Prevalence, Clinical Features and Comorbidities of Alcohol and Substance Use Disorders Among Patients Admitted to Psychiatry Outpatient Clinic

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ÖZET

Psikiyatri Polikliniğine Başvuran Hastalar Arasında Alkol ve Madde Kullanım Bozukluklarının Yaygınlığı, Klinik Özellikleri ve Komorbiditeleri

Amaç: Alkol ve madde kullanım bozuklukları ile diğer psikiyatrik bozuklukların birlikteliği sıktır. Ancak genel psikiyatri hastalarında alkol ve madde kullanım bozukluklarının sıklığı ile ilgili çalışma son derece azdır.

Yöntem: Genel psikiyatri polikliniğine başvuran ve herhangi bir psikiyatrik tanı ile izlenen hastalar arasında alkol ve madde kullanım bozukluklarının sıklığını araştırma amacıyla, ardışık 734 yetişkin hasta çalışmaya alındı. Bu hastalara Michigan Alkol ve Madde Tarama Testi (MATT-AM) verildi. MATT-AM skoru 5 ve üzeri olan 47 (%6.4) hastaya madde tarama listesi verildi ve SCID-I'in bağımlılık modülü uygulandı. Daha sonra tanı alan 33 kişiye (%4.5) de SCID–I'in geri kalanı ve SCID–II uygulandı.

Bulgular: Çalışmaya alınan 734 genel psikiyatri hastasının 33'ünde (%4.5) herhangi bir alkol ya da madde kullanım bozukluğu saptandı. Bu 33 hastadan 5'ine (%0.7) alkol bağımlılığı, 26'sına (%3.5) alkol kötüye kullanımı, 3'üne (%0.4) çoğul madde bağımlılığı, 9'una (%1.2) esrar kötüye kullanımı, 4'üne (%0.5) ekstazi kötüye kullanımı, 1'ine (%0.1) eroin kötüye kullanımı, 1'ine (%0.1) biperiden kötüye kullanımı ve 9'una (%01.2) benzodiazepin kötüye kullanımı tanısı kondu. Alkol ve/veya madde bağımlılığı veya kullanım bozukluğu tanısı alan toplam 33 kişiden 7'si (%1.0) borderline kişilik bozukluğu, 2'si (%0.3) antisosyal kişilik bozukluğu, 1'i (%0.1) paranoid kişilik bozukluğu, 1'i (%0.1) narsisistik kişilik bozukluğu, 2'si (%0.3) kaçıngan kişilik bozukluğu, 1'i (%0.1) şizoid kişilik bozukluğu, 1'i (%0.1) bağımlı kişilik bozukluğu tanısı aldı. SCID-I'de 5 kişiye (%0.7) major depresif bozukluk, 3 kişiye (%0.4) bipolar I, 1 kişiye (%0.1) distimik bozukluk, 2 kişiye (%0.3) paranoid şizofreni, 1 (%0.1) kişiye sanrısal bozukluk, 3 (%0.4) kişiye yaygın anksiyete bozukluğu, 3 kişiye (%0.4) panik bozukluk, 1 kişiye (%0.1) agorafobili panik bozukluk, 1 kişiye (%0.1) BTA anksiyete bozukluğu,1 kişiye (%0.1) sosyal fobi ve 1 kişiye (%0.1) travma sonrası stres bozukluğu tanısı kondu.

Sonuç: Bu sonuçlar, genel psikiyatri polikliniğine başvuran hastalar arasında alkol madde kullanım bozukluklarının çok yaygın olmadığını göstermiştir. Özellikle duygudurum bozukluğu, anksiyete bozukluğu ya da kişilik bozukluğu tanısı konan hastalarda alkol madde kullanım bozukluklarını dikkatli sorgulamakta yarar vardır.

Anahtar Kelimeler: alkol madde kullanım bozuklukları, psikiyatrik eş tanı, genel psikiyatri polikliniği, yaygınlık

ABSTRACT

Prevalence, Clinical Features and Comorbidities of Alcohol and Substance Use Disorders Among Patients Admitted to Psychiatry Outpatient Clinic

Objective: Comorbidity of substance use disorders and other psychiatric disorders is common. However, data on the prevalence of substance use disorders in general psychiatric outpatient population is rather scarce.

Method: In order to investigate the prevalence of substance use disorders among the patients who admitted to the general psychiatric outpatient unit and followed with any psychiatric diagnosis, 734 consecutive adult patients were included in this study. Michigan Alcoholism Screening Test–AD was administered to these patients. Substance screening form and SCID-I dependence module were administered to 47 patients (6.4%) who had a MAST-AD score above 4. Later, SCID-II and the rest of SCID-I were administered to 33 patients (4.5%) who met any diagnostic criteria on this module.

Results: From these 734 patients, 33 (4.5%) had alcohol or substance use disorder: Five patients (0.7%) had alcohol dependence, 26 patients (3.5%) had alcohol abuse and 3 patients (0.4%) had multiple substance dependence. There were 9 patients (1.2%) with cannabis abuse, 4 patients (0.5%) with ecstasy abuse, 1 patient (0.1%) with heroin abuse, 1 patient with (0.1%) biperiden abuse and 9 patients (1.2%) with benzodiazepin abuse. From this 33 patients, 7 (1.0%) patients were diagnosed with borderline personality disorder, 2 (0.3%) with antisocial personality disorder, 1 patient (0.1%) with paranoid personality disorder, 1 patient (0.1%) with narcissistic personality disorder, 2 patients (0.3%) with avoidant personality disorder, 1 patient (0.1%) with schizoid personality disorder and 1 patient (0.1%) with dependent personality disorder. With SCID-I, we found 5 (0.7%) major depressive disorder, 3 (0.4%) bipolar I, 1 (0.1%) distimic disorder, 2 (0.3%) paranoid schizophrenia, 1 (0.1%) delusional disorder, 3 (0.4%) generalized anxiety disorder, 3 (0.4%) panic disorder, 1 (0.1%) panic disorder with agoraphobia, 1 (0.1%) anxiety disorder not otherwise specified, 1 (0.1%) social phobia and 1 (0.1%) post traumatic stress disorder.
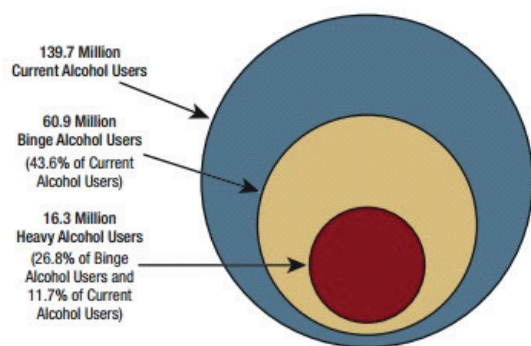
Conclusion: These results suggest that substance use disorders are not prevalent among general psychiatric outpatients. Substance use disorders should be carefully assessed in the patients with diagnoses of mood disorders, anxiety disorders or personality disorders.

Key words: substance use disorders, psychiatric comorbidity, general psychiatric outpatients, prevalence

INTRODUCTION

Prevalences of alcohol (AUD) and substance use disorders (SUD) are increasing with a dizzying pace in general population, bringing significant health, economic and social burdens (1,2). According to the results from the 2014 National Survey on Drug Use and Health (NSUDH), the prevalences of alcohol and illicit substances abuse are 23.9% and 10.2% respectively in the United States population (3). (Table 1-2) Mental disorders are frequently overlooked in the population with alcohol and substance use disorders. Similarly, AUD and SUD are often unnoticed among people who refer hospitals for psychiatric or general medical reasons (4).

Table 1: Current, Binge and Heavy Alcohol Use among People Aged 12 or Older (2014)[3]

139.7 Million
Current Alcohol Users

60.9 Million
Binge Alcohol Users
(43.6% of Current
Alcohol Users)

16.3 Million
Heavy Alcohol Users
(26.8% of Binge
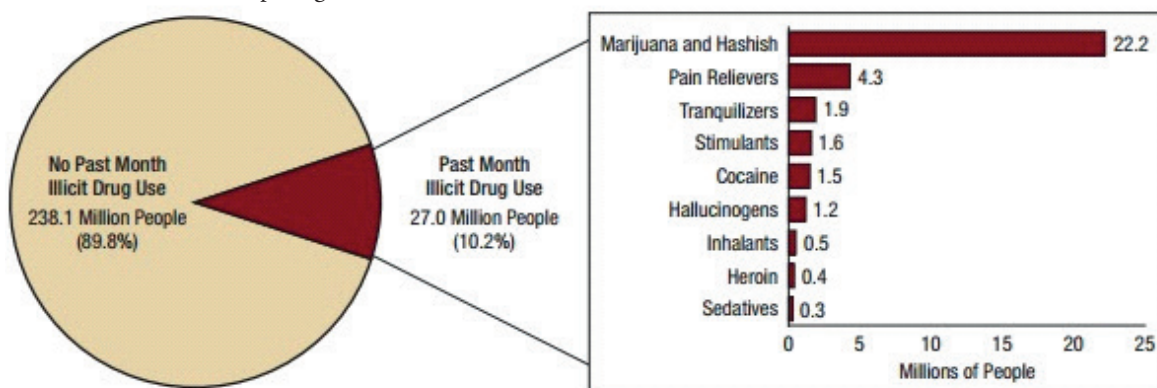Alcohol Users and
11.7% of Current
Alcohol Users)

Prevalance studies of AUD/SUD in Turkey mainly comprised of face-to-face surveys in young population without using structured diagnostic tools (5). The main concern for using different sampling methods and measurement criteria is possibility of obtaining confounding results with inaccurate data on alcohol and substance use trends in general population. Limited numbers of studies in Turkey revealed that prevalence of SUD in youth did not reach the levels as did developed countries but warned possible increase which should not be underestimated (6, 7). In a survey conducted on 11,989 elementary school students, lifelong substance use prevalence was found 0.4% for marijuana, 3% for volatile substances, and 0.4% for other narcotics (5). Several field studies particularly pointed out higher rates of volatile substance abuse among adolescents

(5, 6). The only nation-wide face-to-face study conducted among general population in Turkey revealed the lifelong rate of substance use at least once as 1.3% (8). In that study, SUD prevalence was found higher in males and at ages of 15 – 24.

In patients with mental disorders, comorbid AUD/SUD manifest with greater psychosocial and medical problems with poorer prognosis (9). Treatment in the presence of dual diagnosis is also considered to be more challenging and expensive (10). Despite insufficient data, compared to SUD, comorbid AUD is assumed more likely to be present with other complex psychiatric disorders, such as mood and anxiety disorders (11). In a meta-analysis, it has been found that people with an AUD have 2,1 times of greater risk for suffering from any anxiety disorder, furthermore; strong association has been shown between concurrence of substance use disorders with major depression and any anxiety disorder (12). In the epidemiological national comorbidity study of SUD and other psychiatric disorders (NCS; National Comorbidity Study), 41% - 65% of the addicted individuals have shown a mood or anxiety disorder in a period of their lives (13). Strikingly, Newland et al. reported that women with both AUD and SUD stated more frequent symptoms of paranoid ideation, phobic anxiety, anxiety and psychoticism compared to women with SUD without alcohol problems (14). According to literature, AUD and SUD are recognized to be prevalent in schizophrenia. It is argued that schizophrenia patients are more vulnerable to the deleterious effects of cannabis because of their sensitivitiy in endogenous cannabinoid system and related abnormal pharmacodynamic reactions to exogenous cannabinoids. Furthermore, cannabis is the most common substance associated with exacerbations of schizophrenia and acute psychotic episodes. Cannabis use also contributes to poor treatment outcome in schizophrenia (15). Social variables also affect the prevalance of alcohol and substance use (16, 17). Among patients with schizophrenia, being young, male, uneducated and single possessed high proneness to develop dependence (18, 19). Nicotine, alcohol, cannabis and psychostimulants were the most commonly used substances among schizophrenia patients (19, 20). In the

Table 2: Numbers of People Aged 12 or Older with a Past Year Substance Use Disorder (2014)[3]

No Past Month
Illicit Drug Use
238.1 Million People
(89.8%)

Past Month
Illicit Drug Use
27.0 Million People
(10.2%)

	Millions of People
Marijuana and Hashish	22.2
Pain Relievers	4.3
Tranquilizers	1.9
Stimulants	1.6
Cocaine	1.5
Hallucinogens	1.2
Inhalants	0.5
Heroin	0.4
Sedatives	0.3

United States, the rate of AUD and/or SUD was found as 47% in psychotic disorders (21). That study indicated 4.6 times higher rates of SUD among patients with schizophrenia compared to general population. The rates of comorbid AUD and SUD in schizophrenia spectrum disorders were found 33.7% and 27.5% respectively. Few studies conducted in Turkey revealed the rates of AUD and SUD among schizophrenia patients as 7-8,1% and 2-3% respectively (8, 22, 23).

Pathologic personality traits were also considered as major contributors for alcohol and substance use (24). In addition, AUD and SUD may worsen the personality pathology. The association between AUD/SUD and personality disorders may mostly be an interactive process (25). Prevalence of any personality disorder in AUD/SUD typically varies between 30% and 75% (26). Up to 39% of alcohol users and up to 69% of substance users were reported to have comorbid personality disorder of any type (27). Particularly, group B personality disorders have been associated with the increase of risk for AUD and SUD, worse general course and pre-treatment features (28-30). Treatment options are challenging in concurrent AUD/SUD and personality disorder and physicans face even greater difficulties in these cases (24). Aformentioned studies have been carried out on comorbidity of AUD/SUD and mental disorders in different samples, some performed on both general populations, and alcohol and substance addicts under treatment, but the number of studies on AUD/SUD in general psychiatric patient group is limited in the literature. This research aimed to widen the clinical knowledge on comorbidity of AUD/SUD among psychiatric patient population in Turkey.

METHODS

Patients between 16 and 65 years of age who referred to outpatient psychiatry clinic of Istanbul Faculty of Medicine, Istanbul University, were enrolled in the study, independently from their primary psychiatric complaints. All of the patients who recently referred and previously being followed included. Informed consents of the all participants were obtained. Patients with overt intellectual disability, consciousness problems and illiteracy causing insufficient interaction excluded in order to provide accurate data from the scales. Michigan Assessment-Screening Test for Alcohol and Drugs (MATT-AM) was applied to all participants. At the second step, a substance screening list was given and the addiction module of The Structured Clinical Interview for DSM-IV (Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition) Axis I Disorders (SCID-I) was applied to the patients with a MATT-AM score of five and higher. Later, remainder of SCID-I and The Structured Clinical Interview for DSM-IV Axis II Disorders (SCID-II were both administered on those who were identified with alcohol or substance use problems at the second step. This study was obtained from the thesis of Habib Erensoy.

SCALES

MATT-AM: This tool is a screening test used for checking whether an individual faces alcohol use problems or not and if any, for measuring the level thereof. It was developed by Selzer et al. (1971) (31). It is one of the most commonly used tests in this area. In this scale comprised of 25 questions, the subject gives the answer "yes" or "no" for each question. Scoring of each article is different from the others. Validity and reliability of the scale's Turkish version were studied by Coskunol et. al. (1995) and they demonstrated that when the cut-off interval is taken between five and nine, it is determined that MATT's discrimination is at the best level in patients with alcohol use problem (30). In terms of validity of transaction, the best discrimination is obtained when this cut-off interval is taken. Freedom is determined as 0.99 when the cut-off point is five, and as 0.95 when the cut-off point is nine, while sensibility is determined as 0.79 when the cut-off point is five, and as 0.91 when the cut-off point is nine. Westermeyer et al. have also modified the scale in such manner to ask problems related to both alcohol and non-alcohol substances (32).

SCID-I: First et al. (1996) developed this structured clinical interview (33). It is applied by an interviewer specifically trained on this interview on patients who have optimal cognitive skills and abilities required for this interview and without severe psychomotor or psychotic symptoms. This scale is composed of six modules and investigates a total number of 48 axis I disorders, those are identified in DSM-IV, in two sections as "current" and "lifelong". Validity and reliability of its Turkish version were tested Ozkurkcugil et al. (1999) (34).

SCID-II: It is a structured interview which was developed by First et al. (1997), assisting in establishing personality disorder diagnoses (35). Turkish validity and reliability were studied by Coskunol et al. (30).

STATISTICAL ANALYSES

NCSS (Number Cruncher Statistical System) 2007 (NCSS, LLCKaysville, Utah, USA) program was used for statistical analyses. In evaluation of study data, in addition to descriptive statistical methods (average, standard deviation, median, frequency and ratio), Student-t test was used in intergroup comparisons of parameters showing a normal distribution in comparison of quantitative data. In comparison of qualitative data, Pearson Chi-Square test, Yates Continuity Correction and Fisher's Exact test were used. Results were assessed in 95% confidence interval at a significance p<0.05 level.

RESULTS

734 patients were included to the study. Out of these patients, 529 (72.1%) were females and 205 (27.9%) were males. Average age was 32.0 ± 9.5 years. 48 patients (6.5%) had MATT-AM scores of five and higher. 15 of

them did not resume advanced interview. The alcohol and drug abuse module of SCID-I was applied to 33 patients. Remainder part of SCID-I, as well as complete SCID-II, were applied on 33 patients (4.5%) who were diagnosed in the alcohol and drug abuse model (Table 1).

Out of 33 patients to whom SCID-I dependency module was applied due to their MATT-AM score being five and more, and to whom a substance screening list was given, 22 patients (46.8%) declared that they use any substance other than alcohol or they use the prescribed drugs without doctor control or more than the dosage recommended by the clinician (maybe together with alcohol). All of these 22 patients were diagnosed any substance addiction or abuse in SCID-I. However, these patients declared use of various substances other than the diagnosed substances as well. Other than three patients with polysubstance addiction diagnosis, the patients were using additional substances for trial purposes and tentatively. Out of patients reported to use substances, a total of 12 patients (1.6%, N=734) declared to use cannabis, seven patients (1.0%, N=734) amphetamine derivative pills, and one patient (0.1%, N=734) heroin, and in addition, nine patients (1.2%, N=734) declared to use benzodiazepines and two patients (0.3%, N=734) declared to use biperidene without prescription or in excess dosage. Out of 33 patients diagnosed in SCID-I dependency module, 11 patients (1.5%, N=734) declared to use alcohol only. There were a total of 31 patients (4.2%, N=734) with alcohol addiction or abuse. Out of 33 patients with any diagnosis from SCID-I dependency module, seven patients were females (21.2%, N=33) and 26 patients were males (78.8%, N=33). Cases diagnosed according to SCID-I showed significant differences in terms of gender, and number of male cases were significantly higher (p<0.01). Average age was 29.06 (SD: ± 8.76). There was no significant difference between average ages (p>0.05). Average MATT-AM score of 33 diagnosed cases has been determined as 9.33 ± 2.62. Out of the 33 patients, five patients (15.2%) were diagnosed alcohol addiction, 26 patients (76.8%) alcohol abuse, three patients (9.1%) polysubstance addiction, nine patients (27.3%) hashish abuse, four patients (12.1%) ecstasy abuse, one patient (3.0%) heroin abuse, one patient (3.0%) biperidene abuse and nine patients (27.3%) benzodiazepine abuse (Table 2).

Out of a total of 33 patients with AUD/SUD diagnosis borderline personality disorder was found as the most common axis II diagnosis with seven patients (21.2%). Within the 33 patients, SCID-I revealed major depressive disorder, bipolar disorder, generalized anxiety disorder and panic disorder as the major axis I disorders, with the percentages of 15.2%, 9.1%, 9.1% and 9.1% respectively. SCID-I and -II both demonstrated any type of axis I or II disorders in the patients with confirmed AUD/SUD diagnosis. In 11 patients, SCID-II pointed out AUD and/or SUD as a single axis I disorder. Diagnoses of the patients to whom SCID-I and II were applied are given in Table 3,

and distribution of diagnoses is shown in Table 4.

The percentage of males was higher in the patients with higher MATT-AM scores (≥5) compared to remaining study population (χ2: 44.4, p<0.001); however, there was no significant difference between their average ages (t:1.823; p>0.05). When these two groups are compared in terms of answers given to MATT-AM questions, to the question "Do you think you are a normal alcohol drinker or drug user?", the rate of "yes" answer among those diagnosed with AUD/SUD is determined to be significantly low (p<0.001), but nevertheless 90.9% "yes" answer is striking. Statistical comparision of complete answers of each MATT-AM questions between two group was listed below (Table 5).

Out of 34 patients with a MATT-AM score of five and higher, seven patients (20.6%) were females and 27 patients (79.4%) were males, while the total of the study population were composed of 529 females (72.1%) and 205 males (27.9%). Accordingly, although the majority of applicants were females, addiction is determined to be higher among males than females (Table 6).

DISCUSSION

Alcohol and substance use among Turkish population is low compared to developed countries which might be related to religious and cultural matters. Current literature frequently focuses on investigating the prevalences of mental disorders in patient populations with alcohol and substance use problems; nevertheless, in a very few group of studies, prevalences of AUD and SUD have been studied in certain psychiatric diagnosis groups. Regarding literature does not offer satisfying and sufficient data about prevalences of alcohol and substance use problems among general psychiatry outpatient population. Therefore, current study may be considered as an important contributor to literature.

Epidemiological studies of the general population have indicated that problematic alcohol use was associated with anxiety and depressive symptomatology (14). In a study conducted among a total of 100 psychiatric inpatients, a total of 100, consisting of 36 females (36%) and 64 males depressive disorder (36%, n=36), bipolar disorder - manic episode (20%, n=20), schizophrenia (20%, n=20) and others (eating disorder, anxiety disorder, etc.) (29%, n=29) were found as axis I diagnoses. In that study, it is concluded that the rate of problematic alcohol use in inpatient population with a psychiatric diagnosis is higher than the general population. The study also presented that also in patients undergoing a treatment for other psychiatric diagnoses, the use of alcohol must be "selectively" asked and taken into consideration (36). Another recent study performed on 2329 patient with anxiety and/or depressive disorders and 652 healthy controls, unlikely revealed that AUD was not more common among patients with depression and/or anxiety however the prevalence of

alcohol dependence was 5.5% in patients without anxiety or depressive disorder and 20.3% in anxiety and depressive patients which is statistically significant (37). In a meta-analysis conducted by Goldner et al. showed that the prevalances of major depression and anxiety disorders in substance and alcohol abusers are 27% and 29% respectively, greater than general population (38).

In our study, the prevalence of AUD/SUD among the patients who admitted to the general psychiatry settings and have not previously been treated in our clinic due to alcohol or substance problems has been found to be 4.5%. This result is fairly lower than the problematic alcohol use among psychiatry inpatients (36). Our clinic has an allocated Addiction Treatment Programme, and those with addiction problems may directly apply to the relevant unit. Therefore, our finding may be lower than the result that can be found in any general psychiatry polyclinic. Furthermore, in the field studies, the rate of comorbidity of psychiatric disorders with alcohol addiction is found to be lower in outpatient alcohol addicts than inpatients (21). These studies support the idea that comorbidity of alcohol or substance addiction and other psychiatric disorders is more frequent in inpatients than outpatients.

AUD and SUD may be found together with other psychiatric disorders, or intoxication or abstinence of alcohol or substance may imitate the symptoms of another psychiatric disorder, thereby causing a misdiagnosis. This is called "substance-related artifact hypothesis" (26, 39). Alcohol is a depressant substance, and in order to be able to establish another psychiatric disorder diagnosis in patients with alcohol and substance abuse and with intensive intake of alcohol, a psychiatric assessment should be effected only after a period of four weeks of withdrawal from alcohol and substances. The starting of psychiatric symptoms before start of intensive intake of alcohol/substances, and the emergence of a similar psychiatric problem at times of no intensive intake of alcohol/substances, and family history may also be helpful in diagnosis.

In terms of bipolar disorder, the lifetime prevalences of comorbid AUD/SUD are 46.2-48.5% 40.7-43.9% respectively (21, 40). The only study among bipolar patients in Turkey, found the prevalences of comorbid AUD and SUD as 3.2% and 4.9% respectively (41).

A review of comorbid AUD in anxiety disorders shows the following data: In individuals with alcohol abuse problem, prevalence of agoraphobia is 2.4 - 42.2%; of simple phobia is 6.2 – 17%; of panic disorder is 2.4 - 10.8%; of generalized anxiety disorder is 8.3 -52.6%; and of obsessive compulsive disorder is 2.7 – 12% (42, 43). Drug addiction starts at an early age and is severe in most of dissociative patients (44). Ross and Karadag have found AUD/SUD comorbidity in dissociative disorder as 39% and 17.2% respectively (45, 46).

It is demonstrated that in 1/3rd of patients with bipo-

lar mood disorder, alcohol use increases in manic period, while alcohol consumption increases only by less than 5% in depressive period (47). Bipolar patients sometimes start to abuse substances in order to eliminate symptoms of their disorder (48). Also in our study, out of patients applying to our psychiatry polyclinic with AUD/SUD, major depressive disorder prevalence was 15.2%, Bipolar I disorder prevalence was 9.1% and dysthymic disorder prevalence was 3%. This finding leads us to consider the patients with alcohol and/or substance problems frequently apply to psychiatry due to mood disorders. Yoon et al. also demonstrated that the prevalence of comorbid substance use disorder was higher in unipolar and bipolar disorder deaths than that in all other deaths. In addition they showed that, among unipolar and bipolar disorder deaths, comorbid AUD/SUD were related increased risks for suicide and other unnatural death in both men and women and were associated with decrement in the mean ages at death (49).

In the literature, alcohol-related problems are frequently reported in patient groups studied due to anxiety disorder. Prevalence of alcohol problems in anxiety disorder is determined as 7-27% in agoraphobia and 7.2-8% in panic disorder (43). Interestingly, generalized anxiety disorder and panic disorder are reported very frequently in the group with alcohol abuse. Massion et al. have interviewed 63 generalized anxiety disorder patients and 11% of those have at the same time been diagnosed with non-alcohol SUD (50). A cross-sectional survey of 10,641 adults revealed superior comorbidity in AUD with generalised anxiety disorder, panic and agoraphobia with the odd ratios (OR) of 3.3, 3.9 and 2.3 respectively (51).

In 75% of soldiers coming back from war with post-traumatic stress disorder (PTSD) consecutive AUD/SUD has been diagnosed. This rate varies between 25.6% and 43% in civilians. The same rate is between 8.1% and 24.7% among those without a PTSD (post-traumatic stress disorder) diagnosis. Prevalence of PTSD among AUD/SUD in general population has been found as 8.3% (52). Co-occurrence of PTSD and social fobia with AUD was found to be higher with a 5.2 and 3.2 OR respectively (51). It is also speculated that self-medication of PTSD symptoms with alcohol, drugs or nicotine may lead to the development of substance use disorders (53). Our study, among the patients with AUD/SUD, demonstrated the prevalences of generalized anxiety disorder 9.1%, panic disorder 9.1%, agoraphobic panic disorder 3%, BTA anxiety disorder 3%, social phobia 3% and PTSD 3%, those concurred with previous findings.

Substance abuse is known to be prevalent among schizophrenia patients. Marijuana abuse can lead to transient psychosis plus it may cause or worsen psychotic disorders like schizophrenia. In epidemiologic catchment area (ECA) study conducted in the United States, SUD is shown in 47% of cases with schizophrenia and schizo-

phreniform disorders. In that study, the prevalence of SUD in schizophrenia patients has been found to be 4.6 times higher than general population (21). Out of the patients admitted to the psychiatry polyclinic with alcohol/substance abuse problems, prevalance of schizophrenia was 6.1% and prevalence of delusive disorder was 3%. Similar to our results, Darcin et al. has found the psychotic disorder prevalence in AUD/SUD in a Turkish inpatient clinic as 21.7% (54).

Validity and reliability of assessment of personality disorders (Axis II) in users of alcohol and/or substances are affected from substance intoxication, acute or prolonged withdrawal symptoms and other probable Axis I diagnoses. Active substance abuse causes significant changes in cognitive, emotional and social functions, and these symptoms may imitate many symptoms of basic personality disorders. However, these symptoms may not appropriately reflect the basic personality functions. It is difficult for both patients and clinic interviewers to distinguish the behaviors related to alcohol and/or substance from personality characteristics. Distinguishing episodic or special behaviors emerging during intoxication or withdrawal periods may be relatively easier, but it may be difficult to distinguish the effects of AUD/SUD such as lying, identity confusion, illegal behavior or cognitive, emotional or perceptive disorders from the symptoms or behaviors related to life style (26, 55).

It is reported that continuous and intensive use of alcohol and/or substance may lead to transient personality pathology which is independent from psychopathology and which disappears when addicted behaviors are left (56). However, the prevalence of personality disorders has been found to be similar between those diagnosed with AUD/SUD now and lifelong (57). Furthermore, in the sampling of AUD/SUD, the remission of AUD/SUD has not been found to be related with the remission of personality pathology and this in turn has led us to think that these two cases show an independent course (21). The most important association published in the literature is between the drug addiction and anti-social personality disorder, and this association has been determined in both clinic and general population samplings. There is a double-sided association between them: The prevalence of antisocial personality disorders which evidently increases in populations using alcohol and/or substances is not accompanied by an increased prevalence of AUD/SUD as determined in studies conducted on criminals meeting the diagnosis criteria of antisocial personality disorders. Most of the substances being illegal and the accompanying crime-based life style have made anti-social personality disorder the first and most studied personality disorder (58). Furthermore, there were scales used only for anti-social personality disorder before development of standard, semi-structured interviews for other Axis II disorders (53, 54). Childhood movement disorders are found to be associated with development of AUD/SUD (57).

A review of the studies conducted in Turkey reveals that most of the studies on Axis II were performed on inpatients with alcohol abuse. Incesu (59) has reported that prevalence of any personality disorder diagnosis in alcohol addicts is 22%, and the most common Axis II diagnoses are antisocial personality disorder (9%), avoidant personality disorder (6%) and dependent personality disorder (4%). The consistent findings on the association of antisocial, borderline, and schizotypal personality disorders (3.51, 2.52, 3.36 ORs respectively) with subtance use disorders indicates the importance of these personality disorders in understanding the course of AUD/SUD. Obsessive-compulsive and schizoid personality disorderswere not associated with persistent alcohol or cannabis disorders but did predict persistent nicotine dependence (60).

In our study, a high prevalence of personality disorders has been determined among applicants to our general psychiatry polyclinic with alcohol and/or substance problems. Out of 33 patients with AUD/SUD, 7 patients (21.2%) are diagnosed as borderline personality disorder, 2 patients (6.1%) as antisocial personality disorder, 1 patient (3.0%) as paranoid personality disorder, 1 patient (3.0%) as narcissistic personality disorder, 2 patients (6.1%) as avoidant personality disorder, 1 patient (3.0%) as schizoid personality disorder, and 1 patient (3.0%) as dependent personality disorder. In this study, any personality disorder diagnosis is established for 13 (39.4%) of the patients with AUD/SUD. In our study, prevalence of personality disorders was higher than prevalence determined in the study of Incesu (59). Furthermore, prevalence of borderline personality disorder was higher than that of antisocial personality disorder in our study.

The AUD/SUD diagnosis can be more problematic in attention deficit and hyperactivity disorder (ADHD) than most other mental disorders because of uncertainties about what level or type of substance use constitutes a disorder. Therefore the diagnosing psychiatrists may have underestimated the true substance abuse of their ADHD patients. Our sample did not contain any ADHD patient, however in a large cohort, the total prevalence of alcohol/substance use disorder was 9.51%, reflecting the general high risk of developing SUD in adult patients with ADHD (61).

In our study, out of 47 patients whose MATT-AM score was 5 and more and who came to advanced interviews, 33 (70.2%) have been diagnosed with any alcohol or substance abuse. This finding demonstrates that the Turkish adaptation of MATT-AM has a good specificity. All questions of MATT-AM have not been found to be discriminative in establishing an alcohol or substance abuse diagnosis.

5. CONCLUSION

AUD/SUD are found to be not very prevalent among the patients referring to general psychiatry outpatient clinic.

It is useful to strictly inquire the alcohol and substance abuse particularly in patients with mood disorders, anxiety disorders or personality disorders. Turkish adaptation of MATT-AM has been found to have a high specificity.

Extensive studies based on broad participation are required to determine accurate prevalances of alcohol and/or substance use disorder among psychiatry patients.

FINANCIAL DISCLOSURES

Dr. Erensoy, Dr. Berkol, Dr. Balcıoğlu and Dr. Aytaç reported no biomedical financial interests or potential conflicts of interest.

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TABLES

Table 1: Distribution of descriptive characteristics

Age; Ave. ± SD		32.0±9.5
Gender; n(%)	Females	529 (72.1)
	Males	205 (27.9)
M A T T - A M ; n(%)	<5	680 (93.5)
	≥5	48 (6.5)
SCID-I	Yes	33 (4.5)
	No	701 (95.5)

Table 2: Alcohol or Substance Abuse Prevalence (N= 33)

Diagnosis	Number	%
Alcohol Addiction	5	15.2
Alcohol Abuse	26	78.8
Hashish Abuse	9	27.3
Ecstasy Abuse	4	12.1
Multiple Drug Abuse	3	9.1
Heroin Abuse	1	3.0
Benzodiazepine Abuse	9	27.3
Biperidene Abuse	1	3.0

More than one option has been marked.

Table 3: SCID-I and II diagnoses of patients with alcohol and substance abuse

Patient No.	MAST Score	DIAGNOSIS	GENDER	AGE
1	7	Borderline personality disorder, alcohol abuse	Female	19
2	15	Anti-social personality disorder, alcohol addiction, non-alcohol substance abuse	Male	20
3	5	Major depressive disorder, alcohol abuse	Female	29
4	10	Major depressive disorder, narcissistic personality disorder, borderline personality disorder, alcohol and substance abuse	Male	19
5	12	Bipolar I disorder, alcohol addiction	Male	46
6	13	Panic disorder, alcohol and non-alcohol substance abuse	Male	22
7	8	Major depressive disorder, alcohol abuse	Female	45
8	15	Generalized anxiety disorder, alcohol and non-alcohol substance abuse	Female	39
9	11	Social phobia, alcohol abuse	Male	32
10	7	Agoraphobic panic disorder, alcohol and non-alcohol substance abuse	Male	30
11	14	Paranoid schizophrenia, alcohol and non-alcohol substance abuse	Male	24
12	8	Post-traumatic Stress Disorder, borderline, alcohol and non-alcohol substance abuse	Male	21
13	9	Delusive disorder, avoidant personality disorder, alcohol and non-alcohol substance abuse	Male	36
14	7	Borderline personality disorder, alcohol and non-alcohol substance abuse	Male	19
15	9	Generalized anxiety disorder, alcohol abuse	Male	44
16	8	Panic disorder, alcohol and non-alcohol substance abuse	Female	40
17	8	Borderline, alcohol and non-alcohol substance abuse	Male	22
18	9	Avoidant personality disorder, alcohol and non-alcohol substance abuse	Male	23
19	13	Bipolar I, alcohol addiction	Male	25
20	5	Paranoid personality disorder, non-alcohol substance abuse	Male	21
21	8	Borderline, alcohol and non-alcohol substance abuse	Male	20
22	8	Anti-social personality disorder, alcohol and non-alcohol substance abuse	Male	24
23	12	Major depressive disorder, alcohol addiction and non-alcohol substance abuse	Male	33
24	8	Panic disorder, alcohol and non-alcohol substance abuse	Male	38
25	8	Dependent personality disorder, alcohol abuse	Female	22
26	11	Schizoid personality disorder, alcohol and non-alcohol substance abuse	Male	24
27	11	Generalized anxiety disorder, non-alcohol substance abuse	Male	28
28	10	Major depressive disorder, alcohol addiction	Male	46
29	7	Bipolar I, alcohol abuse	Male	29
30	8	Schizophrenia paranoid type, alcohol and non-alcohol substance abuse	Male	37
31	7	Dysthymic disorder, alcohol and non-alcohol substance abuse	Male	27
32	8	Borderline, alcohol abuse	Female	21
33	9	BTA anxiety disorder, alcohol and non-alcohol substance abuse	Male	34

Table 4: Distribution by diagnoses (N=33)

Diagnosis	Number	%
Major Depressive Disorder	5	15.2
Bipolar I Disorder	3	9.1
Generalized Anxiety Disorder	3	9.1
Panic Disorder	3	9.1
Paranoid Schizophrenia	2	6.1
Dysthymic Disorder	1	3.0
Agoraphobic Panic Disorder	1	3.0
BTA Anxiety Disorder	1	3.0
Social Phobia	1	3.0
PTSD (Post-traumatic Stress Disorder)	1	3.0
Delusive Disorder	1	3.0
Borderline Personality Disorder	7	21.2
Avoidant Personality Disorder	2	6.1
Anti-social Personality Disorder	2	6.1
Paranoid Personality Disorder	1	3.0
Narcissistic Personality Disorder	1	3.0
Dependent Personality Disorder	1	3.0

More than one option has been marked.

Table 5: General assessment of answers given to MATT-AM questions by those diagnosed according to SCID-I

MATT-AM	Alcohol-substance abuse diagnosis		^{a}P
	No (n=701)	Yes (n=33)	
1. question	701 (100.0)	30 (90.9)	0.001**
2. question	1 (0.1)	11 (33.3)	0.001**
3. question	1 (0.1)	27 (81.8)	0.001**
4. question	701 (100.0)	23 (69.7)	0.001**
5. question	6 (0.9)	19 (57.6)	0.001**
6. question	700 (99.9)	15 (45.5)	0.001**
7. question	700 (99.9)	11 (33.3)	0.001**
8. question	0 (0.0)	0 (0.0)	-
9. question	0 (0.0)	17 (51.5)	0.001**
10. question	0 (0.0)	11 (33.3)	0.001**
11. question	0 (0.0)	0 (0.0)	-
12. question	0 (0.0)	6 (18.2)	0.001**
13. question	0 (0.0)	6 (18.2)	0.001**
14. question	0 (0.0)	0 (0.0)	-
15. question	0 (0.0)	0 (0.0)	-
16. question	0 (0.0)	1 (3.0)	0.045*
17. question	0 (0.0)	0 (0.0)	-
18. question	0 (0.0)	0 (0.0)	-
19. question	0 (0.0)	0 (0.0)	-
20. question	0 (0.0)	0 (0.0)	-
21. question	0 (0.0)	2 (6.1)	0.002**
22. question	0 (0.0)	0 (0.0)	-
23. question	0 (0.0)	0 (0.0)	-
24. question	0 (0.0)	0 (0.0)	-

*^{a}Fischer exact test   *p<0.05   **p<0.01*
-The relevant analysis could not be realized because of non-availability of an observation of "yes" answer.

Table 6: Assessment of MATT-AM and SCID-I diagnoses by genders

		Females (n=529)	Males (n=205)	
		n(%)	n(%)	
MATT-AM; n(%)	<5 (n=700)	522 (74.6)	178 (25.4)	0.001**
	≥5 (n=34)	7 (20.6)	27 (79.4)	
SCID-I; n(%)	No (n=701)	522 (74.5)	179 (25.5)	0.001**
	Yes (n=33)	7 (21.2)	26 (78.8)	

*Yates' continuity correction   **p<0.01*