

## Research



# Reporting child abuse in Rwanda: attitudes and practices of physicians - a cross-sectional survey

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## Reporting child abuse in Rwanda: attitudes and practices of physicians - a cross-sectional survey

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## Abstract

**Introduction:** in many countries there are laws to mandate the reporting of child abuse; despite such laws, it is known that many professionals, all over the world, fail to do so and this can be dependent on their attitudes and perceptions regarding child abuse. The objective of this study was to identify the

*attitudes and practices of paediatricians and paediatric residents regarding the reporting of child abuse in Rwanda. **Methods:** a cross-sectional survey of 61 Rwandan physicians (46 paediatric residents and 15 paediatricians) in Rwanda using the “Child Abuse and Neglect Questionnaire” employing 44 Likert questions.*

***Results:** most physicians (92%) had received training in recognizing and reporting child abuse, 31% reported that this was inadequate. Only ten (16%) physicians reported a case of child abuse in the previous 12-months. Thirty-eight percent of physicians had, at some point, suspected child abuse and had decided not to report the incident. The biggest fear of reporting abuse amongst physicians was that unpleasant events would follow reporting. **Conclusion:** our results suggest under-recognition and under-reporting of child abuse in Rwanda. These findings support the implementation of regular, mandatory training on the recognition and reporting of child abuse. Systems of accountability to ensure reporting should also be put in place.*

## Introduction

Child abuse is a global problem with life-long severe consequences [1,2]. The immediate injuries and effects can be devastating; children's long-term physical, mental and emotional health is also impacted [3]. The landmark Adverse Childhood Experiences study discovered a strong relationship between experiences with abuse during childhood and many of the principal causes of death in adulthood [4]. Policymakers are increasingly recognizing the importance of awareness, education, comprehensive local systems, and robust governance to combat childhood violence in its many forms. The United Nations Sustainable Development Goal (SDG 16.2) specifically aims to “end abuse, exploitation, trafficking and all forms of violence and torture against children” [5]. Despite this SDG, many countries lack even baseline data on the prevalence of child abuse which is compounded by the factor that the number of

children on the African continent who are abused is underestimated [6]. Physicians and other healthcare professionals (HCPs) often have insufficient education and support necessary to recognize abuse and adequately report it in order to protect a child. Child abuse is under-researched in Africa with most of the medical literature on child abuse coming from North America and Europe. The majority of African child abuse literature is focused on sexual abuse [7]. In Rwanda, much of the child abuse literature focuses on street children and transactional sex, as well as intimate partner violence [8]. There is no clear data on the overall prevalence of child abuse in Rwanda. Despite the lack of data, Rwanda has done much to support child rights. In 1991, Rwanda was one of the first countries to ratify the United Nations Convention on the Rights of the Child (CRC). In 2001, Rwanda approved *The African Charter on the Rights and Welfare of the Child* [9] and in 2011 specific legislation was implemented “relating to the rights and the protection of the child” [10]. In 2007, Rwanda developed the Child Right's Observatory, which was charged with monitoring and protecting the rights of children [11].

Many governments, including, the USA, Canada, Australia and a number of European countries have enacted mandatory reporting laws to facilitate early discovery of cases of child abuse and neglect [12]. In Rwanda, professionals, HCPs and all adults are legally required to report suspected child abuse. Reporting mandates are crucial for the protection of children. Victims typically do not self-report [13]. If victims do report abuse, it is usually not promptly after having suffered abuse, and therefore professionals play a vital role in identifying and reporting abuse and potentially reducing the negative consequences for the child [14]. Reporting abuse is a key step in safeguarding children. Physicians who work with children must be given evidence-based training, in not only the concepts and recognition of child abuse but also in how to report abuse and protect children [6,15]. Despite laws to mandate the reporting of abuse, it is known that many professionals, all over the world, fail to do

so [16,17]. Many factors influence a HCPs willingness to report abuse. Barriers can be divided into four categories; i. individual barriers (such as the knowledge of healthcare professionals, their attitudes and beliefs), ii. Interpersonal barriers (fear of disconnecting therapeutic relationships and violation of privacy), iii. Organizational barriers (such as poor communication and weak legal processes for reporting), and iv. Situational barriers (such as victims' characteristics and available evidence) [16,18-20]. If enacting mandatory reporting into law, then legal protections must also be provided to HCPs who report possible abuse in good faith [12]. Historically, there has been disagreement, amongst HCPs, about what constitutes abuse [21]. This has important implications when applying practice to legal precedents, which are in place in Rwanda [10]. For example, while there is growing recognition that corporal punishment has negative consequences, a many children around the world experience violent disciplinary practices at home [22]. These practices, in some countries, are viewed as an acceptable means of correcting a child's misbehavior but may be illegal in other states [21,22].

**Study objectives:** the objective of this study was to identify the attitudes and practices of paediatricians and paediatric residents regarding the reporting of child abuse in paediatricians and paediatric residents in Rwanda.

## Methods

**Study design:** a cross-sectional survey. Reporting of this study has been verified in accordance with the STROBE checklist (Strengthening the Reporting of Observational Studies in Epidemiology) [23,24].

**Study setting and location:** Rwanda is a landlocked country located in East Africa with a population of 12.2 million inhabitants. The gross domestic product (GDP) per capita more than tripled from \$211 in 2001 to \$787 in 2018 [25].

**Physicians/subjects:** all paediatricians, subspecialists, and paediatric residents in

Paediatrics who signed the consent form were eligible for inclusion. There were no exclusion criteria. Participants were identified through the Rwanda Paediatric Association (RPA) and University of Rwanda (UR) for paediatricians and paediatric residents respectively. For recruitment, email addresses were gained from the RPA and UR. An email invitation was sent to all eligible physicians.

**Sample size (power calculation):** this was a descriptive study and therefore no sample size calculation was undertaken.

**Questionnaire employed:** the "Child Abuse and Neglect Questionnaire" was used [14,26]. The questionnaire was developed and validated in Australia to assess reporting practices in HCPs. It includes three sections: i. demographics (e.g. age, gender, years in practice, etc), ii. yes/no questions assessing recognition and reporting of all forms of suspected or definite cases of child abuse and the number of suspected or definite cases seen in the previous 12 months, iii. Likert questions (1-5) separated into sections on confidence in practice, decision making, beliefs and attitudes regarding child abuse. The Likert questions were all presented between 1 (very unlikely) and 5 (very likely), the exact wording of each Likert options are provided with the result tables. In analyzing the Likert items were either positive or reverse coded. A reverse coded question is one where the "correct answer" is presented negatively and for example scores 5 for "strongly disagree".

**Data collection and management:** the questionnaire was sent with the invitation email with a web-link (URL) to a Google Forms® version of the questionnaire. Two reminder invitations were sent to maximize response-rate. Questionnaire responses were stored in Microsoft Excel® and statistical analysis undertaken in SPSS® (statistical package for the social sciences) v24.0.

**Statistical analysis:** summary statistics were analyzed with means and proportions [27,28]. As the training and years of experience of residents is significantly different, the results for these groups

are presented separately, with totals for the entire cohort.

**Academic integrity:** the study was undertaken as the MMed (MSc) thesis by the Principal Investigator (HBM). The study protocol was therefore reviewed and approved by the University of Rwanda academic team in February 2016.

**Institutional review board (IRB):** the research protocol was reviewed and approved by the University of Rwanda IRB (Ref: 052/CMHS IRB/2017).

## Results

**Participants:** a total of 102 practicing paediatricians (n=53) and paediatric residents (n=49) were eligible for enrolment. A total of 61 responses were received from these 102 invitations (response rate 60%) with residents being much more likely to respond than paediatric specialists (Table 1). The majority of physicians were male (69%) and working in the capital city, Kigali (79%).

**Training and experience in reporting child abuse:** only five physicians (8%) reported having received no training in child abuse at any point (Table 2). Physicians reported receiving lectures (69%) and training “in practice during residency” (62%). Only 31% of physicians reported that they felt that their education had adequately addressed child abuse reporting.

**Reporting practices:** twenty-nine physicians (48%) had never made a report or notified the authorities of child abuse (Table 2). Twenty-three physicians (38%) had at some point suspected child abuse and had decided to report the suspicion. Eighteen physicians (29.5%) were unaware that they had a legal responsibility to notify the authorities of child abuse (Table 3). Physicians were as likely to report to their Head of Department as they were to the police.

**Confidence in identifying and reporting abuse:** subjects felt most confident at identifying physical

abuse (mean=4.02) (Table 4). Regarding confidence in reporting, physicians were less confident (mean=3.34) in reporting child abuse compared to other competencies, such as identifying abuse.

**Response to suspicion of child abuse:** several of the Likert questions in this section were 'reverse coded' (italic text in Table 5). Physicians correctly responded that to 'take no action' (mean=4.57) was not an appropriate response to suspicions of abuse. To “persuade the child to give details of the abuse” was the most likely action reported by physicians (mean=4.26).

**Fear of reporting:** all the fear of reporting questions were reverse coded Likert questions. Therefore, the biggest fears of reporting were that unpleasant events would follow (mean= 3.10) (Table 6 and not wanting to get involved in legal proceedings (mean=3.10).

**Beliefs and attitudes about abuse:** “parents have the right to treat their children as they see fit” was a reversely coded item and was, therefore, the belief that physicians most recognized as being false (Table 7). Residents were statistically less likely ( $p=0.023$ ) than paediatricians to recognize that “most parents are capable of hurting their children when they are under great pressure.”

**Beliefs and attitudes affecting reporting:** the factor most likely to influence a decision to report child abuse was “Being convinced there is clear evidence of abuse” (Table 7). Residents were more likely to be influenced by a feeling that the abuse was a single incident and unlikely to happen again ( $p=0.026$ ).

## Discussion

The objective of this study was to identify the attitudes and practices of paediatricians and paediatric residents regarding the reporting of child abuse in Rwanda.

**Under-recognition of abuse:** our results suggest an under-recognition of child abuse. Only ten (16%)



physicians reported a case of child abuse in the previous 12 months. In Rwanda, residents provide the majority of face-to-face care in government tertiary facilities. Therefore, they are in an ideal position to report, and are legally obliged to do so. Nine physicians (15%) acknowledged seeing a suspected case of child abuse and not reporting it in the previous year. This would imply that a minimum of 42 (67.7%) physicians had not seen any child with suspected child abuse in the previous year. This would appear highly unlikely considering the high large Rwandan paediatric population and the known global prevalence of child abuse [7] and therefore suggests that the recognition of child abuse is a problem or that physicians were reluctant to report that they had intentionally not reported in the previous year. Reasons not to report are multifactorial and include lack of evidence that an injury seen was caused by abuse and the belief that they could personally manage it with the family more effectively in a different way [29].

**Confidence in recognizing possible abuse:** we found that the level of confidence in recognizing indicators of physical abuse, sexual abuse, and emotional abuse was variable. Many physicians reported a high level of confidence in appropriately identifying indicators of physical abuse (mean=4.02) (Table 4). There was a trend in the total confidence score towards residents feeling less confident than specialists. This is understandable as the physicians themselves acknowledged that a great deal of child abuse knowledge and training is gained from clinical practice and residents have fewer years of clinical experience.

**Reporting practices:** regarding reporting practices, 30% of physicians were unaware of their legal responsibility to report child abuse (Table 3) [13]. Despite having this legal responsibility to report concerns of child abuse in Rwanda it was interesting to note that 15% of physicians did not even believe that they had a professional or ethical responsibility to notify the authorities of a suspicion of child abuse. Even though the majority of

physicians were aware of their legal responsibility to report suspected cases of child abuse, only 53% had actually ever reported a case of suspected child abuse (Table 2). This would suggest that there is a need to develop a culture of reporting and accountability to increase the likelihood that cases of suspected abuse are reported and that children are protected. Physicians were as likely to report to their Head of Department (79%) as they were to the police (78%) which reflects the hierarchical culture in Rwanda to inform a superior before informing anyone else (Table 3). Professional organisations such as the Ministry of Health (MoH), Rwandan Medical Dental Council (RMDC) and Rwanda Paediatric Association (RPA) have a potential to work collaboratively to raise awareness of the legal and professional responsibilities to report suspected child abuse. This should be facilitated with processes to support and protect doctors when they do report.

**Response to suspected abuse:** regarding physicians' response to suspected child abuse; persuading the child to give details of the abuse was the highest scoring response (mean=4.26) (Table 5). In the reverse coded question regarding confidentiality, more residents (mean=2.15) than paediatricians (mean=3.27) reported that they would make promises to a child not to tell anyone if that was what the child desired.

**Fear of reporting:** the highest scoring fear of reporting for physicians was that they would "not want to get involved in legal proceedings" (Table 6). This is consistent with previous literature which has found that physicians are reluctant to report child abuse to avoid being involved in police or court proceedings which can be time-consuming [21]. This could be compounded in the resource-limited setting where the burden of disease is higher and where there are significant time pressures on a smaller workforce.

**Beliefs and attitudes affecting reporting:** we found that physicians who were convinced there is clear evidence of abuse would be most influenced to report. This has previously been reported [17]. This

attitude scored higher than concerns for the child's welfare or the personal satisfaction of making a report. Our results suggest that there remain many perceived myths about child abuse and its pervasiveness. In our study, residents were more likely to be influenced to not report if they held the belief that the incident of concern was an isolated one ( $p=0.026$ ). This finding underscores the importance of education to dispel the widely held but false belief that abusive injuries are anomalous single occurrences. Child abuse is very commonly a chronic condition. Well recognized professional organizations, such as the American Academy of Pediatrics, publish practice protocols for health care providers to routinely screen for injuries when abuse is suspected because it is so frequent for additional traumas to be discovered.

**Training in safeguarding:** child abuse reporting by medical professionals requires both knowledge and experience [30]. Regarding training in safeguarding, only 8% of responding physicians reporting having received no training in child abuse reporting. However, only 31% reported that the training that they had received on reporting child abuse was adequate. This is an important factor as those physicians who consider their previous training and competencies to be inadequate may be less likely to report child abuse, placing children at risk. It has been shown that undertaking training of professionals working with children will significantly increase the number of cases that they report [31,32]

**Study strengths:** this is the first study of its kind to explore attitudes and practices of physicians towards reporting child abuse in Rwanda. The median age of the Rwandan population in 2012 was 18.1 years-of-age [33]. This figure is likely to reflect in other resource-limited settings. Therefore, this is a key topic as large proportions of such populations are potentially vulnerable to child abuse. This study used a previously validated questionnaire, albeit for a resource-rich setting. The confidential nature of the questionnaire allowed physicians to reply free from any harm.

**Validity of results:** the questionnaire employed used only Likert style questions and therefore the responses were restricted to the scoring system. Likert style questions are prone to acquiescence bias. Future research could consider qualitative methods to explore more rich perspectives of this topic. The questionnaire was developed and validated in Australia, and therefore may not be fully appropriate to our setting, and no attempt was made to validate it in Rwanda. Regarding the external validity of the results, this study did not assess the attitudes and perceptions of nursing staff of general practitioners (medical officers) who also are in regular contact with vulnerable children. Medical officers are newly qualified doctors working in district hospitals and provide front-line care throughout the country. As paediatricians and residents exclusively treat children, these results are biased to the knowledge and experience they have. Our opinion is that it is likely that "non-paediatric" Rwandan physicians are more likely to under-recognize and under-report child abuse. These non-paediatric physicians make up the majority of the Rwandan clinical workforce and therefore training, and exposure needs to be upscaled across the board. It has also been found that nursing staff report suspected abuse less than doctors [34].

**Further limitations:** this study has a number of limitations; the use of an electronic form (Google Forms) may have biased the physicians to younger and more computer literate physicians. In Rwanda, we have few paediatricians for the size and proportion of the paediatric population. The data was therefore limited to the number of eligible physicians, and though the overall response rate was satisfactory, it was exacerbated by a low response rate amongst the qualified paediatricians. The lower response rate in qualified paediatricians, compared to residents, could be explained by the electronic format of our survey, extra responsibilities of paediatricians and finally, that the principal investigator was a resident and colleagues might have responded to be supportive.

## Conclusion

In conclusion, child abuse is a global epidemic. In Rwanda, child abuse is understood to be a problem, but not always recognized or reported in the individual child. We have identified many factors that are associated with under-recognition and under-reporting of child abuse. All healthcare professionals providing care to children in Rwanda will benefit from regular, mandatory training on child abuse and reporting of child abuse. Systems and cultures of accountability to ensure reporting should also be put in place.

### What is known about this topic

- *Child abuse is a global problem with life-long severe consequences;*
- *Child abuse is under-researched in Africa with most of the medical literature on child abuse coming from North America and Europe.*

### What this study adds

- *Child abuse is recognized as a problem in Rwanda but is not always recognized or reported;*
- *Physicians in Rwanda fear reporting abuse as they perceive that negative events will follow;*
- *Systems and cultures of accountability are needed to ensure reporting and safeguarding of this vulnerable population.*

## Competing interests

The authors declare no competing interests.

## Authors' contributions

Dr Hippolyte Bwiza Muhire undertook the research as the memoire of his MMed in Paediatrics. Prof Dr Lisine Tuyisenge, Dr Francois Budigu, and Dr Allison Ball were supervisors and therefore contributed to the conception and analysis of the research. Dr

Peter Cartledge analysed the data and undertook the interpretation with Dr Bwiza. All authors approved the final manuscript.

## Tables

**Table 1:** baseline details of participants

**Table 2:** training and reporting in safeguarding

**Table 3:** reporting practices

**Table 4:** confidence - "In your opinion, how prepared do you feel to be able to carry out the following?"

**Table 5:** response to suspected child abuse - "In a situation where you suspect child abuse, indicate how you would respond in such a situation"

**Table 6:** fear of reporting

**Table 7:** beliefs and attitudes and child abuse and reporting suspected cases

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**Table 1:** baseline details of participants

		Residents (n=46)	Pediatricians (n=15)	Total (n=61)
Response rate		46/49 (93.9%)	15/53 (28.3%)	61/102 (59.8%)
Gender	Male	32 (69.6%)	10 (66.7%)	42/61 (68.9%)
	Female	14 (30.4%)	5 (33.3%)	19/61 (31.1%)
Age (years)	Mean	32.3 (4.4)	36.3 (3.43)	33.2 (4.5)
Years of experience	Less than 1 year	1 (2.2%)	1 (6.7%)	2 (3.3%)
	1-3 years	17 (37%)	0 (0%)	17 (27.9%)
	4-6 years	23 (50.0%)	6 (40.0%)	29 (47.5%)
	7-9 years	3 (6.5%)	7 (46.7%)	10 (16.4%)
	Greater or equal to 10 years	2 (4.3%)	1 (6.7%)	3 (4.9%)
Location of practice	City of Kigali	40 (87.0%)	8 (53.3%)	48 (78.7%)
	Other provinces	6 (13.0%)	7 (46.7%)	13 (21.3%)
Type of the Health Facility you practice in	Provincial Hospitals	3 (6.5%)	2 (13.3%)	5 (8.2%)
	Private Hospitals/Clinics/ Polyclinics	0 (0%)	2 (13.3%)	2 (3.3%)
	Teaching (referral) Hospitals	42 (91.3%)	11 (73.3%)	53 (86.9%)
	NGOs	1 (2.2%)	0 (0%)	1 (1.6%)

**Table 2: training and reporting in safeguarding**

		<b>Residents (n=46)</b>	<b>Pediatricians (n=15)</b>	<b>Total (n=61)</b>	<b>P-value</b>
Was child abuse addressed in your training (please mark as many as appropriate)?	Not addressed	3 (6.5%)	2 (13.3%)	5 (8.2%)	p=0.648J
	Yes, in course lectures	31 (67.4%)	11 (73.3%)	42 (68.9%)	p=0.666C
	Yes, in workshops/ seminars	14 (30.4%)	4 (26.7%)	18 (29.5%)	p=0.78J
	Yes, in assigned readings	20 (43.5%)	4 (26.7%)	24 (39.3%)	p=0.247J
	Yes, in practice during residency	29 (63.0%)	15 (60.0%)	38 (62.3%)	p=0.833C
Do you feel your education adequately addressed child abuse reporting?	Yes	14 (30.4%)	5 (33.3%)	19 (31.1%)	p=0.556C
	No	19 (41.3%)	4 (26.7%)	23 (37.7%)	
	Unsure	13 (28.3%)	6 (40.0%)	19 (31.1%)	
Personally made a report/ notified of child abuse to the authorities?	Ever	21 (45.7%)	11 (73.3%)	32 (52.5%)	p=0.057J
	Last 12 months	8 (17.4%)	2 (13.3%)	10 (16.4%)	p=1.000J
Suspected child abuse, but decided not to report the incident? (ever)	Ever	15 (32.6%)	8 (53.3%)	23 (37.7%)	p=0.150C
	Last 12 months	6 (13.0%)	3 (20.0%)	9 (14.8%)	p=0.676J

Chi-squared; Fisher Exact test (where group size <5)

**Table 3: reporting practices**

	Residents (n=46)	Pediatricians (n=15)	Total (n=61)	P-value
We are interested in your knowledge of reporting procedures				
As a doctor, do you have legal responsibility for notifying the authorities of a suspicion of child abuse?	34 (73.9%)	9 (60.0%)	43 (70.5%)	p=0.301C
As a doctor, do you have professional/ethical responsibility for notifying the authorities of a suspicion of child abuse?	38 (82.6%)	14 (93.3%)	52 (85.2%)	p=0.574C
As a doctor, do you have responsibility within your workplace for notifying the authorities of a suspicion of child abuse?	33 (71.7%)	11 (73.3%)	44 (72.1%)	p=0.708C
If you suspect that a child is being abused, but you are unsure, is it appropriate to contact the authorities to discuss the matter?	31 (67.4%)	11 (73.3%)	42 (68.9%)	p=0.290C
We are interested in knowing whom you would report to if you suspected child abuse				
Local authorities	17 (37.0%)	7 (46.7%)	24 (39.3%)	p=0.098C
Head of Department	36 (78.3%)	12 (80.0%)	48 (78.7%)	p=0.875C
Hospital administration	21 (45.7%)	7 (46.7%)	28 (45.9%)	p=0.661C
Police	35 (76.1%)	13 (86.7%)	48 (78.7%)	p=0.319C
National commission for children	16 (34.8%)	3 (20.0%)	19 (31.1%)	p=0.247J
Chi-squared; Fisher Exact test (where group size <5)				



**Table 4:** confidence - “In your opinion, how prepared do you feel to be able to carry out the following?”

	Resident mean	Pediatrician mean	Total mean	P-value
Appropriately identify indicators of physical abuse	3.96	4.20	4.02	p=0.393
Make an appropriate examination to assess the presence of suspected child abuse	3.70	4.0	3.77	p=0.340
Appropriately identify indicators of sexual abuse	3.59	4.00	3.69	p=0.145
Appropriately manage the care of a child you suspect has been abused	3.52	3.93	3.62	p=0.208
Appropriately engage in actions to assist in preventing child abuse	3.48	3.67	3.52	p=0.477
Appropriately report suspected child abuse	3.30	3.47	3.34	p=0.627
Appropriately identify indicators of emotional abuse	2.98	3.47	3.10	p=0.124
Total Confidence score (out of 100)	70.1	76.4	71.6	p=0.200

Cronbach’s alpha (7-items) = 0.899; Likert scale: very unprepared = 1, somewhat unprepared = 2, unsure = 3, somewhat prepared = 4, very prepared = 5 \*The question appropriately identify indicators of neglect was removed from the original questionnaire due to the challenges of overlap between poverty and neglect in a resource-limited setting Student’s t-test

**Table 5:** response to suspected child abuse -“In a situation where you suspect child abuse, indicate how you would respond in such a situation”

	Resident mean	Pediatrician mean	Total mean	p-value
Take no action*	4.50	4.80	4.57	p=0.237
Persuade the child to give details of the abuse+	4.26	4.27	4.26	p=0.985
Discuss the case with a friend or family member to determine whether to report or not*	4.20	4.40	4.25	p=0.532
Tell the child that disclosing was the right thing to do+	4.15	4.40	4.21	p=0.523
Emphasize that the abuse is not the child’s fault+	4.07	4.53	4.18	p=0.115
Speak with other professionals to find out whether they have noticed any differences in the child’s behavior+	4.09	4.20	4.11	p=0.715
Immediately notify the relevant authorities+	4.02	4.13	4.05	p=0.720
Contact the child’s parents to discuss the disclosure+	4.00	4.13	4.03	p=0.678
Report any disclosure to the authorities+	4.09	3.80	4.02	p=0.432
Discuss the case with a colleague to determine whether to report or not+	4.09	3.27	3.89	p=0.032
If the child has disclosed abuse, tell the child that some adults do wrong things+	3.57	3.93	3.66	p=0.284
Tell the child that this has happened to other children+	3.09	3.33	3.15	p=0.565
Speak with the child’s sibling(s) to gain more proof*	3.11	3.00	3.08	p=0.784
Promise the child not to tell anyone if that is what he/she desires*	2.15	3.27	2.43	p=0.027
Gather more evidence before notifying the authorities*	2.00	2.07	2.02	p=0.864
Total response score (out of 100)	73.8	76.7	74.5	p=0.248
Cronbach’s alpha (15-items) = 0.477 +Likert scale: definitely not = 1; probably not = 2; unsure = 3; probably = 4; definitely = 5 *Reverse coded Likert scale (italics): definitely not = 5; probably not = 4; unsure = 3; probably = 2; definitely = 1 Student’s t-test				

**Table 6:** fear of reporting

	Resident mean	Pediatrician mean	Total mean	P-value
I would not want to get involved in legal proceedings	3.15	2.93	3.10	p=0.201
Unpleasant events would follow (i.e. jeopardizing the relationship with child and/ or family)	3.15	2.93	3.10	p=0.405
Government authorities do not generally offer help to children who have been abused	3.20	3.00	3.15	p=0.555
I would not want to appear foolish in making a report	3.15	3.27	3.18	p=0.636
I feel reporting suspected child abuse is not my job	3.22	3.07	3.18	p=0.427
Feeling that you do not have enough knowledge to assess indicators of abuse	3.30	3.00	3.23	p=0.054
I would fear making an inaccurate report to authorities because of lack of evidence	3.46	3.60	3.49	p=0.695
Fear of reporting score (out of 100)	64.7	62.3	64.1	p=0.409
Cronbach's alpha (7-items) = 0.570; all items were reverse coded Likert scale (italics): strongly disagree = 5; disagree = 4; undecided = 3; agree = 2; strongly agree = 1; Student's t-test				

**Table 7:** beliefs and attitudes and child abuse and reporting suspected cases

	Resident mean	Pediatrician mean	Total mean	P-value
The following statements are a list of POSSIBLE beliefs about child abuse. To what extent do you agree with the following statements				
Most parents are capable of hurting their children when they are under great pressure	2.57	3.27	2.74	p=0.023
Children lie and make up stories of abuse	3.46	3.60	3.49	p=0.549
The effects of child abuse are exaggerated	3.48	3.87	3.57	p=0.119
Child abuse is usually an isolated incident	3.78	3.53	3.72	p=0.476
Some children provoke adults until they lose control	3.87	3.73	3.84	p=0.722
Parents have the right to treat their children as they see fit	3.87	4.20	3.95	p=0.360
Total beliefs about abuse score (out of 100)	70.1	74.0	71.0	p=0.240
The following is a list of possible beliefs and attitudes about child abuse. We are interested in knowing whether these would actually influence your decision to REPORT suspected abuse. Please rate how each of the following beliefs/attitudes might influence your decision to report or not report suspected abuse.				
Being convinced there is clear evidence of abuse	4.04	4.60	4.18	p=0.034
Concerns for the child welfare	3.48	3.67	3.52	p=0.600
Personal satisfaction in making a report	3.37	3.27	3.34	p=0.611
A feeling that the abuse was a single incident, and unlikely to happen again	3.22	2.67	3.08	p=0.026
Believing that you do not have the time to follow up your report	3.09	3.00	3.07	p=0.718
Knowing the family and wanting to believe abuse would not occur within that family	2.98	2.87	2.95	p=0.699
Knowing that the child had retracted his/her statement	2.93	2.93	2.93	p=0.996
Believing there are possibly better ways to intervene than those available	2.91	2.93	2.92	p=0.938
Being able to see the reasons behind the abusers actions	2.83	2.67	2.79	p=0.443
Total beliefs affecting reporting score (out of 100)	64.1	63.5	64.0	p=0.792
Cronbach's alpha (6-items) = 0.466; Cronbach's alpha beliefs affecting reporting (9-items) = 0.326; Likert scale: this would strongly strengthen my decision to report = 5; this would moderately strengthen my decision to report = 4; no influence on my decision to report = 3; this would moderately strengthen my decision to not report = 2; this would strongly strengthen my decision to NOT report = 1 Reverse coded Likert scale: (italics) this would strongly strengthen my decision to report = 1; this would moderately strengthen my decision to report = 2; NO influence on my decision to report = 3; This would moderately strengthen my decision to NOT report = 4; this would strongly strengthen my decision to NOT report = 5 Student's t-test				