How do traumatic experiences affect relapse in alcohol and substance use disorders?

Alkol ve madde kullanım bozukluklarında travmatik yaşantılar nüksleri nasıl etkiliyor?

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SUMMARY

Objective: Relapses are very common in Alcohol and Substance Use Disorders (ASUD). Although traumatic experiences are more common in patients with ASUD than in the normal population, its relationship with relapses has not been adequately studied. **Method:** Fifty-one patients who were hospitalized diagnosed with ASUD according to DSM 5 were included in the study. Sociodemographic Data Form, Impact of Events Scale-R (IES-R), Hamilton Depression Rating Scale (HAM-D), Hamilton Anxiety Rating Scale (HAM-A), Dissociative Experiences Scale (DES), Addiction Profile Index (API), The Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES) and Traumatic Experiences Checklist (TEC) were applied during their hospitalization. Patients were evaluated for relapse in the 6th month after discharge. **Results:** Relapse was observed in 60.8% of the participants. A statistically significant difference was found between the groups with and without relapse in terms of previous psychiatric treatment, number of traumatic events and severity, neglect, emotional and physical abuse, HAM-A and DES scores ($p<0.05$). In the logistic regression analysis, it was found that not having previously applied for psychiatric treatment significantly predicted early relapses. **Discussion:** According to the study results, the previous psychiatric treatment seems to be associated with lower relapse rates. In contrast, traumatic experiences, anxiety, and dissociative symptoms seem to be associated with higher relapse rates.

Key Words: Substance Use Disorder, Traumatic Experience, Post Traumatic Stress Disorder, Relapse, Prognosis

ÖZET

Amaç: Alkol ve Madde Kullanım Bozukluklarında (AMKB) nüksler çok yaygındır. AMKB hastalarında travmatik deneyimler normal popülasyona göre daha yaygın olmasına rağmen, relapslarla ilişkisi yeterince çalışılmamıştır. **Yöntem:** Çalışmaya DSM 5'e göre AMKB tanısı ile yatırılan 51 hasta dahil edildi. Sosyodemografik Veri Formu, Olayların Etkisi Ölçeği-R (OEÖ-R), Hamilton Depresyon Derecelendirme Ölçeği (HAM-D), Hamilton Anksiyete Derecelendirme Ölçeği (HAM-A), Disosiyatif Yaşantılar Ölçeği (DES), Bağımlılık Profil İndeksi (BAPI), Hastaneye yatışları sırasında Değişime Hazırlık Aşamaları ve Tedaviye İsteklilik Ölçeği (SOCRATES) ve Travmatik Deneyimler Kontrol Listesi (TDKL) uygulandı. Hastalar taburculuk sonrası 6. ayda nüksler açısından değerlendirildi. **Bulgular:** Katılımcıların %60, 8'inde nüks görüldü. Nüks olan ve olmayan gruplar arasında önceki psikiyatrik tedavi, travmatik olay sayısı ve şiddeti, ihmal, duygusal ve fiziksel istismar, HAM-A ve DES puanları açısından istatistiksel olarak anlamlı fark bulundu. ($p<0.05$). Lojistik regresyon analizinde daha önce psikiyatrik tedaviye başvurmamış olmanın erken dönem yinelemeleri anlamlı olarak yordadığı bulundu. **Sonuç:** Çalışma sonuçlara göre daha önce psikiyatrik tedaviye başvurmuş olmak daha düşük nüks oranları ile ilişkili görünmektedir. Buna karşılık travmatik deneyimler, anksiyete ve dissosiyatif semptomlar yüksek nüks oranları ile ilişkili gibi görünmektedir.

Anahtar Sözcükler: Madde Kullanım Bozukluğu, Travmatik deneyim, Travmatik sonrası stres bozukluğu, nüks, prognoz

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INTRODUCTION

It has been found in many studies that comorbidity of traumatic experiences in patients with alcohol and substance use dısorders (ASUD) is more common than the general population. It is estimated in the literature that approximately 90-100% of patients with ASUD experience at least one trauma during their lifetime (1).

ASUD is an increasingly common public health problem all over the world. The fact that ASUD causes physical, economic, psychological, social and legal problems negatively effects the whole society, therefore it is seen that the policies regarding follow-up and treatment programs are important for the whole world (2). Traumatic experiences in ASUD is shown to be a factor that maintains addiction and affects relapse (3). There is a double-faced relationship between traumatic experience and substance use, while substance use increases the traumatic experience, while traumatic experience increases the severity of substance use (4). The frequent occurrence of traumatic experiences in ASUD patients is important because it affects the treatment prognosis of the patients (3,5).

Studies on this subject mostly focused on the diagnosis of PTSD rather than the history of trauma (6), some of them investigated only female patients (7), only alcohol or substance users (3,5,8). Greenfield et al. investigated sociodemographic factors and additional psychiatric diagnoses in alcohol addicts, and it was found that relapse rates were higher in those with a history of sexual abuse (3). In a 3-month follow-up study in which Hyman investigated the effects of traumatic events on early relapse in cocaine addicts, the relationship between sociodemographic factors, accompanying psychiatric diagnoses and trauma severity was investigated, and it was reported that trauma severity was a predictor of relapse in women, but not in men (5). In a recent 3-month follow-up study by Umut et al. investigated the relationship between sociodemographic factors and types of traumatic experiences with early relapse in patients with ASUD, emotional neglect predicted relapse (8). Finally, in the study by Haver et al. investigating the relationship between family violence and alcohol relapse in women, sociodemographic factors, accompanying psychiatric diagnoses, personality disorders and physical abuse were investigated, and it was reported that the experience of family violence in childhood and adulthood increased the relapse rates .

According to our knowledge, although factors such as sociodemographic factors, symptoms of depression and anxiety, other accompanying psychiatric conditions, substance use severity, motivation affecting relapse in patients with ASUD have been investigated with various combinations in the literature, there are few prospective studies investigating the relationship between trauma experience and relapse (3, 5, 8). The relation of data such as previous treatment admission, dissociative experiences, change in substance use behavior after trauma and its timing with relapses has not been reported before in the literature. Therefore, studies investigating the relationship between trauma experience and relapse in ASUD from a more comprehensive perspective are needed.

This study investigates the relationship between traumatic life events and substance use behavior, sociodemographic factors, and psychiatric symptoms (such as anxiety, depression, and dissociative symptoms) in patients with ASUD. Our study hypothesizes that traumatic life events and related factors in individuals with ASUD differ between relapse and remission groups.

METHOD

This study was approved by Sakarya University Non-Invasive Clinical Research Ethics Committee on 30.01.2019 with protocol number 71522473/050.01.04/18.

Sampling

The study was conducted with patients hospitalized for treatment in the inpatient service of Sakarya University Training and Research Hospital Alcohol and Substance Research, Treatment and Training Center between December 2018 and July 2019. Fifty-one people aged 18-65 who were literate, without intellectual disabilities, active psychotic or

affective symptoms, no severe neurological/metabolic or endocrinological disease, no alcohol or substance use in the last week, and no electro-convulsive therapy in the last six months and diagnosed with ASUD according to DSM-5 criteria were included in the study. All volunteers participating in the study signed the informed consent form.

Fifteen of the participants were excluded from the study because of their active psychotic symptoms, thirteen were discharged before completing the detoxification period, nine did not agree to participate in the study, four had intellectual disabilities that affected the reliability of the study, and one was over 65 years old. Each patient continued to get medical treatment, group and individual psychotherapy as standard treatment in the clinic.

Procedure

Sociodemographic data form and psychiatric scales were applied to the participants on the 7th day of their hospitalization due to avoid acute affects of withdrawal of substance. Also past archive data of the patients were also used retrospectively. The patients were re-evaluated in terms of slip, lapse and relapse by telephone, hospital records and the history taken from the patients and their relatives during the controls or by analysis of substance in urine in the 6th month after discharge. All patients were reached by phone.

Traumatic events; in this study, the definition of trauma does not require events that can affect almost everyone,as in DSM 5, and concepts such as emotional neglect and emotional abuse are included in the definition of trauma.

Remission, Slip, Relapse: A person in remission who used substances once or not exceeding 24 hours was defined as slip, substance use longer than a slip, but short enough to not create addiction or withdrawal was defined as laps, intense and continuous recurrence of substance abuse has been defined as relapse. In addition, 3-12 months of not using substances was defined as early, and more than 12 months of substance use was defined as sustained remission (9). In our study, at the statistical analysis stage, the slip group was included in the remission group and the lapse group in the relapse group.

Materials

Sociodemographic Data Form: This form was prepared by us, by examining the study examples in the literature, to include basic sociodemographic information and clinical characteristics of the patients. In the form, age, gender, marital status, educational status, place of residence, people living together, employment status, socioeconomic status, smoking, presence of comorbid medical illness, history of suicide attempt, age at onset of substance use and total duration of use, substance use behavior after exposure to trauma, and its onset timing.

Impact Of Events Scale-R (IES-R): The original form was developed by Horowitz et al. (10), the IES-R form was developed by Marmar et al. (11). The IES-R is a 22-question self-report scale that consists of a combination of three main symptoms of PTSD, re-experiencing, avoidance, and hyperarousal, in which the symptom severity experienced in the last week is scored between 0-4. The validity and reliability study of its revised form in our country was performed by Çorapçıoğlu et al. (12).

Hamilton Depression Rating Scale (HAM-D): It is a scale filled in by the interviewer and used to determine the severity of depression and the symptom pattern (13). Validity and reliability study of the 17-question form in our country was conducted by Akdemir et al (14).

Hamilton Anxiety Rating Scale (HAM-A): It is a scale used to evaluate the anxiety level in the last 72 hours and filled in by the interviewer. Out of 14 items scored between 0-4 points, 5 items constitute psychic and 9 items constitute physical subscales (15). Validity and reliability study in our country was conducted by Yazıcı et al. (16).

Dissociative experiences Scale (DES): It was developed by Bernstein and Putnam and revised by Carlson (17, 18). It is a self-assessment scale in which each question is scored between 0-100 according to frequency, and then this total score is

divided by 28 and the average score is found. In our country, the validity and reliability of the scale was made by Yargıç et al. (19).

Addiction Profile Index (API): It is a scale consisting of 37 questions developed by Ögel et al. To evaluate the severity and different dimensions of addiction. It includes 5 subscales: substance use characteristics, diagnostic criteria, impact on life, craving and motivation. 0-12 points were defined as low, 12-14 points moderate, and over 14 points high severity addiction. In the analysis, it was found that the scale was valid and reliable, and the Cronbach alpha coefficient for the whole scale was 0.89 (20).

The Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES): It is a self-report form used to assess readiness and motivation for change in ASUD (21).Validity and reliability study of the 16-item form has been conducted in our country (22).

Traumatic Experiences Checklist (TEC): It is a self-report scale consisting of 29 types of trauma. The total scale score range is between 0-29 and estimates the number of traumatic experiences (23). The scale has been adapted to Turkish in our country (24). In our study, the Turkish version of the scoring system was used. The averages were compared by calculating the scores between the groups for presence of the traumatic experience, age of onset, the duration of the trauma, types of trauma (Emotional neglect, death or loss of a family member, life threatening/pain, divorce, indirect trauma, emotional abuse, physical abuse, sexual abuse) and the impact of the experiences (trauma score, number of traumatic experiences, between 0-29 points and trauma impact score, traumatic impact level, between 0-145 points).

Brief Psychiatric Rating Scale (BPRS): The scale was developed by Overall and Gorham in 1962; It is a semi-structured scale used to describe the severity and content of psychotic and depressive symptoms in schizophrenia and other psychotic disorders. (25) It was translated into Turkish language by Gülgün Yanbastı(26).

Statistical Analysis

SPSS version 23 program was used for statistical analysis. Descriptive statistics (frequency and ratio) were used for sociodemographic variables, chi-square for categorical variables, and Kolmogrov-Smirnov and Shapiro-Wilk normality tests were used for comparing the means. Independent samples T-test and One-Way Anova were used in normally distributed groups, Man-Whitney U test and Kruskal Wallis were used in non-normally distributed groups. Binary Logistic regression test was used to determine the predictor variables. Confidance interval, CI; 95%, $p < 0.05$ was considered statistically significant.

RESULTS

Sociodemographic Findings

A total of 51 patients were included in the study. 96.1% of the patients were male. Sociodemographic findings of the patients are shown in Table 1.

Table 1: Sociodemographic Findings

		Number (N)	Percentage (%)
Gender	Male	49	96,1
	Female	2	3,9
Marital status	Married	18	35,3
	Single	22	43,1
	Divorced/separated from spouse	11	21,5
Presence of children	Yes	26	51
	No	25	49
Educational status	Primary education	25	49
	High school	15	29,4
	University	2	3,9
People living together	Alone	10	19,6
	With his wife/children	17	31,4
	With his parents	20	39,2
	Other	4	7,8
Place of residence	Village	3	5,9
	Small town	8	15,7
	Town	40	78,4
Monthly income	?500 tl	10	19,6
	500-1500 tl	12	23,6
	?1500 tl	29	56,9
Employment status	Works regularly	22	43,2
	Not working	29	56,8

Clinical Findings

The mean age at onset of substance use was 16.90 (SD: 6.69), and the mean duration of substance use was 18.25 (SD: 12.43) years. Ten of the participants (19.6%) left the treatment early before the treatment period was completed. 20 people (39.3%) had been hospitalized at least once for ASUD, 38 (74.5%) had psychiatric admission and treatment, and 25 (49%) had at least one suicide attempt before.

In the evaluations of the patients 6 months after discharge, the slip group was included in the remission group and the lapse group in the relapse group. Eighteen (35.3%) participants were in remission and 31 (60.8%) were in early relapse, while 2 (3.9%) could not be reached. The average number of days of abstinence after discharge was determined as 89.69 days (SD: 74.85). Of the 33 people with lapses and relapses, 26 (79%) had substance use in the first 3 months, 7 patients (21%) in the third month or later.

Types of traumatic experiences

42 of the participants (82.4%) reported that they had experienced at least 1 previous trauma. The average age of traumatic experience was 22.52 (SD: 9.19), with a minimum age of 7 and a maximum of 45 years. The most common trauma was determined as neglect. The types and rates of trauma exposed are shown in Table 2.

Table 2: Presence and types of traumatic experiences

	TYPES OF TRAUMA	n	%
TRAUMATIC EXPERIENCES: YES	Emotional neglect	30	58,8
	Death or loss of a family member	24	47,1
	Life threatening/pain	28	54,9
	Divorce	12	23,5
	Indirect trauma	16	31,4
	Emotional abuse	17	33,3
	Physical abuse	18	35,3
	Sexual abuse	4	7,8
TRAUMATIC EXPERIENCES: NO		9	17,6

Substance use behavior changes after traumatic experience

33 of the participants (62.7%) showed at least one of the changes in substance use behavior (increasing the amount of use, increasing the type of substance, starting a new substance or overdosing) after experiencing trauma. These changes occurred in 21 patients (41.2%) within the first 2 weeks after trauma, and in 11 patients (21.6%) after 2 weeks.

Comparison of Remission and Relapse Groups

Sociodemographic Findings

No statistically significant difference was found between the remission and relapse groups in terms of gender, marital status, presence of children, people living together, employment status, monthly income, education status, and place of residence (CI; %95, $p>0.05$).

Clinical Findings

No significant difference was found between the remission and relapse groups in terms of mean age, age of substance use, duration of use, number of hospitalizations due to previous ASUD, early treatment withdrawal in current ASUD treatment, and previous suicide attempts ($p> 0.05$). Previous application for psychiatric treatment was found to be significantly higher in the remission group compared to the relapse group (p: 0.019).

Average scale scores

While BPRS, IES, API, SOCRATES and HAM-D total mean scores did not differ significantly between the two groups (p: 0.253, p: 0.97, p: 0.68, p: 0.87, p: 0.244, respectively), HAM-A (p: 0.015) and DES scores (p: 0.026) were significantly higher in the relapse group.

When completing the scale, 74.5% (n=38) of the patients used benzodiazepines. When the patients using and not using benzodiazepines were compared in terms of scale scores, no significant diffe-

rence was found except for BPRS scores (t:-2.023 for BPRS, p:0.049, others p>0.05)

Variables associated with traumatic experiences

The rate of experiencing at least one traumatic event in a lifetime and the mean age of traumatic experience were not significantly different between the two groups (p> 0.05). Changes in substance use behavior after traumatic experience (p: 0.014) and occurrence of this change in the first 2 weeks after trauma (p: 0.049) were significantly different between the groups. The mean of trauma scores (p: 0.04) and trauma impact scores (p: 0.01) were significantly higher in the relapse group. (Table 3)

Table 3: Co mparison of mean trauma scores and trauma impact scores in relapse and remission groups

	Relapse		Remission		P
	Mean	Sd	Mean	Sd	
Trauma scores	6,25	4,60	2,55	2,63	**0.04**
Trauma impact scores	24,77	19,58	10,77	11,43	**0.01**

Emotional neglect (p: 0.009), emotional abuse (p: 0.019) and physical abuse (p: 0.005) scores were found to be significantly higher in the relapse group, while death or loss of a family member, life-threatening/pain, divorce, sexual abuse, indirect trauma among the groups there was no significant difference (Table 4).

We have also evaluated the probable effect of medical treatment (atypical antipsychotics, buprenorphine, benzodiazepine, acamprosate, GABA analogs, antidepressants, antepileptics, and modafinil) during the detoxification period between relapse and remission groups. No significant differences were found between the groups (p>0.05)

Table 4: Comparison of types of traumatic experiences in relapse and remission groups

	Relapse		Remission		P
	Mean	SD	Mean	SD	
Emotional neglect	28,89	895,50	18,31	329,50	**0.009**
Death or loss of a family member	26,19	812,00	22,94	413,00	0.383
Life-threatening/pain	27,31	846,50	21,03	378,50	0.114
Divorce	25,32	785,00	24,44	440,00	0.781
Indirect trauma	27,32	847,00	21,00	378,00	0.067
Emotional abuse	28,03	869,00	19,78	356,00	**0.019**
Physical abuse	28,76	891,50	18,53	333,50	**0.005**
Sexual abuse	24,61	763,00	25,67	462,00	0.600

Regression model

Finally, 5 independent variables (trauma score, DES total score, HAM-A total score, history of previous psychiatric treatment, change in substance use behavior after traumatic experience) with a statistically significant difference between relapse and remission groups were included in the Binary Logistic Regression analysis to determine risk factors. Two variables that were found to be significant (trauma impact score and time of change in substance use behavior after trauma) were not included in the model because of similar variables. This model was found to be statistically significant (χ^2=33.371, p: 0.000, CI; %95), explaining -67.5 of the variance (Nagelkerke R2; 0.675). In the Hosmer-Lemeshow test, it was determined that the p value was greater than 0.05 (CI; %95, p: 0.876) and the model was suitable for regression analysis. It was determined that 89.8% of the cases were classified correctly in this model. It was found that previous admission to the hospital for psychiatric treatment was a significant predictor of remission (CI; %95, p<0.05), but other variables were not independently significant predictors (CI; %95, p>0.05).

DISCUSSION

In this study; the relation between traumatic experiences and relapses in ASUD was evaluated. The main findings of this study are the first; traumatic experience in ASUD, changes in alcohol and substance use behavior due to trauma; and the second the effects of trauma on the person differ in later relapse and remission groups. However, integration into treatment as 'applying psychiatry' seems to be the most important factor in preventing early relapses.

In our study, sociodemographic characteristics of the participants such as age, gender, educational status, and marital status were reported similar to the rates in previous studies(27, 28) . In our study, 96.1% of the participants, as in other studies, may be due to factors such as male gender, ASUD being

seen more frequently in males(2, 28) and female addicts being less likely to apply for treatment due to sociocultural (stigmatization, etc.) reasons (29). In our study, although life-time suicide attempt was found to be 49% higher than the population average in accordance with the literature, it was also higher than the data of other studies conducted in the addicted group (30-32). The high suicide attempt rate in our sample may be due to the high severity of disease because our study sample consist of inpatients (33), and 74.5% of patients had previous psychiatric diagnosesand treatment(34). Data on a suicide attempt based on self-reports may reduce the reliability of the results.

When the patients were grouped according to their early prognosis, it was learned that the early relapse rate was 60.8%. In previous studies, relapse rates varying between 50% and 90% are reported in studies investigating the course of treatment in ASUD (35, 36). When relapse is defined as alcohol or substance use once, the relapse rate is 90% (37) and when relapse is defined as the necessity of experiencing problems after substance use in addition to heavy drinking, this rate is 50% (38). In the one-year follow-up study conducted in 2012 and designed similar to our study, it was reported that 61.8% of the discharged patients were in relapse state (39). The relapse rates in our study support the literature. Although high relapse rates are associated with the chronic and recurrent nature of the disease, it also indicates the need for rehabilitation and follow-up programs after detoxification treatments in Turkiye (40, 41).

In our study, when the two groups were compared in terms of attempting suicide, no statistical significance was found in the relationship between suicide rate and early relapse ($p > 0.05$). There are conflicting results on this subject in the literature. In a 6-month follow-up study conducted with 392 heroin addicts, suicide attempt was found to be associated with relapses and, in addition, suicide attempt was reported as one of the predictors of the negative course of ASUD treatment (31). In another study conducted with 154 alcohol-dependent patients, it was reported that lifelong suicide attempts were not associated with relapse after treatment (42). Previous studies have shown the association of comorbid psychiatric pathology with high relapse rates(43). Although suicide attempt does not directly indicate a psychiatric diagnosis, high relapse rates can be expected in the group with attempted suicide, considering that it means psychopathology. On the other hand, the relationship between psychiatric admission and low relapse rates, another study result, may have led to opposite effects as a help-seeking habit, as explained below. A more straightforward explanation is that our study's high suicide attempt rate and low sample size may have caused type 2 errors.

In our study, early relapse rates were found to be significantly higher in those who did not have a history of previous psychiatric treatment. To our knowledge, there is no study investigating the relationship between the number of psychiatric treatment applications and substance use relapse in the literature. This result is due to the fact that substance users use addictive substances as self-medication (44). If they also seek a medication in a known way as psychiatric treatment to solve the problems they experience in the absence of substance use, the positive effects of psychiatric treatment may have positive effects on substance use, and the patients' high awareness of psychopathological symptoms has positive results on relapse may have come out (45).

Although it was found in the literature that comorbidity of PTSD and symptom severity were associated with relapse of substance use (6, 46), the absence of a similar relationship in our study may be due to the insufficient sample size.

Although it is known that severe addiction is associated with relapses (35), the fact that a similar relationship was not identified in our study may be due to the fact that all of the participants consisted of inpatients and mostly met the severity of moderate to severe addiction. The fact that the majority of the group that did not participate in our study had psychotic symptoms limited the sample size. The lack of difference between the groups in terms of motivation levels in the study is thought to be due to the high motivation levels of addicts receiving inpatient treatment because they voluntarily applied for treatment and volunteered to receive inpatient treatment (selection bias). In some stu-

dies in the literature, it has been reported that low motivation is associated with treatment dropout, relapse and poor prognosis (47, 48), while in some studies, similar to our study, no relationship was found between motivation and treatment prognosis (31,49).

Although it has been reported that depression symptoms increase the risk of relapse in ASUD (50, 51), and that depression affects treatment compliance adversely (52) the fact that this relationship was not confirmed in this study may be because some of our patients received antidepressant treatment during detoxification and follow-up period, the sample size was small and the follow-up period was limited to 6 months.

Although data on ASUD relapse and dissociation levels are very rare, Somer et al. suggested that dissociative psychopathology may increase the risk of relapse in opiate addicts by losing control over behavior(53). The statistically significantly higher dissociation levels in the relapse group, which is a remarkable data in our study, is a rare data that contributes to the literature.

The high level of anxiety levels and especially physical symptoms of anxiety in the relapse group supports the literature. In the study of Driessen et al., it was reported that comorbid anxiety disorder significantly increased relapse rates (54), and in other studies anxiety disorder was a predictor of relapse .

In addition to the significantly higher relapse rates in the group with substance use behavior changes after traumatic experience, these changes were frequently observed in the first 2 weeks after trauma. Although it has been reported in the literature that behavioral changes such as starting substance use after a traumatic experience and increasing the amount of use are common (44,55), there is not enough data about the effect of timing of substance use behavior change after traumatic experience on relapse. In this respect, our study offers new data. For the importance and validity of this data, it should be repeated with new studies.

High trauma scores and high trauma impact scores in the relapse group is an important data previously described in the literature. It has been reported that patients diagnosed with ASUD with a history of more severe trauma have a high relapse rate (56) and poor treatment prognosis (57). In a follow-up study similar to our study, which investigated the effects of traumatic events on relapse in cocaine addicts, it was reported that trauma severity and relapse rates were related (5). The study's results suggest that current and previous traumatic experiences of the patient with ASUD should be dealt with seriously in every session.

In our study, the rates of emotional neglect, emotional abuse, and physical abuse were significantly higher in the recurrent group. These results are significant because they show that neglect may affect the course of treatment in childhood and every period of life. In a recent 3-month follow-up study of Umut et al., it was found that emotional neglect predicted relapse (8), In the prospective study of Havel et al., domestic violence in childhood and adulthood increased the relapse rates, , and in the follow-up study of Greenfield et al., relapse rates were frequent in those with a history of sexual abuse (3). The low number of patients who gave information about sexual abuse experience in our study may have led to no significant difference between relapse and remission groups. Our study sample mainly consists of male patients. Because sexual abuse is more prevalent in female ASUD patients, it may be an explanation for this low prevalence (58).

Finally, in the Binary Logistic Regression analysis, in which relapse was taken as the dependent variable in order to determine the risk factors, it was found that the predictive power of 7 independent variables (trauma score, trauma impact score, DES total score, HAM-A total score, admission to previous psychiatric treatment, change in substance use behavior after traumatic experience, and timing of change in substance use behavior after trauma) that were found to be significantly different between the two groups (relapse and remission) in our study was statistically significant and this model predicted relapse at a rate of 67.5%. In addition to this, it was found that admission to psychiatric treatment in the past predicted remission significantly ($p < 0.05$), but other variables were not independently significant ($p > 0.05$).

Although the severity of trauma (1, 5), presence of additional psychopathology and depression symptoms (59, 60), additional anxiety symptoms (61) have been reported in some studies to predict relapse, data on this effect of dissociation are rare. Because dissociation causes loss of control in addicts,(53) and predicts impairment in psychosocial functionality (62), it is expected to be associated with relapse.

In this study, psychiatric treatment admission was found to be a significant predictor for low relapse, and other variables were not found to be significant independently. According to the Transtheoretic Model, change in ASUD is a process rather than a result, it consists of multiple stages, and change reaches the action stage in the process (63). Therefore, applying for treatment before may have prepared the appropriate conditions for change and remission. In addition, it is expected that the biggest obstacles to the success of the fight against addiction in previous studies are non-adherence to treatment (64) and perceived need for treatment (65). In this context, it highlights the importance of integrating the addicted group into treatment. Although the regression analysis results of our study seem to be in accordance with the general data, the fact that many other variables did not independently result in a significant predictor of relapse suggests that these variables have limited effects on relapses (1, 5, 59-61).

Although factors such as sociodemographic characteristics, depression and anxiety symptoms, additional psychiatric conditions, substance use severity, motivation that affect relapse in patients with ASUD are investigated with various combinations in prospective studies, prospective studies investigating the relationship of these factors with traumatic experiences and post-treatment relapse rates are rare in the literature. Most of the current studies focused on the diagnosis of PTSD rather than the history of trauma, some investigating only female patients, some only using alcohol or a specific substance.

The strengths of our study are that it focuses on the traumatic experience independent of PTSD diagnosis, includes various types of trauma, it is a prospective study and it is the first comprehensive study that has not been investigated before in the literature in which the relationship between traumatic experiences and early relapse has been investigated together with many clinical features.

On the other hand, the limitations of our study are that the retrospective evaluation of traumatic experience may impair reliability, the small number of participants, the absence of a homogenous group for addiction, the effect of comorbid condition and its treatment, the effect of the treatment received during the follow-up on relapses was not examined, the follow-up was limited to 6 months, the absence of a control group and the lack of comparison between genders due to the small number of female participants.

CONCLUSION

In this study, some results are consistent with the literature and some are the first data have been reported in Turkiye. The relationship between previous psychiatric treatment admission, dissociative experiences, change in substance use behavior after trauma and its timing with relapses in ASUD has not been previously reported in the literature. In this respect, these data need to be verified with studies involving more patients in different samples. Additionally, the results of the study suggest that traumatic experiences should be taken more seriously in ASUD treatments and referring patients to psychiatric treatment as early as possible may be effective in preventing early relapses.

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