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An epidemiological survey of psychiatric disorders in Iran: Kermanshah

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ABSTRACT

Background: There is no population based study about prevalence of psychiatric conditions in Kermanshah. A screening study reported the rate of 39.1% for psychiatric disorders.
Methods: This is the second phase of a larger study. From those with a positive screening, 15% were randomly selected and interviewed face-to-face at home by trained clinical psychologists with Farsi version of the structured clinical interview for DSM-IV (SCID) I and II.
Results: The original sample was 2102 participants, from those 319 individuals were interviewed. Only 15 participants (4.7% of the positively screened sample) had a negative result. Major depressive disorder (8.3%), generalized anxiety disorder (4.7%), obsessive compulsive disorder (4.6%) and obsessive compulsive personality disorder (3.3%) were the most common disorders diagnosed within this sample.
Conclusion: This population based study gives prevalence rates for psychiatric disorders in Kermanshah for the first time. Results can be the basis for health care policy makers and further studies.

1. Introduction

Iran is a large developing country with a population more than 80 million. There have been good experiences in mental health care program like remarkable achievements of integration of mental health care within the primary health care system (World Health Organization, 2001). One of the most important fundamentals for an accurate plan, truthful estimation of expenditures and needs and preparing an appraisal system is epidemiologic data about prevalence of disorders.

Iran is a multicultural and multi ethnical country and differences are anticipated is mental health status in diverse parts. Previous population based surveys in Iran report the prevalence of psychiatric disorders to be 10.8%–23.8% (Kheyrabadi and Yousefi, 2002; Mohammadi et al., 2005; Noorbala et al., 2004). However, for several parts of Iran there is still a noticeable lack of accurate information.

Kermanshah province is located in the extreme western part of Iran with a population of 1945227 in 2011. Kermanshah has a common border with Iraq and is the largest Kurdish speaking city in Iran. To date, there has been no population based survey of mental health in this province. We have been previously reported results of screening of the population in this region for psychiatric disorders. This preliminary study showed that 39.1% of participants were screened positive for psychiatric disorder and 58.9% had impairment in social functioning (Shirzadi et al., 2017). The present study is the final report of this survey and reports mental health status and its distribution in the adult population living in Kermanshah County.

2. Methods

This study is the final report of a large population based study about epidemiology of mental disorders in Kermanshah province. The first step was the screening phase of rural and urban area of Kermanshah County. This report is the final phase reporting results of psychiatric interview with the screened sample. The whole study was approved by regional ethnic committee. All of participants gave written informed consent. Data were anonymous and codes were assigned based on location. Invited individuals were free to leave the study at any moment. Psychoeducation and health care service were available for those who were diagnosed with any psychiatric disorder.

Sampling method and screening with General Health Questionnaire-28 (GHQ-28) in the screening phase is described elsewhere (Shirzadi et al., 2017). In this manuscript, we described that a positive screening by GHQ-28 was obtained from 822 (39.1%) individuals from whom 37.5% were female and 40.4% were from urban area (Shirzadi et al.,

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2017). From those with a positive result for GHQ-28, 15% (plus extra 2% for drop outs) were randomly selected for the second phase of the study. Selected individuals were interviewed face-to-face at home by trained clinical psychologists with Farsi version of the structured clinical interview for DSM-IV (SCID) I and II (Shooshtari et al., 2007).

2.1. Structured clinical interview for DSM-IV (SCID, life time)

SCID I and II, are widely used semi-structured interview for diagnosing major psychiatric disorders classified in axis I and II (personality disorders) of The Diagnostic and Statistical Manual of Mental Disorders (DSM)-IV. They can be administered by clinicians or trained mental health professionals and are widely used for research purposes as well. These questionnaires have been translated to Farsi and have been widely used in several studies thanking to the trans-cultural adaptations (Shooshtari et al., 2007).

2.2. Statistical analysis

Data were analyzed by SPSS Version 16 using independent-sample t and chi square test. Demographics of the sample is reported and results of the psychiatric interview are reported as prevalence rates within the original sample (n = 2102). Data are given in mean (Standard deviation) or number (percentage) where appropriate. For all statistics, differences were considered to be statistically significant at $P < 0.05$.

3. Results

Results of the SCID interview were obtained from 139 individuals. This sample included 76 women (54.7%) and 63 men (45.3%). Mean age (SD) of the sample was 34.6(11.6) years ranging from 20 to 73 years old. Table 1 described demographic characteristics of the study sample.

Table 2 describes number of participants with a positive GHQ-28 who were diagnosed to have a psychiatric disorder with SCID-I. A total of 767 diagnosis were made in 304 (out of 319) individuals. Only 15 participants (4.7% of the positively screened sample) had a negative result, four participants had only one psychiatric diagnosis and remaining 300 individuals had at least two psychiatric diagnoses. This means that 14.5% of the population has at least one psychiatric disorder.

Major depressive disorder, generalized anxiety disorder and obsessive compulsive disorder were the most common disorders diagnosed within this sample. No participants were diagnosed with substance induced mood or psychotic disorder, dissociative disorders or cyclothymic disorder. Cannabis and cocaine were the only substances reported to be abused by individuals.

Number of participants with a positive GHQ-28 who were diagnosed to have a personality disorder with SCID-II is described in Table 3. Fifteen individuals had no personality disorder, four had one and the remaining 300 were diagnosed to have at least two types of personality disorder. Obsessive compulsive personality disorder was the most common personality disorder in this sample.

Table 1
Demographic characteristics of the study sample.

	Males	Females	Total
Mean age (SD)	33.8(12.6)	35.2(10.7)	34.6(11.6)
Marital status			
Single	29 (46.0%)	25(32.9%)	54(38.8%)
Married	32 (50.8%)	47(61.8%)	79(56.8%)
Widowed	2(3.2%)	4(5.3%)	6(4.3%)
Living situation			
Rural	67(88.2%)	9(11.8%)	16(11.5%)
Urban	56(88.9%)	7(11.1%)	123(88.5%)
Occupation			
Student	16(25.4%)	12(15.8%)	28(20.1%)
Employed	10(15.9%)	11(14.5%)	21(15.1%)
Self employed	14(22.2%)	13(17.1%)	27(19.4%)
No job/housewife	23(36.5%)	40(52.6%)	63(45.3%)
Education			
Undergraduate	31(49.2%)	51(67.1%)	82(59.0%)
Graduated/ studying	32(50.8%)	25(32.9%)	57(41.0%)

4. Discussion

This manuscript gives results of a population based study of psychiatric disorders in rural and urban areas of Kermanshah. This study started with a screening with GHQ questionnaire and the results that are provided here are obtained by SCID interview with those screened positive for a psychiatric condition. Prevalence rates for all kind of psychiatric disorders are reported for the first time in this population. Moreover, a well-known instrument and trained interview team from local mental health care professional strengthened this report.

Major depressive disorder is one of the common disorder in almost all of available reports from Iran (Sharifi et al., 2015), comparable to this report. However the rate is much higher form several earlier studies (Sadeghirad et al., 2010). This patter is noticed in recent epidemiological surveys from different parts of the world. Researchers emphasize an increasing burden of depression and World Health Organization estimates identify unipolar major depression as the leading cause of disease burden for the year 2030 (Lepine and Briley, 2011). We also noticed rate of depression to be twice in women compared to men; a well-known pattern for depressive disorders. Lastly, an over-estimation should be considered because all of these studies using only psychiatric interview, miss medical workups and cannot rule out medical conditions resembling depression.

Results of this study are comparable to reports from other parts of Iran in other parts too. A population based study in 2015 reported a similar rate for psychotic disorders of different types, however rates for generalized anxiety disorder, somatization and bipolar disorder are higher in our sample (Mohammadi et al., 2005). The prevalence of obsessive-compulsive disorder is also higher form Iranian studies with similar method (Mohammadi et al., 2004), but within the range reported from other countries. Biological, social and psychological reasons might be responsible for this difference and distribution pattern of disorders in each community indeed. Thus studies like the present study are not giving a reason for the differences between communities, but provide the essential information for studies on etiology and health care policies.

Very few participants were diagnosed with substance use disorders in this study. There is no population based study about this rate in Kermanshah, but a high rate of substance use in prisoners (Jalilian et al., 2013) and number of rehabilitation centers in the city (Tatari et al., 2006) imply that prevalence of 0.8% might be an under-estimation.

There are few studies about prevalence of personality disorders in general population of Iran and most of them focus on specific populations. Prevalence of personality disorders are reported to be 3.7% in university students of Kermanshah that is lower from our study (Parvizifard et al., 2002). Better function of people without personality difficulties can explain this difference.

Given prevalence rates in this study should be interpreted considering the limitations. The study sample included individuals who could give informed consent in both screening and diagnosis phases. Therefore this sample had few limiting characteristics and the chance of missing those with cognitive impairments (like intellectual disability or dementia), social isolation (like traits of paranoia) or low motivation and energy (like depression) might be high. The other concern could be accuracy of data reported for substance use disorders, which would probably be under estimated in most of studies with similar method.

Table 2
Number (percentage of the original sample) of individuals diagnosed with a psychiatric disorder with the psychiatric interview.

	Males(N = 1098)	Females(N = 1004)	Total(N = 2102)
Major depressive disorder	65(5.9%)	110(10.9%)	175(8.3%)
Bipolar I disorder	22(2.0%)	48(4.8%)	70(3.3%)
Bipolar II disorder	5(0.4%)	5(0.5%)	10(0.5%)
Dysthymic disorder	15(1.4%)	15(1.5%)	27(1.3%)
Mood disorder due to a GMC[α]	2(0.2%)	4(0.4%)	6(0.3%)
Schizophrenia	2(0.2%)	4(0.4%)[β]	6(0.3%)
Schizophreniform	1(0.1%)	1(0.1%)	2(0.1%)
Brief psychotic disorder	1(0.1%)	1(0.1%)	2(0.1%)
Delusional disorder	11(1.0%)	22(2.1%)	33(1.5%)
Panic disorder without agoraphobia	12(1.1%)	24(2.4%)	36(1.7%)
Panic disorder with agoraphobia	1(0.1%)	5(0.5%)	6(0.3%)
Obsessive compulsive disorder	37(3.4%)	59(5.9%)	96(4.6%)
Post traumatic stress disorder	7(0.6%)	15(1.5%)	22(1.0%)
Agoraphobia	3(0.3%)	7(0.7%)	10(0.5%)
Social phobia	21(1.9%)	17(1.7%)	38(1.8%)
Specific phobia	11(1.0%)	29(2.9%)	40(1.9%)
Generalized anxiety disorder	39(3.5%)	59(5.9%)	98(4.7%)
Somatization disorder	24(2.2%)	38(3.8%)	62(2.9%)
Hypochondriasis	7(0.6%)	5(0.5%)	12(0.6%)
Body dysmorphic disorder	15(1.4%)	24(2.4%)	39(1.8%)
Anorexia nervosa	5(0.4%)	7(0.7%)	12(0.6%)
Bulimia nervosa	1(0.1%)	11(1.1%)	13(0.6%)
Adjustment disorder	27(2.4%)	46(4.6%)	73(3.5%)
Other anxiety disorders	2(0.2%)	5(0.5%)	7(0.3%)
Substance dependence	8(0.7%)	4(0.4%)	12(0.8%)

[α] general medical condition.
[β] 2 patients with residual subtype, others with paranoid subtype.

Table 3
Number (percentage of the original sample) of individuals diagnosed with a personality disorder with the psychiatric interview.

	Males(N = 1098)	Females(N = 1004)	Total(N = 2102)
Avoidant	11(1.0%)	23(2.3%)	34(1.6%)
Dependent	15(1.4%)	23(2.3%)	37(1.8)
Obsessive-compulsive	28(2.6%)	42(4.2%)	70(3.3%)
Passive-aggressive	20(1.8%)	30(2.9%)	50(2.4%)
Depressive	22(2.0%)	32(3.2%)	54(2.6%)
Paranoid	6(0.5%)	15(1.5%)	21(1.0%)
Schizotypal	4(0.4)	4(0.4%)	8(0.4%)
Schizoid	2(0.2%)	4(0.4%)	6(0.3%)
Histrionic	17(1.5%)	16(1.6%)	33(1.5%)
Narcissistic	21(1.9%)	25(2.5%)	46(2.2%)
Borderline	12(1.0%)	22(2.1%)	34(1.6%)
Antisocial	10(0.9%)	10(1.1%)	20(0.9%)

However we believe that these data could give a reliable picture of mental health status of Kermanshah and might be useful for health care providers.

In conclusion, this study population based study gives prevalence rates for psychiatric disorders in Kermanshah for the first time. Results can be the basis for health care policy makers and further studies.

Conflict of interests

Authors declare that they have no conflict of interests.

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