in females and 12.8% in males.⁹ 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 world and Iran,¹⁰⁻¹³ confirms the finding that the prevalence of mental disorders is higher in women than men.

Moreover, the prevalence of psychiatric disorders in women is higher than men, which can be due to biological factors, gender role, environmental stress and occupation, limited source of satisfaction, as well as limited community participation of women in the society.

The prevalence of suspected psychiatric disorders in urban areas (30%) was higher than the prevalence of these disorders in urban areas with 24.8%, which is consistent with the findings of the survey in 1999 (18% of rural residents and 17.4% of urban residents).¹¹ Economic constraints and the lack of suitable welfare facilities, as well as the limitation of the rural population in using effective factors associated with the surrounding world, can account for the higher prevalence of these disorders in residents of rural areas compared to urban inhabitants.

The results of this study indicate that with increasing age, the prevalence of mental disorders increased and the highest incidence pertained to people aged 65 years and above with 40.5% of cases, which is in line with the results of the same survey in 1999 in the province.⁹ Most studies in Iran¹¹⁻¹³ and the world indicate a higher prevalence of suspected mental disorders in the elderly.¹⁰ 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 illiterates was 39.6% higher than the other groups which is in line with the results of the provincial survey of 1999 as well as other studies conducted in Iran.¹¹ The social and cultural constraints and

the incapacity of illiterate people to employ effective methods of coping with stressors can account for the higher prevalence of these disorders in illiterate people than other educational groups.

The findings of this study indicate that the prevalence of mental disorders in housewives was more than the other groups, which is consistent with the findings of the 1999 survey,³ and other studies conducted in Iran,¹¹⁻¹³ and around the world.¹⁰ Disability and chronic physical illness in the disabled and economic problems and lack of income in the unemployed can be among the factors that increase the prevalence of psychiatric disorders in these people in comparison to those who work.

The prevalence of suspected mental disorders in divorced and widowed people was more than the prevalence of these disorders in married and single people, which is consistent with the results of studies conducted in Iran.¹¹⁻¹³ The loss of loved ones and social constraints due to separation and divorce can be one of the reasons for a significant increase in the suspicious prevalence of these disorders in the subjects compared to other groups. In this study, psychiatric disorders were more prevalent in married than singles (29.7% versus 20.4%),⁹ which is in contradiction with the survey in 1999 and the observation that being married is a protective factor against psychiatric problems.⁸ This important data should be considered by the policy makers. It might be the result of economic, social and cultural pressures on married regarding providing life and parenting expenses and interpersonal problems between couples.

The findings of this study suggest that 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; however, in the province in 1999, the prevalence of depression and anxiety was higher than the prevalence of somatization of symptoms and social dysfunction. The reason for the difference in the prevalence of these components in the present study compared to 1999 can be attributed to environmental stressors and economic, cultural and social changes in the province.

Conflict of interest

The authors declare that they have no conflict of interest.

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