










Lifetime Experience of Childhood Abuse and Neglect Among High School Students at Debre Tabor Town, South Gondar Zone, Northwest Ethiopia: An Institution-Based Cross-Sectional Study

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Background: Childhood abuse and neglect is defined as any intentional harm or mistreatment of a child that results in actual or potential harm to the child's health, survival and development. It has been linked to an increased risk of a wide range of serious short- and long-term medical and mental health problems. Although it is a complex societal issue, it receives limited research attention in the area.

Objective: To assess lifetime prevalence of childhood abuse and neglect among high school students in Debre Tabor town, south Gondar Zone, Northwest Ethiopia, 2022.

Methods: A cross-sectional study design was used to assess 423 high school students, chosen through a systematic sampling technique. Data were collected using a pre-tested, structured and self-administered international child abuse screening tool, child version (ICAST-C). The effect of independent variables on the outcome variable was explored using logistic regression analyses. The level of significances were determined using an odds ratio with a 95% confidence interval.

Results: Of the 423 study participants, 84.4% had lifetime experience of childhood abuse and neglect. Being female (AOR=4.5, 95% CI: 2.38, 8.60), parental marital status (AOR=5.4, 95% CI: 1.07, 27.3), illiteracy of father (AOR=1.65, 95% CI: 4.5, 6.03), birth order (AOR=4.5, 95% CI: 1.57, 13.0), open family discussion of sexual matters (AOR=0.37, 95% CI: 1.74, 7.86), and watching pornography (AOR=0.08, 95% CI: 0.02, 0.40) were significantly associated with lifetime experience of childhood abuse and neglect.

Conclusion: Lifetime experience of childhood abuse and neglect was high as compared with previous studies. Being female, parental marital status, illiterate fathers, watching pornography, and open family discussion of sexual matters were predictors of childhood abuse and neglect. Dealing with this issue should be considered an integral component of high school students' care, including parental education and respite care.

Keywords: childhood abuse, neglect, high school students, ICAST-C

Introduction

Childhood abuse and neglect is defined as any intentional harm or mistreatment of a child that results in actual or potential harm to the child's health, survival, development, and dignity.^{1,2} Child abuse and neglect can be emotional,

sexual, and physical.³ Children may be abused and neglected by both adults and other children in the form of intentional or unintentional acts that frequently result in omission of care or commission of abuse.^{4–6}

Child abuse and neglect has affected 120 million young women under the age of 20.^{7–9} Every year, 4–16% of children are physically abused, and one in ten is neglected or psychologically abused. During childhood, 5–10% of girls and up to 5% of boys are exposed to penetrative sexual abuse, and up to three times this number are exposed to any type of sexual abuse in high-income countries.^{10,11} Physical and sexual abuse and child neglect account for 41.5, 28.4, and 4.5% of cases, respectively.¹²

The pooled prevalence of multi-type child abuse is 97.6%, whereas the prevalence of physical, emotional, and sexual abuse is 82.1, 21.8 and 24.7%, respectively.¹³ Child sexual abuse prevalence is 29.8%, and is higher for females (37.8%) than males (21.2%) in Egypt⁷; in Ethiopia it is 34.9%.⁸ Based on a systematic review conducted in developing countries, school-based and community-level strategies and interventions to avert childhood abuse and neglect are necessary.^{9,10}

Globalization and modern technology may increase the risk of abuse and neglect, which is caused by the interaction of multiple forces such as parental background, socioeconomic environment, family structure or family relationships, and child characteristics.¹¹ It is frequently an indicator of family problems that have devastating effects on those concerned, which are not only visible in the lives of the victimized children but whose long-term effects are also a burden for society in general.¹²

Childhood abuse and neglect has been linked to an increased risk of diabetes, malnutrition, functional limitations, brain damage, pulmonary disease, and cancer.¹⁴ Not only that, but it also causes long- and short-term problems such as delinquency, unwanted pregnancy, abortion, sexually transmitted infections (STIs), human immunodeficiency virus (HIV), substance abuse, and school failure, all of which can have long-term consequences for their future life.^{15,16} Abused and neglected children frequently suffer from injuries such as cuts, burns, broken bones, and stress, which can disrupt early brain development and harm the development of nervous and immune systems, increasing the risk of various health threats such as alcoholism, depression, post-traumatic stress disorder (PTSD), drug abuse, anxiety, eating disorders, obesity, high-risk sexual behaviors, smoking, suicide, and chronic diseases.^{14,17–19}

Despite various efforts to prevent and respond to child abuse and neglect, such as life skills training, gender and reproductive health education, the Child Abuse Prevention and Treatment Act, parental reconciliation with their own childhood history of abuse,²⁰ and psychosocial interventions, the impact of childhood abuse and neglect resonates in all areas of health. Furthermore, the prevalence and factors associated with lifetime experience of childhood abuse and neglect have not been well-documented in low-income populations, particularly in Ethiopia.²¹ This study provides baseline data on the prevalence of and possible factors for childhood abuse and neglect in the study area for program managers, policy makers and researchers responsible for the design, proper implementation and evaluation of programs to reduce childhood abuse and neglect. Assessing the prevalence and associated factors of lifetime experience of childhood abuse and neglect among high school students in Debre Tabor town, South Gondar zone is critical.

Methods

Study Design, Setting and Period

A cross-sectional study was conducted among high school students at Debre Tabor town, Northwest Ethiopia from February 30 to April 30 2022.

Source and Study Population

The source population consisted of all Debre Tabor town high school students enrolled in the academic year 2021/2022. The students from a selected high school class in Debre Tabor town during the academic year 2021/2022 were the study population. Students who were unable to respond due to serious illness were excluded from the study.

Sample Size Determination and Sampling Technique

The sample size was calculated using a single population proportion formula with the following assumptions: the proportion of children abused and neglected in high school is 50%, the confidence level is 95%, the margin of error is 5%, and the non-response rate is 10%. The final sample size was 423 study participants, with each person chosen using a systematic sampling method. There are three high schools in the area, and the number of students in each was determined using a proportional sample size allocation. Six BSc nurses who collected data and three MSc supervisors were trained.

Data Collection and Measurements

A pre-tested and structured self-administered questionnaire was adapted from various sources.^{11,22,23} The questionnaire was written in English, translated into Amharic by a language expert, and then back-translated into English by a second language expert to ensure consistency. Participants who met the inclusion criteria and agreed to participate were recruited. The questionnaires had four sections: socio-demographic characteristics, student characteristics questionnaire, parental or family-related characteristics, and the international childhood abuse screening tool, child version (ICAST-C). The ICAST-C can assess lifetime prevalence of childhood abuse.²⁴ The translated questionnaire was pre-tested among 22 (5%) Mekaneyesus high school students two weeks before actual data collection, and minor changes were made. Participants who met the inclusion criteria and provided consent were invited to sign the informed consent after a brief explanation of the study's objective and scope.

Operational Definitions

Physical abuse is the intentional use of physical force against a child that results in harm. Sexual abuse can be defined as the involvement of a child in sexual activity that he or she does not fully comprehend or is not developmentally prepared for or that violates the laws or social taboos of society. Emotional abuse is inappropriate verbal or symbolic acts towards a child. Child neglect refers to isolated incidents as well as a pattern of failure over time on the part of a parent or other family member to provide for the development and wellbeing of the child. Each form of abuse is measured using ICAST-C criteria with dichotomized responses, "Yes" or "No"; if a child responds "yes" more than or equal to one, she/he was abused for each category. For lifetime childhood abuse and neglect, when a child responds "yes" more than or equal to one, she/he was abused and neglected in this category of ICAST-C-29 item questions.

Data Analysis and Interpretation

The collected data were manually checked for completion, and any questions that were incomplete or misfiled were cleaned and saved for consistency. The data was then coded and entered into EP-data version 4.2 software, which was then transformed into SPSS version 24 for analysis. The descriptive statistic results were presented in the form of text and tables. A binary logistic regression model was used to identify factors associated with lifetime childhood abuse and neglect. Variables with p-values less than 0.25 in the bivariable analysis were included in the multivariable logistic regression analysis. To demonstrate the strength of the relationship, the adjusted odds ratio (AOR) with the corresponding 95% confidence interval (CI) was used.

Results

Socio-Demographic Characteristics of Students

A total of 423 students were involved in this study, with a response rate of 100%. The mean \pm SD of students' ages was 17.3 \pm 1.5 years. Additionally, more than half of the students (296, 70.0%) were female. Two hundred and thirty-two students (54.8%) lived in urban areas, and the majority (297, 70.2%) lived with their parents. More than half (245, 57.9%) had a parent primary caregiver, and 250 (48.5%) had four to six family members (Table 1).

Table 1 Socio-Demographic Characteristic of High School Students at Debre Tabor Town, South Gondar Zone, Northwest Ethiopia, 2022 (n=423)

Variables	Categories	Frequency	Percentage (%)
Age of students (years)	<18 years	319	75.4
	≥18 years	104	24.6
Sex	Male	127	30
	Female	296	70
Religion	Orthodox	238	56.3
	Protestant	157	37.1
	Muslim	23	5.4
	Other	5	1.2
Residence	Urban	232	54.8
	Rural	191	45.2
Marital status of student	Single	359	84.9
	Widowed	9	2.1
	Married	47	11.1
	Divorced	8	1.9
Family size	1–3	137	32.4
	4–6	205	48.5
	≥6	74	17.5
	Others	7	1.7

Students-Related Factors

The majority of high school students (257, 60.8%) were social media users; more than half (252, 59.6%) did not watch pornography. Two hundred and seventy-three (64.5%) students had a history of alcohol use, and half (209, 49.4%) were the firstborn child in their family (Table 2).

Parental and Family-Related Factors

Two hundred and fifty-six (60.5%) high school students had fathers who could read and write. Almost 60% had parents as their primary caregivers. Less than half (45.9%) had a single parent. Two hundred and ninety-seven (70.2%) students lived at home with their parents. Furthermore, 238 (56.3%) had open family discussions about sexual matters (Table 3).

Table 2 Student-Related Factors (n=423)

Variables	Categories	Frequency	Percentage (%)
Birth order	First	209	49.4
	Middle	171	40.4
	Last	43	10.2
Alcohol drinking	Yes	273	64.5
	No	150	35.5
Cigarette smoking	Yes	170	40.2
	No	253	59.8
Chat chewing	Yes	158	37.4
	No	265	62.6
Watching pornography	Yes	171	40.4
	No	252	59.6
Using social media	Yes	257	60.8
	No	166	39.2

Table 3 Parental-Related Factors (n=423)

Variables	Categories	Frequency	Percentage (%)
Educational level of father	Cannot read and write	167	39.5
	Can read and write	202	47.8
	Primary school	18	4.3
	High school	13	3.1
	Diploma and above	23	5.3
Educational level of mother	Cannot read and write	194	45.9
	Can read and write	173	40.9
	Primary school	26	6.1
	High school	21	5.0
	Diploma and above	9	2.1
Primary caregiver	Parent	245	57.9
	Relative	144	34.0
	Friend	27	6.4
	Other	7	1.7
Parental loss	Single	194	45.9
	Both	81	19.1
	Both alive	148	35
Type of family currently living with	With parents	297	70.2
	Alone	91	21.5
	With friends	28	6.6
	With adopters	6	1.4
	Others	1	0.2
Marital status of parents	Single	126	29.8
	Widowed	150	35.5
	Married	135	31.9
	Divorced	12	2.8
Parental occupation	Daily laborer	152	35.9
	Government employee	150	35.5
	Farmer	83	19.6
	Merchant	31	7.3
	Student	1	0.2
	Others	6	1.4
Owner of house	Owned	302	71.4
	Rented	121	28.6
Open family discussion on sexual issues	Yes	238	56.3
	No	185	43.7

Prevalence of Lifetime Experience of Childhood Abuse and Neglect

Pooled prevalence of lifetime childhood abuse and neglect accounted for 357 students (84.4%, CI=80.9–87.9) (Figure 1): physical abuse (n=311, 73.5%), emotional abuse (n=304, 71.9%), neglect (n=260, 61.5%), and sexual abuse (n=249, 58.9%), respectively (Figure 2).

Association Between Independent Variables and Lifetime Experience of Childhood Abuse and Neglect Among High School Students

In bivariate logistic regression analysis, factors that were significantly associated with lifetime experience of childhood abuse and neglect were sex of the student, parental marital status, father's educational level, open family discussion on sexual matters, parental loss, birth order, alcohol drinking, watching pornography, cigarette smoking and social media use. Variables revealed as significant by bivariate analysis were introduced into multiple logistic regression analysis. In multiple logistic

Pooled Prevalence of Lifetime experience of Childhood abuse and neglect

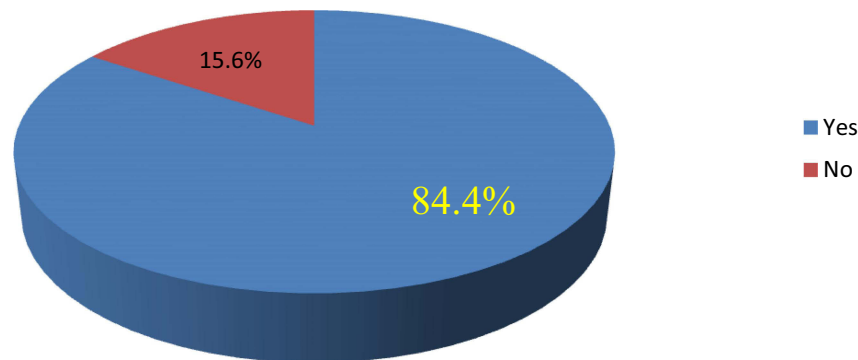


Figure 1 Pooled prevalence of lifetime experience of childhood abuse and neglect among high school students, Debre Tabor town, South Gondar Zone, Northwest, Ethiopia, 2022.

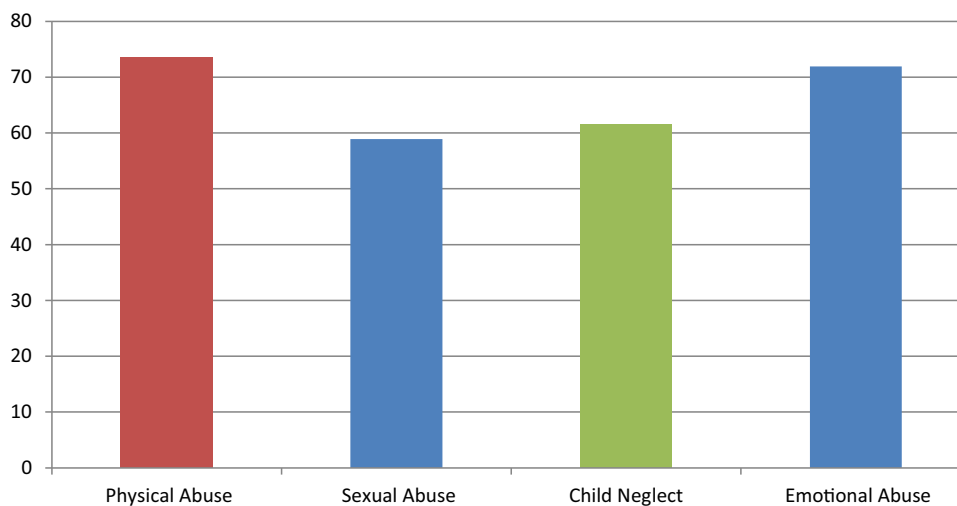


Figure 2 Types of lifetime experience of childhood abuse and neglect among high school students, Debre Tabor town, South Gondar Zone, Northwest, Ethiopia, 2022. Values are presented as percentages.

regression analysis, sex of the student, parental marital status, open family discussion on sexual matters, birth order, and watching pornography were significantly associated with lifetime experience of childhood abuse and neglect. Female high school students were 4 times more likely to be exposed to childhood abuse and neglect than male high school students (AOR=4.5, 95% CI: 2.38, 8.60). Students who had an unmarried parent were 5 times more likely to be exposed to childhood abuse and neglect than those whose parents were divorced (AOR=5.4, 95% CI: 1.07, 27.3). Students who had uneducated fathers were twice as likely to be exposed to childhood abuse and neglect than those whose fathers had a diploma and above level of education (AOR=1.65, 95% CI: 4.5, 6.03). Similarly, students who were the eldest in their family were five times more likely to be abused and neglected than those who were the youngest (AOR=4.5, 95% CI: 1.57, 13.0). Participants who openly discussed sexual matters with their family were less likely to be exposed to abuse and neglect than those who did not (AOR=0.37, 95% CI: 1.74, 7.86). Finally, students who watched pornography were less likely to be abused and neglected than those who did not (AOR=0.08, 95% CI: 0.02–0.40) (Table 4).

Table 4 Bivariate and Multivariate Logistic Regression Analysis of Factors Associated with Lifetime Experience of Childhood Abuse and Neglect (n=357)

Variables	Childhood Abuse		COR (95% CI)	AOR (95% CI)	P-value
	Yes, N (%)	No, N (%)			
Sex					
Male	88(69.3)	39(30.7)	-	-	-
Female	267(90.8)	27(9.2)	4.4(2.56–7.63)	4.5(2.38–8.60)	0.001**
Parental marital status					
Unmarried	111(88.1)	15(11.9)	3.7(9.9–13.8)	5.4(1.07–27.3)	0.041**
Windowed	130(86.7)	20(13.3)	3.3(8.95–11.8)	4.1(8.1–21.0)	0.09
Married	108(80.0)	27(20.0)	2.0(5.6–7.1)	4.97(0.09–22.7)	0.04
Divorced	18(81.8)	4(18.2)	-	-	-
Father educational level					
Cannot read & write	145(86.8)	22(13.2)	2.3(6.53–8.3)	1.65(4.5–6.03)	0.045**
Can read & write	170(84.2)	32(15.8)	1.88(5.1–6.87)	1.97(0.58–6.65)	0.28
Primary school	13(72.2)	5(27.8)	0.9(2.29–3.68)	1.61(0.3–8.6)	0.58
Secondary school	12(92.3)	1(7.7)	0.42(4.5–39.9)	5.9(0.48–72.0)	0.17
Diploma & above	17(73.9)	6(26.1)	-	-	-
Birth order					
First	192(91.9)	17(8.1)	3.88(1.67–9.05)	4.5(1.57–13.0)	0.005**
Middle	133(77.8)	38(22.2)	1.2(1.55–2.61)	2.4(0.94–5.94)	0.07
Last	32(74.4)	11(25.6)			
Open family discussion on sexual issues					
Yes	194(81.5)	44(18.5)	0.17(0.97–2.92)	0.37(1.74–7.86)	0.001**
No	163(88.1)	22(11.9)			
Parental loss					
Single	171(88.1)	23(11.9)	1.58(0.86–2.91)	0.5(0.2–1.3)	0.15
Both	64(79.0)	17(21.0)	0.8(0.41–1.59)	0.66(0.24–1.85)	0.43
Both alive	122(82.4)	26(17.6)			
Alcohol drinking					
Yes	239(87.5)	34(12.5)	1.5(0.31–0.89)	0.65(0.23–1.46)	0.297
No	118(78.7)	32(21.3)			
Cigarette smoking					
Yes	163(95.9)	7(4.1)	1.14(0.06–0.32)	0.9(0.24–3.2)	0.84
No	194(76.7)	59(23.3)			
Watching pornography					
Yes	168(98.2)	3(1.8)	0.05(0.02–0.17)	0.08(0.02–0.40)	0.002**
No	189(75.0)	63(25.0)			
Using social media					
Yes	236(91.8)	21(8.2)	0.24(0.14–0.42)	0.7(0.34–1.45)	0.34
No	121(72.9)	45(27.1)			

Note: **P-value <0.01.

Discussion

The findings of this study showed that the pooled prevalence of lifetime experience of childhood abuse and neglect among high school students was 84.4%. This finding is similar to that of a study conducted in China,^{25,26} but lower than that of a study conducted in Iran.²⁵ Studies conducted in Rome, Canada, China, Egypt, Ethiopia found higher prevalence levels.^{15,27–29} These discrepancies might be attributed to socio-cultural variations in study setting, study period, and sample size. Differences in incidence are affected by how the disclosure and reporting of cases are understood in various cultures, parenting type and skill differences that provide higher levels of parental supervision and less opportunity for exposure to abuse and neglect.

This finding revealed that female high school students had a higher prevalence of lifetime experience of childhood abuse and neglect than males, 90.8% and 69.3%, respectively. This could be because females are more

vulnerable to abuse and neglect in our study setting because they are typically used as domestic servants and are child labor victims. Another reason may be that females exhibit early physical maturation, making them appear physically attractive and thus vulnerable to unwanted seduction by older and more experienced males; they are also perceived as being responsible for indoor work and caring for siblings compared to males. Furthermore, it is widely assumed that boys are much more reluctant than girls to disclose abuse and neglect because of the gender stereotype that males are of stronger character. But this finding is inconsistent with that of study conducted in China.²⁶ This variation might be because child abuse and neglect in China is not seen as a gender-based issue; that is, all children are expected to obey their parents, and parents apply strict discipline.

This study revealed that high school students who had unmarried parents were more likely to be exposed to childhood abuse and neglect than others. This implies that children of divorced and never-married parents are far more likely to be exposed to childhood abuse and neglect than children with married parents. This is similar to a study conducted in the US.³⁰ The possible explanation for this might be that parents who have never married are more likely to expose their child to a step-parent who does not have a biological tie to them, which increases the likelihood of that child experiencing domestic violence.³¹ Furthermore, the financial dependence of female parents on male parents is likely to have played a role here.

In this study, students with illiterate fathers were more likely to be exposed to childhood abuse and neglect than those with literate fathers; however, this situation is reversed for mothers in other countries. One possible explanation is that fathers are the most common abusers, with mothers coming in second. Also, among families of lower socio-economic status, the expectations and frustrations related to improving the future living conditions of the family generally fall on fathers, who apply strict disciplinary measures in the family. This finding is consistent with those of studies in Pakistan and Ethiopia.^{32,33}

High school students who were first in the family birth order were more likely to be exposed to childhood abuse and neglect than those who were last. This finding is inconsistent with a study in Pakistan,³⁴ probably because first children in a family are the only child for a period of time and receive their parents' full attention during infancy and early childhood, which is not the case for subsequent siblings. But this finding is consistent with an Australian study.^{35,36} Because firstborn children provide care for their younger siblings, they are considered to take on a parental role within the family. Families give their first child tasks that are too onerous and also force them into vocations not of their own choice.

High school students who had open family discussions on sexual matters were less likely to be exposed to lifetime childhood abuse and neglect than those who did not (AOR=0.37, 95% CI: 1.74, 7.86, P=0.001). Since families are the primary socializing agent of their children, open discussion about sexual issues can affect family functioning and initiate behaviors to address the child's present emotional needs and affect future behavioral outcomes. Open family discussion about sexual issues provides an opportunity for parents to explore how to navigate talking with their children about sex and relationships. Helping children talk in open and developmentally appropriate ways with their families can prevent potential challenges related to childhood abuse and neglect. This finding is similar to that of a study conducted in the US.³⁷⁻³⁹

Study participants who watched pornography were less likely to be exposed to childhood abuse and neglect than those who did not (AOR=0.08, 95% CI: 0.02, 0.40 P=0.002). Even though pornography is known to cause sexual arousal in perpetrators and make them deceive or lure their victims, watching pornography for the students/victims might give them an early understanding of the causes of abuse and neglect and prevent them from being easily exposed to such. Viewing pornography decreases the likelihood of child sexual abuse because it can help students predict the outcomes of actual abuse and neglect. In contrast, viewing pornography might increase the occurrence of childhood abuse and neglect because it normalizes and/or legitimizes sexual interest in children and might eventually cease to satisfy the user. This is consistent with a study conducted in Germany.^{40,41}

Strengths and Limitations of the Study

This is a pioneering effort in investigating childhood abuse and neglect among high school students, the first study in this area showing the different types of childhood abuse and neglect. Hence the results can be used as a baseline for future research.

Childhood abuse and neglect can be perceived as a taboo, particularly in our study context. This could have resulted in social desirability bias because respondents may have been reluctant to be completely honest about their actual experiences and unwilling to provide correct information. The study used a cross-sectional design, and assessing lifetime experience of childhood abuse and neglect can be affected by multiple confounding variables, which could be addressed by a long-term follow-up study. As child abuse and neglect can be assessed by using ICAST-C (child version) only, ICAST-P (parent version) only, and ICAST-T (teacher version) and by combining all as multiple informants therefore in this study we used only ICAST-C.

Conclusion

The findings of this study showed that lifetime experience of childhood abuse and neglect among high school students was high when compared with previous studies. Sex, parental marital status, fathers' educational level, birth order, open family discussion on sexual issues, and watching pornography were also significantly associated with lifetime childhood abuse and neglect. This study highlights the importance of considering childhood abuse and neglect an integral component of school students' care.

Abbreviations

AOR, Adjusted odds ratio; BSc, Bachelor of Science; CA, Childhood abuse; CI, Confidence interval; DTU, Debre Tabor University; ICAST-C, International childhood abuse screening tool, child version; ISPCAN, International Society for the Prevention of Childhood Abuse and Neglect; MSc, Master of Science; SPSS, Statistical Package for the Social Sciences; WHO, World Health Organization; UNICEF, United Nations Children's Fund.

Data Sharing Statement

The datasets used in this study are available from the corresponding author and are accessible on reasonable request.

Ethics Approval and Consent to Participate

This study was approved by the College of Health Science ethics review committee of Debre Tabor University (CHS-256, 2022). It was conducted in accordance with the Declaration of Helsinki. Each study participant was well informed about the aim of the study, benefits, and risks; informed written consent was secured from them and confidentiality was maintained; and no personal identifiers were used in the data collection questionnaire and codes were used in place of them.

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Author Contributions

D.K., M.E., W.N.A., S.D. T.M., Y.T., A.S., M.W., A.K G.K., D.M.B., B.M. and S.Z. agreed to take responsibility and be accountable for the contents of the article, have drafted or written the article in the conception, study design, execution, acquisition, analysis and interpretation of data and reviewed all versions of the article before submission, during revision and agreed or gave final approval of the journal to which the article will be submitted.

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Disclosure

The authors declare that they have no conflicts of interest for this work.

References

1. Glaesmer H. Assessing childhood maltreatment on the population level in Germany: findings and methodological challenges. *Child Adol Psychiatr Ment Health*. 2016;10(1):15. doi:10.1186/s13034-016-0104-9

2. Antai D, Braithwaite P, Clerk G. Social determinants of child abuse: evidence of factors associated with maternal abuse from the Egypt demographic and health survey. *J Inju Viol Res*. 2016;8(1):25. doi:10.5249/jivr.v8i1.630
3. Kellogg ND. Evaluation of suspected child physical abuse. *Pediatrics*. 2007;119(6):1232–1241. doi:10.1542/peds.2007-0883
4. Giovannoni JM, Becerra RM Defining child abuse; 1979.
5. Schwartz-Kenney BM, McCauley M, Epstein MA. *Child Abuse: A Global View*. Greenwood Press Westport, CT; 2001.
6. Besharov DJ. State Intervention to protect children: new york's definitions of child abuse and child neglect. *NYL Sch L Rev*. 1981;26:723.
7. Aboul-Hagag KE-S, Hamed AF. Prevalence and pattern of child sexual abuse reported by cross sectional study among the University students, Sohag University, Egypt. *Egypt J Foren Sci*. 2012;2(3):89–96. doi:10.1016/j.ejfs.2012.05.001
8. Bekele I, Zewde W, Neme A. Assessment of prevalence, types and factors associated with adolescent sexual abuse in high school in limmu gnet high school. *Health Sci J*. 2017;11(3). doi:10.21767/1791-809X.1000506
9. Russell D, Higgins D, Posso A. Preventing child sexual abuse: a systematic review of interventions and their efficacy in developing countries. *Child Abuse Negl*. 2020;102:104395. doi:10.1016/j.chiabu.2020.104395
10. Barth J, Bermetz L, Heim E, et al. The current prevalence of child sexual abuse worldwide: a systematic review and meta-analysis. *Int J Pub Health*. 2013;58(3):469–483. doi:10.1007/s00038-012-0426-1
11. Lakhdir MPA, Farooq S, Khan UR, et al. Factors associated with child maltreatment among children aged 11 to 17 years in community settings of Karachi, Pakistan, using Belsky Ecological Framework. *J Interpers Viol*. 2017;3:0886260517726973.
12. Diddya A, Clerk G Social determinants of child abuse: evidence of factors associated with maternal abuse from the Egypt demographic and health survey; 2015.
13. Mwakanyamale AA, Wande DP, Yizhen Y. Multi-type child maltreatment: prevalence and its relationship with self-esteem among secondary school students in Tanzania. *BMC Psychol*. 2018;6(1):35. doi:10.1186/s40359-018-0244-1
14. Currie J, Spatz Widom C. Long-term consequences of child abuse and neglect on adult economic well-being. *Child Maltreat*. 2010;15(2):111–120. doi:10.1177/1077559509355316
15. Ibrahim NK, Jalali EA, Al-Ahmadi JR, et al. Prevalence, risk factors and outcome of childhood abuse reported by female university students in Jeddah. *J Egypt Pub Health Assoc*. 2008;83:5–6.
16. Kelley BT In the wake of childhood maltreatment: US department of justice, office of justice programs, office of juvenile; 1997.
17. Sewasew D, Mengiste M. Prevalence of physical and psychological forms of child abuse: implication for intervention, Gondor, northwest Ethiopia. *Innov J Soc Sci*. 2014;2(2):17–22.
18. Nemeroff CB. Paradise lost: the neurobiological and clinical consequences of child abuse and neglect. *Neuron*. 2016;89(5):892–909. doi:10.1016/j.neuron.2016.01.019
19. Ng QX, Yong BZJ, Cyx H, et al. Early life sexual abuse is associated with increased suicide attempts: an update meta-analysis. *J Psychiatr Res*. 2018;99:129–141. doi:10.1016/j.jpsychires.2018.02.001
20. Slack KS, Berger LM, DuMont K, et al. Risk and protective factors for child neglect during early childhood: a cross-study comparison. *Child Youth Serv Rev*. 2011;33(8):1354–1363. doi:10.1016/j.childyouth.2011.04.024
21. Mekuria A, Nigusse A, Abera M. Childhood sexual abuse experiences and its associated factors among adolescent female high school students in Arbaminch town, Gammo Goffa zone, Southern Ethiopia: a mixed method study. *BMC Int Health Human Right*. 2015;15(1):21. doi:10.1186/s12914-015-0059-6
22. Zolotor AJ, Runyan DK, Dunne MP, et al. ISPCAN child abuse screening tool Children's Version (ICAST-C): instrument development and multinational pilot testing. *Child Abuse Negl*. 2009;33(11):833–841. doi:10.1016/j.chiabu.2009.09.004
23. UNICEF. National study on violence against children in Georgia; 2008.
24. Meinck F, Steinert J, Sethi D, et al. Measuring and monitoring national prevalence of child maltreatment: a practical handbook; 2016.
25. Pirdehghan A, Vakili M, Rajabzadeh Y, et al. Child abuse and neglect epidemiology in secondary school students of Yazd Province, Iran. *Iran J Psychiatry Behav Sci*. 2015;9(4). doi:10.17795/ijpbs-2256
26. Leung PW, Wong WC, Chen W-Q, et al. Prevalence and determinants of child maltreatment among high school students in Southern China: a large scale school based survey. *Child Adol Psychiatr Ment Health*. 2008;2(1):1–8. doi:10.1186/1753-2000-2-27
27. Imola A, Roth M, DÁVID-KACSÓ Á, et al. The Prevalence of Child Abuse Among High-School Students in the Frame of the Becan Study. *Today Child Tomorrow Parent*. 2013;2013:35.
28. Hébert M, Amédée LM, Blais M, et al. Child sexual abuse among a representative sample of Quebec high school students: prevalence and association with mental health problems and health-risk behaviors. *Can J Psychiatr*. 2019;64(12):846–854. doi:10.1177/0706743719861387
29. Takele M, Haye TB, Kitaw LD, et al. Overview of child sexual and substance abuse among children in Ethiopia. *J Fam Med Prim Care*. 2020;9(12):6140. doi:10.4103/jfmpc.jfmpc_272_20
30. Zill N. Kids of single parents more likely to witness domestic violence. Institute for Family Studies; 2015. <https://ifstudies.org/blog/children-in-single-parent-families-are-more-likely-to-witness-domestic-violence>. Accessed December 1, 2023.
31. Zuckerman D, Pedersen S. *Child Abuse and Father Figures: Which Kinds of Families are Safest to Grow Up In?* Washington, DC: National Research Center for Women & Families; 2015.
32. Malik F, Rizvi F. Domestic violence: a risk factor to child abuse in Pakistan. *Pak J Psychol Res*. 2009;2009:1–25.
33. Deyessa Kabeta N, Berhane Y, Ellsberg M, et al. Violence against women in relation to literacy and area of residence. *Glob Health Action*. 2010;3(1):2070. doi:10.3402/gha.v3i0.2070
34. Ur Rehman A, Kazmi SF, Perveen S. Physical and emotional abuse: association with demographics and behavioral problems in abused and non abused children. *J Pak Psychiatr Soc*. 2016;13:3.
35. Kisely S, Strathearn L, Najman JM. Risk factors for maltreatment in siblings of abused children. *Pediatrics*. 2021;147(5). doi:10.1542/peds.2020-036004
36. Bosede AF. Birth order as a possible correlate of child abuse. *Int J Cross Discipl Sub Edu*. 2011;2(3):450–455. doi:10.20533/ijcdse.2042.6364.2011.0062
37. Berger LM, Font SA. The role of the family and family-centered programs and policies. *Future Child*. 2015;25(1):155. doi:10.1353/foc.2015.0007
38. O'Connell ME, Boat T, Warner KE Preventing mental, emotional, and behavioral disorders among young people: progress and possibilities; 2009.

39. Grossman JM, Jenkins LJ, Richer AM. Parents' perspectives on family sexuality communication from middle school to high school. *Int J Environ Res Public Health*. 2018;15(1):107. doi:10.3390/ijerph15010107
40. Neutze J, Seto MC, Schaefer GA, et al. Predictors of child pornography offenses and child sexual abuse in a community sample of pedophiles and hebephiles. *Sex Abuse*. 2011;23(2):212–242. doi:10.1177/1079063210382043
41. Long ML, Alison LA, McManus MA. Child pornography and likelihood of contact abuse: a comparison between contact child sexual offenders and noncontact offenders. *Sex Abuse*. 2013;25(4):370–395. doi:10.1177/1079063212464398

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