



On-farm Rice Straw Burning: Its Prevention and Solution Knowledge, Attitude and Practices of Physicians Towards Child Physical Abuse and Associated Factors in Addis Ababa Burn, Emergency and Trauma Hospital Addis Ababa, Ethiopia 2021GC

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Abstract

Background: Child physical abuse is a common practice worldwide and often times victims are brought to health facilities to get medical care. As a result, responsibility of detection and reporting falls on physicians. Knowledge on child physical abuse and reporting system is essential for the first contact person. Anecdotally, on global scale several cases of child abuse have been missed out at the first contact level and knowledge of reporting system and practice is low. Therefore we undertook this survey to assess the knowledge, attitudes and practice of physicians towards child physical abuse and associated factors in our setup.

Objectives: To assess the Knowledge, Attitude and Practice of physicians toward child physical abuse and associated factors in Aabet hospital, SPHMMC, Ethiopia, April 30 - May 30, 2021

Methods: from April 30- May 30, 2021, Institution based cross-sectional study was conducted in Aa BET hospital, SPHMMC, Addis Ababa involving all physicians working in the hospital. Data was collected using pre-tested self administered structured questionnaire via printed form and electronic google form. Data was cleaned, edited and fed to computer and analyzed using SPSS for window version 26D. Ethical approval from IRB and informed consent from participants was obtained.

Results: Response rate was 92.4% (n = 152). Only 7.9% of participants had formal training in child physical abuse. Our participants lacked knowledge on signs and symptoms of physical abuse, first action to be done when suspecting child physical abuse and legal authorities to report suspected cases. Majority of our participants possessed positive attitude on importance of detecting and reporting of child physical abuse case although 62.5% of the participants claim the amount of material presented regarding child abuse is insufficient. 61.2% physicians suspected child physical abuse and only one third of which reported to legal authorities. Shortage of knowledge about the referral procedure was listed as the most common cause of underreporting. Only 7.2% of physician's believe their institution provided them with procedure to follow when child physical abuse case is suspected.

Conclusion and Recommendation: Majority of physicians lacked knowledge but were positive about the need to assess child physical abuse. Child abuse course should be included in both undergraduate and post graduate teaching programs. Regular training on the subject matter shall be provided in the institution and procedural framework should be established on management of suspected child physical abuse cases.

Keywords: Child Physical Abuse; Child Maltreatment; KAP

Abbreviations

CAN: Child Abuse and Neglect; CDC: Center for Disease Control; CPA: Child Physical Abuse; HCWs: Health Care Workers; IRB: Institutional Review Board; KAP: Knowledge Attitude and Practice; NAI: Non-Accidental Injuries; PCP: Primary Care Physicians; SPHMMC: St. Paul's Hospital Millennium Medical Collage; SPSS: Statistical Package for Social Sciences; UAE: United Arab Emirates; US: United States; UNICEF: United Nations International Children's Fund; WHO: World Health Organization

Introduction

World Health Organization (WHO) defines child abuse and child maltreatment as "all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power [1].

There are various types of child abuse, such as: neglect, physical abuse, psychological abuse, emotional abuse, sexual abuse and others. According to the National Committee for the Prevention of Child Abuse's 1996 annual 50 US state survey, 60% of cases involved neglect compared with 23% physical, 9% sexual, 4% emotional, and 4% other types of abuse [2].

According to WHO global status report on preventing violence against children 2020, Violence affects the lives of 1 in 2 or up to 1 billion children, with long-lasting and costly emotional, social and economic consequences. Nearly 3 in 4 children or 300 million children aged 2-4 years regularly suffer physical punishment and/or psychological violence at the hands of parents and caregivers. Physical abuse rates were more similar between boys and girls except in Europe, where the prevalence was 12% for girls and 27% for boys. Furthermore, physical abuse prevalence was very high in some continents, with a prevalence in Africa of 60% and 51% in boys and girls respectively [3].

Childhood physical abuse is defined by the Consultation on Child Abuse Prevention (World Health Organization, 1999) as that which results in actual or potential physical harm from an interaction or lack noninteraction, which is reasonably within the control of a parent or person in apposition of responsibility, power or trust [4].

Fractures are the second most common injury caused by child physical abuse; bruises are the most common injury [5]. Child

abuse has been found in up to half of all children with fractures in the first year of life and in one third of children younger than 3 years of age with fractures. The importance of soft tissue injuries should not be overlooked. In fact, a number of reports have stressed the fact that fractures rarely exist without other signs of abuse and that abused children are more likely to have soft tissue injuries than fractures [6].

The general aspects of a history with suspected abuse include a vague, inconsistent, inexplicable or unwitnessed mechanism of injury in relation to the clinical findings or developmental age. Significant delays before seeking medical attention may occur alongside evasive, aggressive or unusual parental responses. Features of outright neglect may be apparent. The mechanisms of physical abuse specific to fractures are direct or indirect and include isolated episodes or combinations of punches, kicks, blows, shaking, twisting, pulling, pushing and throwing [7].

Non-accidental fractures indicate a significant assault on the child, irrespective of the energy level of the injury. Features of abuse include bruises away from bony prominences, larger bruises, specific shapes of bruise caused by implements and multiple or clustered configurations of bruising. There may be apposite correlation between bruising and fractures, suggesting that forces capable of fracturing bone result in external, visible soft-tissue injury [7].

It is important to remember the Consequences of child abuse Beyond deaths, hundreds of millions of instances of violence against children lead to injuries requiring medical treatment, and an array of other harmful consequences that can endure into adulthood, including brain impairments, reduced cognitive ability, increased mental and physical illness, poorer educational attainment and a less productive working life. A child who is abused is more likely to abuse others as an adult so that violence is passed down from one generation to the next. It is therefore critical to break this cycle of violence, and in so doing create positive multigenerational impacts [3].

The United Nations' Sustainable Development Goals (SDGs) and Agenda 2030 also contributed to target child abuse and neglect. The following targets directly aimed at violence prevention and protection: Target 16.1: Significantly reduce all forms of violence and related deaths everywhere; Target 16.2: End abuse, exploitation, trafficking and all forms of violence and torture against children; Target 5.2: Eliminate all forms of violence against women and

girls. Target 5.3: Eliminate all harmful practices, such as child, early and forced marriage, and female genital mutilation [8].

The role of the physician may include identifying abused children with suspicious injuries who present for care, reporting suspected abuse to the child protection agency for investigation, supporting families who are affected by child abuse, coordinating with other professionals and community agencies to provide immediate and long-term treatment to victimized children, providing court testimony when necessary, providing preventive care and anticipatory guidance in the office, and advocating for policies and programs that support families and protect vulnerable children [9].

Medical practitioners have been at the forefront in the application of policies to deal with the problem of child abuse and neglect. Despite this, there is evidence that knowledge of the symptoms, signs, and prognosis of child abuse and neglect is inadequate and that a lack of confidence in the service delivered upon report leads many physicians to actively decide not to report cases which are suspected [10].

Health care providers knowledge regarding this topic is very important in detecting suspicious cases. positive attitude and good practice will contribute significantly in mitigating this problem which has transcended generations and is affecting significant portion of world population.

Materials and Methods

Study area and study period

This study was conducted in Addis Ababa Burn, Emergency and Trauma Hospital (AaBET) hospital which is an affiliate of SPHMMC. The study setting is located in Addis Ababa, capital city of Ethiopia. AaBET Hospital is among the 11 government hospitals in Addis Ababa, it was inaugurated in 2015 as a branch of St Paul's Millennium Medical College.

AaBET hospital is one of the initial health sectors who have trauma and burn unit as a whole package. This hospital is one of the biggest trauma center in the country and receives many patients from the city of Addis Ababa, surrounding Oromia region and the whole country in general.

AaBET provides comprehensive emergency care in emergency medicine, critical care, orthopedic surgery, neurosurgery, burn and plastic surgery and general trauma surgery. It has a total 145 beds

for all departments, 4 OR tables and 2 recovery rooms. There are 11 orthopedic surgeons, 5 plastics and reconstruction surgeons, 15 Emergency and critical care specialists, 6 neurosurgeons and one general surgeon. There are around 130 residents and 20 general practitioners working in the hospital in the above departments.

All physicians working in Aabet hospital from April 30 - May 30 2021.

Study design

An institution based cross-sectional study.

Source population

All physicians working in Aabet hospital.

Study population

All physicians working in Aabet hospitals (consultants, residents and general practitioners in orthopedic surgery, neurosurgery, plastic surgery, general surgery, emergency medicine and critical care departments) working in AaBET hospital, Addis Ababa, Ethiopia 2021GC during the study period.

Inclusion and Exclusion Criteria

Inclusion criteria

All physicians (consultants, residents and general practitioners in orthopedic surgery, neurosurgery, plastic surgery, general surgery, emergency medicine and critical care departments) working in AaBET hospital, Addis Ababa, Ethiopia during the study period.

Exclusion criteria

- Physicians not willing to be part of the study
- Physicians used for pilot study and
- Medical Interns will be excluded from the study.

Sample size

There are around 170 physicians (30 consultants, 130 residents and 10 general practitioners) working in Aabet hospital and we will include all physicians working in Aabet hospital in the study.

Sampling technique

Convenience non probability sampling was utilized by including all physicians working in Aabet hospital during the study period consecutively.

Study variables

Dependent variables

- Knowledge of physicians toward child physical abuse
- Attitude of physicians toward child physical abuse
- Practice of physicians toward child physical abuse.

Independent variables

- Age
- Sex
- Religion
- Marital status
- Being a parent
- Number of children
- Children's gender
- Year of residency
- Field of specialty
- Level of education
- Service experience
- In come

Data collection technique and tools

A structured, pretested and self-administered questionnaire written in English was utilized in both printed format and G google form to collect the necessary data from the study participants. The questionnaire is based on questionnaires used in previously published studies [20,23,24] with modifications made to suit our set up and gather more information. The questionnaire had four sections containing questions designed to assess Sociodemographic data [12], knowledge [22], attitude [8] and practice of participants [3] regarding child physical abuse.

Operational Definitions (For Knowledge, Attitude and Practice).

Knowledge

It was measured by calculating the total score of the 22 items and categorized as Good knowledge (if participants scored $\geq 80\%$ of the knowledge assessing questions) or poor knowledgeable (if participants scored $<80\%$ of the knowledge assessing questions).

Attitude

Eight questions with five-point Likert's scale were used to assess attitude of physicians to ward child physical abuse. All indi-

vidual answers to attitudinal questions were computed to obtain total scores; then, categorized as having good attitude (if participants scored \geq mean score) or poor attitude (if Participants scored $<$ mean score).

Practice

Participants who correctly responded to more than 50% of practice assessing questions were considered as having good practice, whereas those who scored $\leq 50\%$ were considered as having a poor practice towards child physical abuse.

Data quality assurance

To ensure the quality of data training for data collectors was given. The questionnaire was pretested on 5% of the sample size 9 residents. Necessary amendments were made on, the instructions, contents, order and grammatical issues based on the pretest results. During the study period, all data was checked for completeness, accuracy, clarity and consistency by the principal investigator immediately after the data collection

Data processing and analysis

After data collection, the data was coded and enter into a computer using SPSS Version 26. After cleaning of the data descriptive analysis by using frequency distribution count, percent, mean, median, standard deviation and proportion was calculated. Cross-tabulation, chi-square test was used to evaluate whether the differences between categorical variables were statistically significant. Multivariate logistic regression analysis was carried out to see the relative effects of independent variables on the outcome variables. 95% confidence interval and P-value of less than 0.05 was used to guide interpretation of results. Finally, the result was presented using texts, tables and graphs.

Results

Sociodemographic characteristics of respondents

Convenience non probability sampling technique was used to include all physicians working in Aabet hospital during the study period. There are around 170 physicians in the hospital and $n = 157$ responded to the questioner making response rate (92.4%). 5 responses were discarded due to incompleteness. 105 (69.1%) of participants were in the age group 26-30 years of age, 36 (23.7%) 31-35 years of age, 9 (5.9%) 21-25 years age group and 2 (1.3%) above 35 years of age. 124 (81.6%) participants were male and the remaining 28 (18.4%) were female. When we look at religion

of participants 116 (76.3%) were Christians, 26 (17.1%) Islam, 1 (0.7%) and other religions 10 (6.6%). Majority of participants 92 (60.5%) were Single, 58 (38.2%) married and 2 (1.3%) divorced. The department of participants 55 (36.2%) were orthopedic and trauma surgery, 38 (25%) emergency medicine and critical care, 29 (19.1%) general surgery, 12 (7.9%) plastic surgery, 11 (7.2%) neurosurgery and 7 (4.6%) in management staff. When we look at academic position of participants 16 (10.5%) were seniors, 125 (82.2%) residents and 11 (7.2%) were general practitioners. Participants monthly income were 11000-15000 birr in 98 (64.5%) participants, 5000-10000 in 32 (21.1%) participants, >15000 in 20 (13.2%) and <5000 in 2 (1.3%) participants. 104 (68.4%) participants have <5 years experience, 45 (29.6%) 5-10 years' experience, 3 (2%) 10-15 years' experience.

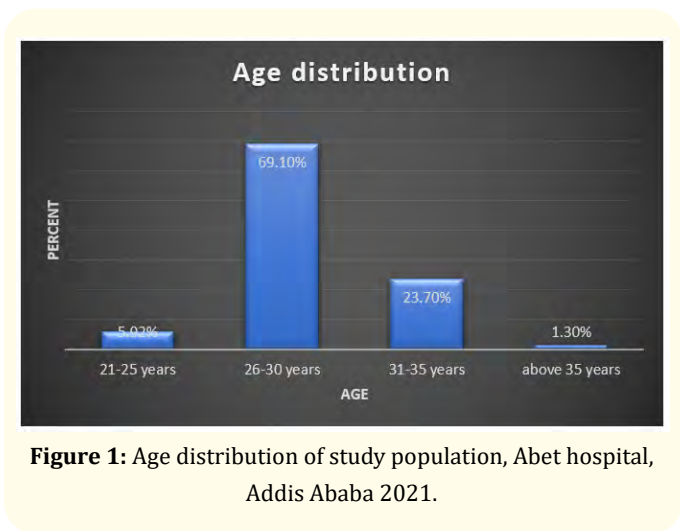


Figure 1: Age distribution of study population, Abet hospital, Addis Ababa 2021.

Characteristics		Frequency	Percent (%)
Sex Distribution	Male	124	81.6%
	Female	28	18.4%
Religion	Christianity	116	76.3%
	Islam	26	17.1%
	Traditional	1	0.7%
	Others	9	5.9%
Marital Statues	Single	92	60.5%
	Married	58	38.2%
	Divorced	2	1.3%

Department	Orthopedic and trauma surgery	55	36.2%
	Emergency medicine and critical care	38	25%
	Neurosurgery	11	7.2%
	Plastic surgery and reconstruction	12	7.9%
	General surgery	29	19.1%
	Management staff	7	4.6%
Academic position	Senior	16	10.5%
	Residents	125	82.2%
	General practitioners	11	7.2%
Monthly income	<5000	2	1.3%
	5000-10000	32	21.1%
	11000-15000	98	64.5%
	>15000	20	13.2%
Year of experience	<5 years	104	68.4%
	5-10 years	45	29.6%
	11-15 years	3	2%
	>15 years	0	0%

Table 1: Sociodemographic characteristics of study population, Abet hospital, Addis Ababa 2021.

Of all participants 49 (32.2%) had children of which 37 had one child, the remaining 12 participants had 2 children and none of participant had children more than two. When we see gender composition of children of those participants who are parents 22 had only male child, 21 had only female child and the remaining had children of both sexes.

Do you have children?	Yes	49	32.2%
	No	103	67.8%
Number of children	One	37	75.5%
	Two	12	24.5%
Gender of children	Male	22	44.9%
	Female	21	42.9%
	Bothe	6	12.2%

Table 2: Number and Gender of participants children Abet hospital, Addis Ababa 2021.

Only 12 (7.9%) of participants had prior formal training regarding child physical abuse 5 of which received the training undergraduate, 6 post graduate and 1 received special course on child physical abuse. Among those who received formal training the type of training consists of clinical information on signs and symptoms 83.3% of cases, information on how to report cases and information on how to document cases each in 50% of cases and theoretical information 66.7% and advanced clinical training in managing such case in 25% of cases.

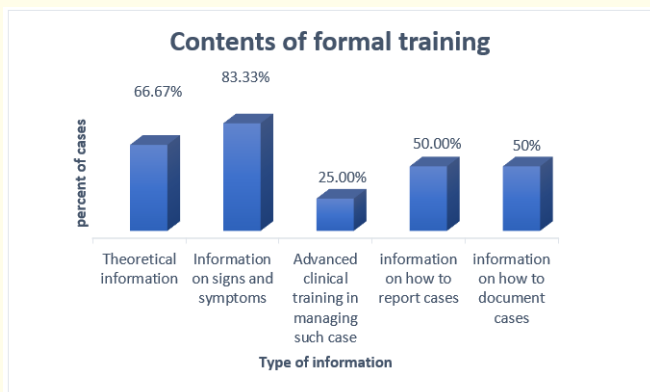


Figure 2: Type of information gained among participants who had formal training on child physical abuse, Abet hospital, Addis Ababa 2021.

Knowledge of physicians in child physical abuse

Participants were asked different questions to assess their knowledge of child physical abuse. The first question asked about the signs and symptoms of child physical abuse 94.7%, 85.5%, 93.4%, 72.4% agreed that skin bruise, broken teeth without reasonable cause, burn marks and head trauma were signs of child physical. 94/152 (61.8%) of participants correctly identified all signs and symptoms of child physical abuse.

When our participants were asked what is the first action a physician should take when child physical abuse is suspected 57.2% responded they would ask the child and parents about the sign and symptoms they noticed, 72.4% responded they would document the findings and their suspicion, 39.5% responded they would monitor the case during follow up, 67.8% claimed they report to legal authorities, 72.4% responded they would check the consistency of the symptoms with the finding. Only 55/152 (36.2%) of physicians responded correctly to all the questions about the first action a physician should take when suspecting child physical abuse.

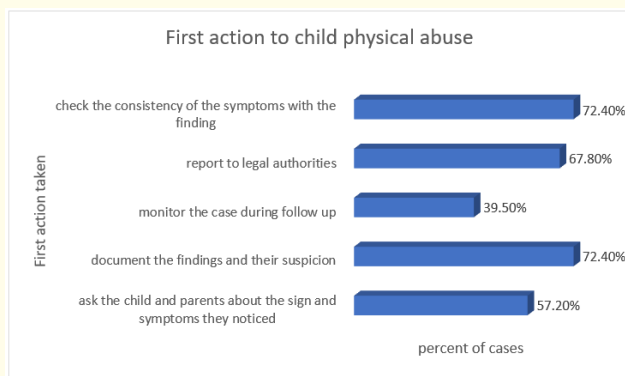


Figure 3: Participants response to the first action a physician to take when suspecting child physical, Abet hospital, Addis Ababa 2021.

The circumstances in which physicians thought should report child physical abuse case to authorities were All circumstances even if abuse is only suspected (82.8%), in severe cases of child physical abuse (32.5%), in case when physical violence of the child is repetitive (36.4%) and 6.6% responders do not know where to report. 125/152 (82.5%) of physicians responded correctly to circumstances in which to report child physical abuse.

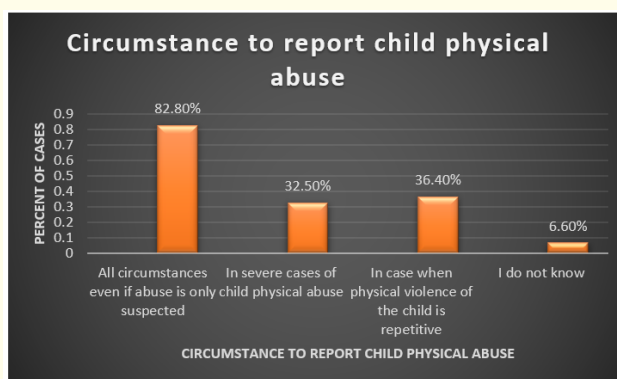


Figure 4: Participants response to circumstances in which a physician should report cases of child physical abuse to authorities in Aabet hospital, Addis Ababa 2021.

When answering the question to which legal authorities to report, only 55 (36.2%) of physicians know to report to social workers which is the case in our setup and 24 (15.9%) did not know where to report.

Postgraduate study, undergraduate study and online courses where main source of knowledge for participants in 42.8%, 33.6%, 10.5% of physicians.

Total correct response of 18 true/false questions and 4 multiple response question about participants knowledge towards child physical abuse was computed. 80% cutoff point was used to classify participants having knowledge and poor knowledge. As a result, only 77/152 (50.7%) of physicians had good knowledge regarding child physical abuse.

Attitude of physicians in child physical abuse

Majority of physicians in Aabet hospital agree with importance of detecting and reporting child physical abuse and agree physicians have an important role. Majority 148/152 (97.4%) of participants believe they would be able to detecting child physical abuse.

62.5% of participants disagree with amount of material presented about the topic of physical abuse at department are sufficient. Furthermore, all participants agree about the importance of providing child physical abuse training in workplace.

When asked about the possible cause of under reporting of child physical abuse cases their response where lack of knowledge about referral procedure (78.9%), uncertainty about the diagnosis of the case (61.8%), lack of adequate history about the abuse case (31.6%), possible harmful effect on the child by the family (28.9%) and fear of anger from family and parents (27.6%) of cases.

We used 50% cutoff point to classify physicians with favorable attitude and non-favorable attitude accordingly 141/152 (99.3%) physicians had a favorable attitude toward child physical abuse.

	Strongly Agree (%)	Agree (%)	Neutral (%)	disagree (%)	Strongly (%) disagree
Detecting and reporting physical abuse is important (n = 152)	126(82.9%)	24(15.8%)	1(0.7%)	1(0.7%)	0.00
Physicians have an important role in detecting and reporting cases of child physical abuse (n = 152)	119(78.3%)	32(21.1%)	1(0.7%)	0.00	0.00
As a physician, you are able to detect cases of child physical abuse (n = 152)	78(51.3%)	58(38.2%)	12(7.9%)	4(2.6%)	0.00
Documenting the signs and symptoms of abuse in the patient's file is important (n = 152)	122(80.3%)	26(17.1%)	2(1.3%)	2(1.3%)	0.00
Asking the child about injuries he/she had is important (n = 152)	100(65.8%)	44(28.9%)	7(4.6%)	1(0.7%)	0.00
Reporting physical abuse cases to a legal authority is important (n = 152)	107(70.4%)	42(27.6%)	3(2.0%)	0.00	0.00
The amount of material presented about the topic of physical child abuse at your department was sufficient (n = 152)	3(2.0%)	19(12.5%)	35(23.0%)	69(45.4%)	26(17.1%)
Providing child physical abuse training in the workplace is important (n = 152)	121(79.6%)	29(19.1%)	2(1.3%)	0.00	0.00

Table 3: Distribution of physician’s attitude toward child physical abuse Abet hospital, Addis Ababa 2021.

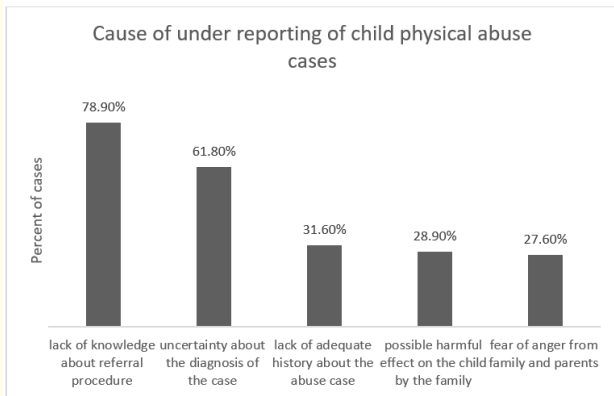


Figure 5

Experience of physicians in child physical abuse

93 (61.2%) participant suspected child physical abuse in the professional experience, On average physicians suspect around 3-4 cases. And 39/93 (41.9%) of physicians confirmed the case to be child physical abuse. Only 30/93 (32.3%) of physicians who suspected child physical abuse reported the case to legal authorities.

A total of 318 cases of child physical abuse were suspected in our institution out of which 93 (29.3%) of the cases were confirmed and only 70 (22%) of the cases were reported.

Regarding our institution 61.2% of physicians believe their institution did not provide them with procedures to be followed in a case a child is suspected to be physically abused and 31.6% did not know if the institution provides procedures.

By using cutoff point of 50% to classify physicians as having good practice and bad practice only 73/152 (48%) physicians have good practice regarding child physical abuse.

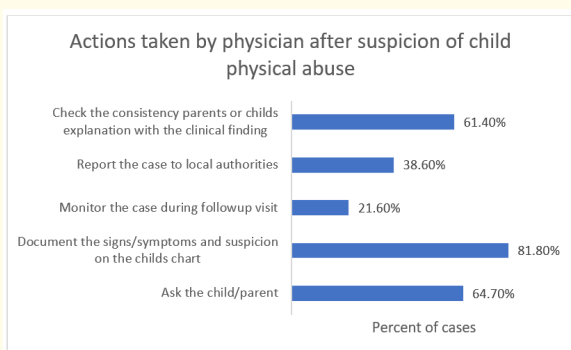


Figure 6: Actions taken by physicians who suspected child physical abuse Aabet hospital, Addis Ababa 2021.

Associated factors

Chi-square measure of three knowledge and one practice question were selected to assess factors affecting knowledge and practice of physicians toward child physical abuse. The questions about signs and symptoms of child physical abuse, first action which should be taken if a physician suspects child physical abuse, circumstances in which physicians should report child physical abuse and the practice question was if the physician ever suspected child physical abuse.

Academic position and monthly income have statistically significant association (p value of < 0.05) with physician's knowledge about the signs and symptoms of child physical abuse. Only religion have statistically significant association with physician's knowledge regarding the first action to be taken in case of suspected child physical abuse p value 0.022. Religion, academic position and formal training have statistically significant association with physicians' suspicion of child and physical abuse with p value of 0.003, 0.017 and 0.013 respectively. The other sociodemographic variables were found to have no statistically significant association with the selected dependent variables.

Dependent variable	Independent variable	Chi square test	P value <0.05
Knowledge about the signs and symptoms of child physical abuse	Academic position	10.210	0.006
	Monthly income	9.594	0.002
Knowledge about the steps which should be taken if a physician suspects child physical abuse	Religion	11.065	0.022
Practice if physician have ever suspected child physical abuse	Religion	13.637	0.003
	Academic position	8.184	0.017
	Formal training	6.216	0.013

Table 4: Results from cross-table (P-value) using multivariate analysis which has statistically significant association with p value of <0.05.

A stepwise logistic regression was done and there is no statistically significant relation p < 0.05 between sociodemographic data and physician's knowledge about sign and symptoms of child

physical abuse and knowledge of circumstances in which to report cases of child physical abuse. However, there is a negative relation between field of study (being general surgeon) and physicians' knowledge about steps to be taken when a case of child abuse is suspected p value of 0.029 and Odds ratio of 0.055 and 95% confidence interval.

There is no statically significant relation between physicians' practice of suspicion of child physical abuse and sociodemographic data.

Discussion

This survey aims to study the knowledge, attitude and practice of physicians in identifying and reporting cases of child physical abuse in Aabet hospital as part of an effort to increase awareness about child physical abuse cases in our country.

Regarding knowledge about signs and symptoms of child physical abuse 61.8% of participants correctly identified all signs and symptoms of child physical abuse. There is lack of knowledge about signs and symptoms of abuse in our set up which is similar to the finding in Saudi Arabia and USA were 73%, 56% of physician correctly identified all signs of child physical abuse respectively. Which could be explained by lack of formal training regarding the topic. In suspected case of child physical abuse, the main action taken by physicians in our study were document the finding and their suspicion, check the consistency with the finding, report to legal authorities. While in the study done in Saudi Arabia 2016 actions to be taken in case of suspected abuse were ask the child and parents about the observed sign, document the signs and symptoms in the child file and check the consistency of the parents' and/or child's explanations with the clinical findings. In another study in Saudi Arabia 2014 the actions taken were discuss the case with parents, discuss the case with colleagues and document the case in the child's file. There is higher tendency of our physicians to report to legal authorities which can be a result of a relatively liberal society as compared to Saudi where the society is highly conservative regarding child physical abuse [20,26,30].

In this study 67.8% of participants showed willingness to report the case to legal authorities which is higher than the finding in Saudi Arabia 2016 which was 50%. Majority 82.5% our participants know circumstance to report child physical abuse cases which is similar to the finding in USA 84% and higher than Saudi Arabia 2016 45% [20,27].

When answering the question to which legal authorities to report only 36.2% of physicians correctly know where to report which is social workers in our setup which is similar to the finding in Saud, Jordan and UAE which was 37%, 22% and 50% respectively. Majority of our participants did not get formal training and little is known about social workers dealing with child abuse cases in our set. Most of participants in our survey stated their main source of knowledge was post-graduate study unlike the findings in Saudi Arabia, Jordan and UAE in those set ups under graduate study was main source of knowledge regarding child physical abuse. Under graduate training programs in our set up pay little attention to child physical abuse [20,21,23].

Regarding physician's knowledge about social indicators of abuse 45.4% correctly identified social indicators of child abuse while majority of participants in studies in Saudi Arabia, Jordan, UAE correctly identified social indicators of abuse. But 40.1% of our physicians wrongfully thought that child abuse is associated with stress of poverty Interestingly, other studies have found that physicians in Saudi Arabia, the UAE and Jordan wrongly thought that abuse was exclusively associated with poverty and low socioeconomic status (75%, 60% and 60%). Only 12.5% physicians in our study wrongfully though abused children usually tell someone soon after the abuse occurs. But large percentage of physicians in Saudi Arabia, UAE and Jordan wrongfully thought that an abused child usually tells someone soon after the abuse occurs [20,21,23,26].

Majority of physicians in this study have positive attitude in detecting, reporting cases of child physical abuse and the importance of undergoing training on child physical abuse. which is similar to findings in Saudi Arabia, UAE, Sri Lanka. Globally there is improving positive attitude among physicians as awareness about child abuse is on the rise [23,26,27].

Furthermore, 62.5% of physicians believed that the child physical abuse information presented at their medical schools was insufficient. The findings are similar to the studies in Jordan and USA were large proportion of the participants felt that the amount of material about child abuse provided in there set up is inadequate. There is a need for more training on child physical abuse among physicians as lack of knowledge about the topic and referral system was mentioned as a cause for poor handling of such cases [20,28].

Worldwide cases of child physical abuse are under reported and in this study the main cause for under reporting was lack of knowl-

edge about the referral procedure in 78.9% of cases. These findings are similar to two studies in Saudi Arabia which was 79.9% of cases. Furthermore, uncertainty about the diagnosis of the case was listed as the second most common cause for under reporting 61.8% of cases while fear of anger from family and parents was listed in other the studies in Saudi Arabia and Jordan. Globally under reporting is high and causes arise from lack of knowledge about the case or the procedure to be followed [20,28].

In terms of physician's experience with child physical abuse 61.2% physicians suspected child physical abuse and only 32.3% of those reported the case to legal authorities which is higher than the study in Saudi Arabia were only 11% of physicians suspected abuse out of which 27.3% reported the case. Child physical abuse prevalence is high in our set up as compared middle east but rate of reporting is low for the reasons listed previously [20,29].

Regarding our institution 61.2% of physicians believe their institution did not provide them with procedures to be followed in a case a child is suspected to be physically abused and 31.6% did not know if the institution provides procedures. Which is similar to the finding in Saudi Arabia where 65% of physicians said their workplace did not provide them with procedures to be followed in case of suspected child physical abuse and 29% reported that they did not know if there work place provides procedures or guideline that detected the physician in case of child abuse.

Conclusion and Recommendation

In conclusion, this study showed that:

- Physicians in our hospital have poor knowledge about the manifestation of child physical abuse and actions that should be taken if child physical abuse is suspected. More over only a small portion of physicians know the correct legal authority the case should be reported.
- Majority of physicians showed positive attitude in detecting and reporting case of child physical abuse.
- Small proportion of suspected cases are reported, the main cause of under reporting being lack of knowledge about the referral procedure and uncertainty about the case
- Very small number of physicians believe their institution has provided them with procedures to be followed in a case a child is suspected to be physically abused
- Age, gender, field of study and formal training had no association with physician's knowledge, attitude and practice.

To improve physician's knowledge regarding child physical abuse lectures and seminars should be included in the curriculum in both under graduate and post graduate medical training programs via our collage. Formal Inservice training on the subject matter should be provided for all stuffs on regular bases by our hospital management. To increase rate of case reporting and for better care provision a flowchart to be followed when physicians encounter child physical abuse case shall be prepared by our social workers and the hospital management.

Strengths of the Study

- The study is the first of its kind to be done in our setup there by providing baseline information regarding the topic.
- It provides information on physician's statues in dealing with child physical abuse cases, the need for training in the subject matter and the efficacy of the frame work provided by our institution to deal with child physical abuse.

Limitation of the Study

- Small sample size
- The study is done in Aabet hospital which is one of the two trauma centers in the country.it needs to include other hospital in the country to have the bigger picture.

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Conflict of Interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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