

Original Article

Prevalence of Psychiatric Disorders and Associated Factors among the Youth in Ravansar, Iran

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Abstract

Background: Mental disorders contribute significantly to the burden of diseases in Iran. Therefore, the current study aims to assess the prevalence of psychiatric disorders and their associated factors among youth in Kermanshah province of Iran.

Methods: The current study is a part of the first phase of Ravansar Cohort (a part of the PERSIAN Youth Cohort) including 2991 participants aged 15 to 34 from Ravansar district in western Iran. Enrollment and data collection for this phase were performed from end April 2015 to early April 2017. The data were gathered using structured interviews and national and international standard questionnaires. Data analysis was carried out using multinomial logistic regression and chi-square test.

Results: The prevalence of any psychiatric disorder among the selected population was 31.3%. Major depressive disorder (MDD) (21.6%), followed by generalized anxiety disorder (GAD) (6.4%) and dysthymia (1.9%) were the most prevalent disorders among the study individuals. The prevalence of alcohol and opioid/stimulant use disorders was 4.6% and 5.1%, respectively. Moreover, there was significant relationship between location of residence (city or village) and marital status with prevalence of the disorders.

Conclusion: Based on the results of the current study, it can be concluded that the prevalence of mental and psychiatric disorders among the youth in Ravansar district, western Iran is relatively high and needs specific plans and interventions to control it

Keywords: Mental disorders, Mental health, Prevalence

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Introduction

Mental disorders and substance abuse are considered as major problems of the global health.¹ These disorders will often lead to disability and human burden.^{2,3} Previous studies have been shown that mental disorders impose huge financial burden on the community.^{4,6} It is claimed that the costs of mental disorders are increasing as it could account for 15% of the healthcare costs.⁷ The complications and consequences of mental disorders for community members can impact on quality of life and disrupt the functioning of afflicted individuals. For instance, according to the World Health Organization (WHO), depression is the fourth leading cause of disability and morbidity worldwide due to its multifaceted consequences and it is predicted that this ranking will climb to the second in 2020.⁸

The most common of psychiatric disorders are depressive disorders (with a prevalence rate of 10%–25%, 5%–12%, and 12% among women, men and general population respectively),^{9,10} and anxiety disorders (with a prevalence rate of 3.4–7.5%).¹¹ The results of a

meta-analysis have shown that the prevalence of mental disorders is generally high and people around the world are affected by these disorders. This study emphasized the importance of regional studies on the prevalence rate of mental disorders.¹²

During the recent decades, Iran has faced major and rapid social, economic, and demographic changes, currently, studies have shown that more than 70% of the total population are urban and youth make up a large share of the total population.¹³ Assessing the effects of these changes on the young people can help improve the planning process. Studies in Iran have reported a prevalence rate of 11% to 24% for mental and psychiatric disorders.^{14,15} Another study has reported the prevalence rate of psychiatric disorders in Iran as 23.6%.¹⁶ These statistics have been obtained around the country; however, in order to perform more accurate planning, we require the specific statistics of various regions of the country. Kermanshah province is located in west of Iran and based on the 2015 national census, the Kermanshah province

has a population of 1 952 434, which consists of 2.44% of the country population. The average household size in Kermanshah is 3.4, and about 76% of the population is living in the urban areas.¹³

According to the results of a study in Kermanshah city, 39.1% of randomly selected individuals were positive for psychiatric disorders.¹⁷ The results of another study showed an increase in suspected cases of mental disorders in Iran from 1999 to 2015.¹⁸ According to the study that was performed by Noorbala et al,¹⁸ the prevalence of mental disorders in Kermanshah province was 19.2% in 1999, while increased to 26.2% in 2015. Appropriate planning for providing mental healthcare services in the community requires basic information, epidemiological studies, and understanding the consequences. The purpose of this project is to conduct an epidemiological study on mental disorders in the Ravansar, to draw the attention of healthcare, educational and social care providers to the importance of psychological problems as well as providing the basic mental healthcare services for residents of this area. Moreover, it seems that there is need for identification of the populations who are susceptible to mental illness in order to take the necessary measures to prevent these disorders. Therefore, the current study was conducted to evaluate the prevalence of psychiatric disorders and its associated factors among the young people in Ravansar district in Kermanshah province of Iran.

Materials and Methods

Design and Background

The “Youth” cohort is one of subsets the Prospective Epidemiological Research Studies in Iran (PERSIAN) cohort, which is a national cohort study that started in 2014. The PERSIAN “Birth”, “Youth” and “Elderly” cohort are carried out along with the PERSIAN cohort (<http://www.persiancohort.com/aboutus/>). The “PERSIAN Youth” cohort is a longitudinal study, which aims to assess the incidence of mental disorders and its correlated factors. Common mental disorders, suicide, substance use disorders, aggression, injuries, and service utilization have been focused in this cohort. In this prospective study, the participants are followed-up for at least 6 years using phone and face-to-face interview.

Study Population

The data in the current cross-sectional study is related to the subjects from Ravansar as a part of the “Youth” cohort. Kurdish is the largest ethnic group among the residents in Ravansar and there are also not many immigrants in this city. Moreover, the geographical location, and proximity to the capital of Kermanshah province have been important factors for choosing this area for this study. According to the last national census in 2016, the population of this city district was around 50 thousands. At the time of the study, there were three urban and two rural healthcare centers as

well as 32 additional active health houses in this city. Given the fact that the target population of the “Youth” cohort includes 15 to 34-year-old individuals in urban and rural areas of this region, 3000 of those were entered into the study. This sample size was determined using 80% power if alpha equals 0.05 (incidence in non-exposed = 0.03; exposed = 0.02). These randomly selected subjects include the majority of the young population in this region. There was a full list of young people, so, a random sample of 3000 people was selected. After selecting the subjects, they were invited to attend the study. The purpose of the study was explained to them, and they came to the centers to interview and complete the questionnaires.

The age range between 15 to 34 along with at least six months of residence in this city before interview, as well as having Iranian nationality and being available during recruitment, were the inclusion criteria for the study. Individuals who lived in the city temporally (e.g. for study or temporary job) and those with severe medical or psychiatric illness have been excluded. There was no limit for illiterate.

However, 9 individuals were excluded from the study due to failure to successfully complete the questionnaires.

Data Collection

Individuals’ enrollment and data collection for the first phase of the study were carried out from April 2015 to April 2017. In order to assess the prevalence of psychiatric disorders including major depressive disorder (MDD), persistent depressive disorder (PDD or dysthymia), generalized anxiety disorder (GAD), and obsessive-compulsive disorder (OCD), as well as substance use disorders (including opioids, stimulants and alcohol use disorders), a structured interview (Composite International Diagnostic Interview [CIDI], version 2.1) based on DSM-IV-TR was used. Another instrument used in the current study was the socio-demographic information collection.

Data collection and interviews were performed by two psychologists who were fully trained different subjects all related subjects of study objectives, general interview techniques, ethical consideration and administration of questionnaire packages. Each interview took an average of 100 minutes and 10 participants were invited to a healthcare center each day for interview. After obtaining an informed consent form for participating in the study and providing the necessary guarantees to the participants ensuring them of the confidentiality of their information, the data were collected from each one of the participants in the cohort center located in Ravansar city. The participants’ answers were immediately recorded online in the electronic database connected to the central server of the “Youth” cohort. A general physician has monitored the daily progress of study. Local supervisors and the main study team in Tehran continuously supervised the whole process, monitoring and cleaning the data, and providing

the feedback. The supervision and monitoring are an ongoing process and continues for the subsequent follow-ups.

Socio-Demographic Information and Family History Form

Socio-demographic information includes gender, age, number of years of education completed, marital status (single, married, divorced/widowed), occupational information, and insurance status. Moreover, self-reported family history of any psychological disorders was also recorded. The psychological histories of immediate family members including spouse, parents and grandparents, children and grandchildren, brothers and sisters, mother and father in law, brothers and sisters in law, daughters and sons in law were recorded either with or without the diagnosis of a healthcare professional.

Composite International Diagnostic Interview

The lifetime version of the CIDI (version 2.1) was used for diagnosing psychological disorders along with the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) and the tenth revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10). This method has been designed by the World Health Organization (WHO) for the use of experienced interviewers.¹⁶ The Persian version of this method has sufficient validity except for psychoses.¹⁹ This structured interview has appropriate inter-rater reliability and acceptable re-testability in various cultures and languages.²⁰

Data Analysis

All the statistical analyses were carried out using SPSS 20 (IBM Corp, Armonk, NY, USA) software. The statistical significance was defined as *P* value less than 0.05. The data related to continuous variables were reported as mean and standard deviation and categorical data were reported as value and percentage.

In order to evaluate the difference between the groups, since the mental disorders are categorical, we used the chi-square test. In the next step, multinomial logistic regression analysis was used for evaluating the associated factors of the mental disorders. All socio-demographic variables including gender, age, marital status, education level, and residence were entered into the model simultaneously. The results of this study were presented as adjusted odds ratios (OR) with 95% confidence intervals (CI).

Results

Fifty five point six percent of all participants (2991 people) were female and 44.4% were male. The selected subjects were in the age range of 15 to 34 years with average age of 27.02 ± 5.06 . Demographic information of participants is

presented in Table 1.

According to the results presented in Table 2, the lifetime prevalence percentage of GAD, OCD, MDD, dysthymia, alcohol use disorder, and any substance use disorder were 6.4%, 7.6%, 21.6%, 1.9%, 4.6%, and 5.1%, respectively. The lifetime prevalence of any psychiatric disorder among the study populations was 31.3%. Moreover, the results revealed that among the psychiatric disorders, prevalence of MDD was higher than other disorders. Based on the chi-square analysis, there was no significant difference regarding the prevalence rate of GAD and dysthymia between men and women. However, the prevalence rate of all other disorders and general prevalence of any psychiatric disorder were significantly different across the gender. Table 3 presents the prevalence percentage of psychiatric disorders based on demographic variables.

The results in Table 3 show that there is no significant difference in prevalence of any psychiatric disorder between age groups and education groups. In the other words, there is no relationship between age and education level and psychiatric disorders. However, the results show that the prevalence rate of psychiatric disorders was higher among the urban population compared to the rural population (OR=1.48). Furthermore, there was a significant difference in the prevalence of any psychiatric disorder in marital status. The prevalence of mental disorders among individuals with a history of past marriage was higher

Table 1. Socio-demographic Characteristics of Participants Included in Analyses

Characteristics	No.	%
Age (y)		
15–19	313	10.5
20–24	610	20.4
25–29	902	30.2
30–34	1166	39
Sex		
Female	1663	55.6
Male	1328	44.4
Education		
Illiterate	11	0.4
Primary school	481	16.1
Middle school	530	17.7
High school	1222	40.9
University	747	25
Occupation		
Employed	1098	36.7
Unemployed	280	9.4
Student	324	10.8
Housewife	1289	43.1
Residence		
Urban	1675	56
Rural	1316	44
Marital status		
Never married	1227	41
Married	1668	55.8
Previously married	96	3.2

Table 2. Prevalence of Psychiatric Disorders in Lifetime According to Sex

Psychiatric disorders	Total No. (%)	Female No. (%)	Male No. (%)	P Value
Any psychiatric disorder	936 (31.3)	515 (31)	421 (31.7)	0.67
Generalized anxiety disorder	190 (6.4)	108 (6.5)	82 (6.2)	0.059
Obsessive-compulsive disorder	226 (7.6)	150 (9.0)	76 (5.7)	0.003
Major depressive disorder	646 (21.6)	385 (23.2)	261 (19.7)	0.023
Dysthymia	57 (1.9)	34 (2.0)	23 (1.7)	0.329
Any substance use disorder (opioid, stimulant, alcohol)	152 (5.1)	3 (0.2)	149 (11.2)	< 0.001
Alcohol use disorders	137 (4.6)	2 (0.1)	135 (10.2)	< 0.001
Alcohol abuse	64 (2.1)	1 (0.1)	63 (4.7)	< 0.001
Alcohol dependence	73 (2.4)	1 (0.1)	72 (5.4)	< 0.001
Opioid use disorders	28 (0.9)	1 (0.1)	27 (2.0)	< 0.001
Opioid abuse	6 (0.2)	0	6 (0.5)	<0.001
Opioid dependence	22 (0.7)	1 (0.1)	21 (1.6)	< 0.001
Stimulant use disorders	6 (0.2)	1 (0.1)	5 (0.4)	0.094
Stimulant abuse	0	0	0	—
Stimulant dependence	6 (0.2)	1 (0.1)	5 (0.4)	0.094

Table 3. Prevalence Percentage of Psychiatric Disorders Based on Demographic Variables (95% CI)

Characteristics	GAD	OCD	MDD	Dysthymia	Substance	Alcohol	Total
Age							
15–19	4.5 (2.2–7)	9.3 (6.1–12.5)	20.4 (16.3–24.9)	0.6 (0–1.5)	4.5 (2.2–6.7)	4.5 (2.6–7)	28.8 (24–33.5)
20–24	7 (4.9–9.3)	10 (7.7–12.6)	23.8 (20.5–27)	0.8 (0.2–1.6)	5.7 (3.9–7.7)	5.6 (3.9–7.4)	32.8 (29–36.6)
25–29	7 (5.4–8.8)	5.4 (4–7.1)	20.3 (17.8–23.1)	2.7 (1.7–3.8)	5.9 (4.3–7.3)	5.5 (4.2–7.1)	31.4 (28.5–34.6)
30–34	6 (4.7–7.5)	7.5 (5.9–9)	21.8 (19.4–24.4)	2.2 (1.4–3.2)	4.3 (3.1–5.6)	3.3 (2.3–4.5)	31.1 (28.6–34)
P-value	0.04	0.01	0.41	0.002	0.32	0.06	0.66
Education							
Illiterate	0	0	9.1 (0–27.3)	0	0	0	9.1 (0–27.3)
Primary school	6.4 (4.4–8.7)	8.5 (6–11.2)	20.8 (17.3–24.3)	3.1 (1.7–4.6)	1.7 (0.6–2.9)	1.5 (0.4–2.7)	31.2 (26.6–35.1)
Middle school	5.8 (4–7.7)	8.1 (5.8–10.4)	18.9 (15.5–22.5)	1.5 (0.6–2.6)	5.3 (3.4–7.2)	4.5 (2.8–6.4)	30.6 (27–34.3)
High school	6.3 (4.9–7.8)	7.6 (6.1–9.1)	22.7 (20.4–25)	1.7 (1.1–2.5)	6.1 (4.8–7.4)	5.3 (4.1–6.6)	31.6 (28.9–34.5)
University	6.8 (5.1–8.6)	6.6 (4.8–8.3)	22.5 (19.4–25.4)	1.7 (0.8–2.8)	5.6 (4–7.4)	5.5 (3.9–7.4)	31.7 (28.5–35.1)
P-value	0.29	0.87	0.32	0.43	0.004	0.007	0.60
Residence							
Urban	6.8 (5.6–8.1)	7.6 (6.3–8.8)	24.7 (22.7–26.7)	2 (1.4–2.8)	5.7 (4.5–6.9)	5.3 (4.2–6.5)	34.5(32.2–36.7)
Rural	5.8 (4.6–7.1)	7.5 (6–9)	17.6 (15.6–19.7)	1.8 (1.1–2.6)	4.3 (3.2–5.4)	3.6 (2.6–4.6)	27.3 (24.8–29.7)
P-value	0.34	0.31	0.001	0.35	0.07	0.03	0.001
Marital status							
Never married	6.4 (5.1–7.9)	6.8 (5.5–8.4)	21.4 (19–23.5)	1.5 (0.9–2.3)	7.7 (6.1–9.1)	7.5 (6–9)	31.5 (29–34.1)
Married	5.9 (4.9–7)	7.9 (6.5–9.2)	20.3 (18.5–22.2)	1.9 (1.3–2.6)	3.2 (2.5–4.1)	2.6 (1.8–3.4)	29.5 (27.3–31.7)
Previously married	13.3 (7.1–19.4)	0	46.9 (38.8–57.1)	6.3 (2–11.2)	4.2 (1–8.2)	2.1 (0–5.1)	57.3 (48–67.3)
P-value	0.001	0.53	0.001	0.001	0.001	0.001	0.001

GAD, Generalized anxiety disorder; OCD, Obsessive-compulsive disorder; MDD, Major depressive disorder; substance, any substance use disorder (opioid, stimulant, alcohol); alcohol, alcohol use disorder; Total, any psychiatric disorder.

(58.2%) than married subjects (29.5%).

Discussion

The current study aims to evaluate the prevalence rate of psychiatric disorders and their associated factors among the young people in Kermanshah province of Iran. The results of this study have shown that the prevalence rate of GAD, OCD, MDD, PDD, alcohol use disorder,

and any substance abuse disorder (opioid, stimulant, alcohol), in these selected population were 6.4%, 7.6%, 21.6%, 1.9%, 4.6%, and 5.1% respectively, and also the general prevalence of any psychiatric disorder among the individuals of the present study was 31.3 percent. Moreover, the results show that among the all mental disorders, the prevalence rate of MDD was higher than other disorders.

Table 4. Socio-demographic Correlates of Psychiatric Disorders (OR, 95% CI)

Characteristics	GAD	OCD	MDD	Dysthymia	Substance	Alcohol	Total
Sex							
Female	1.05 (0.78–1.42)	1.63 (1.22–2.17)	1.22 (1.02–1.46)	1.18 (0.69–2.02)	0.01 (0.004–0.04)	0.01 (0.002–0.04)	0.96 (0.82–1.12)
Male	1	1	1	1	1	1	1
Age							
15–19	1	1	1	1	1	1	1
20–24	1.67 (0.88–3.17)	0.98 (0.60–1.60)	1.27 (0.90–1.80)	1.36 (0.26–7.25)	1.92 (0.98–3.77)	1.84 (0.93–3.63)	1.28 (0.94–1.75)
25–29	1.69 (0.89–3.2)	0.47 (0.28–0.80)	1.04 (0.74–1.49)	0.66 (0.32–1.37)	2.33 (1.20–4.53)	2.24 (1.14–4.38)	1.21 (0.88–1.64)
30–34	1.52 (0.79–2.93)	0.64 (0.38–1.07)	1.24 (0.87–1.77)	0.54 (0.23–1.27)	1.86 (0.91–3.8)	1.55 (0.75–3.24)	1.25 (0.91–1.72)
Education							
Illiterate	0	0	0.37 (0.05–3.01)	0	0	0	0.20 (0.02–1.62)
Primary school	1	1	1	1	1	1	1
Middle school	0.88 (0.51–1.49)	1.02 (0.65–1.62)	0.88 (0.64–1.21)	0.49 (0.20–1.19)	1.19 (0.51–2.77)	1.04 (0.42–2.56)	0.90 (0.68–1.19)
High school	0.98 (0.61–1.55)	0.91 (0.60–1.39)	1.10 (0.83–1.46)	0.66 (0.32–1.37)	1.12 (0.51–2.49)	0.95 (0.41–2.22)	0.93 (0.73–1.20)
University	0.94 (0.56–1.58)	0.93 (0.57–1.51)	1.01 (0.74–1.39)	0.54 (0.23–1.27)	0.66 (0.29–1.53)	0.62 (0.25–1.49)	0.84 (0.63–1.11)
Residence							
Rural	1	1	1	1	1	1	1
Urban	1.23 (0.90–1.68)	1.03 (0.78–1.37)	1.60 (1.32–1.93)	1.24 (0.71–2.17)	1.43 (1–2.05)	1.56 (1.06–2.028)	1.48 (1.25–1.74)
Marital status							
Never married	1	1	1	1	1	1	1
Married	0.84 (0.89–1.21)	1.25 (0.88–1.76)	0.87 (0.70–1.08)	0.79 (0.41–1.52)	0.55 (0.36–0.86)	0.47 (0.29–0.75)	0.85 (0.70–1.03)
Previously married	2.14 (1.1–4.15)	1.58 (0.77–3.25)	3.15 (2.01–4.92)	2.83 (1.04–7.73)	1.64 (0.52–5.21)	0.76 (0.16–3.46)	2.93 (1.89–4.56)

Adjusted: sex, age, education, residency, and marital status. The levels of the outcome for multinomial logistic regression analysis for total groups were absence of psychiatric disorders.

Another previous study that was performed in Kermanshah, by using the GHQ-28 (general health questionnaire) has been shown that, the prevalence of mental disorder in social functioning, anxiety disorders, somatic complaints and depression were 58.9%, 47.6%, 41.4%, and 28% respectively,¹⁷ which is in contrast with the results obtained from our study. However, the tool used in our study (lifetime version of the CID, version 2.1) was different from the above study (GHQ-28), which can explain the discrepancy between the results.

Another study based on DSM-IV criteria in Iran, demonstrated that 23.6% of the participants were suffering from at least one of the psychiatric disorders. Accordingly, the highest prevalence rate was found for anxiety disorders (15.6%) and mood disorders had a prevalence rate of 14.6%. Among the disorders, MDD had a prevalence rate of 12.7%, and the prevalence of GAD and OCD were 5.2% and 5.1%.¹⁶ Compared to the results of our study, the prevalence rate of psychiatric disorders in our study was higher and MDD had a higher prevalence rate inverse to this study, in which, anxiety disorders had more prevalent (15.6%).

The results of previous studies in countries with similar cultural and geographical conditions with Iran (Middle East) show that the general prevalence rate of mental disorders in Lebanon is 16.9% and in Iraq, the prevalence was 13.6%.^{21,22} In European countries, the history of suffering from mood disorders is 15% and for anxiety

disorders, it is 13.6%.²³

In Iran based on the criteria of DSM-IV and DSM-V, the prevalence rates of any illicit drug abuse are 2.09 and 2.44, respectively and the prevalence of opioid use disorders is higher than other similar disorders.²⁴ Compared to the results of our study, substance abuse disorder has a lower prevalence. Previous studies have reported high values for the prevalence rate of substance abuse in Iran.^{16,20,24} However, the prevalence rate of substance and drug abuse was low in our current study, furthermore, in the case of alcohol, we saw a different pattern too. This can be attributed to the proximity of the sample of the study to the border with Iraq, facilitating access to alcoholic beverages.

Compared to previous studies in Iran and other countries, we are facing a high prevalence rate (31.3%) of psychiatric disorders; however, the prevalence pattern is different.

The social background and context of individuals are the most important predictors of the health and wellbeing.²⁵ In other words, providing a realistic profile of the health status of the community will not be possible if the social and cultural conditions of the living environment are not considered. The reality is that in the selected population of this study, we are facing a population with different cultural, social, and geographical structures.

In our study, the subjects have been selected from a homogenous population. Immigration to this region is

very low, and the economic conditions of people in this region are almost equal and are not satisfactory. The pace of modernization and globalization is slow and people of this area are considered a minority due to their language and religion. These issues are examples of the differences between our study participants with previous studies, and it is conceivable that the reason behind the differences in the prevalence rate and type of psychiatric disorders.

Moreover, the results of the current study shown that there is no significant difference between male and female participants in the prevalence rate of GAD, dysthymia and also prevalence of any psychiatric disorders generally. An explained, according the data, these findings are not consistent with previous studies.^{16,23,26} But, regarding to alcohol and any substance abuse disorders, prevalence rate was higher among men compared women, like some previous studies in this field that prevalence of substance abuse among Iranian women was lower.^{24,27} A study in European countries, reported that prevalence rate of alcohol abuse is much higher in men.²⁸ The reason behind these differences can be related to cultural and social issues, for example, in Iran; usually women do not attend in parties without their family members. On the other hand, alcohol use for women in traditional societies is taboo and breaking this taboo may result in extreme social exclusions.

The results of a study in Iran showed the prevalence of alcohol consumption, at least once in the past 12-months, was 5.7%. The prevalence of 12-month alcohol use disorders was 1% according to DSM-IV and 1.3% according to DSM-V criteria.²⁹

Furthermore, the results of our study shown that there is no significant difference between age groups within term of any psychiatric disorders prevalence. This means there is no relationship between age and psychiatric disorders. However, the results showed that there is a relationship between age and dysthymia. The prevalence of MDD for the age group of 25–29 years was higher than other age groups and prevalence of dysthymia was higher in the age group of 30–34 years old.

Furthermore, our finding showed that there is no significant difference in psychiatric disorder prevalence among various educational groups, so means that there is no relationship between education level and psychiatric disorders, that was different from the results of some past studies,^{12,30-32} which showed that people with lower levels of education were suffering from more psychiatric disorders.

Our results showed that the prevalence of psychiatric disorders among urban populations is higher than rural areas. Like our study, the results of another study showed that the prevalence of mental disorders in urban areas was higher.¹⁸ The higher levels of psychiatric disorders in urban areas may have various reasons including lack of social support, difference in lifestyle, changes in family

structures, and poverty.

Moreover, the results shown that there is a significant difference in the prevalence of psychiatric disorders with marital status. The prevalence of all mental disorders was higher among those who had a history of past marriage (57.3%) and was lower among married individuals. In order to explain these results, it is worth noting that divorce or the death of one's spouse play an important role in reducing mental health due to psychological and mental pressures due to loneliness and reduced social support. Studies have shown that in communities where marriage is emphasized, being married is related to lower anxiety and depression and a lower risk of suicide and mortality.³³ However, the results of another study²⁴ showed that marital status is not related to psychiatric disorders.

Performing a study with this large sample size is unprecedented, particularly in western Iran. Those who enter the PERSIAN Youth Cohort, will receive a number of free diagnostic services. In order to control bias, the results of the volunteers for participating in the study were eliminated. Moreover, using structured standard diagnostic interviews, the accuracy of epidemiological findings will increase. Despite these strengths, the total sample size of this study was only one-third of the national sample size and if the analysis is performed on all 9000 individuals, the accuracy and generalizability of results would improve. As mentioned earlier, this study started in 2014. Therefore, we used structured interviews based on DSM-IV, but our suggestion for future studies is DSM-V format. Furthermore, the current analysis was performed based on life-time prevalence of psychiatric disorders and repeating the analysis with the 12-month prevalence of these disorders may also be useful.

Based on the results of the current study, it can be concluded that psychiatric disorders are highly prevalent among the youth in Kermanshah province of Iran and among these disorders, MDD is more prevalent. Moreover, it can be said that the prevalence of psychiatric disorders is higher among the urban population. Since depressive disorders are among the reasons behind disability and account for a large portion of healthcare costs,³⁵ we have to take the necessary measures for preventing and treating these disorders. This point should be the core focus of governmental authorities and it should be considered in planning and policy making processes of the government.

The number of cases in some of the subgroups in events such as substance use disorder and alcohol use disorder, may be lead to sparse-data bias, and this makes it difficult to interpret logistic regression results.^{34,35} Therefore, one of the limitations of the study is the likelihood of sparse-data bias because of the low number of events in the subgroups.

Authors' Contribution

HK performed the research, BH and FN collected the data and provided the first reports. ARM and MAE designed and supervised

the research, AZ, SK and MMN interpreted the analysis and wrote the final manuscript. AC analyzed the data and provided tables and figures, and contributed to the draft. YP contributed to the discussion and critical revision of the manuscript.

Conflict of Interest Disclosures

None of the authors had any personal or financial conflicts of interest.

Ethical Statement

Approval of the study was obtained from the Kermanshah University of Medical Sciences, Kermanshah, Iran.


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