

Original Article

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

Methods: This cross-sectional survey was performed among 1,200 individuals aged 15 years and older, living in urban and rural areas of the three cities of Hamedan, Asadabad, and Malayer. Individuals were enrolled in the study by clustered and systematic randomization. The General Health Questionnaire-28 (GHQ-28), was used for screening for common mental disorders. Those scoring above the cut-off point of the GHQ-28 were considered to be suffering from at least one mental disorder. Data was analyzed using the SPSS-18 software.

Results: This study showed that using the traditional scoring method, 30.7% of the subjects (31.4% of females and 29.9% of males) were suspected of having mental disorders. The prevalence of suspected psychiatric disorders in urban areas (32.8%) was higher than the prevalence of these disorders in rural areas (25.3%). 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 among women, the age group of 65 and older, people living in urban areas, divorced and widowed, primary and secondary, and unemployed people was higher than other groups.

Conclusion: The results of this study show that about one third of the sample are suspected of mental disorders, and the prevalence of these disorders has decreased from 34.7% in 1999 to 30.7% in 2015. 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), Hamadan province, mental health status

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Introduction

Hamedan province is located in the middle west of Iran, with an approximate area of 19,000 square kilometers. According to the official data from the National Statistics Center of Iran for 2016, Hamedan's population has reached around 1,812,026 people. Of this large population, 1,137,752 (62%) and 674,274 (38%) live in urban and rural areas, respectively. This population is scattered in 9 districts. The city of Hamedan is the political center of the province. The main religion

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of the people of Hamedan is Islam, and there are also Armenian and Jewish communities in the province. The people of Hamedan, are mostly Persian, which is the main Iranian ethnicity, but there are also Turkish, Kurdish, and Lor ethnicities among them, who locally speak in different dialects and accents.¹

This province has 154 public health centers, of which 69 are located in urban areas and 85 are located in rural areas. There are 565 health houses in rural areas which provide health services for those living in these areas. There are 22 public and private hospitals. Among these hospitals, there is one psychiatric hospital with 154 beds. There are also a total of 14 psychiatric beds in general hospitals. So, there are 0.9 psychiatric beds per 10,000 people in Hamedan province. Hamedan has 137 Methadone Maintenance Treatment (MMT) clinics and 6 Harm Reduction Centers providing health services for those diagnosed with substance use disorders. There are 26 psychiatrists, 63 clinical psychologists, 2 of whom have a PhD degree, and 61 have a Master degree. There are 200 general physicians working in public health centers of the province.²

Previously, the results of the first national mental health survey performed by Noorbala, et al. in 1999 with a similar methodology and sample population showed that 34.7% (22.5% of males and 45.1% of females) of the individuals surveyed in Hamedan province were suspected to be suffering from at least one mental disorder according to the GHQ-28.³

Regarding the key role of epidemiological studies in estimating the probable prevalence of mental disorders, and defining the correlating demographic features for the proper allocation of mental health resources available in this province, this study was performed to assess the change of the mental health status of the Iranian population living in Hamedan province throughout the past 15 years.

Materials and Methods

This research was conducted in the format of a cross sectional and field study in Hamadan province in 2015. The statistical population of the study consisted of people aged 15 years 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 Hamadan (provincial center), Malayer and Asadabad, 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 1085 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 table 1 shows that 30.7% of the subjects were suspected of having mental disorders (31.4% of females and 29.9% of males). The highest susceptibility to mental disorders in each of the variables studied pertained to those living in urban areas by 32.8%, people from the age group of 65 and older (39.3%), divorced and widowed (50.5%), primary and secondary (32.4%), and unemployed people (32.3%).

Table 1. Prevalence of mental disorders in terms of the demographic variables (n= 1085)

Variables	Sample size (n)	Suspected cases (n)	Prevalence rate (%)
Gender			
Male	508	152	29.9
Female	577	181	31.4
Place of residence			
Urban	708	232	32.8
Rural	377	101	25.3
Age group (years)			
15-24	134	38	28.4
25-44	375	112	29.9
45-64	431	126	29.2
+65	145	57	39.3
Marital status			
Unmarried	751	193	25.7
Married	225	85	37.7
Widowed, or divorced	109	55	50.5
Occupation			
Employed	336	99	29.4
Unemployed	104	56	53.8
Student	99	24	24.2
Housewife	437	115	26.3
Retired	109	39	35.8
Education			
Illiterate	258	77	29.8
Primary & secondary	253	82	32.4
Diploma	365	116	31.8
Graduated	180	55	30.6
Post Graduated	29	3	10.3
Total	1085	333	30.7

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	0.982	0.224	0.005	2.219	1.721	2.140
Widowed or divorced	0.878	0.238	0.002	2.405	1.510	2.833
Gender						
Male	---	---	---	---	---	---
Female	0.516	0.215	0.050	1.775	1.099	2.552
Age	0.021	0.006	0.001	1.022	1.009	1.034
Place of residency						
Rural	---	---	---	---	---	---
Urban	0.204	0.179	0.256	1.226	0.863	1.743
Occupation						
Employed	---	---	---	---	---	---
Unemployed	0.704	0.263	0.008	2.022	1.207	3.389
Student	-0.723	0.335	0.431	1.085	0.252	2.935
Housewife	-0.474	0.274	0.083	1.623	0.364	2.965
Retired	-0.246	0.298	0.410	1.182	0.436	1.404
Education						
Post Graduated	---	---	---	---	---	---
Graduated	1.041	0.645	0.323	1.433	0.800	3.038
Diploma	1.372	0.637	0.231	1.542	1.131	2.848
Primary & Secondary	1.341	0.642	0.025	2.024	1.087	3.446
Illiterate	0.888	0.655	0.175	1.631	0.674	2.171
OR= Odds Ratio						

Information related to logistic regression of variables and the odds ratio are presented in Table 2. Data in table 2 shows that risk of developing a psychiatric disorder in females is 1.775 times more than such risk in males and the risk increased incrementally with age. The risk is 2.405 times more in divorced and widows than unmarried individuals, 2.250 times more in unemployed than persons who have a job and 2.024 times more in people with primary and secondary than the educated.

The results also showed that 37.5% of the sample population reported somatization (34.5% of the male and 40.8% of the female), 37.6% reported symptoms of anxiety (36.5% of the male and 38.8% of the female), 26.1% reported social dysfunction (23.6% of the male and 28.4% of the female), and 17.4% reported depressive symptoms (14.5% of the male and 20.1% of the female).

Discussion

The results of this study showed that about one third of the individuals in our study population living in Hamedan province were suspected to be suffering from at least one mental disorder. As previously mentioned in the introduction, the estimated prevalence rate of mental disorders in the first mental health survey performed in Hamedan province in 1999 was 34.7%,⁸ which demonstrates a slight insignificant decrease in the reporting of common mental disorder among this population group.⁹ This decrease 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 31.4% for females and 29.9% for males, but the prevalence rate in the 1999 study was 45.1% in females and 22.5% in males.⁸ 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 Iran¹¹⁻¹³ 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 psychiatric disorder is higher for urban residents (32.8%) than rural residents (25.3%), which is not in line with the 1999 study in which the rate was 33.9% for urban residents and 34.7% for rural residents.⁹ This shift in prevalence can be due to social and economic issues related to modern urbanization, leading to more psychological stress and perceived poverty and also environmental factors can have considerable effect on this higher prevalence rate of symptoms of mental disorders in urban areas

The results of this study show that with increasing age, the prevalence of suspicion for a psychiatric disorder increased and the highest rate of such problems pertained to the persons aged 65 years or above (39.3%), which is in the line with the results of the 1999 study.¹¹ The results of most studies conducted in Iran and the world,¹³ are in favor of more psychiatric disorders in geriatric age. The explanation for this finding could be physical disabilities, retirement, menopause and biological changes in women.

This study shows a higher prevalence of reporting mental disorder symptoms among individuals with primary and secondary school

education. Previous surveys showed higher prevalence of mental disorders among uneducated people in the province.³ This can be partly due to the increased verbal capacities and communication skills correlated with education compared to the uneducated individuals in this study.

On the other hand, being an unemployed men had correlation with scoring above the cut-off point of the GHQ-28. This correlation demonstrates the impact of psychosocial factors such as lifestyle and economic issues in the development of mental disorders among our sample population, consistent with other studies in Iran.¹¹⁻¹³

Widowed or divorced individuals showed to be more susceptible to mental disorder compared to other groups. Grief, depression and major changes in life roles due to loss of spouse, or divorce and separation are issues of high significance among individuals worldwide.

The findings of this study on GHQ-28 subscales showed that the prevalence of somatization, anxiety symptoms, social dysfunction and depressive symptoms was reported to be generally higher, and also more prevalent among females in comparison to males, which is different from the findings of the national 1999 survey.³ This could be majorly due to an increase in psychosocial stress on individuals, leading to somatization of symptoms rather than verbal and affective expressions of their emotions.

Conflict of interest

The authors declare that they have no conflict of interest.

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