

# Comparison of Attachment Styles, Family Functioning and Locus of Control in Individuals with and without Alcohol Use Disorder

*Alkol Kullanım Bozukluğu Olan ve Olmayan Bireylerde Bağlanma Stilleri, Aile İşlevselliği ve Kontrol Odağının Karşılaştırılması*

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## ABSTRACT

This study aims to examine the variables of attachment styles, family functioning, and locus of control in individuals with and without alcohol use disorder. The 54 participants, including 51 male and 3 females with alcohol use disorder between the ages of 18-60s were chosen from the outpatients of AMATEM service, the attendants of Alcoholics Anonymous meetings, and the people referred by them. The control group consisted of 60 participants who were similar to the study group in terms of age and gender variables, without alcohol use disorder and psychological disorder. Data were collected through a questionnaire including Sociodemographic Data Form, Michigan Alcoholism Screening Test (MAST), Experiences in Close Relationships - Revised (ECR -R), Family Assessment Device (FAD), and Rotter's Locus of Control Scale (LCS). In the results of the study, it was found that the participants with alcohol use disorder had a significantly higher ECR-R anxiety and avoidance score, and LCS score than the control group. Participants with the alcohol use disorder had a considerably lower FAD score than the control group. Finally, the effects of the applied scales on alcohol addiction are analyzed and it was concluded that the scores of FAD and LCS had a statistically significant effect on alcohol addiction. Accordingly, an increase in the FAD score by one unit reduces the alcohol addiction risk by 95%, while an increase in the LCS score by one unit increases the alcohol addiction risk by 31%.

**Keywords:** Alcohol use disorder, attachment styles, family functioning, locus of control

## ÖZ

Bu çalışma, alkol kullanım bozukluğu olan ve olmayan bireylerde bağlanma stilleri, aile işlevselliği ve kontrol odağı değişkenlerini incelemeyi amaçlamaktadır. 18-60 yaş arası alkol kullanım bozukluğu olan 51'i erkek ve 3'ü kadın 54 katılımcı, AMATEM kliniğinin ayaktan hastaları, Adsız Alkolikler toplantılarına katılanlar ve bu kişilerin yönlendirdiği kişiler arasında seçilmiştir. Kontrol grubu, yaş ve cinsiyet değişkenleri açısından çalışma grubuna benzer, alkol kullanım bozukluğu ve psikolojik bozukluğu olmayan 60 katılımcıdan oluşturulmuştur. Veriler, Sosyodemografik Veri Formu, Michigan Alkolizm Tarama Testi (MAT), Yakın İlişkilerde Yaşantılar Envanteri-II (YİYE- II), Aile Değerlendirme Ölçeği (ADÖ) ve Rotter İç-Dış Kontrol Odağı Ölçeği (RİDKOÖ) içeren bir anket aracılığıyla toplanmıştır. Çalışmanın sonuçlarında, alkol kullanım bozukluğu olan katılımcıların YİYE- II kaygı ve kaçınma puanları ile RİDKOÖ puanlarının kontrol grubuna göre anlamlı olarak daha yüksek olduğu bulunmuştur. Alkol kullanım bozukluğu olan katılımcıların, kontrol grubuna göre oldukça düşük ADÖ puanına sahip olduğu saptanmıştır. Son olarak uygulanan ölçeklerin alkol bağımlılığı üzerindeki etkileri incelenmiş ve ADÖ ve RİDKOÖ puanlarının alkol bağımlılığı üzerinde istatistiksel olarak anlamlı bir etkiye sahip olduğu sonucuna varılmıştır. Buna göre, ADÖ puanındaki bir birim artış alkol bağımlılık riskini %95 azaltırken, RİDKOÖ puanındaki bir birim artış alkol bağımlılık riskini %31 artırmaktadır.

**Anahtar sözcükler:** Alkol kullanım bozukluğu, aile işlevselliği, bağlanma stilleri, kontrol odağı

## Introduction

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Alcohol use disorder is a disorder characterized by excessive and repetitive drinking, inability to control and stop the desire and state of drinking alcohol, which may impair the individual's physical and mental health, family, social, and work harmony (Koroğlu 2016). According to the World Health Organization, approximately 237 million men and 46 million women worldwide have alcohol use disorder, and it is reported that the harmful use of alcohol has resulted in the death of about 3 million people, three quarters of whom are men. According to the Turkey Drug Report published by the Counter Narcotics Department in 2019, the rate of alcohol use in Turkey is 34.3% and 10.7% for men and women, respectively. The prevalence of alcohol dependence in Turkey is reported as 1.6, while the prevalence of alcohol use disorder is as 4.8 (World Health Organization 2018).

Since alcohol use disorder is a biopsychosocial disorder based on biological, psychological, and social causes, it is important to comprehend the various factors that contribute to its occurrence (Dalmış et al. 2014). One of the most significant factors that can lead to alcohol use disorder in adulthood is early life experiences and the attachment styles we form during these periods (Murase et al. 2021). According to Bowlby's Attachment Theory, attachment is the strong emotional bond that a person develops with their caregiver at an early age (Bowlby 1969). According to the theory, early experiences, especially separation, trauma, and other problems originating from close relationships such as the loss of important people, are closely related to anxiety, anger, depression, emotional disconnection, and the capacity to control oneself and emotions in subsequent years (Sümer et al. 2015). Most adult attachment research uses the measurement method developed by Hazan and Shaver (1990) from Ainsworth et al.'s (1978) three attachment styles (secure, avoidant, and ambivalent) and one of them, Bartholomew and Horowitz (1991)'s four-category attachment model (secure, fearful-avoidant, anxious-preoccupied, and dismissive-avoidant) has become the most accepted approach in the field over time.

People who exhibit anxious and avoidant behaviors have underlying challenges with emotion regulation which is ability to control one's own emotional state. Problems with emotion regulation and the subsequent need for alcohol to assist regulate emotions, can lead to alcohol use disorder (Sümer et al. 2015). In the light of this information, a review of relative literature has indicated a positive relationship between alcohol and substance use and insecure and avoidant attachment (Howard and Medway 2004, Caspers et al. 2005, Borhani 2013), and a negative relationship with secure attachment (Massey et al. 2014). While Şimşek (2020) claimed that attachment is associated with more than one stage of alcohol addiction, ocaoğlu (2018) similarly stated that there is a significant relationship between attachment style and addiction levels among alcohol and substance users.

Family characteristics are also one of the main factors affecting the development and maintenance of addiction (Ögel et al. 2017). Family functionality deteriorates when one of the family functions is not fulfilled, and many personal and social problems like alcohol and substance addiction emerge (Küçükşen et al. 2016). According to the McMaster Model of Family Functioning, family functions, that reflect the structure and characteristics of the family, consist of dimensions such as problem-solving, communication, roles, affective responsiveness, affective involvement, and behavior control (Epstein et al. 1983). Low family functionality and lack of parental control have been observed to enhance alcohol consumption (Tütüncü 2020). Previous studies have shown that poor family ties, negative family relationships, authoritarian parenting, taking inconsistent emotional reactions, and exposure to abuse and neglect in childhood can lead to alcohol addiction in adulthood (Nomura et al. 2002, Akfert et al. 2009, Tütüncü 2020).

Another factor affecting the development of alcohol use disorder is the locus of control that a person has, and thus person's power over the alcohol drinking behavior (Nurmedov et al. 2015). Internal locus of control refers to the belief that people are in charge of their behaviors and events that happen in their lives, while external locus of control refers to a person's belief that they are not in control of events that occur in their lives by attributing them to various external factors (Rotter 1966). People with an internal locus of control are more likely to internalize their achievements and have higher confidence in themselves and their abilities, but those with an external locus of control tend to be more anxious, and skeptical (Gezgin 2010). It has been revealed that uncontrolled consumption of alcohol is associated with having an external locus of control in people with alcohol addiction (Engin and Savaşan 2012, Dalmış et al. 2014). A similar observation was made by Şenel (2013) on people with and without alcohol problems, and it was concluded that people with alcohol problems had a higher external locus of control. Pektaş et al. (2003) demonstrated that relapse occurs more frequently in individuals with alcohol addiction in remission who have an external locus of control.

This study aimed to comparatively examine individuals with and without alcohol use disorder in terms of attachment styles, family functionality, and locus of control. Further, this study will examine the predictive

power of socio-demographic factors on alcohol use disorder. This research is significant since it is the first in our country's literature to examine attachment styles, family functioning, and locus of control variables together, which are considered to impact addiction along with rising alcohol usage. The evaluation of these psychological factors in addressing alcohol-related psychological problems is believed to will benefit programs for the treatment and prevention of addiction.

## **Methods**

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### **Participants**

In this comparative study, the sample was recruited from outpatients of AMATEM service, attendants of Alcoholics Anonymous meetings, and the ones contacted via those people. The 54 participants, including 51 male and 3 females aged 18-60 who volunteered to participate and scored higher than 7 on the Michigan Alcoholism Screening Test were included as participants in this study. 60 voluntary participants from normal population who scored less than 7 on the Michigan Alcoholism Screening Test, similar to the study group in terms of age and gender variables, without any psychological disorders, were randomly selected as a comparison group.

### **Procedure**

Participants were given a questionnaire including Sociodemographic Data Form, Michigan Alcoholism Screening Test (MAST), Experiences in Close Relationships-Revised (ECR- R), Family Assessment Device (FAD), and Rotter's Locus of Control Scale (LCS) as a data collection tool. At the beginning of the study written informed consent was obtained from all participants. Data were collected from November 27, 2020, to December 24, 2020. The study was approved by the Near East University Research Ethical Committee (Date and Approval Number: December 30, 2020, and 2020/823).

### **Measures**

#### ***Sociodemographic Data Form***

The sociodemographic data were collected, including the participants' age, gender, marital status, working status, social security, and monthly income.

#### ***Experiences in Close Relationships-Revised Scale (ECR- R)***

This scale was developed by Fraley et al. (2000) and adapted to Turkish form by Sümer (2006). The scale, which was designed to measure attachment dimensions in adulthood has a two-factor structure representing attachment-related anxiety and avoidance behaviors, consisting of 36 items. While 18 items in the scale measure avoidance attachment dimension, the remaining 18 items measure anxious attachment dimension. Cronbach's alpha reliability coefficient for the anxious and avoidant dimensions of the Turkish version of Sümer (2006) was calculated as 0.86 and 0.90, respectively. In this study, Cronbach's Alpha score of the ECR-R scale was found to be 0.889 for the total.

#### ***Family Assessment Device (FAD)***

This scale was designed by Epstein et al. (1983) to assess family functionality and adapted to the Turkish population by Bulut (1990). It has seven sub-scales that measure problem-solving, communication, roles, affective responsiveness, affective involvement, behavior control, and general functioning. Each item gets a score between 1.00 (healthy) and 4.00 (unhealthy) on a total of 60 items. Average scores above 2.00 indicate an unhealthy direction in family functionality. The internal consistency of each subscale was calculated (Cronbach's alpha) ranging from 0.72 to 0.92. The Turkish sample was confirmed, with internal consistency (Cronbach Alpha) ranging from 38 to 86 for each sub-scale.

#### ***Rotter's Locus of Control Scale (LCS)***

This scale was developed by Rotter (1966) to measure an individual's level of internal-external control, consisting of 29 items. The 23 items on the scale that contain externality are scored 1 point, with a total score ranging from 0 to 23. The remaining 6 items were added to make ambiguous the intent of the test. A high score obtained from the scale indicates that the individual has a high external locus of control. The Spearman-Brown and KR-20 reliability coefficient was calculated between .65 and .79, and the test-retest reliability coefficient was calculated

between .49 and .83. Cronbach's alpha internal consistency, KR-20 reliability coefficient, and test-retest reliability of Turkish adaptation by Dag (1991) was calculated as .70, .68,  $r=.83$ , respectively.

### **Michigan Alcoholism Screening Test (MAST)**

This scale was designed by Gibbs (1983) to identify individuals with alcohol addiction, the level of the addiction, and the individuals at risk of developing alcohol addiction. The scale adapted to Turkish by Coşkunol et al. (1995) consists of 25 items related to alcohol consumption and its results, questioning the effects of alcohol on individuals, interpersonal relationships, work performance, and health. A total score of 5 and above on these items indicates alcohol addiction, a total score of 4 indicates possible addiction, and a total score of 3 and below indicates that the individual has no alcohol addiction. While the cut point is between 5 and 9, the Turkish version of the scale has a reliability of .79 and validity of .99 (Coşkunol et al. 1995).

### **Statistical Analysis**

The statistical analyses of the data were performed using the Statistical Package for Social Sciences, version 24.0 software. The frequency analysis of socio-demographic characteristics of individuals with and without alcohol use disorder, and the range of the drink habit were given and the Pearson chi-square test was used to compare these variables. The normality of scores from Family Assessment Device, Experiences in Close Relationships Scale-Revised, and Rotter's Locus of Control Scale were checked with Shapiro Wilk test and Kolmogorov-Smirnov test. Hence the normality assumption was not met, Mann-Whitney U test was used to compare the two groups. Logistic regression analysis was used to determine the effects of marital status, work status, Experiences in Close Relationships Scale-R, Family Assessment Device, and Rotter's Locus of Control Scale scores on alcohol addiction.

### **Results**

A total of 54 individuals with alcohol use disorder, with 51 (94.44%) men and 3 (5.56%) women, and a total of 60 individuals without alcohol use disorder, with 57 (95%) men and 3 (5%) women, participated in the study. Among individuals with alcohol use disorder, 29.63% were aged below 27, 40.74% were aged between 28-35, 29.63% were aged above 36, 31.48% were single, 57.41% were married, 11.11% were divorced.

	Control		Addicted		Total		X <sup>2</sup>	P
	N	%	N	%	N	%		
Gender								
Female	3	5.00	3	5.56	6	5.26	0.018	0.894
Male	57	95.00	51	94.44	108	94.74		
Age								
18 – 27	18	30.00	16	29.63	34	29.82	0.247	0.884
28 – 35	22	36.67	22	40.74	44	38.60		
36 – 60	20	33.33	16	29.63	36	31.58		
Marital Status								
Single	24	40.00	17	31.48	41	35.96	7.273	0.026*
Married	36	60.00	31	57.41	67	58.77		
Divorced	0	0.00	6	11.11	6	5.26		
Education Level								
Less and primary school	5	8.33	10	18.52	15	13.16	22.354	0.000*
High school	14	23.33	31	57.41	45	39.47		
University	41	68.33	13	24.07	54	47.37		
Working Status								
Employed	54	90.00	37	68.52	91	79.82	8.143	0.004*
Unemployed	6	10.00	17	31.48	23	20.18		
Social Security								
Exist	57	95.00	31	57.41	88	77.19	22.814	0.000*
Absent	3	5.00	23	42.59	26	22.81		
Monthly income								
3000 TL and below	15	25.00	21	38.89	36	31.58	4.697	0.096
3001-5000 TL	21	35.00	21	38.89	42	36.8		
5001 TL and above	24	40.00	12	22.22	36	31.58		

\* $p<0,05$  (Pearson chi-square test)

Among individuals without alcohol use disorder, 30.0% were aged below 27, 36.67% were aged between 28-35, 33.33% were above 36, 40.0% were single, 60.0% were married. In addition, education level, work status, social security, and monthly income are presented in Table 1. There were statistically significant differences between the individuals who participated in the study with and without alcohol use disorder, according to their marital status, education level, working status and social security ( $p < 0.05$ ). The rate of primary graduates and being divorced is higher, while the rate of work status and social security is lower on individuals with alcohol use disorder compared to individuals without alcohol use disorder. No significant difference was found in the gender, age, and monthly income between individuals with and without alcohol use disorder ( $p > 0,05$ ) (Table 1).

Table 2 presents the alcohol consumption habits of individuals with and without alcohol use disorder, including frequency of alcohol use, alcohol type, age at onset of drinking, amount of alcohol consumption, and drinking frequency of 6 standard drinks and more at one time. It is found that the frequency of alcohol use, amount of alcohol consumption, and the drinking frequency of 6 standard drinks and more at one time in the group with alcohol use disorder were significantly higher than the control group ( $p < 0,05$ ). In addition, the rate of the group with alcohol use disorder that started drinking alcohol before the age of 13 was found to be significantly higher than the control group ( $p < 0,05$ ).

<b>Table 2. Alcohol consumption habits of addicted and non-addicted individuals</b>								
	Control		Addicted		Total		X <sup>2</sup>	P
	n	%	n	%	n	%		
Frequency of alcohol use								
Never	8	13.33	0	0.00	8	7.02	77.015	0.000*
Only 1 time	8	13.33	0	0.00	8	7.02		
1-2 days per month	33	55.00	1	1.85	34	29.82		
1-5 days per week	11	18.33	33	61.11	44	38.60		
Every day	0	0.00	20	37.04	20	17.54		
Alcohol type								
Beer	23	44.23	15	27.78	38	35.85		
Raki	21	40.38	19	35.19	40	37.74		
Wine	2	3.85	11	20.37	13	12.26		
Whiskey	6	11.54	2	3.70	8	7.55		
Vodka	0	0.00	7	12.96	7	6.60		
Age of onset of drinking								
Younger than 13 years	3	5.77	35	64.81	38	35.85	53.388	0.000*
14-15	11	21.15	14	25.93	25	23.58		
16-17	18	34.62	4	7.41	22	20.75		
18 years and over	20	38.46	1	1.85	21	19.81		
Amount of alcohol consumption								
None	14	23.33	0	0.00	14	12.28	84.271	0.000*
1-2 standard drinks	22	36.67	0	0.00	22	19.30		
3-4 standard drinks	15	25.00	0	0.00	15	13.16		
5-6 standard drinks	9	15.00	42	77.78	51	44.74		
7 and more	0	0.00	12	22.22	12	10.53		
Drinking frequency of 6 standard drinks and more at one time								
None	33	55.00	0	0.00	33	28.95	106.436	0.000*
Less than 1 in a month	15	25.00	0	0.00	15	13.16		
Once in a month	10	16.67	0	0.00	10	8.77		
Once in a week	2	3.33	33	61.11	35	30.70		
Every day	0	0.00	21	38.89	21	18.42		

\* $p < 0.05$  (Pearson chi-square test)

As seen in Table 3, the average MAST score was  $13,07 \pm 3,38$ , and minimum score was 8 and the maximum score was 20 in the group with alcohol use disorder, while the MAST score was  $3,53 \pm 1,0$ , and the minimum score was 2 and the maximum score was 6 in the control group. The group with alcohol use disorder had a significantly higher MAST score than the control group ( $p < 0,05$ ).

The group with alcohol use disorder scored an average of  $3.88 \pm 1.36$  points from the anxious attachment sub-dimension in the ECR-R,  $3.49 \pm 1.09$  points from the avoidant attachment sub-dimension in the ECR-R, while the control group scored an average of  $2.60 \pm 0.85$  points from the anxious attachment sub-dimension in the ECR-R,  $2.19 \pm 0.77$  points from the avoidant attachment sub-dimension in the ECR-R. The group with alcohol use

disorder had a significantly higher ECR-R anxiety and avoidance score than the control group ( $p<0,05$ ) (Table 3).

**Table 3. Comparison of Michigan Alcoholism Screening Test scores, Experiences in Close Relationships-Revised scores and Rotter's Locus of Control Scale scores of alcohol addicted and non-addicted individuals**

	Group	N	Mean	SD	M	Min	Max	SO	Z	P
MAST	Control	60	3.53	1.00	3.00	2.00	6.00	30.50	-9.441	0.000*
	Addicted	54	13.07	3.38	12.50	8.00	20.00	87.50		
Anxious	Control	60	2.60	0.85	2.44	1.00	5.22	42.39	-5.146	0.000*
	Addicted	54	3.88	1.36	3.78	1.28	6.33	74.29		
Avoidant	Control	60	2.19	0.77	2.06	1.00	4.22	39.58	-6.103	0.000*
	Addicted	54	3.49	1.09	3.33	1.33	5.56	77.41		
Rotter's Locus of Control Scale	Control	60	10.03	4.01	10.00	1.00	19.00	36.96	-7.010	0.000*
	Addicted	54	16.56	3.62	17.00	7.00	23.00	80.32		

\* $p<0.05$  (Mann-Whitney U test)

The LCS score was  $16,56\pm 3,62$ , in the group with alcohol use disorder, while the LCS score was  $10,03\pm 4,01$ , in the control group. The group with alcohol use disorder had a significantly higher LCS score than the control group ( $p<0,05$ ) (Table 3).

Regarding FAD scores (Table 4), the results showed that individuals with alcohol use disorder had a significantly lower score for sub-dimensions of problem-solving, communication, roles, affective responsiveness, behavior control, and general function than the control group ( $p<0.05$ ).

**Table 4. Comparison of Family Assessment Device scores of alcohol addicted and non-addicted individuals**

	Group	n	Mean	SD	M	Min	Max	SO	Z	P
Problem Solving	Control	60	3.43	0.49	3.50	2.33	4.00	79.14	-7.391	0.000*
	Addicted	54	2.30	0.67	2.17	1.17	4.00	33.45		
Communication	Control	60	3.51	0.37	3.56	2.33	4.00	80.08	-7.702	0.000*
	Addicted	54	2.65	0.51	2.67	1.56	4.00	32.42		
Roles	Control	60	3.13	0.36	3.18	2.09	3.82	78.58	-7.186	0.000*
	Addicted	54	2.30	0.52	2.23	1.18	3.36	34.08		
Affective responsiveness	Control	60	3.53	0.56	3.67	1.67	4.50	78.01	-7.008	0.000*
	Addicted	54	2.36	0.77	2.33	1.00	4.00	34.71		
Affective involvement	Control	60	2.83	0.37	2.86	1.71	4.00	72.89	-5.272	0.000*
	Addicted	54	2.39	0.43	2.43	1.43	3.14	40.40		
Behaviour control	Control	60	3.06	0.35	3.00	2.22	3.67	66.26	-2.998	0.003*
	Addicted	54	2.85	0.33	2.83	2.11	3.67	47.77		
General function	Control	60	3.69	0.33	3.83	2.42	4.25	80.82	-7.955	0.000*
	Addicted	54	2.53	0.64	2.46	1.67	4.00	31.59		
Family Assessment Device	Control	60	3.31	0.28	3.37	2.36	3.83	80.29	-7.761	0.000*
	Addicted	54	2.48	0.45	2.41	1.85	3.61	32.18		

\* $p<0.05$  (Mann-Whitney U test); SD: Standard deviation

**Table 5. The effects of marital status, working status, Experiences in Close Relationships-Revised Scale scores, Family Assessment Device scores and Rotter's Locus of Control scores on alcohol addiction**

	B	S.E.	Wald	df	Sig.	Exp(B)	%95 CI	
							Lower	Upper
Anxious	0.42	0.34	1.49	1.00	0.223	1.52	0.78	2.97
Avoidant	0.31	0.39	0.62	1.00	0.430	1.36	0.63	2.93
Family Assessment Device	-3.02	0.92	10.87	1.00	0.001*	0.05	0.01	0.29
Rotter's Locus of Control Scale	0.27	0.10	6.94	1.00	0.008*	1.31	1.07	1.60
Marital status			2.51	2.00	0.285			
Marital status (Single)	-19.83	13705.02	0.00	1.00	0.999	0.00	0.00	.
Marital status (Divorced)	-18.64	13705.02	0.00	1.00	0.999	0.00	0.00	.
Working Status (employed)	-1.15	0.87	1.76	1.00	0.185	0.32	0.06	1.73
Constant	23.10	13705.02	0.00	1.00	0.999			

\* $p<0.05$   $R^2=0.747$

The model was created using logistic regression analysis in order to examine the effects of marital status, working status, ECR-R scores, FAD scores, and LCS scores on alcohol addiction, was statistically significant, and predictability rate of the model was 92.9% and the variance was 74.7%. It was determined that marital status, working status, and ECR-R scores did not have a statistically significant effect on alcohol addiction ( $p>0,05$ ). FAD scores and LCS scores did have a statistically significant effect on alcohol addiction ( $p<0,05$ ). Accordingly,

an increase of 1 unit in the FAD scores reduces the alcohol addiction risk by 95%, while an increase of 1 unit in the LCS scores increases alcohol addiction risk by 31% (Table 5).

## Discussion

The findings of this study showed that the rate of male individuals with alcohol use disorder was higher than that of female. This result is similar to those in many studies conducted in Turkey (Zorlu et al. 2011, Bilim Şenel 2013, Vatanserver 2016, Karaağaç et al. 2017, Mutlu and Öztürk Sarıkaya 2019). Considering that the collectivist culture is dominant in our country and the social perception towards heavy alcohol use by women is bad, it can be said that the results of the research are predictable. According to the Turkish Statistic Yearbook (2016), the highest age group among alcohol users is 25-34. Similar results were obtained in our study, the majority of individuals with alcohol use disorder were found to be aged between 28-35.

Results of this study indicate that the rate of being divorced was higher in individuals with alcohol use disorder than individuals without alcohol use disorder. These results are in line with the previous studies showing that the divorce rate is higher in people who regularly consume alcohol and have addictions (İnce et al. 2002, Kaplan and Sadock 2004, Chasan 2010, Vatanserver 2016). This result suggests that being married has a protective effect on alcohol use and addiction, as well as being beneficial in perceiving more social support (Yüncü et al. 2013).

The results demonstrated that the frequency of alcohol use, the amount of alcohol consumption, and the frequency of drinking 6 standard drinks or more at one time were higher in individuals with alcohol use disorder than individuals without alcohol use disorder, and parallel results were found in the literature (Akvardar and Uçku 2010, Chasan 2010, Güngör et al. 2013, Bilim Şenel 2013, Dalmış et al. 2014, Akyel 2016).

Currently available data indicate that the age of onset of drinking is younger in the individuals with alcohol use disorder than individuals without alcohol use disorder. It was found that the majority of individuals with alcohol use disorder started drinking before the age of 12, while the majority of individuals without alcohol use disorder first used alcohol at the age of 17 and above. These findings in line with previous studies that indicated that people with alcohol use disorder started using alcohol at a younger age (Demirbaş et al. 2004, Kural et al. 2005, Öner et al. 2006, Chasan 2010, Çataloğlu 2011, Güngör et al. 2013, Erdem 2019). It is widely accepted that the reduced age of onset to alcohol affects the likelihood of developing alcohol addiction, and that initiation, especially before the age of twelve, causes harmful use of alcohol or problematic drinking behavior in late adolescence (İlhan et al. 2002). Furthermore, it has been proposed that the early adolescence, between the ages of 10 and 12, is a predisposition period for the harmful use of alcohol and addiction (Gruber et al. 1996, İlhan et al. 2002).

The results of the research revealed that the anxious and avoidant attachment tendencies of the individuals with alcohol use disorder were significantly higher than those of the ones without alcohol use disorder. In this regard, many studies have previously found a positive relationship between alcohol and substance use and anxious and avoidant attachment, and a negative relationship between secure attachment and alcohol and substance use (McNally et al. 2003, Aydoğdu and Çam 2013, Massey et al. 2014, Sümer et al. 2015, Tunçay 2020, Köşger and Altınöz 2020). In this respect, considering that emotional regulation difficulties lie on the basis of alcohol addiction, it can be said that in a situation that requires emotion regulation, anxious and avoidant behaviors emerge as a means of regulate emotional state.

Previous studies have demonstrated that parental attitudes and family functionality are significant factors in the prediction, development, and maintenance of addiction (Matejevic et al. 2014, Ögel et al. 2017). In the present study, it was found that individuals with alcohol use disorder perceived their families as unhealthy in terms of problem-solving, communication, roles, affective responsiveness, affective involvement, behavior control, and general functions, when compared to individuals without alcohol use disorder. The result of another study conducted with men have alcohol use disorder and their wives, showed that, in parallel with the findings of our study, both genders perceived family functionality as unhealthy, especially in the sub-dimensions of roles, affective responsiveness, and affective involvement (Pektaş et al. 2003). In another study conducted with university students, it was concluded that low levels of emotional attachment, authoritarian parenting, and inconsistency in parental relations predicted alcohol use (Kolay Akfert et al. 2009). These results provide an insight into importance of healthy family relationships and parenting styles on alcohol addiction.

Although these variables are assessed independently, they are variables that complement each other and are interrelated. Previous research has demonstrated that parenting style influences the attachment type that a person develops; for example, the warm parenting style exhibited in the family and strong communication are related to secure attachment (Daniel 2020). In families where care and attention are lacking and communication

is inadequate, negative-self image and low self-esteem cause skepticism that the person creates against himself, which leads us to the locus of control, which is another variable of our study. In the light of literature, it is seen that people who have an alcohol problem shows a higher external locus of control orientation (Pektaş et al. 2003, Engin and Savaşan 2012, Bilim Şenel 2013, Dalmiş et al. 2014, Satan 2018, Keskin 2019, Er 2020). In a study conducted by Bright et al. (2013), it was determined that people who do not have alcohol problems have a more active internal control orientation, while people with alcohol problems are more passive in behaviors that require an internal locus of control. The results of this study, in line with the results of other studies, show that individuals with alcohol use disorder have a higher external locus of control orientation than individuals without alcohol use disorder. From this point of view, it can be claimed that people who are addicted to alcohol externalize their self-control and see external factors as the cause of events.

In the current study, the effects of marital status, working status, attachment styles, family functionality, and locus of control on alcohol addiction were examined with logistic regression analysis. It was found that marital status, working status, and attachment styles did not have the power to predict alcohol addiction. However, the study has clearly shown that family functionality and locus of control variables predict alcohol addiction. Currently existing data shows that an increase of one unit of family functionality reduces the alcohol addiction risk by 95% and an increase of one unit of external locus of control increases the alcohol addiction risk by 31%. The results show the importance of having a healthy family functioning that is protective against alcohol dependence. Further, results indicate that having external locus of control increases the risk of alcohol addiction.

While the study indicates the reciprocal relationship of family functioning and locus of control variables with alcohol dependence, it shows that attachment styles, family functionality and locus of control variables differ between participants with and without alcohol use disorder. According to the results of this research, growing up in an environment with unhealthy family functioning is assumed to create dysfunctional attachment styles and locus of control, because it influences the attachment styles that a person develops and the locus of control the person has. It is believed that dysfunctional attachment styles and locus of control, which arise as a result of unhealthy family functioning, influence a person's ability to regulate emotions and contribute to alcohol consumption as a coping mechanism.

One of the limitations of the study is the small sample size and being limited to people residing in Izmir. Future research should be conducted with a larger sample including increase number of woman for generalizability.

## Conclusion

Since an unhealthy family environment provides a basis for the harmful use of alcohol, it is recommended to focus on the positive development of family relations in treatment for alcohol addiction. It is suggested to evaluate attachment styles before treatment and prioritize emotion regulation strategies that aim to transform insecure attachment styles in treatment. In preventative studies for alcohol use disorders, it may be advised to target age groups, particularly those in early adolescence. In this regard, pieces of training on emotion regulation and coping strategies for stress can be given to age groups in early adolescence. The study's findings are expected to bring a new viewpoint to the profession and will benefit clinicians working on addiction therapy and structuring clinical interviews.

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