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# A Nonrandom Sample of 55 Sexual Abuse Cases in Sivas

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**Background:** Sexual abuse in childhood is a significant public health problem because of the destructive results both to the individual and to the community. The aim of this study was to examine the sociodemographic characteristics of children who were victims of sexual abuse, the relationship of the victim and abuser, and the findings of sexual abuse.

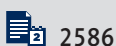
**Material/Methods:** An examination was made of the results of forensic medicine and psychiatric evaluations of child victims of sexual abuse. The sociodemographic characteristics of the cases and the characteristics of the incidents of sexual abuse were evaluated at the Forensic Medicine Department of Cumhuriyet University between 2013 and 2016.

**Results:** A total of 55 cases were included in the study, comprising eight males (14.5%) and 47 females (85.5%) in the age range of 5–17 years. The vast majority of the cases were high school students. The place of the abuse incident was the home of the victim or the perpetrator in 29 cases (52.7%). The sexual abuse was determined to be bodily penetration in 32 cases (58.1%). In 32 cases (58.1%), the perpetrator was known to the victim.

**Conclusions:** The study findings that the perpetrator of the sexual abuse was known to the child, that predominantly female children were attacked, and the low sociocultural level of the cases were consistent with other studies reported in the literature. To prevent sexual abuse of children, to make an early diagnosis, and to provide rehabilitation for the abused children, it is essential that the evaluations of these cases are made using a professional multidisciplinary approach.

**MeSH Keywords:** **Child Abuse, Sexual • Crime Victims • Forensic Medicine**

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## Background

Conditions of violence that affect the mental and physical health and the social life of a child are defined as child abuse and neglect by the World Health Organization (WHO) [1]. In the Child Abuse Report (2011), it was revealed that 9.1 out of 1,000 children in the USA are exposed to at least one form of child abuse and neglect [2].

Studies on child abuse and related health problems have focused on four types of child abuse. These are physical abuse, sexual abuse, neglect, and maltreatment [3]. Child sexual abuse is the most important and the most frequently seen type of child abuse and neglect [4]. Sexual abuse in childhood is a significant public health problem because of the destructive results both to the individual and to the community [5]. Sexual abuse has negative effects on the psychological, social, and cognitive development of children and can occur in all age groups; it can occur in societies with different cultural and socioeconomic conditions. When the outcomes are taken into consideration, sexual abuse can leave deep scars on the mental and physical health and the social life of a child [6].

Sexual abuse is defined as the sexual acts committed by an adult to the child. [7] Although child abuse is sometimes described differently by researchers according to the way it occurs [7], the term refers to the action of unwanted activity of an adult to a child to gratify their sexual desire which is inappropriate to the child and is potentially repeated and kept hidden for a long time [8]. In cases of child sexual abuse, factors such as an authority-dependent relationship between the offender and the child, excessive age difference between the victim and offender, and violence or threats during abuse are quite often [9].

Child sexual abuse is thought to have a history as long as that of humankind [10]. Although cases of child sexual abuse were reported in the 1970s, awareness of child sexual abuse increased in the 1980s and the number of studies conducted has increased [11–13]. Awareness of child sexual abuse is increasing in social and individual areas due to studies conducted for more than a quarter of a century [10]. However, it is thought that there are still child sexual abuse cases that remain hidden because of the influence of regional sociocultural factors and fear and hesitation regarding applying legal procedures [6,14,15].

Studies about child sexual abuse focused on the topics of determination of victims, examination and evaluation processes of victims [9], and sociodemographic data of victims and offenders [14,16,17], negative effects of sexual abuse on mental and physical health of children [7,18–20], rehabilitation of victims and policies about prevention of sexual abuse [15,21].

Knowledge of the characteristics of sexual abuse and sociodemographic data of victims and offenders is important for understanding the clinical effects of child sexual abuse [10]. The aim of this study was to determine the characteristics of the sexually abused, the victims, and the offenders using cases sent to the Forensic Medicine Department of Cumhuriyet University between 2013–2016, and to also attract the attention of professionals to child sexual abuse cases identified in a region which has a conservative socio-cultural structure.

## Material and Methods

A retrospective analysis of the results of the forensic and psychiatric evaluations of a nonrandom sample of 55 child sexual abuse victims was performed. Age and gender characteristics of the victims sent to the Forensic Medicine Department of Cumhuriyet University between 2013 and 2016, as well as sociodemographic data, characteristics of the incidents, and forensic and psychiatric findings of child sexual abuse were evaluated.

## Results

This study was performed in Sivas which is located in Central Anatolia and has an average population of around 620,000. The victims of sexual abuse in our territory are transferred to Cumhuriyet University Department of Forensic Medicine by legal authorities for examination purposes. The examination and rehabilitation of the victims is carried out with a multidisciplinary point of view.

A total of 55 cases were included in the study, comprising eight males (14.5%) and 47 females (85.5%); the age range was 5–17 years. When the distribution of the years of referral were examined, most cases were seen in 2013 (n=17, 30.9%) and in 2015 (n=18, 32.7%). Of the 53 cases where the education level was known, 28 cases (50.9%) were high school students (Table 1). When we looked at the settlements where the victims lived, we found that 35 cases (63.8%) lived in the city center and 20 cases (36.2%) lived in counties and villages.

When the relationship of the perpetrator to the victim was examined, the data was not available in three cases (5.45%), the perpetrator was the father or stepfather in two cases (3.63%), a relative in two cases (3.63%), a friend or boyfriend in 26 cases (47.2%), an acquaintance in 12 cases (21.8%), and was unknown to the victim in seven cases (12.7%), and was a common-law spouse in three cases (5.45%) (Table 2).

With respect to determining the place of the incident, there was insufficient information in 10 cases (18.1%), it was reported

**Table 1.** The education levels of the sexual abuse victims.

Education level	Number	Percentage (%)
Unknown	2	3.63
Illiterate	4	7.27
Primary school	18	32.7
High school	28	50.9
Finished high school	2	3.63
Special education	1	1.81
Total	55	

**Table 2.** The relationship of the perpetrator to the victim.

Relationship of the perpetrator	Number	Perpetrator (%)
Data unknown	3	5.45
Father/stepfather	2	3.63
Relative	2	3.63
Friend	26	47.2
Acquaintance	12	21.8
Common-law husband	3	5.45
Unknown to the victim	7	12.7
Total	55	

to be a house in 29 cases (52.7%), and a field or open area in eight cases (14.5%) (Table 3). When the nature of the sexual abuse was examined; it was not fully stated in seven cases (12.7%). Of the remaining 48 cases, six cases (10.9%) stated verbal pressure for sexual abuse intervention but their body had not been violated; in 10 cases (18.1%) the abuse was in the form of touching, kissing, and rubbing; in six cases (10.9%) there was anal penetration; in 19 cases (34.5%) there was vaginal penetration; and in seven cases (12.7%) there was anal and vaginal penetration (Table 4). The sexual abuse was repeated in 22 cases (40%). In 26 cases (47.2%) the sexual abuse was accompanied by physical violence. In one case (1.81%) a volatile organic substance was used during the abuse and in one case (1.81%) alcohol was used. In 23 cases (41.8%) the victim was threatened. There was more than one perpetrator in eight cases (14.5%) (Table 4).

In the evaluation of the mental status of victims, in five cases (9%) there was a determination of mild mental retardation. As a result of the psychiatric evaluation, post-traumatic stress disorder (PTSD) + depression was determined in two cases (3.6%), acute stress disorder in one case (1.8%), and attention deficit and hyperactivity disorder in one case (1.8%).

**Table 3.** The place of the incident.

Place of the incident	Number	Percentage (%)
Unknown	10	18.1
House	29	52.7
Field – open area	8	14.5
Car – school service bus	3	5.45
School	3	5.45
Barn – garage	2	3.63
Total	55	

**Table 4.** Characteristics of the sexual abuse.

Nature of the sexual abuse	Number	Percentage (%)
Unknown	7	12.7
Verbal	6	10.9
Touching, kissing, rubbing	10	18.1
Anal penetration	6	10.9
Vaginal penetration	19	34.5
Anal + vaginal penetration	7	12.7
Total	55	

In the genital examination of 46 cases, there was an old tear of the hymen in 12 cases (21.8%), and findings of acute sexual abuse were seen in three cases (5.4%). In the anal examination of 53 cases, findings of frequent male-male anal intercourse were determined in two cases (3.63%). In the microbiological examination of smears taken from the anal and genital area of 22 cases, the presence of sperm was detected in two cases (3.63%). On presentation at the hospital, one case (1.81%) was determined to be pregnant.

## Discussion

The awareness of child sexual abuse in western countries increased in earlier time periods, however, awareness in undeveloped or developing countries such as our country dates back to the mid-1990s [10]. For approximately two decades, studies have been conducted in regions with different geographical and socio-cultural characteristics of our country, and the characteristic features and clinical features of cases of sexual abuse have been researched, with an aimed to draw attention to the issue throughout the country [10,22–29].

**Table 5.** Age and gender distributions of cases of child sexual abuse in studies conducted in Turkey.

	Year	Number	Female (n)	Male (n)	Age (years)
Karakaya et al. [11]	2003–2005	21	12	9	4–16
Bahali et al. [5]	2001–2007	101	57	44	4–17
Özer et al. [14]	2006–2007	11	9	2	7–16
Demirci et al. [15]	2005–2007	275	214	61	4–18
Ceylan et al. [16]	2008–2009	8	3	5	5–15
Aydın et al. [13]	2006–2012	1002	810	192	2–17

Our study was carried out in the province of Sivas in Central Anatolia. Sivas is a city with an average population of 620,000 and an average of 22% of the population is composed of individuals less than 18 years of age. Sivas (2.768 km<sup>2</sup>), Turkey's second largest city, has many counties. The general population livelihood is agriculture and animal husbandry. The city has many different cultures living together and a conservative society structure.

Child abuse is a crime that can be seen in many different populations. Various risk factors have been reported to help identify children who may be victims of abuse [30,31].

Female gender of the victim and mental or physical disability are among the risk factors for sexual abuse of children [27]. In the literature, the female/male ratio of child sexual abuse has been reported as approximately 1.5/3 [32]. The differences obtained in gender ratios can be said to be due to differences in the number of cases included in a study and the different interview methods used in a study [32].

Research in different countries has suggested that the majority of cases are aged 5–14 years old [33]. In research conducted in Turkey in recent years, there has been an increase in the number of cases reported [10,23,24,27,33]. This has been attributed to an increased awareness in society about child sexual abuse. In our current study, no difference was seen with respect to age and gender compared to previous published studies (Table 5).

From the data obtained in the current study, the majority of the abusers were a friend, a relative, or a person known to the child such as a tradesman. Therefore, this can be interpreted as the child at risk of sexual abuse from those in their own environment of home, friends, and school. In another study in Turkey, the rate of abusers unknown to the child was high, but this was associated with cases being kept secret when the abuser was known to the child [28].

In two of the current study cases, the abuser was the father or stepfather of the victim. This type of child sexual abuse is incest and has been defined as an “Urgent Secret Problem of

Public Health” by the WHO [34]. In a study in Turkey of patients who presented at the emergency department with a history of incest, it was reported that two-thirds were below the age of 18 years [35]. Tokat is a neighboring province to Sivas where the current study was conducted, and has similar sociocultural characteristics. In a previous study of 43 cases of incest in Tokat, 69.8% were under the age of 18 years and the majority of cases were educated to a primary school level [36]. Studies in the literature have shown that incest has a tendency to be kept secret, it is extremely destructive in nature, and is one of the most difficult types of abuse to expose [35,36].

During the medical examination of a child who has experienced sexual abuse it is very important to be able to obtain biological evidence and to provide healthcare for the victim [8]. It may be necessary to conduct further examinations and investigations for individuals who are pregnant or who have a sexually transmitted disease because of sexual abuse [22,37]. In the microbiological examinations of the smears taken in the genital and anal examinations of the cases in the current study, sperm was determined in two cases; when a pregnancy test was applied, one case was determined to be pregnant.

In sexual abuse cases with a history of penetration, the determination of physical findings may need the help of professionals to interpret the violence of the abuse. However, if no physical findings are determined, it should not be interpreted as abuse not having occurred [38]. In the cases of the current study, physical findings were determined in the examination of the genital region of 40 cases, old findings were determined in the hymen of 12 cases, acute trauma findings in three cases, and findings of chronic abuse in the anal region examination were found in two cases.

The presence of mental problems in a child is a significant risk factor for sexual abuse. It has been reported that as children with mental retardation have limited capabilities to understand and comment on abuse, they become targets for abuse [39]. In the evaluations of the cases in our current study, mild mental retardation was determined in five cases.

Another significant problem in Turkey is the marriage of children at a young age. Forced marriages of children under the age of 18 years through family pressure clearly make the child more vulnerable to physical, emotional, and sexual abuse. In three of the cases in our current study, the abuser was the person the victim had been forced to marry, and in these cases the sexual abuse was accompanied by physical abuse. In a previous study in Turkey which examined 163 pregnant children who had been married at an early age, it was reported that problems related to both the pregnancy and trauma experienced by the child were more severe [40].

Psychological problems such as anxiety, sexual dysfunction, depression, and suicidal thoughts can occur in children who have been sexually abused over short and long periods. It has been reported that severe psychological disorders might be seen especially in domestic abuse cases, cases of long-term abuse, and cases accompanied by violence [41–43]. As a result of the psychiatric evaluation in our current study, PTSD and depression were determined in two cases and acute stress reaction in one case. Close psychiatric follow-up is recommended for child victims of sexual abuse, especially throughout the process of puberty [8,27].

In our study, it was determined that one third of the cases lived in the counties and villages. Taking into account the low educational level and sociocultural characteristics of the region, this situation is considered to be a preliminary factor in the occurrence of sexual abuse. It has been reported that it might be difficult to determine child sexual abuse cases which happened in rural areas [44].

In Article 103 of the Turkish Penal Code, which determines the punishment for sexual exploitation of the child in our country, sexual abuse refers to all kinds of sexual behavior against

children who are younger than 15 years or who are 15 years or older but without the ability to perceive the legal meaning and consequences of the sexual act, and sexual behavior against a child on the basis of another cause affecting threat, fraud, or will. Punishment must be increased where the act of sexual exploitation is through penetration of the body and the victim is under 12 years of age. Penalty aggravated factors are mentioned as follows that sexual abuse by more than one person, abuse occurring in places where people live in public spaces, abuse by persons such as guardians, educators, or public officials, or a person who has a kinship with the child [45].

The limitations of our study are that the number of cases is low due to the inadequate registration of sociodemographic data in our cases and the fact that the cases are largely kept secret due to the sociocultural and conservative structure of our region, and that data about cases of forensic processes cannot be accessed.

## Conclusions

The sexual abuse of children, which may be encountered in all sociocultural environments of society, is a public health problem as it has significant negative effects on both the individual and the community. There are difficulties with detecting and reporting sexual abuse cases especially by regional sociocultural and social factors. In order to determine occurrence of cases and allow for rehabilitation of cases of child sexual abuse, as well as to be able to prevent child sexual abuse and to be able to identify children at risk, there must be increased awareness of this subject by professionals and a multidisciplinary approach to these cases must be developed. Regional social and cultural factors should also be considered during the assessment of cases of sexual abuse.

## References:

- Runyan D, Wattam C, Ikeda R et al: Child abuse and neglect by parents and other caregivers. 2002
- U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2012). Child Maltreatment 2011; 1–251
- Higgins DJ, McCabe MP: Multiple forms of child abuse and neglect: Adult retrospective reports. *Aggress Violent Behav*, 2001; 6(6): 547–78
- [http://www.who.int/topics/child\\_abuse/en/](http://www.who.int/topics/child_abuse/en/). (cited 10.06.2015); Available from
- McCann J, Rosas A, Boos S: Child and adolescent sexual assaults (childhood sexual abuse). *Forensic medicine: Clinical and Pathological Aspects*, 2003; 453–68
- Veenema TG, Thornton CP, Corley A: The public health crisis of child sexual abuse in low and middle income countries: An integrative review of the literature. *Int J Nurs Stud*, 2015; 52(4): 864–81
- Trickett PK, McBride-Chang C: The developmental impact of different forms of child abuse and neglect. *Dev Rev*, 1995; 15(3): 311–37
- Moreno AS: Age differences among victims of sexual assault: A comparison between children, adolescents and adults. *J Forensic Leg Med*, 2013; 20(5): 465–70
- Finkelhor D: *Child sexual abuse*. New York, 1984
- Bahali K, Akçan R, Tahiroglu AY, Avci A: Child sexual abuse: Seven years in practice. *J Forensic Sci*, 2010. 55(3): 633–36
- Aber JL, Allen JP: Effects of maltreatment on young children's socioemotional development: An attachment theory perspective. *Dev Psychol*, 1987; 23(3): 406
- Ammerman RT, Cassisi JE, Hersen M, Van Hasselt VB: Consequences of physical abuse and neglect in children. *Clinical Psychology Review*, 1986; 6(4): 291–310
- Barahal RM, Waterman J, Martin HP: The social cognitive development of abused children. *J Consult Clin Psychol*, 1981; 49(4): 508–16
- Nurcombe B: Child sexual abuse I: psychopathology. *Aust N Z J Psychiatry*, 2000; 34(1): 85–91
- Putnam FW: Ten-year research update review: Child sexual abuse. *J Am Acad Child Adolesc Psychiatry*. 2003 Mar;42(3):269-78.

16. Gold SN, Hyman SM, Andrés-Hyman RC: Family of origin environments in two clinical samples of survivors of intra-familial, extra-familial, and both types of sexual abuse. *Child Abuse Negl*, 2004; 28(11): 1199–212
17. Langan PA, Harlow CW: Child rape victims, 1992. 1994: US Department of Justice, Office of Justice Programs, Bureau of Justice Statistics
18. Finkelhor D: The international epidemiology of child sexual abuse. *Child Abuse Negl*, 1994; 18(5): 409–17
19. Rind B, Tromovitch P, Bauserman R: A meta-analytic examination of assumed properties of child sexual abuse using college samples. *American Psychological Association*, 1998
20. Rowan AB, Foy DW: Post-traumatic stress disorder in child sexual abuse survivors: A literature review. *Journal of Traumatic Stress*, 1993; 6(1): 3–20
21. Lalor K, McElvane R: Child sexual abuse, links to later sexual exploitation/high-risk sexual behavior, and prevention/treatment programs. *Trauma Violence Abuse*, 2010; 11(4): 159–77
22. Aktepe E: Childhood sexual abuse. *Current Approaches in Psychiatry*, 2009; 1: 95–119
23. Aydin B, Akbas S, Turla A et al: Child sexual abuse in Turkey: An analysis of 1002 cases. *J Forensic Sci*, 2015; 60(1): 61–65
24. Ceylan A, Tuncer O, Melek M et al: Sexual abuse of children in the Van region. *Van Medical Journal*, 2009; 16(4): 131–34
25. Demirci Ş, Dogan HK, Erkol Z, Deniz I: Evaluation of child cases examined for sexual abuse in Konya. *Türkiye Klinikleri Journal of Forensic Medicine*, 2008; 5(2): 43
26. Kara B, Biçer Ü, Gökalp AS: Child abuse. *Turkish Pediatric Journal*, 2004; 47(2): 140–51
27. Karakaya I, Coşkun A, Ağaoğlu B et al: Psychological evaluation results in patients confronted with sexual abuse. *The Bulletin of Legal Medicine*, 2006; 11(2): 53–58
28. Owayolu N, Uçan Ö, Serindağ S: Abuse in child and its effects. *Firat Healthcare Journal*, 2007; 2(4): 13–22
29. Özer E et al: The evaluation of the children confronted with sexual abuse at Çorum chairmanship of the council of forensic medicine in the period of 2006–2007. *CÜ Tıp Fakültesi Derg*, 2007; 29(2): 51–55
30. Davies EA, Jones AC: Risk factors in child sexual abuse. *J Forensic Leg Med*, 2013; 20(3): 146–50
31. Finkelhor D, Baron L: Risk factors for child sexual abuse. *Journal of Interpersonal Violence*, 1986; 1(1): 43–71
32. Watts C, Zimmerman C: Violence against women: global scope and magnitude. *Lancet*, 2002; 359(9313): 1232–37
33. Rehm J et al: Comparative quantification of health risks. Global and regional burden of disease attributable to selected major risk factors, 2004.
34. Gomes V, Jardim P, Taveira F et al: Alleged biological father incest: A forensic approach. *J Forensic Sci*, 2014; 59(1): 255–59
35. Yildirim A, Ozer E, Bozkurt H et al: Evaluation of social and demographic characteristics of incest cases in a university hospital in Turkey. *Med Sci Monit*, 2014; 20: 693–97
36. Ozer E Erdoğan Taycan S, Yildirim A et al: Sexual abuse and assault victims; Comparing the characteristics of adolescent and adult victims. *Biomedical Research*, 2016. 27(4): 1152–56
37. Siegel RM, Schubert CJ, Myers PA, Shapiro RA: The prevalence of sexually transmitted diseases in children and adolescents evaluated for sexual abuse in Cincinnati: Rationale for limited STD testing in prepubertal girls. *Pediatrics*, 1995; 96(6): 1090–94
38. Modelli ME, Galvão MF, Pratesi R: Child sexual abuse. *Forensic Sci Int*, 2012; 217(1): 1–4
39. Tharinger D, Horton CB, Millea S: Sexual abuse and exploitation of children and adults with mental retardation and other handicaps. *Child Abuse Negl*, 1990; 14(3): 301–12
40. Ozer E, Nacar MC, Yildirim A et al: Underage mothers in Turkey. *Med Sci Monit*, 2014; 20: 582–86
41. Beitchman JH, Zucker KJ, Hood JE et al: A review of the short-term effects of child sexual abuse. *Child Abuse Negl*, 1991; 15(4): 537–56
42. Beitchman JH, Zucker KJ, Hood JE et al: A review of the long-term effects of child sexual abuse. *Child Abuse Negl*, 1992; 16(1): 101–18
43. Browne A, Finkelhor D: Impact of child sexual abuse: A review of the research. *Psychol Bull*, 1986; 99(1): 66–77
44. Yen CF, Yang MS, Yang MJ et al: Childhood physical and sexual abuse: Prevalence and correlates among adolescents living in rural Taiwan. *Child Abuse Negl*, 2008; 32(3): 429–38
45. Turkish Penal Code. (TCK). (2004). Turkish penal code. September 26. Retrieved from <http://www.tbmm.gov.tr/kanunlar/k5237.html>