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Defense Styles That are Related with History of Self-Mutilation and Suicide Attempt in Alcohol Dependent Inpatients

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ABSTRACT

Defense styles that are related with history of self-mutilation and suicide attempt in alcohol dependent inpatients

Objective: The aim of this study was to investigate the relationship of defense styles with history of self-mutilation (SM) and suicide attempt (SA) in alcohol dependent inpatients.

Method: Participants were consecutively admitted 118 male alcohol dependent inpatients. Patients were investigated with the Self-Mutilative Behavior Questionnaire (SMBQ) and the Defense Style Questionnaire (DSQ).

Results: Acting-out was higher in alcohol dependent patients with a history of SM (n=53, 44.92%) and predicted SM in this group, together with being younger. On the other hand, sublimation, anticipation and suppression (and total mature defense style score) were lower in alcohol dependent patients with suicide attempt history (n=31, 28.44%), but only low anticipation predicted suicide attempt history in this group together with being younger.

Conclusion: These results show that to reduce self-mutilative behaviors and SAs among young alcohol dependent inpatients, therapies should focus on increasing the use of mature defense styles and decreasing the use of immature defense styles.

Key words: Alcohol dependence, defense styles, self-mutilation, suicide attempt

ÖZET

Yatarak tedavi gören alkol bağımlılarında kendini yaralama davranışı ve özkıyım girişimi öyküsü ile ilişkili savunma biçimleri

Amaç: Bu çalışmanın amacı, yatarak tedavi gören alkol bağımlılarında savunma biçimleri ile kendini yaralama davranışı ve özkıyım girişimi öyküleri arasındaki ilişkinin araştırılmasıdır.

Yöntem: Katılımcılar, ardışık olarak yatışı yapılmış, yatarak tedavi gören 118 alkol bağımlısı hastadan oluşmuştur. Hastalar, Kendini Yaralama Davranışı Soru Formu ve Savunma Biçimleri Testi ile değerlendirilmiştir.

Bulgular: Dışa-vurum, kendini yaralama davranışı öyküsü (KYDÖ) olan alkol bağımlısı hastalarda (n=53, %44.92) daha yüksekti ve daha genç olma ile birlikte, bu grupta KYDÖ'yü belirledi. Yüceltme, antisipasyon ve bastırma (ve toplam olgun savunma biçimi puanı) özkıyım girişimi öyküsü (ÖGÖ) olan alkol bağımlısı hastalarda (n=31, %28.44) daha düşüktü ve düşük antisipasyon, daha genç olma ile birlikte bu grupta ÖGÖ'yü belirledi.

Sonuç: Çalışma sonuçlarına göre, yatarak tedavi gören genç alkol bağımlılarında kendini yaralama davranışları ve özkıyım girişimlerini azaltmak için terapiler, olgun savunma biçimlerinin kullanımının artırılmasına ve olgun olmayan savunma biçimlerinin kullanımının ise azaltılmasına odaklanmalıdır.

Anahtar kelimeler: Alkol bağımlılığı, savunma biçimleri, kendini yaralama, özkıyım girişimi

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INTRODUCTION

Self-mutilation (SM) might be defined as "deliberate self-injury to body tissues without the intent to die" (1-4). Self-mutilators report a range of motivations, including affect-regulation, self-punishment, tension reduction, improvement in mood, to terminate the discomfort of dissociative experiences, and distraction from intolerable affects, all which might be at least a partial explanation for this act (2,4-6). Thus, SMB can be considered as coping or defense mechanism for various intolerable experiences.

The rate of SM ranged between 26.0% and 29.0% among inpatients who were alcohol dependent in Turkey (7,8). Nevertheless, it is an important issue since self-mutilative behaviors (SMB) have been linked to

negative outcomes, including increased risk for successful suicide (9,10) and significant problems in therapeutic and interpersonal relationships (2).

In previous studies, SM was related to suicide attempt history (2,11,12) and suicide attempt history predicted SM both in substance dependents (7,13) and among male inmates (14). Suicide (at least one suicide attempt) rate of the self-mutilators among alcohol dependent patients was 41.2% (8). The anti-suicide model views SM function as a coping mechanism for resisting urges to attempt suicide, such that SM serves as a replacement for or compromise with the desire to commit suicide (15). Thus, although they are distinct behaviors, SMB can be considered as a risk factor for suicide attempt.

Suicidal behavior is complex and heterogeneous (16). Among other risk factors, history of suicide attempt (HSA) appears to be the strongest known predictor of completed suicide in alcohol dependents (17). Suicidal behavior is very common among alcohol dependent individuals (18,19). Among alcohol dependents, lifetime prevalence of suicide attempt ranges between between 25.4% and 37.6% (20). Alcohol dependent individuals with HSAs were found to have a significantly more severe course of dependence and a higher prevalence of both independent and substance-induced psychiatric disorders and other substance dependence (18). Also, among suicide attempters, male gender and substance use disorders were found as significant risk factors for both later suicide and other causes of death (9).

"Defense mechanisms, a psychoanalytical concept, have been defined as an indicative of how individuals deal with conflict (21). Defense mechanisms are defined in the DSM-IV as "automatic psychological processes that protect the individual against anxiety and from the awareness of internal and external stressors" (22). Defense mechanisms are involuntary cognitive operations that occur on an unconscious level in order to minimize sudden changes in internal and external environments by modifying the conscious experience of thought, feeling, and emotion (23,24). Function of ego defenses are considered as to maintain homeostasis and prevent inordinate anxiety forcing its way into consciousness, whether the anxiety arises from conflict within the person or between the person and the environment (25). In the DSM-IV, defense mechanisms are considered almost equivalent to coping mechanisms (22,26). Some studies found relationships between adaptive coping strategies and mature defenses, as well as between maladaptive coping strategies and immature defenses (27).

Although coping mechanisms are studied frequently among substance dependents, there are no studies considering defense styles in these populations. Nevertheless according to the early reports, substance dependent individuals use rationalization, projection, denial and suppression defenses more than healthy individuals (28,29). In Turkish substance dependents, sublimation, pseudo-altruism, acting-out, isolation and autistic fantasy were found as predictors of patient group (30). In this study, using immature defenses were related with severity of dependency, dissociative experiences, and childhood trauma experiences (30). Also the results of a recent study suggested that alcohol dependents are using maladaptive immature defenses more than healthy controls and immature defenses seems to be related with alexithymia (particularly DIF factor), low cooperativeness and high self-transcendence (31). Substance dependent patients who are using more immature defense styles may need substance as a way of coping with the anxiety caused by their conflicts, thus resulting in higher severity of dependence (30). These may suggest that these groups of patients are psychologically more problematic. Thus, for individuals being unable to achieve satisfactory or acceptable outcomes to stressful situation, drinking may become a predominant way of coping (32). In this regard, the use of "avoidant" coping styles has been found to be associated with greater levels of alcohol consumption (33), adverse consequences (34), and relapse (35).

In previous studies conducted among adolescents and young adults, SMB was related with more frequent use of coping styles that might be considered more immature (or maladaptive) (36) and immature (maladaptive) defense mechanisms (37,38). The number of lifetime suicide attempts was positively correlated with immature style (39), recent suicide attempters had higher scores on immature style (40), and immature

defense mechanisms was the best predictor of current suicide attempt (41) in depressed patients, which suggests that immature defense styles may be relevant to discriminate recurrent suicide attempters in depression. Coping styles and defense mechanisms have now been linked to suicide in numerous reports (41). While alcohol use can be considered as coping mechanism for some individuals, some other behaviors in these populations can also be considered as coping; i.e. SMB and suicide attempts. Thus the aim of this study was to investigate the relationship of defense styles with history of self-mutilation (HSM) and suicide attempt (HSA) in alcohol dependent inpatients.

METHODS

Participants

The study was conducted in Bakirkoy State Hospital for Psychiatric and Neurological Diseases, Alcohol and Drug Research, Treatment and Training Center (AMATEM) in Istanbul between May 2009 and December 2009. AMATEM is a specialized center for substance use disorders with 84 inpatient beds, and accepts patients from all over Turkey. The study was approved by the Ethical Committee of the Institution. Patients' written informed consent were obtained after the study protocol was thoroughly explained.

Hundred and eighteen consecutively admitted male alcohol-dependent inpatients were considered for participation in the study. All participants met the DSM-IV diagnostic criteria for alcohol dependence. Interviews with the study group were conducted after a detoxification period, i.e. 3-4 weeks after the last day of alcohol use.

Assessment instruments

All patients were assessed by using a semi-structured socio-demographic form. The diagnosis of alcohol dependence was based on the clinical examination, a screening interview based on the Structured Clinical Interview for DSM-IV (SCID-I) (42), Turkish version (43), conducted by a trained interviewer (CE). Other instruments were administered and collected by the same interviewers (psychiatrist S.O.).

Defense Style Questionnaire-40 (DSQ-40)

The defense mechanisms were evaluated by the Defense Style Questionnaire (DSQ) (44), a 40-question self-report questionnaire which was translated and recently validated into Turkish (45). The DSQ-40 assesses the defense strategies used by individuals to cope with stressful situations or events. Items are rated on a nine-point scale and measure the tendency of individuals to endorse specific defenses. The DSQ-40 comprises three factors (mature, neurotic and immature) and 20 defense mechanisms as originally described in the DSM-III-R. Each of the defenses is represented by two items on the DSQ-40. The mature style consists of four defenses (sublimation, humor, anticipation and suppression), as does the neurotic style (undoing, pseudo-altruism, idealization and reaction formation). The immature style consists of twelve defenses (projection, passive-aggression, acting-out, isolation, devaluation, autistic fantasy, denial, displacement, dissociation, splitting, rationalization and somatization). Coefficient-alphas for defense styles are described as moderate (0.58) to high (0.80) (44).

Statistical Analysis

The statistical package SPSS 17.0 for Windows was used for all the analyses. We used Student's t test to compare the groups on continuous variables. Taken HSM and HSA as dependent variables, two Backward Logistic Regression models were performed. For all statistical analysis, p values were two-tailed and differences were considered significant at $p<0.05$.

RESULTS

The mean age of the participants was 42.5 (SD= 9.9). Sixty three (53.4%) subjects were married, whereas 34 (28.8%) were divorced and 21 (17.8%) were single. Eigthy seven (49.4%) subjects were employed; whereas 57 (32.4%) subjects were unemployed and 32 (18.2%)

Table 1: Comparing defense styles between those with history of self-mutilation (HSM) and those without and those with history of suicide attempt (HSA) and those without in alcohol dependent inpatients (n=118)

	No HSM (n=65)		HSM (n=53)			
History of self-mutilation (HSM)	**Mean**	**SD**	**Mean**	**SD**	**t**	**p**
Acting-Out	8.19	5.00	10.64	4.43	-2.79	0.006
	No HSA (n=87)		**HSA (n=31)**			
History of suicide attempt (HSA)	**Mean**	**SD**	**Mean**	**SD**	**t**	**p**
Sublimation	12.39	3.90	9.31	4.72	2.99	0.003
Anticipation	13.13	4.00	10.97	5.10	2.40	0.018
Suppression	12.05	4.18	9.48	4.65	2.85	0.005
Mature defense styles	46.14	9.27	38.39	12.66	3.12	0.003

t: Student t test, SD: Standart deviation

Table 2: Logistic regression analysis: dependent variables were history of self-mutilation in first model and history of suicide attempt in second model, whereas independent variables were defense styles

	B	S.E.	Wald	df	p	Exp(B)	95% CI for EXP(B)	
							Lower	Upper
History of Self-Mutilation								
Acting-Out	0.103	0.042	5.840	1	0.016	1.108	1.020	1.204
Age	-0.076	0.022	11.767	1	0.001	0.927	0.887	0.968
History of Suicide Attempt								
Anticipation	-0.120	0.054	4.968	1	0.026	0.887	0.798	0.986
Age	-0.102	0.028	13.177	1	<0.001	0.903	0.855	0.954

were retired. Overall, they had 8.7 years of education (SD = 3.5) in average.

The mean age was lower in those with HSM (38.74±8.96) than those without (45.57±9.58, t=3.97, p<0.001). Similarly, the mean age was lower in those with HSA (36.52±7.71) than those without (44.63±9.72, t=4.20, p<0.001). The mean duration of education was lower in those with HSM (9.89±3.78) than those without (9.29±3.78, t=2.24, p=0.027), whereas the mean age did not differ between group with HSA (8.81±3.15) and group without (8.61±3.66, t=-0.27, p=0.79) (not shown).

Acting-out was higher in alcohol dependent patients with HSM (n=53, 44.92%), whereas sublimation, anticipation and suppression (and total mature defense style score) were lower in alcohol dependent patients with HSA (n=31, 28.44%) (Table 1).

Acting-out predicted HSM in alcohol dependents together with lower age, whereas low anticipation predicted HSA in this group together with lower age (Table 2).

DISCUSSION

The main findings in the present study are that acting-out was higher in alcohol dependent patients with HSM and predicted HSM in this group together with lower age, whereas sublimation, anticipation and suppression (and total mature defense style score) were lower in alcohol dependent patients with HSA, but only low anticipation predicted HSA in this group together with lower age. These findings are consistent with previous studies that suggested relation between immature defense styles and SMB among adolescents and young adults (36-38), and between these maladaptive defense styles and HSA in depressed patients (39-41). Coping styles and defense mechanisms have now been linked to suicide in numerous reports (41). Although SMB and suicide attempts are related (although different) behaviors, they seem to be related with different defense styles. Interestingly, SMB was mainly related with using more immature defense style (acting-out), whereas HSA was related with using less mature defense style

(anticipation). This may also supply additional support for literature that they are different constructs.

Other interesting finding was that being younger was related with both SMB and HSA regardless the type of defense style that is related with SMB or HSA. Consistent with the present study, in previous studies conducted among alcohol dependents both SMB (7,8) and HSA (46) were related with being younger and early onset of alcohol abuse. This suggests that alcohol dependent patients with SMB or HSA seek for treatment in early ages. They might have more reasons to seek help both because of the severity of alcohol abuse and because of other comorbid psychopathologies.

The relationship between defense styles and important variables, such as HSM and HSA were not studied in alcohol dependents in literature, whereas coping was relatively more frequently studied. One reason for this is that defense mechanisms are considered to be largely unconscious (they occur without conscious effort and without conscious awareness), with a long-standing tendency, and thus highly resistant to change, whereas coping strategies are considered to involve a conscious and purposeful effort (47). The psychodynamic concept of unconscious defense mechanisms that serve to protect against anxiety and psychic pain (44) offers an additional approach to capturing aspects of coping. Mature defenses are generally thought to operate to protect self-esteem while immature defenses are thought to operate through rigid and excessive distortions to protect the integrity of the self. These often result in impaired personal and interpersonal functioning (48). Greater use of 'mature' defense styles have been associated with greater psychological well-being in the general population (49) and the improvement in symptom severity (50-53), whereas 'immature' styles have been linked with co-morbid depressive symptoms and poorer physical health (54,55). Previous studies conducted among substance (30) and alcohol dependents (31) suggested that not only severity of dependency but also using immature defenses may be related with severity of psychopathology, which may add additional burden to these patients. Defense styles may show some differences according to the pathology of the population that is studied; i.e. depressive profile is characterized by low mature and high neurotic and immature defense scores while anxious profile is characterized by a profile characterized by high neurotic and immature scores only (56). According to this, those with HSM may have anxious profile, whereas those with HSA may have depressive profile in our sample of alcohol dependents. Nevertheless, we did not evaluate anxiety and depressive symptoms, which may be considered as one of the main limitation in the present study. Finally, related with these, it was suggested that the additional willingness to explore the frequent and mutual interpersonal/intrapsychic acting-out on the part of both the analyst and the alcohol dependent patient with SMB is paramount (57).

One of the main limitation of the peresent study was that no scale were used to evaluate severity of anxiety and depressive symptoms, since they may be related with HSM, HSA and defense styles. As this study is a cross-sectional one, the longitudinal designs are required to clarify the causal relationship of defense styles with HSM and HSA. The use of maladaptive defenses might be the consequence of alcohol dependency: during the active phase of the disorder, their capacity to use mature adaptive defenses may diminish and they may use more immature defense styles, but if they could stay sober for a long time, their defensive style may return to a higher degree of maturity (58). Thus, the hypothesis that the use of maladaptive defenses is a state dependent phenomenon cannot be rejected yet (50,59). Future follow-up study should evaluate the changes in defense styles during sobriety period.

Notwithstanding these important limitations, these findings suggest that two maladaptive behaviors commonly found in alcohol dependents, such as self-mutilation and suicide attempt, are related with using more immature and less mature defense styles respectively. It has been argued that no mental status or clinical formulation should be considered complete without an effort to identify the patient's dominant defense mechanisms (60). Indeed, avoiding difficult feelings has been suggested to be common phenomenon in alcohol dependents (61), which may offer some explanation as to why the use of immature defenses more and mature defenses less have been found to be

associated with HSM and HSA respectively in alcohol dependents. The use of less mature defenses was suggested to be associated with the severity of symptoms, and the clinical improvement to be accompanied by a shift toward the use of more mature defenses in previous studies (50). Thus, this can be taken into account in the development of therapeutic programs for these patients.

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