JOURNAL OF FORENSIC SCIENCES

J Forensic Sci, May 2010, Vol. 55, No. 3
doi: 10.1111/j.1556-4029.2010.01357.x
Available online at: interscience.wiley.com

PAPER

GNERAL; PSYCHIATRY

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Child Sexual Abuse: Seven Years in Practice

ABSTRACT: The purpose of this study was to determine the socio-demographic characteristics of sexually abused children. The records of 101 cases of child sexual abuse (CSA) were retrospectively evaluated. Socio-demographic characteristics of the victims, type of sexual abuse, and psychiatric diagnosis were studied. Of the victims, 56.4% (n = 57) were female and 43.6% (n = 44) were male. The mean age was 9.57 ± 3.5, with a range of 4–17 years. Ninety-three (92.1%) of the victims had been admitted as part of the legal process. The majority (66.3%) of the victims had been abused by an acquaintance, while 33.7% had been abused by a stranger. Anal or vaginal penetration was reported in 48.5% of the cases. Post-traumatic stress disorder was the most common (54.5%) psychiatric diagnosis established after sexual abuse. Descriptive data related to the abused children and an understanding of the consequences of CSA will help authorities in planning prevention.

KEYWORDS: forensic science, child abuse, sexual abuse, psychiatry, psychopathology, Turkey

Child sexual abuse (CSA) is not a recent problem. Societies have been witnessing this form of abuse since ancient Roman times. The ancient Greeks sold boys as sex slaves, and girls during the Renaissance were imprisoned for seducing older men. Later on, Freud recognized and retraced his hypothesis that many of his women patients' illnesses were related to their having been sexually abused in childhood (1). Although child abuse and neglect have been recognized as an important public health problem since the 1960s, it was only in the 1980s that "CSA" was identified as a problem in Western societies (1,2). Until the 1970s, CSA had rarely been reported. However, reporting of CSA has increased significantly in the last three decades because of a growing awareness among professionals, the public, and the media.

Certain studies have revealed that the overall incidence of child abuse has also increased. In the United States of America, of all the substantiated cases of child abuse, about 15% (150,000) per year (2.4/1000 children) were related to sexual abuse, and 50% of these involved genital penetration. However, the number of unreported cases is far greater because most children are afraid to disclose sexual abuse, and the legal procedures for validating an episode are very stressful and complicated (3–6).

There have been a number of studies concerned with the psychiatric effects of CSA. Some focus on disorders and reactions that appear in childhood, while others aim to determine the repercussions of CSA in adulthood. Furthermore, many studies have stated that CSA is linked to a number of psychiatric disorders and maladaptive lifestyles in both age groups (3–5,7,8). The type and severity of sexual abuse, the age and gender of the child, the age and gender of the perpetrator, the relationship between child and perpetrator, accompanying physical abuse, and the number, frequency, and duration of the episodes of abuse all appear to influence the outcomes (4,9–12). In this study, it was aimed to determine the socio-demographic characteristics of sexually abused children in our region, to evaluate clinical outcomes in these cases, and to increase public awareness of this issue.

Method

The records of Cukurova University School of Medicine, Department of Child and Adolescence Psychiatry, between the years of 2001 and 2007, were used. One hundred and one (n = 101) sexually abused children aged between 4 and 17 were included in the scope of the study. The cases were analyzed with regard to age, gender, socio-demographic characteristics, abusive act, relationship with the abuser, and psychiatric diagnosis. Psychiatric disorders were diagnosed by child psychiatrists, based on the DSM-IV (APA 1994) criteria.

Results

Of the 101 victims, 93 (92.1%) had been admitted as a part of the legal process for their mental health to be evaluated, while five, whose cases were afterwards reported to the authorities for the purpose of prosecution, had presented with their families for psychiatric evaluation and support. Of the victims, 43.6% (n = 44) were male and 56.4% (n = 57) were female, with a female to male ratio of 1:3. Their mean age was 9.6 ± 3.5, with an age range of 4-17. The majority of the victims (64.5%) were of primary school age, followed by those of preschool (30.1%) and high school age (5.4%). Socio-demographic characteristics of the victims, parents, and families are presented in Tables 1 and 2.

An overwhelming majority (66.3%) of the victims had been abused by someone they knew and trusted (acquaintance), while 33.7% had been abused by a stranger. Sexual abuse was reported to include anal (in 34 cases) or vaginal (in 15 cases) penetration in 48.5% of the cases. Other types of abusive acts included fondling

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Received 23 Aug. 2008; and in revised form 23 Mar. 2009; accepted 1 April 2009.

TABLE 1—*Socio-demographic characteristics of the victims.*

Properties	Gender (victims)		
	Male (%)	Female (%)	Total (%)
Age groups (years)			
4–7	43.2	28.1	34.7
8–11	40.9	33.3	36.6
≥12	15.9	38.6	28.7
Victims' educational status			
Preschool	29.3	30.8	30.1
Primary school	65.9	63.5	64.5
High school	4.9	5.8	5.4
Accompanying physical abuse to victims	38.5	26.7	32.1
Family status			
Nuclear family	87.2	72.3	79.1
Divorced	5.1	12.8	9.3
Separated	7.7	14.9	11.6
Number of children in family			
1	38.5	31.3	34.5
2	17.9	27.1	23.0
3	15.4	16.7	16.1
4	12.8	12.5	12.6
5	7.7	6.3	6.9
6–11	7.8	6.3	6.7
Presence of psychiatric disorders in the nuclear family members	7.9	7.0	7.4
Kinship marriage (parents)*			
Yes	35.0	31.9	33.3
No	65.0	68.1	66.7

*Kinship marriage: Parents are generally 3rd degree relatives, as a cultural issue.

TABLE 2—*Socio-demographic details of parents.*

	Parents	
	Mother (%)	Father (%)
Educational status		
Illiterate	31.3	12.8
Basic reading writing skills	1.2	3.5
Primary school	43.4	51.2
High school	19.3	26.7
University	4.8	5.9
Age groups (years)		
20–30	29.8	9.6
31–40	46.4	41
41–50	22.6	28.9
51–60	1.2	16.9
61–70	–	3.6
Occupation		
None	90.8 (housewife)	8.1
Laborer	0	17.4
Official	3.4	11.7
Self-employed	4.6	58.1
Retired	1.2	4.7
History of psychiatric problems		
Yes	13	9.6
No	87	90.4

of the genitals in 28.9%, touching in 19.6%, verbal sexual harassment in 2.1%, and use of pornographic material in 1% of the cases. The relationship between the victims and abusers is shown in Table 3, while the distribution of victims with respect to types of abusive acts and places of abuse is presented in Table 4.

The most common psychiatric diagnosis established after sexual abuse was post-traumatic stress disorder, which was present in 54.5% of the cases, followed by mental retardation (which is probably a risk factor rather than a consequence of abuse) in 23.9% and

TABLE 3—*The relationship between victims and abusers.*

Abuser*	Gender (victims)		
	Male (*n*)	Female (*n*)	Total (*n*) (%)
Family member			
Father†	2	8	10 (10.2%)
Elder brother	1	2	3 (3%)
Grand father	0	1	1 (1.1%)
Uncle	1	2	3 (3%)
Cousin	4	4	8 (8.2%)
Acquaintance (out of family)	17	23	40 (40.8%)
Stranger	17	16	33 (33.7%)

*Abuser is not known in three cases.
†None of them was stepfather.

TABLE 4—*The distribution of victims with respect to type and place of abusive act.*

	Gender (victims)		
	Male (%)	Female (%)	Total (%)
Type of abusive acts			
Verbal harassment	2.4	1.8	2.1
Touching	2.4	32.1	19.6
Fondling of genitals	24.4	32.1	28.9
Penetration	68.3	33.9	48.5
Pornographic material use	2.4	0	1.0
Place of abuse			
Victim's house	7.7	24.5	17.4
Abuser's place	28.2	35.8	32.6
Outside	64.1	39.6	50.0

acute stress disorder in 16.8% of the cases. Although 19.8% of cases were found to be asymptomatic, more than one psychiatric disorder had been diagnosed in 33.6%. Psychiatric disorders diagnosed in the victims and a comparison to the same age group in the general Turkish population is shown in Table 5. The relationship between abusive acts and psychiatric diagnosis in the victims is shown in Table 6.

Discussion

In Turkey, as in most eastern underdeveloped or developing countries, CSA has been neglected up to the mid-1990s. As an adopted model, North American experience has guided professionals in Turkey about dealing with CSA cases. Following the recognition of this issue, campaigns were formed to tackle CSA. Turkey, a speedy developing country, endeavours to reach the standards of the developed world by solving such social problems. In this respect, lots of studies are being performed locally, yet the publications presenting this issue to the world literature remain very rare.

This study was performed in the Cukurova region, which is located in the south of Turkey, along the Mediterranean coast. The region has four big cities. It has a population of over 4.5 million and has been receiving a significant influx of migrants from rural areas. Problems accompanying migration and socio-economic deprivation increase incidents of violence and all types of abuse.

A group of risk factors including age, gender, physical or mental disabilities, and socio-economic status have been reported to have considerable effects in CSA. A study carried out in the United States of America revealed that 96% of the reported child rape victims were under the age of 12, and children aged 8–12 were found

to be most vulnerable to CSA (13). Putnam stated that *c.* 10% of victims are under 3 years of age, while this rate almost triples (28.4%) between the ages of 4 and 7. Victims aged 8–11 comprise a quarter (25.5%) of the cases, and children 12 years or older account for the remaining three-quarters (35.9%) of cases (3). Consistent with this, in our study, 71.3% of the victims were under the age of 12, while 36.6% were between 8 and 11 years. In contrast to the literature, no victims were under the age of 4. This finding may be because of the fact that children in the 0–4 age group are unable to explain the incident or comprehend abusive acts.

A review of the literature reveals that females are at about 1.5–3 times higher risk than males, although males are more likely than girls to be abused by perpetrators from outside the family (3,14,15). Parallel with the literature, the female to male ratio was 1:3 in our study. Furthermore, the present study indicates that 92.3% of males were abused by perpetrators from outside the family, while this proportion was 75.5% in female victims.

Most often, CSA victims are abused by a unrelated acquaintance, such as a friend of the family, babysitter, or neighbor (3,14,16). Previous studies have revealed that the abuser was a stranger in 10–15% of cases, a relative in 30–38%, and an unrelated acquaintance in 46–60% (16,17). Of all the abusers in our study, 40.8% were unrelated acquaintances, consistent with the results reported by Anderson et al. (17). However, the proportion of cases in which the perpetrator was a stranger was considerably higher (33.7%) compared to the literature, while the proportion in which a relative (family member) was the perpetrator was lower (25.5%). These findings indicate that CSA committed by family members and known individuals is more likely to be disclosed.

Genital penetration is a factor that worsens the severity of CSA (14). In the literature, the prevalence of penetration in CSA is reported to vary between 0.8% and 31.9% (17,18). The rate of genital penetration was 48.5% in our study, which was significantly higher than that in similar studies. The frequency of post-traumatic stress disorder increased in parallel to an increasing rate of genital penetration. At present, there is no national child abuse prevention program in Turkey. Medical professionals are obliged to report cases of sexual abuse to Public Prosecutor Offices but not to child protective services, which are not common and not adequately functional in this country (19,20). Punishment for sexual abuse is significantly increased if the victim's mental health is impaired, according to the Turkish Penal Code. Thus, victims of severe abusive acts such as genital penetration are sent for psychiatric evaluation and medical support. The high rate of genital penetration in our study may have been because of the victims' being admitted as part of the legal process.

Risk factors for CSA include family constellation, presence of a stepfather in the home, family conflicts, economic problems, physical or mental disability in the child, living apart from both biological parents, mental illness, alcohol or drug abuse in the family, a parent who was physically or sexually abused as a child, and the occurrence of other forms of abuse in the home (3,15,21–23). Consistent with this, 23.9% of the victims were mentally retarded and 20.9% had separated or divorced parents. Furthermore, a history of mental illness in nuclear family members and physically abusive acts was recorded in 7.4% and 32.1% of families, respectively. CSA was higher in parents with a lower level of education. Interestingly, CSA was less common in families with larger numbers of children.

A review of the literature revealed that psychological and behavioural outcomes of CSA that are manifested in the short term include impulsive behavior (aggressiveness, hostility), emotional distress (anxiety, fear, and somatic complaints), low self-esteem,

TABLE 5—*Psychiatric disorders diagnosed in the victims and its comparison to the same age group in the Turkish population.*

Psychiatric Disorders	Victims (%)	General Population (%)
Post-traumatic stress disorder (PTSD)	54.5	1–14
Acute stress disorder (ASD)	16.8	5–6
Mental retardation (MR)	23.9	1–3
Depression (Dpr)	7.9	5
Conduct disorder (CD)	2.0	0.15–5
Enuresis nocturna (EN)	2.0	8–20*

*Under the age of 12.

TABLE 6—*The relationship between abusive acts and psychiatric diagnosis in victims.*

	Psychiatric Diagnosis						
	None	PTSD	ASD	Dpr	MR	CD	Total
Abusive acts							
Verbal harassment (*n*)	0	1	1	0	0	0	2
% within abusive act	0%	50.0%	50.0%	0%	0%	0%	100.0%
% within diagnosis	0%	1.9%	5.9%	0%	0%	0%	2.1%
Touching (*n*)	6	8	4	0	1	0	19
% within abusive act	31.6%	42.1%	21.1%	0%	5.3%	0%	100.0%
% within diagnosis	30.0%	15.4%	23.5%	0%	20.0%	0%	19.6%
Fondling of genitals (*n*)	5	17	3	0	2	1	28
% within abusive act	17.9%	60.7%	10.7%	0%	7.1%	0%	100.0%
% within diagnosis	25.0%	32.7%	17.6%	0%	40.0%	0%	28.9%
Penetration (*n*)	8	26	9	1	2	1	47
% within abusive act	17.0%	55.3%	19.1%	2.1%	4.3%	2.1%	100.0%
% within diagnosis	40.0%	50.0%	52.9%	100.0%	40.0%	100.0%	48.5%
Pornographic material use (*n*)	1	0	0	0	0	0	1
% within abusive act	100.0%	0%	0%	0%	0%	0%	100.0%
% within diagnosis	5.0%	0%	0%	0%	0%	0%	1.0%
Total (*n*)	20	52	17	1	5	2	97
% within abusive act	20.6%	53.6%	17.5%	1.0%	5.2%	2.0%	100.0%
% within diagnosis	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

PTSD, post-traumatic stress disorder; ASD, acute stress disorder; Dpr, depression; MR, mental retardation (which is a risk factor, not a consequence of abuse); CD, conversion disorder.

dissociative symptoms (amnesia, forgetfulness, dreaming, multiple personality disorder, and fainting), and conversion disorder. The long-term consequences of CSA are post-traumatic stress disorder, depressive disorder, sexual dysfunction, borderline personality disorder, somatization, eating disorders, self-destructive or suicidal behavior, repeated victimization, criminal behavior, substance abuse and prostitution (3–5,7,8,15). The most common psychiatric diagnosis associated with sexual abuse in our study was post-traumatic stress disorder (54.5% of cases), followed by acute stress disorder (16.8%) and depression (7.9%). The frequencies of post-traumatic stress disorder, acute stress disorder, and depression were significantly higher than those in the general population of the same age group in Turkey (12,24–26). Furthermore, mental retardation, which may be a strong risk factor for victimization of sexual abuse, was more frequent when compared to the general population of the same age group. Unfortunately, these psychiatric diagnoses were based on a single or couple examination because most of the victims were admitted because of the legal process for evaluation of the existence of mental health impairment, and they were lost to follow-up. As the victims' families were unwilling to participate in long-term psychiatric follow-up, it was impossible to evaluate psychiatric morbidity in the victims or whether they consequently became perpetrators of abuse. Although this study provides preliminary data concerning CSA in the Çukurova region, our results should be taken into consideration by the authorities, mental health providers, and public health professionals dealing with children and adolescents.

Future Directions

The sample size was small and comprised forensic cases; thus the generalizability of the findings may be limited. It is necessary to perform further studies with long term of follow-up covering the whole population to determine reliable socio-demographic characteristics and long-term outcomes for CSA. Furthermore, this group of victims of CSA needs to be followed through adulthood to evaluate psychiatric morbidity or victims' involvement in the criminal system as perpetrators of childhood sexual abuse, which might find out different results than the literature as a Turkish sample. As CSA is a devastating experience for the victim and a threat to public health, greater attention should be paid to it by professionals and the authorities, especially in underdeveloped and developing countries.

References

1. McCann J, Rosas A, Boos S. Child and adolescent sexual assault (childhood sexual abuse). In: Payne J, Busutil A, Smock A, editors. Forensic medicine clinical and pathological aspects. San Francisco, London: GMM Publishing, 2003;453–68.
2. Beyaztas FY, Dokgoz H, Oral R. Child physical abuse: a five case report. Middle East J Family Med 2006;4(2):21–6.
3. Putnam FW. Ten-year research update review: child sexual abuse. J Am Acad Child Adolesc Psychiatry 2003;42:269–78.
4. Nurcombe B. Child sexual abuse 1: psychopathology. Aust N Z J Psychiatry 2000;34:85–91.
5. Renteria SC. Summary: sexual abuse of female children and adolescents—detection, examination and primary care. Ther Umsch 2005;62: 230–7.
6. Child sexual abuse, http://www.aacap.org/cs/root/facts_for_families/child_sexual_abuse (accessed March 22, 2009).
7. Krischer MK, Sevecke K, Lehmkuhl G, Steinmeyer EM. Less severe sexual child abuse and its sequelae: are there different psychic and psychosomatic symptoms in relation to various forms of sexual interaction? Prax Kinderpsychol Kinderpsychiatr 2005;54:210–25.
8. Sachs-Ericsson N, Blazer D, Plant EA, Arnow B. Childhood sexual and physical abuse and the 1-year prevalence of medical problems in the National Comorbidity Survey. Health Psychol 2005;24:32–40.
9. Fassler IR, Amodeo M, Griffin ML, Clay CM. Predicting long-term outcomes for women sexually abused in childhood: contribution of abuse severity versus family environment. Child Abuse Negl 2005;29:269–84.
10. Gold SN, Hyman SM, Andres-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;28:1199–212.
11. Bandelow B, Krause J, Wedekind D, Broocks A, Hajak G, Ruther E. Early traumatic life events, parental attitudes, family history, and birth risk factors in patients with borderline personality disorder and healthy controls. Psychiatry Res 2005;134:169–79.
12. Avci A, Tahiroglu AY. Abuse. In: Aysev AS, Taner YI, editors. Çocuk ve ergen ruh sağlığı. Istanbul: Golden Print, 2007;709–36.
13. Langan P, Harlow WC. Child rape victims, 1992. Crime data brief. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, 1994.
14. Bicer U, Colak B, Coskun A, Demirbas I, Kurtas O, Gundogmus UN. Çocuk istismarı kader mi? Olgu Sunumu Adli Tıp Bülteni/The Bulletin of Legal Medicine 2002;7:109–14.
15. Child sexual abuse I: an overview, http://www.advocatesforyouth.org/index.php?option=com_content&task=view&id=410&Itemid=336 (accessed March 23, 2009).
16. About child abuse, http://preventchildabuse.com/abuse.shtml (accessed March 23, 2009).
17. Anderson J, Martin J, Mullen P, Romans S, Herbison P. Prevalence of childhood sexual experiences in a community sample of women. J Am Acad Child Adolesc Psychiatry 1993;32:911–9.
18. Chen J, Dunne MP, Han P. Child sexual abuse in Henan province, China: associations with sadness, suicidality, and risk behaviors among adolescent girls. J Adolesc Health 2006;38:544–9.
19. Oral R, Can D, Kaplan S, Polat S, Ates N, Cetin G, et al. Child abuse in Turkey: an experience in overcoming denial and a description of 50 cases. Child Abuse Negl 2001;25:279–90.
20. Ozkara E, Karatosun V, Gunal I, Oral R. Trans-metatarsal amputation as a complication of child sexual abuse. J Clin Forensic Med 2004;11:129–32.
21. Polat O. Child abuse. Çocuk ve Şiddet. İstanbul: Der publishing, 2001.
22. Walsh C, MacMillan HL, Jamieson E. The relationship between parental substance abuse and child maltreatment: findings from the Ontario Health Supplement. Child Abuse Negl 2003;27:1409–25.
23. Berger LM. Income, family characteristics, and physical violence toward children. Child Abuse Negl 2005;29:107–33.
24. Onal AE. Kronik hastalıkların epidemiyolojisi, http://www.bibalex.org/SuperCourse/SupercoursePPT/4011-5001/4141.ppt#256,1,kronik%20hastalıkların%20epidemiyolojisi (accessed March 23, 2009).
25. Unalan D, Cetinkaya F, Basturk M. Kentsel kesimde 7–12 yaş grubunda enürezis nokturna prevalansı ve özellikleri. Anadolu Psikiyatri Dergisi 2001;2(3):175–82.
26. Dogangun B. Ozel egitim gerektiren psikiyatrik durumlar, http://www.ctf.edu.tr/stek/pdfs/62/6215.pdf (accessed March 23, 2009).

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