

# The magnitude of sexual abuse and its physical effects among female children seen at Gandhi Memorial Hospital in Addis Ababa, Ethiopia

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## Abstract

**Background:** Child sexual abuse is a form of abuse that involves sexual activity with a minor. A child does not possess the ability to consent to any form of sexual activity. Therefore, perpetrators who engage in sexual activity with a minor are committing the crime of sexual abuse. The definition of child sexual abuse does not need to include physical contact between a perpetrator and a child. The objective of this study was to assess the magnitude and associated physical consequences of sexual abuse among female children seen at Gandhi Memorial Hospital in Addis Ababa, Ethiopia.

**Method and Materials:** This cross-sectional study identified and reviewed 1,500 reported cases of sexual abuse through hospital records at Gandhi Memorial Hospital (Addis Ababa, Ethiopia) between March 2016 and February 2017. These cases were all perpetrated against females and included both adults and children. From a total of 1,500 cases reviewed, 1,100 involved victims in the pediatric age group (under 18 years) who first presented to the hospital following sexual abuse. Of these 1,100 cases, 292 female children were selected. One study participant was selected for every three victims of child sexual abuse, until the required sample size was met. Data were collected from these 292 cases, and descriptive analysis was used to describe study findings. This analysis included frequencies, percentages, and standard deviations. The socio-demographic and educational status of study participants, as well as the physical findings of the victims on presentation, were analyzed, and presented numerically and as percentages of the total study population.

**Results:** The majority of the victims were referred from Addis Ababa. Among the 292 selected cases, 221 (75.7%) were from Addis Ababa and the rest were from the surrounding areas. The majority of respondents (64.7%) were between 12 and 18 years of age, with a small percentage of respondents (5.8%) between 2 and 3 years of age. Most respondents (242 cases, 82.9%) had no previous history of sexual abuse, but the remaining 50 cases (17.1%) had a previous history of sexual abuse by the same or a different perpetrator.

**Conclusions:** This study provides data, and thus evidence for policymakers and other stakeholders, to strive for an improvement in the security and protection of children, as well as education on the matter of child sexual abuse for parents and guardians. Those who could be involved in the implementation of intervention strategies may include parents, health professionals and pertinent personnel from the Ministry of Health and Ministry of Education. Above all, the data suggest a need for the victims to receive training on how to protect themselves from victimization. *Ethiop. J. Health Dev.* 2019; 33(3):00-00]

**Key words:** Child sexual abuse, rape, female

## Introduction

Child sexual abuse (CSA) is defined as ‘the involvement of a child in a sexual activity that he or she does not fully comprehend, is unable to give informed consent to, or for which the child is not developmentally prepared for and cannot give consent to, or that violates the laws or social taboos of society’ (1). It may include physical contact (e.g. fondling a child’s genitals, masturbation, oral–genital contact, digital penetration, and both vaginal and anal intercourse) or non-contact abuse (e.g. exhibitionism, voyeurism, and child pornography). It usually involves coercion of the unsuspecting victim through trickery or bribery, or it could be forceful, with acts ranging from rape to unwanted fondling (1).

CSA is a serious breach of basic human rights and is responsible for numerous adverse *sequelae*. It is widespread in all countries and a serious, global public health concern that requires collective, as well as individual, pro-active measures to safeguard the rights of children. CSA is associated with a variety of short-

and long-term problems for both male and female victims (2).

Worldwide, a 2011 study estimates that 18% of girls and 8% of boys have experienced sexual abuse (3).

Millions of children and adolescents across the globe are subjected to sexual abuse, including sexual assault and rape. In recent years, concern has been expressed about the rising incidence of crimes targeting women and girls.

The sexual abuse of children is as pervasive in sub-Saharan Africa (SSA) as it is in other parts of the world. As elsewhere, it is most commonly perpetuated by family members, relatives, neighbors and others known to the child victim. The sexual victimization of children may also be commercialized in the form of juvenile prostitution, child pornography, trafficking of children for sexual purposes and child marriage. Public awareness of child sexual abuse in SSA is low (4).

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There is growing recognition that children in SSA are vulnerable to HIV-transmission through sexual abuse and exploitation, including incest, child rape, early (coerced) coitus, 'sugar daddies' and transactional sex. However, this awareness is relatively recent. For example, an early analysis of sexual behavior in SSA by Standing & Kisekka noted that the study was 'intended as a contribution to basic research on AIDS transmission and to the formulation of appropriate prevention programmers' (4).

In developing countries such as Ethiopia, underreporting is common. The problem of obtaining accurate statistics on the prevalence of child and adolescent sexual abuse can be attributed to several factors, including inconsistencies in the definitions given to what constitutes CSA; fear; social stigma against the rape survivors; and other social and cultural norms. It is often committed in 'complete secrecy' and most victimized children do not report as they are 'too ashamed to talk about it' (5). A study conducted with female students in the Jimma Zone of Ethiopia in 2010 revealed that the prevalence of childhood sexual abuse was 16.6%. Moreover, females who were sexually abused had a higher incidence of self-reported depression. They also indicated higher incidences of panic and post-traumatic stress disorder (PTSD) syndromes than their counterparts (5).

A culture of silence and secrecy that prevails in Ethiopia has a negative impact on children and discourages them from reporting and/or disclosing violent acts. This is particularly true in cases of sexual violence against girls, which is usually perceived as an act that destroys the family through scandal. This stigma subsequently also discourages parents and other family members from reporting such incidents to the appropriate agencies (6).

About 60% of rape cases documented in Adigrat Hospital (Ethiopia) involved children and adolescents, and about 20% of these children had already previously been victims of rape. The study also indicated that 70% of the rape was committed against those between 6 and 18 years of age. Although 90% of the perpetrators were identified by the victims, only 42% were arrested by police (7).

A school-based study involving 1,401 randomly selected female high school students in central Ethiopia clearly indicated the seriousness of the problem. Sexual harassment was reported by 74% of the participating female students. Completed rape and attempted rape were reported by 5% and 10% of female students, respectively. About 85% of the reported rape victims were under 18 years of age. Among the girls who reported to having been raped, 24% had subsequent vaginal discharge and 17% became pregnant. Social isolation, fear and phobia surrounding social consequences, general hopelessness, and suicide attempts were also reported by the rape victims (8).

Another study conducted at Yekatit 12 Hospital (Addis Ababa, Ethiopia) reviewed the records of 214 child abuse subjects (aged <15 years) admitted to the

hospital between July 2001 and June 2002. Of the 214 cases, 17 were male and 197 were female. The most common mode of child abuse was sexual (n=205 (96%) vs. physical abuse, n=9 (4%)), of which 10% occurred in boys. Sexual abuse with vaginal penetration occurred in 160 cases (75%) (9).

One study, which aimed to identify risk and vulnerability factors in victims of CSA, focused on environmental factors, generally those external to children, which predispose them to abuse. What came to light during the study interviews, however, was a second set of vulnerability factors, this time personal, involving specific family backgrounds or personal situations of the children that increased their susceptibility to sexual abuse/exploitation (10).

Another epidemiologic study was conducted among 362 female high school students in Arbaminch town, Ethiopia. The lifetime prevalence of rape among these students was 11.0% (11).

The devastating long- and short-term consequences for victims of CSA are reflected in the high public and scientific interest in this topic. The need for reliable overall prevalence estimates of CSA is crucial for health research worldwide, especially for allocating economic resources in health care and estimating the burden (12).

Victims of CSA carry psychological burdens of fear, blame, rage, guilt, and/or disbelief about their experiences. Many sexually abused children never disclose the abuse. When they do, it may be months or years before the abuse is revealed. Sometimes, they are married adults with children of their own before the abuse is ever addressed. As a result, suffering often continues over long periods of time (13).

Researchers have documented CSA's short- and long-term effects in many studies. It has been reported in such endeavors that CSA has consistently been linked to a range of difficulties, including depression, alexithymia, dissociation, PTSD, personality disorders, anxiety and fear, re-victimization, and substance abuse (14). Partly, the rationale for the present study arose from the recognition that there is a paucity of research in this area in Ethiopia, primarily for socio-cultural reasons. Cases of CSA that have presented to hospitals and the police are the major source of data for such studies. The data, though important, may leave many questions unanswered if they are not analyzed. Thus, the objective of this study is to describe the magnitude of female child sexual abuse and assess predisposing factors for CSA among female children who present to Gandhi Memorial Hospital in Addis Ababa, Ethiopia.

In this study, sexual violence is defined as any sexual act that is perpetrated against someone's will, encompassing a range of offences, including a completed non-consensual sex act (i.e. rape), an attempted non-consensual sex act, abusive sexual contact (i.e. unwanted touching), and non-contact sexual abuse (e.g. threatened sexual violence, exhibitionism, verbal sexual harassment). On the other

hand, CSA is operationalized as any sexual violence perpetrated against a child, while the perpetrator is an individual who has engaged in sexually abusive behavior with a minor. These abusive activities could include vaginal and/or anal penetration, oral contact, ejaculation, and lubrication.

### Method and Materials

The study was conducted in Gandhi Memorial Hospital, Addis Ababa, from March 2016 to February 2017. Gandhi Memorial Hospital is a government hospital in Addis Ababa. It was established by Mahatma Gandhi in 1948, and delivers primary care services for 58,000 women and new-born babies annually. Gandhi Memorial Hospital has 384 staff members in total. Crucially, the hospital also has an office that provides legal protection and medical evaluations for women and female children. All female victims of rape in Addis Ababa's city administration and Oromia's special zones (which surround Addis Ababa) receive special services in this hospital.

This retrospective, institution-based, cross-sectional study began with gaining access to and reviewing the medical charts of children who attended Gandhi Memorial Hospital between March 2016 and February 2017. This was followed by the identification of female children under the age of 18 who attended the hospital during the selected study time period. Subsequently, cases of female child sexual abuse were systematically extracted. In total, 1,100 cases of female child sexual abuse were identified. One case was selected out of every three cases originally identified, until the required sample size of 322 cases was reached. Of these cases, 30 were excluded due to incomplete data. The remaining 292 were deemed to have complete data, and were included in the study.

Using a data collecting format, data for the study were extracted for socio-demographic characteristics, educational status, age, living conditions, and the general history of the child, as well as the socio-demographic characteristics of the perpetrator. Data collectors were recruited and given training on the overall data collection procedures. During the data collection process, the principal investigator checked the data every day for completeness, eligibility, and appropriateness. Chi-square statistics were used to test

presence of associations between two or more categorical responses. A p-value of less than 0.05 was taken as confirmation of significant association.

The collected data were entered into SPSS software version 21. For analysis, descriptive statistics, including frequencies, percentages, and standard deviations, were used to describe findings.

**Data quality assurance:** The data were collected from patient chart records using survey forms. Data collection included reviews of medical charts by staff members from the respective organizations involved in the study, under the supervision of the principal investigator. Data were extracted from cases of female child sexual abuse. Such data included socio-demographic variables, the relationship between victim and perpetrator, and the time and place of the initial incident of sexual abuse.

**Ethical considerations:** A human subject's ethical approval sheet used during the study was obtained from the Office of Research and Publications, Addis Ababa University. The survey forms did not include personal identifiers, to protect the confidentiality of patients. Prior to accessing the medical records of the study participants, permission was sought and obtained from the pertinent department.

### Results

**General characteristics:** A total of 1,500 sexually abused females were seen at Gandhi Memorial Hospital between March 2016 and February 2017. Of these females, 1,100 were under 18 years of age, making up 73% of all sexually abused females in this cohort. The highest number of reported sexual abuse cases (i.e. 64.6%) occurred in the age range 12 to 18 years, while the lowest number of reported sexual abuse cases in the age range 2 to 3 years (5.8%).

**Socio-demographic characteristics – age and address of the victims:** The participants of this study were female sexually abused children from Addis Ababa and its suburbs. The highest percentage of the reported victims were from suburbs of Addis Ababa (24.3%). Kolfi Keranio sub-city had the second highest incidence of female child sexual abuse, with 11.6% of reported cases.

Table 1: **Socio-demographic characteristics of respondents visiting Gandhi Memorial Hospital, March 2016 to February 2017, N=292**

| Age                 | Number     | %          |
|---------------------|------------|------------|
| 2-3 years           | 17         | 5.8        |
| 4-5 years           | 15         | 5.1        |
| 6-11 years          | 71         | 24.3       |
| 12-18 years         | 189        | 64.7       |
| Address             | Number     | %          |
| Addis Ketema        | 14         | 4.8        |
| Yeka                | 27         | 9.2        |
| Akaki Kality        | 22         | 7.5        |
| Arada               | 10         | 3.4        |
| Bole                | 31         | 10.6       |
| Gulele              | 15         | 5.1        |
| Kirkos              | 16         | 5.5        |
| Kolfi Keranio       | 34         | 11.6       |
| Lideta              | 24         | 8.2        |
| Nifas Silk Lafto    | 28         | 9.6        |
| Outside Addis Ababa | 71         | 24.3       |
| <b>Total</b>        | <b>292</b> | <b>100</b> |

**Socio-demographic characteristics – educational status of the victims:** Table 2 shows that some of the victims were disadvantaged. Of the 6 to 11-year-old

victims, 29 who were supposed to be in primary school were in KG. Thus, there is significant association between age and educational level (p-value <0.001).

Table 2: **Educational status and age of victims visiting Gandhi Memorial Hospital, March 2016 to February 2017**

| Educational status             | Age       |           |            |             | Total      |
|--------------------------------|-----------|-----------|------------|-------------|------------|
|                                | 2-3 years | 4-5 years | 6-11 years | 12-18 years |            |
| KG                             | 0         | 10        | 29         | 1           | 40         |
| Primary/Elementary             | 0         | 0         | 33         | 73          | 106        |
| Secondary                      | 0         | 0         | 0          | 36          | 36         |
| Not started                    | 17        | 4         | 8          | 4           | 33         |
| Not sent to school             | 0         | 1         | 1          | 11          | 13         |
| Others (employee, home worker) | 0         | 0         | 0          | 64          | 64         |
| <b>Total</b>                   | <b>17</b> | <b>15</b> | <b>71</b>  | <b>189</b>  | <b>292</b> |

Chi-square value = 302.0, p-value <0.001

#### Pattern of child sexual abuse

**Victim's previous history of sexual abuse:** Most sexually abused female children in this study, i.e. 242 children (82.9%), had no previous history of sexual abuse at the time of their presentation, but the remaining 50 cases (17.1%) did have a previous history of sexual abuse, either by the same or a different perpetrator.

**Time and place of attacks:** In the majority of the child

sexual abuse cases, the attacks occurred during the day time – 189 cases (64.7%). The highest proportion (64.7%) of abuse occurred in the victim's own home, while the second highest proportion (28.8%) occurred in a neighbor's home. There is a significant association between place of attack and time of attack, with attack at a neighbor's place tending to occur in the day time, while victims attacked in their own homes tend to be attacked at night (p-value <0.001).

Table 3: **Place and time of attack of the victims who visited Gandhi Memorial Hospital, March 2016 to February 2017**

| Place of attack<br>(N=292) | Time of attack |            | Total      |
|----------------------------|----------------|------------|------------|
|                            | Day time       | Night time |            |
| Own home                   | 60             | 78         | 138        |
| Neighbor                   | 80             | 4          | 84         |
| School                     | 30             | 0          | 30         |
| Unknown                    | 19             | 21         | 40         |
| <b>Total</b>               | <b>189</b>     | <b>103</b> | <b>292</b> |

Chi-square value = 83.8, p-value <0.001

**Type of sexual contact and time of presentation:** In the current study, most sexual abuse occurred by means of vaginal contact (95.2%). The largest proportion

(45.2%) of victims presented to the health unit within 24 to 48 hours. The lowest proportion (2.4%) of

sexually abused children presented to the health unit more than 30 days after the attacks.

There is significant association between the two (p-value <0.001), with older girls tending to develop new or old hymen injuries.

**Physical examination of the victims:** Table 4 shows the association between age and physical examination.

**Table 4: Association between age and physical examination documented at victims' time of arrival at Gandhi Memorial Hospital, March 2016 to February 2017**

| Age of victim | Physical examination documented at time of arrival |              |                         |                |                         |                                 | Total      |
|---------------|--|--------------|-------------------------|----------------|-------------------------|---------------------------------|------------|
|               | Normal   | Minor injury | New hymen injury (torn) | Discharge only | Old hymen injury (torn) | Skin change (bruise, rash etc.) |            |
| 2-3 years     | 15   | 2            | 0                       | 0              | 0                       | 0                               | 17         |
| 4-5 years     | 11   | 2            | 0                       | 0              | 1                       | 1                               | 15         |
| 6-11 years    | 42   | 18           | 7                       | 1              | 3                       | 0                               | 71         |
| 12-18 years   | 14   | 8            | 35                      | 4              | 127                     | 1                               | 189        |
| <b>Total</b>  | <b>82</b>  | <b>30</b>    | <b>42</b>               | <b>5</b>       | <b>131</b>              | <b>2</b>                        | <b>292</b> |

Chi-square value = 185.4, p-value <0.001

**Living conditions of victims:** Most children, 120 (41%), were living with both parents, while the lowest percentage of abuse occurred in children who were living with their father alone (8.2%). There is significant association between caregiver and age of

victims: older girls (12-18 years) are mostly cared for by a single parent or living with relatives, while the youngest mainly live with both parents or are adopted (p-value <0.001).

**Table 5: Caregiver of the child, by age of victims who visited Gandhi Memorial Hospital, March 2016 to February 2017**

| Caregiver    | Age       |           |            |             | Total      |
|--------------|-----------|-----------|------------|-------------|------------|
|              | 2-3 years | 4-5 years | 6-11 years | 12-18 years |            |
| Both parents | 7         | 10        | 33         | 70          | 120        |
| Adopted      | 4         | 0         | 1          | 0           | 5          |
| Relatives    | 1         | 2         | 12         | 24          | 39         |
| Only father  | 2         | 1         | 6          | 15          | 24         |
| Only mother  | 3         | 2         | 13         | 24          | 42         |
| No caregiver | 0         | 0         | 6          | 55          | 61         |
| Unknown      | 0         | 0         | 0          | 1           | 1          |
| <b>Total</b> | <b>17</b> | <b>15</b> | <b>71</b>  | <b>189</b>  | <b>292</b> |

Chi-square = 76.1, p-value <0.001

**Relationship between the victim and the perpetrator:** The highest percentage of perpetrators were neighbors of the victims (28.8%), while the second commonest perpetrator was a family member of the victim (23.6%). However, there is significant

association between the relationship of perpetrators and age of child, the younger the age the neighbor perpetrate were higher while the older the age the higher the family perpetrate. (p<0.001).

**Table 6: Relationship between the victim and perpetrator, by age of victims who visited Gandhi Memorial Hospital, March 2016 to February 2017**

| Perpetrator  | Age       |           |            |             | Total      |
|--------------|-----------|-----------|------------|-------------|------------|
|              | 2-3 years | 4-5 years | 6-11 years | 12-18 years |            |
| Family       | 5         | 1         | 19         | 44          | 69         |
| Neighbor     | 7         | 11        | 26         | 40          | 84         |
| Friend       | 5         | 2         | 18         | 26          | 51         |
| Teacher      | 0         | 0         | 0          | 13          | 13         |
| Stranger     | 0         | 1         | 3          | 10          | 14         |
| Employer     | 0         | 0         | 0          | 39          | 39         |
| Others       | 0         | 0         | 5          | 17          | 22         |
| <b>Total</b> | <b>17</b> | <b>15</b> | <b>71</b>  | <b>189</b>  | <b>292</b> |

Chi-square value = 56.9, p-value <0.001

**Measures and methods used by perpetrators to facilitate attacks:** In one third of cases, the perpetrator gave alcohol or drugs to the child to facilitate the attack. There is significant association between age of

the victim and measures and methods used: most victims under 11 years old seem to be verbally frustrated, while older girls are either forced, as a result of alcohol or drugs and fear (p-value <0.001).

**Table 7: Measures and methods used by the perpetrator during sexual attack, and age of victims who visited Gandhi Memorial Hospital, March 2016 to February 2017**

| Variable                | Age       |           |            |             | Total      |
|-------------------------|-----------|-----------|------------|-------------|------------|
|                         | 2-3 years | 4-5 years | 6-11 years | 12-18 years |            |
| Alcohol or drug         | 2         | 2         | 17         | 75          | 96         |
| Force (kick, hit, blow) | 0         | 1         | 6          | 38          | 45         |
| Cheat                   | 10        | 10        | 32         | 33          | 85         |
| Verbally frustrated     | 5         | 2         | 16         | 43          | 66         |
| <b>Total</b>            | <b>17</b> | <b>15</b> | <b>71</b>  | <b>189</b>  | <b>292</b> |

Chi square value = 45.1, p-value <0.001

### Discussion

Most estimates of the prevalence of sexual abuse in Ethiopia and other countries are derived from hospital-reported cases. The present study is an extension of a similar practice. This means that the findings of this study, derived from hospital reports, can be used as evidence of the magnitude and patterns of pediatric female sexual abuse in this country.

In our study period, a total of 1,100 cases of female child sexual abuse were reported, with an average of 91 cases per month. This is much higher than the findings of Abdulkadir *et al.* and Tukur *et al.* (15,2), where 12 and 29 cases of child sexual abuse were reported over a one-year period, with an average of 2.4 and 3.4 cases per month, respectively. However, our study was conducted in a designated centre for female sexual abuse, where the majority of sexually abused female children in Addis Ababa are cared for, which would explain the higher number of reports.

About two thirds (64.6%) of the victims in this study were young children aged between 12 and 18 years. This is consistent with the findings of a study performed at Western Reserve University (13), and with the findings of Mairo *et al.* (17), Bhattacharyya *et al.* (18) and Lakew (19), where the proportion of victims of female child sexual abuse was lower below the age of 12.

Three quarters of female sexual abuse reports came from Addis Ababa, with the highest proportion of reports coming from the Kolfe Keranio sub-city of Addis Ababa (11.3%). These findings are in accordance with the findings of study conducted in Tikur Anbessa Specialized Hospital (20), where the incidence of CSA in this same sub-city was reported as 11.6%. A possible explanation for this lies in the fact that the area is densely populated with many businesses. Peoples are coming from all over the country with different behavior therefore children are vulnerable to sexual abuse.

In our study, 17.1% of participants had a previous history of sexual abuse. This proportion is similar to that reported in a study done by Girgira *et al.* (21), but lower than that observed by Hassan (13), whose study found that 43.2% of sexually abused children had previously been sexually abused. In this study, most of the attacks (64.7%) occurred during the day time, which is similar to the findings of the study in Western Reserve University in 2014 (13). This is the usual time for parents to be at their place of work, placing

unsupervised children at an increased risk of abuse. Most of the assaults took place either in the homes (47.2%) or neighborhoods (28.7%) of the victims or assaulters. Eighty-four (10.2%) of the victims were assaulted in the class room. Similar rates were also seen in a study done in Nigeria, where 38.2% of CSA occurs at home and 14.7% at a neighbor's house (22,23).

The majority of the study participants (92.1%) were attacked by a single perpetrator. These results are similar to those obtained in Pitche's study of child sexual abuse and sexually transmitted infections in SSA in 2005 (24).

Type of sexual contact varied, with vaginal accounting for 95.2%, followed by vaginal and oral, accounting for 4.5%. The most common physical findings in this study were minor injury 10.3%, major injury, new hymenal injury or deflowerment (14.4%). These results are discordant with study done in Jimma while similar with the study done in urban Zimbabwe where most girls 73.1% and 93% respectively – had vaginal penetration (25,26).

Most of the victims in this study (45.2%) presented within 24 to 48 hours of their assault. This is in keeping with the findings from Lakew (19) and Lagos(27). In 87.8% of cases, the perpetrators were known to the child, with neighbors accounting for 28.8% of perpetrators, and family members accounting for 23.6%. These results are consistent with those of Conklin's study on child sexual abuse in 2012, where most perpetrators were found to be known to the child (28). This trend was also observed in a similar study conducted in SSA (1999-2003) (29), and another study performed by Hassan. In this study, the majority of perpetrators were males (96.8%); only three perpetrators were females (3.2%) (13).

Most of the perpetrators – 32.9% and 29.1% – used alcohol or drugs, respectively, during the attack. A similar phenomenon was also observed by Tonmyr & Shields (30). Just over two fifths (41.1%) of the victims in this study lived with both of their parents. This result contrasts with a study done in Arbaminch, Ethiopia (11), where it was found that living with a mother alone, further predisposed a child to CSA. This was also seen in research done in USA, which showed an increased risk of abuse in children living with only one parent, particularly those living only with their mother (31).

## Conclusions

This study indicates that the sexual safety of girls is not guaranteed. All children are at risk of sexual abuse irrespective of their age, socio-economic status and living conditions. The majority of victims of sexual assault are aged under 18, and the assaults are mostly perpetrated by people known to them. Half of the victims have normal physical findings at presentation following CSA.

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