

ORIGINAL ARTICLE

Socio-demographic and clinical profile of substance abuse patients admitted to an emergency department in Ankara, Turkey

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Summary. *Background:* Illicit drug abuse is an important health problem around the world. Cannabis is the most commonly used illicit drug, followed by amphetamines, opioids, and cocaine. In this study, we searched the socio-demographic features of drug abusers admitted to an emergency department. *Materials and methods:* The study was performed in the emergency department of an education and training hospital in Ankara, Turkey. The socio-demographic features, substances commonly consumed, and the reason for the patients' presentation were recorded. *Results:* The mean age of patients was 28.3 ± 9.2 . Of those under study, 93.3% were male; 68.7% were discharged from the emergency department after a short observation period; and 10.4% were hospitalized. The median age of the patients' first experience with illicit substances was 19 (4-56). *Conclusion:* Illicit drug use remains a significant medical health problem, not only in Turkey but also around the world. Abusers frequently seek emergency services, complaining of various symptoms, but generally do not mention their substance abuse. Emergency physicians must ask patients if they use abuse drugs. (www.actabiomedica.it)

Key words: substance abuse, illicit drug, emergency department, socio-demographic profile

Introduction

Abused substances are mood and behavior altering substances that result in significant impairment or distress. Substance dependence is a mental disorder that occurs over the course of time due to organic and neurochemical changes in the brains of abusers. The World Health Organization has defined substance abuse as the detrimental and hazardous use of psychoactive substances, including alcohol and illicit drugs. In 2008, 3.5% to 5.7% of world's population between the ages of 15 and 64 used psychoactive substances such as cocaine, opioids, cannabis, amphetamines, and other unidentified psychoactive medications. Cannabis is the most commonly used psychoactive substance,

with 129-190 million users worldwide, followed by amphetamines, opioids, and cocaine (1).

Drug dependency is a major health care problem, particularly among those between 18 and 35 years of age (2). The United Nations Office on Drugs and Crime reported that between 99.000 and 253.000 deaths occurred around the world in 2010 due to illicit drug use. In the United States, substance abuse and alcohol addiction typically begin after the age of 14 or 15 (3). Werb and colleagues (4) determined that the mean number of inflation-adjusted and purity-adjusted charges related to cannabis, heroin, and cocaine decreased in the US between 1990 and 2007.

The objective of this study is to detect the socio-demographic features of users, the most commonly

consumed substances, and the reason for the presentation of patients admitted to an emergency department in Ankara, Turkey.

Materials and Methods

Ethics committee approval was obtained from the Ethics Committee of the Hospital, Ankara, Turkey. The present cross-sectional study was conducted between March 2013 and November 2013 in the same hospital, with 22,450 emergency visits monthly. All patients were questioned regarding substance use; substance users who were admitted to the emergency department for any reason were included the study. There were 196 patients identified as known substance abusers; 134 of them agreed to be interviewed and included in the study. They participated in a semi-structured face-to-face interview and answered questions about their marital status, sexuality, birth place, home city, flat-mate, income, job, education, co-morbidities, drug use, smoking habits, alcohol addiction, and cause for admission to the emergency department.

Statistical analyses were performed using the IBM SPSS for Windows 17.0 (Chicago, IL) program. Non-numeric variables were converted into numeric variables. Continuous variables were expressed as median, mean±standard deviation, while definitive data were expressed as figure and percent. The normal distribution of continuous variables was assessed using histograms and the Kolmogorov-Smirnov test. Independent sample t-tests and a one-way Anova tests were used to assess differences between data with normal distribution, while the Mann Whitney U test and Kruskall Wallis test were used to assess differences between skewed data. Correlations of continuous variables were calculated using the Pearson Correlation. A Chi-square test was used to assess differences between categorical variables; p and χ^2 values were given for results, and $p<0.05$ was considered statistically significant.

Results

The mean age of patients was 28.3 ± 9.2 , and the median age was 25. Of those under study, 93.3%

(n=125) of patients were male. The age distribution of male and female patients is illustrated in Figure 1. A chronic disease history was noted in 28 (20.9%) patients. A history of drug use was documented for 23 (17.2%) patients and linked to diagnoses of chronic diseases. Metoprolol, atorvastatin, acetilsalicylic acid, valproat, penicillin, phenytoin, insulin, colchicine, pregabalin, flurbiprofen, risperidone, quetiapine, Suboxon® (buprenorphine+naloxone), salbutamol, alprazolam were the drugs patients reported having used. Demographic data for all patients is presented in Table 1.

The clinical symptoms of the individuals were attributed to substance abuse in 68 (50.7%) patients, and withdrawal symptoms were noted in 35 (26.1%) of them.

Twenty-five (18.7%) patients voluntarily departed from the emergency department without completion of treatment, while 92 (68.7%) patients were discharged after a short observation. Fourteen (10.4%) patients were hospitalized, and six were hospitalized in an intensive care unit.

The median age of patients' first experience with drugs was 19 (4-56), and the median value for years of substance abuse was 5 (0-35). Table 2 shows data related to substance abuse, and Table 3 shows the type of substance and frequency of use. Figure 2 is an age graphic that refers to starting time of substance abuse. Figure 3 is a graphical illustration of how long the patients had been substance abusers.

No patients died during the study.

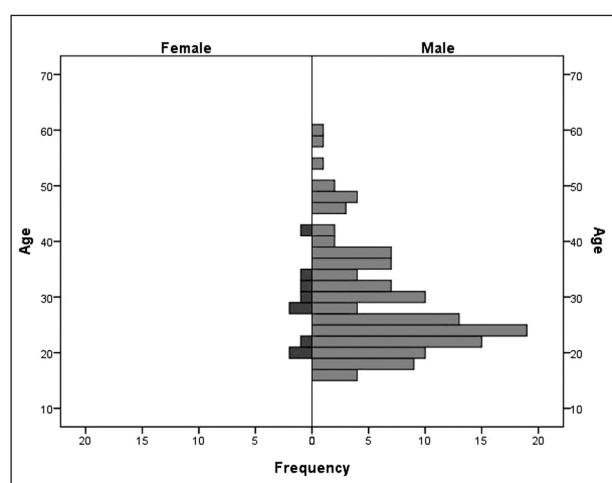


Figure 1.

Table 1. Demographic profiles of patients

	n	%
Gender		
Female	9	6.7
Male	125	93.3
Marital status		
Single	88	65.7
Married	40	29.9
Divorced	6	4.5
Home locality in Ankara		
Altındağ	74	55.2
Keçiören	23	17.2
Mamak	14	10.4
Çubuk	4	3.0
Yenimahalle	8	6.0
Akyurt	1	.7
Pursaklar	6	4.5
Haymana	2	1.5
Kalecik	2	1.5
Living arrangements		
Alone	18	13.4
Parents	76	56.7
Partner	36	26.9
Friend	1	.7
Other	3	2.2
Employed?		
Yes	49	36.6
No	85	63.4
Monthly income (TL)		
<1000	99	73.9
1000-2000	30	22.4
2000-5000	4	3.0
5000-10000	1	.7
Educational status		
Unschooled	5	3.7
Primary school	63	47.0
Secondary school	29	21.6
High school	33	24.6
University	4	3.0

Discussion

Globally, cannabis, including tetrahydrocannabinol (9-THC), is the most commonly consumed illicit substance. It can be used via oral, nasal, or parenteral routes (5). In addition to cannabis, heroin, opium, and cocaine are known major illicit drugs (4). Mesic et al. (6) reported in their study that 15.25% of patients consumed marijuana, 6% of cases consumed ecstasy, and an additional 4% and 2% of cases consumed cocaine

Table 2. Data related to patients' substance abuse

	n	%
Reason for use		
With wannabe	39	29.1
Friend's advice	80	59.7
Loneliness	5	3.7
Curiosity	2	1.5
Depression	5	3.7
Domestic use	3	2.2
Method of substance use		
Oral	97	72.4
Intranasal	30	22.4
Intravenous	35	26.1
Smoking	1	.7
Frequency of occurrence		
First-time use	6	4.5
Once daily	102	76.1
Once weekly	20	14.9
Monthly	5	3.7
Yearly	1	.7
Do any family members use the substance?	27	20.1
Are they trying to quit?	82	61.2
Alcohol addiction	90	67.2
Smoking habit	122	91.0

Table 3. Type of substance and frequency of use

	n	%
Marijuana	79	59.0
Heroin	65	48.5
Bonsai	7	5.2
Cocaine	5	3.7
Ecstasy	5	3.7
Cannabis sativa	3	2.2
Cologne	3	2.2
Balco Bally® C8	2	1.5
Audi	1	0.7
Behti	1	0.7
Roche	1	0.7
Jamaika	1	0.7

and heroin, respectively. In our study, marijuana was the most frequently used illicit drug (59.0%), and the second most common substance was heroin (48.5%).

Social factors that contribute to drug use include unsatisfactory academic careers, alcohol addiction, smoking habits, bad relationships with family, substance abuse among close relatives and friends, being of the male gender, genetic agents, economic status,

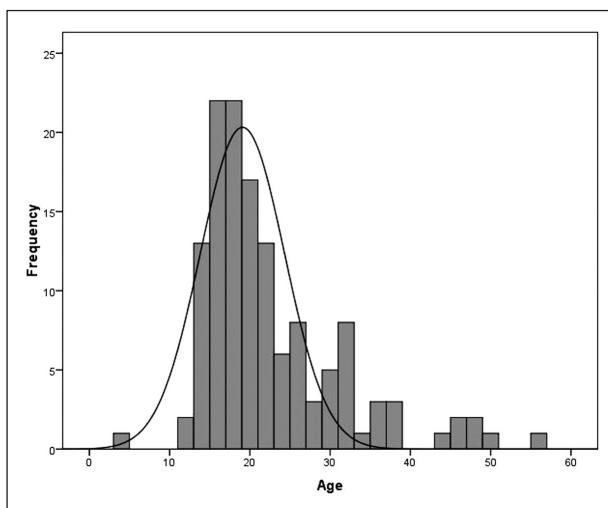


Figure 2.

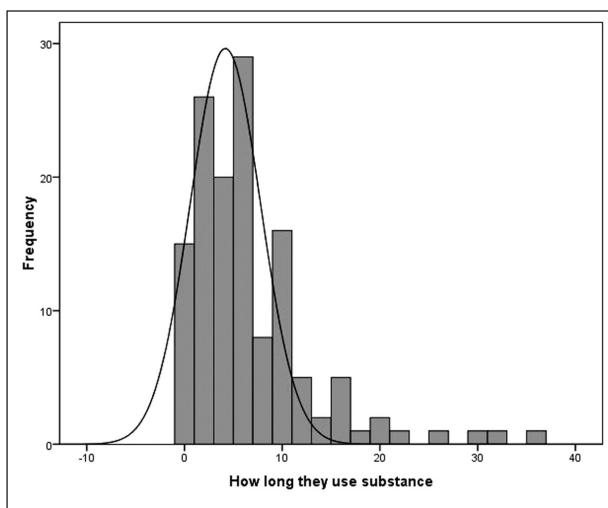


Figure 3.

accessibility of drugs, initial experimental age, psychiatric co-morbidities, and variances of adolescent neurobiology. Despite these known risk factors for drug abuse, protective measures to combat drug addiction are insufficient (7). Similar results were seen in our study; alcohol addiction (67.2%), smoking (91.0%), family members who use drugs (20.1%), male gender (93.3%), unemployment (63.4%), and poor economic status (<1000 TL 73.9%; 1000-2000 TL 22.4%) were detected in abusers.

Nebhinani et al. created a demographic and clinical profile of substance abusing women in North India.

The mean age of their cases was 36.3% years (8), and the age of initial drug use was 27.3 years (8). Goreishi et al. (9) studied 1800 university students where the mean age of drug abuse onset was 19.4 years old. Our study was prospective and conducted in an emergency department accepting women and men of all ages. We observed the mean age of patients was 28.3 ± 9.2 , and the median age was 25. The age of initial drug use for subjects in our study was 21.77 years.

Goreishi et al. (9) showed that pain relief (32.7%), pleasure seeking (13.3%), and curiosity (9.3%) were the main motivational factors of substance abusers (9). In our study, a friend's advice (59.7%) and wannabe (29.1%) were the most frequent motivational factors.

Conclusion

In conclusion, illicit drug use is an important medical health problem in Turkey and around the world. Abusers frequently seek emergency services reporting various symptoms, but they generally do not talk about their substance abuse. Emergency physicians must ask patients if they use substances.

Limitations of the study

The main problem was the patient number. We know that this is not the real number of admission with substance abuse. Because of the legal penalties, patients afraid to tell substance abuse, so they generally say that they don't use substance.

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