ORIGINAL ARTICLE

Addiction profiles of patients with substance dependency living in Adiyaman province

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Abstract

Substance dependence is a pervasive international problem that severely affect the physical and mental health of the individuals who have them, their families, especially the vulnerable teenagers who are at risk of developing physical and mental health problems and substance abuse because of their parent's addictions. In contrast to the magnitude of the problem, little research and practice literature addresses these issues. The aim of the present study was to investigate the addiction profiles of patients with substance dependency living in Adiyaman. This study was conducted on addicted males in Adiyaman, Turkey. A total of 80 consecutively presenting males who agreed to participate in the study were evaluated. Data were collected with the Personal Information Form, Addiction Profile Index Clinical Form (API-C)-Practitioner Form. 4 patients (5%) had low addiction severity (1.6 points below), 41 patients (51.2%) had moderate addiction severity (1.6 to 4.6 points), and 35 patients (%43.8) had high addiction severity. There was a significant difference in terms of substance use characteristics subscale (p=0,019), anger management problems subscale (p=0,005), and novelty seeking behaviour subscale (p=0,002) in comparison of API subscales, API total scores, and API-C additional subscales according to age (≤25 years and >25 years). The vast majority of patients were found to have a moderate or high addiction severity, especially in young patients. It was seen that the anger problems and novelty seeking behaviours were more related to age. These characteristics, which are mostly related to young patients, should be considered during substance abuse treatment.

Keywords: Substance dependence, addiction profile index, male, scale

Introduction

It is known that substance abuse and dependence is an increasing problem in Turkey as well as in the whole world. Despite this, it can be said that studies on the frequency and characteristics of use of psychoactive substances in our country are relatively small [1]. It is difficult to determine the actual frequency of use and sale of illegal substances used for addictive, non-therapeutic purposes, their impact on society and individuals. Determining the frequency of substance use-dependence and which kind of substances are being used in the various socioeconomic groups of the population can make important contributions to the study of substance abuse and dependence treatment and substance preventing programme [2,3].

In studies conducted in many countries, there are differences in lifetime, annual and daily substance use rates of different socioeconomic subgroups. According to the report of United Nations Office on Drugs and Crime (UNDOC) published in 2016 involved the data of 2014-2015, 5% of the world population aged 15-64 have used illegal substances at least once in the past year. 0.6% of them are thought to be substance use disorder. According to this report, 183 million people in the world are using cannabis, 35 million are opioids, 37 million are amphetamines and prescripted psychostimulants, 22 million are ecstasy and 17 million are using cocaine. Harm caused by drug use remains considerable. Opioids, including heroin, remain the most harmful drug type in health terms. Available data show that, among amphetamines, methamphetamine represents the greatest global health threat [4].

The age of starting to use addictive substance is mostly the youth period. In the 15-24 age group, the prevalence of substance use was found to be higher than the age group over 25 [5-9]. The prevalence of substance abuse was found to be higher in males than in females [9]. According to the data of the year 2013, 49.8% of the population of Adiyaman consists of individuals under 25 years of age [10]. The aim of this study is to examine the addiction profiles of substance abusers living in Adiyaman, which has

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a young population. In this study, 80 patients admitted to our University Medical School psychiatric outpatient unit, who were diagnosed with substance dependency as a result of psychiatric examination and urine tests were evaluated.

Material and methods

Study Design and Participants
This case study included patients with substance dependence (SD) who were followed in the Psychiatry Department of our University Medical School. The patients with SD were consecutive patients who were being followed at our outpatient clinic (called as "AMATEM' in Turkish). The SD group consisted of 80 male patients (All of them were seen in November 2017). After being seen during the baseline visit by the treating psychiatrist, each patient's eligibility for the study was evaluated, and if they were eligible, they were invited to participate in the study. Addiction Profile Index Clinical-Practitioner Form was applied to the SD patients. Sociodemographic data were obtained. Local ethics committee approval was obtained, and all study participants provided written informed consent (Adiyaman University Ethics Committee Protocol Number: 2017/8-15).

Patients who had comorbid first axis diagnoses, severe neurological, immunological or systemic diseases were excluded. M.H.O. conducted the study. The evaluations continued for one week. We conducted the patients for the study after control and treat them for the substance abuse. We did not evaluate any other mental comorbidities in these cases.

Assessment
Addiction Profile Index Clinical-Practitioner Form (API-C, in to Turkish; BAPI-K)
API was developed by Ögel et al. [11] to measure the factors related to addiction. It is a measure of 37 questions and 5 subscales. Subscales measure the substance use characteristics, dependency diagnostic criteria, the effect of substance use on the individual's life, the craving for substance use and the motivation to quit substance use. API-C [12] includes the assessment of the six areas related to the addiction apart from areas where the API measures directly. Two of these six areas measure mental status, while others measure some personal characteristics of addiction. These areas are; depression, anxiety, anger control failure, lack of safe behavior, excitement seeking behavior and impulsiveness. In addition to the 37 questions in the API, there are 21 more questions in the API-C. Self-notification and enforcement forms are available. In our study, API-C Practitioner Form was used.

Statistical Analysis
Windows SPSS 22.0 program (Statistical Package for the Social Sciences Inc.) was used for statistical analysis. It was investigated by the Kolmogorov Smirnov test that the variables exhibited normal distribution (p> 0.05). Independent t test was used to assess the mean differences between the two groups. One-way ANOVA test was used for three and more than three group comparisons. Pearson correlation test was used to evaluate the relationship between the scales. Descriptive statistics and continuous variables were expressed as mean±standard deviation, while categorical variables were given as frequency and percentage. Statistical significance level was accepted as p<0.05 for all values.

Results
The identifier properties of the individuals are shown in table 1.

Table 1. Sociodemographic Features of Patients

		N	%
Education	Primary	2	%2,25
	Secondary	53	%66,3
	High School	20	%25
	College	5	%6,3
Marital Status	Married	15	%18,7
	Single	65	%81,3
Child-Owned Status	+	14	%17,5
	-	66	%82,5
Past Psychiatric Treatment	+	21	%26,3
	-	59	%73,7
Multiple Substance Use	+	45	%56,3
	-	35	%43,8
Substance Use Period	0 year	14	%17,5
	<1 year	34	%42,5
	1-2 years	10	%12,5
	3-4 years	5	%6,3
	>5 years	17	%21,3
	Mean±Standard Deviation		
Age	25,2±6,02		
Duration of Substance Use	2,71±1,4		

Eighty drug addicts were taken to work. Only male patients were included in the study and the mean age was 25.2 ± 6.02. 2 of the patients (2.25%) were primary school graduates, 53 (66.3%) were middle school graduates, 20 (25%) were high school graduates and 5 (6.3%) were university graduates. 15 (18.7%) of the patients were married, and 65 (81.3%) were single. 34 of the patients (42.5%) were using substance for less than 1 year, 10 of them (12.5%) using for 1-2 years, 5 of them (6.3%) using for 3-4 years, and 17 of them using for more than 5 years. There were cannabis addiction in 48 people (60%), alcohol dependence in 13 people (16,3%), heroin dependence in 10 people (12,5%) and ecstasy pills dependence in 6 people (7.5%). There was a person using cocaine, volatile substances and methamphetamine. 45 of the patients (56.3%) had multiple drug use.

When the average scores of API were taken into account, it was found that 4 patients (5%) had low addiction severity (1.6 points below), 41 patients (51.2%) had moderate addiction severity (1.6 to 4.6 points), and 35 patients (%43.8) had high addiction severity. API scores are shown in table 2 in relation to age, education, marital status, child-owned status, psychiatric treatment status, multiple substance use, and duration of substance use. A statistically significant difference (p = 0.016) was found between the patients who took the substance for 3 years and more and those who thought that the substance was not a problem for themselves when evaluated for the duration of substance use.

There was a significant difference in terms of substance use characteristics subscale (p=0,019), anger management problems subscale (p=0,005), and novelty seeking behaviour subscale (p=0,002) in comparison of API subscales, API total scores, and API-C additional subscales according to age (≤25 years and >25

years), and this difference was not observed in other subscales (Table 3).

A high degree of correlation was found between the dependency diagnosis subscale and the effects of substance use on the user subscale (r=0,798), the dependency diagnosis subscale and the craving subscale (r=0,797), the effects of substance use on the user subscale and the craving subscale (r=0,809). A moderate correlation was found between the anger management problems subscale and the impulsivity subscale (r=0,621), the anger management problems subscale and the anxiety subscale (r=0,622), and the impulsivity subscale and the anxiety subscale (r=0,633).

Table 2. Relation of API to Different Characteristics of Patients

		API	P value
Age	≤25	4,73±1,97	0,143
	>25	4,00±2,26	
Education	Primary	5,63±3,08	
	Secondary	4,65±2,08	0,376
	High School	4,29±2,08	
	College	3,16±1,75	
Marital Status	Married	3,95±2,17	
	Single	4,62±2,06	0,269
Child-Owned Status	+	4,06±2,21	
	-	4,59±2,06	
Past Psychiatric Treatment	+	4,53±2,15	0,923
	-	4,48±2,08	
Multiple Substance Use	+	4,55±2,15	
	-	4,42±2,02	0,794
Substance Use Period	0 year	3,06±1,93	
	<1 year	4,54±1,94	
	1-2 years	4,40±2,22	0,016**
	3-4 years	6,29±2,45	
	>5 years	5,10±1,79	

** P <0.05 and there is a significant difference.

Table 3. Comparison of API Total, API Subscale and API-C Subscale Scores by Age

	≤25 years	>25 years	P value
Dependency diagnosis subscale	5,65±3,16	5,01±3,71	0,428
Characteristics of substance use subscale	0,86±0,74	0,47±0,56	0,019**
The effects of substance use on the user subscale	10,09±5,26	8,30±5,36	0,162
Craving subscale	3,05±2,27	2,19±2,26	0,116
Motivation to quit using substances subscale	4,75±1,71	4,65±1,91	0,805
API total	4,73±1,97	4,00±2,26	0,143
Anger management problems subscale	2,14±1,68	1,07±1,16	0,005**
Lack of assertiveness subscale	4,16±2,05	3,34±2,11	0,101
Novelty seeking behaviour subscale	2,77±1,58	1,61±1,44	0,002**
Impulsivity subscale	3,12±1,81	2,42±1,96	0,116
Depression	3,12±1,81	2,42±1,96	0,116
Anxiety	2,01±1,42	1,50±1,17	0,111

** P <0.05 and there is a significant difference.

Discussion

Adiyaman has a young population and this young population is at risk due to substance dependency. Findings from our study group of drug-addicted men reveal us that being under 25 years of age, low educational level, being single is riskier in terms of substance dependence. As age gets smaller, the excitement search behaviour increases significantly and anger control is significantly reduced. Again, as age gets smaller, multiple substance use risk increases significantly. There is high relation between multiple substance use and effect on life, addiction severity.

Substance dependence is a very important public health problem in terms of economic, social, family and individual. In Turkey and around the world, the use of tobacco, alcohol and drugs is increasing rapidly and the age of starting to use drugs is gradually decreasing. 9 out of 10 people who abuse or are addicted to nicotine, alcohol or other drugs began using these substances before they were 18. People who began using addictive substances before age 15 are nearly 7 times likelier to develop a substance problem than those who delay first use until age 21 or older. Every year that substance use is delayed during the period of adolescent brain development the risk of addiction and substance abuse decreases [5-10,13-21]. The findings of our study confirm this information.

The age of starting to use the substance varies according to the type of substance used. For example, volatile use begins at very early ages. At an early age, there are many risk factors that affect substance dependence. Factors such as age, gender, personality traits, parental education level, smoking status of family members or friends are the most frequently investigated variables related to substance abuse [22]. Of these factors, especially the influence of friends is the foreground. Adolescents with drug-addicted friends tend to use more drugs than non-addicted friends [22-24].

Another important issue is warning signs of teen substances use. Warning signs can include: alcohol, smoke or other chemical odours on child's or their friends' breath or clothing, obvious intoxication, dizziness or bizarre behaviour, changes in dress and grooming, changes in choice of friends, frequent arguments, sudden mood changes and unexplained violent actions, changes in eating and sleeping patterns, sudden weight gain or loss, loss of interest in usual activities or hobbies, school problems such as declining or failing grades, poor attendance and recent discipline problems, trauma or frequent injuries, runaway and delinquent behaviour, depressed mood or talk about depression or suicide [5,6,24-26].

There is no blood, urine or tissue tests that alone diagnose the disease of addiction. It is diagnosed by a person's behavioural symptoms, which include continued, compulsive use of alcohol or other drugs in spite of damaging health and social consequences. If an individual is diagnosed with a substance problem, a physician should perform a comprehensive assessment to determine severity, any other medical conditions, potential for complications related to withdrawal, presence of other factors (individual and social) related to substance use that may affect treatment [27].

The most effective addiction treatment approach often includes a combination and therapies. Medications to treat addiction work by reducing cravings and withdrawal symptoms, reducing the highs

or rewards associated with substance use and/or serving as a less harmful alternative. Therapies, including individual, family and group therapy, help people learn to increase their coping skills, manage high-risk situations, avoid substance-use triggers and control cravings [28-30].

The consequences of untreated addiction often include other physical and mental health disorders that require medical attention. If left untreated over time, addiction becomes more severe, disabling and life threatening. In conclusion, the vast majority of patients were found to have a moderate or high addiction severity, especially in young patients. It was seen that the anger problems and novelty seeking behaviours were more related to age. These characteristics, which are mostly related to young patients, should be considered during substance abuse treatment.

Limitations

Major limitation of this study is its cross-sectional design. A prospective design starting from early periods of substance use with regular follow-up scale evaluations would yield more convincing results about nature of addiction. One of the another major limitation of this study is its poor scale content.

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