

Antisocial Personality Disorder in Turkish Substance Dependent Patients and its Relationship with Anxiety, Depression and a History of Childhood Abuse

Cuneyt Evren, MD, Sevil Kural, MD, and Murat Erkiran, MD

Bakirkoy State Hospital for Mental Health and Neurological Disorders, Alcohol and Drug Research, Treatment and Training Center (AMATEM), Istanbul, Turkey

Abstract: The prevalence of antisocial personality disorder (ASPD) in treatment-seeking Turkish substance dependent patients and the relationship of ASPD with clinical characteristics were studied. Participants were 132 inpatients with substance dependence according to the Structured Clinical Interview for DSM-IV (SCID-I), Turkish version. The clinician applied a semi-structured socio-demographic form, SCID-I, SCID-II, Childhood Abuse and Neglect Questionnaire (CANQ), Michigan Alcoholism Screening Test (MAST), Beck Depression Inventory (BDI), and Beck Anxiety Inventory (BAI). Among the 132 substance dependent patients, 31 (23.5%) had ASPD diagnosis and 56 (42.4%) had no personality disorder or personality traits. Rate of childhood physical abuse, childhood verbal abuse, childhood neglect, suicide attempt history, self-destructive behavior and lifetime major depression were higher among patients with ASPD. Also mean scores of BDI, BAI and MAST were higher among patients with ASPD. The high rate of ASPD found among Turkish substance dependent patients suggests that special attention must be paid to identify ASPD in this group. Findings in this study showed that there is an association between ASPD and childhood abuse, lifetime major depression and severity of substance use.

Introduction

Both epidemiological and clinical studies have reported a high prevalence of personality disorders in substance dependent populations (1). The prevalence of any personality disorder typically ranges from 30% to 75% in these studies (2). Substantial evidence has clearly shown that personality disorders have an important role in the etiology and the course of substance use disorders (1). Personality disorders are grouped into three clusters in DSM-IV. Cluster B includes the antisocial, borderline, histrionic and narcissistic personality disorders (3). Several personality disorders, notably those in cluster B, were found to be associated with increased risk for the poorest overall outcomes in substance dependent patients (4).

Among those in cluster B, association between antisocial personality disorder (ASPD) and substance abuse was assumed long before studies focused on this subject. The illegality of most of the substances and the criminal lifestyle that often accompanies it made ASPD the first and most investi-

gated among all personality disorders (5). Large-scale epidemiological surveys such as the Epidemiologic Catchment Area (ECA) in the U.S.A. have not included assessment of Axis II disorders other than ASPD. According to this survey, in community samples, most of the individuals with ASPD (84%) also have lifetime substance use disorder. While prevalence of ASPD among individuals with alcohol use disorder was 14.3%, this prevalence was 17.8% for individuals with drug use disorder (6). Rates of ASPD in patients with substance abuse typically ranges from 25% to 50% (2, 7-9).

Diagnoses of ASPD and substance abuse were characterized by early onset of illicit drug use, regular intoxication and alcohol abuse (10). Retrospective studies have consistently shown that treatment-seeking drug abusers with ASPD have more extensive and severe drug use problems than those without ASPD diagnosis (8, 11). Comorbid personality disorder in substance dependent patients, specifically ASPD, may influence clinical management, lower staff expectancies for treatment response, and

Address for Correspondence: Cuneyt Evren, MD, Icadiye Cad. Mentesh Sok., Selcuk Apt. 1/17 Kuzguncuk, 34674 Uskudar, Istanbul, Turkey. E-mail address: cuneytevren@hotmail.com

has been found to be associated with drop-out from treatment and adverse outcomes (8, 12). However, recent empirical studies have indicated that alcohol abusers with ASPD do not necessarily demonstrate less improvement than those without ASPD (13). One possible explanation for the lack of more consistent findings across studies is that the presence of additional psychiatric disorders in patients with ASPD modifies the effects of the ASPD diagnosis on treatment response (12).

Antisocial behavior predisposes an individual to a wide range of other psychopathology including depression and anxiety (14). Depression and ASPD are reported to be the most frequently identified comorbid syndromes diagnosed in substance dependent patients (9). Tomasson and Vaglum (15) suggested that the differential influences of Axis I comorbid disorders may explain the contradictory findings concerning the impact of ASPD on the outcome of substance abuse treatment.

Objectives

Studies concerning ASPD in substance dependent patients were mainly conducted among Western populations. In the present study we aimed to: (I) establish the prevalence rate of ASPD in a group of treatment-seeking Turkish substance dependent patients; (II) examine in these groups of patients the relationship of ASPD with Axis I disorders; with severity of anxiety, depression and substance use, and with childhood abuse history.

Methods

Subjects

The study was conducted in Bakirkoy State Hospital for Mental Health and Neurological Disorders, Alcohol and Drug Research, Treatment and Training Center (AMATEM) in Istanbul, Turkey, between April 2002 and March 2003. AMATEM is the only specialized center for substance use disorders in Istanbul and the largest treatment center for dependence in Turkey, with 120 inpatient beds, which accepts patients from all over the country.

The sample consisted of 66 consecutively admitted alcohol and 66 drug dependent inpatients ac-

cording to DSM-IV. We selected equal numbers of alcohol and drug dependent inpatients. We stopped including alcohol dependent patients in the study when the number had reached 66 subjects and continued until we had the same number for drug dependent patients. Interviews with the subjects that were included in the sample were conducted after detoxification, 4-6 weeks following the last use of alcohol or drugs. A clinician determined with clinical interviews whether withdrawal symptoms had disappeared or not. All patients gave written informed consent after full explanation of the study. Four of the patients refused to participate in the study. The Ethical Committee of the institution approved the study. Excluding criteria were age below 18, mental retardation or cognitive impairment, and comorbid psychotic disorder. Among 132 substance dependent patients, those with any personality disorder and personality traits other than ASPD ($n=45$, 34.1%) were excluded from the study and only those with ASPD ($n=31$, 23.5%) and those without any personality disorder or personality traits ($n=56$, 42.42%) were included. There were 12 (9.1%) patients with antisocial personality traits, but they also had other personality traits or personality disorder diagnosis other than ASPD and were excluded from the study. This was done to achieve homogeneity of the sample.

Measures

Other than the semi-structured socio-demographic data form designed for this study, the following measures were used:

- (1) **Structured Clinical Interview for DSM-IV, Axis-I (SCID-I):** Axis I diagnoses were based on the clinical examination, a screening interview based on a SCID-I (16), Turkish version (17), conducted by a trained interviewer (CE).
- (2) **Structured Clinical Interview for DSM-III-R, Axis-II (SCID-II):** Diagnosis of personality disorder were based on SCID-II (18), Turkish version (19), conducted by trained interviewer (SK).
- (3) **Childhood Abuse and Neglect Questionnaire (CANQ):** To evaluate childhood abuse and neglect CANQ, that contains 11 questions. CANQ was developed by Yargic et al. (20) and used in many studies. The questionnaire included questions about physical abuse, emotional abuse, sex-

ual abuse, incest, neglect, suicide attempt history and self-destructive behavior. Physical abuse cases included injuries such as bruises, welts, burns, abrasions, lacerations, wounds, cuts, bone and skull fractures, and other evidence of physical injury. Sexual abuse cases varied from those involving relatively nonspecific charges of "assault and battery with intent to gratify sexual desires" to more specific ones such as "fondling or touching in an obscene manner," sodomy and incest. Neglect cases reflected a judgement that the parents' deficiencies in child care were beyond those found acceptable by community and professional standards at the time. These cases represented extreme failure to provide adequate food, clothing, shelter and medical attention for children.

- (4) **Michigan Alcoholism Screening Test (MAST):** The severity of dependence was assessed by using the MAST (21), which was developed as a "rapid and effective screening for lifetime alcohol-related problems and alcoholism" for a variety of populations. It consists of 25 brief true-false items that are self-administered in approximately 10 minutes. Scoring is accomplished after reverse scoring 4 of the 25 items and assigning weighted scores. These weighted scores are then summed; the sum represents a total score reflecting severity of alcohol-related problems. The Turkish version of the MAST is valid and reliable for screening severity of dependency of both alcohol and drug dependent patients (22). The Cronbach's alpha was 0.73 in the present study.
- (5) **Beck Depression Inventory (BDI):** BDI (23) is a 21-item self-report questionnaire that assesses severity of depression. Individuals are asked to rate themselves on a 0 to 3 spectrum (0 = least, 3 = most) with a score range of 0 to 63. Total score is a sum of all items. It was shown to be valid and reliable in a Turkish population (24). The Cronbach's alpha was 0.89 in the present study.
- (6) **Beck Anxiety Inventory (BAI):** BAI (25) is a 21-item self-report questionnaire that assesses severity of anxiety. Each item is rated on a 4-point Likert scale ranging from 0 = not at all to 3 = severely. The total score ranges from 0 to 63. It was shown to be valid and reliable in a Turkish popu-

lation (26). The Cronbach's alpha was 0.94 in the present study.

Analysis

The statistical package SPSS 10.0 for Windows was used for the analyses. We compared ASPD patients with patients without personality disorder. Categorical variables were compared by using the chi-square statistics. Odds ratios and 95% confidence intervals were calculated. Differences between means for univariate analyses on continuously distributed variables were contrasted using a t-test. Taking ASPD as the dependent variable, backward logistic regression model was performed. For all statistical analysis p values were two-tailed and differences were considered significant at $p < 0.05$.

Results

Among 132 substance dependent patients 31 (23.5%) had ASPD and 56 (42.42%) had no personality disorder or personality traits. ASPD patients were younger and were less educated than patients without personality disorder (WPD), whereas there were no statistical differences between groups in terms of marital status and paid employment (Table 1).

Alcohol dependent patients ($n=44$) were not abusing or had no history of abusing any other substances and among drug dependent patients ($n=43$) 30 (69.8%) were using poly-substances.

Among drug dependent patients the rate of ASPD was higher than the rate of ASPD found among alcohol dependent patients. Patients with ASPD had higher rates for childhood physical abuse, verbal abuse and neglect, suicide attempt history and self destructive behavior than patients without personality disorder. There were no statistical differences between groups in terms of childhood sexual abuse and/or incest. The rate of lifetime major depression was higher among patients with ASPD than patients without personality disorder (Table 2). There were no significant differences between groups in terms of lifetime and current Axis I disorder diagnosis other than lifetime major depression. Mean BDI, BAI and MAST scores were higher among patient with ASPD than patients without personality disorder (Table 3).

Table 1. *Sociodemographic characteristics*

	Patients Without PD (n=56)	Patients With ASPD (n=31)	χ^2	df	p
Age, mean \pm SD (year)	(35.27 \pm 10.13)	(30.55 \pm 8.86)			0.033*
Marital status, n (%)			0.74	2	NS
Married	25 (44.6%)	14 (45.2%)			
Divorced	13 (23.2%)	5 (16.1%)			
Single	18 (32.1%)	12 (38.7%)			
Employment status, n (%)			3.08	2	NS
Not working	23 (41.1%)	18 (58.1%)			
Working	29 (51.8%)	10 (32.3%)			
Student, retired	4 (7.1%)	3 (9.7%)			
Education, n (%)			10.18		0.006
Elementary	22 (39.3%)	21 (67.7%)			
High school	22 (39.3%)	10 (32.3%)			
University	12 (21.4%)	0 (0%)			

NS: Not significant, * Unpaired Student t test, t= 2.17

Table 2. *Substance of choice, suicide, self-destructive behavior, lifetime major depression, childhood abuse and neglect*

	Patients Without PD (n=56) n (%)	Patients With ASPD (n=31) n (%)	χ^2	df	p	Odds Ratio (95% CI)
Substance of choice			4.39	1	0.036	2.6 (1.1-6.5)
Alcohol	33 (58.9)	11 (35.5)				
Drug	23 (41.1)	20 (64.5)				
Suicide attempt	11 (19.6)	19 (61.3)	15.32	1	0.000	6.5 (2.4-17.2)
Self-destructive behavior	14 (25)	25 (80.6)	24.98	1	0.000	12.5 (4.3-36.7)
Lifetime major depression	13 (23.2)	14 (45.2)	4.49	1	0.034	2.7 (1.1-7.0)
Childhood Abuse or Neglect						
Physical abuse	10 (17.9)	19 (61.3)	16.94	1	0.000	7.3 (2.7-19.7)
Verbal abuse	6 (10.7)	15 (48.4)	15.47	1	0.000	7.8 (2.6-23.5)
Neglect	13 (23.2)	17 (54.8)	8.83	1	0.003	4.0 (1.6-10.3)
Sexual abuse	3 (5.4)	3 (9.7)	24.98	1	NS	

NS: Not significant, 95% CI: 95% Confidence Intervals

Table 3. *BDI, BAI and MAST scores*

	Patients Without PD (n=56)	Patients With ASPD (n=31)	t	P
BDI, mean \pm SD	13.4 \pm 9.6	20.3 \pm 11.1	-3.03	0.003
BAI, mean \pm SD	11.8 \pm 10.6	24.3 \pm 14.1	-4.65	0.000
MAST, mean \pm SD	25.9 \pm 6.7	41.7 \pm 21.7	-3.95	0.000

BDI: Beck Depression Inventory, BAI: Beck Anxiety Inventory, MAST: Minnesota Alcoholism Screening Test

Variables entered in backward logistic regression model were age, substance of choice, suicide, self-destructive behavior, childhood physical, sexual and emotional abuse, neglect, mean scores of BDI, BAI and MAST. Mean score of MAST [$B=0.157$; Standard Error (SE)=0.044; Wald=12.745; $df=1$; $p=0.000$; Odds Ratio (OR) with 95.0% Confidence Interval (CI)=1.17 (1.073-1.275)] and history of childhood physical abuse [$B=-2.276$; SE=0.644; Wald=12.503; $df=1$; $p=0.000$; OR with 95.0% CI=0.103 (0.029-0.363)] were the predictors of ASPD in this model.

Discussion

The rate of ASPD found for substance dependent patients in the present study (23.5%) is consistent with the results of previous studies done among inpatient Turkish alcohol dependent patients (ranges between 9-37.5%). Similar to the present study, in these studies ASPD was found to be the most prevalent personality disorder (27). The rate of ASPD found in the present study is also consistent with the results of Western studies evaluating personality disorders in substance dependent patients (1, 2). Rounsaville et al. (9) found that 27% of substance use disorder patients met criteria for ASPD, whereas Kokkevi et al. (10) found even higher rates (33.5%) in their sample. One of the reasons for different rates found in these studies might be the difference in the primary substance of abuse (1). For example the present study revealed higher rates of ASPD in drug dependent patients than alcohol dependent patients. Also consistent with previous studies (8, 28), results of the present study suggested that antisocial substance abusers appear to have an earlier age of onset of substance use and also show a faster progression to severe substance use and other clinical problems.

Rounsaville et al. (7) found that affective disorders and alcoholism usually followed the onset of drug abuse, while anxiety disorders and ASPD typically preceded drug abuse. Findings of the present study suggest that although substance dependent patients with ASPD diagnosis do not have higher rates for specific diagnosis of anxiety disorders, they have higher severity of anxiety which probably is a consequence of ASPD itself. Consistent with previous studies (8), it was found that the ratio of lifetime major depression was higher among patients with

ASPD. Depression (15.8% to 36%) and ASPD (24% to 25.1%) were reported to be the most frequently identified co-occurring syndromes in substance dependent patients (8). There are also interesting results of follow-up studies concerning ASPD and depression comorbidity in substance dependent patients. Studies in opiate addicts (11), alcohol dependent patients (29) and substance abusers (30) showed that dependents with both ASPD and depression did better than those with ASPD alone. This suggests that comorbidity among addicts with ASPD, especially with depressive disorders, may be of importance for compliance and outcome (11, 29). It may also be that an affective disorder brings these ASPD patients earlier in their drinking career into treatment and their substance abuse disorder may thereby be more treatable and have a less severe course (15).

Studies conducted in community samples (31) showed that childhood maltreatment was associated with symptoms of antisocial behavior. In a longitudinal study, Luntz and Widom (32) found that childhood victimization was a significant predictor of the number of lifetime symptoms of ASPD and of a diagnosis of ASPD. An association between physical abuse in childhood and later aggression, delinquency, and adult criminality and symptoms of ASPD has been also reported in substance dependent patients (33). Bernstein et al. (34) found that physical abuse and neglect were related to a subcluster of "psychopathic" personality disorders consisting of childhood and adult antisocial personality traits and sadistic traits in patients with substance use disorders. Results of the present study supported these findings.

While both personality disorder and substance use disorder have a high risk for suicide, studies suggested that when these two risk factors occur together, suicide risk is even higher (35). Also other comorbid conditions may play a role in the suicide attempt history (36). Thus, high comorbidity of a history of childhood abuse and depression in a group of substance dependent patients with ASPD might be the reason for high rates found for a suicide attempt history and self-destructive behavior in this group.

The needs of these clients with ASPD often exceed the capabilities of the services normally pro-

vided (37). Individuals with comorbid personality disorder, especially ASPD, may have problems with the rules applied in the service, which will negatively influence clinical management (8, 12, 37) and as a result this may increase the likelihood of premature termination of their inpatient treatment (10). In our study when patients were evaluated for comorbidity of personality disorder they were in the last stage of inpatient treatment. Dependents with severe ASPD may have dropped out of treatment before the evaluation; thus rates found for ASPD in this study might be lower than expected. Since ASPD and substance use disorder mostly affect males, one of the limitations of the study was that all the patients in our study sample were male. Another limitation was that the study group was restricted to a treatment-seeking population among which personality disorder comorbidity rates might be higher than untreated substance dependent patients, and therefore it may not be possible to generalize the findings to non-treatment groups. Finally, longitudinal studies would be needed to make stronger attributions about the effects of antisocial personality disorder on substance dependent patients.

To the best of our knowledge, this study was the first to investigate the clinical characteristics of ASPD in substance dependent patients in Turkey. Turkish substance dependent patients with ASPD showed similar prevalence and comorbidities as in developed countries. The high rate of ASPD found in this sample suggests that special attention must be paid to identify ASPD in this group. Also findings of the present study showed that there was a relationship between ASPD and childhood abuse, lifetime major depression, and severity of substance dependency. These findings highlight the importance of focusing on ASPD comorbidity and its consequences among substance dependent patients. Unless treatment programs are not modified according to the presence of comorbid ASPD in Turkey, the same rate of clinical success should not be expected for those with and without comorbid ASPD.

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