

Retrospective Analysis of Sociodemographic Characteristics of Inpatients at Kayseri Research and Training Hospital AMATEM Clinic

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ABSTRACT

Retrospective analysis of sociodemographic characteristics of inpatients at Kayseri Research and Training Hospital AMATEM Clinic

Objective: The purpose of this study is to retrospectively determine the sociodemographic characteristics of inpatients with the diagnoses of alcohol and substance use disorder in AMATEM (Research, Treatment and Training Center for Alcohol and Substance Dependence) clinic of Kayseri Training and Research Hospital.

Methods: Medical records of 1222 patients who were hospitalized at AMATEM clinic of Kayseri Training and Research Hospital between the years 2007-2015 were analyzed retrospectively and the obtained data were recorded on data sheets prepared by us. Statistical evaluation of the data was recorded in a database prepared by SPSS 23 software. Chi-square test was used for descriptive analyzes. The confidence level was taken as 95% and the statistical significance limit was accepted as $p < 0.05$ for all analyses.

Results: A total of 1222 patients were included in the study. Of the all patients, 94.8% were male, 5.2% were female, mean age was 33.6 ± 10.83 years. The mean age of alcohol users was 39.8 ± 8.7 ; the mean age of substance users was 27.5 ± 12.68 . The mean age of the patients suffering from alcohol dependence was significantly higher than the mean age of applicants with other addictions. Patients who were mostly single (49.6%) were living with parents or family (90.4%). The rate of those who were married among the alcohol dependents was higher than the ones in the other substance dependents group. The most common reason for admission was alcohol dependence (37.2%), while the second most common was cannabis dependence. The majority of patients were hospitalized 1-15 days (67.7%) and these patients were often discharged from the hospital upon their requests (59.8%). The rate of the patients hospitalized for the first time at the clinic was 59% and this was higher than the recurrent hospitalizations. A huge majority of inpatients were smokers (91.7%).

Conclusion: This is the first study to investigate the socio-demographic and clinical characteristics of patients who were hospitalized in Kayseri Training and Research Hospital AMATEM Clinic. We think that our study will contribute to the comparative evaluation of the clinical and socio-demographic characteristics of the individuals who applied to other AMATEMs in our country. In this way, it will be useful for determining the changes that may be caused by regional differences in alcohol and substance use disorder and determining the common features that can be generalized independent of such local features.

Keywords: Alcohol, addiction, substance abuse

ÖZET

Kayseri Eğitim ve Araştırma Hastanesi AMATEM Kliniğinde yatarak tedavi gören hastaların sosyo-demografik özelliklerinin retrospektif analizi

Amaç: Bu çalışmada Kayseri Eğitim ve Araştırma Hastanesi AMATEM (Alkol ve Madde Bağımlılığı Araştırma Tedavi ve Eğitim Merkezi) kliniğinde alkol ve madde kullanım bozukluğu nedeniyle yatarak tedavi edilen kişilerin sosyo-demografik özelliklerinin retrospektif olarak değerlendirilmesi amaçlandı.

Yöntem: AMATEM kliniğinde 2007-2015 tarihleri arasında yatarak tedavi gören 1222 hastanın kayıtlı yatış dosyaları geriye dönük olarak incelendi ve elde edilen veri tarafımızca hazırlanan bilgi formlarına kaydedildi. Verinin istatistiksel değerlendirmesi SPSS 23 programı ile hazırlanan bir veri tabanına kaydedildi. Tanımlayıcı analizler için ki-kare testi kullanıldı. Güvenirlik düzeyi %95 olarak alındı ve tüm analizler için istatistiksel anlamlılık sınırı $p < 0.05$ olarak kabul edildi.

Bulgular: Çalışmaya 1222 hasta dahil edildi. Hastaların %94.8'i erkek, %5.2'si kadın olup, yaş ortalamaları 33.6 ± 10.83 idi. Alkol kullananların yaş ortalaması 39.8 ± 8.7 ; madde kullananların yaş ortalaması 27.5 ± 12.68 'di. Alkol bağımlılığı nedeniyle başvuran olguların yaş ortalaması diğer madde bağımlılığı ile başvuranların yaş ortalamasından anlamlı olarak yüksekti. Çoğunlukla bekâr (%49.6) olan hastalar ebeveyn/aileyle (%90.4) yaşamaktaydı. Alkol bağımlıları arasında evli olanların oranı diğer madde bağımlılarından yüksekti. En sık başvuru nedeni alkol bağımlılığı (%37.2), ikinci sıklıkta ise esrar bağımlılığıydı (%34.1). Hastaların büyük çoğunluğu 1-15 gün yatmakta (%67.7) ve kendi istekleriyle taburcu (%59.8) olmaktadır. Serviste ilk kez yatan hasta oranı %59 olup, tekrarlayan yatışlara göre fazlaydı ve hastaların büyük bir çoğunluğu sigara (%91.7) kullanmaktaydı.

Sonuç: Bu araştırma, Kayseri AMATEM'inde yatarak tedavi gören alkol ve madde bağımlılarının sosyo-demografik özelliklerini araştıran ilk çalışmadır. Araştırmamızın ülkemizin diğer AMATEM'lerine başvuran bireylerin klinik ve sosyo-demografik özelliklerinin birbirleriyle karşılaştırılarak değerlendirilmesinde katkı sağlayacağını, bu sayede, alkol ve madde kullanım bozukluklarında bölgesel farklılıkların neden olabileceği değişikliklerin saptanmasında ve bu gibi yerel özelliklerden bağımsız olan genellebilir ortak özelliklerin belirlenmesinde fayda sağlayacağını düşünmekteyiz.

Anahtar kelimeler: Alkol, bağımlılık, madde kullanımı



How to cite this article: Karaagac H, Esenkaya-Usta Z, Usta A, Gumus-Yarmali M, Godekmerdan A. Retrospective analysis of sociodemographic characteristics of inpatients at Kayseri Research and Training Hospital AMATEM Clinic. Dusunen Adam The Journal of Psychiatry and Neurological Sciences 2017;30:251-257.
<https://doi.org/10.5350/DAJPN2017300309>

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Date of receipt / Geliş tarihi:
November 21, 2016 / 21 Kasım 2016

Date of the first revision letter / İlk düzeltme öneri tarihi:
December 6, 2016 / 6 Aralık 2016

Date of acceptance / Kabul tarihi:
February 8, 2017 / 8 Şubat 2017

INTRODUCTION

Drug use and dependence is known to be an increasing problem all over the world (1). According to the World Drug Report; in 2013, it was estimated that 246 million people, in another word 1 out of every 20 person, in the 15-64 age group in the world, were using drugs and 187.000 people died due to drug-related reasons (2).

It has been reported that the rate of substance use in Turkey is lower than in European countries and the United States, whereas the frequency of substance use increases (3). The most extensive substance use prevalence survey made so far has been carried out by TUBIM (Turkish Monitoring Centre for Drugs and Drug Addiction) (4). According to the Substance Use Survey which was conducted in 2011, in the population aged 15-64, 1,351,000 people (2.7%) have been using drugs (5).

A limited number of studies have been conducted to determine the socio-demographic and clinical characteristics of drug users in Turkey, most of which are from the AMATEM (Alcohol and Drug Addiction Research Treatment and Training Center) in Istanbul (6). Data related to the socio-demographic characteristics of drug users living outside Istanbul are very limited (7). Retrospective evaluation of alcohol and substance use disorders and psychopathologies accompanying these disorders may increase our knowledge about the clinical features and treatment of these disorders (8).

The Kayseri Training and Research Hospital AMATEM clinic is an addiction center that started service in 2007. It gives both inpatient and outpatient dependence treatment service. Patients referred to the clinic are primarily evaluated in the AMATEM outpatient clinic. Patients with an indication for hospitalization are admitted on the date determined by appointment. Patients who do not accept inpatient treatment are treated and followed up in the outpatient clinic, via drug treatment and supportive psychotherapeutic interviews. In patients admitted to the hospital, appropriate detoxification treatments are applied according to the status and severity of withdrawal symptoms. In addition to the necessary

pharmacological treatments, the patients who have completed the detoxification process are included in the individual supportive and group psychotherapy. Psychiatric evaluation notes, treatment follow-up and personal data of inpatients are recorded on patient charts and these charts are archived. In this study, it was aimed to retrospectively determine the socio-demographic characteristics of patients who were hospitalized and treated by AMATEM clinic, from 2007 (when the clinic was established) to May 2015.

METHOD

In this study, the records of the cases that received inpatient treatment at the AMATEM clinic, from the opening until May-2015, were screened by the researchers. It was seen that 1244 patients, who met alcohol or substance dependence diagnostic criteria according to DSM-5 were treated at the inpatient clinic in this period (9). A total of 1222 patients with complete medical records were included in the study. A questionnaire evaluating the socio-demographic data including age, gender, marital status, education, life style, employment, area of residence; and clinical data of the patients including type of admission to the clinic, hospitalization duration at AMATEM, number of hospitalizations, psychiatric diagnoses, and the form of discharge, was developed by the research team. Patient files were screened retrospectively by the researchers and data from patient files were transferred to this questionnaire.

Statistical Analysis

The obtained data were transferred to the questionnaire developed by the research team, and then they were recorded in the database created in SPSS 23 software. The continuous variables were compared by mean and standard deviation values. The categorical variables obtained by counting (diagnosis, additional diagnosis, occupation, educational status, etc.) were compared according to the number and frequency (percentage). Chi-square test was used for descriptive analyses. The confidence interval was

defined as 95% and the statistical significance limit was considered as $p < 0.05$ in all analyses.

RESULTS

The study included 1222 patients who were hospitalized at AMATEM between 2007-2015. The most frequent source provinces of treatment applications were Kayseri ($n=748$, 61.2%), Gaziantep ($n=143$, 11.7%), Nevsehir ($n=81$, 6.6%), Kirsehir ($n=61$, 4.9%), Nigde ($n=43$, 3.5%), Yozgat ($n=41$, 3.3%), Sivas ($n=30$, 2.4%), Aksaray ($n=15$, 1.2%).

Of the all patients 94.8% ($n=1159$) were male, 5.2% ($n=63$) were female patients and the male / female ratio was 18/1. The mean age of the patients was 33.60 ± 10.83 years. The mean age of alcohol users was 39.80 ± 8.70 years; the mean age of the drug users was 27.50 ± 12.68 . The mean age of the subjects who applied due to alcohol dependence was significantly higher than the age of the subjects who applied with other substance dependencies ($p < 0.001$). Of the all patients 49.6% were single, 47.4% were married and 3.0% were divorced. The rate of married subjects, was higher among alcohol addicts than the other substance dependents ($p < 0.001$). Educational status of the patients was: 54.5% elementary school graduates, 40.6% high school graduates, 3.9% university

graduates, and 1% illiterate. Of the participants, 90.5% were living with parents/families, 6.8% alone, 1.4% with friends and 1.3% were homeless/on the streets. Regarding the employment status; 39.8% of the participants were regular employees, 36.7% were unemployed, 12.1% were temporary workers and 11.4% were entitled to pensions. The unemployment rate was 21.1% for alcohol users, 50.0% for cannabis users and 36.0% for heroin users. The employment rate among alcohol dependents was higher than other substance dependents ($p < 0.001$) (Table 1).

Patients rates in terms of dependence type were; 37.2% alcohol, 34.1% cannabis, 18.5% heroin, 4.0% benzodiazepine, 1.9% amphetamine, 1.7% artificial, 1.5% synthetic cannabinoid, 1.1% ecstasy. The majority of patients were smokers (91.7%) and the rate of non-smokers was 8.3%. Of the patients, 55.5% admitted to clinic themselves, 40.6% family referral, 2.3% by judicial means and 1.6% by other ways. A total of 67.7% of the applicants were hospitalized for 1-15 days, 30.4% for 15-30 days, 1.3% for 30-45 days and 0.6% for 45 days. Of the all inpatients, 59.8% were discharged upon self request, 35.7% with full recovery and 4.5% were discharged for other reasons.

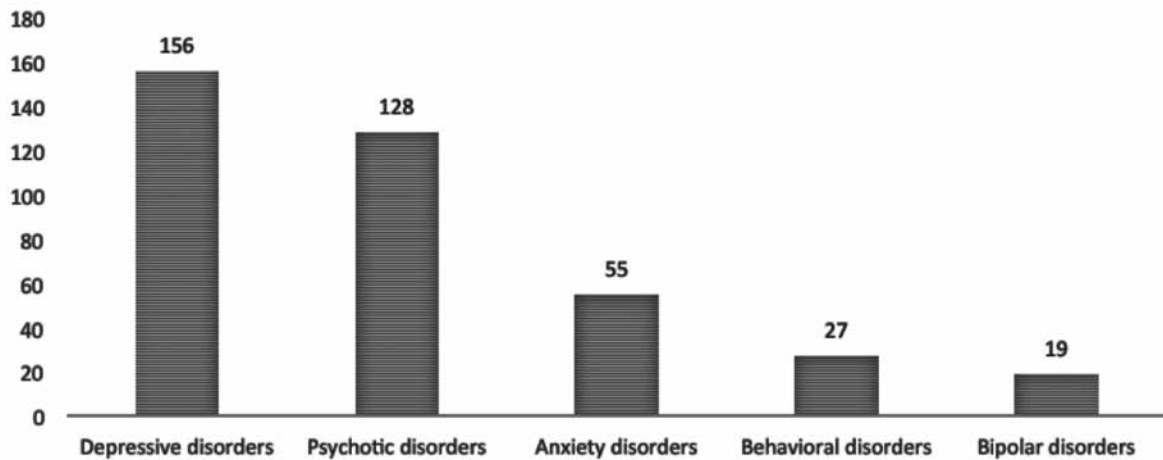
The number of first-time inpatients ($n=721$, 60%) was higher than recurrent admissions. The rate of patients who were hospitalized 2-3 times was 25.6%,

Table 1: Distribution of alcohol and drug and substance users dependent patients by various variables

	Alcohol users		Drug and substance users		χ^2	p
	n	%	n	%		
Marital status					123.02	$p < 0.001$
Married	258	70.3	281	36.6		
Single	94	25.6	466	60.8		
Divorced	15	4.1	20	2.6		
Gender					11.94	$p > 0.001$
Female	7	1.9	59	5.2		
Male	360	98.1	1075	94.8		
Employment					69.54	$p < 0.001$
Regularly employed	212	57.8	244	31.8		
Not regularly employed	155	42.2	523	68.2		
Educational status					109.60	$p < 0.001$
Illiterate	1	0.3	11	1.4		
Elementary school	140	38.1	472	61.5		
Secondary or high school	184	50.1	279	36.4		
Bachelor (Higher education)	42	11.4	5	0.7		

Table 2: Distribution of recurrent admission of patients in AMATEM according to the substance used

	First admission	2-3 times	3-5 times	More than 5
Alcohol	64.6%	23.5%	5.9%	6.0%
Marijuana	58.2%	23.9%	9.1%	8.8%
Heroin	53.9%	35.3%	6.1%	4.7%
Benzodiazepine	60.0%	26.0%	12.0%	2.0%
Amphetamine	36.3%	31.8%	18.1%	13.8%
Volatile substances	95.2%	4.8%	-	-
Synthetic cannabinoid	58.8%	29.4%	11.8%	-
Ecstasy	92.8%	7.2%	-	-
Total	60.0%	25.6%	7.5%	6.9%

**Figure 1: Diagnosis of patients with psychiatric disorders**

the rate of patients 4-5 times was 7.5%, and the rate of patients with more than 5 admission was 6.9%. Forty percent of all patients have been previously hospitalized. This rate was 63.7% for amphetamine users, 35.4% for alcohol users, 41.8% for cannabis users, and 46.1% for heroin users (Table 2).

Alcohol and substance comorbidity were found in 7.2% (n=88), alcohol dependence alone in 30.0% (n=367), and drug and substance users dependence in 62.7% (n=767) of the 1222 evaluated cases. Cases with alcohol dependence and other drug and substance users addictions were compared in terms of gender, marital status, occupational status and educational status. In this comparison, 88 cases, alcohol and drug and substance users comorbidity, were excluded from the analysis. Findings related to the analyzed data are presented in Table 1.

Of the inpatients, 31.7% had another psychiatric

comorbidity along with alcohol and substance dependence. Depressive disorders were in the first (n=156) and psychotic disorders in the second place (n=128) among the patients who had comorbidities (n=387, 31.7%) (Figure 1).

DISCUSSION

In our study, 61.2% of AMATEM admissions were from Kayseri and 11.7% were from Gaziantep. Although Kayseri Education and Research Hospital AMATEM clinic provides service to Kayseri province and the surrounding area, also it was seen that it also served to the patients from Gaziantep, where there was not another AMATEM at that time (2007-2014). Findings of our study yielded a similar gender distribution (94.8% male, 5.2% female) compared to other institutions providing inpatient treatment for

adults, in our country. When the gender distributions of the patients treated in AMATEM between 1998 and 2002 were evaluated, it was found that 4.2%-4.9% were females and 95.1% -95.8% were males (10). In a study conducted at the AMATEM clinic of a university hospital in Edirne, in 2014, gender distribution was reported as 96.9% males and 3.1% females (11). Surveys show that alcohol, volatile and illegal substance use risk is higher in men (12-15).

The majority of the patients enrolled in the study were elementary school graduates (54.5%). Data on studies at other AMATEMs in our country are consistent with our study (10,16-19). The lower incidence of high school and college graduates in our study supports the idea that there may be a linear relationship between low level of education and dependence (20).

In many studies, it has been reported that the unemployment rate among substance dependents ranges from 12-38% (10,11,16). It is emphasized that this frequency is higher among substance dependents than alcohol addicts (16,19). In our study, unemployment rate was 36.7% of all cases. Unemployment rate of alcohol dependents was lower than that of substance dependents. This suggests that impairment in functioning and quality of life is differs according to the addictive substance, especially it is lower in alcohol users compared to substance users (21).

In the studies on dependents, the incidence of being married was found to be higher in alcohol dependents than in other addicts (10,22-24). In our study, the rate of married subjects was higher in alcohol-dependent patients (65.00%) than in other subjects (41.48%), those who live with parents/families had the highest rates. This shows that the negative and destructive effects on social life and interpersonal relationships differ according to the addictive substance type, similar to the effect that occurs in the occupational life of patients. Especially, alcohol users have less negative and destructive effects than substance users and the acceptance rate of alcohol in society is higher than other substances.

In our study, alcohol addiction was the most frequent cause of addiction treatment (37.2%), cannabis

addiction was the second most frequent (34.1%), and heroin addiction was the third most common addiction (18.5%). Among the studies conducted at the Bakirkoy Mental Health and Neurological Diseases Training and Research Hospital AMATEM clinic between 1998-2002, the reasons for the dependency treatment were alcohol (58.5%-64.5%), heroin (14.0%-20.8%) and volatile substance (7.0%-10.3%) respectively and cannabis use rate was found to be between 3.5% and 7.9% (6,20). Trakya University had the highest use of alcohol (40%) in the study conducted in 130 patients who received inpatient treatment in Balkan AMATEM service (25). The variability of substance preference data reported in studies may be influenced mainly by factors such as population size and economic development status of residence place, and income and economic status of individuals (26).

The mean age of the alcohol users in our study was 39.80 ± 8.70 years; the mean age of the drug users was 27.50 ± 12.68 years. A number of studies have found that the average age of patients who are admitted to the hospital for alcohol dependence is higher than for other substance groups (10,20,25). The social acceptance of alcohol use in society and the emergence of harmful effects at older ages are explained as the reason for this fact (27,28).

Of all patients included in the study, 55.5% admitted to AMATEM voluntarily. The fact that these individuals composed the majority can be interpreted in favor of a positive result in terms of treatment motivation. Although, willingness is an important determinant in treatment, it does not have the same meaning as being motivated. It is already difficult for many individuals to make a decision to have treatment. For this reason, even if the individual voluntarily admits to the clinic, there is a possibility that motivation cannot be achieved immediately (29). As a matter of fact, 59.8% of the patients who were treated in our study were discharged at their own discretion.

Of the patients in our study, 67.7% were discharged within the first 15 days. Duration is one of the important factors affecting treatment. The duration of addiction treatment varies according to many different factors. Some research suggests that treatment should

last at least three months in order to be successful. It is claimed that the treatments less than this duration do not provide any benefit to the individual (30).

Recurrence is a major problem in the treatment of alcohol and substance abuse (31,32). Forty-one percent of all patients who participated in our study have been previously hospitalized. The fact that these rates were lower in volatile substances and ecstasy addicts than in the other groups indicates that recurrent cases vary according to the substance type (Table 2).

The retrospective design of our study, the acquisition of data from patient files, and the evaluation of cases treated only at one center, have limited our study. For this reason, the results of the research may not be generalized to alcohol/substance addicts who are not seeking treatment. However, the study may contribute to planning treatment options and to evaluating the clinical and socio-demographic characteristics of the patients by comparing our data with the data of other AMATEMs of our country.

Contribution Categories	Name of Author
Development of study idea	A.G., A.U., Z.E.U., H.K., M.G.Y.
Methodological design of the study	A.G., A.U., Z.E.U., H.K., M.G.Y.
Data acquisition and process	A.G., A.U., Z.E.U.,
Data analysis and interpretation	H.K., M.G.Y., A.U., Z.E.U., A.G.
Literature review	H.K., M.G.Y., A.U., Z.E.U.
Manuscript writing	H.K., A.U., Z.E.U., M.G.Y.
Manuscript review and revision	A.G, H.K., M.G.Y., A.U., Z.E.U.

Conflict of Interest: Authors declared no conflict of interest.

Financial Disclosure: Authors declared no financial support.

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