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Comparison of delinquent children with single and repeated criminal behavior in terms of various variables

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Abstract

Comparison of delinquent children with single and repeated criminal behavior in terms of various variables

Objective: Determining risk factors in juvenile delinquents (JD) has gained significance in preventive psychiatry. This study aims to assess the sociodemographic and clinical characteristics of JD and to determine whether there are differences in the various variable comparisons between single and repeat offender children.

Methods: The data of a total of 256 JDs cases out of 1350 forensic cases who underwent forensic examination at a university hospital's child and adolescent psychiatry outpatient clinic between 2013 and 2023 were included.

Results: The mean age at the time of the first crime for 256 JDs was 14.04±1.28, with 44 (17.2%) exhibiting recurrent criminal behavior. Recurrent criminal behavior group had a higher rate of accompanying psychopathology compared to the group with single criminal behavior (p=0.009). In the group with recurrent crimes, statistically significant higher rates of school absenteeism (p<0.001), school dropout (p<0.001), history of domestic violence (p=0.005), tobacco use (p<0.001), alcohol use (p=0.02), substance use (p<0.001), self-harming behavior (p=0.008), household chaos (p<0.001), family history of crime (p<0.001), parental history of imprisonment (p<0.001), juvenile history of imprisonment (p<0.001), and intellectual disability (p=0.001) were found.

Conclusions: Ensuring the involvement of children in the school system, providing regular follow-ups and psychosocial support mechanisms for children with a family history of crime and experiencing domestic violence, and facilitating parental employment can be suggested as crime-preventive interventions to reduce the likelihood of recurrence of criminal behavior in children with singular criminal conduct.

Keywords: Forensic Psychiatry, Child, Juvenile Delinquency, Risk Factors, Crime

Öz

Tekil ve tekrarlayıcı suç davranışı olan suça sürüklenen çocukların çeşitli değişkenler açısından karşılaştırılması

Amaç: Suça sürüklenen çocuklarda (SSÇ) risk faktörlerinin belirlenmesi önleyici psikiyatride önem kazanmıştır. Bu çalışma, SSÇ'nin sosyodemografik ve klinik özelliklerini değerlendirmeyi ve tekil ve tekrarlayan suç işleyen çocuklar arasında çeşitli değişkenler açısından karşılaştırmalarında fark olup olmadığını belirlemeyi amaçlamaktadır.

Yöntem: Bir üniversite hastanesinin çocuk ve ergen psikiyatri polikliniğinde 2013-2023 yılları arasında adli muayene yapılan 1350 adli vakadan toplam 256 SSÇ vakasının verileri dahil edildi.

Bulgular: İlk suç anındaki ortalama yaş 14,04±1,28 idi ve 44'ü (%17,2) tekrarlayan suç davranışı gösteriyordu. Tekrarlayan suç davranışı grubunda, tek suç davranışı olan gruba kıyasla eşlik eden psikopatoloji oranı daha yüksekti (p=0,009). Tekrarlayan suçların olduğu grupta, istatistiksel olarak anlamlı derecede daha yüksek oranda okul devamsızlığı (p<0,001), okul terki (p<0,001), aile içi şiddet öyküsü (p=0,005), tütün kullanımı (p<0,001), alkol kullanımı (p=0,02), madde kullanımı (p<0,001), kendine zarar verme davranışı (p=0,008), kaotik aile yapısı (p<0,001), ailede suç öyküsü (p<0,001), ebeveynde hapis öyküsü (p<0,001), gençlerde hapis öyküsü (p<0,001) ve zihinsel yetersizlik (p=0,001) bulundu.

Sonuç: Çocukların okul sistemine katılımını sağlamak, ailesinde suç geçmişi olan ve aile içi şiddete maruz kalan çocuklar için düzenli takipler ve psikososyal destek mekanizmaları sağlamak ve ebeveyn istihdamını kolaylaştırmak, tekil suç davranışı gösteren çocuklarda suç davranışının tekrarlama olasılığını azaltmak için suç önleyici müdahaleler olarak önerilebilir.

Anahtar Kelimeler: Adli Psikiyatri, Çocuk, Suça Sürüklenen Çocuk, Risk Faktörleri, Suç

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INTRODUCTION

A child dragged into crime is defined as "a child who is subject to investigation or prosecution for an act defined as a crime under the law, or for whom a security measure has been imposed due to the act committed" according to the Child Protection Law no. 5395. Security measure refers to a legal precaution imposed on a juvenile offender to prevent further delinquency or ensure compliance with the law. According to the data from the Turkish Statistical Institute (TURKSTAT), in the year 2022, the total number of incidents involving children brought to or taken to security units due to being dragged into crime was reported as 206,853, and the most common reasons for being brought in were assault, theft, and the use, sale, purchase of drugs or stimulants (1). Studies examining the clinical characteristics of children dragged into crime have reported that criminal behavior is more common in boys than girls (2-5). In addition to low academic performance and difficulties in attending school, various mental disorders, especially Attention Deficit Hyperactivity Disorder (ADHD), often accompany children dragged into crime (6-8).

Studies have been conducted to determine the risk factors related to the development of criminal behavior in children dragged into crime. In a study comparing juvenile delinquents (JD) with healthy controls in a large sample in the United States, it was found that experiencing parental abuse or neglect, being under protective care, having learning difficulties or school information related to emotional/behavioral disorders predicted criminal behavior, and having a diagnosis of conduct disorder was associated with recurrent criminal behavior (9). In another study, diagnostic interviews were conducted with young individuals directed to 991 supervised probation units, and it was found that having a diagnosis of externalizing disorders and substance use were associated with the recurrence of criminal offenses (4). In their studies with delinquent children, Mulder et al. suggested that risk factors for recurrent offending include past criminal behavior (number of past crimes, young age at first offense, unknown victim of past crimes), conduct disorder, family risk factors (poor parenting skills, criminal behavior in the family, history of physical and emotional abuse), relationships with delinquent peers, and lack of adherence to treatment (aggression during treatment, lack of coping strategies) (10).

In studies conducted in Türkiye, significant relationships have been found between recurrent criminal behavior and factors such as dropping out of school, receiving disciplinary penalties, having a history of psychiatric disorders, smoking, substance use, self-harm behavior, having delinquent friends, parental consanguinity, and a history of crime in first-degree relatives (2, 11).

The aim of rehabilitation of children who are drawn to crime is to prevent them from being drawn to crime again, to reintegrate them into society, and to provide measures and psychosocial approaches to protect them from repetitive criminal behavior in their adult lives. Interventions to adolescents who are still in the developmental process can provide permanent positive changes in their lives. Therefore, identifying risk factors in delinquent children becomes crucial from the perspective of preventive psychiatry.

When the literature in the field is examined, there are studies that investigate risk factors associated with repeated criminal behavior in delinquent children (10, 12). The hypothesis of this study is that there are differences in sociodemographic and clinical characteristics between adolescents with single and repeated criminal behavior. Therefore, this study aims to evaluate the sociodemographic and clinical characteristics of delinquent children with repeated criminal behavior, compare them with those with a single criminal history.

MATERIALS AND METHODS

Between June 2013 and June 2023, the archive files and reports of 1350 cases sent to the Department of Child and Adolescent Mental Health Clinic at Aydın Adnan Menderes University Hospital for the purpose of preparing forensic reports were retrospectively reviewed. Files referred to non-criminal behavior were excluded (i.e. appoint a guardian, marriage permit). Cases with two or more instances of criminal behavior were considered as the group with repeated criminal behavior. When determining repeated crimes; no distinction was made according to the severity of the crimes. In addition, all different incidents were taken as new cases regardless of the time interval between each crime. The crimes specified in the sent judicial files of the cases, old judicial events taken from the history, and the information requested from the court when necessary were all used as sources of information about whether there were repeat crimes. Repeated referral cases due to the same incident were not considered as repeated criminal behavior. The age in the repeated criminal behavior group was taken as the age at the time of the last crime applied.

Cases that applied with a single forensic incident and did not exhibit criminal behavior again until the age of 18 were considered as the group with singular criminal behavior. Therefore, cases with single criminal behavior were selected as those who were over 18 years of age as of the study date and had no other crimes in the file. The data of a total of 256 cases meeting the inclusion criteria were examined (Fig. 1).

Our child psychiatry clinic has an archive system. When the same case returns, information since the last visit is added to their previous records. The data presented in the results section are those confirmed during the most recent visit of the cases.

The sociodemographic characteristics, family features, whether there is a history of crime in the family, substance use and prison history of parents, the reason for referral, whether the crime was committed as a team, the presence of self-harm behavior (SHB), the presence of repeated SHB history, information on smoking, alcohol, substance use, suicide attempts, accompanying psychiatric diagnoses, whether treatment was initiated for the cases, whether follow-up continuity was ensured, and intelligence levels were investigated. Psychiatric diagnoses of children were determined by a child psychiatrist through clinical interviews according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) diagnostic criteria (13). Self-harming behavior is defined as intentionally and directly damaging one's own body tissues without suicidal intent (14, 15). In this study, the presence of self-harming behavior at least once in the life of adolescents was considered as single SHB, and the presence of SHB 2 or more times was considered as recurrent SHB. Rather than the disorder included in the diagnostic category of nonsuicidal self-injury disorder in DSM-5, it was considered as a behavior in this study.

The study was approved by Aydın Adnan Menderes University Faculty of Medicine Local Ethics Committee (13.07.2023-2023/129).

Data Analysis

The data of the cases were analyzed using SPSS 29.0.2.0 for Windows (IBM Corp., USA) software package. Continuous variables were expressed as mean and standard deviation, while categorical variables were expressed as frequency (n) and percentage (%). The normal distribution of the data was assessed using the Kolmogorov-Smirnov test. In the comparison of categorical variables between the group with a single crime and the group with repeated crimes, the Chi-Square test (Fisher's exact test, Yates continuity correction, and Pearson Chi-Square) was employed, and an independent samples t-test was used for the inter-group comparison of age at the first judicial encounter. A significance level of $p<0.05$ was considered statistically significant.

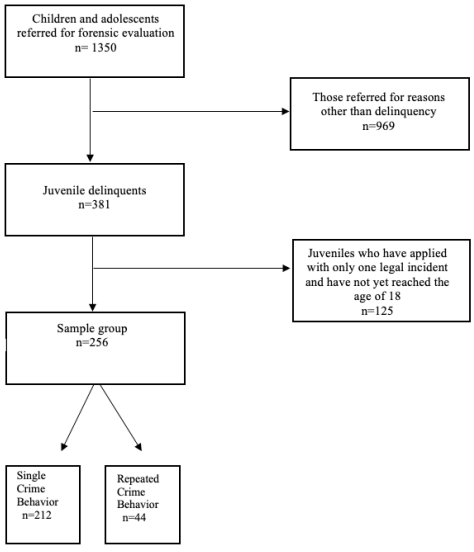

Fig. 1. Inclusion criteria for the study.

RESULTS

The mean age of the 256 juvenile delinquents at the time of their first criminal act was 14.04 ± 1.28 years, with 83.6% (n=214) being male and 16.4% (n=42) female. Among the cases, 68% (n=174) lived with their nuclear family, 19.1% (n=49) with parents and step-parents, 4.7% (n=12) with extended family or relatives, 4.3% (n=11) in a dormitory, and 2.3% (n=6) in a correctional facility. For 1.6% (n=4), the people they lived with changed frequently. Of the JDs, 7.8% (n=20) had a history of disciplinary sanctions, 12.5% (n=32) had repeated a grade, 25.8% (n=66) had a history of school absenteeism, and 36.7% (n=94) had dropped out of school. Among the cases, 66.4% (n=170) were found to have normal intelligence, 22.3% (n=57) had borderline intellectual functioning, and 11.3% (n=29) had mild intellectual disability.

When the information about the parents of the cases was examined, it was found that 25% (n=64) of them had separated or lived apart from their parents, and in 6.6% (n=17) of cases, one parent was deceased. Data on marital status for 2 cases could not be accessed. Of all JDs, 27% (n=69) had a family history of crime, 12.5% (n=32) had a parent with a history of imprisonment, and 3.5% (n=9) had a parent with a history of substance use. The sociodemographic characteristics of the cases are presented in Table 1.

In terms of the types of offenses, the most frequently cited reasons for referral were theft, assault, and sexual abuse crimes, respectively. Out of a total of 256 individuals in the JDs, 13.7% (n = 35) had self-harming behavior, 12.9% (n = 33) had repeated self-harming behavior, 2.3% (n = 6) had a history of suicide attempts, 5.9% (n = 15) had a history of sexual abuse, 28.5% (n = 73) used tobacco, 7.4% (n = 19) used alcohol, and 11.3% (n = 29) used substances. Psychiatric diagnosis was present in 28.1% of all cases. The most commonly diagnosed psychiatric disorders were conduct disorder (CD) (15.1%), attention-deficit/hyperactivity disorder (ADHD) (9.5%), and specific learning disability (SLD) (5.2%).

Out of the total 256 JDs, the group with 212 cases represented single crime behavior, while the group with 44 cases represented repeated crime behavior. Of those with repeated crime behavior, 36 (81.8%) were male. There was no significant difference in age at the first judicial incident between groups with single and repeated crime behavior ($t(254)=1.54$, $p=0.125$). However, in the group with

repeated delinquent behavior, the rate of accompanying psychopathology was higher (45.5%) compared to the group with single delinquent behavior (24.5%) (p=0.009). While theft and assault were the most common types of offenses, in the group with repeated delinquent behavior, theft and burglary were significantly higher (p<0.001). The group with repeated delinquent behavior had a higher proportion of offenses committed in collaboration with others (p=0.008). The group with single delinquent behavior had a higher rate of living with parents (p<0.001) and having a normal level of intelligence (p=0.001) compared to the group with repeated delinquent behavior. The incidence of sexual assault offenses was higher in the group with single delinquent behavior compared to the group with repeated delinquent behavior (p=0.005). There was no significant difference in the history of sexual abuse between the group with repeated delinquent behavior and the group with single delinquent behavior. In the group with single delinquent behavior, 6.6%

Table 1. The sociodemographic characteristics of juvenile delinquents (n=256)

	n	%
Gender		
Male	214	83.6
Educational Level		
Elementary school dropout	10	3.9
Elementary school graduate	96	37.5
Middle school graduate	149	58.2
High school graduate	1	0.4
School Dropout		
Yes	94	36.7
School Absenteeism		
Yes	66	25.8
Fail a Grade		
Yes	32	12.5
Disciplinary Offense		
Yes	20	7.8
Physical Illness		
Yes	16	6.3
Mother's Death		
Yes	4	1.6
Father's Death		
Yes	12	4.7
Mother's Education Level		
Illiterate	57	22.3
Literate only	18	7.0
Elementary school graduate	123	48.0
Middle school graduate	14	5.5
High school graduate	24	9.4
University graduate	5	2.0
Unknown	15	5.9
Father's Education Level		
Illiterate	22	8.6
Literate only	10	3.9

Table 1. The sociodemographic characteristics of juvenile delinquents (n=256) (Continued)

Literate only	10	3.9
Elementary school graduate	153	59.8
Middle school graduate	25	9.8
High school graduate	24	9.4
University graduate	6	2.3
Unknown	16	6.3
Mother's Employment Status		
Employed	84	32.8
Father's Employment Status		
Employed	213	83.2
Mother's Psychiatric Illness		
Yes	34	13.3
Father's Psychiatric Illness		
Yes	19	7.4
Parents' Marital Status		
Together	173	67.6
Divorced	48	18.8
Living separately	16	6.3
One of the parents is deceased	17	6.6
Unknown	2	0.8
Place of Residence		
Nuclear family	174	68.0
Institution	11	4.3
Prison	6	2.3
Extended family/relative	12	4.7
Constantly changing	4	1.6
With both parents and stepparent	49	19.1
Family History of Crime		
Yes	69	27
Parents' Imprisonment History		
Yes	32	12.5
Parents' Substance Abuse History		
Yes	9	3.5

(n=14) reported a history of sexual abuse. In the group with repeated delinquent behavior, 29.5% (n=13) had a history of single delinquent behavior, and 2.8% (n=6) had a history of incarceration (Table 2). It was determined that 8.2% of all JD individuals (n=21) had sought child psychiatry follow-ups.

DISCUSSION

Our study investigated the reasons for referral and sociodemographic variables of all juvenile delinquents who underwent forensic examination in the child and adolescent psychiatry outpatient clinic of a university hospital over the past 10 years. This research is important in examining the comparison of single and repeated criminal behavior of JDs in terms of various variables.

In our study, in line with the existing literature, both single and repeated criminal behaviors were observed more frequently in males (2-5). Additionally, it was found that 36.7% of JDs dropped out of school, 25.8% had a history of school absenteeism, and 12.5% had a history of failing a grade, while 7.8% had a history of disciplinary action. These results are consistent with previous studies demonstrating the relationship between criminal behavior and school dropout, low academic achievement, school absenteeism, and grade retention (16-19). In our study, the rate of school dropout was statistically significantly higher in those with repeated delinquent behavior JDs than in those with single delinquent behavior JDs. A relationship was found between repeat offender behavior and school dropout and academic failure (11). In fact, it has been suggested that serious criminal behavior causally influences school dropout (20). Dropping out of school has an impact on convictions among males; returning to school after dropping out significantly reduces the criminalizing effect of dropping out among males (21). In light of all this data, keeping young people who are drawn to crime within the school system or ensuring that they continue their education appears to be one of the important ways to reduce repeat criminal behavior.

The most common types of offenses in our study were similar to the 2022 TURKSTAT data (1). In a retrospective study examining the files of 86 JDs in Türkiye, it was reported that the majority of cases were male (90.6%), 28% had comorbid mental illness, the most common mental disorder was Conduct Disorder, the most frequently committed crime was theft, and the majority of cases did not exhibit cognitive impairment (82.5%) (5). As shown in numerous studies, externalizing problems are more prevalent in juveniles in conflict with the law compared to the general population (4, 6). Wibbelink et al., in their meta-analysis, reported that young individuals with psychopathology are more likely to engage in criminal behavior compared to those without (22). In our study, the most common comorbid diagnoses were CD, ADHD, and SLD, with the CD rate of 15.1% being notable higher to the general population. Executive functions enable individuals to mentally explore ideas, pause to think before acting, face unexpected challenges, resist temptations, and maintain focus (23). ADHD, CD, and SLD have been associated with impaired executive functions (24-26). Additionally, differences have been identified in various cortical and subcortical brain regions associated with these psychiatric disorders, particularly in areas responsible for behavioral inhibition (prefrontal cortex), as well as emotion processing and regulation, reinforcement-based decision-making, and empathy (27-29). Both psychopathic traits and reduced executive functioning were initially linked to increased rates of violent and property offenses among youth (30). There was no significant difference in child psychiatric follow-up between the group with repeated criminal behavior and the group with a single criminal behavior. Only 8.2% of all JDs had sought psychiatric follow-ups. The low psychiatric follow-up rate in our study suggests that multidisciplinary strategies should be developed to control untreated psychiatric disorders that increase the risk of criminal involvement.

In our study, a retrospective examination of records revealed repeated criminal behavior in 44 out of 256 JDs, accounting for 17.2%. This rate is proportionally lower than the 22.4% prevalence of a recurrent offense reported in a recent study on JDs in Türkiye (2). The potential reasons for this proportional difference may include the fact that the studies conducted involve applications to a single center, regional socio-cultural variations, and the likelihood that the results may not be representative of the entire country. Furthermore, regional variations in directing cases for forensic evaluations in different institutions for each criminal incident involving juveniles with repeated criminal behavior might contribute to these differences.

A study highlighting the importance of maternal education level in terms of juvenile delinquency is present in the literature (31). A recent study demonstrated a positive relationship between parental poverty and rates of violent crimes in children (32). In our study, it was found that maternal employment status was statistically significantly lower in the group with repeated criminal behavior. This result could be attributed to the impact of the mother's employment on socio-economic status.

In a recent review study, adverse childhood experiences in juvenile delinquents were identified as a risk factor for reoffending. More than half of JDs were reported to have experienced physical abuse, and neglect and physical abuse were predictive of recurrent criminal behavior (33). In our study, history of domestic violence was statistically significant higher in repeated crime behavior group (11.4%) than single crime behavior group (1.4%). This high-rate

Table 2. Comparisons of various variables between groups with repeated and single crime behavior

	Single Crime Behavior (n=212) n (%)	Repeated Crime Behavior (n=44) n (%)	χ^2	p
Gender				
Female	34 (16)	8 (18.2)	.016	0.90[a]
Male	178 (84)	36 (81.8)		
Place of residence				
With Parent	193 (91)	31 (70.5)	12.295	<0.001[a]
Outside Parental Care	19 (9)	13 (29.5)		
Household Chaos				
Present	44 (20.8)	24 (54.5)	19.631	<0.001[a]
Absent	168 (79.2)	20 (45.5)		
Education				
Primary School Dropout + Graduate	76 (35.8)	30 (68.2)	14.396	<0.001[a]
Middle School + High School Graduate	136 (64.2)	14 (31.8)		
Fail a Grade				
Yes	23 (10.8)	9 (20.5)	2.258	0.08[a]
No	189 (89.2)	35 (79.5)		
Disciplinary Action				
Yes	14 (6.6)	6 (13.6)		0.12[b]
No	198 (93.4)	38 (86.4)		
School Dropout				
Yes	63 (29.7)	31 (70.5)	24.300	<0.001[a]
No	149 (70.3)	13 (29.5)		
School Absenteeism				
Yes	41 (19.3)	25 (56.8)	24.826	<0.001[a]
No	171 (80.7)	19 (43.2)		
Parental Death (Mother)				
Yes	2 (0.9)	2 (4.5)		0.13[b]
No	210 (99.1)	42 (95.5)		
Parental Death (Father)				
Yes	11 (5.2)	1 (2.3)		0.69[b]
No	201 (94.8)	43 (97.7)		
Parental Marital Status*				
Together	148 (70.1)	25 (58.1)	2.689	0.26[c]
Divorced/ Separated	49 (23.2)	15 (34.9)		
One or Both Parents Deceased	14 (6.6)	3 (7)		
Mother's Employment Status				
Employed	76 (35.8)	8 (18.2)	4.389	0.03[a]
Unemployed	136 (64.2)	36 (81.8)		
Father's Employment Status				
Employed	181 (85.4)	32 (72.7)	3.316	0.06[a]
Unemployed/ Retired	31 (14.6)	12 (27.3)		
Mother's Psychiatric Illness				
Present	27 (12.7)	7 (15.9)	.103	0.74[a]
Absent	185 (87.3)	37 (84.1)		
Father's Psychiatric Illness				
Present	15 (7.1)	4 (9.1)		0.75[b]
Absent	197 (92.9)	40 (90.9)		
Family Criminal History				
Present	41 (19.3)	28 (63.6)	34.100	<0.001[a]
Absent	171 (80.7)	16 (36.4)		
Parental Imprisonment History				
Present	18 (8.5)	14 (31.8)	16.059	<0.001[a]
Absent	194 (91.5)	30 (68.2)		
Parental Substance Abuse History				
Present	6 (2.8)	3 (6.8)		0.18[b]
Absent	206 (97.2)	41 (93.2)		

Table 2. Comparisons of various variables between groups with repeated and single crime behavior (Continue)

Sibling Psychiatric History				
Present	3 (1.4)	0 (0)		1.00[b]
Absent	209 (98.6)	44 (100)		
Psychiatric Diagnosis				
Present	52 (24.5)	20 (45.5)	6.892	0.009[a]
Absent	160 (75.5)	24 (54.5)		
Tobacco Use				
Yes	47 (22.2)	26 (59.1)	22.589	<0.001[a]
No	165 (77.8)	18 (40.9)		
Alcohol Use				
Yes	12 (5.7)	7 (15.9)		0.02[b]
No	200 (94.3)	37 (84.1)		
Substance Use				
Yes	14 (6.6)	15 (34.1)		<0.001[b]
No	198 (93.4)	29 (65.9)		
Suicide Attempt				
Yes	5 (2.4)	1 (2.3)		1.00[b]
No	207 (97.6)	43 (97.7)		
Group Crime				
Yes	68 (32.1)	24 (54.5)	7.045	0.008[a]
No	144 (67.9)	20 (45.5)		
Sexual Assault				
Yes	53 (25)	2 (4.5)	7.866	0.005[a]
No	159 (75)	42 (95.5)		
Intentional injury				
Yes	76 (35.8)	9 (20.5)	3.230	0.07[a]
No	136 (64.2)	35 (79.5)		
Drug Offense				
Yes	3 (1.4)	1 (2.3)		0.53[b]
No	209 (98.6)	43 (97.7)		
Terrorism Offense				
Yes	5 (2.4)	1 (2.3)		1.00[b]
No	207 (97.6)	43 (97.7)		
Home Invasion				
Yes	10 (4.7)	10 (22.7)		<0.001[b]
No	202 (95.3)	34 (77.3)		
Invasion of Privacy				
Yes	5 (2.4)	0 (0)		0.59[b]
No	207 (97.6)	44 (100)		
Property Damage				
Yes	25 (11.8)	10 (22.7)	2.823	0.09[a]
No	187 (88.2)	34 (77.3)		
Threat/Harassment				
Yes	34 (16)	9 (20.5)	.242	0.62[a]
No	178 (84)	35 (79.5)		
Theft				
Yes	55 (25.9)	37 (84.1)	51.017	<0.001[a]
No	157 (74.1)	7 (15.9)		
Firearm Possession				
Yes	3 (1.4)	1 (2.3)		0.53[b]
No	209 (98.6)	43 (97.7)		
History of Sexual Abuse				
Yes	14 (6.6)	1 (2.3)		0.47[b]
No	198 (93.4)	43 (97.7)		
History of Domestic Violence				
Yes	3 (1.4)	5 (11.4)		0.005[b]
No	209 (98.6)	39 (88.6)		
SHB				
Yes	23 (10.8)	12 (27.3)	6.994	0.008[a]
No	189 (89.2)	32 (72.7)		
Repeated SHB				
Yes	22 (10.4)	11 (25)	5.697	0.01[a]
No	190 (89.6)	33 (75)		
Prison History				
Yes	6 (2.8)	13 (29.5)		<0.001[b]
No	206 (97.2)	31 (70.5)		
Regular Child Psychiatry Follow-up				
Yes	19 (9)	2 (4.5)		0.54[b]
No	193 (91)	42 (95.5)		
Intellectual Disability				
No	195 (92)	32 (72.7)		0.001[b]
Yes**	17 (8)	12 (27.3)		

SHB: Self-harm behavior, [a] Yates continuity correction, [b] Fisher exact test, [c] Pearson chi-square, df: degree of freedom
*2 cases lacked information on parental marital status.
** IQ below 70

emphasizes the importance of early interventions addressing childhood neglect and abuse not only in the development of psychopathology but also in terms of experiencing recurrent criminal incidents. Household chaos is defined as chaos related to domestic and environmental factors such as unstable adult family members, disorganized family life, unstable rules of parents, and unpredictability in daily activities. In our study, household chaos was found to be statistically significantly higher in the group with repeated criminal behavior than in the single crime group. It has been reported that household chaos is positively associated with delinquency in youth (34).

In our study, a significantly higher prevalence of a family history of crime was observed in the group with repeated crime compared to the group with first-time offending. Additionally, 27% of the entire sample had a family history of crime. The presence of a criminal history among relatives is reported to be high in JDs (38.6%) in the literature (35). Although the design of this study is insufficient to establish a causal relationship, the high crime rate in the family of youth with repeated criminal behavior suggests that the role of sociocultural factors should be taken into consideration.

In studies examining the relationship between age at first crime and repeat crime attempts, a younger age at the first offense is associated with crime recurrence (9, 10). Cases dragged into crime at a young age are reported to have a higher risk of reoffending in adulthood (36, 37). Contrary to these data, in our study, there was no significant difference in age at the first judicial incident between groups. However, since we only included JDs under the age of 18 in our study, it is not possible to evaluate whether children will commit repeat crimes in adulthood. Therefore, our current data only show that the age of first crime is not significant between repeat crimes and single crimes in childhood. Identifying the reasons that lead young individuals to commit crimes at an early age, detecting those at risk of early criminal behavior, and intervening to prevent it will contribute to reducing the recurrence of criminal behavior.

Various assessment tools have been developed to predict recurrent criminal behavior in JDs until today. The Washington State Juvenile Court Assessment conducts a comprehensive evaluation under the headings of criminal history, demographic characteristics, education, how leisure time is spent, employment, social relationships, family characteristics, alcohol and substance use, mental health, habits, behaviors, aggression, and skills to predict recurrent criminal behavior (38). The Youth Level of Service/Case Management Inventory (YLS/CMI), developed by Hoge and Andrews, assesses risk and protective factors for recurrent criminal behavior in juvenile offenders in eight categories: criminal history education/employment, peer group, leisure/entertainment, drug use, personality/behavioral traits, and attitudes/beliefs (39). It has been observed that the results of these inventories can vary based on the ethnic/cultural characteristics of the individuals and the regions they inhabit (40-42). National implementation of risk assessment tools systematically screening risk factors for recurrent offenses by judicial authorities has the potential to become a part of the national policy. In cases where risks are algorithmically identified, having multidisciplinary task assignments can be utilized as a means to reduce and/or eliminate the risk of reoffending.

Although we did not investigate the risk factors of being a child delinquent by comparing them with a community sample in this study, in the literature, a history of sexual abuse is noted as a risk factor for criminal behavior (43). In our study, there was no significant difference between the groups in terms of a history of sexual abuse. In the group with a single criminal behavior, there was a 6.6% incidence of a history of sexual abuse. Since the reporting of a history of sexual abuse in the study relied on self-disclosure, it is anticipated that it may be influenced by underreporting by some cases and the small sample size.

In the group with a repeated criminal behavior, 29.5% had a history of imprisonment. The types of crimes committed by JDs with recurring criminal behavior may lead to imprisonment for various reasons, such as the repetition of the offense despite other penalties. However, the recurrence of criminal behavior after imprisonment was not evaluated in this study. A detailed assessment of this situation would provide guidance for the rehabilitation processes during and after imprisonment.

The limitations of our study included its retrospective nature, the absence of a control group, and the evaluation of only JDs directed to our university hospital. Due to the retrospective study design, the results obtained are insufficient to explain the cause and effect relationship. The fact that not all cases were diagnosed with psychiatric diagnoses using a structured diagnostic interview schedule may have also resulted in lower psychiatric diagnosis rates. In addition, the family characteristics of the applied cases (such as criminal status in the family, psychiatric illness) were only taken from the history and could not be confirmed in different units. Since we only have the case data when the cases came to our forensic outpatient clinic, we cannot know exactly whether they applied to the judicial authorities for different events in other institutions. This makes it difficult to completely rule out whether cases with a single crime fall into the repeated rime behavior group. Due to the retrospective nature of the study, we thought that we could only determine whether there were re-applications in the files until the age of 18 and thus detect a possible repeated crime after the first application. All criminal records of the individuals could have

been requested by the relevant institutions to see if they were repeat offenders, but this would not have offered an ethical approach.

CONCLUSION

The presence of comorbid psychopathology, school absenteeism, school dropout, smoking, alcohol and substance use history, self-harming behavior, repeated self-harming behavior, history of domestic violence, household chaos, family history of crime, parental incarceration history, maternal unemployment, and collaborative criminal activities were more frequently observed in the group with repeated criminal behavior. In light of the results obtained from our study, we propose that to reduce the likelihood of repeated criminal behavior in children with a single criminal history, it is important to ensure their inclusion in the school system. Additionally, regular follow-ups and the implementation of psychosocial support mechanisms for children with a family history of crime and experiencing domestic violence, along with providing employment opportunities for parents, can be utilized as preventive interventions against repeated criminal behavior. Another point of interest in this study is whether those who drag into crimes under the age of 18 will commit crimes again in adulthood. Longitudinal studies are needed to determine risk factors and examine the effects of interventions on adult life.

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Conflict of Interest

The authors declare that they have no conflict of interests regarding content of this article.

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Ethical Declaration

Ethical approval was obtained from Aydın Adnan Menderes University Clinical Research Ethical Committee with date 13.07.2023 and number 2023/129 and Helsinki Declaration rules were followed to conduct this study.

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