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ABSTRACT

Background: Child abuse is defined as denying a child his or her rights such as food, clothing, education, health and emotional support. The forms of child abuse include physical, sexual, emotional, nutritional, child labour and abandonment.

Objective: To describe the types of child abuse seen among the children admitted to the Moi Teaching and Referral Hospital (MTRH) paediatric wards.

Design: Cross-sectional descriptive study.

Setting: Moi Teaching and Referral Hospital wards in Eldoret.

Subjects: Children aged below 18 years with suspected features of child abuse.

Results: Of 119 children studied, 67(56.3%) were female. Types of abuse were: nutritional 65(39%) neglect 44(26.4%), abandonment 35(21%), physical 13(7.8%) and sexual 10(6%). Presenting complaints were gastroenteritis 46(38.7%), abandoned 31(26.1%) cough 29(24.4%) and burns 12(10.1%). Common clinical signs of abuse seen were malnutrition 63(52.9%), apathy 23(19.3%), and burns 13(10.9%), while 20(16.8%) had no signs of abuse. Factors significantly associated with: nutritional abuse were perpetrator being father 3.18(1.31, 7.69 $p=0.0091$), perpetrator being mother 3.00(1.27, 7.10 $p=0.0112$), neglect were alcoholic father 0.25(0.08, 0.73 $p=0.0100$), apathetic child 4.33(1.65, 11.34 $p=0.0018$), severe infection in the child 5.34(2.23, 12.75 $p=0.0001$),

Conclusions: The most common form of abuse seen was nutritional abuse. Most children presented with common childhood illnesses. Fathers were the predominant perpetrators of nutritional abuse and neglect. We recommend routine screening of children for features of abuse.

INTRODUCTION

The history of child abuse shows that children have been documented to be victims of violence, abandonment, neglect and murder throughout the history of mankind (1). Psycho historians explain this by the fact that children are viewed as poison containers into which adults project disowned parts of their psyches (2). The first child welfare movement began in the USA in the middle of the 19th century during the industrial revolution. At this time, it was noted that there were children who were homeless, starving and roaming the streets (1). In the 1950's, a systematic recording of children being harmed by their parents started when radiologists noted and documented head injuries in infants which they thought could have been inflicted by their parents (1). In 1959, the United Nations Declaration on the rights of the child stated that, 'the child shall be protected from all forms of

neglect, cruelty, and exploitation.' The term 'battered baby syndrome' was coined in 1962 by Kempe *et al* (3). This led to the promulgation by the United States Children's Bureau of a model statute for doctors to report victims of child abuse. It became mandatory for doctors to report cases of abuse in the USA (3). In May 1979, the International Year of the Child was celebrated and recognised neglect of children as being worthy of concern (1). Kenya was not among the countries that made this declaration. The first case of battered child syndrome in Kenya was reported by Bwibo in 1971 (4).

There is no consensus on the definition of child abuse. The original definition of the battered child syndrome, pre-supposed that there had to be intent to harm by the parent (3). A broader, more suitable definition was coined which did not pre-suppose intent to harm by the parent. It stated thus, 'an illness stemming from situations in his/her home setting

which threatens his/her survival (5). In 1975, Gil described child abuse as, 'any act of commission or omission by individuals, institutions or society as a whole and any conditions resulting from such acts or inaction which deprive children of their equal rights and liberties and/or interfere with their optimal development, constitute abusive or neglect acts or conditions (6). This definition has been adopted and adapted in various forms. Culture plays a big role in defining child abuse. There are many culturally accepted methods of rearing children that would be considered child abuse in other contexts such as corporal punishment and female genital mutilation in Kenya (1, 7, 8). The USA Child Abuse and Protection and Treatment Act defines child abuse as, 'at a minimum any recent act or failure on the part of the parent or caretaker, which results in death, serious physical or emotional harm, sexual abuse or exploitation or an act or failure which presents an imminent risk of harm (9,10). The definition used in this paper was the one given by the former director of Children's Services in Kenya, which was, 'anything that individuals, institutions, or processes do or fail to do thus directly or includes categories such as neglect, nutritional abuse, abandonment, emotional abuse, physical indirectly damages the prospects of safe and healthy development into adulthood (11). Child abuse includes categories such as neglect, nutritional abuse, abandonment, emotional abuse, physical abuse and sexual abuse. Neglect is defined as 'failure to provide for the child's needs'. It can be physical, educational, psychological, or allowing excessive truancy (12). Thus all forms of abuse can be considered to be neglect (4). For the purpose of this paper, "neglect" referred to a child who was denied food, clothing, and other social needs or was left to someone else to look after him/her, but had not yet developed malnutrition. Nutritional abuse referred to a child who was denied his/her basic right to food and had developed malnutrition. Abandonment was used for the child who was left or brought to the hospital and left there without a parent or guardian to look after him and had nowhere to call home. Emotional abuse was used for the child who on examination, was found to be withdrawn, fearful, and/or irritable. Though emotional abuse is defined as 'verbal or mental or psychological maltreatment of a child' or 'acts or failure to act by parents or guardian that have caused or could cause serious behavioural, cognitive or mental disorders'. This definition would have been difficult to fulfill in the hospital setting. Emotional abuse is also the most difficult to prove and prosecute (12).

The prevalence of child abuse in Kenya is unknown because there has been no systematic study or reporting of child abuse cases. However, it is estimated that for every reported case there are six unreported cases (13). The most common recognised

forms of abuse in Kenya are abandonment, neglect, battering, sexual abuse and malnutrition (17-19). Child abuse has been studied in various parts of the World. In the USA, about 1% of the children are abused each year. Of these, 50% have head and neck injuries (14). Among the Chinese in Hong Kong, prevalence of child abuse was 526/1000 for mild violence and 461/1000 for severe violence (10, 15). There is under reporting of cases of abuse all over the World because of a lack of standard definitions, unsensitised personnel, and misdiagnosis of cases (10,16).

Various factors are associated with child abuse. Some of the social factors include unwanted pregnancy, poverty, stress, marital disharmony, HIV/AIDS and social isolation (17, 19). Characteristics of abused children include those who are unwanted, difficult to rear, born out of wedlock or incest, orphans, employed, HIV infected/affected, have physical disability, chronic illness, inherent irritability, hyperactivity or prematurity (15,18,20,21). Characteristics of the perpetrators of abuse include: being single parent, step-parent, easily angered, or having been abused as a child, poor impulse, drug/alcohol abuse or psychiatric illness (17, 19).

Abused children present clinically in various ways. Recognised signs of abuse include being: unkempt, dirty, malnourished or having skin diseases, fractures, burns, head injuries, pinch marks, bruises, conjunctival haemorrhages or having poorly aligned bones. Those who have been sexually abused may present with sexually transmitted infections (STIs), pregnancy, procured abortions or genital injury (11, 18, 20). Some children are brought to the hospital with a history that is not suggestive of abuse, but on further interrogation and clinical examination, are found to have been abused. It is therefore important for clinicians to have a high index of suspicion so as to identify cases of abuse because it has such long term effects on the child as maladaptive, antisocial and destructive behaviour (10).

This study describes the types of child abuse, including their clinical presentation and the associated factors, among hospitalised children in a referral hospital in Western Kenya.

MATERIALS AND METHODS

Study design: This was a descriptive cross sectional study.

Study site: The study was conducted in the Paediatric wards at the MTRH, in Uasin Gishu District, North Rift Valley Province of Kenya. The MTRH hosts the Moi University Schools of Medicine, Public Health and Dentistry. Other institutions that use the facility for teaching are the Kenya Medical Training College and the University of East Africa, Baraton. The hospital is located two kilometres from Eldoret town which is 350 kilometres

North-West of Nairobi, the capital city of Kenya. The town has good infrastructure such as an international airport, banks, two universities and a General Post Office (GPO). The town is surrounded by farms and factories.

Study population: The target population was children aged less than 18 years admitted to the Paediatric wards at the MTRH between June 2006 and June 2007.

Inclusion criteria: Children admitted to MTRH aged below 18 years who had features of abuse or neglect and the guardian consented. The features were looked for in the history and physical examination. A child who had a history suggestive of abuse was examined for the signs, and for those who had signs of abuse, the caretaker was further questioned to get the history of abuse.

History: A child was suspected to have been abused or predisposed to abuse if he/she had the following history.

General: Inconsistent history, inconsistent explanation of the findings, sexual abuse, failure to gain weight, gross congenital malformations, chronic illness (such as epilepsy, sickle cell disease, cerebral palsy, mental retardation), pre-mature birth, and low birth weight.

Social: Child staying with one or none of the parents, marital disharmony, orphans, born out of wedlock, incestuous children, parents with HIV/AIDS, anti-social behaviour, alcoholism in either parent, abandoned child, step child, illegitimate child, child of a single parent, step parent and employed parent.

Signs of abuse: The following features of abuse were looked for on physical examination.

Emotional abuse: Anxiety, depression, fearfulness, irritability, and withdrawal. *Physical abuse:* Tattered clothes, generally unkempt, bruises, echymoses, petechiae, wounds and lacerations that had been ignored, burns, fractures especially old ones that had not been treated, low weight for age, wasting, oedema, hair changes (brown, sparse and easily plucked), skin changes (flaky paint dermatoses, bruises, pinch marks), hyperactivity, gross congenital malformation or scabies (papules in the interdigital spaces and skin folds).

Signs of Sexual abuse: Signs of struggle/trauma like torn clothes (especially underwear), blood stained clothes, fractures and bruises, evidence of penetration like semen deposition around the hymen per vaginal discharge and torn hymen.

Exclusion criteria: All children admitted to MTRH who did not have history or physical signs of abuse.

Sampling methods: Consecutive children with features of abuse or neglected were recruited into the study.

Data collection: Data were collected using a questionnaire that had been pre-tested in the outpatient department. The medical officers, medical officer interns, and residents in the Paediatric, Obstetric and Gynaecology, General Surgical and Medical wards were trained on the identification of child abuse and neglect. The principal investigator trained them in a one day session on how to identify suggestive history and physical

features of child abuse as described in the inclusion criteria above. The identified cases were reported to the principal investigator or the trained research assistant who would interview the caretaker, complete the questionnaire and categorise the abuse. Some cases had history of abuse without physical signs, for example, abandoned or neglected children. The person taking care of the child at the time of the interview was considered the caretaker and was interviewed for the primary data. Secondary data were retrieved from the child's file if there was no caretaker, for example, in the case of abandoned children. Other people from whom the information was sought were the nurses, neighbours, friends, relatives and teachers.

Data collection tool: The study collection tool was a pre-tested questionnaire. On the questionnaire, there was socio-demographic data such as age, sex, birth order, type of house, size of the house, number of people in the same house as the child, and whether the child was term or not at birth. There was clinical data on the child such as chief complaints, who brought the child to hospital, mental and physical state of the child, history of chronic illness, current weight, the nutritional status (classified according to the Welcomme classification), birth weight, diagnosis made on admission and the features of abuse seen. There was data on the child's parents and the perpetrators of the abuse such as religion, ethnicity, age sex, residence, drug abuse and chronic illness. The data on the caretaker included relationship to the child, age, sex, ethnicity and religion.

Data analysis: The data were analysed using the SAS9.1 for windows software. The analysis was done in two stages; Univariate analysis was performed to determine basic characteristics and Bivariate for comparison between covariates and various types of child abuse. Univariate analysis involved the determination of counts and percentages related to variables including: admission diagnosis; type of abuse; reason for taking the child to hospital; parents', perpetrators' and caretakers' characteristics. For categorical variables, frequencies and percentages were determined. For continuous variables, means and medians were computed.

Bivariate analysis involved cross-tabulations of categorical factors with the type of abuse. In addition, chi-square and Fisher's exact test were evaluated to determine the statistical significance of the association between the factors and type of abuse. Test of association between categorical variables and continuous variables was done using the student's t-test.

Ethical consideration: Permission to conduct the study was sought from and granted by the institutional ethics and research committee (IREC) of the MTRH and Moi University School of Medicine. Verbal consent was given by the caretaker of the child where available. The child received standard management for his/her medical condition and was referred

appropriately for the management of the abuse. To ensure confidentiality, the patient's name was not used on any document accruing from the study or publication.

RESULTS

A total of 5587 children were admitted to the paediatric wards between June 2006 and June 2007 out of whom 119(2.13%) children were included in the study. Of these, 67(56.3%) were female, 50(42%) were of normal birth weight, nine (7.6%) were of low birth weight, three (2.5%) were large babies and 43.9% of this data was missing for the other children.

Though most of the babies were of normal birth weight a few were large for the gestational age. The mean weight for age was below that expected for age (Table 1).

The most common diagnosis at admission for children included in the study was protein energy malnutrition (PEM), followed by abandonment. More than half of the children did not have child abuse as the diagnosis on admission. The most common type of abuse was nutritional. There were few cases of physical and sexual abuse. Diarrhoea and vomiting were the most common reasons for bringing the child to the hospital. Two thirds of the children were brought to the hospital by their mothers. One tenth of the children did not have any physical features of abuse. The most common sign of abuse observed was malnutrition followed by apathy (Table 2).

Among children in the study, the mothers' family size had a mean of 4.8 ± 1.9 and that of the fathers 4.7 ± 2.2 . Mothers' residence was in urban areas 43(36.1%) and rural 44(37%) while the fathers' residence was urban 40(33.6%) and rural 35(29.4%). Most of the parents had no drug addiction. Only two (1.7%) of the mothers had alcohol addiction compared to 30(25.2%) of the fathers. Mothers had the following chronic illnesses: psychiatric 2(1.7%), epilepsy one (0.8%), and asthma one (0.8%). Fathers had asthma one (0.8%) and diabetes one (0.8%) (Table 3).

Most children were abused by their parents. Two thirds of the perpetrators were male and most of them were unemployed. Alcohol and cigarettes were the most commonly abused drugs by the perpetrators (Table 4).

Most of the children were taken care of by their mothers in the wards. Some were cared for by volunteers working with the Sally Test Center, a child support service that prepares children in the wards for procedures and looks after the abandoned ones during the day. Most of the caretakers were female, Kalenjin, Christian and unemployed (Table 5).

Children who presented with apathy or had severe infection were more likely to have been neglected than the others. Fathers who were alcoholic were three times as likely to neglect their children as the non-alcoholic ones. Fathers were three times more likely to nutritionally abuse their children than others. Mothers were three times less likely to nutritionally abuse their children than others (Table 6).

Table 1
Child's biodata

Variable	Male	Female			
Sex	52(43.7%)	67(56.3%)			
BWT	Normal 50(42%)	Low 9(7.6%)	Large 3(2.5%)		
Gestational age at birth	Term 78(65.55%)	Preterm 41(34.45%)			
Age in years	Minimum 0	Mean 2.7	maximum 13	SD 3.2	Median 1.5
Weight for age %	25	71	125	19.6	68

Table 2
Child's clinical data

1. Admission diagnosis	Frequency (%)
Protein energy malnutrition (PEM)	45(27)
Abandoned	28(16.8)
Bronchopneumonia	17(10.2)
Gastroenteritis	15(9)
Burns	12(7.2)
Malaria	10(6)
Rape	10(6)
Neonatal sepsis	4(2.4)
Anaemia	3(1.8)
Soft tissue injury	2(1.2)
Other	21(9.6)
Total	164(100)
2.Type of abuse	
Nutritional	65(30.8)
Emotional	44(20.85)
Neglect	44(20.85)
Abandonment	35(16.59)
Physical	13(6.16)
Sexual	10(4.74)
Total	201(100)
3.Reasons for bringing child to hospital	
Gastroenteritis	46(26.4)
Abandonment	31(17.8)
Cough	29(17.4)
Burns	12(6.9)
Hotness of the body	9(5.4)
Rape	8(4.8)
Difficulty in breathing	8(4.8)
Refusal to feed	5(3.0)
Abdominal swelling	3(1.8)
Swelling of the feet	3(1.8)
Sores in the mouth	2(1.2)
Injuries	2(1.2)
Convulsions	2(1.2)
Failure to thrive (FTT)	2(1.2)
Other	12(7.2)
Total	174(100)
4.Person who brought child to hospital	
Mother	68(57.1)
Good Samaritan	13(10.9)
Father	12(10.1)
Policeman/woman	8(6.7)
Social worker	4(3.4)
Neighbor	4(3.4)
Both parents	3(2.5)
Nurse	3(2.5)

Grandparent	2(1.7)
Unknown	2(1.7)
Total	119(100)
5. Clinical signs of abuse child presented with	
Malnutrition	63(31.5)
Apathy	23(11.5)
No signs (normal)	20(10)
Burns	13(6.5)
Dehydration	12(6)
Irritability	12(6)
Skin diseases	11(5.5)
Dirty	10(5)
Bruises	4(2)
Fearful	4(2)
Withdrawn	3(1.5)
Difficulty in walking	3(1.5)
Bleeding per vaginum	3(1.5)
Unkempt	2(1)
Perineal tears	2(1)
Other	10(5)
Total	211(100)

Table 3
Socio-demographic characteristics of the parents

Data	Mother	Father
Ethnicity		
Kalenjin	33(27.7%)	18(15.1%)
Luhya	21(17.6%)	7(5.9%)
Kikuyu	14(11.8%)	11(9.2%)
Luo	9(7.6%)	30(25.2%)
Turkana	6(5%)	6 (5 %)
Other	4(3.3%)	5 (4 . 2 %)
Unknown	28(23.5%)	28(23.5%)
NA	4(3.3%)	4 (3 . 3 %)
Total	119(100%)	119(100%)
Marital status		
Married	62(52.1%)	65(54.6%)
Separated	9(7.6%)	9 (7 . 6 %)
Widow/widower	3(2.5%)	0
Divorced	2(1.7%)	3 (2 . 5 %)
Unknown	28(23.5%)	28(23.5%)
NA	4(3.4%)	14(11.8%)
Total		
Occupation		
Unemployed	56(47.1 %)	3 (2 . 5 %)
Business	10(8.4%)	18(15.1%)
Farmer	10(8.4%)	18(15.1%)
Casual	5(4.2%)	19 (16 %)
Other	5(4.2%)	10(7.6%)
Unknown	29(24.4%)	32(26.9%)
NA	4(3.4%)	14(11.8%)
Total	119(100%)	119(100%)

Table 4
Characteristics of the perpetrators

Characteristic	Frequency(%)
1. Perpetrator	
Father	62(50)
Mother	52(41.9)
Uncle	4(3.2)
Neighbour	4(3.2)
Cousin	1(0.8)
Grandmother	1(0.8)
Total	124(100)
2. Mean age	
Father	34.5±7.6
Mother	27.3±6.6
Uncle	21.3±4.3
Neighbour	19.5±4.9
Cousin (n=1)	20.0
Grandmother (n=1)	52.0
Total	
3. Gender	
Male	99(65.6)
Female	52(34.4)
4. Occupation	
Unemployed	35(31.5)
Farmer	23(20.7)
Businessman/woman	22(19.8)
Casual worker	20(18)
Skilled laborer	6(5.4)
Security officer	5(4.5)
Other	5(4.5)
5. Drugs of addiction	
Alcohol	31(64.6)
Cigarettes	16(33.3)
Glue	1(2.1)
Total	48(100)
6. Ethnicity	
Kalenjin	41(35.7)
Luhya	30(26.1)

Luo	12(10.4)
Turkana	8(7)
Other	8(7)
Total	115(100)

Table 5
Caretakers' characteristics

Characteristic	Frequency (%)
1. Caretaker	
Mother	71(59.7%)
Volunteer	30(25.2%)
Father	7(5.9%)
Relative	7(5.9%)
None	4(3.4%)
Total	119(100%)
2. Gender	
Female	100(84.9%)
Male	15(13.04%)
Total	115(100)
3. Ethnicity	
Kalenjin	35(29.4)
Luhya	26(21.8)
Kikuyu	20(16.8)
Boran	14(11.8)
Luo	9(7.6)
Turkana	7(5.9)
Not applicable	4(3.4)
Total	119(100)
4. Religion	
Christian	100(84)
Muslim	15(12.6)
Not applicable	4(3.4)
Total	119(100)
5. Occupation	
Unemployed	62(52.1)
Volunteer	23(19.3)
Farmer	10(8.4)
Casual laborer	8(6.7)
Businessman/woman	7(5.9)
Not applicable	4(3.4)
Total	119(100)

Table 6
Risk factors for abuse

Variable	YES	Total	Yes (%)	No (%)	OR(95%CI)	P-value
Child's risk factors						
1. Neglect						
Clinical presentation: apathy	YES	23	15(65.2)	8(34.8)	4.33[1.65, 11.34]	0.0018*
	NO	96	29(30.2)	67(69.8)		
Clinical presentation: irritable	YES	12	3(25)	9(75)	0.54[0.14, 2.10]	0.3648
	NO	107	41(38.3)	66(61.7)		
Clinical presentation: skin disease	YES	11	5(45.5)	6(54.5)		

					1.47[0.42,5.15]	0.5408
Diagnosis: Severe infection	NO	108	39(36.1)	69(63.9)		
	YES	33	21(63.6)	12(36.4)		
					5.34[2.23, 12.75]	<0.0001*
Diagnosis: mild infection	NO	81	20(24.7)	61(75.3)		
	YES	16	9(56.3)	7(43.8)		
					2.65[0.91,7.76]	0.0682
Perpetrators' risk factor						
1. Neglect						
Perpetrator: father	YES	62	32(51.6)	30(48.4)		
	NO	33	22(66.7)	11 (33.3)	0.533 [0.22, 1.27]	0.1584
Perpetrator: father: cigarettes	YES	12	6(50)	6(50)		
	NO	49	24(49)	25(51)	1.04[0.31, 3.53]	0.9495
Perpetrator: father: alcohol	YES	25	17(68)	8(32)		
	NO	35	12(34.3)	23(65.7)	4.07[1.39, 11.95]	0.010*
Perpetrator: mother:	YES	52	30(57.7)	22(42.3)		
	NO	44	25(56.8)	19(43.2)	1.04[0.46, 2.32]	0.9313
Perpetrator: mother: unemployed	YES	29	16(55.2)	13(44.8)		
	NO	18	11(61.1)	7(38.9)	0.78[0.24,2.54]	0.6889
2. Physical abuse						
Perpetrator: mother	YES	52	45(86.5)	7(13.5)		
	NO	44	38(86.4)	6(13.6)	1.02[0.33,3.15]	0.9801
Perpetrator: mother: unemployed	YES	29	25(86.2)	4(13.8)		
	NO	18	15(83.3)	3(16.7)	1.25[0.27,5.79]	0.7879
3. Abandoned Perpetrator: mother						
Perpetrator: father	YES	52	45(86.5)	7(13.5)		
	NO	44	38(86.4)	6(13.6)	1.02[0.33,3.15]	0.9801
	YES	62	54(87.1)	8(12.9)		
	NO	33	28(84.8)	5(15.2)	1.21 [0.38,3.87]	0.7614
4. Nutrition						
Perpetrator: mother	YES	52	13(25)	39(75)		
	NO	44	22(50)	22(50)	33[0.14,0.78]	0.0112*
Perpetrator: mother: unemployed	YES	29	7(24.1)	22(75.9)		
	NO	18	30(6.7)	15(83.3)	1.59[0.38,6.55]	0.5429
Perpetrator :father	YES	62	45(72.6)	17(27.4)		
	NO	33	15(45.5)	18(54.5)	3.12[1.32,7.63]	0.0091 *

DISCUSSION

This study has clearly demonstrated that among the children admitted to the MTRH wards with common childhood conditions, there were cases of child abuse. Most of them presented to the casualty/sick child clinic with symptoms and signs of common illnesses such as diarrhoea and acute respiratory infections. Similar findings were observed by Loisel in 1999 and were considered missed opportunities for diagnosing child abuse (17). These findings should sensitise health workers to look more keenly for evidence of abuse in children presenting with clinical features of common conditions such as pneumonia, gastroenteritis, and malnutrition. Since these diseases, together with measles and malaria, constitute 75% of the morbidity in children aged below five years, it suggests that there is need to routinely screen for child abuse.

Nutritional abuse was the most common type of abuse seen, followed by abandonment, neglect and emotional abuse. Nutritional abuse has not been reported in many studies yet it is so common. This could be due to lack of its recognition as a type of abuse. This study showed that fathers were more likely to nutritionally abuse their children than the other perpetrators. This could be due to the fact that the fathers stayed away from the family and did not send money for up-keep. In a study in the same hospital it was demonstrated that not staying with both parents was a risk factor for severe malnutrition in children (22). Neglect was associated with alcoholic father. This is expected because an alcoholic is likely to abdicate his responsibilities. Also children who were apathetic were and had severe infection were more likely to be neglected than the others. Though the study could not delve into the reasons for this, it is possible that the children developed the infection because of the conditions they were left in. The diagnosis of emotional abuse was based on the observation made during the clinical examination. Emotional abuse is the most difficult to prove and prosecute even in developed countries (9,10). In a hospital set-up like the one where this study was conducted, it was difficult to observe actions of emotional abuse such as calling the child names, ignoring the child, not giving emotional stimulation, and so on. These could have been brought out by a retrospective study of adults who were abused as children (23,24). It is expected that any child with physical, nutritional, sexual abuse or is abandoned has emotional disturbance. However this is difficult to demonstrate in a hospital ward. Six percent of the cases were sexual abuse. They were all rape cases. It was impossible for us to observe other manifestations of sexual abuse such as fondling of the child's genitalia, making the child fondle an adult's genitals, exposing the child to pornography, using the child to produce pornographic materials, sodomy, exhibitionism, and

sexual exploitation (9). However, even the rape cases were likely under-reported because of not bringing the child to hospital, misleading history, inconsistent history, cultural and beliefs (9). Furthermore, these were rape cases that resulted in hospitalisation of the children. The children seen in the casualty or outpatient department and discharged were not included. The physical abuse cases were not as many as would have been expected for the study population. In a study using both prospective and retrospective methods, Shaffer demonstrated that 49% of the respondents had experienced more than one type of abuse in childhood (24).

The cases of abuse in our study could have been under-reported due to the admitting clinicians in the sick child clinic and the casualty missing the features of abuse, misdiagnosis and therefore not admitting the children for detailed evaluation for signs of abuse by the investigators. This is supported by the discrepancy between the diagnosis made before and after admission. The only diagnosis of abuse made by the admitting clinician was abandonment. Though malnutrition was the most common diagnosis made on admission, it was not recognised as abuse by the admitting clinicians. The under-reporting of cases of abuse by the admitting clinicians underscores the need to have a high index of suspicion for abuse. Under-reporting has been reported in other studies, like North Carolina where clinicians were only able to identify 5% of the cases of abuse in different settings and under-reported deaths due to abuse by 60% (10). In Kenya, it is estimated that for every case of abuse reported, six go unreported (13). The need to correctly and promptly diagnose child abuse cannot be overemphasised. Such efforts could even result in cost-savings; the cost of managing cases of abuse was found to be US 33,000 dollars compared to US 3000 dollars for providing an at risk family with a home visitor to teach them parenting skills (10).

Though our study demonstrated that there were cases of abuse among the children admitted to the MTRH wards, it had some limitations. As explained, we could have under-reported abuse, as have other researchers in other countries (10, 13). The study did not give a true prevalence because of being hospital-based. The lack of prevalence figures for child abuse in Africa has been attributed to the lack of a standard definition, poor laws, and lack of sensitisation of health workers and the public (10,16). Some of these problems, like the lack of standard definition, are universal. It was difficult to compare the various types of abuse to other studies because of difference in definition and methods used. Some of the types of abuse could not be diagnosed because of the setting. Most of the known predisposing factors could not be proved probably due to the setting and the methods used. However, the study still made an

important contribution to the body of knowledge available on the subject. As was noted in 1979 during the international year of the child, even case reports of child abuse are important in drawing attention to the plight of abused children (1). This study has fulfilled this.

In conclusions, there were cases of abuse among children admitted to the MTRH wards. Most cases presented with clinical signs of common childhood illnesses. The children who were apathetic were more likely to be neglected than the others. Fathers were the predominant perpetrators of nutritional abuse and neglect.

Recommendations: We recommend that clinicians routinely screen children admitted to the wards for abuse. Further studies should be conducted in the community using both prospective and retrospective methodologies to get a true prevalence of child abuse and its associated factors.

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