



Mental Health Survey of the Adolescence and Adult Population in Iran

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ABSTRACT: The main goal of this study is to determine prevalence of mental disorders among individuals at the age of 15-65 years in Ardabil province, Iran. Statistical population of current study is comprised of individuals at 1565 years of age in the urban districts of Ardabil province. In current study the sample size of 1430 individuals who were inhabitant in urban districts of Ardabil province were selected through multistage cluster random sampling. The selected method in this study is survey research type and research design is cross sectional. Used tools in this study are; personal data questionnaire and 28 items GHQ test. This study showed that 27.9 % of studied individuals were suffering from different mental disorders totally. Prevalence rate of mental disorders has been varied from 13.3% (Sarein town) to 44.4% (Germi town). The highest prevalence of mental disorders was pertained to disorder of social performance and anxiety disorders. On the basis of scales of GHQ test prevalence rate of depression, anxiety disorders, somatization disorders and disorder of social performance were 14%, 22.30%, 20% and 32%, respectively. Current study showed that prevalence rate of mental disorders is higher among the females than male (34.4% VS 21.1%).

Key words: Anxiety; Depression; Somatization; social performance disorder; Mental Disorders

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INTRODUCTION

A look at published statistics and figures about mental disorders' prevalence in various countries and also performed researches in Iran accentuates the importance and necessity of such studies. According to estimate of world health organization (1993), 500 millions are afflicted by one of mental disorders that 10 million and 250 million of them afflicted by severe and moderate mental disorders, respectively, 120 million are suffering from mental retardation, 50 million are agonizing of epilepsy and 30 million are suffering from dementia.

Review of epidemiological studies of mental disorders in various countries of world is showing that due to variation of used tools, difference in sampling method, techniques of interview and diagnostic classifications prevalence rate of these disorders is estimated very different, as this rate has been varied from 7.3% to 39.8%. Although extensive comprehensive epidemiological study hasn't been executed in the Ardabil province and performed study has been limited, however obtained data in our country is indicating that prevalence rate of these disorders has been varied from 11.9% to 23.8%.

Bahar et al. (1992) in a survey on 1670 individuals of Palembang of Indonesia that was done with using General Health Questionnaire and examination of real condition showed that totally 20% of studied persons have been seized by different types of mental disorders that prevalence rate of these disorders was higher among the females (14.3%) than the males (10.6%). Kessler et al. (1994) in a research on 8098 of 15-54 years of age of general population of America, that was done through clinical interview on the basis of DSM III-R diagnostic criteria, showed that approximately 50% of studied persons, have been suffered in their life time at least from one of mental

disorders. 30% of studied persons reported at least one disorder for themselves within recent year. Results of this survey also showed that females had higher prevalence in the affect and anxiety disorders than the males and prevalence rate of drug addiction and personality disorder was higher in the males than females. From the view point of age, the most prevalence rate of disorders belonged to 25-34 years age group and significant difference wasn't obtained between urban and rural districts for prevalence rate of mental disorders. Kaplan and Sadock (2003) have reported prevalence rate of mental disorders as following; life time prevalence of schizophrenia in the USA was 1-1.5% that accords with results achieved from studies of Mental Health Association of America (1.3%). Depression disorder is common disorder in the general population that influences 3-5% of individuals. This disorder is more common among the females under 64 years of age comparing with the males under than 64 years of age. Also depression disorder is more common among youth, single and low income persons. Prevalence of Generalized anxiety disorder is 3-8% that is often seen concomitant with another mental disorder. Prevalence of panic disorder, panic attacks, obsessive-compulsive disorder, Post traumatic disorder and somatization disorder is reported as following; 1.5-3%, 3-4%, 2-3%, 1-3% and 0.1-0.2%, respectively. The prevalence of somatization disorder has been reported in the females 1-2%. 6-month prevalence of simple phobia and social phobia has been reported 5-1% and 2-3%, respectively. Results of study of Fones et al. (1998) showed that totally 16.6% of studied persons have been afflicted by mental disorder. This study showed that anxiety and depression are the most prevalent disorders and at least 12% of them have been seized with one of

mental disorders within last year. Roca et al. (1999) showed in the survey of prevalence rate of mental disorders that approximately 21.4% of studied persons have been seized with one of mental disorders on the basis of ICD-10 diagnostic criteria. Neurotic and somatoform disorders were the most common disorders. Yaghoobi et al. (1995) showed in research that totally 23.84% of studied persons are afflicted with mental disorders. Mood and anxiety disorders are the most common disorders with prevalence rate of 12.6% and 7.52%. In general, results of studies shows that prevalence rate of mental disorders is significantly higher among the females, persons above 45 years of age, married, widows, illiterates, unemployed men, homemaker women, and among persons with positive history of mental disease in themselves or in their family, comparing with others. Noorbala et al. (2004) in their survey about prevalence of psychiatric disorders among individuals with age of 15 years and above in urban districts surveyed 879 persons through General Health Questionnaire and clinical interview check list on the basis of DSM-IV diagnostic criteria. Results of this survey showed that totally 12.5% of studied persons (27.7% of the females and 14.9% of the males) are afflicted by mental disorder. Mood and anxiety disorders with 9.8% and 7.4% were of most common groups of psychiatric disorders. Major depression and generalized anxiety disorder are the most common disorders in the studies sample with 4.4% and 3%, respectively. Also results of this study showed that prevalence of psychiatric disorders is more among the females, married persons, illiterates, persons above 45 years of age and unemployed persons than others.

The main question of current survey is that how the prevalence rate of mental disorders is on the basis of age, sex, place of habitation, marital status and vocation in different districts of Ardabil province.

MATERIAL AND METHODS

Selected method for this research is survey method. Study design is of cross-sectional survey types. Statistical population of current study is comprised of individuals at 15-65 years of age in the urban districts of Ardabil province. This research was started at June 2011 and it was finished at August 2011. This province is comprised of 2218 villages, 21 districts, 17 towns and 9 cities. Population of this province is 1323266 that 784139 and 539127 of them are living in the urban and rural districts. In current study sample size has been regarded 1400 persons. That is equal to one thousandth of province population. However according to failure probability of some of questionnaires due to different causes, a sample with size of 1450 were regarded and finally as was predicted earlier questionnaires of 20 persons

were deleted due to different causes like not responding to questionnaires or non-validity of some responses and finally achieved data of 1430 persons with age of 15 years and older inhabitant in urban districts of Ardabil province were recorded to be analyzed. For selecting of studied families, at first all urban families were cumulatively numbered consecutively on the basis of data achieved from health center of each city. The last number was divided by cluster number of each city to obtain sampling distance. Then a figure between 1 and sampling distance was selected from random figures table for determining of family start in first cluster, sampling distance figure was added to above figure to obtain number of family at the beginning of second cluster. And it continued in this way till all families' number in the Ardabil province was specified. Also for data collection following tools were used.

Personal data questionnaire: This questionnaire includes demographic factors like (address, number of family member, number of family member with age of 15 years and older, sex, age, marital status, level of education, vocation and...) and assesses them.

Mental health questionnaire: This questionnaire has 28 items that has been edited by Goldberg and Hiller (1979) with factors analysis method and has four scales. It assays symptoms somatization, depression, anxiety and disorder in the social performance disorder and every scale has 7 questions. Performed studies indicate to high validity and reliability. Results of meta-analysis of 43 surveys that was done by Williams et al. (1987) have revealed sensitivity and specificity rates as 0.84 and 0.82, respectively. Also results of preliminary survey by Yaghoobi et al. (1995) at Gilan showed that sensitivity of this test with best bias score of 23 is 86.5% and its specificity is 0.82. Reliability coefficient with Cronbach's alpha method in this study was achieved as 0.88. In current study internal consistency coefficient of GHQ test was achieved as 0.89 with Cronbach's alpha method that was optimum. Also reliability coefficient of this questionnaire for each of sub-scales (symptoms somatization, depression, anxiety and social performance disorder) was achieved as 0.75, 0.73, 0.80 and 0.85, respectively.

Data collection method: After determining the statistical population through multi-stage random cluster sampling the sample was selected among individuals at 15-65 years of age inhabitant in the urban districts of Ardabil province. At next stage trained persons (psychologist) under precise supervision of research team accomplished questionnaires of personal data and GHQ-28 test about individuals at the age of 15 years and above through referral to families' home. Psychologists with expressing theses sentences try to achieve data; we

want to obtain some information about your medical discomforts and malaise and we want to know how your general health status was during last month. Please specify in all below questions, the responses that are more accordant with your condition. Remember that we want to obtain information only about your recent problems not about problems and discomforts that you had past, try to response all questions.

Each subject has to denote his/her response on the basis of a 4-degree scale (not at all, in an ordinary way, more than ordinary, extremely more than ordinary). For convenience of responders and confidential of information, interview was done individually and at their home. For all psychologists as cooperators, a recommendation was issued from City Health Center that was being presented during referral to families. The required time for accomplishment of GHQ-28 test was 20-30 minutes. Collection of data was started at June 2007 and it was finished at August 2007.

RESULTS

For responding this question that how much the prevalence rate of mental disorders is in mentioned society, table-1 shows that of all participants in the survey in Ardabil province 17.4% are seized by somatization disorder and individuals who are afflicted by anxiety disorder, social performance disorder and depression constitutes 21.5%, 35.3% and 15.2% of participants, respectively. And in general 26.0% of participants of Ardabil province are suspected of mental disorder. In the Khalkhal city 23.0% are seized with somatization disorder. Of them individuals with anxiety disorder, social performance disorder and depression constitutes 20.9%, 29.5% and 10.1%, respectively and totally 28.8% of participants of Khalkhal city are suspected of mental disorder. Of all participants of Meshkin Shahr city 21.7% are seized with somatization disorder. Anxiety disorder, social performance disorder and depression disordered 23.2%, 27.5% and 11.6% of participants in Meshkin Shahr City, respectively and totally, 30.4% of

participants of Meshkin Shahr City are suspected of mental disorder. In the Pars Abad city percent of individuals that are seized with somatization disorder, anxiety disorder, social performance disorder and depression are as following respectively; 26.6%, 27.7%, 22.3% and 14.9%. And totally 33.0% of participants of Pars Abad city are suspected of mental disorder. In the Germi city 39.3% are seized with somatization disorder. Of them individuals with anxiety disorder, social performance disorder and depression constitutes 28.6%, 33.3% and 17.9%, respectively and totally 44.4% of participants of Khalkhal city are suspected of mental disorder. Of all participants of Namin city 12.5% are seized with somatization disorder. Anxiety disorder, social performance disorder and depression disordered 12.5%, 31.3% and 18.8% of participants in Meshkin Shahr City, respectively and totally, 31.3% of participants of Meshkin Shahr City are suspected of mental disorder. And finally In the Sarein city percent of individuals that are seized with somatization disorder, anxiety disorder, social performance disorder and depression are as following respectively; 13.3%, 16.7%, 13.3% and 14.918.8%. And totally 13.3% of participants of Sarein city are suspected of mental disorder. Entirely, of all 1430 subjects, 1208 (71.9%) were known as healthy persons on the basis of GHQ-28 and 398 (27.9%) of them were suspected of mental disorder cases. Also results show that for somatization 79.7% were healthy and 22.3% were suspected of somatization disorder. For anxiety disorder 77.6% were healthy and 22.3% were suspected of anxiety disorder. And in the social performance disorder 67.8 % were healthy and 32.0% were suspected of social performance disorder. And finally in the depression group 85.7% were healthy and 14.1% were suspected of depression. Then we conclude that in the studied sample social performance disorder is the most prevalent disorder on the basis of GHQ-28 and depression has the least percent. Also, among cities of Ardabil province Germi with 44.4% has the highest prevalence rate of mental disorders and Sarein city has the least prevalence rate of mental disorders with 13.3%.

Table 1. Frequency distribution and percent of mental disorders' symptoms

City	Symptoms Somatization		Anxiety		Social Performance Disorder		Depression		Mental Health	
	F	P	F	P	F	P	F	P	F	P
Ardabil	142	17.4	175	21.5	288	35.3	124	15.2	212	26.0
Khalkhal	32	23.0	29	20.9	41	29.5	14	10.1	40	28.8
Meshkin Shahr	30	21.7	32	23.2	38	27.5	16	11.6	42	30.4
Pars Abad	50	26.6	52	27.7	42	22.3	28	14.9	62	33.0
Germi	22	39.3	16	28.6	18	33.3	10	17.9	24	44.4
Namin	4	12.5	4	12.5	10	31.3	6	18.8	10	31.3
Sarein	8	13.3	10	16.7	20	33.3	4	6.7	8	13.3
Total (n=1430)	288	20.2	318	22.3	457	21.0	202	14.1	398	27.9

Table 2 show that of 1430 studied samples, 21.1% of the males are suspected of mental disorder while 34.4% of the females are suspected of mental disorder. In this study prevalence percent of mental disorders was higher among the females than the males.

Table 3 shows that of all participants in the study, 25.9% of 15-24 age groups are suspected of mental disorder, and in the 25-44 age groups 29.9%

are suspected of mental disorder and in the 45-65 age groups 30.6% are suspected of mental disorder

In the table-4 of all the sample, among single persons 25.1% are suspected of mental disorder, among married persons 29.3% and among divorced and widow persons 59.0% are suspected of mental disorder.

In this study divorced and widow persons have the highest prevalence rate of mental disorders.

Table 2. Frequency distribution and percent of mental disorders with sex difference

Male			Female		
Sample	Suspected of disorder	Percent	Sample	Suspected of Disorder	Percent
700	148	21.1	726	250	34.4

Table 3. Frequency distribution and percent of mental disorders with age group difference

variable	Sample	Suspected of disorder	Percent
15-24 years of age	768	199	25.9
25-44 years of age	334	100	29.9
45-65 years of age	324	99	30.6

Table 4. Frequency distribution and percent of mental disorders for different marital status

variable	Sample	Suspected of disorder	Percent
Single	742	186	25.1
Married	645	189	29.3
Divorced and widow	39	23	59.0

DISCUSSION

This survey showed that 27.9% of studied persons are generally seized with different mental disorders. Results of performed studies about epidemiology of mental disorders in Iran is indicating that range of prevalence rate of mental disorders varies from 11.9% to 28.8%. Comparing between results of present research with prevalence rate achieved in else researches shows that prevalence rate of mental disorders in the studies performed by Yaghoobi and Palahang (1996) through GHQ-28 accord with results of Noorbala et al. (2004) while this prevalence are higher than studies performed by SCL-90-R questionnaire. Difference between achieved results of studies performed in Iran can be probably related to methods and tools used for screening and diagnosis and using of different classification systems and also are related to age of studied persons. Prevalence rate of mental disorders achieved in current study is higher than prevalence rate obtained in the studies of Bahadorkhan et al. (1994), Palahang et al. (1995), Yaghoobi et al. (1996) Afshari Monfared et al. (1998), Noorbala et al. (2000), Weissman et al. (1975), Hooper et al. (1969), Stansfeld et al. (1992), Medianos (1987), Bahar et al. (1992), Ghubash et al. (1992), Fones et al.(1998) Roca et al.(1999) and it is less than prevalence rate obtained in the studies of Kessler et

al. (1994), Lee and Lee (1990) and it partly approximates prevalence rate obtained by Baret et al. (1988). Prevalence rate of mental disorders in this study has been varied from 13.3% (Sarein City) to 44.4% (Germi City) that all of these differences can be probably due to special economic, social, cultural and geographical conditions of various districts.

Unlike majority of studies performed in world and Iran which in anxiety disorders and depression were of most prevalent disorders, in current study the highest prevalence rate of disorders has been pertained to social performance disorder and anxiety disorder. High prevalence rate of anxiety disorder accords with results of studies accomplished in Iran and world however this accordance can't be seen in the high prevalence rate of social performance disorder.

Current study showed that prevalence rate of mental disorders is higher among the females than the males (34.4% vs. 21.1%) that it accords with results of studies performed in world and Iran like; Bahadorkhan et al. (1993), Palahang et al (1995), Yaghoobi et al. (1996), Afshari Monfared et al. (1998), Noorbala et al. (2000), Weisman et al. (1975), Hooper et al. (1969), Lee an Lee (1990), Stansfeld et al. (1992), Medianos (1987), Bahar et al. (1992), Ghubash et al.

(1992), Kessler et al. (1994), Fones et al. (1998) Roca et al. (1999). To explain these findings can say that high prevalence rate of mental disorders among women is related to their sex and marital roles. Most of women are limited to a one social role; housewifery and if they work out, daily homemaking affairs is their duty too, then they will be under more stress and pressure than men. Beside above factors limitation of women in social communions, biological factors and marriage are of factors that can pave the way for higher prevalence of mental disorders among the females than the males.

Findings of current study showed that at the 15-24 age groups, 25.9% were suspected of mental disorders, in the 25-44 age groups 29.9% and in the 45-65 age group 30.6% were suspected of mental disorders. In this study 45-65 age group has the most prevalence rate of mental disorders. Also results of this study show that there is significant relationship between age and being afflicted with mental disorders especially symptoms somatization and depression and it is shown to in the studies of Lee and Lee (1990) and Yaghoobi et al. (1996) with aging prevalence rate of mental disorders increases. Increasing of prevalence rate of mental disorders with aging can be due to wasting of muscle power, menopause of women, retirement, weakening of defense mechanisms and in general more vulnerability of persons at old ages to stressor factors and mental and physical diseases.

results of this current survey showed that prevalence rate of mental disorders is higher among divorced and widow persons than single as among single persons 25.1% are suspected of mental disorders, and it was 29.3% among married persons, and 59.0% of divorced and widow persons are suspected of mental disorders. These findings approve the results of studies performed by Bagheri Yazdi et al. (1994), Yaghoobi et al. (1996) and Palahang et al. (1995). Reason of higher prevalence rate of mental disorders among married than single persons can be known as economical and social stressor factors like financial problems, managing the life and dealing with children's affairs.

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