Available online at www.medicinescience.org

ORIGINAL ARTICLE

Medicine Science International Medical Journal

Medicine Science 2025;14(2):424-33

Alcohol and substance use disorders, aggression, and resilience in domestic violence perpetrators under Law No. 6284 in Türkiye

Gamze Zengin Ispir[1], Kubra Sezer Katar[1], Mustafa Danisman[1], Zehra Ucar Hasanli[1], Mustafa Batuhan Kurtoglu[2]

[1]Ankara Training and Research Hospital, Alcohol and Drug Addiction Treatment Center, Ankara, Türkiye
[2]Hasan Kalyoncu University, Faculty of Economics, Administrative and Social Sciences, Department of Psychology, Gaziantep, Türkiye

Received 15 January 2025; Accepted 12 May 2025
Available online 31 May 2025 with doi: 10.5455/medscience.2025.01.021

Abstract

Domestic violence (DV) and intimate partner violence (IPV) are significant global public health concerns with severe consequences, including mental health issues, physical injuries, and increased alcohol and substance use. Alcohol and substance use disorders (ASUD) are known to exacerbate aggression, a critical factor in DV perpetration. This study aims to investigate the frequency of ASUD, as well as levels of aggression and resilience, in DV perpetrators referred to a forensic clinic under Law No. 6284 in Türkiye. A total of 111 individuals were assessed for ASUD, aggression, and resilience. Results showed that 43 participants were diagnosed with ASUD, and those diagnosed exhibited significantly higher aggression levels compared to DV perpetrators without ASUD diagnosis. Addiction was found to be a significant predictor of all four subscales of aggression, marital status positively predicted physical aggression, and resilience negatively predicted physical aggression. This study highlights the strong association between ASUD and aggression in DV perpetrators and emphasizes the urgent need for targeted interventions addressing both addiction and aggression in treatment settings.

Keywords: Domestic violence, alcohol and substance use disorders, aggression, resilience, Law No. 6284

Introduction

Domestic violence (DV) and intimate partner violence (IPV) are significant public health issues that affect individuals worldwide [1]. Both women and men can experience DV at some point in their lives [2]. DV can lead to severe health impacts, including physical injuries ranging from minor to severe, mental health issues such as anxiety, increased alcohol and substance use, and overall poorer health outcomes [3]. Common risk factors for DV include alcohol or substance use by DV perpetrators, short relationship duration, jealousy, and mental illnesses [4]. Understanding the reasons for DV is crucial for developing effective interventions [5].

Alcohol and substance use disorders (ASUD) involve heavy and compulsive consumption of alcohol or other substances, often leading to severe medical and social consequences [6]. ASUD can be linked to various forms of violence [6]. The specific substance being used, the combined use of multiple drugs, and the presence of mental health issues can all contribute to the perpetration of domestic violence [7]. Chronic alcohol use is associated with violent crimes, and stimulant drugs are known to increase aggressive behavior [7,8]. A 30-year cohort study found that 4.6-9.3% of perpetrators of intimate partner violence had an alcohol use disorder [9]. Although the relationship between addictions and hostility and aggression has been shown in community-based studies [10], the data on this subject are quite limited, and more studies are needed.

Aggression can be defined as behaviors aimed at attacking someone [11]. Aggression is influenced by cognition, affect, and arousal and is affected by a combination of bio-psycho-social factors [12]. Childhood exposure to domestic violence, anger rumination, and trait aggression are significant predictors of future perpetration of domestic violence [13].

CITATION
Zengin Ispir G, Sezer Katar K, Danisman M, et al. Alcohol and substance use disorders, aggression, and resilience in domestic violence perpetrators under Law No. 6284 in Türkiye Med Science. 2025;14(2):424-33.

Corresponding Author: Gamze Zengin Ispir, Ankara Training and Research Hospital, Alcohol and Drug Addiction Treatment Center, Ankara, Türkiye
Email: zengingamze90@gmail.com

DOI: 10.5455/medscience.2025.01.021

Resilience is the ability to handle challenging situations and traumatic experiences while maintaining psychological well-being as much as possible in the face of these situations [14]. Research suggests that higher levels of resilience could decrease aggression and hostility [15]. A study conducted in forensic inpatients showed that resilience fully mediated the relationship between aggression and adverse childhood experiences [16].

In Türkiye, Law No. 6284, titled "The Law to Protect the Family and Prevent Violence Against Women," was enacted in 2012 in response to increasing rates of domestic and gender-based violence. The law outlines a broad set of protective and preventive measures for women, children, family members, and victims of persistent stalking. It defines violence as any act—psychological, verbal, physical, economic, or sexual—that causes or is likely to cause harm or suffering (Article 3-(1)/m) [17]. Importantly, the law also includes provisions for the rehabilitation of perpetrators, authorizing courts to mandate psychosocial support, medical evaluations, and treatment programs, particularly in cases involving addiction (Article 5(1)/h, 5(1)/i) [17]. Alcohol and substance use may cause violent behavior by creating aggression or increasing existing aggression [18]. Within this legal framework, perpetrators can be referred to forensic addiction treatment centers for diagnosis and intervention. This integrated approach recognizes the role of alcohol and substance use in exacerbating aggression and domestic violence. Comparable legal models can be found internationally—such as Spain's Organic Law 1/2004 and the UK's Domestic Abuse Act 2021—both of which include compulsory intervention programs for perpetrators with substance misuse issues [18]. Law No. 6284 thus reflects a modern, multidisciplinary legal response to domestic violence, combining victim protection with mandatory perpetrator rehabilitation, particularly in the context of addiction-driven aggression.

Despite substantial research on the association between substance use, aggression, and domestic violence, there is a lack of data on the prevalence of ASUD among DV perpetrators in Türkiye, particularly under the legal framework of Law No. 6284. This study aims to address this gap by investigating the frequency of ASUD among individuals subjected to restraining orders under Law No. 6284, the relationship between ASUD and aggression levels in DV perpetrators, and the potential moderating role of resilience in aggression. Based on existing literature, we hypothesize that (H1) individuals with ASUD will exhibit higher aggression levels than those without ASUD, (H2) ASUD will be a significant predictor of all forms of aggression (physical, verbal, anger, and hostility), and (H3) resilience will be negatively correlated with aggression, serving as a protective factor. Additionally, we examine whether demographic factors, such as marital status and employment status, influence physical aggression (H4). By contextualizing these relationships within the legal framework of Law No. 6284, this study aims to provide empirical evidence to inform targeted interventions that address both addiction and aggression in DV perpetrators.

Material and Methods

Participants and Procedure

This study was carried out on individuals who were referred to the Forensic Outpatient Clinic of Ankara Training and Research Hospital's Alcohol and Substance Addiction Treatment Center (AMATEM) under Article 5 (1-h) of Law No. 6284. The purpose of the study was to identify the presence of alcohol or substance use disorder and to provide treatment if necessary. Between August 15, 2023, and August 15, 2024, individuals mandated by court order were invited to participate in the study, and 111 out of 242 individuals who met the inclusion criteria and were willing to participate were included. Several factors contributed to the lower participation rate (45.9%). Some individuals lacked the time to complete the assessments, while others simply chose not to participate. Additionally, some were unwilling to fill out the questionnaires despite undergoing psychiatric evaluation. Given the mandatory nature of their referral, motivation levels varied, and some may have feared stigma or legal consequences. While we did not systematically assess differences between participants and non-participants, those who participated may have been more engaged in the legal process or open to evaluation. Despite potential selection bias, the sample still provides meaningful insights into ASUD, aggression, and resilience in DV perpetrators under Law No. 6284.

The court directs the perpetrator of domestic violence to be examined for various addictions. Victims of domestic violence were generally current or former wives or girlfriends. Individuals referred for the evaluation of ASUD under Law No. 6284 visit our clinic for follow-up approximately every 14 days during the precautionary period as determined by the judge. A psychiatric evaluation is conducted, and blood and urine tests are taken to detect alcohol or substance use. If individuals meet the DSM-5 criteria, they are diagnosed with alcohol or substance use disorder, and the treatment is arranged accordingly. ASUD was diagnosed using DSM-5 criteria, based on clinical psychiatric evaluations rather than structured diagnostic interviews like SCID-5. To ensure objective assessment, blood and urine tests were conducted at each follow-up session to detect alcohol, methamphetamine, opioids, cannabis (THC), and pregabalin. These tests helped corroborate self-reported substance use, and detect recent drug use. Positive test results, combined with clinical symptoms, were used to establish ASUD diagnoses, while negative results indicated abstinence or treatment adherence. This integration of clinical judgment and laboratory findings enhanced diagnostic accuracy and minimized self-report bias, making the evaluations both objective and legally robust under Law No. 6284. At the end of the precautionary period, a forensic report is prepared to determine whether the individual has an ASUD, and this report is submitted to the judicial authorities that referred the individual.

DOI: 10.5455/medscience.2025.01.021

The study's inclusion criteria are as follows: individuals referred to our clinic for alcohol-substance use disorder screening under Article 5 (1-h) of Law No. 6284, those who are willing to participate in the study, literate and able to provide informed consent.

The exclusion criteria for the study are individuals with a diagnosis of psychotic disorder, mental retardation, or bipolar disorder, those who are unwilling to participate in the study, and those who are illiterate. We excluded individuals with psychotic disorders, mental retardation, and bipolar disorder because these conditions can significantly influence aggression levels, making it difficult to isolate the effects of ASUD on aggression and their inclusion could confound the results.

Data Collection Tools

The following scales were administered to individuals who volunteered to participate in the study:

Sociodemographic Data Form: This form, prepared by the researchers, collects information on the participants' gender, age, marital status, education level, employment status, previous criminal history, and whether they had been subject to a restraining order under Law No. 6284. All those information were based on the participants' declaration.

The Addiction Profile Index – Screening Form (BAPI-SF): This form, developed by Ögel and colleagues to screen for alcohol-substance addiction, consists of 22 questions. The questions are structured on a 3-point Likert scale (0: never or not more than three times a month, 1: 1-5 times a week, 2: almost every day). There are 11 questions (b1-b11) for substance use frequency, four questions (b12-b15) for diagnosis, five questions (b16-b20) for the effects on life, 1 question (b21) for intense craving, and 1 question (b22) for motivation. The formula to calculate the total BAPI-SF score is: "Sum of substance use frequency questions/11 + sum of diagnosis subscale questions/4 + sum of life effects questions/5 + b21 + b22". This scale was specifically designed for use in addiction screening in both clinical and forensic settings. It has shown good psychometric properties and has been widely used in addiction treatment centers, including populations under judicial referral [19].

The Buss-Perry Aggression Questionnaire: This form was developed by Buss and Perry in 1992 to measure individuals' levels of trait aggression [20]. The scale consists of four subscales: physical aggression (items 1-9), verbal aggression (items 10-14), anger (items 15-21), and hostility (items 22-29). The form includes 29 questions in a 5-point Likert scale format (1-5 points). Items 7 and 18 are reverse-coded. The original scale development study only reported test-retest reliability through test-retest correlation coeffiencts changing between .72 to .80. The scale was translated into Turkish in 2011, and showed good psychometric properties among male substance-dependent inpatients, which closely resembles the forensic and clinical characteristics of our sample [21]. The adaptation study confirmed the reliability of the scale in Turkish sample by reporting .93 of Cronbach's alpha score for the scale's total score. For the current study, it was found as .91.

The Connor-Davidson Resilience Scale: This form was developed by Connor and Davidson to measure individuals' psychological resilience levels; this form initially consisted of 25 items and was later shortened to a brief version [22,23]. The short form consists of 10 questions in a 5-point Likert scale format (0: not true at all – 4: almost always true) and has a single subscale, which revealed good conctruct validity and internal reliability with Cronbach's alpha value of .85. There are no reverse-coded items. The Turkish scale has also been valid and reliable. Both the long and short versions of this resilience scale demonstrated strong psychometric properties, making them effective tools for measuring resilience. Moreover, they were not initially developed for a specific population, the scale is designed to be applicable to both youth and adult populations in general [24]. Along with testing the language and construct validity of the scale, the Turkish adaptation study reported .81 of Cronbach's alpha score, indicating a good reliability. For the current study, it was revealed as .93.

While these scales were not originally developed specifically for legally mandated individuals or DV perpetrators, previous studies have applied both the Aggression Questionnaire and BAPI-SF successfully in forensic, court-referred, and high-risk populations (e.g., substance users and forensic inpatients). Therefore, while we acknowledge that these instruments were not tailored exclusively for domestic violence perpetrators under legal mandate, they have demonstrated relevant applicability and reliability in similarly structured populations.

Ethical Approval

The study received ethical approval from the Clinical Research Ethics Committee of Ankara Training and Research Hospital (date/number: 10.08.2023 / E-23-1348). The study adhered to the ethical principles of the Helsinki Declaration.

Statistical Analysis

Preliminary analyses were carried out before conducting the primary hypothesis analyses. These included examining the characteristics of the scale, checking for normality based on skewness and kurtosis values (<|2|), and conducting Pearson correlation analyses to assess the relationships between the variables. Subsequently, independent sample t-tests were performed to determine group differences in resilience and aggression based on the diagnosis or non-diagnosis of ASUD. Following this, a Hierarchical Multiple Regression Analysis was conducted to determine the extent to which resilience and aggression predicted the ASUD diagnosis of DV perpetrator participants. All these analyses were performed using the SPSS (Statistics Package for Social Sciences; IBM SPSS Statistics Version 25) software.

DOI: 10.5455/medscience.2025.01.021

Results

The study began by examining descriptive statistics, observed scale characteristics, normality assumptions, and correlations between the main variables of the study, including the sub-dimensions of the self-compassion variable. Out of the 111 participants enrolled in the study, 43 had received a diagnosis of ASUD, while the remaining 68 participants had not. Most participants were male (N=105), and many were married (N=77). The participants' ages ranged from 19 to 57 ($\bar{X}$=37.33). Additionally, 19 participants held a university degree, while the rest had a high school degree or less. Most of the participants reported having a job (N= 85). Furthermore, 28 participants had a history of crime, and nearly half (N=47) had a history of being restrained by law no. 6284 on the protection of the family and prevention of violence against women. When we look at the distribution of the substances used in 43 participants diagnosed with ASUD, 28 participants (25.2%) had alcohol use disorder, 5 participants (4.5%) had methamphetamine use disorder, 4 participants (3.6%) had opioid use disorder, 4 participants (3.6%) had pregabalin use disorder, and 2 participants (1.8%) had cannabis use disorder.

To assess the normality assumptions of the variables, we examined the skewness and kurtosis scores for both the overall sample and the sub-sample with ASUD diagnosis. We only performed correlation and regression analyses with the sub-sample. The skewness and kurtosis values for the sub-sample ranged between -.157 and 1.459, falling within the recommended range of $\leq |2|$, which indicates that the normality assumption is met. Furthermore, the internal consistency (Cronbach's α) values for the variables ranged between .91 and .95, suggesting a good level of reliability for the measurements. The related descriptive statistics are presented in more detail in Table 1 below.

Table 1. Descriptive statistics for the main study variables

Variables	N	$\bar{X}$	SD	Skewness	Kurtosis	α
Aggression (Total)	111	60.01	18.14	1.781	3.455	.91
Resilience	111	26.36	10.25	-.740	-.329	.93
Addiction	111	1.80	2.35	1.555	1.615	.94
P. Aggression	111	17.19	6.61	2.035	4.627	.92
V. Aggression	111	11.35	4.44	.615	.163	.70
Anger	111	14.62	4.51	1.664	2.364	.70
Hostility	111	14.48	6.37	1.573	2.857	.83

$\bar{X}$: mean, SD: standard deviation, P.: physical, V.: verbal

After conducting descriptive analyses, we performed a Pearson correlation analysis to investigate the relationship between variables. Except anger, psychological resilience was negatively associated with addiction (r=-.23, p<.05) and the remaining subdimensions of aggression, namely physical aggression (r=-.33, p<.01), anger (r=-.26, p<.01), and hostility (r=-.24, p<.05). Addiction, on the other hand, was positively correlated with all subdimensions of aggression, respectively physical aggression (r=.66, p<.01), verbal aggression (r=.43, p<.01), anger (r=.58, p<.01), and hostility (r=.54, p<.01). Finally, strong positive relations were observed among the subdimensions of aggression itself, as expected (p<.01). These correlation analysis findings are also shown in Table 2 below.

Table 2. Correlation analysis results (N=111)

Variables	1	2	3	4	5	6
1. Resilience	-					
2. Addiction	-.23*	-				
3. P. Aggression	-.33**	.66**	-			
4. V. Aggression	.02	.43**	.55**	-		
5. Anger	-.26**	.58**	.73**	.60**	-	
6. Hostility	-.24*	.54**	.74**	.56**	.73**	-

P.: physical, V.: verbal; *Correlation is significant at the .05 level (2-tailed); **Correlation is significant at the .01 level (2-tailed)

Group Differences Based on ASUD Diagnosis

We conducted independent sample t-tests to determine if there were differences in resilience and aggression levels between groups diagnosed with ASUD and those not diagnosed. The results showed that the diagnosed group had significantly higher aggression levels (M=65.13, SD=21.52) compared to the non-

DOI: 10.5455/medscience.2025.01.021

diagnosed group (M=56.77, SD=14.91); t (109)=2.417, p=.012. However, there was no significant difference in resilience between the groups (p>.05).

Hierarchical Regression Analysis

A series of hierarchical regression analyses were run to examine the predictive roles of psychological resilience and addiction in aggression by focusing on each subdimension of aggression, respectively hostility, anger, verbal aggression, and physical aggression. A whole sample was utilized (N=111), and the same pattern of hierarchical steps was followed in each analysis. Before running the analysis, related assumptions for the hierarchical regression analysis were checked out. In that sense, multicollinearity was evaluated using Tolerance and Variance Inflation Factor (VIF) values, and the results confirmed that they fell within the acceptable limits [25]. Moreover, the Mahalanobis distance was analyzed to detect multivariate outliers, but no such cases were identified. Finally for the assumptions, scatter plots and residuals were investigated, and no violations of assumptions for linearity and and homoscedasticity were observed. In that sense, Model 1 in this hierarchical model consisted of demographic variables such as age, marital status, and employment status. Model 2 was composed of resilience, and addiction took place in the third step (Model 3).

First, the aforementioned hierarchical model was tested through the dependent variable of hostility. The results indicated that Model 1 with demographic variables did significantly explain a variance change in hostility: F(3,110)=4.04, p=.01, R^2=.10. However, employment status was found to be the only significant predictor of hostility among the demographic variables in Model 1 (β=.29, p=.002). In Model 2, resilience was added, which also explained a significant variance change in hostility: F(4,110)=4.127, p=.004, R^2=.14. Considering the specific regression coefficients, resilience negatively predicted hostility (β=-.19, p=.047). The significant predictive effect of employment status (β=.25, p=.01) was also valid in Model 2. In the final step, addiction contributed with a significant F change in Model 3 in explaining hostility: F(5,110)=10.165, p=.000, R^2=.33. Addiction strongly and positively predicted hostility (β=.48, p=.01), and it was the only significant predictor in Model 3. All the results related to this hierarchical regression analysis can be found in Table 3 below.

Table 3. Hierarchical regression analysis results for hostility

Outcome	Predictor	B	SE B	β	p	R^2
Hostility	**Step 1**					.10
	Age	-.04	.08	-.05	.596	
	Marital status	.98	1.43	.07	.493	
	Employment status	4.34	1.38	.29	.002	
	Step 2					.14
	Age	-.03	.08	-.04	.685	
	Marital status	1.17	1.41	.08	.409	
	Employment status	3.72	1.39	.25	.009	
	Resilience	-.12	.05	-.19	.047	
	Step 3					.33
	Age	-.01	.07	-.02	.810	
	Marital status	1.08	1.25	.07	.393	
	Employment status	1.34	1.31	.09	.307	
	Resilience	-.07	.05	-11	.179	
	Addiction	1.29	.23	.48	.000	

B: unstandardized regression coefficients, SE B: standard error of unstandardized coefficient, β: standardized coefficient; p<0.05: statistically significant

The same analytical procedure was repeated for anger as another subdimension of aggression. The results indicated that Model 1 with demographic variables did significantly explain a variance change in anger: F(3,110)=2.96, p=.036, R^2=.08. Similar to hostility, employment status was found to be the only significant predictor of anger among the demographic variables in Model 1 (β=.25, p=.008). In Model 2, resilience was added, which also explained a significant variance change in anger: F(4,110)=3.61, p=.008, R^2=.12. Considering the specific regression coefficients, resilience negatively predicted anger (β=-.22, p=.024). The significant predictive effect of employment status (β=.20, p=.031) was also valid in Model 2. In the final step, with addiction, Model 3 again explained a significant change in anger: F(5,110)=11.71, p=.000, R^2=.36. Like in hostility, addiction was the only significant predictor in the last model (β=.53, p=.000). The related results were displayed in Table 4 below.

DOI: 10.5455/medscience.2025.01.021

Table 4. Hierarchical regression analysis results for anger

Outcome	Predictor	B	SE B	β	p	R^2
Anger	**Step 1**					.08
	Age	-.02	.05	-.03	.739	
	Marital status	.72	1.03	.07	.481	
	Employment status	2.67	.99	.25	.008	
	Step 2					.12
	Age	-.01	.05	-.02	.850	
	Marital status	.88	1.01	.09	.387	
	Employment status	2.17	.99	.20	.031	
	Resilience	-.09	.04	-.22	.024	
	Step 3					.36
	Age	.00	.04	.00	.978	
	Marital status	.80	.87	.08	.357	
	Employment status	.29	.90	.02	.749	
	Resilience	-.06	.03	-.13	.108	
	Addiction	1.02	.16	.53	.000	

B: unstandardized regression coefficients, SE B: standard error of unstandardized coefficient, β: standardized coefficient; p<0.05: statistically significant

In the third regression analysis, verbal aggression took place. The results revealed that Model 1 with demographic variables did not significantly explain a variance change in verbal aggression: $F(3,110)=2.22$, $p=.090$, $R^2=.06$. Despite that, employment status was still a significant predictor of verbal aggression among the demographic variables in Model 1 ($\beta=.20$, $p=.031$). In Model 2, resilience was added into the model, which also did not explain a significant variance change in verbal aggression: $F(4,110)=1.73$, $p=.147$, $R^2=.06$. Considering the specific regression coefficients, none of the predictors were significant, except employment status ($\beta=.22$, $p=.026$). In the final step, with addiction, Model 3 explained a significant change in verbal aggression: $F(5,110)=5.88$, $p=.000$, $R^2=.22$. Like in the initial two analyses, addiction was the only significant predictor in the last model ($\beta=.43$, $p=.000$). The related results were displayed in Table 5 below.

Table 5. Hierarchical regression analysis results for verbal aggression

Outcome	Predictor	B	SE B	β	p	R^2
Verbal aggression	**Step 1**					.06
	Age	.03	.06	.06	.558	
	Marital status	1.38	1.02	.14	.180	
	Employment status	2.15	.98	.21	.031	
	Step 2					.06
	Age	.03	.05	.06	.586	
	Marital status	1.34	1.03	.14	.195	
	Employment status	2.28	1.01	.22	.026	
	Resilience	.02	.04	.06	.563	
	Step 3					.22
	Age	.04	.05	.07	.438	
	Marital status	1.28	.94	.13	.177	
	Employment status	.77	.98	.07	.432	
	Resilience	.05	.03	.12	.174	
	Addiction	.81	.17	.43	.000	

B: unstandardized regression coefficients, SE B: standard error of unstandardized coefficient, β: standardized coefficient; p<0.05: statistically significant

DOI: 10.5455/medscience.2025.01.021

In the final hierarchical regression analysis, physical aggression was the dependent variable as an aggression indicator. The results revealed that Model 1 with demographic variables significantly explain a variance change in physical aggression: $F(3,110)=4.03$, $p=.009$, $R^2=.10$. Like the initial two regression analyses, employment status was the only significant predictor of physical aggression among the demographic variables in Model 1 ($\beta=.23$, $p=.013$). In Model 2, resilience was added into the model, which also yielded a significant variance change in physical aggression: $F(4,110)=5.96$, $p=.000$, $R^2=.18$. Opposite to previous analyses, employment status was not related to physical aggression ($p>.05$). Nevertheless, resilience was a strong predictor in the model ($\beta=-.30$, $p=.000$). In the final step, with addiction, Model 3 explained a significant change in verbal aggression: $F(5,110)=21.47$, $p=.000$, $R^2=.51$, and surprising predictors came out different from the early regression analyses for aggression. In Model 3, marital status ($\beta=.16$, $p=.039$) and addiction ($\beta=.62$, $p=.000$) were positively predicted physical aggression while psychological resilience ($\beta=-.20$, $p=.006$) negatively predicted it. The related results are displayed in Table 6 below.

Table 6. Hierarchical regression analysis results for physical aggression

Outcome	Predictor	B	SE B	β	p	R^2
Physical aggression	**Step 1**					.10
	Age	-.06	.08	-.07	.456	
	Marital status	2.15	1.49	.15	.151	
	Employment status	3.61	1.43	.23	.013	
	Step 2					.18
	Age	-.04	.08	-.06	.572	
	Marital status	2.46	1.43	.17	.088	
	Employment status	2.60	1.40	.17	.067	
	Resilience	-.19	.05	-.30	.001	
	Step 3					.51
	Age	-.02	.06	-.03	.694	
	Marital status	2.33	1.11	.16	.039	
	Employment status	-.60	1.16	-.04	.606	
	Resilience	-.13	.04	-.20	.006	
	Addiction	1.74	.21	.62	.000	

B: unstandardized regression coefficients, SE B: standard error of unstandardized coefficient, β: standardized coefficient; $p<0.05$: statistically significant

Discussion

In our study evaluating alcohol and substance use disorders (ASUD) among individuals subjected to restraining orders under Law No. 6284, we found that nearly half of the participants had ASUD. Resilience was negatively correlated with addiction and subfactors of aggression in all participants; addiction showed a positive correlation with all subfactors of aggression. We also found that aggression was higher in the group with ASUD compared to those without. As a result of the regression analyses, addiction positively predicted all four subfactors of aggression, marital status (being unmarried) positively predicted physical aggression and resilience negatively predicted physical aggression.

The presence of ASUD in cases of domestic violence is not uncommon [7,18]. Our study found that nearly half of the individuals with restraining orders had ASUD, which aligns with existing literature. Moreover, alcohol and substance use disorders appear to increase the likelihood of both being a victim and a perpetrator in intimate partner violence [26,27]. That finding seems valid too accross other cultures. A meta-analysis covering 285 studies from different cultures concluded that substance, alcohol and drug use are all associated with IPV perpetration and victimization [27]. However, cross-cultural studies suggest that there are diverse and complex determinants of risk factors contributing to IPV perpetration [28]. Thus, the current study confirms the relation of alcohol and substance use disorders to IPV perpetration from a non-WEIRD culture, but there is still need for more cross-cultural examinations to come up with more clear conclusions.

Our findings indicate that the group diagnosed with ASUD exhibited higher levels of aggression compared to the group without ASUD. This connection between aggression and addiction may be attributed to several factors. Firstly, the impact of alcohol and substances on brain chemistry may lead to increased impulsive behaviors, which can trigger tendencies

DOI: 10.5455/medscience.2025.01.021

toward aggression [20]. While alcohol can enhance aggression in the short term by causing disinhibition, in the long term, it can impair decision-making, emotional regulation, and self-control processes by affecting the prefrontal cortex and limbic system, resulting in outbursts of anger and aggression [30,31]. Similarly, substance use may increase impulsivity and impair emotional regulation skills, resulting in heightened aggression [32]. Addiction was shown to be a positive predictor of all the aggression subfactors (hostility, anger, verbal aggression, and physical aggression), and physical aggression was positively predicted by marital status (being not married) and negatively by resilience. These findings are in line with the literature, which shows using psychoactive substances is linked to anger [33,34]. Polysubstance use and stimulant use were found to be related to higher levels of aggressiveness, anger, and irritation [35]. After 3-years of abstinence, patients with alcohol use disorder showed signs of hostility and covert aggression but did not differ from the healthy control group according to physical and verbal aggression [36].

The findings of our study suggest that there is a cyclical relationship between aggression and addiction. High levels of aggression in individuals may lead to increased substance use, which in turn could lead to the development of addiction. Furthermore, addiction itself may contribute to increased aggression. Existing literature also supports a bidirectional relationship between aggression and addiction [37]. While aggression increases the risk of developing addiction, the presence of addiction tends to escalate further aggression [38]. This complexity needs to be taken into account in treatment processes, as addressing addiction could indirectly help to reduce levels of aggression in individuals [39]. However, this relationship is not universally consistent, and alternative explanations should be considered. For instance, while we observed a clear increase in aggression levels among participants with ASUD, studies from some European populations reported weaker or non-significant links between substance use and violent behavior once mental health comorbidities (e.g., antisocial personality disorder, trauma history) were controlled for [37]. Another study demonstrated that aggression might not be elevated in individuals with behavioral addiction, but these individuals could have a tendency to overstate their levels of aggressiveness [40]. This suggests that addiction alone may not be the primary driver of aggression in all contexts.

The use of coping mechanisms is a significant factor in addictive behaviors. People may turn to alcohol or drugs to deal with stress, trauma, or emotional challenges [14]. These situations can also act as triggers that lead to increased aggression. Importantly, negative experiences such as being exposed to domestic violence during childhood are risk factors that raise the levels of both addiction and aggression [16]. Our study did not find similar results to support the idea that individuals who do not develop addiction have higher resilience. This could be because our study focused on domestic violence perpetrators.

It is essential to note some of the limitations of our study. The gender distribution of our sample was predominantly male, and the participants were exclusively individuals referred by the court. This might make it challenging to generalize the findings. Also, we did not consider the impact of other psychopathologies, which can be viewed as another limitation.

Despite these limitations, our study is the first in Türkiye to investigate the frequency of ASUD and the characteristics of aggression in individuals subjected to restraining orders under Law No. 6284, filling a gap in the literature. Future research should consider using more extensive and diverse samples to more comprehensively examine the impact of alcohol and substance use disorders on domestic violence. For example, ASUD and aggression should be investigated in people with psychotic disorders, mental retardation, and bipolar disorder diagnoses. In conclusion, our study highlights the relationship between alcohol and substance use disorders and domestic violence perpetrators in Türkiye, emphasizing the importance of a multidisciplinary approach in the treatment of these individuals. The relationship between alcohol and substance use disorders and aggression should be taken into account when developing effective intervention strategies. Aggression management strategies could be included in ASUD treatments and activities for improving the resilience of patients with ASUD diagnosis, which would benefit avoiding domestic violence.

Conclusion

In conclusion, this study underscores the high prevalence of alcohol and substance use disorders among domestic violence perpetrators referred under Law No. 6284 in Turkey and reveals a robust relationship between addiction and aggression. Addiction was found to be a significant predictor of all aggression subtypes, while resilience served as a protective factor, particularly against physical aggression. These findings emphasize the need for integrated treatment approaches that simultaneously address addiction and aggression within forensic and clinical settings. Incorporating aggression management and resilience-building strategies into substance use disorder treatments may contribute to reducing the risk of repeated violence. As the first study of its kind in Turkey, these results lay the groundwork for further research and policy development aimed at improving the rehabilitation of domestic violence perpetrators within legal frameworks.

Conflict of Interests
The authors declare that there is no conflict of interest in the study.

Financial Disclosure
The authors declare that they have received no financial support for the study.

Ethical Approval
The study received ethical approval from the Clinical Research Ethics Committee of Ankara Training and Research Hospital (date/number: 10.08.2023 / E-23-1348). The study adhered to the ethical principles of the Helsinki Declaration.

DOI: 10.5455/medscience.2025.01.021

References

1. Garcia-Moreno C, Jansen HA, Ellsberg M, et al.; WHO Multi-country Study on Women's Health and Domestic Violence against Women Study Team. Prevalence of intimate partner violence: findings from the WHO multi-country study on women's health and domestic violence. Lancet. 2006;368:1260-9.
2. Kolbe V, Büttner A. Domestic violence against men-prevalence and risk factors. Dtsch Arztebl Int. 2020;117:534-41.
3. Potter LC, Morris R, Hegarty K, et al. Categories and health impacts of intimate partner violence in the World Health Organization multi-country study on women's health and domestic violence. Int J Epidemiol. 2021;50:652-62.
4. Coker AL, Smith PH, McKeown RE, King MJ. Frequency and correlates of intimate partner violence by type: physical, sexual, and psychological battering. Am J Public Health. 2000;90:553-9.
5. Dixon L, Graham-Kevan N. Understanding the nature and etiology of intimate partner violence and implications for practice and policy. Clin Psychol Rev. 2011;31:1145-55.
6. Duke AA, Smith KM, Oberleitner L, et al. Alcohol, drugs, and violence: a meta-meta-analysis. Psychology of Violence. 2018;8:238-49.
7. Smith PH, Homish GG, Leonard KE, Cornelius JR. Intimate partner violence and specific substance use disorders: findings from the National Epidemiologic Survey on Alcohol and Related Conditions. Psychol Addict Behav. 2012;26:236-45. Erratum in: Psychol Addict Behav. 2012;26:254.
8. Foulds JA, Boden JM, McKetin R, Newton-Howes G. Methamphetamine use and violence: Findings from a longitudinal birth cohort. Drug Alcohol Depend. 2020;207:107826.
9. Boden JM, Fergusson DM, Horwood LJ. Alcohol misuse and violent behavior: findings from a 30-year longitudinal study. Drug Alcohol Depend. 2012;122:135-41.
10. Sippel LM, Mota NP, Kachadourian LK, et al. The burden of hostility in U.S. Veterans: results from the National Health and Resilience in Veterans Study. Psychiatry Res. 2016;243:421-30.
11. Mihai A. Bio-psycho-social model of aggressive behaviour. Eur Psychiatry. 2022;65:S603–4.
12. Anderson CA, Bushman BJ. Human aggression. Annu Rev Psychol. 2002;53:27-51.
13. Ruddle A, Pina A, Vasquez E. Domestic violence offending behaviors: a review of the literature examining childhood exposure, implicit theories, trait aggression and anger rumination as predictive factors. Aggression and Violent Behavior. 2017;34:154-65.
14. Sezer Katar K, Kurtoğlu MB, Zengin İspir G, Danışman M. Resilience and traumatic childhood experiences of patients with opioid use disorder. J Ethn Subst Abuse. 2025;24:353-65.
15. Mojrian F, Homayouni A, Rahmedani Z, Alizadeh M. Correlation between resilience with aggression and hostility in university students. European Psychiatry. 2017;41:S611.
16. Dambacher C, Kreutz J, Titze L, et al. Resilience as a mediator between adverse childhood experiences and aggression perpetration in forensic inpatients: an exploratory study. Journal of Aggression, Maltreatment & Trauma. 2022;31:910-25.
17. Ayşegül K (2023) Socio-demographic, Clinical and Criminal Characteristics of the Cases Considered within the Scope of Law No. 6284. Namik Kemal Med J. 2023;11:163-74.
18. Kuypers K, Verkes RJ, van den Brink W, et al. Intoxicated aggression: do alcohol and stimulants cause dose-related aggression? A review. Eur Neuropsychopharmacol. 2020;30:114-47.
19. Ögel K, Koç C, Görücü S. Study on development, validity and reliability of a risk-screening questionnaire for alcohol and drug use. Psychiatry and Clinical Psychopharmacology. 2017;27:164-72.
20. Buss AH, Perry M. The aggression questionnaire. J Pers Soc Psychol. 1992;63:452-9.
21. Evren C, Çınar Ö, Güleç H, et al. The validity and reliability of the Turkish version of the Buss-Perry's Aggression Questionnaire in male substance dependent inpatients. Dusunen Adam Journal of Psychiatry and Neurological Sciences. 2011;24:283-95.
22. Connor KM, Davidson JR. Development of a new resilience scale: the Connor-Davidson Resilience Scale (CD-RISC). Depress Anxiety. 2003;18:76-82.
23. Campbell-Sills L, Stein MB. Psychometric analysis and refinement of the Connor-davidson Resilience Scale (CD-RISC): validation of a 10-item measure of resilience. J Trauma Stress. 2007;20:1019-28.
24. Kaya F, Odaci H. The adaptation of the Connor-Davidson Resilience Scale Short Form into Turkish: a validity and reliability study. HAYEF Journal of Education. 2021;18:38-54.
25. Hair JF, Black WC, Babin BJ, Anderson RE. Multivariate data analysis. 7th edition. Pearson Prentice Hall. 2010;100.
26. Stuart GL, Moore TM, Elkins SR, et al. The temporal association between substance use and intimate partner violence among women arrested for domestic violence. J Consult Clin Psychol. 2013;81:681-90.
27. Cafferky BM, Mendez M, Anderson JR, Stith SM. Substance use and intimate partner violence: a meta-analytic review. Psychology of Violence. 2018;8:110-31.
28. Gilchrist G, Radcliffe P, Noto AR, d'Oliveira AF. The prevalence and factors associated with ever perpetrating intimate partner violence by men receiving substance use treatment in Brazil and England: a cross-cultural comparison. Drug Alcohol Rev. 2017;36:34-51.
29. Tomlinson MF, Brown M, Hoaken PN. Recreational drug use and human aggressive behavior: A comprehensive review since 2003. Aggression and Violent Behavior 2016;27:9-29.
30. Fritz M, Soravia SM, Dudeck M, et al. Neurobiology of aggression-review of recent findings and relationship with alcohol and trauma. Biology (Basel). 2023;12:469.
31. Sontate KV, Rahim Kamaluddin M, Naina Mohamed I, et al. Alcohol, Aggression, and violence: from public health to neuroscience. Front Psychol. 2021;12:699726.
32. Winstanley CA, Olausson P, Taylor JR, Jentsch JD. Insight into the relationship between impulsivity and substance abuse from studies using animal models. Alcohol Clin Exp Res. 2010;34:1306-18.
33. Ayub N, Kimong PJ, Ahmad PHM. The relationship between anger and aggression among drug-dependent males. IJSSH. 2020;10:51-6.
34. Laitano HV, Ely A, Sordi AO, et al. Anger and substance abuse: a systematic review and meta-analysis. Braz J Psychiatry. 2022;44:103-10.
35. Ilyuk RD, Gromyco DI, Kiselev AS, et al. Hostility and anger in patients dependent on different psychoactive drugs. Activitas Nervosa Superior. 2012;54:125-34.
36. Ziherl S, Cebasek Travnik Z, Kores Plesnicar B, et al. Trait aggression and hostility in recovered alcoholics. Eur Addict Res 2007;13:89-93.

DOI: 10.5455/medscience.2025.01.021

37. Choenni V, Hammink A, van de Mheen D. Association between substance use and the perpetration of family violence in industrialized countries: a systematic review. Trauma Violence Abuse. 2017;18:37-50.

38. Yang Y. Modeling state- and trait-level associations between aggression, somatic symptoms, substance use, and distress tolerance. Aggress Behav. 2023;49:580-94.

39. Vita A, Stanga V, Ceraso A, et al. Non-pharmacological approaches to violence among people with severe mental disorders. In: Carpiniello B, Vita A, Mencacci C, eds, Violence and Mental Disorders. Springer Cham. 2020;269-95

40. Asaoka Y, Won M, Morita T, et al. Comparable level of aggression between patients with behavioural addiction and healthy subjects. Transl Psychiatry. 2021;11:375.