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Evaluation and follow-up of cases diagnosed as child abuse and neglect at a tertiary hospital in Turkey

Aim: Data on child maltreatment in Turkey would appear to be scarce. This manuscript aims to address the prevalence and severity of child maltreatment in Turkey.

Materials and methods: We report on 215 cases at the Ministry of Health's Ankara Training and Research Hospital that were followed-up by the multidisciplinary Child Protection Team (CPT) between 1 January 2001 and 31 December 2005. The data collected on subjects included characteristics of the victims and the perpetrators, family demographics, maltreatment types, medical findings, mortality rate, and outcomes for the victim and the perpetrator.

Results: Age and gender distribution of the victims were 6.8 ± 5.8 years and 58.1% girls. The perpetrators in 53.0% of the cases were the fathers, in 18.6% the mothers, and others in 28.4%. The categories of maltreatment were neglect in 39.5% of cases, physical abuse in 29.8%, psychological abuse in 21.4%, and sexual abuse in 9.3%. One hundred twenty cases (55.3%) were efficiently followed-up by the regional Social Service Agency (SSA). Re-abuse was reported in 8.3% of them. Following initial investigation of the 84 perpetrators, who were reported to the Forensic Medicine Institution by the Police Department, 17.8% were acquitted, 11.9% were convicted, and no legal action was taken for the rest.

Conclusion: The knowledge and experience of the physician are extremely important for the diagnosis of child abuse and neglect. This study shows that a team approach to suspected cases of child abuse and neglect improves recognition and the reporting process.

Key words: Child, abuse, neglect, child protection team

Türkiye'de üçüncü basamak bir hastanede çocuk ihmal ve istismarı tanısı alan olguların değerlendirilmesi ve izlemi

Amaç: Türkiye'de çocuk istismarının nadir görüldüğü düşünülmektedir. Bu çalışmada ülkemizdeki çocuk istismarı sıklığı ve ağırlığı hakkında bilgi edinilmesi amaçlandı.

Yöntem ve gereç: Ocak 2001-Aralık 2005 tarihleri arasında Sağlık Bakanlığı Ankara Eğitim ve Araştırma Hastanesi'nde multidisipliner Çocuk Koruma Grubu tarafından izlenen 215 olgu değerlendirildi. İstismara uğrayan çocuklar ve istismara neden olan şahısların özellikleri, demografik bilgileri, istismar türü, tıbbi bulguları, mortalite hızı ve olguların sonucu kaydedildi.

Bulgular: Tüm çocukların ortalama yaşı 6,8 ± 5,8 olup % 58,1'i kızdı. İstismara neden olan şahıslar, olguların % 53'ünde baba, % 18,6'sında anne, ve % 28.4'ünde diğerleri olarak belirlendi. İstismar türü; % 39,5 ihmal, % 29,8 fiziksel istismar, %21,4 psikolojik istismar ve %9,3 oranında cinsel istismar idi. Toplam 120 olgu (% 55,3) yerel Sosyal Servis Kurumu tarafından etkin bir şekilde izlendi. Olguların % 8,3'ünün tekrar istismara uğradığı bildirildi. İstismara neden olduğu belirlenen ve polis tarafından Adli Tıp'a bildirilen şahıslar üzerinde yapılan soruşturma sonucunda, 84 şahıstan % 17,8'i gözaltına alındı, % 11,9'u tutuklandı. Diğer şahıslara ise herhangi bir yasal işlem uygulanmadı.

Sonuç: Çocuk ihmal ve istismarının tanısında hekimin bilgi ve deneyimi çok büyük önem taşır. Bu çalışma çocuk ihmal ve istismarından kuşku duyulması durumunda grup çalışmasının tanı ve bildirim sürecini iyileştirdiğini göstermektedir.

Anahtar sözcükler: Çocuk, istismar, ihmal, çocuk koruma grubu

Introduction

Child maltreatment includes a spectrum of abusive actions or acts of omission that result in morbidity or death. Although child abuse is not a rare occurrence, there is evidence that only a small proportion of cases of child maltreatment are reported to authorities, even where mandatory reporting exists (1). It had been reported that incidence of child abuse is 1%-10% in USA, and 10%-53% in Turkey (2-4). Low socioeconomic level, alcohol and substance addiction, and motherhood in adolescence, past experience of abuse, domestic violence, and bad environmental conditions all increase the risk of child maltreatment.

Abandonment is defined as the failure of the parent to provide reasonable support and maintain regular contact with the child, including providing normal supervision, when such a failure is accompanied by an intention on the part of the parent to permit such a condition to continue for an indefinite period (5). Neglect refers to the failure of a parent to provide for the development of the childwhere the parent is in a position to do so-in one or more of the following areas: health, education, emotional development, nutrition, shelter, and safe living conditions. Other causes for concern include the exposure of children to drugs and inadequate protection from environmental dangers. In addition, abandonment, inadequate supervision, poor hygiene and deprivation of education have all been considered evidence of neglect. Medical neglect of a child with an acute or chronic disease may result in a worsening of the condition and death (6,7). Physical abuse of a child is defined as those acts of commission by a caregiver that cause actual physical harm or have the potential for harm. Injuries inflicted on a child by a caregiver can take many forms. Sexual abuse is described as those acts where a caregiver uses a child for sexual gratification and may be considered a specific type of physical abuse with strong emotional components. Many children will disclose abuse to caregivers or others spontaneously, although there may also be indirect physical or behavioral signs. Psychological abuse is any threat to do bodily harm to a partner, a child, a family member, friends, pets, or one's self (suicide). Psychological abuse involves not only hurt and anger, but also fear and degradation. The purpose of psychological abuse is to render one

emotionally insecure about one's own self-worth and to render one helpless and/or unable to escape further physical, sexual and/or psychological abuse. Suicide is the third leading cause of death for adolescents 15 to 19 years old (4).

Data on child maltreatment in Turkey would appear to be scarce and this manuscript aims to address the prevalence and severity of child maltreatment in Turkey. Therefore, we present child abuse and neglect and also attempted suicide cases followed-up by the Child Protection Team (CPT) at a training hospital in Turkey.

Subjects and methods

This was a prospective clinical study conducted in the Pediatric Emergency Department (PED) of the Ministry of Health Ankara Training and Research Hospital, a regional referral tertiary hospital with an annual PED census of 120,000 patients.

We studied 215 children between the ages of 0 and 16 years who were followed-up by the CPT of the Ministry of Health Ankara Training and Research Hospital between 1 January 2001 and 31 December 2005. In this hospital, children in different departments (emergency, pediatrics, gynecology etc.) were evaluated and if they were under suspicion of child abuse, the doctor on duty promptly contacted the CPT. The CPT was founded in August 2002. The team consists of a pediatrician, a pediatric surgeon, a neurosurgeon, a forensic doctor, an ear-nose-throat surgeon, an ophthalmologist, a general surgeon, a gynecologist, a psychologist, a psychiatrist, and a specialist from the Social Service Agency (SSA). The CPT is responsible for registering, evaluating, and following-up on the children suspected to be abused or neglected, as well as contacting related foundations if necessary.

Child neglect was suspected if there was failure to thrive (as body weights below the 3rd percentile) or unintentional injury to the child associated with family risk factors (poverty, overcrowding, low educational level etc.). Munchausen syndrome by proxy (MSBP) was defined as a form of child abuse in which a parent fabricated or produced illness in a child. The children admitted to the pediatric emergency department with trauma were assessed for physical abuse and, if suspected, evaluated by the team. Sexual abuse was considered if the family suspected that there child had been abused or there were some physical findings such as vaginal bleeding or discharge, anal fissure, and/or incontinence.

A suicidal attempt was described as self-poisoning by taking medication or an attempt by another method above 6 years of age.

Age, gender, type of maltreatment, medical findings, family size and income, parents' educational level and perpetrator characteristics were determined.

Socio-economic level was assessed as low if family income was lower than \$398 per month according to The State Institute of Statistics of Turkey, 2005. Radiological, biochemical and hematological evaluations were performed if necessary. Medical findings were identified based on a combination of medical history, physical examination, and screening and laboratory tests.

Descriptive statistics were used to analyze the characteristics of the victims and the perpetrators. Results were expressed as means \pm SD. One way ANOVA or chi-square tests were used to compare the groups, as appropriate.

A P value of 0.05 or less was considered to be significant. All statistical analyses were conducted using Statistical Package for the Social Sciences software (SPSS 10.0).

Results

During the 5-year study period, we identified 215 children who were abused and/or neglected. The victims' age range was between 0 and 16 years with an average of 6.8 ± 5.8 years. Of all victims, 58.1% were female and gender distribution showed no difference among the groups (P = 0.11). Maternal and paternal mean ages of the parents were 29.1 ± 7.7 years and 32.9 ± 7.5 years, respectively. The types of child abuse and neglect were divided into 4 groups: neglect was confirmed in 85 cases (39.5%), physical abuse in 64 (29.8%), psychological abuse in 46 (21.4%), and sexual abuse in 20 (9.3%). Some children were subject to 2 types of abuse.

Characteristics of the victims and the perpetrators according to maltreatment type are seen in Table 1.

Neglect cases

Neglected children were significantly younger than the children in the other abuse categories (P = 0.001). Five children were also physically abused. The parents were significantly younger in neglect cases, especially in the cases of abandoned babies (for both parents: P = 0.001).

Abandonment: Twenty-one children (24.8%) were abandoned. Eighteen of the abandoned babies (85.7%) were left by their mothers at the obstetrics department soon after delivery without the doctors' and the nurses' awareness. Three babies were abandoned by their caregivers in the hospital yard and were found by the hospital security.

Supervision and nutritional neglect: Fifty-eight children (68.2%) were defined as supervisionally and nutritionally neglected. Failure to thrive was defined in 39 children. Two children were diagnosed with MSBP. The first was a 3-year-old girl admitted to the hospital with chronic vomiting. During the admission, the mother of the child was caught digitally inducing vomiting. The second one, a 9month-old baby, was admitted with a false complaint of gastro-intestinal bleeding. The unit nurse reported having seen the mother of the child smearing her own menstrual blood on the child's diaper. One of the children drowned due to supervision neglect.

Medical neglect: Six children (7.0%) had chronic diseases and their conditions had worsened due to lack of medical care.

Physical abuse cases

Physically abused children were younger than the psychologically abused ones (P = 0.001). The father was the most common perpetrator. Alcohol abuse was more common in the physical abuse category compared to the other groups (P = 0.03).

Among physical abuse cases, inflicted bruises were the most common finding and were observed in 38 cases (59.3%). One third of the physically abused children were evaluated through skeletal survey. Long bone fractures were detected in 16 cases (25.0%). Five children had head trauma and died due to intracranial hemorrhage and brain damage. They were all under 2 years of age and their perpetrators were their biological fathers. Seven children were re-abused physically after not being removed from the families

Victim and perpetrator characteristics	Maltreatment type						
	Neglect N = 85 (39.5%)	Physical N = 64 (29.8%)	Psychological N = 46 (21.4%)	Sexual N = 20 (9.3%)	P value		
Victim							
Age(year)	2.9 ± 3.6	8.0 ± 6.0	11.0 ± 4.5	10.3 ± 4.6	0.001#		
Gender(female)	47(55.3)	34(53.1)	32(69.6)	12(60.0)	0.11µ		
Perpetrator							
Age (year)	27.3 ± 8.7	33.4 ± 8.8	31.6 ± 8.6	28.2 ± 12.6	0.001#		
Gender(female)	35(41.2)	11(17.2)	9(19.6)	0 (0.0)	0.001µ		
Relationship between victim and perpetrator					0.01µ		
Father	48(56.5)	31(48.4)	35(76.1)	-			
Mother	26(30.6)	9(14.1)	5(10.9)	-			
Mother and father	7(8.2)	2(3.1)	1(2.2)	-			
Stepfather	4(4.7)	3(4.7)	1(2.2)	3(15.0)			
Stepmother	-	1(1.6)	-	-			
Acquaintance	-	8(12.5)	2(4.3)	3(15.0)			
Relative	-	10(15.6)	2(4.3)	14(70.0)			

Table 1. Characteristics of the victims and the perpetrators according to maltreatment type.

P value for ANOVA test

μ P value for chi-squared test

after the first episode of abuse. After re-abuse, they were allowed to stay with other relatives (grandmother, aunt, uncle etc.). However, they were periodically visited by a member from the SSA.

Sexual abuse cases

Twenty cases were diagnosed with sexual abuse. In 70.0% of sexual abuse cases the perpetrator was a male relative. Nine victims were also physically abused. Vaginal bleeding or discharge was the presenting symptom in 10 cases (45.0%) and anal fissure and incontinence in 2 (10%). Only one patient (5.0%) was diagnosed with a sexually transmitted disease (an HPV or human papillomavirus infection in a 3.5year-old girl). Among sexually abused children, one child was re-abused sexually and was placed in institutional care.

Psychological abuse cases

Forty-six cases were diagnosed as psychological abuse. In 8 cases attempted suicide was subsequent to sexual abuse. In 45 of the cases children were admitted to the emergency department with drug intoxication. One adolescent male attempted hanging himself. All the victims disclosed that they attempted suicide due to parental maltreatment.

Evaluating the total number of cases, fathers were the perpetrators in 53.0%, mothers in 18.6%, and others in 28.4%. Unemployment was an associated risk factor in 136 (63.3%) of all cases. Sixty-three (29.3%) of the perpetrators were alcohol dependent, and 17 (7.9%) were illicit substance users. Single parenthood was a risk factor in 85 (39.5%) of all cases and there was no significant difference among the groups (P = 0.16). Income level was low in 204 (94.9%) families and no significant difference was observed among the groups (P = 0.33). Family characteristics according to maltreatment type are shown in Table 2.

Forty-one (19.0%) victims had no physical findings. The most common medical findings observed were bruises in 21.4% (n = 46), drug intoxication in 20.9% (n = 45), failure to thrive in 18.1% (n = 39), and long bone fractures in 7.4% (n = 16) of the cases.

Six children had fatal outcomes with an overall mortality rate of 2.7%.

One hundred twenty cases (55.3%) were followedup by the regional SSA efficiently for 1 year following the report. Re-abuse was reported in 10 of these 120 cases (8.3%). Police, in collaboration with the Forensic Medicine Institute, investigated 141 cases where children were victims of abandonment, physical and/or sexual abuse or psychological abuse and attempted suicide. Of the 84 (59.5%) perpetrators who were reported to the Forensic Medicine Institution by the Police Department following an initial investigation, 15 (17.8%) were acquitted, 10 (11.9%) were convicted, and no legal action was taken for the rest (Table 3).

Discussion

In 1999, the WHO Consultation on Child Abuse Prevention drafted the following definition:

"Child abuse or maltreatment constitutes all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential

Table 2. Family characteristics according to maltreatment type.

Family demographics	Maltreatment type						
	Neglect N = 85 (39.5%)	Physical N = 64 (29.8%)	Psychological N = 46 (21.4%)	Sexual N = 20 (9.3%)	P value		
Age(year)							
Mother	25.1 ± 6.28	31.1 ± 7.1	42.2 ± 8.2	33.0 ± 6.8	0.001#		
Father	29.1 ± 5.5	35.9 ± 7.6	44.1 ± 7.6	36.9 ± 7.1	0.001#		
Single parenthood	37(43.5)	20(31.3)	20(43.5)	8(40.0)	0.16μ		
Educational level (low)							
Mother	78(91.8)	61(95.3)	46(100.0)	0(100.0)	0.03μ		
Father	72(84.7)	59(92.2)	46(100.0)	15(75.0)	0.02µ		
Overcrowded housing	82(96.5)	55(85.9)	43(93.5)	18(90.0)	0.12µ		
Family income(low)	81(95.3)	62(96.9)	42(91.3)	19(95.0)	0.33µ		
Other characteristics of the perpetrators							
Unemployment	47(55.3)	41(64.1)	34(73.9)	14(70.0)	0.22 μ		
Alcohol dependence	21(24.7)	28(43.8)	10(21.7)	4(20.0)	0.03 μ		
Substance use	7(8.2)	4(6.3)	2(4.3)	4(20.0)	0.16 μ		

P value for ANOVA test

μ P value for chi-squared test

	Maltreatment type						
Outcome	Neglect N = 85 (39.5%)	Physical N = 64 (29.8%)	Psychological N = 46 (21.4%)	Sexual N = 20 (9.3%)			
Victim Reported to SSA*	85(100.0)	64(100.0)	46(100.0)	20(100.0)			
Placed in Institutional care	21(24.7)	-	-	1(5.0)			
Followed by SSA	65(76.4)	24(37.5)	26(56.5)	10(50.0)			
Re-abuse	-	7(11.8)	2(4.3)	1(5.0)			
Death	1(1.1)	5(7.8)	-	-			
Perpetrator Reported to Police	22(25.8)	64(100.0)	46(100.0)	20(100.0)			
Reported to Forensic Medicine	-	64(100)	-	20(100.0)			
Convicted	-	5(7.8)	-	5(25.0)			
Acquitted	-	-	-	15(75.0)			
No legal action	22(25.8)	59(92.1)	46(100.0)	-			

*SSA: Social Service Agency

harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power".

Many researchers have indicated that child neglect is strongly correlated with poverty and unemployment (6-9). It was also suggested that the size of the family could also increase the risk for all abuse types. Data from a range of countries indicate that household overcrowding increases the risk of child abuse (10,11). In this study, in most of the cases family size equalled more than 4 members.

It is thought that stress resulting from unemployment, loss of income, alcohol dependence, and substance abuse can heighten the level of conflict in the home, reduce and the ability of members to cope or find support, and increase chances of child abuse (12-14). In this study, the stress factors defined were poverty, alcohol dependence, and substance addiction. Recently, it was suggested that the maltreatment of children remains a major public-health and socialwelfare problem in high-income countries. The authors reported that every year about 4%-16% of children are physically abused and 1 in 10 is neglected or psychologically abused (15). Because definitions vary and laws on reporting abuse do not always contain the mandatory reporting of neglect, it is difficult to estimate the global dimensions of the problem or meaningfully compare rates between countries.

In a study aimed at determining the reasons for the placement of children in foster care, the percentage of cases of neglect was 30%, and abandonment was reported to be 9% (16). Nutritional neglect is the most common cause of underweight infants and may account for more than half the cases of failure to thrive. In our study 39.5% of the cases included neglect and 24.8% of them included abandonment by

caregivers. We diagnosed failure to thrive in 39 children. Among these cases unemployment was high and socio-economic levels were low.

MSBP is a factitious disorder in which caregivers injure their victims in order to gain sympathy or attention for themselves. Intentionally, medications and toxins may be given to the child as a poison (17). During the study period, 2 patients were diagnosed with MSBP. The first patient was investigated for vomiting etiology. Finally it was detected that her mother was using her finger to induce the child to vomit . The second patient was a 9-month-baby with gastrointestinal bleeding. The ward nurse had seen that her mother was adding and smearing her own menstrual blood onto the child's diaper. Therefore, in both cases the diagnosis was MSBP.

Physical abuse is usually a symptom of an abusive relationship and can involve punching, slapping, burning, or cutting. Male children appear to be at greater risk of harsh physical punishment in many countries (18). Hurme et al. investigated the risk factors and injuries in physical child abuse cases (19). They defined that depression, overactivity, crying, and prematurity were risk factors in the physically abused children and that parental risk factors included alcohol and drug abuse. They also reported that most often the perpetrator was the father or stepfather; when the perpetrator was unknown, the children were mostly in their mothers' care. Men are the most common perpetrators of life-threatening head injuries, abusive fractures, and other fatal injuries (20). In our study, nearly half of the victims were boys. The father was the most common perpetrator and alcohol abuse was more common in the physical abuse category compared to the other groups.

In the absence of an overt history of important trauma or a known medical condition that predisposes to bone fragility, physical abuse should be considered in the differential diagnosis when an infant presents with a fracture. On the other hand, a skeletal survey should be performed on all patients who are under suspicion of physical abuse. In a previous study, it was demonstrated that the followup skeletal survey identified additional fractures or clarified tentative findings in children who were suspected victims of physical abuse (21). Kemp et al. systematically reviewed 32 published studies to identify the characteristics that distinguish fractures in children resulting from abuse and those not resulting from abuse and to calculate a probability of abuse for individual fracture types. They reported that fractures resulting from abuse were recorded throughout the skeletal system, most commonly in infants and toddlers, and multiple fractures were more common in cases of abuse (22). In our study 64 cases were classified as physical abuse and 16 victims were described as having long bone fractures. Five children under 2 years old who were physically abused by their fathers died due to head trauma.

Occurrences of sexual abuse, which can also be directed at young children, tend to rise after the onset of puberty, with the highest rates occurring during adolescence (23-27). Findings from several international studies show rates of sexual abuse to be 1.5-3 times higher among girls than boys (27). Children- and adolescent-oriented sexual crime has been a progressively increasing public health problem in Turkey. According to our data, the mean age of sexual abuse victims was 9.8 ± 5.0 years and 75% were boys. We detected perineal injury in 9 victims out of 20 cases of sexual abuse. Sexual abuse may be perpetrated by family members (incest), acquaintances, or, least often, strangers. Sexually abused girls may be at increased risk of attempting suicide. Bergen et al. showed that sexual abuse was associated with suicidal tendencies, both directly and indirectly through hopelessness and depressive symptoms among adolescent girls (28). Children- and adolescent-oriented sexual crime has been a progressively increasing public health problem in Turkey. In a study from Turkey, it was determined that sexually abused children have more psychiatric disorders within the first year compared with 2 years later (29). Kücüker et al. investigated the sociodemographic features of the sexual assault victims and the assailants in crimes against children and adolescents. They observed perineal trauma in 221 of cases (82.4%), general body trauma in 76 (28.4%), and firearm or knife threat were declared in 35 (13.1%) of cases (30). Here the perpetrator was predominantly a male relative. Eight of the 215 cases included both sexual abuse and attempted suicide. Perineal trauma was detected in 9 of the 20 victims who were sexually abused.

Higher rates of suicide are associated with adolescence. Psychosocial problems and stresses, such as conflicts with parents, living in divorced families, the breakup of a relationship, school difficulties or failure, legal difficulties, and social isolation are commonly reported or observed in young people who attempt suicide (31,32). In order to appropriately manage attempted suicide, after an adolescent's condition has been medically stabilized, a comprehensive emotional and psychosocial assessment must be initiated before discharge (33).

Pagura et al. sought to examine psychiatric and childhood traumatic event correlates of multiple suicide attempts compared with single suicide attempts in 2 nationally representative samples of the United States general population. They reported that in the 2 surveys individuals with a history of multiple suicide attempts had significantly higher odds of having had experienced several traumatic events in childhood (34). According to our data, most of the cases involved adolescent boys. None of them had succeeded in committing suicide. They had had psychosocial assessment after medical treatment. They revealed that their reasons for attempting suicide were conflicts with parents, the breakup of a relationship and school difficulties or failure. Approximately half of them were from divorced families.

The legal definitions for what constitutes abuse and neglect vary in the US from state to state. Physicians and other providers of care to children are required by law in all 50 states to report suspected child abuse or neglect. These laws afford protection from lawsuits to mandated reporters who report in good faith; they also allow for clinical and laboratory evaluations and documentation without the parent's or guardian's permission. Failure to report suspected child abuse may result in a penalty. Recognizing the factors contributing to a child's death is facilitated by the action of multidisciplinary child death review teams. As with other forms of child maltreatment, prevention and early intervention strategies are

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 Theodore AD, Runyan DK. A medical research agenda for child maltreatment: negotiating the nextsteps, *Pediatrics* 1999; 104: 168-77. needed to minimize the risk of injury and death to children. Evaluations of programs on education and training in parenting have shown promising results in reducing violence against children.

Child protection service agencies investigate and try to substantiate reports of suspected child abuse. The initial reports may come from a variety of sources, including health care personnel, police, teachers and neighbors.

If the reports are verified, then the staff of child protection services has to decide on appropriate treatment and referral. Such decisions are often difficult, since a balance has to be found between various potentially competing demands—such as the need to protect the child and the wish to keep a family intact. The services offered to children and families thus vary widely. While some research has been published on the process of decision-making with regard to appropriate treatment, as well as on current shortcomings—such as the need for specific, standard criteria to identify families and children at risk of child abuse—there has been little investigation of the effectiveness of child protection services in reducing rates of abuse.

Here we wanted to share our experiences on child abuse and neglect and also suicide cases. Our data were collected from a tertiary hospital in Ankara under the authority of the Ministry of Health. Thus the sample does not represent the general population of child maltreatment in Turkey. This study could be replicated within a randomly selected group of hospitals under the authority of the Ministry as well as university clinics in Turkey in order to give a rate of the prevalence of child maltreatment in Turkey. The risk factors associated with child maltreatment should be well defined for the early recognition and prevention of child abuse. The knowledge and experience of the physician are extremely important for diagnosis. Further long-term studies are needed to evaluate the characteristics of child maltreatment in Turkey.

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