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Assessment of the clinical and sociodemographic characteristics of children and adolescents who are sent to an affiliated university hospital for forensic psychiatric examination

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Abstract

This study aimed to investigate the socio-demographic data, the reason and frequency of forensic application, and the presence of additional mental disorders in children and adolescents who applied for a forensic psychiatric examination to an affiliated university hospital. Pediatric psychiatry files of the patients who applied to Abant İzzet Baysal Mental Health and Diseases Policlinic outpatient clinic of Bolu Abant İzzet Baysal University between 2016-2018 were screened retrospectively and the data were evaluated in SPSS 22.0. The mean age of 117 patients included in the study was 14.86 ± 3.37, 54(46.2%) were female and 63(53.8%) were male. The most common reason for being sent is the claims within the scope of evaluation and health measures in terms of perceiving the legal meaning and consequences of the crimes committed with 33 applications. There was a statistically significant difference between males and females in terms of forensic assessment. At least one psychiatric diagnosis was made in 69.1% of the cases and the most common diagnosis was mental retardation. Dissemination of regional studies of forensic assessment and identification of differences by the province may contribute to the more efficient and functional use of resources. In addition to contributing to the improvement programs to be made after forensic assessments, pre-crime is also of value in terms of identifying the causes of crime, especially in children and adolescents.

Keywords: Child and adolescent, psychiatry, forensic assessment

Introduction

In Turkey, individuals who have completed the age of 11 but not entered the age of 16 are legally considered a juvenile, while those that have entered the age of 16 but not completed the age of 18 are considered children [1,2].

According to the Declaration of the Rights of the Child, every individual under the age of 18 is considered a child [3], and therefore, involvement of individuals under the age of 18 in a crime for any reason and their display of behaviors that require prosecution in the judicial system related to this is considered as juvenile crime [4,5]. While the history of juvenile crime may be traced back very long, it has been on the agenda more frequently with the recent increase in Turkey.

According to the data of the Turkish Statistical Institute (TÜİK) on children involved in crime for the year 2017, 107 thousand 984 children under the age of 17 were involved in 25 different criminal activities. The number of children who were brought to security institutions for any reason increased by 5 in a thousand in comparison to 2016 and reached 335 thousand 242. The highest rate was reported for the age range of 15-17. 66% of the children who arrived at or were brought to security units were male. It was reported that children arrive at security institutions mostly as victims. According to the 2017 Penitentiary Institution Statistics published at the end of 2018 by TÜİK, based on the ages of entrance into penitentiary institutions as convicts, the number of those who were children (age group of 12-17) increased by 109.4% in comparison to the previous year and reached 2 thousand 56. The number of those who were children at the time of committing a crime increased by 28.3% in comparison to the previous year and reached 11 thousand 805 [6]. The exponential increase in the number of children directed to crime in Turkey is an indicator of the priority of this problem.

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The differences in the reasons that direct children to crime and their physiological status are among the main reasons for the distinction between adult crime and juvenile crime. Legal systems have divided the active duration of crime into two as children and adults and subjected adults and children to different punishment, prosecution and enforcement practices. On the one hand, they have aimed to remove the child from criminal law, while on the other hand, they have aimed to rehabilitate the child for their actions rather than punishing them [1,7,8].

Additionally, the decision on the United Nations Guidelines for the Prevention of Juvenile Delinquency that is known as the Riyadh Guidelines underlined that the main issue is the prevention of crime for prevention of juvenile crime, and education, the family and the society were emphasized [9].

It is not possible to explain juvenile crime by a single cause. Several factors such as the male gender, deficiencies in coping and social support, intellect, decrease in self-esteem, domestic violence, and adaptation problems, migration, absence at school, presence of emotional irregularities such as restlessness and anger, cruel emotions towards people, low intelligence levels, history of attention deficit and hyperactivity disorder, presence of antisocial behavior patterns, exposure to neglect and abuse in childhood, frequent replacement of the primary caregiver and inconsistent or strict disciplinary practices against the child have been reported as risk factors for criminal behavior in childhood and adulthood [10-16].

While children involved in crime are evaluated during the forensic psychiatric examination, indifference to adults, with the principle of no harm first, it is aimed to assess the child or the adolescent based on their developmental level and characteristics and minimize secondary traumas [5,10]. Another difference to adults is that children-adolescent cases that are sent for examination by judicial units do not only consist of children and adolescents involved in crime. Forensic mental and spiritual assessment may be requested due to other reasons such as being a victim of a crime, custody, adoption, early marriage, and protection-precaution. Additionally, the modern approach to juvenile crime brought by the 'Child Protection Law' is concerned with not that the child commits a crime but that they are pushed to it by others. This approach assumes the main principle of not seeing the child as a criminal who commits a crime but considering that they are pushed to it, therefore considering the child to be in the position of a victim of the crime they have committed and bringing about the concept of a juvenile pushed to crime. According to the Article 31/1 of the Turkish Criminal Law (TCK), the minimum age where the criminal liability of children starts was accepted as 12. As children reach a certain mental, moral and intelligent maturity in their natural development process, they reach a capacity of making a mistake after the age of 12, but they still cannot be prosecuted as adults are. In the Turkish Criminal Law, children at the ages of 12-18 are subjected to gradually decreased sentences. According to the Article 31/3, children at the ages of 15-18 are protected from prison time by a reduction of their sentence, while this reduction amount is higher in children at the ages of 12-15 [5].

A significant difficulty in forensic examination of children comes from the fact that there are not enough experts in this field. Forensic psychiatry education, which is included within adult psychiatry education based on the means of institutions, is unfortunately not usually found within child and adolescent psychiatry education [11]. Additionally, considering the numbers of child and adolescent psychiatrists in Turkey, the difficulty in the assessment of forensic cases becomes clearer. For this reason, child and adolescent cases are frequently assessed by adult psychiatrists.

This study aimed to reveal gender-based and possible regional differences and contribute to the literature on the topic by examining the sociodemographic data (gender, age, education), forensic application reasons and frequencies and additional mental disorders of children and adolescents that are requested by judicial units to be examined and reported in the years 2016-2018 by the Child and Adolescent Psychiatry Polyclinic at the Bolu Abant İzzet Baysal University Hospital which serves a broad geographical region as it is not only affiliated but also a regional hospital.

Material and Methods

This is a cross-sectional and retrospective study. The study included the results of 117 cases that applied for forensic examination at the Child and Adolescent Psychiatry Polyclinic (CAPP) of the Bolu Abant İzzet Baysal Mental Health Research and Training Hospital affiliated with the Faculty of Medicine at Bolu Abant İzzet Baysal University between the dates of January 2016 and January 2018. The inclusion criteria were planned as having made an application primarily to CAPP for forensic examination, being under the age of 18, having come for forensic examination with mother or father, not having a chronic medical disease (epilepsy, cerebral palsy, etc.), having received psychometric assessment for intelligence evaluation and having complete data on the assessments on file. The exclusion criteria were determined as having been directed by the Department of Forensic Medicine for forensic examination consultation, having a chronic medical disease, not having come to the assessment with mother or father and missing data to be used in the study.

During the studied period, 207 cases under forensic evaluation applied to CAPP at the Bolu Abant İzzet Baysal Mental Health Research and Training Hospital. Among these cases, 40 were excluded as they were consulted by the Department of Forensic Medicine, 17 were excluded because they were evaluated without parent supervision, 10 were excluded due to chronic medical diseases, 11 were excluded as they did not attend intelligence evaluation, 12 were excluded as they had missing data in their files, and the study included 117 cases.

The psychiatric diagnoses of the cases were made clinically based on the DSM-V criteria. Forensic assessment interviews were conducted by the child and adolescent psychiatrists. The intelligence levels of the cases were assessed using the Wechsler Intelligence Scale for Children-Revised (WISC-R). WISC-R was administered by psychologists who were trained to perform this test in all cases aged 6-16 years for forensic evaluation. The test took between 45 minutes and one and a half hours. Ethical approval of the study was obtained from the Abant İzzet Baysal University Clinical Studies Ethics Board (Date: 09.07.2018, Number: 227). All protocols of the study were implemented in compliance with the Declaration of Helsinki and the local laws and directives.

WISC-R: The test was developed in 1949 by Wechsler. It was

revised in 1974 and took the name of WISC-R. The Turkish standardization and validity studies were conducted in 1988 by İskender Savaşır and Nesrin Şahin [17]. The test which is applied to individuals in the age range of 6–16 takes 90-100 minutes to complete. It consists of 12 subtests that measure different mental functions and include verbal and performance skills.

Statistical Analysis

The data obtained in the study were statistically analyzed by using the Statistical Package for the Social Sciences (SPSS 18.0). Some sociodemographic and clinical categorical data of the case and control groups were analyzed by frequency and percentage values. Quantitative variables were summarized as either arithmetic means and standard deviations or medians and inter-quartile ranges depending on the presence of outliers and assumptions of normality. The classified categorical variables were compared by using the cross-tabulated chi-squared test (with Yates and Fisher corrections when needed). Firstly, the distribution of the data was analyzed by the Kolmogorov-Smirnov method. As the data complied with normal distribution, paired-samples were analyzed by student's t-test. P-values of smaller than 0.05 were considered significant.

Results

The mean ages of the 117 cases that were included was found as 14.86±3.37. 54 of the cases (46.2%) were female, while 63 (53.8%) were male. In terms of attendance to school, 44 cases (37.6%) were not attending school, 67 (57.3%) were attending school, and 6 (5.1%) had not ever started school. There was no statistically significant difference between the males and the females in terms of past psychiatric treatment and family psychiatric history, while the number of hospitalizations and cases of multiple diagnoses were significantly higher among the males. Table 1 shows the comparison of cases in terms of their sociodemographic and clinical characteristics based on gender.

Table 1. Comparison of sociodemographic and clinical data in terms of gender

Parameters	Girl(n:54)	Boy(n:63)	test	p
Age(year)	15.01±3.21	14.73±3.51	t=-0.46	0.647
School Attendance				
Yes	35(%71.4)	32(%50.8.)		
No	16(%38.84)	28(%44.4)	x^2=2.73	0.255
Never started	3 (%6.1)	3 (%4.8)		
Past treatment	6 (%11.1)	12 (%19.0)	x^2=1.41	0.307
Number of hospitalizations	1 (%2.0)	8 (%15.4)	x^2=4.81	0.028
Family History	14 (%25.9)	19 (%30.2)	x^2=0.25	0.612
Number of Diagnoses				
No diagnosis	17 (%31.5)	17 (%27.0)		
One	25 (%46.3)	17 (%27.0)	x^2=12.48	0.014
Two	12 (%22.2)	19 (%30.2)		
More than two	0 (%0.0)	10 (%15.8)		

The most frequent reason for sending the cases for forensic examination was by 28.2% (n = 33) for "whether or not the capacity of perceiving the legal meaning and outcomes of the act and directing behaviors has developed by the on TCK 31" and for assessments regarding health precautions. Based on the genders of the cases, the girls were sent the most frequently for health precautions by 38.8% (n=19), while the boys were sent the most frequently for TCK 31 by 49% (n=24). While the girls were never requested to be examined based on TMK (Turkish Civil Code) 432, the boys were also not sent for assessment due to marriage. Table 2 shows the comparison of the forensic examination reasons of the cases based on their genders.

Regarding the diagnoses, 34 cases (29.1%) did not receive a diagnosis, 42 (35.9%) received only one diagnosis, and 41 (35.0%) received multiple diagnoses. The most frequently observed psychiatric diagnosis was "mental retardation" by 34.7% (n = 40). According to the mental limitations of the cases, 13 cases had "borderline mental retardation", 25 had "mild mental retardation", and 2 cases had "severe mental retardation" diagnoses. Table 3 shows the distribution of the diagnoses of the cases.

Table 2. Distribution of reasons for judicial evaluation by gender

Reasons for Judicial Evaluation	Girl n (%)	Boy n (%)	Test	p
Reputation to Declaration	2 (3.7)	0 (0.0)		
Mentally ill / weak	1 (1.9)	1 (1.6)	x^2=19.26	0.014
TPC 31	11 (20.4)	23 (36.5)		
TCC 432	0 (0.0)	8 (12.7)		
Marriage	3 (5.6)	0 (0.0)		
Health Precaution	19 (35.2)	14 (22.2)		
Psychiatric examination	7 (13.0)	10 (15.9)		
More than one	11 (20.4)	7 (11.1)		
TCC=Turkish Civil Code, TPC= Turkish Penal Code				

Table 3. Diagnostic distribution of cases

Diagnosis	n	%
Mental Retardation	40	34.7
Attention Deficit and Hyperactivity Disorder	25	21.4
Behavioral Disorder	17	14.5
Major Depressive Disorder	12	10.3
Conduct Disorder	10	8.5
Substance Use Disorder	10	8.5
Posttraumatic Stress Disorder	6	5.1
Acute Stress Disorder	3	2.6
Specific Learning Disorder	1	0.8
Reactive Attachment Disorder	1	0.8
Autism Spectrum Disorder	1	0.8
Psychiatric examination	7 (13.0)	10 (15.9)
More than one	11 (20.4)	7 (11.1)
TCC=Turkish Civil Code, TPC= Turkish Penal Code		

Discussion

This study investigated children and adolescents who applied to the forensic child and adolescent psychiatry polyclinic of an affiliated university hospital within two years. 53.8% of the entire sample and 67.7% of the 34 cases who were pushed to the crime were males. At the time of visitation, 66.3% were continuing their education (Table 1).

While the literature shows that most children who are pushed to crime are male [10,17] and adolescents [10,18,19], it reveals the highest frequency of committing the crime at the age range of 14-18 [6,10,18-20]. While there was no significant difference in age between the male and female cases in our study, the mean age was found as 14.86 ± 3.37, which was in agreement with the literature.

On the other hand, the male-female ratio, education statuses and reasons for forensic examination in the sample revealed different ratios to those in several regional studies that were understood to have been conducted with similar designs. 67.3% of the cases in this study were sent for health precautions and evaluation of understanding the legal meaning of the crime they committed.

In a study that examined cases that visited CAPP at Karadeniz Technical University, it was found that approximately 89% of the cases were sent for evaluation in terms of their understanding of the legal meaning of their crime, 91.7% were male, and 84% of all cases were students at the time of visitation [18].

In another study which retrospectively examined the mental disorder diagnoses, intelligence levels and sociodemographic characteristics of children and adolescents at the ages of 6-18 who were sent to the Child Psychiatry Polyclinic of Sakarya Research and Training Hospital for forensic reports, it was determined that 86.3% of the children pushed to crime were male, only 58.8% of the sample were continuing their educations that were suitable for their age, 81% of abuse cases and 100% of early marriage cases were female, and 62% of the abused children and only 15.4% of the early married ones could continue their education [14].

A study that retrospectively examined 4 years of file records of children and adolescents that were requested to be reported on in terms of criminal liability at the Department of Child and Adolescent Mental Health and Diseases at the Faculty of Medicine at Pamukkale University found that 91.3% of the cases were male, and the mean length of education of the children was found as 7.62±1.60 (0-10) years [12].

In a sample in Eskişehir consisting of children pushed to crime at the Forensic Medicine Branch Office, it was seen that 78.6% of the cases were male, and 9.5% had never had any education [19].

In a study that retrospectively examine the file data of 272 children and adolescents that were sent to the Department of Forensic Medicine and Child and Adolescent Mental Health and Disease at the Adnan Menderes University Hospital and CAPP at the Aydın State Hospital in 12 months for forensic report preparation, 57.7% of the cases were male, and 54% were found to be children pushed to crime. Being pushed to the crime was significantly more frequent among males while being victims of sexual abuse was significantly more frequent among females [20].

In studies conducted in Turkey some of which are reported above, it is seen that males have dominated the samples. However, in our sample, the males constituted only 53.8%. The ratios similar in this sense were reported only in one study that was carried out in the province of Aydın [20]. However, as the number of cases sent for assessment regarding sexual abuse was high in their sample, and females were dominant in this group, the dominance of males in number was not clear. In this study, on the other hand, no case was admitted about sexual abuse. For this reason, our results may indicate a significant regional difference.

According to the education data of TÜİK [21], as Bolu was among the provinces in Turkey with the highest net rates of schooling in the academic year of 2016-2017, the 66.3% continuation rate in education in our study may be relatively higher than other regions based on the province, and additionally, the noticeably low rate in comparison to the results of a study at KTU [1] may need to be interpreted as a regional difference that needs to be separately considered.

When the reasons for forensic applications were examined based on gender, no statistically significant difference was found (Table 2). While health precautions, marriage, and consideration of testimony were frequent among the assessment of the girls, being pushed to crime and psychiatric assessment reasons were higher among the boys. Another result of our study was that there was a significant difference between the genders in terms of multiple diagnoses and hospitalization. 8 of the 9 cases who were hospitalized due to psychiatric reasons were male. While there was no significant gender difference among the cases that did not have any diagnosis, the males were dominant among the ones that received multiple diagnoses. These two findings were in parallel with each other. This situation may also be linked with the finding that more male children were sent for assessment of being pushed to crime and psychiatric assessment.

Sexual assault is a sociological problem that affects individuals in all age groups, while several studies have shown that most children, especially adolescent girls and MR individuals are exposed to sexual assault [12,22-25]. In studies that have been conducted in Turkey, substantial differences in the range of 54.9-89% may be noticed in the ratios reported on the victimhood of sexual abuse. Based on reasons for forensic examination, while there was no case of sexual abuse in our study, there were only 3 cases related to assessment due to marriage, but as the diagnoses of dissociative disorder, acute stress disorder and posttraumatic stress disorder which are frequently associated with trauma constituted 16% of the group that received diagnoses, and in addition to this, as the most frequently encountered group among the ones that received diagnoses consisted of MR cases, this result should be investigated in detail. This situation may be related to that every unit works only with the cases that are directed to them, the fact that cases that were sent to Forensic Medicine were not included in the study or consultation was not requested for psychiatric assessment in these cases. In a study that was carried out by Emergency Medicine and Forensic Psychiatry Departments where forensic cases that visited the emergency services in 4-years were retrospectively examined, it was determined that traffic accidents, intoxication, assault-physical violence, and sexual abuse were more frequent in the 0-17 age group. Moreover, it was reported that the ratio of victims of sexual abuse under the age of 18 was lower than the literature [26]. When this result is evaluated together with the finding of no case in our study sent for assessment in terms of sexual abuse, it may be concluded that these cases are being directed to the Department of Forensic Medicine, and post-harassment examination has a lower prevalence in the province of Bolu.

However, whether the reason is the method of sample selection or that there were no forensic applications, neglection of sexual abuse cases is a highly significant issue in terms of mental health problems in the future.

The most frequently made diagnosis in the cases in this study was determined as “mental retardation” (MR). This was also different from the results of similar regional studies. A study in Sakarya reported lower rates of MR and the dominance of posttraumatic stress disorder (PTSD) [11]. However, the fact that there was no case application due to sexual abuse in our study may be determined in this sense.

In assessments at Pamukkale University with a similar design and by using WISC-R and clinical interviews, it was determined that 65.4% of the cases had a normal level of intelligence. 26.8% had borderline mental capacity, and 7.8% had MR [12]. These ratios were lower than the findings of our study. Although the combination of MR and crime, especially repeated crime, is a well-known situation [12,27,28], the high rates need to be considered as a regional difference in this sense. On the other hand, regional statistics on MR could not be accessed. Epidemiological studies to be conducted on this issue may prove significant in terms of rates of being pushed to crime.

This study also had some limitations. At first, our study was planned as a cross-sectional and retrospective study. Secondly, the psychiatric diagnoses of the cases were made clinically. Third, the cases were not categorized based on types of crime. It is believed that conducting prospective, longitudinal studies with semi-structured interviews and by separating types of crime on cases that arrive at the child and adolescent mental health and disease clinics for forensic assessment will be guiding for future studies. Despite the limitations of our study, our study emphasizes regional differences and the fact that both university and state hospital data are being evaluated are the strengths of the study.

Conclusion

Making such regional studies prevalent and determining differences based on provinces may contribute to more efficient and functional usage of resources. Moreover, in addition to contributing to rehabilitation programs to be organized after forensic assessments, this also carries significance in terms of determining the reasons that push especially children and adolescents to the crime before

a crime occurs. The combination of 'MR and children pushed to crime" in our region was noteworthy in terms of the results of the study. This result may provide a significant contribution in efforts to prevent being pushed to crime in the region. For this reason, the results of studies that cover all forensic assessment centers and rehabilitation institutions in different regions may provide significant contributions in this matter.

Competing interests
The authors declare that they have no competing interest.

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Ethical approval
This study was approved by the Institutional Ethics Committee and conducted in compliance with the ethical principles according to the Declaration of Helsinki.

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