

Sociodemographic Characteristics and Psychiatric Evaluation of Juvenile Delinquents

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ABSTRACT

Objective: The aim of this study was to investigate the factors associated with involvement in crime by examining the sociodemographic characteristics and psychiatric evaluation results of juvenile delinquents.

Method: Files of 185 patients aged 12-18 years, were examined. Psychiatric diagnoses of the cases were made according to the diagnostic criteria of Diagnostic and Statistical Manual of Mental Disorders-5. The intellectual capacity was evaluated with the Wechsler Intelligence Scale (WISC-R) for Children-New Version and Thematic Apperception Test was used for getting an idea about their inner conflicts, emotions and psychological needs.

Results: In our study, 93.0% (n=172) of the cases were male and 53.0% of the cases were dropped out of school. The most common crime type was theft (40.0%, n=74). There was a recurrent crime history in 31.4%. WISC-R Total IQ scores were significantly lower in the cases with recurrent crime history ($p < 0.001$, 60.26 ± 20.72). Psychiatric diagnosis was found in 61.1% and there was a significantly higher rate of psychiatric disorders in cases with a history of crime ($p = 0.011$). The theme of offensiveness, aggression and anger in the Thematic Apperception Test was statistically significantly higher in those with a previous crime history ($p = 0.004$).

Conclusion: In our study, finding a relationship between recurrent crimes and psychopathology is meaningful. Psychiatric follow-up and treatment are important in terms of reducing the probability of committing crimes again and bringing them to the society.

Keywords: Juvenile delinquent, psychiatric diagnosis, thematic apperception test

ÖZ

Suç Sürüklenen Çocukların Sosyodemografik Özellikleri ve Ruhsal Değerlendirmeleri

Amaç: Bu çalışmanın amacı Suça Sürüklenen Çocukların sosyodemografik özellikleri ve psikiyatrik değerlendirme sonuçlarını inceleyerek suça karışma ile ilişkili faktörleri araştırmaktır.

Yöntem: Yaşları 12-18 arasında değişen 185 olgu incelenmiştir. Psikiyatrik tanımlar DSM-5 tanı kriterlerine göre konulmuştur. Olguların zeka düzeyleri ülkemizde norm çalışması yapılmış ve yaygın olarak kullanılan bir zeka testi olan Wechsler Çocuklar İçin Zeka Ölçeği-Yeni Versiyonu (WÇZÖ-Y) (Wechsler Intelligence Scale for Children-R- WISC-R) ile değerlendirilmiş olup kesin kanaat klinik olarak konmuştur. Ayrıca, olguların dosyalarında bulunan Tematik Algı Testi (Thematic Apperception Test- TAT) raporları incelenmiştir.

Bulgular: Olguların % 93,0'ı (n = 172) erkektir. Olgularımızdaki okulu bırakma oranı %53'tür. En yaygın suç türü hırsızlık (% 40,0, n = 74) olup, % 31,4 oranında tekrarlayan suç öyküsü vardır. Tekrarlayan suç öyküsü olan olgularda toplam zeka bölümü puanları anlamlı olarak daha düşüktür ($p < 0,001$, $60,26 \pm 20,72$). Olgularımızın % 61,1'de psikiyatrik tanı tespit edilmiştir. Suç öyküsü olan olgularda anlamlı olarak daha yüksek oranda psikiyatrik bozukluk vardır ($p = 0,011$). Tematik Algı Testi'nde saldırganlık, saldırganlık ve öfke teması, daha önce suç geçmişi olanlarda istatistiksel olarak anlamlı derecede daha yüksektir ($p = 0,004$).

Sonuç: Çalışmamızda tekrarlayan suçlar ile psikopatoloji arasında ilişki olması anlamlıdır. Bu bağlamda, suça sürüklenen çocukların tekrar suç işleme olasılıklarının azaltılması ve topluma kazandırılmaları açısından psikiyatrik izlem ve tedavi son derece önemlidir.

Anahtar Sözcükler: Suça sürüklenen çocuk, psikiyatrik tanı, tematik algı testi

INTRODUCTION

Forensic psychiatry is the branch of psychiatry applied in the field of law. It is an interdisciplinary field that works especially with forensic medicine, psychiatry, child and adolescent psychiatry and neurology disciplines.¹ Within the wide working area, there are practices such as, evaluating the mental dimensions of trauma, profiling crimes and criminals, carrying out addiction treatment programs, and taking precautions or helping to take precautions for some mental illnesses. It has been an increasingly important field in Child and Adolescent Psychiatry clinics in recent years. Some of the forensic issues studied in Child and Adolescent Psychiatry are situations such as, all kinds of child abuse, especially physical and sexual abuse, juvenile delinquency, custody cases and early marriages.²

Crime is an important problem that draws attention all over the world. As it is important for society and precautions are necessary, judicial issues related to juvenile delinquents are gaining importance and studies on this issue are gradually increasing. In Child Protection Law, "juvenile pushed to crime" is defined as "Any juvenile about whom an investigation or prosecution is carried out on the allegation that he/she has committed an act which is defined as a crime in the Laws, or any juvenile about whom a security measure has been decided due to an act he/she has committed".³ While criminal responsibility is evaluated in juvenile delinquents, "age" is an important criterion. According to the article 31/1 of Turkish Penal Code; the children having not attained the full age of twelve on the commission date of the offense, may not have criminal responsibility, besides, no criminal prosecution may be commenced against such persons; but, it may be deemed necessary to take certain security precautions specific to children. In article 31/2 it is stated as "In case a person who attained the age of twelve but not yet completed the age of fifteen on the commission date of the offense does not have the ability to perceive the legal meaning and consequences of the offense, or to control his actions, he may not have criminal responsibility for such behavior".⁴ For those who have mental disorders at the time of crime, in article 32/1, it is stated as "A person lacking ability to perceive the legal meaning and consequences of the offense, or having considerably lost the capacity to control his actions due to insanity may not be subject to any punishment. However, security precautions are imposed for such individuals".⁴ In Article 32/2, it is stated that a penalty reduction will be applied to the person whose ability to direct his/her behavior has decreased.⁴

Juvenile delinquents are directed by the judicial authorities to Forensic Medicine, Child and Adolescent Psychiatry clinics or to committees including Forensic Medicine and Child Psychiatry specialists, which allow multidisciplinary approach. Whether the ability to understand the legal meaning and consequences of the act or to direct their behavior has developed sufficiently is evaluated. The issue of whether children understand the legal meaning and consequences of the act or whether their ability to direct their behavior has developed sufficiently is a subject that needs to be evaluated in many ways together with their physical, mental, psychological, ethical and social developments and the environmental conditions in which they were born.⁵ Therefore, in forensic psychiatric evaluation; psychiatric examination, psychometric tests, psychiatric evaluation scales, projective tests, family interview, social examination report and school interviews are important tools. One of the projective tests used during the evaluation is the Thematic Apperception Test (TAT). TAT is a projective test in which 8-12 cards chosen by the practitioner are used and participants are asked to create stories. This test is designed to reflect the depth of the individual's personality with the story created by the participant to an ambiguous image through

a fictional narrative.⁶ In a study from India published in 2018 which includes juvenile offenders staying in a correction house, relationship problems, family conflicts, anger and aggression have been reported to be the most common TAT themes.⁷

Among the crimes committed by juvenile delinquents; there are crimes such as theft, sexual abuse, and damage to property, intentional injury and fighting. In many studies conducted on juveniles delinquents in our country, it was observed that the theft was the most common crime.^{2,4,8,9} When the reasons of juvenile delinquency are examined by considering individual, familial and social factors, in individual factors it is detected that characteristics of adolescence is the most important factor.¹⁰ In the studies conducted, it was determined that the majority of the juvenile delinquents were male and the age range was mostly 13-14 years.^{4,8,11} When mental illnesses in juvenile delinquents were evaluated, it was reported that the most common mental illnesses were Attention Deficit and Hyperactivity Disorder (ADHD) and Conduct Disorder (CD).^{8,12,13} Substance Use Disorders can also make children more susceptible to committing crimes. In a study with 1829 adolescents aged 10-18 years, it was shown that there was a significant Substance Use Disorder among adolescents who had a major mental disorder.¹³ Among familial and environmental reasons, characteristics such as education level of parents, conflicts in family relations, divorced parents, growth with single parents are considered as factors affecting children's crime rates.^{14,15} In another study, it was stated that low socioeconomic level and presence of committing crime in relatives are risk factors for juvenile delinquency.¹²

It is reported that the number of juvenile delinquents has increased in recent years in our country and abroad.¹⁶ Therefore, juvenile delinquents constitute an important part of forensic cases referred to Child and Adolescent Psychiatry and Forensic Medicine. For this reason, studies in this area are becoming more and more important in order to determine the factors related to crime susceptibility, to take necessary measures and to organize preventive mental health practices.

The aim of this study was to investigate the factors associated with involvement in crime by examining the sociodemographic characteristics and psychiatric evaluation results of juvenile delinquents.

MATERIALS AND METHODS

Procedure and Participants

Psychiatric examinations of the cases, who are directed by the judicial authorities, are performed by the Child and Adolescent Psychiatry Specialist, and their sociodemographic and clinical features are recorded in their files. After psychometric and projective tests are applied by psychologists and the evaluation scales are filled, if it is necessary a family interview and school interview with the social worker is planned. After the completion of all these evaluations, the case is seen at the Forensic committee on the date of appointment. Ege University Medical Faculty Hospital Child and Adolescent Psychiatry Forensic Committee is a multidisciplinary committee consisting of three Forensic Medicine specialists, a Child and Adolescent Psychiatrist, and a Neurologist.

In this study, files of 185 patients aged between 12-18 years, were examined retrospectively. These were the patients with the allegation of committing a crime who were directed to Ege University Medical Faculty Hospital Child and Adolescent Psychiatry Forensic Committee by the judicial authorities between 2016 and 2019 for psychiatric examination and forensic reports.

Ethics committee approval was obtained from the Medical

Research Ethics Committee of Ege University Medical Faculty Hospital (Decision no:20-4.2T/37, Date:29.04.2020). Age, sex, education level, parental information, socioeconomic level of the family, data on the crime, substance use, whether they had a psychiatric diagnosis or psychiatric treatment, the presence of repetitive crime, the result of the report were evaluated. Psychiatric diagnoses of the cases were made according to the diagnostic criteria of Diagnostic and Statistical Manual of Mental Disorders, Fifth edition (DSM 5)¹⁷ during the forensic evaluation. The intellectual capacity was evaluated with the Wechsler Intelligence Scale for Children-New Version (WISC-R), which is a commonly used intelligence test and the final diagnose was made clinically. In addition, TAT reports in the cases' files were examined. In our current patient group, self-report scales were not included in the study due to incomplete filling and unreliability.

Measures

Wechsler Intelligence Scale for Children-R (WISC-R):

The Wechsler Intelligence Scale for Children (WISC), developed by David Wechsler in 1949, is an individually administered intelligence test for children between the ages of 6 and 16. In his study in 1974, he made some changes and carried out the standardization study on a sample of 2200 people between the ages of 6-16.¹⁸ Standardization on Turkish children was done by Savaşır and Erdoğan-Bakar.¹⁹ WISC-R consists of two parts; Verbal and Performance. While Verbal Intellectual Section has the subtests such as Information, Similarities, Arithmetic, Vocabulary, Comprehension and Digit Span; Performance Intellectual Section includes subtests such as Picture Completion, Picture Arrangement, Block Design, Object Assembly and Coding Image Editing, Pattern With Cubes, Merge Parts, Password and Labyrinth subtests. Total Intellectual Section is obtained from the sum of Verbal Intellectual Section and Performance Intellectual Section points.¹⁸

Thematic Apperception Test (TAT):

The Thematic Apperception Test, one of the commonly used projective tests, was developed by Henry Murray in 1938.²⁰ In this test consisting of 30 picture cards, 8-12 cards chosen by the practitioner are shown to the participants and the participants are asked to tell a story. The pictures on these cards are not tangible and detailed, but are symbolically prepared in a manner that is faint and stimulating imagination. With these stories told by the participants, it is tried to get an idea about their inner conflicts, emotions and psychological needs.²¹ Although it has not high validity and reliability due to its being a projective test and the interpretation process that varies according to the practitioner, it has been reported that internal consistency levels can reach to 0.84 with a calculation method developed by categories instead of pictures by Gruber et al..²²

Statistical Analysis

The statistical analysis of the data obtained was made by using SPSS Windows 22.0 package program. Sociodemographic characteristics, crime type and psychiatric diagnosis distribution of patients, substance use, presence of recurrent crime history, report result, the TAT themes were evaluated by using descriptive statistical analysis methods-frequency analysis. Cross tables were created for categorical data and Pearson Chi-Square analysis was performed. The data are summarized as numbers and percentages. A p value less than 0.05 was considered statistically significant for all analyzes.

RESULTS

Of the 185 cases evaluated, 93.0% (n=172) were male and 7.0% (n=13) were female. While the mean age of the cases at the time of the examination was 16.26±1.87 years, the mean age was 14.31±1.3 at the time of the crime. When the educational status was evaluated, it was detected that 33.0% of the cases (n=61) were attending high school, 13.5% (n=25) were attending elementary school and one case was attending university. 53.0% of the cases (n=98) were dropped out of school. Since the files were analyzed retrospectively, there was some missing information, but the majority was reached. Sociodemographic characteristics of the cases are summarized in Table 1.

Table 1. Sociodemographic Characteristics of Juvenile Delinquents

Sociodemographic Characteristics (n, %)			
Sex (n=185)		Family Status (n=175)	
Female	13 7.0	Together	110 59.5
Male	172 93.0	Divorced/Splitted	45 24.3
Educational Status (n=185)		Loss of a parent	17 9.2
Dropped out of school	98 53.0	Loss of both parents	3 1.6
Elementary School	25 13.5	Who she/he lives with (n=174)	
High School	61 33.0	With mother and father	106 57.3
University	1 0.5	With mother	25 13.5
Education Level of Mother (n=142)		With relatives	16 8.6
Elementary School	87 47.0	With parent and step parent	15 8.1
High School	10 5.4	With father	7 3.8
University	2 1.1	With father	3 1.6
Illiterate	43 23.2	Alone	2 1.1
Education Level of Father (n=138)		Socioeconomic Status (n=174)	
Elementary School	106 57.3	Low	96 51.9
High School	15 8.1	Middle	78 42.2
University	3 1.6	Crime History in Family (n=136)	
Illiterate	14 7.6	Yes	41 22.2
Mental Illness in Mother (n=156)		No	95 51.4
Yes	20 10.8	Mental Illness in Father (n=162)	
No	136 73.5	Yes	23 12.4
Mental Illness in Siblings (n=181)		No	139 75.1
Yes	19 10.3		
No	162 87.6		

*The percentages are calculated considering the total number of cases (n=185).

When cigarette/alcohol/substance use was evaluated; it was determined that 52.4% (n=97) had smoking, 28.1% (n=52) had a history of substance use and 13.5% (n=25) had a history of alcohol use. It was determined that 65.4% (n=121) of the cases did not have a history of psychiatric treatment and 34.6% (n=64) had a history of psychiatric treatment in the past. When mental capacity was evaluated clinically; it was determined that while 59.5% (n=110) had normal mental capacity, 23.8% (n=44) had Borderline Intellectual Functioning, 15.7% (n=29) had mild and 1.1% (n=2) had moderate intellectual disability.

There was a recurrent crime history in 31.4% (n=58) of the cases. WISC-R Total IQ scores were significantly lower in the cases who had recurrent crime history when compared to the cases who had no history for previous crime ($p<0.001$, 60.26 ± 20.72 ; 74.40 ± 20.04). Moreover, diagnoses such as Conduct Disorder ($p<0.001$), Borderline Intellectual Functioning ($p<0.001$) and Substance Use Disorder ($p<0.001$) were significantly higher in the cases with recurrent crime history. The most common crime types were theft (40.0%, n=74) and sexual abuse (33.5%, n=62). The distribution of crime types are shown

in Table 2.

Table 2. The Distribution of Crime Types of Juvenile Delinquents

Crime Types	n	%
Theft	74	40.0
Sexual abuse	62	33.5
Intentional injury	13	7.1
Making a terrorist organization propangada	9	4.9
Substance use	8	4.4
Threat-insult	4	2.2
Purchase / acceptance of the crime item	3	1.6
Unauthorized use of credit card	3	1.6
Injury by recklessness	2	1.1
Intentional killing	2	1.1
Cause death by recklessness	1	0.5
Attempt to take the blame	1	0.5
Keeping dangerous goods without permission / changing hands	1	0.5
Saving / disseminating personal data	1	0.5
Causing fire by recklessness	1	0.5
Total	185	100.0

As a result of the psychiatric evaluation in the forensic outpatient clinic, psychiatric diagnosis was found in 61.1% (n=113) of the cases and in 38.9% (n=72) there was no psychiatric diagnosis. The most common diagnoses were ADHD (29.7%, n=55), Borderline Intellectual Functioning (23.8%, n=44), Conduct Disorder (18.4%, n=34) and Mild Intellectual Disability (15.7%, n=29). There were more than one psychiatric diagnosis in 25.9% (n=48) of the cases. Psychiatric diagnoses are shown in Table 3.

Table 3. The Distribution of Psychiatric Diagnoses in Juvenile Delinquents

Psychiatric diagnoses	n	%*
Attention Deficit and Hyperactivity Disorder	55	29.7
Borderline Intellectual Functioning	44	23.8
Conduct Disorder	34	18.4
Mild Intellectual Disability	29	15.7
Substance Use Disorder	17	9.2
Major Depressive Disorder	9	4.9
Bipolar Disorder	4	2.2
Moderate Intellectual Disability	2	1.1
Post Traumatic Stress Disorder	2	1.1
Anxiety Disorder	1	0.5
Autism Spectrum Disorder	1	0.5
Specific Learning Disability	1	0.5
Communication Disorder	1	0.5
Enuresis	1	0.5

*Some cases have more than one psychiatric diagnosis. Percentages are calculated over the total number of cases (n=185).

When the sociodemographic characteristics of 185 cases were compared according to the presence of psychiatric diagnosis, no significant difference was found between the mean age at the date of application and at the date of crime of those with and without a psychiatric diagnosis. When the total IQ scores in the WISC-R results were compared, the total IQ scores were significantly lower in the group with psychiatric diagnosis ($p<0.001$). While there was no significant difference between the two groups in terms of socioeconomic level, presence of psychiatric disorders in mother and siblings; the presence of psychiatric disorder in the father was found to be higher in the juvenile delinquents with a psychiatric diagnosis than those without a psychiatric diagnosis ($p=0.016$). In the group

with psychiatric diagnosis, significantly higher rates of smoking ($p<0.001$) and substance use ($p=0.008$) were found. However, there was no statistically significant difference in alcohol use between the two groups. It was observed that there was a significantly higher rate of psychiatric disorders in cases with a history of crime ($p=0.011$). No difference was found in the presence of a family history of crime (Table 4).

Table 4. Comparison of Clinical and Sociodemographic Characteristics of Juvenile Delinquents With and Without Psychiatric Diagnosis

Clinical and Sociodemographic Characteristics	n	With a psychiatric diagnosis		Without a psychiatric diagnosis		P
		%	n	%	n	
Socioeconomic status	Low	68	59.6	28	46.7	0.102
	Middle	46	40.4	32	53.3	
Mental illness in mother	Yes	16	16.2	4	7.0	0.100
	No	83	83.8	53	93.0	
Mental illness in father	Yes	20	19.0	3	5.3	0.016
	No	85	81.0	54	94.7	
Mental illness in siblings	Yes	14	11.7	5	8.2	0.472
	No	106	88.3	56	91.8	
Cigarette use	Yes	76	73.8	21	42.0	<0.001
	No	27	26.2	29	58.0	
Alcohol use	Yes	21	20.8	4	8.2	0.052
	No	80	79.2	45	91.8	
Substance use	Yes	42	8.2	10	17.9	0.008
	No	68	61.8	46	82.2	
Crime history in family	Yes	32	34.8	9	20.5	0.088
	No	60	65.2	35	79.5	
Previous crime history	Yes	46	42.6	12	22.2	0.011
	No	62	57.4	42	77.8	
Mean age		16.3±1.8		16.1±1.9		0.277
Mean age at the time of the crime		14.4±1.3		14.2±1.3		0.217
WISC-R Total IQ mean score		63.5±19.4		80.9±18.1		<0.001

When TAT results were evaluated, it was seen that 137 cases (74.1%) completed the test, 10 cases (5.4%) could not take the test due to their current psychopathology and test results of 38 cases (20.5%) could not be obtained from their files. The three most common themes in the test were themes of offensiveness, aggression and anger (85.4%), sadness and unhappiness (83.9%) and depression-anxiety (72.3%) (Table 5).

When looking at the relationship between TAT themes and previous crime history; offensiveness, anger and aggression theme was statistically significantly higher in those with a previous crime history ($p=0.004$). Considering the themes in terms of sex, more offensiveness, anger and aggression themes were detected in boys than girls ($p=0.026$). In cases with a family history of crime, the negative self-perception theme was found to be significantly higher ($p=0.044$). When the report results of the cases were evaluated, considering the age characteristics, it was seen that 10.3% (n=19) of the cases had the ability to understand the legal meanings and consequences of the act and to direct their behavior. It was evaluated that 22.7% (n=42) of our cases understood the legal meaning and consequences of the act, but their ability to direct their behaviors was not sufficient, while 40.0% (n=74) of our cases did not understand the legal meaning and consequences of the act and their ability to direct their behavior was not sufficient. Due to the current psychiatric diagnoses, in 7.6% (n=14) of the cases, the ability to understand the legal meaning and

consequences of the act and to direct their behavior significantly decreased. On the other hand, although not significantly in 3.2% (n=6) of the cases, it was determined to be partially decreased. Follow up was recommended for 12 (6.5%) cases and it was decided to give the final report after the follow-up. Although 11 (5.9%) cases had their first forensic examinations, their reports could not be prepared because they did not come to the committee's appointment.

Table 5. Themes Detected in Cases Completing the Thematic Apperception Test

TAT Themes		n	%*
Impairment of the female model perception	Yes	-	-
	No	135	98.6
	Could not be determined	2	1.4
Impairment of the male model perception	Yes	-	-
	No	135	98.6
	Could not be determined	2	1.4
Fear and threat perception	Yes	40	29.2
	No	92	67.2
	Could not be determined	5	3.6
Perception of guilt and regret	Yes	80	58.4
	No	54	39.4
	Could not be determined	3	2.2
Perception of abandonment-loneliness	Yes	58	42.3
	No	76	55.5
	Could not be determined	3	2.2
Depression-anxiety themes	Yes	99	72.3
	No	34	24.8
	Could not be determined	4	2.9
Negative self-perception	Yes	9	6.6
	No	124	90.5
	Could not be determined	4	2.9
The need for love and trust	Yes	89	65
	No	43	31.4
	Could not be determined	5	3.6
Sadness and unhappiness themes	Yes	115	83.9
	No	19	13.9
	Could not be determined	3	2.2
Impaired coping skills	Yes	17	12.4
	No	117	85.4
	Could not be determined	3	2.2
Offensiveness, aggression and anger	Yes	117	85.4
	No	19	13.9
	Could not be determined	1	0.7
Impairment of reality perception	Yes	-	-
	No	133	97.1
	Could not be determined	4	2.9
Broken, flying thoughts	Yes	-	-
	No	133	97.1
	Could not be determined	4	2.9

*The percentages are calculated taking into account the number of cases completing the test (n=137).

DISCUSSION

In our study, 93% (n=172) of 185 juvenile delinquents evaluated in the Child and Adolescent Psychiatry Forensic Committee in a three-year period were male. Significant surplus of male sex in the juvenile delinquency is similar to previous studies on this issue.^{8,9,23,24}

Boys are more likely to develop biologically aggressive behaviors

and mental disorders such as ADHD and CD are more common in boys than in girls.^{13,25} These can be counted among the reasons why crime behavior is more common in boys.

In studies, it is reported that the behavior of committing crime increases during adolescence and it is most common between the ages of 14-17.^{5,9,26} In our study, it was detected that the mean age was 14.31±1.3 years at the time of the crime. This result is compatible with the literature. Since the ability to direct their behavior, which is an important factor in evaluating criminal responsibility, is affected by the psychological changes of adolescence, an increase in the number of cases pushed to crime in this age group is evaluated as an expected situation.

Failure to attend school and low school success are reported as factors that may be related to committing crimes.^{27,28} In the life of children and young people, the school is very important in terms of being both a training area and a social learning area. In studies, it is reported that disruptive behaviors and violent crimes are lower in children with school continuity.²⁹ In our study, 33% of the cases were attending high school, 13.5% were attending elementary school, a case was attending university and 53% of the cases were dropped out of school. It is remarkable that more than half of our cases have dropped out of school despite 12 years of obligatory education in our country. Combined with other risk factors, it is thought that not attending school also increases the risk of committing a crime, so it is important to return all children to the education system. In addition, low socioeconomic level and low education level of parents are among the reasons for the behavior towards crime.³⁰ In our study, more than half of the cases (51.9%) had low socioeconomic level and education of 47.0% of mothers' and 57.3% of fathers' was at elementary level.

Studies have shown that alcohol and substance abuse, and aggression and violence acts trigger each other.^{31,32} In a meta-analysis study involving both adults and children and adolescents, it has been reported that those who use substances commit 3-4 times more crimes (robbery, theft, etc.) than those who do not use them.³³ In a study in which 204 juvenile delinquents were examined, 83 cases (40.7%) were reported to smoke and 16 cases were reported to use alcohol-substance.²⁴ In our study, it was observed that cigarette/alcohol/substance use was considerably high in juvenile delinquents (52.4%, 13.5% and 28.1%, respectively). While substance use in our country is a crime for all individuals, various precautions are taken such as the fact that individuals under the age of 18 are forbidden to buy cigarettes and alcohol, but it is seen that more precautions should be taken in this regard.

When mental capacity was evaluated; it was determined that while 59.5% (n=110) had normal mental capacity, 23.8% (n=44) had borderline intellectual functioning, 15.7% (n=29) had mild and 1.1% (n=2) had moderate intellectual disability. In a study conducted in our country in which 82 juvenile delinquents were examined, 67.1% (n=55) of the cases had normal intelligence capacity, 23.2% (n=19) had borderline intellectual functioning, 8.5% (n=7) had mild intellectual disability and 1.2% (n=1) had moderate intellectual disability.⁸ The issue that the majority of cases included in our study have normal intelligence capacity and the rate of border intelligence functionality are compatible with two studies conducted in our country.^{34,35} In the literature, low intelligence level is stated as a risk factor for crime behavior.³⁶

In our study, the fact that the WISC-R Total IQ scores of those with recurrent crime history were found to be significantly lower than those without a crime history supports the finding that low intelligence level is a risk factor for crime behavior because they are more open to orientation. Although Borderline Intellectual Functioning is a

common condition in the clinic, it was found that it was not included as a stand-alone definition in studies, it was generally evaluated with mild intellectual disability or with specific learning disability.³⁷ However, in young people with Borderline Intellectual Functioning, insufficiency in problem solving skills and adaptation skills, inadequate social communication and daily life activities, limited motor skills, organizational and impulse control difficulties and learning difficulties in school are observed in daily life.^{38,39} The most common diagnosis was ADHD (29.7%, n=55) and Borderline Intellectual Functioning (23.8%, n=44) was the second most common. In our study, it was found that those with recurrent crime history had significantly higher diagnoses of Borderline Intellectual Functioning, Conduct Disorder, and Substance Use Disorder than those without a previous crime history.

In the study results of the literature, it is reported that at least 50-70% of the juvenile delinquents have a psychiatric illness and this rate is 4-5 times higher than the general adolescent population rate (9-21%).⁴⁰ As a result of the psychiatric evaluation in the forensic outpatient clinic, psychiatric diagnosis was found in 61.1% (n=113) of the cases and there were more than one psychiatric diagnosis in 25.9% (n=48) of the cases. The most common diagnoses were ADHD (29.7%, n=55), Borderline Intellectual Functioning (23.8%, n=44), CD (18.4%, n=34) and Mild Intellectual Disability (15.7%, n=29). In a multicenter cross-sectional study investigating the prevalence of childhood psychopathology in Turkey, the prevalence ADHD was found 12.39%, the prevalence of CD was found 0.29% and the prevalence of Mild Intellectual Disability was found 0.52%. When we look at the psychiatric diagnosis rates in our cases, it is seen that the frequency of ADHD, CD and Mild Intellectual Disability is much higher than the rates in our country. It has been reported that children with intellectual disability have higher rates of externalizing behavioral problems and disruptive behavioral disorders (ADHD, CD) than those with normal development.⁴¹⁻⁴⁴ Children and adolescents with externalizing behavioral problems seem to have more antisocial behavior and there are important studies showing that in childhood aggression and incompatibility are important predictors of adolescent delinquency.⁴⁵⁻⁴⁹ Accordingly, it is important to consider the role of disruptive behavior disorders such as ADHD and CD in childhood in predicting risk taking behaviours and criminal behaviors during adolescence, especially among individuals with intellectual disability.⁵⁰ For this reason, both regular psychiatric follow-up and treatment of children and adolescents diagnosed with ADHD, CD, and intellectual disability are considered to be extremely important in terms of preventing future risk taking and criminal behavior.

The presence of psychopathology in the family is also reported as a risk factor for juvenile delinquency.^{51,52} In our study, the presence of psychiatric disorder in the father was found to be higher in the juvenile delinquents with a psychiatric diagnosis than those without a psychiatric diagnosis.

The most common crime types were theft (40.0%) and sexual abuse (33.5%). In a study by Aksu et al. with 147 juvenile delinquents, the most frequent crime was reported to be theft (n=77, 52.4%).² In other similar studies carried out in Turkey, the most common crime type in juvenile delinquents was found to be the theft consistent with our study.^{14,22,51,52} In the study of Sertdemir et al., similar to our study, sexual abuse crime was found as the second most common crime with 25%.⁵³ In our country, in the last 10 years, there is a significant sensitivity and special interest in the fields of education, health, safety and justice in order to detect and prevent child abuse in the early period. For this reason, as a result of increasing applications to health, security and legal institutions, it was thought that the rate of sexual

crimes among juvenile delinquents may be high.

Dynamic factors plays role in juvenile delinquency. When the literature was checked, it was seen that the findings of the studies emphasized the importance of superego development as a check against the aggressive, antisocial impulses. It was stated that there was a difference in the presence or absence of adequate defence mechanisms (e.g denial, inhibition, rationalization) between delinquents and non-delinquents, which were interposed between the guilty impulse and the (phantasied) act.⁵⁴ In his study in 1953, Hamza gave importance to dynamic forces in juvenile delinquents. He suggested that these factors could be studied objectively by means of projection tests.⁵⁵ In a study published in 1958, it was stated that TAT procedure required experience and the authors suggested that the TAT could be made to differentiate meaningfully between delinquent and non-delinquent groups.⁵⁴ In a case series with 5 juvenile delinquents, relationship problems, family conflicts, offensiveness, anger and aggression have been reported to be the most common TAT themes.⁷ In another study, the hostility index in TAT was found to be significantly higher in boys compared to girls, and it was stated that boys expressed more physical hostility and girls expressed more verbal hostility.⁵⁶ According to these studies, today projective tests such as TAT are used in addition to psychiatric examination in the evaluation of the juvenile delinquents. In our study, the three most common themes in the test were the themes of offensiveness, aggression and anger (85.4%), sadness and unhappiness (83.9%) and depression-anxiety (72.3%). When compared the relationship between TAT themes and previous crime history, offensiveness, anger and aggression themes were statistically significantly higher in those with a previous crime history. Considering the themes in terms of sex, more offensiveness, anger and aggression themes were detected in boys than in girls. In cases with a family history of crime, the negative self-perception theme was found to be significantly higher. In the literature, it was seen that the number of studies examining the results of TAT in juvenile delinquents is very low and it was seen that the studies were done in very old years. Considering the importance of evaluating crime behavior and related factors in many ways, our study is valuable in terms of using projective tests in evaluation.

By the nature of adolescence, the tendency towards risky behavior is increasing. As the adolescent becomes an adult, changes in the cognitive control system allow for greater self-regulation, resulting in a decline in risk-taking behaviors.⁵⁷⁻⁵⁹ This process is understood as part of normative adolescent brain development; however, previous research also finds individual differences in neural activation, suggesting that some adolescents may be more prone to risk-taking than others.⁶⁰ Research on antisocial behaviors in adolescence finds support for at least two trajectories, particularly among male offenders.^{61,62} One group, termed adolescence limited, appear to engage in antisocial behaviors during adolescence, but desist once they reach adulthood. The other group, termed life-course-persistent, demonstrate conduct problems in early childhood and, as adolescents, continue to engage in antisocial behaviors throughout their lifetime. Among a number of characteristics, early conduct problems, neuropsychological deficits and harsh, inconsistent or negligent parenting seem to differentiate these two groups.⁶³ Our report results reflect considered adolescence features and the multidimensional evaluation.

It was evaluated that 22.7% of our cases understood the legal meaning and consequences of the act, but their ability to direct their behaviors was not sufficient, while 40.0% of our cases did not understand the legal meaning and consequences of the act and their ability to direct their behavior was not sufficient.

Limitations

When we look at the diagnoses of the case group in our study, the most common diagnoses are as follows; ADHD, Borderline Intellectual Functioning, Conduct Disorder and Mild Intellectual Disability. Considering the existing diagnoses, serious difficulties were experienced in getting the scales to be filled in the cases. This situation caused many cases to refuse to fill in the scales, and those who incomplete filling or not to fill them reliably enough.

On the other hand, one-on-one interviews were conducted for psychiatric evaluation and diagnosis, with each case at least two child and adolescent mental health experts (one during the forensic evaluation and one at the judicial committee), for psychometric tests one for the TAT and one for the WISC-R two psychologists were interviewed. In our current patient group, self-report scales were not included in the study due to incomplete filling and unreliability. However, psychiatric evaluation and psychometric tests with each case are considered to be valuable for the study.

CONCLUSION

It is noteworthy that most of the studies conducted in forensic cases are related to victims. However, there is a need for comprehensive studies to be carried out with regard to the juvenile delinquents both in terms of decreasing crime rates and determining the need for psychosocial assistance and support. The rehabilitation and reintegration process is very important in juvenile delinquents. In these cases, high rates of disruptive behavior disorders and mental capacity-related inadequacies and limitations are noteworthy. It is thought that this reduces the capacity to judge and predict the consequences of events and also leads to impulsivity. It is also meaningful to find a relationship between recurrent crimes and psychopathology. It is important that the cases are not regularly and adequately treated. In this context, it is thought that psychiatric follow-up and treatment are important in terms of reducing the probability of committing crimes again and bringing them to the society.

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