Overview of child sexual and substance abuse among children in Ethiopia

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ABSTRACT

Background: Child sexual abuse is common typically concealed while substance abuse is unhidden in their nature of practice globally. Objective: The study aims to express the overview of child sexual and substance abuse among children in Ethiopia. Method: A facility-based cross-sectional study design with simple random sampling method was used to recruit study participants, after the allocation of sample size to the study institutions. Both descriptive and inferential statistics were used to describe the variables and to show the association of factors. Results: A total of 450 children participated in the study. The mean age of the study participants was 13.67. More than 38% of the study participants were of age below the mean age. The majority of 61.3% of the study population were living with their parents. Factors associated with child sexual abuse were sex (AOR = 2.92; 95% CI: 1.84, 4.63), alcohol intake (AOR = 2.53; 95% CI: 1.46, 4.36), chewing chat (AOR = 3.84; 95% CI: 1.68, 8.75), cigarette smoking (AOR = 3.83; 95% CI: 1.67, 8.81), age (AOR = 4.38 (95% CI: 2.90, 6.62), educational level (AOR = 0.64 (95% CI: 0.44, 0.93), living conditions (AOR = 4.44; 95%CI: 0.73, 26.87), and conflict between parents AOR = 2.50 (95% CI: 1.43, 4.35). Moreover, the age and educational level of the study participants were statistically significant at P < 0.05. Conclusion: The study concluded that a significant proportion of children who participated in the study experienced sexual abuse and/or substance abuse. Therefore, there should be an intrusion to reverse the prevalent children's sexual and/or substance abuse in the country.

Keywords: Child sexual abuse, child substance abuse, Ethiopia, risk factors

Background

The World Health Organization defines child sexual abuse as “the involvement of a child in sexual activity that he or she does not fully comprehend, not given informed consent, or for which the child is not developmentally prepared and cannot to give consent, or violates the laws or social taboos of society.”[1] The typical sexual abuses are of types contact and noncontact; contact sexual abuse is characterized by penetration like rape and oral sex while the noncontact type was characterized by forcing children to watch sexual images and/or tricks, encouraging children to try unusual sexual practices or grooming a child in a way of preparing for sexual abuse.[2,4] Child sexual abuse is common and significant worldwide. A systematic review and metaanalysis conducted in 2011 revealed, globally, the prevalence of childhood sexual abuse among girls was estimated around the twentieth while among boys was 8%. Moreover, a study from Europe revealed that childhood regulatory offense was found in 06–36 in girls while 145–150 in young boys.[5] Furthermore, a study from North American nations revealed that 18.7% children were sexually abused; 58% girls faced sexual abuse compared to 42% boys.[7,8] On the other hand, a study from...
the Republic of South Africa revealed that 14.61% of females face sexual abuse compared to 9.99% boys.\textsuperscript{7} Moreover, another study from Republic of South Africa revealed that 39.1% of women and 16.7% of men had faced sexual abuse in their childhood.\textsuperscript{9} While child sexual abuse in the family is frequent globally, it is immensely underreported in Sub-Saharan African countries including Ethiopia.\textsuperscript{10,11} One of the adverse effects of child sexual abuse is the negative impact on the mental state of the individual\textsuperscript{9} which is also linked to psychological, physiological, and/or neurological malfunctioning which may result in low cognitive ability and didactic achievements.\textsuperscript{12}

Within the past decades, several African countries have undertaken vital efforts to legally control childhood sexual abuse and crimes. In fact, in some cultures, there is a belief that women are abused because of their vulgar dressing and not adhering to ancient values.\textsuperscript{10,11} However, child sexual abuse in most Sub-Saharan African countries including Ethiopia is not a subject of debate within the disciplines of law and other scientific disciplines, or within the media until the 1980s and 90s.\textsuperscript{13} A number of factors expose a child to sexual abuse as well as substance abuse; for instance, lower family income, parental drug and alcohol abuse, parental conflict, and organization of the child and parent's instruction.\textsuperscript{14,15} However, only limited studies have been conducted in Ethiopia to measure the prevalence of child sexual and substance abuse. Therefore, this study aimed to determine the prevalence of child sexual and substance abuse and its associated factors among children in Ethiopia.

**Variables**

- Child sexual abuse
- Child's sociodemographic characteristics: age, sex, academic standing, organization of the child, and absence of one or both biological parents
- Parental sociodemographic and socioeconomic characteristics: educational standing of caregiver, legal status, matrimonial conflict, family size, parents' occupation, and monthly income
- Health-related characteristics: mental retardation and physical disability of the children
- Substance use: chewing, smoking, and alcohol consumption status of the children

**Data collection tool and quality control**

The tool was adapted from a previous study titled “Determinants of child sexual abuse among female high school students, Gondar, North West Federal Democratic Republic of Ethiopia”\textsuperscript{12} to meet the objective of this study. The tool has three parts: the first part contains children and parental sociodemographic characteristics; the second part contains the history of substance use by the child, and the third part contains child sexual abuse experiences. Data was collected by a face to face interview and questionnaire. The questionnaire was initially prepared in the English language, then, translated to the local language Amharic and retranslated to English to keep its consistency by an expert in both languages and a pretest was done on 5% of the sample size at Menelik hospital before the actual data collection period by trained undergraduate nurse data collectors who were supervised by trained postgraduate nurses. Accordingly, appropriate modifications were done based on the analysis of pretested data. The completeness and all procedure of the data collection were supervised by the principal investigator and supervisors on a daily basis.

**Data analysis**

Data were entered using Epi data version 3.1 statistical package and transferred to SPSS version 21 for analysis. Descriptive statistics were used to describe the variables. Binary logistic regression analysis was used to test the association of independent variable to dependents. Statistical significance was determined at $P < 0.05$.

**Ethics approval and consent to participate**

An ethical clearance letter was obtained from “Addis Ababa University, College of Health Sciences Ethical Review Board” conjointly from “Addis Ababa Regional Health Bureau- Ethical Review Committee”. Additionally, a letter of permission was obtained from the “Bureau of Ministry of Labor and Social Affair” to gather data from the children who do not have parents. After the letter of support was obtained from the ethical review committee of Addis Ababa University, College of Health Sciences and Addis Ababa Regional Health Bureau, the detailed rationale of the study was described to
the study participants and their parents. Finally, a written consent and assent was obtained from the study participants and/or their parents to conduct a face to face interview in a separate room. The participants had the right to withdraw and/or refuse to participate in the study.

Operational definitions
- **Child sexual abuse**: defined as the abuse directed towards the child without the will of gratifying sexual need of one or more persons
- **Sexual contact**: Intentional touching of a victim’s, defendant’s, or the other person’s intimate elements for the aim of arousal
- **Rape**: To commit sex exploitation force that the kid does not need to and is not ready to defend himself/herself
- **Attempted rape**: Trial to own nonconsensual intercourse with a child wherever she/he was having an opportunity of escaping the try
- **Substance abuse**: is when children use alcohol, chat, and/or cigarette on their daily basis to relieve from their daily problems encountered.

**Result**

**Sociodemographic characteristics**
A total of 450 children were participated in the study with a response rate of 100%. Among them, 226 (50.2%) were female while the rest were male. Of the 450 children, 228 (50.7%) were of the age 15–18 years, 127 (28.2%) were of age 10–14 years and 95 (21.1%) were below <10 years. The mean age of the study participants was 13.67 ± 3.61 [Table 1]. Regarding their educational status; 248 (55.1%) were of grades 1–8 and 19 (4.2%) were unable to read and write. A total of 276 (61.3%) children were living with both their parents while 12 (2.7%) were living with a person who does not have any relationship [Table 1].

Out of 450 children, 228 (50.7%) had 5–9 family members while 11 (2.4%) of them have more than nine family members, with the maximum family size being 15 members [Figure 1]. Regarding the occupation of the children’s parents, 156 (34.7%) male parents had their own (private) job, 151 who were government-employed (33.6%), and 18 (4%) were retired and/or not have jobs [Figure 1].

**Prevalence of sexual abuse and substance abuse**
This study found that almost 217 (48.2%) of the total study participants have experienced one or more forms of sexual abuse. Furthermore, 54 (12%) of them were raped completely most of them being female children [Table 2]. Overall, 273 (60.3%) of the study participants had experienced one or more forms of substance abuse. 152 (33.8%), 83 (18.4%), 78 (17.3%) study participants had histories of alcohol consumption, chat chewing, and cigarette smoking, respectively. Regarding the health status of the study participants, 22 (4.9%) children had some kind of mental illness while 16 (3.6%) had some kind of disability [Table 3].

| Variables | OR (95% CI for OR) | Adjusted OR |
|-----------|-------------------|-------------|
| Age       |                   |             |
| <10       | 1.00              |             |
| 10-14     | 2.97 (1.59-5.53)* | 2.46 (1.22-4.96)* |
| 15-18     | 7.76 (4.35-13.87)* | 3.924 (1.70-9.04)* |
| Sex       |                   |             |
| Male      | 1.00              |             |
| Female    | 2.384 (1.63-3.48)* | 2.92 (1.84-4.63)* |
| Educational level |           |             |
| Not read and write | 0.407 (0.22-.77)* |             |
| 1-8 grade | 1.00              |             |
| 9-12 grade | 28 (6.2%) |             |
| ≥ grade 12 | 2.98 (1.63-4.38)* |             |
| Death of one or both parents |           |             |
| Yes       | 1.890 (1.26-2.85)* |             |
| No        | 1.00              |             |
| Use of chat |                   |             |
| Yes       | 10.02 (5.14-19.55)* | 3.84 (1.68-8.75)* |
| No        | 1.00              |             |
| Cigarette smoking |           |             |
| Yes       | 10.18 (5.08-20.40)* | 3.834 (1.67-8.81)* |
| No        | 1.00              |             |
| Alcohol consumption |           |             |
| Yes       | 5.97 (3.84-9.28)* | 2.525 (1.46-4.36)* |
| No        | 1.00              |             |

Note: * (statistically significant), ≥ (greater than or equal to), < (less than), n (number), OR (Odds ratio), % (percent), CI (confidence interval), and 1 (reference)
Association of factors
Factors associated to child sexual and substance abuse
The study used both bivariate and multivariate logistic regression analyses to show the association between factors of child sexual and/or substance abuse. The bivariate logistic regression analysis revealed that age, sex, educational status, death of one or both parents, chewing chat, consumption of alcohol, and cigarette smoking were significantly associated with child sexual abuse ($P < 0.05$). Furthermore, after controlling some confounders with multivariate logistic regression analysis, age being 9–14 [OR = 2.46 (95% CI: 1.22–4.96)*], >14[OR = 3.924 (95% CI: 1.70–9.04)*], sex[OR = 2.92 (95% CI: 1.84–4.63)], use of chat[OR = 3.84 (95% CI: 1.68–8.75)*], cigarette smoking [OR = 3.834 (95% CI: 1.67–8.81)*], and alcohol consumption [OR = 2.525 (95% CI: 1.46–4.36)*] were found as factors associated with child sexual abuse as well remained statistically significant at $P < 0.05$ [Table 1].

Based on the multivariate logistic regression analysis, the study found that age; being in <10 years of old [OR = (95%CI: 2.90, 6.62)], educational level; being not able to read and write [OR = 0.64 (95% CI: 0.44, 0.93)], and having a conflict in family [OR = 2.50 (95% CI: 1.43, 4.35)] were associated with substance abuse [Table 4].

Discussion

Unquestionably, primary health care swathes the mainstream of individuals’ health needs right through their life that includes treatment, palliative care, rehabilitation, and prevention. More specifically, health-care professionals at primary health care level are responsible to prevent and minimize the consequence of child sexual abuse as well as substance abuse by prioritizing the most interest of the child towards their emotional and physical health.

This study has assessed the prevalence of child sexual and substance abuse among children on treatment in selected governmental hospitals (Tikur Anbesa Specialized hospital, Zewditu Memorial hospital, and Yekatit 12 hospital) of Addis Ababa, Ethiopia. It is a known fact that childhood sexual abuse and substance abuse have a negative impact on the adulthood of the individual who faced the incident. This study revealed that the overall prevalence of sexual abuse and substance abuse is 48.2%, and 60.3%, respectively. This finding is higher than the prevalence of child sexual abuse from the study conducted in Egypt (29.8%) and a systematic review from India which ranges the prevalence of child sexual abuse at 4–41%. [20,21]

**Table 2: Prevalence of child sexual abuse, (n=450)**

| Variables                           | Frequency (%) |
|-------------------------------------|---------------|
|                                     | Male          | Female        | Total        |
| Kissed involuntarily                 |               |               |              |
| Yes                                 | 17 (3.8)      | 100 (22.2)    | 117 (26)     |
| No                                  | 207 (46)      | 126 (28)      | 333 (74)     |
| Forced to look at sexual activities  |               |               |              |
| Yes                                 | 25 (5.6)      | 41 (9.1)      | 66 (14.7)    |
| No                                  | 199 (44.2)    | 185 (41.1)    | 384 (85.3)   |
| Encouraged to done sex              |               |               |              |
| Yes                                 | 11 (2.4)      | 18 (4)        | 29 (6.4)     |
| No                                  | 213 (47.3)    | 208 (46.2)    | 421 (93.6)   |
| Attempted rape                      |               |               |              |
| Yes                                 | 40 (8.9)      | 54 (12)       | 94 (20.9)    |
| No                                  | 184 (40.9)    | 172 (38.2)    | 356 (79.1)   |
| Raped                               |               |               |              |
| Yes                                 | 25 (5.6)      | 29 (6.4)      | 54 (12)      |
| No                                  | 199 (44.2)    | 197 (43.6)    | 396 (88)     |
| Touched and fondled                 |               |               |              |
| Yes                                 | 17 (3.8)      | 88 (19.6)     | 105 (23.3)   |
| No                                  | 207 (46)      | 138 (30.7)    | 345 (76.7)   |

Note: % (percent), n (number)

![Figure 1: Parents’ socio-demographic characteristics](image-url)
This may be due to differences in the sociodemographic characteristics of the study participants, sample-size, and the level of civilization of the community of the study participants grow in. The prevalence of male sexual abuse revealed by this study was 38.7% while that of female is 61.3%. This finding is higher than a study conducted in Egypt which revealed a prevalence of 21.2% in males and 37.8% in females.[20] This may be due to the differences in the educational level of the study participants’ community, study period, and/or exposure level of substance abuse individuals.

According to the findings of this study, the greater number of study participants who had a habit of alcohol drinking were more likely to be sexually abused compared to those who do not have a habit of alcohol drinking. This finding is in line with a study from South Korea.[22] In contrary, a study from South Korea reported 13% of male children faced one or more times to some sorts of sexual abuse: 2.7% of them were touched by or asked to touch the genital organ, 2.2% were kissed involuntarily, and 1.7% were raped which is lower than the finding of this study. This may be due to the difference in the study period and the place of the study population. This study revealed that almost one third (26%) of the study participants have experienced unwanted kissing. This finding is in line with a study from Tanzania.[23] This difference may be due to the difference in the behavior of study participants, the difference in the advancement of technology in the study participant’s community. This study revealed that 12% of the study participants had experienced complete rape. This finding is lower than that from another study.
This difference may be due to a difference in study units and the difference in the age of study participants. Further, this study revealed that among the study participants who were raped, 5.6% and 8.9% were male and female who faced complete and tried to be rape, respectively. This finding is in line with another study from Ethiopia. This may be due to similar characteristics of study participants, study design, study unit, and/or study period.

On the other hand, this study revealed a significant number (6.4%) of female study participants have experienced complete rape while 22% of female study participants had been kissed forcibly. This finding is in line with the study from the southern part of Ethiopia. This may be due to the similar characteristics of the study participants, study unit, and study design, level of education, and financial income level of both parents and children.

Unlike the study from the northern part of Ethiopia, this study revealed that the legal status of the study participants and/or organization of the study participants were not associated with sexual abuse while the sex of the study participants was associated with sexual abuse.

**Limitation of study**

This study has limitations such as not defining the cause and effect relationships as it is a cross-sectional study. In addition, the study participants may have not exposed all kinds of abuse they had faced as it the method followed for data collection was interview method and they may have some recall bias.

**Conclusions**

This study revealed that a significant proportion of the study participants had experienced sexual abuse and substance abuse. Therefore, it is important to consider an intercession aiming to reduce the level of substance abuse and sexual abuse among children.

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**Data availability**

Data will be offered by the corresponding author on request.

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Nil.

**Conflicts of interest**

There are no conflicts of interest.
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