Original Article

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

Method: This cross-sectional field study was conducted on the residents of both urban and rural areas of the West Azarbaijan province. Through systematic random cluster sampling, 1200 individuals were selected from the residents of urban and rural areas of Urumia, Salmas and Mahabad. 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: Using GHQ traditional scoring method, the results showed that 24% of individuals (29.1% of females and 18.7% of males) were suspected of mental disorders. The prevalence rate of mental disorders was 19.8% for rural and 25.8% for urban areas. Prevalence of somatization and anxiety was higher than social dysfunction and depression and women revealed higher prevalence for these disorders compared with men. It was also shown that the prevalence rate significantly increased with age and was higher in women, people aged 65 and above, urban residents, widowed or divorced, illiterate, housewives, unemployed and retired people

Conclusion: The results of this study showed that about a quarter of the people in the province were suspected to have mental disorders. Comparing the results of the current survey with those of the study conducted in 1999 suggests that the prevalence of mental disorders is on the increase in this province (from 13.5% in 1999 to 24% in 2015). Therefore, it seems vital that the officials take action in order to improve and maintain mental health status of the people who are at risk.

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

Introduction

West Azarbaijan province is located in the north west of Iran with an area of 37412Km² without considering Urmia Lake. Its population is 3,080,576, of whom 62.7% live in urban and 37.3% in rural areas. The male population is 1,555,127 (50.5%) and the female population is 1,525,449 (49.5%). This province consists of 17 towns and its center is Urmia. The native language is Turkish or Kurdish and they are Muslims. The rates of literacy and unemployment are 78.8% and 13%, respectively. The average number of family members is 3.7.[1]

Regarding health care facilities, this province has 224 health care centers (52 for urban areas and 172 for rural areas) and 985 health houses provide health services to people. Treatment facilities in this province include 30 hospitals with 3995 beds, 136 of which are specific to people suffering from mental disorders (93 beds in psychiatric hospitals and 43 beds in general hospitals). Thus, for 10000 people with mental problems in the province, 0.45 beds exist. There are 86 Methadone Maintenance Therapy (MMT) centers and 6 Drop in centers in the province which provide health and preventive services to addicts. Regarding specialized human resources in mental health, there are 24 psychiatrists working in the province. There are 380 trained general practitioners in health care centers, providing mental health services for patients. National mental health program covered all urban and rural population and health care centers provide outpatient services for 4372 patients who have psychiatric disorders.[2]

A study carried out by Noorbala, et al. (1999) showed that out of 1358 individuals aged 15 and above, the prevalence rate of likely mental disorders was 13.5%: 10.8% for males and 15.5% for females.[3]

Since epidemiological surveys of mental disorders are highly

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important to determine mental health status, identify demographic features related to mental health problems, and estimate health care facilities needed for the province, the present study was conducted in order to investigate and compare mental health status of the individuals during the last 15 years.

Materials and Methods

This cross-sectional field study was carried out in December and January (2014 – 2015) and included the population of age group 15 years and above living in both urban and rural regions of the province. Systematic random cluster sampling was used to select 1200 persons from Urumia (provincial center), Salmas and Mahabad. 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 1077 persons completed the questionnaire. Data regarding the 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 24 % of the samples (29.1% of females and 18.7% of males) were suspected to suffer from mental disorders. The highest prevalence of mental disorders was in the urban areas (25.8 %), individuals aged 65 and over (33.1%), divorced or widowed (42.3%), illiterate (30.5%), and housewives (29.5%).

Information related to logistic regression of variables and the odds ratio is presented in Table 2. Based on the logistic regression

Table 1. Prevalence of mental disorders in terms of the demographic variables (n= 1077)

Variables	Sample size (*n*)	Suspected cases (*n*)	Prevalence rate (%)
Gender			
Male	530	99	18.7
Female	547	159	29.1
Place of residence			
Urban	739	191	25.8
Rural	338	67	19.8
Age group (years)			
15–24	153	30	19.6
25–44	367	71	19.3
45–64	374	96	25.7
+65	181	60	33.1
Marital status			
Unmarried	802	180	22.4
Married	161	30	18.6
Widowed, or divorced	111	47	42.3
Occupation			
Employed	328	58	17.7
Unemployed	96	25	26.0
Student	76	13	17.1
Housewife	437	128	29.3
Retired	116	31	26.7
Education			
Illiterate	430	131	30.5
Primary & secondary	302	59	19.5
Diploma	193	34	17.6
Graduated	124	26	21.0
Post Graduated	23	5	21.7
Total	**1077**	**258**	**24.0**

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	0.185	0.347	0.594	1.203	0.609	2.377
Widowed, or divorced	0.893	0.428	0.037	2.444	1.255	3.658
Gender						
Male	- - -	- - -	- - -	- - -	- - -	- - -
Female	0.149	0.236	0.529	1.460	0.731	1.842
Age	0.010	0.006	0.067	1.010	0.999	1.021
Place of residence						
Rural	- - -	- - -	- - -	- - -	- - -	- - -
Urban	0.243	0.175	0.165	1.275	0.905	1.796
Occupation						
Employed	- - -	- - -	- - -	- - -	- - -	- - -
Unemployed	0.349	0.295	0.237	1.418	0.795	2.527
Student	-0.060	0.422	0.887	0.942	0.412	2.152
Housewife	0.165	0.306	0.189	1.579	0.648	2.147
Retired	0.161	0.289	0.578	1.174	0.667	2.069
Education						
Post Graduated	- - -	- - -	- - -	- - -	- - -	- - -
Graduated	-0.103	0.516	0.841	0.902	0.328	2.478
Diploma	-0.384	0.506	0.448	0.681	0.253	1.836
Primary & Secondary	-0.152	0.494	0.759	0.859	0.326	2.264
Illiterate	0.336	0.502	0.503	1.400	0.523	2.744
OR= Odds Ratio						

analyses (Table 2), the results indicated that females had a relative risk of mental disorders of 1.460 compared with males. The risk of mental disorders increased significantly with age. Divorced or widowed people were 2.444 times more at risk of mental disorders compared with married people. The highest risk of mental disorders pertained to housewives (they were 1.579 times more at risk of mental disorders compared with employed people). Illiterate individuals were 1.400 times more vulnerable to mental disorders than people with postgraduate degrees and above.

The results also showed that 28.2% of the sample experienced somatization (20.6% of males and 35.8% of females), 32.4% were suspected of anxiety (27.1% of males and 37.7% of females), 17.6% were suspected of social dysfunction (16.8% of males and 18.3% of females), and 8% were suspected of depression (7.1% of males and 8.8% of females).

Discussion

The results of this study revealed that 24% of the studied population of the province were likely cases of mental disorders, while the prevalence rate of mental problems obtained through the first study conducted in the province in 1999 was 13.5%,[8] which is indicative of a significant increase in the prevalence of mental disorders.[9] This increase can be attributed to the changes in social structure, economic and political situations, and social welfare.

The present study shows that the prevalence rate was 29.1% for females and 18.7% for males, whereas the 1999 study reported a rate of 15.5% for females and 10.8% for males. A review of the previous studies carried out in other countries,[10] and Iran[11–13] confirms the fact that the prevalence of mental disorders is higher in females, which is in line with the findings of the current study. Biological factors, social roles, environmental and occupational tension, limitation of satisfaction and social participation can account for the higher prevalence rate in women.

The study demonstrates higher prevalence rate for urban areas (25.8%) than rural areas (19.8%). This finding is not in line with the results of the survey conducted in 1999: 13.7% in rural regions and 13.2% in urban regions.[8] Economic difficulties can account for this higher prevalence rate in urban areas. The survey also suggests that increase in age results in a higher prevalence rate of mental disorders, and the highest rate pertained to people aged 65 and above (33.1%), supporting the result of the study carried out in 1999.[3] Factors such as retirement, menopause, and biological changes can be considered as probable causes.

The study shows that the rate of mental disorders was 30.5% among illiterate groups, compatible with the findings of the study conducted in 1999,[3] and those of other studies conducted all over the world.[9] This can be explained by sociocultural limitations in such groups which may result in their disability to cope with stress.

The disabled, housewives and retired individual were more at risk of mental disorders, comparable with the findings of the 1999 study,[8] and those of other studies conducted in Iran[12,13] and other countries.[10] Disability and chronic physical ill health in disabled, economical problems and insufficient income in unemployed men, and social and cultural limitations in females can be considered as

possible explanations for this higher rate.

Divorced and widowed groups showed a higher rate than married or unmarried population. Loneliness and other social constraints caused by divorce can explain the significant increase in the prevalence rate of mental disorders. Compared with men, women were more at risk of somatization, anxiety, social dysfunction and depression, supporting the results of the study in 1999.[3] However, the 1999 study revealed the prevalence of the depression and social dysfunction higher than that of anxiety and somatization. Environmental stressful factors, economic, cultural and social changes can account for the difference in the prevalence of the above-mentioned disorders during the last 15 years.

Conflict of interest

The authors declare that they have no conflict of interest.

Acknowledgments

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