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# Drug abuse Pattern and Frequency of High Risk Behaviors of the Clients at Outpatient Addiction Treatment Centers

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## ABSTRACT

Today, the issue of addiction to narcotics or drug abuse has evolved into a global and a universal problem. This study was performed with the intention of determining the drug abuse pattern and high risk behaviors among the clients to DIC of Private sector of Rasht. This is a cross-sectional study in 2013. The questionnaire contained 10 general questions about demographic characteristics and 30 specific questions about drug abuse and its high-risk behaviors. This questionnaire was completed via interviewing the addicts. The reliability of the questionnaire was checked using Cronbach's alpha ( $\alpha=0.86$ ). SPSS software was used to analyze the results and, descriptive statistics such as frequency tables and inferential statistics including the chi-square test were used. The average age of patients was 38.8. Opium and crack were the most widely used narcotics among the subjects respectively before referring to DIC centers. In addition, 9.8% of them had a history of using injectable drugs among which 20.6% had used shared needle for injection. 80.9% had experienced sexual intercourse, among which 48.4% were unmarried. There was a significant statistical relationship between men and women ( $p=0.001$ ). There was a significant statistical relationship between running away from home and the consumption of narcotics ( $p=0.002$ ). Results also indicated that committing suicide had a positive significant relationship with the variations of age ( $p=0.001$ ) and the age of smoking onset ( $p=0.002$ ) and method of its use ( $p=0.003$ ). This study knows the following items as the main high-risk behaviors of addicts: taking narcotics by injection, using common syringe and needle, blood playing background, imprisonment background, making homosexual intercourses, suicide, and using no condom during sexual intercourse.

**Key words:** Drug abuse, High Risk Behaviors, Addiction Treatment

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## 1. INTRODUCTION

From the beginning of life, human has used narcotics to relieve his pains or at least to mitigate them (1). Today, the issue of addiction to narcotics or drug abuse has evolved into a global and universal problem. Statistical reports published by international organizations,

especially WHO, the International Narcotics Control Board (INCB) and UNESCO (United Nations Educational Scientific and Cultural Organization (2)) suggest that drug abuse is increasing globally. Addiction is an internal behavioral syndrome accompanied with a craving for narcotics,

permanent consumption of narcotics and craving for re-use of narcotics after taking no remedies (3). It is a psychological disorder with environmental, psychological and social dimensions. Theories on the etiology of addiction are highly mixed. Some emphasize genetic factors while others stress sociological and psychological dimensions of addiction (4). From the medical and psychological point of view, an addict is a patient with a disease that needs prevention (5). Today, a considerable part of human population is coping with drug addiction. According to National Survey of Drug and Health in 2007, about 9.9 million of Americans aging over 12 (8%) had consumed at least once a forbidden drug like marijuana, cannabis, cocaine, opium, heroin, hallucinogens and inhalants a month before the study (6). Drug dependence is more common among men than in women. For instance some studies carried out in Iran have reported that prevalence of addiction in men is 14.97 more than the prevalence of addiction in women (4). Although opium smoking had been long the typical method of drug abuse in Iran, the prevalence of injection has increased in the past two decades due to the ease of access of heroin (7). According to estimates, the addicted population of Iran is 2 million people. Studies on addiction have reported the highest frequency of addicts in the 20-35 age groups (4). An example of studies carried out in Iran and abroad is the one by ABBASI who concluded that inclination to addiction can be controlled to some extent by educating the society and entrepreneurship. Chen's study in 2009 revealed that addiction is more common in families with limited control on their children and their friends (8). Shargh believes that a set of personal, family, social, cultural and economic factors with different ratios influence an individual's inclination for addiction (9). Shogli, who has studied the behavior of injecting addicts, believes that it is necessary to concentrate more on programs aimed to deduce damages caused to groups that demonstrate high-risk behavior (10). A few studies have been conducted in Guilan Province. On the other hand, high-risk behavior patterns differ depending on demographic parameters and other social factors influencing drug users. Therefore, this study was aimed to determine drug abuse patterns and frequency of high-risk behaviors among those who visited outpatient treatment clinics in order to recognize high-risk properties and models and prevent the expansion of addiction by identifying causes and offering ways of treating addicts.

## 2. MATERIALS AND METHODS

This was a cross-sectional descriptive-applied study carried out in 2013. Information was collected using a researched made questionnaire. The questionnaire contained 10 general questions about demographic characteristics and 30 specific questions about drug abuse and high-risk behaviors. This questionnaire was completed via interviewing the addicts. The validity of the questionnaire was confirmed by assessing its content validity and using expert opinions. The reliability of the questionnaire was also calculated to be 86% using Cronbach's alpha. Data was collected via a research study conducted on individuals who were under treatment in (Omid, Hayat Noo, Biseton, Hedyeh Salamat, Hasti, Moein, Arash, Mehr, Kimiya, Golssa, Milad, Saadi, Rahayesh, Poyan, Alghdir, Aramesh, Tavana, Baharan and Manny) addiction treatment centers with the permission of the treatment deputy of Guilan University of Medical Sciences. The centers were randomly selected. In order to define sample size, at first all people who had a file in the centers were head counted next, the questionnaires were answered by 2609 eligible individuals who were ready to participate and get interviewed. The inclusion criteria included addiction to a narcotic substance and background of more than one year of abuse. Individuals with less than one year of background were excluded from the study. At the beginning the selected population was assured that their cooperation was only needed for a research study by Guilan University of Medical Sciences and their information would be treated as confidential. Moreover, they were assured that whenever they wanted they could stop cooperation. When the study method was explained, written consent of participants were obtained. Following the data collection step data was entered into the SPSS software version 16. The relationships between data were also determined by performing the Chi-square test as well as one-way analysis of variance at a significance level of 0.05.

## 3. RESULTS AND DISCUSSION

The mean age of participants was  $38.8 \pm 12.23$  and they were mostly married men of whom 84.9% lived in urban areas. Workers and the unemployed constituted 44% and 19% of the subjects, i.e. more than half of them. Furthermore, 26.8% and 8.5% had high school diploma and were illiterate, respectively

and 44% owned a house. In addition, 62.4% had an income of higher than \$ 100 (Table 1). The average age of smoking onset was 19±5.3, 18.9 and 22 for women and men, respectively. A significant statistical difference was observed between the age of smoking onset in men and women ( $p=0.001$ ). Opium and crack was the most widely used narcotic among subjects, respectively before referring to DIC centers (Table 2). The investigation also indicated that smoking was the dominant method of drug use at 66.2%. Although the information regarding the expenses the addicted and their family incur due to addiction is always biased, using closed questions, it was indicated that about half of them incur a monthly expense of more than \$ 100. There was no significant statistical relationship between income and addiction ( $p=0.05$ ). However, a significant statistical relationship was observed between men and women regarding the age of onset of drug use ( $p=0.001$ ). Moreover, 40.8% of the individuals started drug use recommended by their out-of-school friends or colleagues and 32.9% experienced it in parties first. The use by other family members is an important point in the etiology of addiction. The present investigation indicated that 38.9% of the subjects had a family history of drug use. The father and

brother constituted 61.4% and 31% of the subjects. Results showed that 62.1% had a history of drug withdrawal, among which 22.1% and 48% had a history of at least 4 or more times of drug withdrawal and attempted to quite on their own without referring to institutions, respectively. 32/1% of cases have alcohol drinking background. In addition, 9.8% had a history of using injectable drugs among which 20.6% had used shared needle for injection. Among the subjects, 13.8% were imprisoned at least once, among which 11.1% had a history of injection inside prison with shared needles. Furthermore, 80.9% had experienced sexual intercourse, among which 48.4% were unmarried. There was a significant statistical relationship between men and women ( $p=0.001$ ). Additionally, 2.6% had a history of sexual intercourse with injection drug abusers, 5.8% had a history of homosexual intercourse and 3.6% claimed to have a history of infection with STD. There was a significant statistical relationship between running away from home and the consumption of narcotics ( $p=0.002$ ). Results also indicated that committing suicide had a positive significant relationship with the variations of age ( $p=0.001$ ), the age of smoking onset ( $p=0.002$ ) and method of use ( $p=0.003$ ) (Figure 1).

Table 1. Frequency and relative distribution of the subjects based on demographic characteristics

Variable	Level	Frequency	Percent
Gender	Male	2476	94.9
	Female	133	5.1
Age (yr.)	≤20	32	1.3
	21-30	762	29.2
	31-40	787	30
	41-50	492	18.9
	51-60	366	14.1
	>60	170	6.5
Marital Status	Married	1734	66.4
	Single	719	27.6
	Divorced/Separated	156	6
Education	Illiterate	220	8.4
	Primary school	600	23
	Middle school	748	28.7
	High school	698	26.8
	Academic	343	13.1
Region	Urban	2215	84.9
	Rural	394	15.1
Income (\$)	<100	233	8.9
	100-250	749	28.7
	>250	1627	62.4
Housing	private	1149	44
	Leased	709	27.2
	Other	751	28.8

Table 2. Frequency of Harmful Behaviors among Patients with Substance Abuse (n = 2609)

Harmful Behaviors	Frequency	Percent
Threats of Suicide	48	1.8
Threats of Killing Others	18	.7
Injecting drug	257	9.8
Shared needles	66	2.5
Mainline history	56	2.1
Prison records	361	13.8
Homosexual	150	5.8
Alcohol Consumption	839	32.1
Lack of condom use	1340	51.4

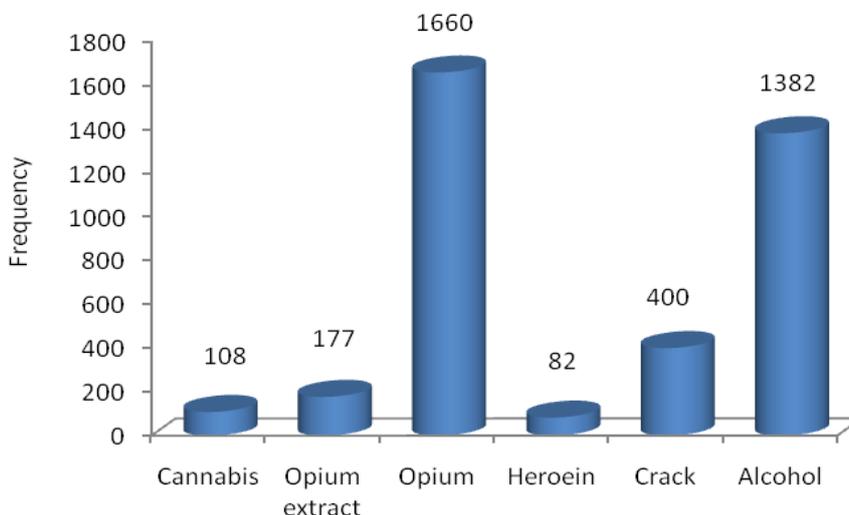


Figure 1. The frequency distribution of substances abuse by the subjects during addiction period

Analysis of data revealed that despite the dangers and problems of addiction, the number of victims of this deadly trap is increasing on a daily basis. The mean age of the study population was 38.8 and the youngest member was 12 years old. Puberty issues, identity crisis and psychological conditions of adolescents and the youth could be among the important factors that play a role in the tendency of these people to drug abuse. Moreover, adolescents and the youth could not resist their friends' insistence due to their need for social popularity. Studies suggest that 66% of addicts who have referred to addiction treatment centers age between 18 and 38. In other words, 90% of Iranian addicts are 18 and older and only 10% of them are below 18 (11). Amiri et al. studied 354 addicts in

Shahroud County and reported a mean age of 34.8. Therefore, their finding complies with the finding of this study (12). It also complies with Behdani's study (7). Opium was the major narcotic used by the participants before visiting outpatient treatment centers. Crack and opium essence were also of second priority. The most common cause of opium abuse among the participants in the present study was the belief that opium prevents or controls some diseases or disorders such as hypertension, diabetes and blood fat. In his study, Amani reported that opium is the narcotic that is most commonly used by addicts. This finding also complies with finding of the present study (13). Our study showed that 90.4% of addicts had smoking background and the average age of first time

smokers was 19. Abbasi stated in his study that 75.2% of the participants had smoking background. However, our study shows a higher rate (4). In different age groups, the relationship of education, family background, and marital status with the type of drug abused is shown to be statistically significant. According to our study, half of the participants had smoking background in their family where fathers with an addiction rate of 61.4% played the major role. Seemingly, children imitate their fathers and follow their behaviors. Therefore, in families with drug abuse background, children become more addicted to drugs and are more willing to abuse drugs. In such families the scene is set for inclination of children to drug abuse because these families are unable to solve problems and make correct decisions because they are involved with problems, challenges, conflicts and chaos. Another study showed that there is a relation between father's addiction and children's addiction. This is a finding that complies with our study (2). In the present study, unemployment and economic poverty were introduced as two of the important and well-known causes of addiction. These factors lead to addiction not only by causing lack of economic, material and spiritual welfare, but also through causing damages to the personality, ethical steadiness, magnanimity, hope and individual's power. Another study showed that there is a relationship between addiction and literacy. That is to say, the lower the level of literacy of a family or individual, the higher is the possibility of their addiction. However, a positive relationship has been found between lower economic status and addiction (14). Another study reported that the relationship of education and marital status with drug abuse is not statistically significant. However, this finding does not comply with our findings (15). Ekramzadeh conducted a study in Shiraz University of Medical Sciences and concluded that high-risk behaviors are more commonly seen in individuals with lower education levels (16). In this study, the following behaviors were considered the major high-risk behaviors seen in addicts: taking narcotics through injection, sharing syringes and needles, blood playing background, imprisonment background, having homosexual intercourses, suicide attempt and failing to use a condom during sexual intercourse. The finding, which is of great important, is that the average age of injecting addicts is low. According to another study, about half of addicts have injected narcotic before 23. This finding is consistent with our study. In this study, 53% of participants

had alcohol-drinking background. Considering the negative social effects and medical problems of alcohol as well as the risk of addiction to alcohol due to its continuous consumption it is necessary to train addicts on the risks posed by drinking. In the present study, 13.8% of participants had imprisonment records. This agrees with Abbasi's study but considerably disagrees with Amiri's findings. Our study showed that tendency to suicide was demonstrated by addicts only within a limited period of time. To explain this finding it can be argued that depending on life changes, suicide may be an important act for an individual at one point but an impossible act at another time. Therefore, helping people out of their crises may change their mind about ending their lives. In this study, the major injected narcotic was crack. According to another study, heroin was the major injected narcotic with a rate of 96.7%. This disagrees with the findings of the present study (10). Our study revealed that injection induced high-risk behaviors are not limited to sharing syringes and needles and other injection tools should be seriously taken into account as well. Despite the fact that homosexuality is socially and canonically forbidden in Iran the results indicate that homosexual intercourses among addicted men are highly common. Another high-risk behavior in this study was use of no condom during sexual intercourse. Therefore, the high number of sexual intercourses without marital bonds, numerous sexual partners and prevalence of injection-induced high-risk behaviors can spread AIDS in the society. Hence, it is necessary to give appropriate training to all people especially the ones who are addicted, about ways of transferring AIDS as well as dangers of having numerous sexual partners and use of no condom during sexual intercourses. Limitations of this study included the lack of cooperation of some outpatient treatment centers and addicts in filling the related questionnaire.

#### 4. CONCLUSION

Perhaps it is not possible to generalize the high-risk behaviors of clients of such treatment centers. Therefore, more reliable results can be obtained by conducting studies on different treatment centers (whether outpatient or in-patient) and drawing comparisons between the results. Since the average age of first smokers is low and many high-risk behaviors (such as shared syringe, untrusted intercourses, addiction of half the families of participants, records of abuse of industrial drugs such as crack, and injection) are demonstrated by them, it is

necessary to take the following measures to prevent the devastating consequences of addiction: formulate strategic rules; increase the number of service centers; teach life skills at schools, families and societies; provide more support; provide more comprehensive services in DIC and MMT centers; and pay more attention to this group.

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#### AUTHORS CONTRIBUTION

This work was carried out in collaboration between all authors.

#### CONFLICT OF INTEREST

Authors have declared that no conflict interests exist.

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