## **Original Article**

## Assessment of Knowledge, Attitude, and Practice of child abuse amongst residents working in three selected tertiary care hospitals of Addis Ababa, Ethiopia

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#### Abstract

**Introduction**: - Child abuse has been a global problem and has continued to be a tireless public health challenge in all countries. Pediatricians have a significant role in the prevention and intervention of child abuse. This study aimed to assess the knowledge, attitude, and practice of child abuse among pediatric residents in three selected hospitals in Addis Ababa, Ethiopia.

**Method**: - An Institutional-based Cross-sectional study design was utilized for this research. A Self-administered questionnaire was used to assess the knowledge, practice, and attitude of pediatric residents in three selected teaching hospitals. The collected data underwent a thorough check, cleaning, and entry into the SPSS version 25.0 software for analysis. Binary logistic regression was applied to establish the relationship between the various independent and dependent variables, and a 95% confidence interval with a P-value <0.05 was considered as statistically significant.

**Result**: In this study, 135 participants participated, resulting in a response rate of 96.4%. Sixty percent of the study participants were males, and 69.6% were in the age group of 25-30 years with a mean age of  $24\pm0.76$ . Only 31(23%) of them had previously received any education about child abuse. In the knowledge assessment, half of the participants had a score of good knowledge, 56% of the participants had a favorable attitude, and 43% had good practice. Being married was associated with a decreased likelihood of having good practice in relation to child abuse.

**Conclusion**: The results of our study indicate that the general knowledge, attitude, and practice of health care professionals in the field of pediatrics regarding child abuse are not satisfactory. We believe that training programs on this issue should be mandatory for pediatric residents, given their crucial role in providing care for children.

### Recommendation

The hospital should provide in-service, on-the-job training and continuous professional development for residents working in the emergency unit to enhance their knowledge, practice, and attitude toward child abuse. [*Ethiop. J. Health Dev.* 2023; 37(2) 000-000]

Keywords: Knowledge, attitude, practice, child abuse, pediatrics residents, Ethiopia

#### Introduction

Child abuse is a serious global public health problem with no social, racial, or ethnic boundaries. The WHO consultation on preventing child abuse distinguishes four types of child abuse that are physical abuse, sexual abuse, emotional and psychological abuse, and child negligence (1). The National Society for the prevention of Child Abuse describes physical signs of abuse may include unexplained bruising, marks or injuries on any part of the body, multiple bruises which are unexplained, cigarette burn marks, broken bones, and scalds, with upward splash marks (2).

Behavioral changes can also be an indicator of physical abuse. The symptoms can be a child's fear of anticipating the parents being approached for an explanation by the authorities, aggressive behavior or severe temper tantrums, flinching when touched, depression, and withdrawn behavior (2). A child may experience abuse in various settings, including at home, school, community organizations, or other places where they interact with others. It can affect a child's normal social or psychological development, leaving the child with psychological scars for a lifetime (3). Child Abuse can take many forms, including physical harm. Other forms of abuse include humiliation, frequent yelling, threatening, or bullying, making negative comparisons to others, and rejecting or ignoring the child. The child having limited physical contact with the child or any other belittling acts. Child Sexual Abuse (CSA) is involving of children under the age of eighteen in sexual activity without their will that he or she does not fully understand, while they are not able to give informed consent, or the child is not developmentally prepared and cannot give consent or violates the laws or social taboos of society (4).

Healthcare providers play a crucial role in identifying and diagnosing child abuse. They should be skilled in recognizing the signs of abuse and obtaining a detailed history of the child's experiences (5,6). Observing parent-child interactions can also be an important tool for identifying abuse (6). Lack of clinician knowledge or clinical experience more often results in misdiagnosis and underreporting of abuse cases (7). According to a study, physicians are usually hesitant to report abuse due to uncertainty and negative past experiences with reporting, or because they perceive no

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benefit to the child (8,9) In India, a study revealed a lack of information on child abuse and neglect in the code of conduct and law, along with healthcare providers having a poor attitude and knowledge about it.(10). Similarly, a Nigerian study of 179 residents found that 85.5% had good knowledge of child abuse but lacked clinical skills to identify and report it (11). In a Saudi study, it was found that 97.3% of primary healthcare physicians had good knowledge of child abuse (12).

It is the ethical and legal responsibility of doctors to inform the authorities or agencies that can help the victims and perpetrators of abuse. This is crucial in order to prevent further harm by intervening at early stage (13). Children who suffer from abuse may develop unhealthy personality traits and engage in more risky behaviors (14). Child abuse can result in various consequences, including stress, which can negatively impact the functioning of different bodily systems such as the brain, the heart, immune system, and digestion (15).

Residents are front-line physicians who harbor of calls for patients in most clinics and hospitals, and these doctors must be well-trained to identify and report suspected cases of Child abuse.

To the best of our knowledge, no study has been conducted on the knowledge, attitude, and practice of child abuse among residents working in our hospital. The primary objective of this study is to assess the knowledge, attitudes, and practices of pediatric residents working in TASH, SPHMMC, and Yekatit12 Hospital Medical College.

## Method and Material

Sex distribution of residents in three hospitals						
Sex distributio	TAS H	SPHMM C	Yekati t 12	Tota l		
n						
Male	60	45	10	115		
Residents						
Female	34	30	12	76		
Residents						
Total	94	75	22	191		

### **Operational definitions**

Training: Having one or more sessions on how to

prevent and identify child abuse

Good Knowledge: respondent scored 70% or above on knowledge-related questions.

Poor knowledge: respondents scored <50% on knowledge-related questions.

Good Attitude: score above mean value.

Poor Attitude: score below the mean value.

Good Practice: respondent scored 70% or above on practice-related questions.

Poor Practice: respondents scored <50% on practice-related questions (16).

Data Collection Tool, Procedure, and Quality Assurance

## Study Setting and Period

Three government teaching hospitals in Addis Ababa that provide residency programs participated in the study from June 1 to August 30, 2021. These hospitals were Tikur Anbessa Specialized Hospital, with 94 residents. St. Paul's Hospital Millennium Medical College, with, 75 residents, and Yekatit 12 Hospital, with 22 residents. The study included 191 residents, of which 40% were female.

## Study Design

An Institution-based Cross-sectional study design was employed.

## **Study Population**

All pediatric residents who fulfilled the inclusion criteria, working in TASH, SPHMMC, and Yekatit 12 Hospital medical college, pediatric unit during the study period.

## **Inclusion Criteria**

Pediatric residents from Tikur Anbessa Specialized Hospital, SPHMMC, and Yekatit 12 Hospital Medical College who consent to participate.

## Sample Size Determination

We distributed questionnaires to 182 residents who worked in these three hospitals. However, 20 residents did not return the questionnaires, and 27 questionnaires were rejected due to incomplete information. Additionally, we excluded 9 residents who were on vacation. As a result, the final response rate was 70.6%.

## Sampling procedure

All residents were included in the study.

Data was collected using a self-administered English survey that participants completed. The questionnaire consisted of four parts. The first part contained basic demographic information, the second part had 23 Yes/No knowledge questions, the third 16 queries were designed in 5 5-point Likert scale (strongly agree=5 to disagree strongly) to assess the participant's attitudes, and 10 practice questions. It is adapted from different literature (2,15) with few modifications for this purpose, 5%. A pre-test was carried out on residents from Tikur Anbessa Hospital, and a few corrections were made. The data were collected using a structured questionnaire after getting oral consent from participants by two BSC nurses with half a day of training, and the principal investigator supervised them.

The data were checked, cleaned, and entered into SPSS version 25.0 software for analysis. Incomplete data were discarded. The results from descriptive statistics for categorical variables were presented as percentages and frequencies. Mean and standard deviation were reported for continuous variables. To determine the predictor variables, a binary was conducted. . Statistical significance was determined using an Adjusted Odds Ratio (AOR) with a 95% confidence interval and a P-value of <0.05.

## **Ethics Approval and Consent to Participate**

of Addis Ababa University's Department of Pediatric and Child Health. After receiving permission from the hospitals, verbal consent was obtained from each resident. To ensure confidentiality, data were collected anonymously and did not include the names or any personal identifiers of individual participants.

Result

#### Socio-Demographic Characteristics

In this study, 135 participants took part, resulting in a response rate of 70%. Sixty percent of the study

Ethical clearance and an official letter were obtained from the Department of Research and Publication Committee

participants were male, and 94 (69.6%) were aged between 25-30 years. Additionally, 76 (56.3%) were married and half of the participants were in their first year. More than eighty-five percent of the participants have witnessed cases of child abuse while working with GPs or residents. (Table 2).

Table. The Sociodemographic characteristics of study	participants on child abuse in three teaching
hospitals of Addis Ababa, Ethiopia, 2021. (n=135)	

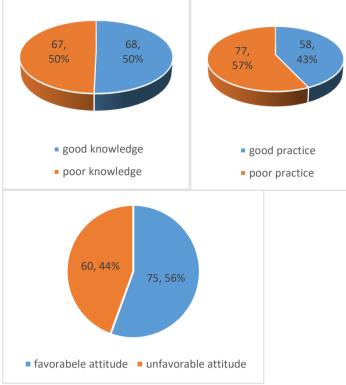
Variable	Frequency	Percent
Sex		
Male	81	60.0
Female	54	40.0
Age in years		
<25	2	1.5
25-30	94	69.6
31-35	21	15.6
>35	18	13.3
Marital status		
Single	76	56.3
Married	58	43.0
Divorced	1	.7
Do you have children?		
Yes	37	27.4
No	98	72.6
Year of residency		
First-year	70	51.9
Second year	48	35.6
Third year	17	12.6
•	aching, learning, or training session on child	l abuse?
Yes	31	23.0
No	104	77.0
For how long did you take formal tra	aining? (n=104)	
< 1 hour	35	33.6
1-2 hours	49	47.1
2-3 hours	20	19.2
Do you have experience in case of ch	ild abuse during your practice as a GP or re	esident?
Yes	79	58.5
No	56	41.5

## The Knowledge of Child Abuse among Study Participants

58 individuals) demonstrated a good practice level in relation to child abuse (see Figure 1).

Regarding their attitude towards child abuse, the majority of the study participants (56% or 75 individuals) exhibited a good attitude, while 43% (or

The overall attitude of the study participants was assessed using a mean value of  $3.73\pm1.75$  as a reference point.



## Figure 1. The overall Knowledge, attitude, and practice of child abuse in three teaching hospitals of Addis Ababa, Ethiopia, 2021. (n=135)

## Knowledge of Study participants on child abuse

The highest percentages of correctly answered knowledge questions were for unexplained bruises, skin abrasions or wounds in unusual places, unexplained burns by hot objects (such as cigarettes or irons), and unexplained fractures or dislocations (90.4%, 90.4%, and 83%, respectively). The lowest percentages of correctly answered knowledge questions were for low-socioeconomic families, children who frequently go to the doctor due to treatment failure, and children who need much support from their parents (26.7%, 30.4%, and 32.6%, respectively). (Table 3)

Table 2. The Knowledge of S	tudy Participants o	n Child Abuse i	in three	teaching hospitals of
Addis Ababa, Ethiopia, 2021. (	n=135)			

Knowledge-based variable on child abuse	<b>Response frequency</b>	percent
Skin abrasions, unexplained bruises, or wounds in unu	sual places	
yes	122	90.4
somewhat	10	7.4
no	3	2.2
Unexplained burns by hot objects (cigarettes, iron)		
yes	122	90.4
somewhat	10	7.4
no	3	2.2
Children with disabilities who do not have any particular of	liagnosis by appropriate assessm	ents completely heal
after several days of hospitalization.		
yes	89	65.9
somewhat	33	24.4
no	13	9.6
The girls are extremely frightened and anxious when exam	ined by male doctors.	
yes	96	71.1
somewhat	30	22.2
no	9	6.7
Frequent nightmares		
yes	82	60.7
somewhat	48	35.6
no	5	3.7
Children who cannot get along with other children or beha	ve very grouchy at peers	
yes	66	48.9
somewhat	63	46.7
no	6	4.4
Children who have school problems and sleep in class		

Children who have school problems and sleep in class

yes	65	48.1
somewhat	56	41.5
no	14	10.4
The physical and psychological illnesses in children which are not		
yes	99	73.3
somewhat	27	20.0
no	9	6.7
Parents' marital problems and poor family relationships		
yes	88	65.2
somewhat	42	31.1
no Cliilean fan ar lana in	5	3.7
Children of unwanted pregnancies	69	511
yes		51.1
somewhat	51	37.8
no	15	11.1
Parents who have been the victims of abuse can do the same to the		25 0
yes	51	37.8
somewhat	58	43.0
no Lou socioconomia familias	26	19.3
Low-socioeconomic families	44	32.6
yes somewhat		
somewhat	65 26	48.1
no Creard d famile and living areas	20	19.3
Crowded family and living space	57	42.2
yes somewhat	57 45	42.2 33.3
somewhat	43 33	24.4
no	55	24.4
Parents who suffer from a psychiatric disease		
yes	90	66.7
somewhat	32	23.7
no	13	9.6
Unexplained fractures or dislocations		
yes	112	83.0
somewhat	19	14.1
	4	3.0
Unexplained developmental delays	46	34.1
yes somewhat	48 70	54.1 51.9
no	19	14.1
Inappropriate social behavior and communication	17	14.1
yes	68	50.4
somewhat	63	46.7
no	4	3.0
Children who extensively fear their parents	•	5.0
yes	83	61.5
somewhat	48	35.6
no	4	3.0
Children who extensively depend on their parents		
	36	26.7
yes somewhat	36 70	26.7 51.9
no	29	21.5
Any unusual genital infections in children	_/	21.5
yes	95	70.4
somewhat	37	27.4
no	3	2.2
seductive behaviors of the children		
yes	65	48.1
somewhat	57	42.2
no	13	9.6
The children who frequently visit a doctor due to treatment failure		
yes	41	30.4
somewhat	67	49.6
no	27	20.0

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**The Attitude of Study Participants on Child Abuse** In Table 2, it was found that 50 (38.3%) of the participants believed that yelling at a child is classified as child abuse, while 51 (37.8%) believed that leaving a child 10 years old or younger alone at home is also considered child abuse. On the other hand, 16.3% of the participants expressed strong disagreement with the idea of using physical punishment. More specifically, 71 (52.6%) of the participants agreed that the failure of parents to adequately follow up with chronically ill children is a form of child abuse. Additionally, 57 (42.2%) strongly agreed that criminalizing abusers is an effective approach to reducing child abuse.

Table 3. The Attitude of Study Participants on Child Abuse in three teaching hospitals of Addis
Ababa, Ethiopia, 2021. (n=135)

The attitude-based variable	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	overall mean
Yelling at the child in some	8	52	25	33	17	3.01	
cases is necessary	(5.9%)	(38.5%)	(18.5%)	(24.4%)	(12.6%)		
Leaving a 10-year-old child or	9	51	42	26	7	3.21	
younger alone at home indicates	(6.7%)	(37.8%)	(31.1%)	(19.3%)	(5.2%)		
child abuse	(011)0)	(0.10,0)	(*****)	(	(0.12,0)		
Touching the genitals of children	28	47	31	22	7	3.50	
by their father is a form of child	(20.7%)	(34.8%)	(23%)	(16.3%)	(5.2%)		
abuse	× /	× /		× /			
Touching the genitals of children	10	22	41	46	16	2.73	
by their mothers is a form of	(7.4%)	(16.3%)	(30.4%)	(34.1%)	(11.9%)		54.34±5
child abuse		(	(,		(		6
Sometimes corporal punishment	1	25 (18.5%)	30 (22.2%)	57 (42.2%)	22 (16.3%)	3.55	
is necessary because children	(0.7%)	- (,			(		
fail their tests	(011)0)						
If the child uses inappropriate	5	39	28	49 (36.3%)	14 (10.4%)	3.21	
words, he/she should be	(3.7%)	(28.9%)	(20.7%)	(2012/0)	1.(1011/0)	0.21	
corporally punished	(211)(2)	()	()				
If the child smokes, he/she	9(6.7%)	59 (43.7%)	14 (10.4%)	45 (33.3%)	8	2.88	
should be corporally punished	, (011,10)		- ()	(00.00,00)	(5.9%)		
The child could be temporarily	31 (23%)	51 (37.8%)	13	28 (20.7%)	12 (8.9%)	2.55	
deprived of his/her favorite		(,	(9.6%)	(,	(000 /0)		
activities as a punishment			()10/0)				
No contact with school	6	15	16 (11.9%)	70 (51.9%)	28 (20.7%)	3.73	
authorities is needed in the case	(4.4%)	(11.1%)			(,		
of children with good grades	(,0)	(1117,0)					
We should take children at the	4	37 (27.4%)	41 (30.4%)	48	5	2.90	
age of 10 or less to school	(3%)		(2011/2)	(35.6%)	(3.7%)		
ourselves; otherwise, it could be	()			()	()		
considered an abuse							
Lack of sufficient follow-up by	31	71	20 (14.8%)	11	2	3.87	
parents to treat their children	(23%)	(52.6%)	20 (1 11070)	(8.1)	(1.5%)	5107	
who are suffering from chronic	()	()		(0.1)	(10,0)		
diseases could be considered an							
abuse							
Parents who have abused their	57	56	11	6	5	4.14	
children must be punished by	(42.2%)	(41.5%)	(8.1%)	(4.4%)	(3.7%)		
legal enforcement	(	(,	(01270)	()	(000,00)		
Criminalization of child abuse	57	57	14	4	3	4.19	
can reduce child abuse incidents	(42.2%)	(42.2%)	(10.4%)	(3%)	(2.2%)		
All cases of child abuse must be	70	60	3	2	(=-=->)	4.47	
reported to authorities	(51.9%)	(44.4%)	(2.2%)	(1.5%)			
Treatments could be started	36	58	2	10	8	3.77	
without parental consent in case	(26.7%)	(43%)	3(17%)	(7.4%)	(5.9%)		
of children who have been	(===:/0)	()	- ( /0)	(	()		
victimized by child abuse							
We should always respect the	32	48	15	19	21	2.62	
privacy of patients and their	(23.7%)	(35.6%)	(11.1%)	(14.1%)	(15.6%)	2.52	
families, even in the case of	(20.170)	(00.070)	(11.170)	(11170)	(10.070)		
child abuse							

Practice-Based Characteristics of Study Participants on Child Abuse authorities, and 47 (34.8%) were aware of the procedure for reporting child abuse. Additionally, 28 (20.7%) had reported child abuse to legal authorities, and 28 (20.7%) stated that they were aware of Ethiopian laws regarding child abuse. (Table 4)

Ninety-nine (73.3%) of the participants had handled child abuse cases prior to the current study. Eighty (59.3%) agreed to report child abuse to the concerned

Practice-based variable	frequency	Percent
Did you suspect or encounter any child abuse before now?		
yes	99	73.3
no	36	26.7
Did you report the concerned body if you get abused children?		
yes	80	59.3
no	55	40.7
If your answer to question No. 2 is NO, what is your reason?		
Lack of adequate history and evidence	14	10.4
uncertainty of the dx	11	8.1
possible numerous effects on the child's family	4	3.0
fear of aggressive and angry parents	4	3.0
possible effect on my professional career	16	11.9
fear and anxiety of the court proceeding	6	4.4
Are you aware of the process of reporting child abuse?		
yes	47	34.8
no	88	65.2
Did you ever report any child abuse cases to legal bodies?		
yes	28	20.7
no	107	79.3
Are you aware of Ethiopian laws about child abuse?		
yes	28	20.7
no	107	79.3
Did you educate the family about the impact of child abuse during	child management?	
yes	59	43.7
no	76	56.3
Did you attend any training on child abuse?		
yes	20	14.8
no	115	85.2
Are you satisfied with your knowledge of child abuse?		
yes	15	11.1
no	120	88.9
Do you wish to improve your knowledge about child abuse?		
yes	127	94.1
no	8	5.9

# Table 4. Practice of Study Participants on Child Abuse at Tikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia, 2021. (n=135)

# Determinant of knowledge, attitude, and practice on Child Abuse

In bivariate analysis, attitude becomes significantly associated with knowledge level (P <0.05), and even after adjusting for confounders on binary logistic regression, attitude remains significantly associated, so that participants with a favorable attitude towards child abuse had 2.5 times more good knowledge than those with an unfavorable attitude (P-value = 0.009, AOR = 2.7, 95% CI = 1.29, 5.97). In terms of attitude level, married status and having children were statistically associated with attitude in bivariate analysis; however,

no factor was associated with multivariable logistic regression.

Marital status, year of residency, training, and experience with child abuse in practice were factors associated with practice level in bivariate analysis (p <0.05), and only marital status and residency remain independently associated (the odds of practice on child abuse were 6.5 fold higher for third-year residents than for year-one residents (P-value = 0.009, AOR = 6.57, 95% CI = 1.60, 26.87). Married participants had 66% less practice in child abuse management than singles). (Table 6)

Variable		COR (95%CI)	p-value	AOR (95%CI)	p-value
		Knowledge			
Sex	Male	1		1	
	Female	1.10 (0.55-2.18)	0.799	1.10 (0.52-2.35)	0.792
Age	≤30	1		1	
	31-35	0.80 (0.31-2.06)	0.648	0.77 (0.27-2.22)	0.635
	>35	0.56 (0.20-1.57)	0.272	0.46 (0.14-1.48)	0.195
Marital status	Single	1		1	
	Married	0.84 (0.42-1.66)	0.617	0.77 (0.30-1.94)	0.584
Having children	Yes	0.90 (0.42-1.93)	0.806	1.56 (0.56-4.34)	0.389
	No	1		1	
Residency	First	1		1	
	Second	0.97 (0.46-2.03)	0.944	0.78 (0.34-1.80)	0.568
	Third	1.94 (0.64-5.82)	0.237	2.39 (0.66-8.56)	0.180
Training	Yes	1.77 (0.78-4.03)	0.169		0.172
-	No	1		1	
Experienced child	Yes	0.80 (0.40-1.59)	0.531	0.56 (0.25-1.23)	0.154
abuse in practice	No	1			
Attitude	Favorable	2.41 (1.20-4.83)	0.013	2.77 (1.29-5.97)	0.009
	Unfavorable	1		1	
		Attitude		-	
Sex	Male	1		1	
Ben	Female	0.77 (0.39-1.55)	0.480	0.83 (0.39-1.77)	0.640
Age	$\leq 30$	1	0.400	1	0.040
ngu	<u></u> 31-35	0.70 (0.27-1.82)	0.473	1.03 (0.36-2.96)	0.951
	>35	```	0.473	1.97 (0.60-6.42)	0.259
Marital status		1.22 (0.43-3.42)	0.705	· ,	0.239
Marital status	Single	1	0.000	1	0 202
TT · 1·11	Married	0.39 (0.19-0.79)	0.009	0.55 (0.22-1.37)	0.202
Having children	Yes	0.36 (0.16-0.80)	0.012	0.47 (0.17-1.28)	0.142
~	No	1		1	
Residency	First	1		1	
	Second	1.13 (0.52-2.33)	0.778	1.58 (0.67-3.69)	0.289
	Third	0.70 (0.24-2.04)	0.522	0.96 (0.28-3.25)	0.950
Training	Yes	1.35 (0.59-3.07)	0.465	1.09 (0.44-2.69)	0.839
	No	1		1	
Experienced child	Yes	1.29 (0.65-2.58)	0.458	1.26 (0.57-2.77)	0.553
abuse in practice	No	1		1	
		Practice			
Sex	Male	1		1	
	Female	1.42 (0.70-2.85)	0.312	1.25 (0.56-2.77)	0.581
Age	≤30	1		1	
e	31-35	0.79 (0.30-2.08)	0.636	0.96 (0.31-2.95)	0.947
	>35	1.02 (0.37-2.84)	0.957	1.10 (0.39-3.62)	0.865
Marital status	Single	1		1	
	Married	0.52 (0.26-1.06)	0.074	0.34 (0.11-0.99)	0.049
Having children	Yes	0.87 (0.40-1.88)	0.727	1.53 (0.49-4.78)	0.458
	No	1	0.727	1	5.150
Residency	First	1		1	
i controlite y	Second	1.28 (0.60-2.73)	0.513	1.19 (0.50-2.84)	0.693
	Third	5.85 (1.72-19.86)	0.005	6.57 (1.60-26.87)	0.093 <b>0.009</b>
Training					
Training	Yes	2.63 (1.15-6.01)	0.021	2.14 (0.85-5.38)	0.105
Emperator 1 1111	No	1	0.005	1	0.165
Experienced child	Yes	2.83 (1.36-5.88)	0.005	1.77 (0.79-3.96)	0.165
abuse in practice	No	1	0.453	1	0
knowledge	Good	0.86 (0.43-1.70)	0.673	0.63 (0.28-1.40)	0.260
	Poor	1		1	
Attitude	Favorable	1.24 (0.62-2.47)	0.534	1.17 (0.52-2.63)	0.704
	Unfavorable	1		1	

# Table 5. Determinant of Knowledge, attitude, and practice of Study Participants on Child Abuse at Tikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia, 2021. (n=135)

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#### Discussion

Pediatricians and other healthcare professionals working with children must be vigilant in protecting children who are abused or at risk of maltreatment. This study was focused on assessing the knowledge, attitude, and practice of pediatric residents. In our study, only half of the participants (50%) had good knowledge, and 56% had a good attitude regarding issues related to child abuse. Our study found that years of residency and marital status are associated with practice related to child abuse.

In this study, the participants had less knowledge compared to the study done in Iran and Saudi Arabia their knowledge about abuse and neglect was 70% and 82%, respectively. This discrepancy could be explained by the presence of frequent training and exposure (17,18). Despite having good practice, only 60% of senior and married residents reported child abuse cases. According to a study conducted in Saudi Arabia, only 66% (18) of participants reported cases of suspected child maltreatment, which is slightly higher than the findings from a study conducted in Kuwait where over 80% of public hospital pediatricians were unaware of their legal obligation or authority to report such cases (19). Previous research has indicated that experienced and female physicians tend to report instances of child abuse more frequently (20,21). It is important to note that underreporting can lead to an underestimation of the problem and hinder effective intervention. The overall attitude in this study was favorable in only (56%). In contrast study conducted in Sri Lanka on 246 medical officers, nursing officers, and social workers had favorable attitudes toward child abuse (2). A similar study in Iran, 96% had a favorable attitude (22). Concordant to our study, several other studies have revealed improper attitudes regarding child abuse (23,24). The variation in results among different studies may be due to differences in study populations and the concepts considered when designing the questionnaires.

Only 14.8% of our study participants had child abuse training. This is much lower than the Iranian (17) study (59.6%) and similar to the Sri Lankan (2) study (21%). A South Korean study showed that an educational program on child abuse assessment and reporting increased the knowledge, confidence, and willingness of healthcare professionals to report suspected cases in a low-perception setting (25).

In the current study, the participant's ability to handle suspected cases of child abuse was found to be poor. Many respondents struggled to accurately identify the history, signs, and symptoms of child abuse. In contrast, a study conducted in India found that participants' overall practice to be satisfactory (26). This discrepancy may be due to the participant's lack of knowledge about child abuse, leading to incorrect actions when dealing with suspected cases.

In some developing countries, health workers believe they should not interfere with parenting, whether right or wrong and prefer not to report cases (27). This is similar to our study, where only 59.3% of child abuse cases were reported by participants. All cases should be reported to authorities, and family privacy is not a priority in these situations.

Our results align with other studies that have found good knowledge, but poor attitude among professionals is a major issue in addressing child abuse, particularly in developing countries (28,29). Despite having a rational and appropriate approach in most situations, the participants in our study failed to recognize some key predictors of child abuse, such as children who are highly dependent on their parents, families with low socioeconomic status, and children who frequently visit the doctor due to treatment failure.

The absence of proper coordination between healthcare systems and law enforcement agencies is another barrier to reducing child abuse. Studies have shown that many pediatricians feel they have insufficient knowledge about legal proceedings (30). To address this issue, it is important to emphasize education and enhance awareness among healthcare professionals, law enforcement agencies, and the general public.

### Strengths and Limitations of the Study

This study is the first of its kind to evaluate the knowledge of residents on child abuse management in three hospitals. However, the study has a limitation in that it assessed the practical skills by asking questions rather than observing them.

#### Conclusion

The knowledge, attitude, and practice of pediatric and child health residents regarding child abuse are unsatisfactory, as they have missed many important predictors of abuse. As a result, it is essential to implement training programs on this issue for residents or to include this topic in the residency curriculum.

#### Recommendation

The study revealed that pediatric residents lacked the skills to assess, manage, and prevent child abuse, despite the fact that they often encounter abused children. The curriculum should include this topic, and the department should establish a protocol to address it effectively. This study, conducted in only three hospitals, suggests that further research is needed on a larger scale in order to provide a solid foundation for national research.

#### List of abbreviations

AOR: Adjusted Odds Ratio; COR: Crude Odds Ratio; HCPs: Health Care Professionals; GP: General Practitioner, SPHMMC: St. Paul's Hospital Millennium Medical College; TASH: Tikur Anbessa Specialized Hospital

#### Declarations

**Consent for publication** Not applicable

#### Availability of data and materials

This published publication contains all the data for the study.

Upon reasonable request, the corresponding author will provide the datasets that were used and/or analyzed during the current work.

## **Competing interests**

The authors declare that they have no competing interests.

## Funding

Addis Ababa University Post Graduate Program

Acknowledgment The authors would like to express our gratitude to the residents who participated in this study and to the nurses who assisted with data collection. Additionally, we would also like to thank the pediatrics department for providing us with the opportunity to conduct this research.

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