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Examination of factors leading to recurrent and chronic crime in children

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Abstract

This study investigates the risk factors contributing to juvenile delinquency, specifically focusing on reoffending by children in conflict with the law (CICL). This study analyzed the records of 178 children aged 12–15 years who were referred to the Tokat Forensic Medicine Branch Office by judicial authorities between January 1, 2023, and October 31, 2024. It explored the sociodemographic characteristics, familial backgrounds, and types of offenses committed to inform preventive strategies for persistent delinquency. A significant portion of juvenile offenders was found to commit repeat or chronic offenses. Of the 178 children, 43 (24.2%) were chronic offenders and 34 (19.1%) repeat offenders. The average age of chronic offenders was 14.08 ± 0,92, and 14.09 ± 0.91 for repeat offenders. A large proportion of chronic offenders (69.7%) were men, and 60.5% had tattoos. Additionally, 76.8% committed crimes at night, and 69.8% had a criminal history in their family. Employment status was another factor, with 55.8% of chronic offenders working, and only 23.2% living with their families. Notably, 51.2% of chronic offenders were immigrants, and 86% committed crimes with peers. These findings suggest that chronic and repeat offenders face higher risk factors, with immigration status and committing crimes with friends playing significant roles in their behavior patterns.

Keywords: Juvenile delinquency, reoffending, risk factors, chronic delinquency, sociodemographic characteristics, immigrant youth

Introduction

The act of committing a crime has persisted throughout human history and has varied across societies under the influence of social, economic, and cultural dynamics. Juvenile delinquency, a specific subset of criminal behavior, is regarded as a global issue that continues to manifest with a concerning increase. Numerous studies addressing the multifaceted nature of this phenomenon emphasize the interplay of social, economic, and familial factors contributing to youth involvement in criminal activities [1-3].

The approach to juvenile delinquency varies significantly from country to country. For instance, in some states in the United States, children are tried in adult courts, and hundreds of thousands of minors are detained each year within the juvenile justice system [4]. In contrast, Scandinavian countries have adopted policies that prioritize rehabilitation over punitive justice, emphasizing social support systems as a means of preventing juvenile crime [5]. Consequently, a child's propensity toward criminal behavior differs among societies and is shaped by various social, economic, and cultural dynamics [6,7].

In Turkey, juvenile delinquency is defined under Article 6 of the Turkish Penal Code (TPC) as the commission of criminal acts by individuals under the age of 18, and such individuals are subject to the legal sanctions prescribed by law [8-10]. Moreover, even if a child has developed the capacity for criminal responsibility, the Child Protection Law (CPL), which came into force in 2005, redefines these individuals not as perpetrators but as "children drawn to crime." This reclassification reframes the child, who was previously labeled a criminal, as a victim of circumstances.

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Therefore, the term "children drawn into crime" (CIC) is used instead of traditional legal terms such as "defendant" or "suspect" to reflect a more protective and developmental perspective on juvenile justice [11].

The relevant legislation also stipulates that sanctions imposed on children must be compatible with their developmental levels. Article 31 of the TPC, titled “Criminal Responsibility of Children,” outlines a framework that categorizes children based on their age and developmental capacity. Children under the age of 12 are considered to lack criminal responsibility under all circumstances. For children aged between 12 and 15, the law provides two distinct legal approaches depending on their cognitive and behavioral capacities. If it is determined that the child lacks the ability to comprehend the legal meaning and consequences of the act or to control their behavior accordingly, they are deemed not criminally responsible, and protective, educational, and rehabilitative measures are recommended. However, if the child is assessed as being capable of understanding the consequences of their actions and regulating their behavior, they may be held criminally responsible, although the sanctions imposed are subject to reduction. Children between the ages of 15 and 18 are generally presumed to have the capacity to understand the legal consequences of their actions; however, due to their limited behavioral control and reduced capacity for intent, they are also subject to mitigated penalties within the framework of juvenile justice [11].

The term “repeated” refers to the occurrence or recurrence of an event or situation more than once, while “repeatability” denotes the capacity or potential of an action or event to be repeated. A “repeat offender” is an individual who commits the same offense multiple times. In legal terminology, a repeat offender is defined as someone who commits multiple offenses. Additionally, in the literature, individuals who have had five or more encounters with law enforcement are referred to as “chronic offenders” [12].

Children in conflict with the law (CICL) have a high risk of reoffending later in life, and their first experience of committing a crime is a significant risk factor for the development of recurrent or chronic criminal behavior [13]. A thorough examination of the characteristics that trigger recurrent and chronic criminal behavior in children will provide valuable information about the risk factors affecting individuals at risk of becoming part of this disadvantaged group. Therefore, this study aimed to identify the sociodemographic and behavioral risk factors that contribute to recurrent and chronic criminal behavior in children.

Material and Methods

This retrospective study reviewed the records of 178 children aged 12–15 years who were referred to the Tokat Forensic Medicine Branch Office of the Ministry of Justice's Council of Forensic Medicine by judicial authorities between January 1, 2023, and October 31, 2024, for evaluation of suspicion of involvement in criminal acts. The alleged offenses were categorized based on the findings of medical examinations and the supporting medical records provided in the forensic files. The analysis revealed that 77 children were involved in multiple prior judicial incidents.

Sociodemographic information, such as age, sex, and educational status, was obtained from institutional records. Additional family related variables, including the number of siblings and parental living status, were recorded in a structured manner. The study population was classified based on the total number of offenses. Children referred for the first time due to their initial involvement in criminal acts were categorized as the "first-time offender group." Those involved in 2, 3, or 4 offenses were classified as the "repeat offender group," while those with 5 or more offenses were identified as the "chronic offender group."

Statistical analyses were performed using SPSS 20.0 software (IBM Corp., Armonk, NY, USA), with a significance level set at $p<0.05$. Descriptive statistics are presented as frequencies and percentages for categorical variables and as means ± standard deviations for continuous variables. To evaluate the relationships between groups, different tests were applied depending on the type of the variable. The distribution of categorical variables across the three groups (first-time, repeat, and chronic offenders) was compared using Pearson’s chi-square tests. In cases where the expected cell frequencies were less than five, Fisher’s Exact Test was used instead to ensure the validity of statistical inference. These tests were used to assess whether there were statistically significant associations between categorical variables. For continuous variables, such as age and grade point average, a One-Way Analysis of Variance (ANOVA) was conducted to determine whether there were significant differences between group means.

Approval was obtained from the Non-Drug and Medical Device Research Ethics Committee of Necmettin Erbakan University on January 24, 2025 (decision number: 2025/5463).

Results

Our study revealed that 101 (56.7%) of the 178 juveniles in conflict with the law committed a single offense, 34 (19.1%) committed two to four offenses indicating repeated criminal behavior, and 43 (24.2%) committed five or more offenses indicating chronic criminal behavior (Table 1).

Table 1. Distribution of Children in Conflict with the Law by Number of Offenses

Number of Offenses	n (%)
Once	101 (56.7%)
2-4 times (Repeated offenses)	34 (19.1%)
≥ 5 times (Chronic offenses)	43 (24.2%)
Total	178 (100%)

As presented in Table 2, 59.4% (n=60) of first-time offenders, 58.8% of repeat offenders, and 69.7% of chronic offenders were male. The chi-square test results indicated no statistically significant association between sex and number of offenses (first-time, repeat, or chronic) ($p = 0.466$).

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In this study, 24.7% (n=25) of first-time offenders, 73.5% (n=25) of repeat offenders, and 55.8% (n=24) of chronic offenders were identified as working children. Analysis of the employment status of CICL using the Pearson chi-square test revealed a statistically significant difference (p<0.001). The employment rate among first-time offenders was significantly lower than that of repeat and chronic offenders.

When examining the living arrangements of children with their families, it was found that 91.08% of first-time offenders lived with their families, compared to only 26.4% (n=9) of repeat offenders and 23.2% (n=10) of chronic offenders. Analysis of the living arrangements of the CICL using the Pearson chi-square test revealed a statistically significant difference (p<0.001). It was concluded that the rate of living with their families was significantly higher among first-time offenders than among repeat and chronic offenders.

It was found that 8.9% (n=9) of first-time offenders, 29.4% (n=10) of repeat offenders, and 60.5% (n=26) of chronic offenders had tattoos. Analysis of tattoo prevalence among the CICL using the Pearson chi-square test revealed a statistically significant difference (p<0.001). The prevalence of tattoos was significantly lower among first-time offenders than among repeat and chronic offenders.

In this study, when the migration status of CICL was analyzed using the Pearson chi-square test, the results showed that the migration status was statistically significantly higher (p<0.001) among chronic offenders than among first-time and repeat offenders.

An analysis of the mean ages at the time of the incident showed that the average age of first-time offenders was 13.91±0.81 years, while it was 14.09±0.91 years for repeat offenders and 14.08±0.92 years for chronic offenders

The previous year's report card grade averages were 81.01±14.63 for first-time offenders, 46±6.33 for repeat offenders, and 48.41±5.21 for chronic offenders. A one-way analysis ANOVA test revealed a statistically significant difference among these groups (p<0.001). The grades of first-time offenders were significantly higher than those of repeat and chronic offenders (Table 2).

As presented in Table 3, when the criminal history within families was examined, 8.9% (n=9) of first-time offenders, 8.8% (n=3) of repeat offenders, and 69.8% (n=30) of chronic offenders were found to have a family history of criminal activity. Analysis of the family criminal history among the CICL using the Pearson chi-square test revealed a statistically significant difference (p<0.001). The presence of a family criminal history was significantly higher among chronic offenders than among first-time and repeat offenders.

It was found that 16.8% (n=17) of first-time offenders, 64.7% (n=22) of repeat offenders, and 55.8% (n=24) of chronic offenders had experienced parental loss. Analysis of parental loss among CICL using the Pearson chi-square test revealed a statistically significant difference (p<0.001). The prevalence of parental loss was significantly lower among first-time offenders compared to repeat and chronic offenders (Table 3).

As presented in Table 4, 7.9% (n=8) of first-time offenders, 23.5% (n=8) of repeat offenders, and 76.8% (n=33) of chronic offenders were observed to have committed their offenses during the nighttime. When the involvement of peers in committing offenses was examined, 34.7% (n=35) of first-time offenders, 79.4 % (n=27) of repeat offenders, and 86% (n=37) of chronic offenders were found to have committed the alleged offense together with their peers. It was found that 20.8% (n=21) of first-time offenders, 35.3% (n=12) of repeat offenders, and 34.9% (n=15) of chronic offenders used weapons while committing the offense. Analysis of the offense characteristics of CICL using the Pearson chi-square test revealed that first-time offenders had a significantly lower rate of committing offenses with their peers, whereas chronic offenders had a significantly higher rate of committing offenses at night (p<0.001).

Table 2. Distribution of sociodemographic characteristics and academic performance by offense type

Variable		First Offense (n=101)	Repeat Offense (n=34)	Chronic Offense (n=43)	p value
Gender	Male	59.4% (n=60)	58.8% (n=20)	69.8% (n=30)	0.466[1]
	Female	40.6% (n=41)	41.2% (n=14)	30.2% (n=13)	
Employment Status	Not Working	75.2% (n=76)	26.4% (n=9)	44.2% (n=19)	<0.001[1]
	Working	24.8% (n=25)	73.5% (n=25)	55.8% (n=24)	
Living Situation	With Family	91.1% (n=92)	26.4% (n=9)	23.2% (n=10)	<0.001[1]
	Without Family	8.9% (n=9)	73.6% (n=25)	76.8% (n=33)	
Presence of Tattoos	No	91.1% (n=92)	70.6% (n=24)	39.5% (n=17)	<0.001[1]
	Yes	8.9% (n=9)	29.4% (n=10)	60.5% (n=26)	
Migration Status	No	89.1% (n=90)	88.2% (n=30)	48.8% (n=21)	<0.001[1]
	Yes	10.9% (n=11)	11.8% (n=4)	51.2% (n=22)	
Age at Incident	Mean ± SD	13.91 ± 0.81	14.09 ± 0.91	14.08 ± 0.92	NS
Grade Average	Mean ± SD	81.01 ± 14.63	46.00 ± 6.33	48.41 ± 5.21	<0.001[2]

[1] Pearson Chi-square test; [2] One-Way ANOVA; NS: Not significant

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In this study, the most common offense group among first-time offenders was identified as crimes against bodily integrity, accounting for 49.5% (n=50). In contrast, the most frequent offense group among repeat and chronic offenders was crimes against property, representing 58.8% (n=20) and 53.49% (n=23), respectively.

When the ability of CICL to comprehend the legal meaning and consequences of their actions or to control their behavior, as outlined in Article 31 of the TCK, was assessed, it was determined that these abilities were adequately developed in 95 % (n=96) of first-time offenders, 94.1% (n=32) of repeat offenders, and nearly all chronic offenders (97.7% n=42). No statistically significant association was found between offense repetition and either the type of offense or the ability to comprehend the legal meaning and consequences of actions, as well as the ability to control behavior, as assessed during the examination ($p > 0.05$) (Table 4).

Table 3. Familial characteristics of children in conflict with the law

		First Offense (n=101)	Repeat Offense (n=34)	Chronic Offense (n=43)	p value
Family Criminal History	No	91.1% (n=92)	91.2% (n=31)	30.2% (n=13)	<0.001[1]
	Yes	8.9% (n=9)	8.8% (n=3)	69.8% (n=30)	
Parental Loss	No	83.2% (n=84)	35.3% (n=12)	44.2% (n=19)	<0.001[1]
	Yes	16.8% (n=17)	64.7% (n=22)	55.8% (n=24)	

[1] Pearson Chi-square test

Table 4. Characteristics of the alleged offenses committed by children in conflict with the law

		First Offense (n=101)	Repeat Offense (n=34)	Chronic Offense (n=43)	p value
Time of Offense	Daytime	92.1% (n=93)	76.5% (n=26)	23.2% (n=10)	<0.001[1]
	Nighttime	7.9% (n=8)	23.5% (n=8)	76.8% (n=33)	
Offense Committed with Peers	No	65.3% (n=66)	20.6% (n=7)	14.0% (n=6)	<0.001[1]
	Yes	34.7% (n=35)	79.4% (n=27)	86.0% (n=37)	
Use of Weapon	No	79.2% (n=80)	64.7% (n=22)	65.1% (n=28)	0.104[1]
	Yes	20.8% (n=21)	35.3% (n=12)	34.9% (n=15)	
Type of Offense	Against Property (CP)	29.7% (n=30)	58.8% (n=20)	53.5% (n=23)	0.095[2]
	Against Physical Integrity (PI)	49.5% (n=50)	29.4% (n=10)	34.9% (n=15)	
	Against Sexual Integrity (SI)	10.9% (n=11)	11.8% (n=4)	7.0% (n=3)	
	CP + PI	4.95% (n=5)	0	4.65% (n=2)	
	PI + SI	4.95% (n=5)	0	0	
Article 31 (TCK)	Undeveloped	5.0% (n=5)	5.9% (n=2)	2.3% (n=1)	0.714[2]
	Developed	95.0% (n=96)	94.1% (n=32)	97.7% (n=42)	

[1] Pearson Chi-square test; [2] Fisher's Exact Test

Discussion

Conducting research on children in conflict with the law to identify factors contributing to the recurrence and chronicity of criminal behavior is critical. This study aimed to identify potential risk factors and conduct a comprehensive data analysis of these children.

Various studies have revealed that the tendency to commit crimes is more prevalent among males [12-15]. For instance, a study conducted by Yüksel et al. reported that 28% of the 107 children examined had committed crimes previously [14]. Similarly, in this study, it was observed that males dominated in all groups of offenders: 59.4% (n=60) of first-time offenders, 58.8% (n=20) of repeat offenders, and 69.8% (n=30) of chronic offenders were male.

This predominance may be attributed to the increased exposure of male children to social environments and their greater susceptibility to engaging in risky behavior. However, the chi-square test results indicated no statistically significant relationship between sex and the groups of first-time offenders, repeat offenders, and children involved in more than five criminal acts (p=0.466). This finding indicates that criminal behavior is influenced not only by gender but also by a combination of

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social, psychological, and environmental factors.

The literature indicates that children in conflict with the law frequently drop out of school or are reluctant to attend regularly [16]. In a study conducted by Vermeiren et al., it was demonstrated that the close friends of such children also tend to have a higher propensity for engaging in criminal behavior. Similarly, in the present study, the academic grades of first-time offenders were significantly higher than those of repeat and chronic offenders. Furthermore, the rate of committing offenses with peers was significantly lower among first-time offenders than among repeat and chronic offenders [17]. These findings support the role of school maladjustment, academic failure, and negative peer influence in the development of delinquent behavior among children.

In Farrington's study, the presence of a criminal history within the family and poor living conditions were identified as significant risk factors that increase the likelihood of developing criminal behavior in children [18]. In a 2016 study conducted in Adana by Fırat et al., it was reported that 20% of children in conflict with the law came from divorced or single-parent families and 8% had a father with a criminal record [8]. Extensive research emphasizes the critical role of family structure disruptions and parental criminal history in shaping the criminal behavior of children [9,11,15]. Consistent with previous findings, this study also found that the rate of living with family was significantly higher among first-time offenders than among repeat and chronic offenders. Moreover, parental loss was associated with recidivism and chronic offending. Parental loss may weaken children's emotional and social support systems, thereby triggering their involvement in delinquent behavior. Additionally, this study found that the prevalence of a family history of criminal behavior was significantly higher among chronic offenders than among first-time offenders. These findings highlight the crucial role of familial criminal backgrounds in the persistence and chronicity of delinquent behavior in children.

Migration has been identified in the literature as a complex and multifaceted phenomenon that influences various aspects of individual and societal life, including its potential role in juvenile delinquency. It is widely recognized that migration often brings about significant social, economic, and psychological challenges, such as adaptation difficulties, economic instability, social exclusion, and disruptions in family dynamics. These challenges can create an environment in which children are more vulnerable to engaging in criminal behavior. Numerous studies have suggested a potential link between migration and juvenile delinquency, emphasizing how the strains and pressures associated with migration can contribute to criminal behavior in children [19-23]. This study found a significant association between family migration history and chronic juvenile delinquency, which is defined as involvement in five or more criminal acts. The findings suggest that migration is not only a contributing factor to juvenile delinquency but also a risk factor for its continued existence. Social and structural challenges faced by migrant families may increase the likelihood of persistent delinquent behavior among children. Therefore, targeted interventions are required to address migration-related vulnerabilities.

Child labor conducted outside the formal sector, under unhealthy conditions, and beyond the appropriate age and working hour limits increases the risk of children being exposed to adverse environments. This situation may lead to various forms of victimization resulting from violations of children's rights. Negative environmental interactions and unregulated working conditions can cause children to drift away from social norms and incline toward criminal behavior. Therefore, it has been suggested that certain forms of child labor may increase the risk of juvenile delinquency [24-26]. Yüksel et al. reported that 22.4% of children in conflict with the law had been employed as child laborers, whereas Fırat et al. reported this rate as 53.1% [8,14]. In this study, child labor was found to be significantly associated with repeated and chronic juvenile delinquency. Early involvement in the workforce may distance children from educational environments and increase their risk of engaging in criminal behavior.

Several studies suggest that tattooing during adolescence is often an impulsive act [27,28]. In a study conducted by Carroll et al. on adolescents, an association was found between having tattoos and engaging in violent behaviors such as involvement in physical fights, sustaining injuries requiring medical attention due to such altercations, and carrying weapons. The researchers recommended further investigation into other potential links between tattooing and violent behavior [29]. Similarly, in the present study, a significant association was identified between the presence of tattoos and repeated or chronic delinquency among children in conflict with the law. Tattoos were interpreted as a potential indicator of risk-taking tendencies or peer influence in delinquent adolescents. In forensic medical practice, the presence of tattoos is considered a relevant physical finding.

In the literature, it has been reported that children in conflict with the law predominantly commit property-related offenses [14,15,30]. However, this study found that 49.5% of first-time offenders committed crimes that violated bodily integrity. This suggests that such offenses are more impulsive and spontaneous. In contrast, property-related crimes were more common among repeat (58.8%) and chronic offenders (53.49%). This finding indicates that criminal behavior may be influenced by risk factors such as a lack of family support and economic hardship.

Another striking finding of this study is that only 7.9% of first-time offenders committed their offenses during the nighttime, whereas this rate increased to as high as 76.8% among chronic offenders. Moreover, the rate of committing offenses with peers was significantly lower among first-time offenders than among repeat offenders (79.4%, n=27) and chronic offenders (86.0%, n=37). This suggests that the offenses committed by repeat and chronic juvenile offenders are strongly influenced by group

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dynamics. These findings indicate that repeated and chronic delinquent behaviors are generally shaped by environmental factors and that there is a progression in criminal behavior over time [31]. This highlights the importance of implementing early intervention strategies before children engage in repeated or more serious offenses.

Conclusion

The findings of this study provide significant insights into the factors influencing juvenile delinquency and recidivism. Family dynamics, economic conditions, and challenges in educational attainment are key determinants of this process. Notably, migration is a critical issue that directly impacts these three fundamental factors and necessitates targeted interventions. The weakening of family bonds, coupled with increased peer influence, further heightens the likelihood of repeated criminal behavior in children. Therefore, to prevent reoffending among juveniles, it is imperative to develop comprehensive social policies that strengthen family support, improve economic conditions, and address deficiencies in the educational system.

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

This study was approved by the Educational and Scientific Research Commission of the Presidency of the Council of Forensic Medicine, Ministry of Justice (decision number 21589509/2024/1424) on December 3, 2024. Approval was obtained from the Non-Drug and Medical Device Research Ethics Committee of Necmettin Erbakan University on January 24, 2025 (decision number: 2025/5463).

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