



# Substance Abuse in Addicts Referred to Public and Private Substance Abuse Treatment Centers

## ARTICLE INFO

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## ABSTRACT

**Aims** Drug addiction is a mental, social, and economic problem that comes from abnormal and illicit consumption of substances such as alcohol, opium, hashish, and etc., making the addict psychologically and physiologically dependent to those substances. This study was designed and performed to evaluate the pattern of drug abuse change in the addicts visiting addiction treatment centers of Kashan City, Iran.

**Instrument & Methods** This retrospective descriptive research was performed on 4066 persons referred to addiction treatment and harm reduction therapy centers, monitored by Kashan University of Medical Sciences, during 2004 to 2008. After coding, data were entered into the SPSS 16 software. Chi-square and one-way ANOVA was used to analyze the data.

**Findings** The main reasons of the tendency to drugs were not having fun (72.5%), family problems (55%) and not having knowledge (22.7%). The use of opium was the highest in all the years while the crack was used by 7.1% of drug addicts in 2004 and increased to 76% in 2007. 92.8% of drug abuses were through fumigation, 33.7% through injection, 48% orally and 8.6% through inhalants.

**Conclusion** Youths are the most vulnerable age group to drug addiction. Easy access to illegal drugs, wrong friends, and curiosity are of the significant factors spreading drug addiction.

**Keywords** Behavior, Addictive; Substance-Related Disorders; Narcotics

## CITATION LINKS

[1] Pain perception among depressed heroin addict patients [2] Opiate-dependent patients on a waiting list for methadone maintenance treatment are at high risk for mortality until treatment entry [3] Studying prevalence and pattern of taking narcotic and ecstasy drugs by patients admitted to special care centers of shahidbahonar hospital, Kerman, Iran [4] Profiles of risk: A qualitative study of injecting drug users in Tehran, Iran [5] Estimates of injecting drug users at the national and local level in developing and transitional countries, and gender and age distribution [6] Nurses' competence in pain management in patients with opioid addiction: A cross-sectional survey study [7] Analysis of characteristics and therapy of clients in the extension methadone maintenance therapy clinic [8] Brief overview of the status of drug abuse in Iran [9] Unmet need for treatment for substance use disorders across race and ethnicity [10] Epidemiology of opium use in the general population [11] The trend in substance abuse among addicts referred to withdrawal centers, 1998-2003 [12] Rapid situation assessment (RSA) of drug abuse in Iran (1998-1999) [13] The prototype of drug abused of opioids in the self-introduced addicts in Gorgan (North-East of Iran) [14] Effectiveness of mindfulness-based relapse prevention in opioid dependence treatment and mental health [15] Effectiveness of grouped spiritual psychotherapy on patients with opium using disorder [16] Researches on substance use in Iran 3 decades evaluation [17] Relationship between substance abuse and mental disorders of family (2001) [18] Common methods to treat addiction in treatment- rehabilitation centers in Tehran [19] Behavioral activation for Depression Scale: Psychometric properties and confirmatory factor analysis of the Iranian version [20] Three problems with the ASI composite scores [21] Gender and HIV risk behavior among intravenous drug users in Sichuan Province, China [22] Correlation between sport activity and drug-taking among 14 year-old primary school male and female pupils in Slovenia [23] Effects of exercise on cravings to smoke: the role of exercise intensity and cortisol

## Introduction

Nowadays, drug addiction is known as a major health and social problem. It not only results in severe and profound physical and mental damages, but also is associated with social damages e.g., increased rate of divorce, crime, prostitution, and unemployment [1]. Drug addiction is a mental, social, and economic problem that comes from abnormal and illicit consumption of substances such as alcohol, opium, hashish, and etc., making the addict psychologically and physiologically dependent to those substances. It also negatively affects his/her physical, mental, and social performance. In 1964, the World Health Organization (WHO) proposed that the term "addiction" be replaced with the term drug dependence [2].

Various factors, including unfavorable social conditions, economic problems, and family conflicts can lead to addiction and high-risk behaviors. Alcohol, stimulants, opiates, and other drugs are used in almost all countries [3]. However, the patterns and consequences of using them differ from country to country and time to time. The growing trend in changing consumption pattern from opiates to industrial and chemical substances, especially in East Asian countries, has raised the alarm about new forms of social and cultural invasions [4]. Therefore, the identification of drug use pattern in a society and its epidemiology are the most important measures for assessing, monitoring and controlling the use of such substances. Although, addiction and substance abuse are known as a major social problem in Iran and the world, there is no statistics on the exact number of recreational drug users and addicts of different kinds of drugs [5].

Opium products are the most common illicit drugs but psychotropic drugs are highly prevalent in Western countries and it seems that the use of these drugs is also increasing [6]. The spread of psychotropic and chemical substances, especially among the youth, has become a very serious problem [7]; for example 14% of Iranian school students are now subjects to illicit drugs, tobacco, and alcohol exposure and 3.5, 0.5, and 1.2% of them have experienced the use of tobacco, illicit drugs, and alcohol, respectively [8]. Recent studies reveal different consumption patterns of illegal substances, mostly heroin,

crack, cocaine, and crystal meth, among the youth [8].

Planning a drug addiction prevention program needs understanding the conditions, i.e. the severity and incidence, of addiction and consumption patterns, as well as the at risk groups in every region [9]. As there are few direct studies on drug consumption in different parts of Iran and regarding to the significant difference between studies on the frequency of drug abuse, this study was designed and performed to evaluate the pattern of drug abuse change in the addicts visiting addiction treatment centers of Kashan City, Iran.

## Instrument & Methods

This retrospective descriptive research was performed on 4066 persons referred to addiction treatment and harm reduction therapy centers, monitored by Kashan University of Medical Sciences, during 2004 to 2008.

A checklist including demographic data, type of illegal drug, method of drug abuse, educational level at the time of first use, number of rehabilitation, and motives were used to extract data from the profiles archived in the addiction treatment centers. Some necessary information, which did not exist in their profiles, was obtained through visiting or phone call.

After coding, data were entered into the SPSS 16 software. Chi-square and one-way ANOVA was used to analyze the data.

## Findings

The most frequent age groups were 30-39 years (36.7%) and 20-29 years (34.2%) and 97.5% were males. 97.6% of addicts lived in the city and 2.4% in urban areas. 7.5% of drug addicts were illiterate and 38.6% of them had primary education. 66.6% of drug addicts were married. 32.5% of drug addicts were unemployed, 41.1% were self-employed, 17.5% were laborers, 5.4% were employees, 0.1% were housewives, 2.3% were retired and 1.1% were students. 6.4% of drug abuse addicts used the drugs less than once a day, 46.4% once or twice a day, 46% three or four times a day and 1.2% five times a day or more. The main reasons of the tendency to drugs were not having fun (72.5%), family problems (55%) and not having knowledge (22.7%).

The use of opium was the highest in all the years while the crack was used by 7.1% of drug addicts in 2004 and increased to 76% in

2007. 92.8% of drug abuses were through fumigation, 33.7% through injection, 48% orally and 8.6% through inhalants (Figure 1).

**Figure 1)** the absolute and relative frequency distribution of the drug abuse addicts referred to Addiction Treatment Centers during 2004-2008 according to reason of use, type of used drugs and type of abuse

| Parameters             | 2004       | 2005       | 2006       | 2007        | 2008        | Total       | p Value |
|------------------------|------------|------------|------------|-------------|-------------|-------------|---------|
| <b>Reason of use</b>   |            |            |            |             |             |             |         |
| Family problems        | 92 (65.7)  | 167 (50.6) | 468 (52.1) | 806 (51.6)  | 702 (61.8)  | 2235 (55)   | <0.001  |
| Jobs problems          | 29 (20.7)  | 53 (16.1)  | 148 (12.7) | 198 (12.7)  | 152 (13.4)  | 580 (14.3)  | <0.01   |
| Physical illness       | 8 (5.7)    | 18 (5.5)   | 65 (7.2)   | 74 (4.7)    | 82 (7.2)    | 247 (6.1)   | 0.042   |
| Psychological problems | 9 (6.4)    | 27 (8.2)   | 68 (7.6)   | 108 (6.9)   | 61 (5.4)    | 273 (6.7)   | 0.232   |
| No knowledge           | 24 (17.1)  | 91 (27.6)  | 225 (25.1) | 399 (25.5)  | 182 (16)    | 921 (22.7)  | <0.001  |
| No fun                 | 76 (54.3)  | 210 (63.6) | 560 (62.4) | 904 (77.12) | 892 (78.5)  | 2947 (72.5) | <0.001  |
| Other                  | 11 (7.9)   | 28 (8.5)   | 44 (4.9)   | 48 (3.1)    | 52 (94.6)   | 183 (4.5)   | <0.001  |
| <b>Type of drug</b>    |            |            |            |             |             |             |         |
| Opium                  | 132 (94.3) | 297 (90)   | 719 (80.1) | 187 (80.1)  | 852 (75)    | 1187 (76)   | <0.001  |
| Heroin                 | 21 (15)    | 93 (28.2)  | 250 (27.8) | 499 (31.9)  | 331 (29.1)  | 1194 (29.4) | <0.001  |
| Crack                  | 109 (7.1)  | 47 (14.2)  | 432 (48.1) | 1187 (76)   | 708 (62.3)  | 2190 (53.9) | <0.001  |
| Sap                    | 40 (28.6)  | 100 (30.3) | 200 (22.3) | 499 (31.9)  | 283 (24.9)  | 1127 (27.7) | <0.001  |
| Glass                  | 3 (2.1)    | 16 (4.8)   | 67 (7.5)   | 993 (63.6)  | 426 (37.5)  | 865 (21.3)  | <0.001  |
| Alcohol                | 28 (20)    | 100 (30.3) | 244 (27.2) | 504 (32.3)  | 484 (42.6)  | 1538 (37.8) | <0.001  |
| Hashish                | 8 (5.7)    | 45 (13.6)  | 178 (19.8) | 353 (22.6)  | 327 (28.8)  | 1032 (25.4) | <0.001  |
| Amphetamines           | 0 (0)      | 2 (0.6)    | 28 (27.5)  | 682 (43.1)  | 35 (34.3)   | 102 (2.5)   | <0.001  |
| Other                  | 3 (2.1)    | 8 (2.4)    | 15 (1.7)   | 140 (0.9)   | 16 (1.4)    | 56 (1.4)    | <0.001  |
| <b>Type of abuse</b>   |            |            |            |             |             |             |         |
| Fumigation             | 125 (89.3) | 275 (83.3) | 814(90.6)  | 1476 (94.5) | 1082 (95.2) | 3772 (92.8) | <0.001  |
| Injection              | 21 (15)    | 85 (25.8)  | 311(34.6)  | 565 (36.2)  | 389 (34.2)  | 1371 (33.7) | <0.001  |
| Oral                   | 62 (44.3)  | 161 (48.8) | 376(41.9)  | 770 (49.3)  | 582 (51.2)  | 1951 (48)   | <0.001  |
| Inhalants              | 3 (2.1)    | 25 (7.6)   | 72(8.0)    | 127 (8.1)   | 121 (10.7)  | 348 (8.6)   | <0.005  |

## Discussion

In 2004, the highest frequency of drug abuse belonged to opium (94.3%) and opium sap (28.6%) which was decreased to 75 and 24.9%, respectively, in 2008. However, the use of crack increased from 1.7% in 2004 to 76% in 2007. Ahmadi *et al.* in an evaluative study on drug abuse in 2007 have reported the rate of opium abuse in the vulnerable people of Shiraz City, Iran, as 17.9% and have also reported high rate of crack consumption. In addition, 54% of the addicts were under 31 years. Discontinuation of study and lack of fun, recreation, and inadequate knowledge could be some effective factors in increasing the number of consumers in this age range [10]. In the present study, the consumption of hashish reduced from 5.7% in 2004 to 28.8% in 2008, which is inconsistent with Amani *et al.* [11] study. In addition, the rate of crack and alcohol abuse increased, while in Amani *et al.* [11], the number of hashish and opium sap addicts reduced, in contrast to the number of opium and heroin users. It seems that,

substance abuse pattern differs in different areas.

The majority of young drug consumers used opium (61.5%), followed by hashish (16%), for the first time. In this study, the majority of addicts were 30-39 years (36.7%), followed by 20-29 years (34.2%). The lowest and highest ages were 7 and 69 years, respectively. According to Iranian National Center for Addiction Studies, the mean age of the addicts visiting treatment centers of Kashan was 33.3 years and throughout the country was 33.7 years supporting our study [12].

In Abbasi *et al.*, the mean age of drug addicts was 36.91 years, with 92.7% male and 7.3% female [13]. In the present research, 97.5% were men and 2.5% were women. The highest prevalence among women took place in 2007 and 2008. Among the visitors, 97.6% and 2.4% were urbanites and villagers, respectively. According to the Iranian National Center for Addiction Studies, 93.4% and 6.6% of the addicts were living in cities and villages, respectively. It is relatively in consistent with

the findings of our study [14]. According to the present research, 80.43% of drug addicts did not have diploma, which was in agreement with domestic studies [8].

In the present study, 27.5, 66.6, and 5.9% of drug addicts were single, married, and divorced, respectively while in Abbasi *et al.* [13] only 15.6% were single, and 82.4% and 1.7% were married and divorced, respectively.

According to the findings of the present study, 32.5% of the addicts were unemployed. In addition, 41.1, 17.5, 5.4, 0.1, 2.3, and 0.1% were self-employed, workers, clerks, housewives, retired, and college students, respectively. In consistent with other studies [15, 16], unemployment in Tehran increased by 31%. A study in Ardabil has shown that 85% of the unemployed addicts had been employed before addiction. In Iran, the unemployed rate among the addicts who had had job was reported as 35% [16].

6.5% of drug addicts them had not smoked tobacco. With respect to the age at starting smoking, 10-19 years accounted for the most prevalent age range, and 5% were under 10 years. In Abbasi *et al.*, 78.6 and 40.3% were men and women with smoking history, respectively [13]. In Solati Dehkordi *et al.*, 93.4% had smoking history. Among them, 20.7% were drug addicts at the same time and 65.4% had been smoking [17]. The obtained statistics were in consistent with those of the Drug Control Headquarter in terms of the rate of tobacco smoking addicts (90%), indicating the significant role of tobacco smoke in addiction.

Based on the findings of this study, 92.8, 33.7, 48, and 8.6% of the subjects used smoking, injecting, swallowing, and snoring methods of drug abuse, respectively. In Sharifi *et al.* in 2001-2002, smoking, swallowing, and injecting accounted for 63, 30, and 7% of the methods of drug abuse, respectively [18]. In Abbasi *et al.*, 36.6% of the married addicts smoked the opium and 25.5% of them smoked and swallowed it [13]. According to Abbasi *et al.*, the use of injecting increased more than other methods [13].

Mohammadi & Amiri have shown that suggestion by friend, curiosity, fun and recreation, addicted parents, psychological and mental stresses, familial disorders, heavy and exhausting jobs, pain reduction, unemployment, lack of knowledge about the

complications of addiction, a death in the family, drug accessibility, and love failure are the main causes of drug abuse, in order of importance [19].

Based on this study, 65.4, 9.4, 3.6, 1.1, 9.8, and 6% were acquainted with illicit drugs by friends, family, colleagues, and themselves, and during mandatory military service, respectively. In 2004, friends were the major factor in this regard with the rate of 60%, which increased to 64.7% in 2008. Such factors as addicted friends, unemployment, lack of religious affiliations, economic problems, marital conflicts, lack of recreational facilities, accessibility of illicit drugs, and incapability of saying No to others played the most important roles, in order [20, 21]. The most effective personal, familial, and social causes of youth's tendency toward drug abuse are found as depression, divorce, familial conflicts, friendship with wrong people, tobacco smoking, and educational failure [22, 23].

No correct responses from samples due to drug addiction and incompleteness of some records are the limitations of this study. Regarding the change in consumption pattern, it is recommended to perform such studies every few years to provide an appropriate plan for preventing and coping with drug addiction.

## Conclusion

Youths are the most vulnerable age group to drug addiction. Easy access to illegal drugs, wrong friends, and curiosity are of the significant factors spreading drug addiction. The use of injective substance has become more common in recent years, and tendency is more towards using psychotropic substance like ecstasy, crack, and crystal meth.

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