

Childhood trauma and attachment styles among substance abusers in Turkey

Gülseren Keskin¹, Gülay Taşdemir Yiğitoğlu²

Abstract

Background: Early trauma exposure is well known to significantly increase the risk of developing a number of psychiatric disorders, especially addiction in adulthood. Literature has shown insecure attachment styles can be correlated with substance abuse. However, there is a lack of research on the relationship between childhood trauma and attachment styles among Turkish substance abusers.

Objective: The aim of this study was to evaluate the childhood trauma and attachment styles of alcohol/substance abusers.

Methods: A cross-sectional study was conducted from April 2014 to December 2015 in Ege University Department of Psychiatry alcohol/drug dependency unit. Participants included 289 substance abusers. All participants were assessed using a Childhood Trauma Questionnaire and Experiences in Close Relationships Scale. Analysis of variance, correlation and t-test were performed to determine childhood trauma and attachment styles among substance abusers. Data were collected from these 289 patients, and descriptive analysis was employed. While data on childhood trauma were collected using the Childhood Trauma Questionnaire, data on attachment styles were collected using the Experiences in Close Relationships Scale via a structured questionnaire. In order to determine the difference between the sociodemographic variables and childhood trauma score, t- and ANOVA tests were calculated. Pearson coefficient correlation was computed to assess the relationship between the childhood trauma scores and attachment style scores. Stepwise regression analysis was used to determine the effective variables on childhood trauma.

Results: The mean age of the participants was 32.5 ± 11.0 . Patients had higher scores in emotional abuse (31.22; SD 6.9) and emotional neglect (49.86; SD 8.4) subscales than in the other subscales in the Childhood Trauma Questionnaire. Patients with substance abuse reported high scores for anxious attachment style (65.20; SD 20) in the Experiences in Close Relationships Scale. Sexual abuse subscale scores differed according to the duration of substance use ($F = 2.61, p = 0.026$). Substance abuse was significantly associated with childhood physical abuse ($t = 2.43, p = 0.016$) and sexual abuse ($t = 2.13, p = 0.034$). There were relationships between avoidant attachment and physical abuse ($r = 0.154, p = 0.009$), emotional abuse ($r = 0.131, p = 0.025$), physical neglect ($r = 0.151, p = 0.019$), and emotional neglect ($r = -0.151, p = 0.010$). Significant correlation was found between anxious attachment and emotional neglect via Pearson correlation analysis ($0.226, p = 0.001$). Stepwise regression analysis reveals that both the age at which alcohol use started and avoidance attachment were strong predictors of physical abuse and physical neglect.

Conclusions: Our study found that substance abuse was significantly associated with childhood physical and sexual abuse. Physical abuse, physical neglect, emotional abuse and emotional neglect were associated with avoidance attachment, while sexual abuse was associated with anxious attachment. The findings suggest that attachment may be an important factor to further understand and address alcohol/substance use among alcohol/substance users with a history of childhood trauma. Trauma therapy may help prevent relapses in alcohol/drug dependency. [*Ethiop. J. Health Dev.* 2019; 33(4):250-258]

Key words: Childhood trauma; attachment styles; substance abuse, Turkey

Introduction

Trauma is an occurrence that is external to human experience that is emotionally painful and/or disturbing. War, physical violence, rape and sexual abuse are defined as potential traumatizing events. In particular, neglect or recurrent abuse may have long-term effects on the physical development and emotional health of a child. There is an increasing amount of evidence from neurodevelopment studies which confirm that traumatized children's brains develop differently from those of emotionally healthy children (1).

It has been recognized that childhood trauma victims develop insecure attachment with their parents (2). It has also been determined that childhood emotional disturbances are related to the individual's separation-individuation process and parental attachment experiences. Researchers have shown that there is a

strong connection between insecure attachment and trauma. Therefore, trauma victims constantly tend to blame themselves for the abuse, which triggers the development of a negative model of the self in individuals, providing the basis for the development of anxiety (3). There is a strong body of evidence that attachment problems in childhood lead to psychopathology in the later years. Early childhood traumas are often associated with anxious attachment. This attachment style has been reported to cause internalized behavior disorders, such as anxiety, depression, withdrawal, and destructiveness and aggression during adulthood (4).

Studies have found that widespread exposure to early life stress, such as child abuse and neglect, has devastating effects on lifelong health and behavior. Childhood trauma is the experience of a highly

¹Ege University Atatürk Medical Vocational Training School, Bornova/İzmir/Turkey 35100. E-mail: gulseren.keskin@ege.edu.tr

²Pamukkale University Faculty of Health Sciences Pamukkale /Denizli/Turkey

distressing event or situation that is usually beyond one's capacity to cope or control.

Most of the studies investigating potential mediators of this relationship are focused on the negative consequences of childhood trauma as a risk factor for alcohol/substance use (5,6). There are three mediating factors in addiction, including posttraumatic symptoms, stressful life events and criminal behavior. In one study, it was found that childhood trauma is associated with problem drinking in adulthood via internalizing symptoms, such as variation of FKBP5 CATT haplotype (minor alleles) affects addiction and severity of alcohol withdrawal symptoms, especially in adults with alcohol use disorder. The FKBP5 binding protein (FKBP5) gene is associated with the stress-response system a stress-response-related gene (6,7).

Despite numerous studies on alcohol/substance use disorders and attachment (18,26), there is no previous study evaluating alcohol/substance abuse and childhood trauma. Thus, this study examined the relationship between childhood trauma and attachment problems in alcohol/substance users in Turkey. We hypothesized that childhood trauma can cause attachment disorder and addiction. The result of this study provide evidence, add to our understanding of childhood traumatic events and the role of family risk factors for attachment disorder of alcohol/substance users, and identify opportunities for support and treatment for this population group.

Subjects and methods

Study setting and period: This was a cross-sectional, descriptive study. The study sample was formed by inpatients and outpatients who were treated for alcohol/substance addiction between April 2014 and December 2015 in Ege University Department of Psychiatry alcohol/drug dependency unit. Comorbid Axis I patients was excluded from the study. The study protocol was thoroughly explained to participants and written informed consent was obtained. Exclusion criteria were mental retardation, cognitive impairment and co-morbid psychiatric disorder (e.g., schizophrenia), according to clinical interview. The study population was adults. The subjects were between 18 and 65 years old. Cognitive functioning was assessed using the Mini-Mental State Examination Test. Patients with mini-mental status test score of 25 and below, indicative of mental problems, were excluded from the study. Cognitive functioning was assessed using a neuropsychological test.

Study population: The study was carried out at the end of detoxification in patients with alcohol/substance use disorders. Interviews were carried out after detoxification, at least two weeks after the last substance use, by the clinician evaluating the complete disappearance of withdrawal symptoms. Some cases of alcohol use impairment were also subject to substance use. A total of 305 patients were treated in the Department of Psychiatry alcohol/drug dependency unit for alcohol/substance addiction care during a 21-month period. Sixteen people were excluded because they did not meet one or more of the eligibility criteria.

For example, patients with a history of psychosis, and those with a co-occurring psychiatric disorder requiring current medication (n=6) were excluded from the study. In addition, patients with acute alcohol withdrawal symptoms (n=5) were not eligible to participate. Five patients were excluded from the study because they failed to complete the rating scales. Ultimately, 289 individuals fulfilled the eligibility criteria to participate in the study. The study was conducted using the remaining 289 patients, of whom 50 were female and 239 were male.

Sample size estimations and participants' enrollment:

The study sample consisted of 289 patients with alcohol/substance addiction who were admitted to the Ege University Department of Psychiatry alcohol/drug dependency unit and whose data were complete. The power of the study to detect statistical significance for the primary end point was 88.7%. The sample size was calculated as 289 cases. With this sample size, frequencies from 1% to 50% are within acceptable limits (power 90%, estimated precision limit from 1% to 50% ± 5). Based on our previous experience, it was estimated that factors such as non-response, incorrect filling of the scale questionnaire, comorbid diseases, fewer than expected number of patients, were estimated to be around 15%, and the total sample size was calculated to be 305. (Based on the estimation of 30% anxiety or depression in cancer patients with $\alpha=0.05$ and $d=0.20$.)

Data collection: In this study, the semi-structured sociodemographic form, Experiences in Close Relationships (ECR) scale, Childhood Trauma Questionnaire (CTQ) were given to the patients, Childhood Trauma Questionnaire (CTQ). The data were collected from patient chart records using CTQ and ECR forms. Information about the childhood trauma of patients was collected using the CTQ. Information on the attachment styles of patients was collected using ECR.

Sociodemographic data form: This form was prepared by the investigator and included questions on gender, age, family history, previous and current psychiatric diseases, clinical specialties.

Experience in Close Relationships (ECR) scale: The validity and reliability study of the scale developed by Fraley & Shaver (8) was carried out by Selçuk *et al.* (9). The scale is intended to measure avoiding others and anxiety with close relationships. There are a total of 36 items in the scale. Scores range between 18 and 126; higher scores indicate higher levels of attachment anxiety and avoidance. Cronbach's alpha was 0.86 for attachment anxiety and 0.90 for attachment avoidance. It is a seven-point Likert-type self-report scale.

Childhood Trauma Questionnaire (CTQ): This scale is a 53-item screening inventory that assesses self-reported experiences of abuse and neglect in childhood. The categories include physical abuse, emotional abuse, sexual abuse, emotional neglect and physical neglect (10). The questionnaire was adapted to Turkish by Şar in 1996 (11). The emotional abuse subscale

(EAS) score range is between 12 and 60; the physical abuse subscale (PAS) is between 7 and 35; the sexual abuse subscale (SAS) is between 7 and 35; the emotional neglect subscale (ENS) is between 16 and 80; and the physical neglect subscale (PNS) is between 8 and 40. Cronbach's alpha for the factors ranged from 0.85 to 0.93. It is a five-point Likert-type self-report scale.

Data quality: In order to ensure data quality, the study data were collected by the interviewers via face-to-face interviews. A pre-test was carried out on 5% of the sample size (12). The investigators closely checked the data collection procedures on the spot. Any questionnaire with a defect was rejected and counted as a non-response. The study was then completed with the remaining 289 patients.

Data processing and analysis: Data were analyzed using SPSS 15.0 for Windows software package. T-test was used to assess the difference between the averages of the two levels (substance use and alcohol use of the cases; and alcohol/substance recurrences of the cases), and one-way ANOVA test was used to evaluate the differences between the means of three or more independent (unrelated) groups of averages in statistical evaluation. Bonferroni *post hoc* tests were used for further analysis. Pearson correlation (r) is used to measure the relationship between childhood trauma and the attachment styles of patients. The significance level for all statistical analyses was accepted as $p < 0.05$.

Ethical considerations

Written informed consent to participate was obtained from all patients. Approval for the study was given by the Regional Committee for Medical and Health Research Ethics of Turkey. A detailed explanation of

the procedure was given to the patients and formal written consent from each participant was obtained. After the researchers had explained the purpose, benefit, risk and content of the study, it was required that all the participants voluntarily agree to take part. However, they were also informed that they were entitled to withdraw from the study at any time. The study participants were informed that there was no direct financial benefit or risk from the study, and that the findings of the study could be used to determine the relationship between alcohol and drug addicts in childhood trauma and attachment styles, and to design protective and therapeutic strategies for this. For confidentiality, the scale forms do not include the names of the patients.

Results

The study included 289 participants who were treated for alcohol/substance addiction. The average age of participants was 32.5 (SD = 11.0). Of the 289 participants, 82.7% (239) were male; 67.1% (193) had a substance use disorder; 89.9% (260) used alcohol; 13.9% (40) reported that they had been treated in the past for a first-axis mental illness. In addition, 49% (141) of the family members of participants had an addiction to alcohol/substances.

Individuals participating in the study had high scores in terms of the emotional abuse (31.22; SD 6.9) and emotional neglect (49.86; SD 8.4) subscales than in the other subscales. It was determined that the individuals had a score close to the peak point of the scale from these subscales (scale-point intervals: 12-60 for emotional abuse; 16-80 for emotional neglect). Patients with substance abuse reported higher scores for the anxious attachment style (65.20; SD 20) subscale of ECR. The trauma and attachment scores of the participants are displayed in Table 1.

Table 1: Average scores of alcohol/substance addicts from the CTQ and ECR subscales (n=289)

CTQ	X(SD)
PNS	18.88(5.5)
ENS	49.86(8.4)
EAS	31.22(6.9)
PAS	16.12(5.1)
SAS	15.13(5.7)
ECR	X(SD)
Avoidant Attachment Subscale	25.82(7.4)
Anxious Attachment Subscale	65.20(14.9)

X: Mean; SD: Standard deviation; PNS: physical neglect subscale; ENS: emotional neglect subscale; EAS: emotional neglect subscale; PAS: physical abuse subscale; SAS: sexual abuse subscale

We compared scale scores according to the presence of family members with alcohol/substance use; statistically significant differences were present in PNS ($F=8.001$, $p=0.001$), EAS ($F=6.009$, $p=0.001$), PAS ($F=9.59$, $p=0.001$), and SAS ($F=9.97$, $p=0.001$) of CTQ (Table 2). We used one-way ANOVA test coupled with Bonferroni *post hoc* test. These tests showed that

PAS scores were significantly high in family members with a drinking problem, and that ENS and SAS scores were significantly high in family members with combined substance and alcohol use. PNS scores were significantly high with a family member's substance use.

Table 2: Assessment of the CTQ scores according to participants' characteristics

Sex	n	X(SD)	t-value	p
Sexual abuse				
Women	50	20.5(2.1)		
Men	239	15.3(2.8)	2.63	0.009
Family members with substance/alcohol use				
	n	X(SD)	F	p
PAS				
Have members with substance use	289	18.9(4.2)		
Have members with alcohol use	289	16.5(5.3)	9.59	0.01
Have members with alcohol substance use	289	19.7(4.7)		
Have no members with alcohol/substance use	289	14.8(4.7)		
PNS				
Have members with substance use	289	22.4(4.9)		
Have members with alcohol use	289	19.2(5.7)		
Have members with alcohol substance use	289	19.0(6.1)	8.001	0.001
Have no members with alcohol/substance use	289	17.5(5.1)		
EAS				
Have members with substance use	289	34.4(4.2)		
Have members with alcohol use	289	31.8(7.2)		
Have members with alcohol substance use	289	34.4(5.9)	6.009	0.001
Have no members with alcohol/substance use	289	29.8(6.9)		
SAS				
Have members with substance use	289	18.7(4.9)		
Have members with alcohol use	289	15.3(5.8)	9.97	0.001
Have members with alcohol substance use	289	18.3(5.1)		
Have no members with alcohol/substance use	289	13.6(5.4)		

t value: Student's t-test for independent samples; F: One-Way ANOVA * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; PNS: physical neglect subscale; ENS: emotional neglect subscale; EAS: emotional neglect subscale; PAS: physical abuse subscale; SAS: sexual abuse subscale

Childhood trauma scores were compared for cases of substance use and cases of alcohol use. Significant differences were found in measures of sexual abuse subscale and physical abuse subscale of the CTQ scores with the substance use of the cases ($t=2.13$, $p=0.034$; $t=2.43$, $p=0.016$) SAS and PAS scores were high in substance abusers.

When the scale scores were compared according to the duration of substance use, a statistically significant difference was found in the subscale of the CTQ for sexual abuse scores ($F=2.61$, $p=0.026$). Those who used substances for more than two years were more likely to be exposed to sexual abuse (Table 3).

In our study, it was also found that there were more cases of child sexual abuse and physical abuse in the second and third alcohol/substance recurrences over a five-year period. When the scores from the scales according to the recurrence status were evaluated for alcohol/substance use, significant difference was found in SAS ($t=5.74$, $p=0.001$) and PAS ($t=5.03$, $p=0.001$) scores of the CTQ with the t-test. According to this result, the risk of sexual and physical abuse is increased in patients with second and third alcohol/substance recurrences over a five-year period. The average scores of the cases that were treated two or more times over a five-year period were high. (Table 3).

Table 3: Assessment of The CTQ scores according to participants' clinical characteristics

Clinical characteristics/CTQ				
Age of onset of alcohol use				
	n	X(SD)	F	p
ENS				
Aged 16 and under	23	53.30(8.0)		
Aged 17-20	63	47.20(7.3)	2.50	0.042
Aged 21 and over	180	50.30(8.7)		
Duration of substance use				
	n	X(SD)	F	p
SAS				
0-1.9 year	99	16.17(5.8)	2.61	0.026
2 years and above	91	18.95(5.2)		
Recurrence status of alcohol/substance use				
	n	X(SD)	t-value	p
PAS				
One attack				
Two or more	53	14.54(4.3)	5.03	0.001
	119	17.42(3.7)		
SAS				
One attack	53	16.71(2.3)	5.74	0.001
Two or more	119	19.51(1.6)		

t value: Student's t-test for independent samples; F: One-Way ANOVA; $p < 0.05$; $**p < 0.01$; $***p < 0.001$; PNS: physical neglect subscale; ENS: emotional neglect subscale;

EAS: emotional neglect subscale; PAS: physical abuse subscale; SAS: sexual abuse subscale

A statistically significant difference was determined in ENS ($F=2.50$, $p=0.042$) scores of CTQ with respect to the age of onset of alcohol use. SAS, PAS, EAS and ENS scores increased with decreasing age (Table 3).

Attachment style and other demographic and clinical data as a predictor of a childhood trauma

Backwards stepwise regression analyses were performed in order to identify predictors of change in physical neglect score. Three predictors remained in the regression model after conducting the analyses. After declaring their tendencies, avoidant attachment and age of onset of alcohol use were significant predictors of improvement in physical neglect score. These two variables had a comparable influence in the model, which overall explained 31% of the variance in the change on the physical neglect score.

Regression analysis showed that the age of onset of alcohol use and avoidant attachment was determinative for physical abuse. The model explained 14% of the variance in the improvement in physical abuse score.

Stepwise regression analyses were performed in order

to identify predictors of change in the emotional abuse score. Three predictors (age, age of onset of alcohol use, avoidant attachment) remained in the regression model after conducting the analyses. The model explained 46% of the variance in the improvement in emotional abuse score.

Regression analysis showed that substance use and alcohol use of patient were determinative for emotional neglect score. The model explained 23% of the variance in the improvement in emotional neglect score.

When variables affecting sexual abuse were evaluated via stepwise regression analyses, the total scores of age of onset of alcohol use, anxious attachment, and presence of family members with alcohol/substance use were determined to be related with sexual abuse at a critical predictive value (27%) (Table 5).

Table5: Attachment style and other demographic and clinical data as predictors of childhood trauma

	B	St.Error	Beta	R2	t	p
Physical neglect						
Age of onset of alcohol use	17.91	2.38	0.257	0.31	2.83	0.001
Avoidant attachment	-1.09	0.37				
	0.91	0.22				
Physical abuse						
Age of onset of alcohol use	12.42	2.38	0.218	0.14	2.69	0.008
Avoidant attachment	0.22	0.60				
	0.69	0.25				
Emotional abuse						
Age	24.39	2.52	0.209	0.46	2.60	0.001
Age of onset of alcohol use	0.15	0.05				
Avoidant attachment	0.20	0.07				
Emotional neglect						
Age of onset of alcohol use	43.10	3.18	0.194	0.23	2.28	0.024
Sexual abuse						
Age of onset of alcohol use	14.86	2.71	0.257	0.27	2.45	0.015
Presence of family members with alcohol/ substance use	0.82	0.36				
Anxious attachment	0.86	0.28				

*p < 0.05; **p < 0.01; ***p < 0.001

Childhood trauma, attachment, and alcohol/substance use

There was relationship between avoidant attachment and PAS (Pearson cor.=0.154, p=0.009), PNS (Pearson cor.= 0.151, p=0.019), EAS (Pearson cor.=0.131, p=0.025) and ENS (Pearson cor.=-0.151, p=0.010).

Significant correlation was found between anxious attachment and ENS (Pearson cor.=0.226, p=0.001) via Pearson correlation analysis. But there was no significant relationship between SAS and attachment style (p>.5) (Table 4).

Table 4: Relationship of the scores of the patients of ECR and CTQ scale(n=289)

CTQ	ECR			
	Attachment Subscale		Anxious Attachment Subscale	
	Pear.cor.	p	Pear.cor.	p
PNS	0.151	0.019	0.092	0.155
PAS	0.154	0.009	0.112	0.058
ENS	-0.151	0.010	-0.226	0.001
EAS	0.131	0.025	0.065	0.269
SAS	0.041	0.487	0.030	0.580

p<0.05; PNS: physical neglect subscale; ENS: emotional neglect subscale; EAS: emotional neglect subscale; PAS: physical abuse subscale; SAS: sexual abuse subscale

Discussion

This study mainly examined the indirect associations between childhood trauma and attachment for alcohol/substance use. Consistent with our hypothesis, we found that childhood trauma may have an impact on the development of alcohol / substance use. Furthermore, we found that childhood trauma had a correlation with current problematic alcohol/substance use; avoidant and anxious attachment had a significant indirect effect on both of those relationships.

The present study evaluated systematically the relationship between childhood trauma and attachment pathologies in individuals with

alcohol/substance use. According to this result, 57% of them started to use substances, and 75% started to use alcohol, before they were 20 years old. Guttmanova *et al.* reported that regular alcohol intake begins before the age of 20 (13), which concurs with the present study.

Childhood physical and sexual trauma scores of patients with substance use disorders were higher than other subscales in our study. Childhood trauma causes a series of mental problems in later life. Child maltreatment is a risk factor for adolescent depression, panic disorder, generalized anxiety disorder and substance abuse (14). Heavy alcohol and

substance use was seen in young adults and adolescent patients with a childhood history of trauma. The risk of alcohol/substance use is reported to be especially high in victims of sexual abuse (15).

In our study, it was observed that female alcohol/substance addicts were victims of child sexual abuse at a higher rate than male group. In the literature, it was reported that gender is a risk factor for alcohol/substance use. It has been reported that the prevalence of substance use disorders is particularly high in women, compared to men, who have suffered childhood trauma (16). It is also observed that childhood sexual trauma leads to the development of less adaptive personality traits that predispose the individual to alcohol/substance addiction (15).

In our study, 49% of the participants had alcohol/substance use in their family history. Alcohol/substance use, and neurobehavioral disinhibition, have been observed in patients with a family history of alcohol addiction (17). Parental alcohol/substance use causes conflicts between parent and child. Negative communication and less warmth/closeness is a common cause of chronic conflict (18). In our study, the highest PNS score was obtained among family members who were drug users.

Similarly, substance abuse was seen more commonly in individuals who had experienced sexual and physical abuse in childhood. Trauma in early childhood causes impairment in the stress response system of the individual and leads to the use of alcohol/substance in adulthood. A retrospective study of African-American women using cocaine found that their first sexual trauma occurred at 9 years of age (19). Trauma is not sufficient to explain alcohol dependence. Alcohol dependence is associated with the genetic structure. It has been found to be more frequent in those with the GABRA2 gene. GABRA2, the gene encoding the $\alpha 2$ subunit of the GABAA receptor, potentially plays a role in the etiology of problematic drinking, as GABRA2 genotype has been associated with subjective response to alcohol and other alcohol-related reward processes, which is particularly effective in the use of alcohol (20). In a study of one group of men with a history of childhood trauma, it was determined that alcohol/substance dependence was more frequent in people with the GABRA2 gene (21,22).

In the present study, alcohol, sexual, physical, emotional abuse and emotional neglect were found to have increased in the early years. We have tried to find various alternative explanations for the reasons of early sickness. It has been reported in the literature that those who have a family history of psychiatric disorder with a history of sexual physical and psychological abuse in childhood begin to drink early (22). In some studies, family environment and low parenting skills have been reported to pose a risk for premature drinking. Specifically, bad parenting has been shown to lead to attachment impairment and the

children of these parents are often neglected or abused (4,23).

In our study, it was found that there were more cases of child sexual abuse and physical abuse in the second and third recurrences in the first five years of alcohol/substance use. Individuals who have experienced rape, harassment or violence are increasingly resorting to violence. In a study, 75-80% of women with substance abuse, a mental disorder and trauma story were found to have recurrence after 5 years of treatment for substance dependence (24). Especially, it is thought that the recurrence of alcohol/substance dependence may be related to experienced childhood traumas. Emotional lability (Emotional lability refers to rapid, often exaggerated changes in mood), and inappropriate coping mechanisms after experiencing a traumatic event may affect the prognosis of alcohol/substance use disorder (25).

In our study, anxious attachment scores were also significantly higher in patients who used alcohol. It has been determined that there is a relationship between avoidant attachment and physical abuse, physical neglect, emotional neglect, and emotional abuse. Additionally, there is a relationship between anxious attachment and emotional neglect scores in our study. According to the attachment theory, the relationship of the individual with the parent in infancy and early childhood influences the way he/she communicates with other individuals and their relationships. Inconsistent and unresponsive parents lead to the development of attachment anxiety and avoidant attachment to children in adulthood (26). Early childhood trauma and dysfunctional parenting also provide grounds for social anxiety and alcohol/substance abuse in adulthood. It has been reported in the literature that avoidant and anxious attachment support alcohol/substance use. Avoiding individuals tend to use alcohol/substance when they meet with psychological stress. This orientation is a way for them to cope with painful emotions and avoid awareness of themselves. Anxious people tend to have alcohol/substances when they have problems with emotional control, and this is a way of coping with uncontrollable ruminative worries and painful memories (27).

Limitations of the study

The most important limitation of this study was that measurements were taken from the clinical sample and no comparison was made with normal healthy groups. This can create difficulties in generalizing the findings. Another limitation of the research is that the scales used are self-report scales. These scales are questionnaires based on a person's statement; they can develop different perspectives according to the participant's social environment and cultural characteristics.

An important clinical implication of the study is the need to carefully assess the history of abuse and neglect and its consequences in treatment-seeking alcohol/substance addicted patients, also indicated by

the prevalence of trauma in alcohol/substance addicted patients. Evidence on the developmental implications of trauma in childhood compared with later trauma suggests that trauma in childhood may disrupt developmental processes, leading to attachment disorder and drug/alcohol addiction. A child's primary care pediatrician plays an important role in determining the psychological and biological signs and symptoms of child's traumatic stress. Pediatricians working in primary care can advise parents and inform them that the child's incompatible reaction to stress may lead to addiction problems in the future. The treatment of children's emotional and behavioral problems related to childhood trauma may reduce the risk of long-term consequences, including alcohol/substance abuse.

Conclusions

This study has significant epidemiological and clinical implications. The results of the study have shown that alcohol and substance abuser attachment are associated with childhood trauma. The study also found that patients who were alcohol/substance abusers were more likely to be exposed to childhood emotional abuse and neglect. Physical abuse, physical neglect, emotional abuse and emotional neglect significantly predicted avoidant attachment; sexual abuse significantly predicted anxious attachment. Childhood attachment styles may affect the development of behavior in adulthood, and the negative effects of insecure attachment styles can lead to substance abuse. Anxious attachment to parents may increase the risk of alcohol/substance dependence in adulthood. Clinically, these results also indicate that childhood trauma and attachment disorders should be assessed in the treatment of alcohol/substance use.

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Authors' contributions

G Keskin conceived the idea, oversaw data collection, conducted data analysis, wrote the manuscript and approved the final version. G Taşdemir participated in study design, critically revised the manuscript and approved the final version.

Conflicts of interest

The authors declare that they have no conflicts of interest.

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