

## The Prevalence of Cigarette Smoking, Alcohol Consumption, Psychostimulant and Cannabinoid Drugs Abuse among 15 to 35 Years Old Tehranis

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(Received: 7 March 2009 ; Accepted: 25 Apr 2010)

**Objective:** This cross-sectional study was performed to give us a comprehensive view on the prevalence of cigarette smoking, alcohol consumption, psychostimulants, and cannabinoid drug abuse among teenagers and adults ranging 15 to 35 years old residing in Tehran during the first 6 months of the year 2005.

**Methods:** Eight thousand one hundred and seventy five individuals from the 22 city councils participated in a survey from January to June 2005.

**Results:** In answer to the question about psychostimulant drug abuse, 89.5% answered "No", 7% answered "Yes" and 3.6% did not answer this question. The prevalence of cannabinoid drug abuse was 3.8%, psychostimulant drug abuse 7.2%, and alcohol consumption 25.7%. Mean age in each group of substance abusers was similar to that of the whole sample and significantly higher in males. Marriage was a variable which had a significant correlation with low prevalence of drug abuse and alcohol consumption.

**Conclusion:** The frequency of alcohol consumption is high in our sample (25.7%) proceeded by psychostimulant (7.2%) and cannabinoid drug abuse (3.8%).

**Declaration of interest:** None.

*Iranian Journal of Psychiatry and Behavioral Sciences (IJPBS), Volume 4, Number 2, Autumn and Winter 2010: 26-30.*

**Keywords:** Alcohol • Cannabis • Cigarette • Epidemiology • Psychostimulants

### Introduction

Our information suggests that there has been a growing interest in the rate of psychostimulant and cannabinoid drug addiction and alcohol consumption among youngsters in Iran. Opioids were shown to be the prime drug abuse in Iran during the past decades, therefore, research and also any actions taken were in that direction. In the last decade, however, studies showed a change in the pattern of drug abuse, especially in the youngsters. In a rapid situation assessment of drug abuse among 1472 individuals in Iran, performed in 1999, by Razzaghi and colleagues, it was reported

that the most frequently abused drug was opium (1). In a brief overview of the status of drug abuse in Iran, written by Mokri, in 2002, narcotics were reported to be the main drug of abuse in Iran (2). In a study done among 213 Shiraz university students (south of Iran), about their attitudes towards drug abuse done by Ghanizadeh, it was found that except for opium, drug abuse among that population was still lower than that reported in the West (3). In a study done by Ahmadi and colleagues, among 346 health-care students in Iran, cigarettes, alcohol, and opium were the most frequently used substances, and cannabis, heroin, and LSD were in the next order (4). In a study on the prevalence of substance abuse among 1795 residents of 3 main medical universities in Tehran, done by Sadeghi and colleagues in 2002, it was found that alcohol was the most widely used substance among that population, although the rate was much less frequent than the rates reported in Western countries. Opium, cannabis, and heroin use

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were in the next order, whereas opium was the most frequently reported substance for daily use (5). In an epidemiologic study on the prevalence of drug abuse among high school students in the city of Rasht (north of Iran), which was done by Najafi, and colleagues in 2004, it was found that cigarette smoking and alcohol abuse were common among that population and were more prevalent in males (6). In a survey on the prevalence of substance abuse among 1950 high school students in the province of Guilan (north of Iran) in 2005, which was also done by Najafi and colleagues, it was found that cigarette-smoking and alcohol were the most frequently used substances among this population (7). In a study on the prevalence of substance abuse among 843 college students of the Azad University of the city of Torbat-Jam in the Khorasan province in north east of Iran, done by Talei and colleagues, it was found that cigarette-smoking was the most commonly used substance in that population and the use of alcohol, cigarette, cannabis, and opium was significantly higher among men (8). This trend from opioids to psychostimulants seems to be a global trend which is revealed in many studies from different countries. As samples, we can mention the study by Falcks and his colleagues in the United States, among 249 teenager and adolescent abusing psychostimulants (9), the study of Jose' Carlos Galduroz and colleagues done in 107 major cities in Brazil among 8589 individuals ranging 12 to 65 years old, in 2001 (10). Also, the research done by Jurgen Rehm and colleagues in 2005 among individuals ranging 18 to 25 years old living in Norway and other European countries, confirms this fact (11). In a research done by Scott Santibanez and colleagues in 2005, among American individuals throughout the years 1997 and 1999, the increase in psychostimulant drug abuse has been found (12). Also, in a research on psychostimulant drug abuse among high school students in Brazil which was performed by Jose' Luiz Guimaraes and colleagues, the prevalence of psycho-stimulant drug abuse was shown (13). To define future policies, systematic studies on the frequency of non-opioid substance abuse in Iran are required. The goal of this research was to

measure the frequency of cigarette smoking, alcohol consumption, psychostimulant (ecstasy, angel, dust, ice, glass, crystal) and cannabinoid (hashish, cannabis, marijuana, and grass) abuse among teenagers and adults of the capital of Iran, Tehran. The association with the demographic characteristics of the sample and the general and mental health were also examined.

## Materials and Methods

This was a cross-sectional study on teenagers and adults ranging 15 to 35 years old residing in Tehran throughout the first 6 months of the year 2005. The inclusion criteria for the study were complete consent and voluntary cooperation of the individuals, residence in Tehran at the time of the study and at least one year before, being 15 to 35 years old, excluding individuals who have had imprisonment at the 6 month period of our study. The time of study was the first half of 2005 and the place was the 22 city council regions of Tehran. The information was collected through a questionnaire designed by the researchers and included 23 general and particular questions. Teenagers and adults in each city council region were calculated proportional to size, and the sampling was done through stratified random sampling. A total of 8759 questionnaires were filled out in which 584 were incomplete and therefore, excluded from the study. The final sample included 8175 individuals. Finally, the information was analyzed using independent samples tests and Chi-square tests with SPSS 13 software.

## Results

Mean (SD) age of the individuals was 21 (4.7) years, range: 15-35. Female to male ratio was 1.19 and 17.9% (1461 individuals) were married, 80.1% (6547 individuals) were single, and 1.2% (99 individuals) was divorced or widowed. The attrition rate was 0.8% (68 individuals). The educational status of the sample was as follows: 6.7% (549 individuals) were of middle school and below, 66.9%

(5466 individuals) high school diploma, 0.4% (29 individuals) Islamic seminary degrees, and 25.6% (2096 individuals) university graduates. Regarding the employment status, 34.5% (1043 individuals) were government office employees, and the rest were of armed forces, laborers, businessmen, and homemakers, or they were unemployed or had other occupations.

Regarding general health, 7,601 individuals (93%) considered themselves healthy, and 566 individuals (60.8%) ill and 18 individuals (0.2%) did not answer this question. Regarding mental health, 5,992 individuals (73.3%) considered themselves free of any mental problem and 2,135 individuals (26.1%) mentally ill.

In answer to the question about psychostimulant and cannabinoid drugs abuse 569 individuals (7%) answered "Yes" and 292 individuals (3.6%) did not answer this question. Cigarette smoking with the prevalence of 19.7% (1,610 individuals) and alcohol consumption with the prevalence of 18.7% (1,527 individuals) were the most widely used substances.

As shown in Table 1, age distribution of the individuals with drug or alcohol consumption is similar to that of the whole sample. Mean age of individuals with alcohol consumption and cannabinoid drugs abuse however was lower than that of cigarette smoking and psychostimulant drug abuse.

**Table 1:** Age distribution of different groups of cigarette smoking, drug or alcohol consumption

Substance	Mean Age
Cannabinoids	20 ± 4.4
Psychostimulants	21 ± 4.2
Alcohol consumption	20 ± 4.2
Cigarettes	21 ± 4.6
All of them	21 ± 4.6

As shown in table 2, men have been stated positive for more than women. The relative ratio of male to female was 6/1 in the group of cigarettes, alcohol consumption, and psychostimulant drug abuse and 3/1 in the group of cannabinoids. This shows that the female population had a higher rate of cannabinoid drug abuse compared to psychostimulant drug abuse.

The prevalence of abuse was less in the married comparing with the singles. The percentage of cigarette smokers however was higher among married individuals (Table 3). Considering the importance of keeping families together and avoiding risk factors of families falling apart, this rate of drug abuse in married individuals should be taken seriously.

**Table 2:** Comparing sex distribution among different groups of substance abusers

Substance	Male n (%)	Female n (%)	Total n (%)	p-value
Cannabinoids	229(74)	81(26)	310 (100)	<0.05
Psychostimulants	495(87)	74(13)	569 (100)	<0.05
Alcohol consumption	1796(86)	292(14)	2088 (100)	<0.05
Cigarettes	1385(86)	226(14)	1611 (100)	<0.05

**Table 3:** Comparing different groups of substance abusers according to marital status

Substance	Single n (%)	Married n (%)	Total n (%)	p-value
Cannabinoids	255 (85.9)	42 (14.1)	297 (100)	<0.05
Psychostimulants	486 (87.1)	72 (12.9)	558 (100)	<0.05
Alcohol consumption	1752 (85)	308 (15)	2060 (100)	<0.05
Cigarettes	1305 (82.4)	279 (17.6)	1584 (100)	<0.05

## Discussion

Seven percent (569 individuals) reported psychostimulant and cannabinoid drug abuse. Comparing to the study of Rasht in which the prevalence of psychostimulant drug abuse was 2%, we observed that this prevalence is higher in the capital of Iran, Tehran. In the research of nearly the same sample size from Brazil, the prevalence of lifetime use of alcohol was reported to be 68.7%, tobacco 41.1%, marijuana 6.9%, and cocaine 2.3% (10). Other psychostimulant drugs were not assessed in that study, and unfortunately we cannot compare the figures to our study, but tobacco and alcohol abuse is significantly higher than that of Tehran.

All kinds of psychostimulant drug abuse were significantly more prevalent in studied males than females. The results also showed that the relative ratio of cigarette smoking, alcohol consumption, and psychostimulant drug abuse, in males compared to females was 6:1, while it was 3:1 in cannabinoid drug

abuse. This shows that the prevalence of cannabinoid drug abuse in females is more than psychostimulant drug abuse. In the research of Najafi and colleagues, cigarette smoking and alcohol abuse were more prevalent among the high school students of Rasht compared to other substances, and similar to our study, this rate was significantly higher in males (6).

In the study done among 213 Shiraz university students (south of Iran) 12% reported cannabis abuse, 52% smoked cigarettes, and 25% tried alcohol, which shows that cannabinoid drug abuse was more common among their study population compared to our study (3).

Alcohol consumption and psychostimulant and cannabinoid drug abuse were more prevalent in our study compared to that of Ahmadi and colleagues but cigarette smoking was more prevalent in their study population (4).

Our results are similar to that of Sadeghi and colleagues among 1,795 residents of 3 main medical universities in Tehran, regarding to alcohol consumption being the most widely used substance (5). In the study among 843 college students of the Azad University of the city of Torbat-Jam in the Khorasan province in north east of Iran, it was also found that the use of alcohol, cigarette, cannabis, and opium was significantly higher among men (8).

In the research of Jurgen Rehm and colleagues, among the countries that are members of the European Union, the prevalence of cannabis abuse was higher than other psychostimulants, and this prevalence was significantly higher in males.

In our study, marriage was a resilient factor for psychostimulant, and cannabinoid drug abuse and alcohol consumption.

### Acknowledgement

We kindly thank our colleagues in the Iranian academic center for education, culture, and research, branch of Tehran University of Medical Sciences (ACECR; TUMS), who were in charge of the statistical management of the project. We also thank the Social

Deputy of the Interior Ministry of the Islamic Republic of Iran at the time of our study which supported the funds for this research.

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