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Epidemiology of Drug Abuse and Drug Dependence in Individuals Visiting Drug Abuse Treatment Centers in Kermanshah Province in 2013

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ABSTRACT

This study aimed to determine drug consumption and dependence in those visiting drug abuse treatment centers in Kermanshah province in 2013. This study was a cross-sectional study that was conducted on those visiting drug abuse treatment centers in Kermanshah province voluntarily during the year 2013. Using checklist, information was collected from the files of the individuals by trained experts and, if necessary, by asking individuals, physicians or the experts of the center. The analysis was performed using SPSS version 16. Overall, 2652 patients' information (in 80 centers) was studied. The mean age of individuals was 37.98 (± 11.18) years and more than 97% of the individuals were male. Opium, tramadol and hashish were the most frequently used substances that were consumed for the first time by the individuals. The mean of years of use for traditional (natural) substances was much more than that for synthetic substances. Proportion of drug use did not differ between men and women. However, the proportion of synthetic materials and non-narcotic substances was significantly different. Based on the results it can be said that drug abuse is more prevalent among young individuals, educated individuals and those with family history. Since the synthetic drug abuse is increasing, new strategies for prevention of access to these drugs and treatment should be a priority in the related programs.

Key words: Drug abuse, Drug addiction, Drugs, Synthetic drugs

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1. INTRODUCTION

Nowadays drug abuse and drug addiction are considered as health, social, economic and cultural problems in most countries and they are creating serious concerns as devastating phenomena that destruct human capitals (1). The increase of drug use, similar to some epidemic diseases, has exceeded expectations and thus many sources refer to it as an epidemic (2). This, despite of macro planning, policy-making and necessary actions, destroys millions of lives and costs states considerable sum of money to compensate. This problem quickly goes beyond all social and cultural boundaries and threatens human health (3). Drug abuse does not only ruin the lives of individuals, but also threatens norms and values of the society. UN statistics in

1989 showed that 49 percent of the homicides, 68 percent of the fights leading to murder, 50 percent of the deaths in car accidents, 20 to 35 percent of suicides, 52% of sexual assaults, 50 percent of domestic violence, and 38% of child abuse were associated with drug abuse (4). The interaction of the process of transition from developing and traditional society to industrial society in Iran with the unique cultural and social characteristics has resulted in significant problems such as drug addiction. Given the centuries-old history of opioid use in Iran, the severity of the vulnerability of the society can be understood (5). Among the population of 14 million Iranians before the revolution, there were 1.5 million addicts and drug control center reported that in 1997 there were 2 million drug addicts in Iran (6). During the 80s and 90s, the average annual

growth rate of drug abuse was 8 percent. It means that the rate has doubled every 12 years. Considering the fact that the rate of population growth in that time has been 2.63 on average, the growth rate of drug abuse has been three times that of the population growth (7). United Nations Office on Drugs and Crime (UNODC) has considered the addiction as one of the four crises in the world and it has considered Iran to be among high-risk countries (8). According to estimates of this organization in 2007 around 172-250 million people ages 15-64 years old have used at least one illegal substance. Patterns of drug abuse in different parts of the world are different. Cannabis (Hashish) has the highest number of consumers, most of them in North America, Western Europe and Oceania. Amphetamines (Southeast Asia), cocaine (North America, Western and Central Europe and South America) and opiates (Afghanistan) are next in the ranking (9). In the 90s in Iran, the drug use in the form of injection has increased by about 33% per year (7). In Iran, opium and its derivatives had the highest number of reports on. However, no study has been conducted, so far, on the population of the country in relation to drug abuse (6). Drug use in men and women in developed and developing countries are different from each other in a way that 35 percent of men and 25 percent of women in developed countries and 50% of men and 9% of women in developing countries consume tobacco. The percentage of women in developing countries is continuously increasing. Eastern Mediterranean region, as a region that is very important in the transport of drugs and also as a region with countries that have rapid social change and conflicting positions regarding each other, is increasingly at risk of health, economic and social problems of drug addiction and drug consumption (10). In a study by Palo et al in 2007 titled "epidemiology of substance abuse among professional college students of Berhampur town", 32.5% of men and 4.5% of women reported drug abuse. 18.7% of the population had consumed cannabis and other drugs (11). In Mokri's study in 2002 that was conducted with the aim of looking at the situation of drug abuse in Iran, the results showed that the mean age of drug abusers was 33 years and the average age of onset was 22 years. Also, more than 90 percent of the drug abusers were men and more than 50 percent of them were married and more than 80 percent reported that they were employed. In these cases, opium was the most widely consumed substance and heroin and opium sap were the next most widely consumed drugs respectively (2). In a study by Shekarchizadeh et al. in 2013 titled "patterns of pre-treatment of drug abuse, drug treatment history and characteristics of addicts in methadone maintenance treatment in Iran" the results clearly showed that the number of men was more than that of women and more than 60 percent of the individuals were between 25 and 44 years old. Also, 89% had education higher than primary education and more than 70 percent were employed. The most common drugs abused were opium and crystal heroin (12). Ziauddin's study in 2005 in Dashte Khak region of

Kerman province showed that drug use was more common in than in women and opium with 17.1 percent was the most commonly used drug and analgesic, heroin and hashish were next in the ranking (6). In a study that was conducted by Behdani et al. from 2005 to 2006 to determine the demographic characteristics of patients undergoing methadone treatment in Hejazi hospital in Mashhad, the results showed that 96.6 of the individuals were male and 3.4 percent were female. The patients were in the age group of 31-49 years and those with diploma education and full-time jobs were the highest percentage. Inhalation method with 52.6 percent was the most common method and oral with 5/19%, inhalation and oral with 12.1% and injection with 8.6 percent were next in the ranking; also 5/59 percent of people consumed crystal methamphetamine (13). In the study of Azizi et al. on drug addicts that voluntarily visited the addiction unit of Farabi Hospital, the average age of addicts was 31.82 years and 49% of them were married. 87% of the addicts were experiencing their first effort for quitting, 85% were employed and 66.5 of them had lower than diploma education. The most commonly used substance was heroin with the percentage of 48.6 and the most common method was injection with 33.1 (14). As understanding the extent and frequency of illegal drug use in any population is the starting point for discussions of the relevant policies, exploring the public as a common practice to measure the prevalence of drug abuse as an important requirement in drug information systems is important in this context. If these studies are systematically repeated, they will be a good tool to identify trends of abuse over time. These studies can also provide basic information on the demographic and other drug-related risk factors and act as an early warning system (2, 6). According to what has been mentioned so far it can be said clearly that drug abuse is one of the priorities and issues in the international community and hence in our society. Through this research, in addition to gaining knowledge of the epidemiological situation and pattern of drug use in Kermanshah, the relevant authorities can be guided for fundamental policy making and planning.

2. MATERIALS AND METHODS

This study is a cross-sectional study conducted on patients visiting drug abuse treatment centers in the province of Kermanshah during the year 2013. Based on information from deputy of treatment of Kermanshah University of Medical Sciences in 2013, 80 addiction treatment centers were active in the province of Kermanshah and 70 units of them were in the city of Kermanshah and 10 units were in other cities of the province. Using checklist, information was collected from the files of the individuals and, if necessary by asking individuals, physicians or the experts of the center. The analysis was performed using SPSS version 16. After collecting checklists, data were analyzed using SPSS software and chi-square test and t-student test were used to examine the correlation.

3. RESULTS AND DISCUSSION

Overall, the information of 2652 individuals visiting substance abuse treatment centers was explored in 2013. The number of men was 2576 patients (97.1 percent) and

the number of women was 76 (2.9 percent); The mean age of patients was 37.98 (± 11.18) and median and mode were 36 and 31 years, respectively. The youngest patient was 17 years old and the oldest one was 90 years old. The particulars of individuals such as job, education, housing status and marital status are shown in [Table 1](#).

Table 1 . Frequency distribution of occupation, level of education, housing status and marital status for those visiting drug abuse treatment centers (n =2652) in Kermanshah province in 2013

Occupational status	Count	Percent
Unemployed	331	12.5
Self-employment	776	29.3
Employee	294	11.1
Driver	305	11.5
Technician	270	10.2
Veteran	13	0.5
Worker	268	10.1
Retired	106	4
Rancher, farmer	172	6.5
Housekeeper	61	2.3
University student	48	1.8
School student	8	0.3
Total	2652	100
Academic status	Count	Percent
Illiterate	115	4.3
Elementary	387	14.6
Middle school	769	29
High School	1005	37.9
Associate degree	138	5.2
Bachelor's degree	212	8
MA and Ph.D.	26	1
Total	2652	100
Residential status	Count	Percent
Personal	1968	74.2
Rental	658	24.8
Homeless	13	0.5
Other	13	0.5
Total	2652	100
Marital status	Count	Percent
Married	1721	64.9
Living separately	40	1.5
Death of spouse	18	0.7
Divorced	159	6
Single	714	26.9
Total	2652	100

Opium, with over 82% of use, was the most commonly used substance by individuals. After this substance, tramadol, hashish and opium sap with 5.2 percent, 4.1 percent and 3.2 percent respectively had the highest

frequencies of use. In [Table 2](#) shows the frequency of the history of different substances.

Table 2. The distribution of the frequency of drug use in those visiting drug abuse treatment centers in Kermanshah province in 2013

Substance used	Number (percentage)	The mean age of onset	Average years of use
Opium	2262(85.3)	24.1(7.68±)	12.4
Hashish	369(13.9)	19.5(5.7±)	3.4
Heroin	525(19.8)	25.1(7±)	8.5
Sap	1215(45.8)	26.8(8.6)	9.1
Hallucinogens	51(1.9)	23.1(4.7±)	1.6
Sedatives	231(8.7)	25.6(8.4±)	3.9
Methadone	207(7.8)	32.9(11.3±)	1.7
Amphetamines	21(0.8)	23.7(5.4±)	1.2
Methamphetamine	393(14.8)	28.5(6.9±)	2
Cigarette	2112(79.6)	20.8(5.9±)	17
Hookah	120(4.5)	18.35(2.8±)	7.4
Alcohol	351(13.2)	19.2(5.7 ±)	5

In those visiting drug abuse treatment centers, based on Chi-squared test, there was a significant relationship only between the method of use (smoking, injection, inhaling and oral) of heroin and gender ($P < 0.05$). Thus, among women using heroin no cases of oral and injection methods of use was found. In comparison of the consumption ratio

between genders, ratio of use of hashish, Sap, methamphetamine, cigarette and alcohol was significantly different between men and women ($P < 0.05$). Use of other drugs did not differ between men and women (Table 3).

Table 3 . The relationship between gender and the type of the substance used in those visiting drug abuse treatment centers in Kermanshah province in 2013

Type of substance	Gender	Consumption(percent)		X ²	P-value
		Yes	No		
Hashish	men	369(14.3)	2207(85.7)	12.64	0.000
	women	0	76(100)		
Opium	men	2198(85.3)	379(14.7)	0.003	0.954
	women	65(85.5)	11(14.5)		
Heroin	men	516(20)	2060(80)	3.12	0.077
	women	9(11.8)	67(88.2)		
Opium sap	men	1192(46.3)	1384(53.7)	7.62	0.006
	women	23(30.3)	53(69.7)		
Hallucinogens	men	51(2)	2525(98)	*-	0.402
	women	0	76(100)		
Amphetamines	men	21(0.8)	2555(99.2)	-	1
	women	0	76(100)		
Methamphetamine	men	390(15.1)	2186(84.9)	7.33	0.007
	women	3(3.9)	73(96.1)		
Sedatives	men	226(8.8)	2350(91.2)	0.447	0.504
	women	5(6.6)	71(93.4)		
Methadone	men	198(7.7)	2378(92.3)	1.77	0.183
	women	9(11.8)	67(88.2)		
Cigarette	men	2087(81)	489(19)	105.42	0.000
	women	0	0		

Hookah	women	25(32.9)	51(67.1)	-	0.581
	men	118(4.6)	2458(95.4)		
Alcohol	women	2(2.6)	74(97.4)	11.93	0.001
	men	351(13.6)	2225(86.4)		
	women	0	76(100)		

*Since the Fisher's exact test was used, the chi-square value was not reported.

There was a significant relationship between smoking cigarette and use of many types of substances (hashish, opium, heroin, opium sap, methamphetamine and alcohol) (P <0.05). However, no significant relationship was found between smoking cigarette and use of hallucinogens, amphetamines, sedatives, methadone and hookah (P> 0.05) (Table 4).

Table 4 . The relationship between smoking cigarette and the type of substance used in those visiting drug abuse treatment centers in Kermanshah province in 2013

Type of substance used		Cigarette Consumption(percent)		X ²	P-value
		Yes	No		
Hashish	Yes	345(95.9)	15(4.1)	70.20	0.000
	No	1758(77)	525(23)		
Opium	Yes	1848(81.7)	414(18.3)	40.24	0.000
	No	264(67.7)	126(32.3)		
Heroin	Yes	477(90.9)	48(9.1)	50.81	0.000
	No	1635(76.9)	492(23.1)		
Opium sap	Yes	999(82.2)	216(17.8)	9.23	0.002
	No	1113(77.5)	324(22.5)		
Hallucinogens	Yes	45(88.2)	6(11.8)	2.37	0.124
	No	2067(79.5)	534(20.5)		
Amphetamines	Yes	18(85.7)	3(14.3)	...*	0.598
	No	2094(79.6)	537(20.4)		
Methamphetamine	Yes	351(89.3)	42(10.7)	26.63	0.000
	No	1761(78)	498(22)		
Sedative	Yes	195(84.4)	36(15.6)	3.56	0.059
	No	1917(79.2)	504(20.8)		
Methadone	Yes	174(84.1)	33(15.9)	2.70	0.1
	No	1938(79.3)	507(20.7)		
Hookah	Yes	99(82.5)	21(17.5)	0.63	0.426
	No	2013(79.5)	519(20.5)		
Alcohol	Yes	321(91.5)	30(8.5)	34.82	0.000
	No	1791(77.8)	510(22.2)		

*Since the Fisher's exact test was used, the chi-square value was not reported.

The results showed that there is a significant relationship between the age and type of material used in all substances.

Table 5 shows the aforementioned relationship.

Table 5 . The difference between mean age of consumption or lack of consumption of a substance in those visiting drug abuse treatment centers in Kermanshah province in 2013

Type of material	Mean age		P-value*
	Not consumed	Consumed	
Hashish	38.59(11.27±)	34.23(9.8±)	0.000
Opium	32.6(9.9±)	38.9(11.13±)	0.000
Heroin	38.26(11.49±)	36.85(9.7±)	0.01
Opium sap	37.2(11.5±)	38.92(10.7±)	0.000
Hallucinogens	38.2(11.16±)	26.64(4.35±)	0.000
Amphetamines	38.1(11.18±)	27.14(4.5±)	0.000
Methamphetamine	39.18(11.37±)	31.1(6.72±)	0.001
Sedative	38.16(11.12±)	31.63(9.55±)	0.000
Methadone	38.13(11.2±)	36.22(10.7±)	0.018
Cigarette	37.08(11.91±)	38.21(11.97±)	0.036
Hookah	38.28(11.24±)	31.67(7.24±)	0.000
Alcohol	38.24(11.37±)	36.24(9.63±)	0.002

*Mean and standard deviation were used to describe the variable and independent t-test was used to compare the two groups.

Based on Spearman's correlation analysis, a negative correlation (-0.073) and significance (p <0.001) between age at the time of first use, and family history were observed. Based on the regression model $Y = 25.25 + (-1.334) X$ was obtained (p <0.001). In this model, Y represents age at the time of first use and X represents family history. For the variable X a value of one means there was family history and a value of zero means there

was no family history. The mean age at the time of first use was 23.42 (±7.38) and the median was 22 years. Thus, the age at the time of first use was divided into the three subgroups including under 20 years, 20-25 years and over 25 years and comparison was performed (P = 0.013) (Table 6).

Table 6. Family history on the basis of age subgroups at the time of first use

Age at the time of first use, number(percentage)	Family History			Total
		Do not have	Have	
19.99<		519(61.6)	324(38.4)	843
20-24.9		558(67.1)	273(32.9)	831
≤25		633(67.6)	303(32.4)	936
Total		1710(65.5)	900(34.5)	2610

The mean of the interval between the age at the time of first use and age at the time of first quitting attempt was 6.3 (±5.1) and the median was 5 years. Minimum time was less than one year and maximum time was 45 years. Table

7 shows the relationship between the interval of age at the time of first use and age at the time of first quitting attempt with the type of substance used in those visiting the centers.

Table 7 . The relationship between the interval of age at the time of first use and age at the time of first quitting attempt with the type of material used in those visiting drug abuse treatment centers in Kermanshah province in 2013

Type of substance	The mean of the interval between the age at the time of first use and the age at the time of first quitting attempt		P-value
	Not consumed	Consumed	
Hashish*	5(3-9)	5(3-8)	0.733
Opium*	5(2-7)	5(3-9)	0.000
Heroin*	5(3-9)	5(3-8)	0.729
† opium sap	5.94(5.05±)	6.74(5.11±)	0.000
† Hallucinogens	6.33(5.12±)	5.23(3.5±)	0.129
†Amphetamines	6.31(5.1±)	5.61(4.07±)	0.534

Methamphetamine*	5(3-9)	5(3-8)	0.023
Sedative*	5(3-9)	5(2-7)	0.001
† Methadone	6.34(5.13±)	5.87(4.6±)	0.202

* Based on Mann-Whitney nonparametric test, Median (Interquartile range)

†Based on Z-test, Mean (Standard Deviation)

Based on Kruskal-Wallis test, lowest rank mean belonged to opium sap ($P < 0.001$) (Table 8).
to cannabis (hashish) and highest rank mean belonged to

Table 8. The difference between age at the time of first use for drugs in those visiting drug abuse treatment centers in Kermanshah province in 2013

The first consumed substance	N	Median of age at the time of first consumption (Interquartile range)	Mean Rank	df	P-value*
Opium	2175	22(19-28)	1370.13	8	0.000
Opium sap	84	24(18.25-29.5)	1433.64		
Hashish	108	18(17-21)	764		
Grass	6	20(16-24)	941		
Methamphetamine	24	23(18-27.75)	133.06		
Tramadol	138	19(17-24)	986.07		
Morphine	9	22(20-22)	1243.5		
Methadone	6	23(19-27)	1381.25		
Other	102	21(17-24)	1078.88		
Total	2652				

* Based on In Kruskal-Wallis nonparametric test

Also, based on the Spearman's correlation test, age at the time of first use has a positive and significant relationship with age at the time of first quitting attempt ($r = 0.752$, $P < 0.001$). It is natural that with the increase of age at the time of first use, age at the time of first quitting attempt is increased too. Therefore the relationship of age at the time of first use should be measured with considering the interval of age at the time of first use and age at the time of first quitting attempt and here Spearman's correlation shows a significant relationship and negative correlation ($P < 0.001$, $r = -0.178$). The data presented here show that those visiting drug abuse treatment centers in Kermanshah province in 2013 have mainly consumed opium, heroin and opium sap and most of them were men, young, married and self-employed and had at least high school education. The proportion of the unemployed in this study was lower than the values reported in previous studies in Mashhad (24.4%) and Tehran (15%), respectively (12, 13). This difference could be due to differences in the categorization of occupations and definition of unemployment in different studies. In our study all occupational groups have been pointed out while other studies only reported the relative status of being employed and unemployed. In the present study, about 65% of the individuals who were studied were married. And the majority of the individuals had high school and college education. In the study of Behdani in Mashhad 68/5 percent of the individuals were married and the majority of the individuals had diploma or upper secondary school education (49.1%) (13). Also, the study of Shekarchizadeh showed that 70% of the individuals were married and more than 89 percent had higher than primary education (12). In the study that was conducted by Vahdat Shariat Panahi in Tehran a large percentage of the cases were individuals with diploma and academic

education (15). However, unlike the present study and the studies mentioned, in the study of Meisami that was conducted in the rural area of Khush Rudpey in Babol county, most of the drug users were illiterate individuals and individuals with primary education and lower (16). The high number of married individuals with diploma and upper secondary school education in this study and similar studies can be due to these individuals' higher motivation and knowledge to quit drug abuse. In the present study, the most commonly used drugs by individuals were opium and opium sap. In the study of Shekarchizadeh in Tehran and Carolyn Day in Shiraz a similar trend has been reported (12, 17). However in the study of Behdani in Mashhad opium and its derivatives were in the second place, after crystal methamphetamine (18). In the study of Ziauddin in Kerman the use of opium and hashish had the highest frequency (6). In the last report of quick review of drug abuse in Iran in 2007, opium and heroin were reported as the most commonly used drugs (19). In our study, after opium, tramadol and cannabis are ranked second and third respectively while in the study of Carolyn Day heroin and hashish were ranked next (17). The high prevalence of opium use in our study compared to estimates in the World Drug Report 2011 may be due to the reason that the social stigmas perceived for self-reporting the use of this substance is less than those for other substances (20). The majority of the individuals in this study were men and this is very similar to the findings of other studies in large cities such as Tehran, Mashhad and Shiraz (12, 17, 18). These findings are similar to other studies conducted in the Eastern Mediterranean region (21-25). Explorations revealed that a comprehensive study on the prevalence of substance abuse among Iranian women has not been done so far and only such comparisons can be considered. On

the other hand, this study cannot be solely relied on for judging whether the low proportion of females is due to the limited number of female addicts in the society or due to secrecy and the reluctance of females to visit drug abuse treatment centers. The present study examined the differences in drug use between men and women and the results showed that the use of cannabis, opium sap, methamphetamine and alcohol was significantly higher in men than in women and in the inclination towards the use of other substance there was no significant difference between the two sexes. In the study of Vahdat Shariat Panahi in Tehran the use of all types of substances was reported to be more in men than in women (15). The mean age of the patients visiting drug abuse treatment centers in the present study was 37.98 years and it is higher than that of a similar study conducted in Shiraz (27 years) and lower than a similar study conducted in Tehran (40.5) (12, 17). Also, the studies conducted in other countries indicate the highest level of prevalence of drug abuse among the youth (21-23, 26). According to the report on drug abuse among the general population of Kerman by Ziaodini et al., no significant association between drug abuse and age was found (6). In the present study, the average age of consumers was significant different for all kinds of substances. A significant issue is the high average age of consumers of opium and opium sap as natural addictive substances. In this study, the mean age at the time of first use was 23.42 years old. In the study of Carolyn Day in Shiraz the mean age at the time of first use was 20 years, (17) and in the study of Shekarchizadeh in Tehran the mean age at the time of first use was 21.2 years for heroin and 26.2 years for opium (12). Also in the study of Razzaghi et al., about 80% of the individuals had started drug use before the age 35 (27). The results of the present study show a significant relationship between early age of onset of drug abuse and family history of drug abuse. Study of Carolyn Day in Shiraz reported that one third of the individuals studied had mentioned a history of drug abuse in their family (17).

4. CONCLUSION

According to the present study and some other studies it seems that the use of traditional substances is more than that of other materials. This result may be due to the fact that drug abuse treatment centers have been built for treatment of those addicted to traditional (natural) drugs not synthetic substances; therefore, it is important that these centers, in addition to their current activities, equip themselves with the tools needed to combat new and synthetic substances and include this in their own original programs. In fact, according to the results of the present study it can be stated that young and educated individuals and those that have a family history are considered as vulnerable groups and at risk of drug abuse in the society. Therefore, after the past several years of activities of the related organizations, it is necessary to revisit the programs that aim at combating addiction, towards an emphasis on

reducing demands as a new and effective method in conjunction with other activities, policies and programs for the young and educated individuals. Also, the role of the family in the formation of individuals' behavior and attitude should be considered. In addition, preventive methods in combating addiction should be pursued by holding training courses and providing warning regarding the outcomes of the use of drugs.

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AUTHORS CONTRIBUTION

This work was carried out in collaboration among all authors.

CONFLICT OF INTEREST

The authors declared no potential conflicts of interests with respect to the authorship and/or publication of this article.

REFERENCES

1. Dependence WECOD. WHO Expert Committee on Drug Dependence: thirty-third report: World Health Organization; 2003.
2. Mokri A. Brief overview of the status of drug abuse in Iran. Arch Iranian Med. 2002;5(3):184-90.
3. Fazel S, Bains P, Doll H. Substance abuse and dependence in prisoners: a systematic review. Addiction. 2006;101(2):181-91.
4. Zohoor A. Smoking and addiction among student of Kerman Bahonar University. Fundamentals of Mental Health. 2001;3(11-12):99-104.
5. Organization WH. Global tuberculosis control: WHO report 2010: World Health Organization; 2010.
6. Ziaaddini H, Ziaaddini MR. The household survey of drug abuse in Kerman, Iran. Journal of Applied Sciences. 2005;5(2):380-2.
7. Rahimi Movaghar A, Mohammad K, Razzagi E. Trend of drug abuse situation in Iran: a three-decade survey. Hakim Res J. 2002;5(3):171-81.
8. Kadkhodaei M, Akbari H, Sokut A. Substance Abuse in Addicts Referred to Public and Private Substance Abuse Treatment Centers. International Archives of Health Sciences. 2015;2(2):63-7.
9. Cohen DA, Reporting A. Substance Abuse and Mental Health Services Administration 6. 2015.
10. MONDIALE O. REGIONAL COMMITTEE FOR THE EM/RC52/R. 5 EASTERN MEDITERRANEAN September 2005 Fifty-second Session Agenda item 5 (c) SUBSTANCE USE AND DEPENDENCE. 2005.
11. Padhy GK, Das S, Sahu T, Parida S. Prevalence and Causes of Substance Abuse Among Undergraduate Medical College Students. Indian Medical Gazette. 2014:277.
12. Shekarchizadeh H, Ekhtiari H, Khami MR, Virtanen JI. Patterns of pre-treatment drug abuse, drug treatment history and characteristics of addicts in methadone maintenance treatment in Iran. Harm Reduct J. 2012;9(1):18.
13. Hosseini SH, Taghipour M, Tavakkoli M, Hamta A. Demographic Features of Patients in Methadone Maintenance Treatment, Referred To Private Mmt Clinic, Sari-Iran (2009-2010). Shiraz E Medical Journal. 2012;13(3):128-34.
14. Shepard CW, Finelli L, Alter MJ. Global epidemiology of hepatitis C virus infection. The Lancet infectious diseases. 2005;5(9):558-67.
15. Neff JL, Waite DE. Male versus female substance abuse patterns among incarcerated juvenile offenders: Comparing strain and social learning variables. Justice Quarterly. 2007;24(1):106-32.

16. Meysamie A, Sedaghat M, Mahmoodi M, Ghodsi S, Eftekhari B. Opium use in a rural area of the Islamic Republic of Iran. 2009.
17. Day C, Nassirimanesh B, Shakeshaft A, Dolan K. Patterns of drug use among a sample of drug users and injecting drug users attending a General Practice in Iran. *Harm reduction journal*. 2006;3(1):2.
18. Shahrababaki ME, Ziaaddini H, Doost AAH, Ghasemi M, Shahrababaki PE, Nouri RA, et al. Methadone Treatment in Iranian Opiate Addicts: A Preliminary Report. *Addiction & health*. 2011;3(1-2):53.
19. Jafari S, Rahimi-Movaghar A, Craib KJ, Baharlou S, Mathias R. A follow-up study of drug users in Southern Iran. *Addiction Research & Theory*. 2010;18(1):59-70.
20. Shekarchizadeh H, Khami MR, Mohebzi SZ, Virtanen JI. Oral health behavior of drug addicts in withdrawal treatment. *BMC oral health*. 2013;13(1):11.
21. Ali H, Bushra R, Aslam N. Profile of drug users in Karachi city, Pakistan. 2011.
22. Barrett ME. Correlates of illicit drug use in Karen villages in Northern Thailand. *Substance use & misuse*. 2003;38(11-13):1615-49.
23. Deng Q, Tang Q, Schottenfeld RS, Hao W, Chawarski MC. Drug use in rural China: a preliminary investigation in Hunan Province. *Addiction*. 2012;107(3):610-3.
24. Huang K, Zhang L, Liu J. Drug problems in contemporary China: A profile of Chinese drug users in a metropolitan area. *International journal of drug policy*. 2011;22(2):128-32.
25. Cengiz H, Dağdeviren H, Karaahmet Ö, Kaya C, Ekin M. Maternal and Neonatal Effects of Substance Abuse During Pregnancy: A Case Report. *Medical Bulletin of Haseki/Haseki Tıp Bülteni*. 2013;51(2).
26. Lu L, Fang Y, Wang X. Drug abuse in China: past, present and future. *Cellular and molecular neurobiology*. 2008;28(4):479-90.
27. Razzaghi EM, Movaghar AR, Green TC, Khoshnood K. Profiles of risk: a qualitative study of injecting drug users in Tehran, Iran. *Harm reduction journal*. 2006;3(1):12.