A National Pediatric Emergency Medicine Perspective on Improving Education in Child Maltreatment Recognition and Reporting

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ABSTRACT

Child maltreatment is an important public health problem with serious consequences. Even in the face of increased research and enhanced public awareness, over the last decade the rate of child fatalities due to reported child maltreatment has increased from 2.07 to 2.50 deaths per 100,000 children. Given the seriousness of child maltreatment, all US state man date by law that physicians report suspected child maltreatment to the appropriate designated local or state authority.

Keywords: Public health; Public awareness; Child maltreatment; Child fatalities

INTRODUCTION

Despite healthcare providers' willingness and motivation to adhere to child maltreatment reporting statutes, providers experience multiple barriers to reporting which leads to missed cases. Since up to 35% of abused children are re-abused, and up to 10% will die as a result of re-abuse, it is vital to increase recognition and reporting frequency to prevent missed cases of abuse [1-5]. To elucidate barriers that pediatricians and Emergency Medicine (EM) providers face in child maltreatment recognition and reporting, studies have been performed in single institution hospital based settings [7-10]. Clinical barriers identified include belief in the presenting caregiver's story, failure to recognize signs of child maltreatment, and limited availability of child abuse expert consultation services for ambiguous cases. Non-clinical barriers include complex reporting processes, lack of social worker availability, and lack of child protective services feedback to reporting physicians regarding investigation progress.

The field of maltreatment has seen significant progress over the last decade. Notable landmarks include the advent of the American Academy of Pediatrics (AAP) physical abuse guidelines and the American College of Surgeons (ACS) best practice trauma center guidelines for trauma centers for child physical abuse recognition [11]. Recognition of apparently-isolated, minor sentinel injuries as high risk for child maltreatment is new since 2010 [12-16]. Screening tools for the detection of child maltreatment in emergency medical departments and after hours healthcare settings have also been developed [17,18]. Moreover, since 2012, many states have passed felony failure to report statutes following publicized unreported sexual abuse cases [19-20]. Even with all these advancements, amongst Pediatric Emergency Medicine (PEM) physicians with specific training in injury prevention and child maltreatment medicine, there is a relative paucity of data regarding their current experiences in recognition and reporting of suspected child maltreatment. In this study we aim to describe PEM physicians' knowledge, residency/fellowship preparedness, confidence and barriers to recognition and reporting suspected child maltreatment with the overall goal of identifying educational opportunities to bridge the knowledge gaps and clinical practice barriers still remaining in that subspecialty.

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LITERATURE REVIEW

Study design, survey measurements, survey development and distribution

This is a cross-sectional survey study of PEM physicians approved by the study institution's institutional review board. A 36 items questionnaire based survey with open and closed ended questions was iteratively developed with content domains as follows: provider knowledge, preparedness, confidence, and barriers to identifying and reporting child maltreatment. Domains were selected after a literature review and subject matter expert review by a board certified child abuse pediatrician, three PEM physicians, and one EM physician. Modifications were made based on clinical sensibility including clarity, face validity, content validity, and utility.

A pilot electronic survey was distributed to 52 EM physicians, PEM physicians, and PEM fellows at the study institution. We received responses from 32 participants (61.5% response rate). A factor analysis to assess consistency and internal validity was conducted, which revealed a Cronbach's alpha of 0.75. (Table 1) The validity of the survey was assessed using the Survey Face Validity assessment tool [21]. Survey respondents were also asked to complete a one-page survey assessment sheet, which revealed no major issues with formatting, redundancy, or missing items. Respondents reported a mean completion time of 9 minutes (standard deviation 4 minutes). Based on Cronbach's alpha, four questions were considered for deletion. However, survey length decreased by no more than one minute and there was only a modest increase in Cronbach's alpha, so the study team decided to retain those questions.

Table 1: Cronbach's alpha for the pilot survey.

Variable	Standardized alpha before deleting questions	Standardized alpha after deleting questions
Comfort recognition	0.85	0.85
Comfort reporting	0.96	0.98
Barriers to recognition	0.73	0.76
Barriers to reporting	0.77	0.8

Scale for mean presented between 1-5, with strongly agree=1, agree=2, neutral=3, disagree=4 and strongly disagree=5.

The survey was submitted to and accepted for distribution by the Pediatric Emergency Medicine Collaborative Research Committee (PEM CRC), a nationally representative group of 486 PEM physicians and fellows and general emergency physicians. PEM CRC is a sub-committee of the AAP's section on emergency medicine. based on the PEM CRC's suggestions, the survey was adjusted and finalized with the following changes: A de-identified patient picture was added to the management of child physical abuse question, more open ended questions were added to enhance the qualitative aspect of the survey, and one question regarding fear of retaliation from parents as a potential barrier to reporting was added. The survey included a five point likert scale, answer selection with rankings in order of agreement, and open ended questions to obtain further insight into experiences with training, recognition, and reporting of child maltreatment. The distributed survey's components were as follows:

Part A: Case scenarios to evaluate the physician's knowledge regarding recognizing and reporting child maltreatment and awareness of child maltreatment laws.

Part B: Residency and fellowship preparedness for recognizing and reporting child maltreatment.

Part C: A five point likert scale assessing physician's confidence level in recognizing and reporting child maltreatment.

Part D: Provider identified barriers for recognizing and reporting child maltreatment.

Part E: Demographics

The study was emailed to all PEM CRC listserv members on March 1, 2020. The survey remained open for 3 months until June 1, 2020, with monthly reminders to the listserv to participate. An incentive of $5 was offered for survey completion. Research Electronic Data Capture (REDCap™) was used for anonymous survey administration and data collection. We also collected demographics, training background, and current and past practice information of survey respondents.

Data analysis

We used Stata/IC 16.1 (college station, texas) for quantitative analysis [22]. Descriptive statistics are presented for all measures including means, medians, and percentages. Responses to Likert scale questions were coded as ordinal variables. The responses to years of experience (more than 10 years and less than 10 years of experience) and practicing in a state with or without mandatory child maltreatment training for medical license procurement were described with univariate and bivariate analysis. Where appropriate, bivariate analyses employed chi-square and Fisher's exact tests. Multivariate analysis was employed to further test associations controlling for provider years in practice.

A qualitative dataset was developed from open ended free text survey questions using ATLAS. ti v8 (Berlin, Germany) to analyze that data. Data were analyzed using a concept driven coding structure. Predefined themes were assessed through previous literature, subject matter experts, and pilot survey data. Predefined codes included training, recognition, and reporting. Codes within each theme were developed by authors AM and JB

using an open coding structure; all codes emerged directly from the survey responses.

Demographics

Surveys from 113 participants were completed, for an overall response rate of 23.2% from PEM CRC membership. The majority of respondents were PEM physicians (N=106, 92.9%), EM physicians (N=4, 3.5%), and others (N=3, 2.6%). All the respondents who completed the survey were attending physicians (*i.e.*, no fellows) with a mean age of 48.3 years and 58% were female (N=65), which is similar in demographics with the national distribution of pediatric emergency physicians [23]. Years in practice ranged from 2-45 years with a mean of 17.6 years. States were represented with a majority from New York (N=11, 9.4%) and Texas (N=10, 8.5%) (Table 2).

Table 2: Demographics.

Demographics	N (%) or Mean (SD)
Age	48.3 (9.8)
	(Range: 29-70)
Race	
White	89 (78.8%)
Black	2 (1.8%)
Asian	19 (16.8%)
Other	1 (0.9%)
Ethnicity	
Hispanic	2 (1.8%)
Non-Hispanic	111 (98.2%)
Gender	
Male	46 (41.1%)
Female	65 (58.0%)
Other/No answer	1 (0.9%)
Training Specialty	
EM	4 (3.5%)
PEM	106 (92.9%)
Other	3 (2.7%)
Years in Practice	17.6 (10.9)

Knowledge questions

Knowledge regarding child physical abuse guidelines (82% correct responses) and management, (99.1%) was higher than sexual abuse recognition (74.3%) and reporting (77.8%). Awareness of child maltreatment reporting laws overall was low (Table 3).

Table 3: Case scenarios to evaluate the physician's knowledge regarding recognizing and reporting child maltreatment and awareness of child maltreatment laws.

Question	Total N=113 N (%) Correct
You suspect child sexual abuse in a 5 years old girl. Confirmation of the diagnosis is most likely going to come from:	84 (74.3%)
You are evaluating a 7 years old girl whose mother reports concern that the child was touched on her private parts by an uncle one week ago. The patient is uncooperative with a genital examination. Which of the following is most appropriate in the ED evaluation at this time?	88 (77.8%)
You are evaluating a 5 months old for an upper respiratory infection. Upon examination, you note facial bruising. The remainder of the examination is unremarkable. The mother has no explanation for the facial bruising but thinks the child may have hurt himself on the crib. Which of the following is indicated next?	112 (99.1%)
In cases of possible physical abuse, skeletal surveys are indicated until what age, according to the American academy of pediatrics guidelines?	93 (82.3%)
According to your state's laws, do you know whom you must make a report to?	110 (97.3%)
Do you know how long you have to make a report by your state's laws?	110 (33.6%)
If EMS has already filed a report, (or the primary care physician, etc.), are you also obligated to file a report?	56 (49.5%)

Training and education

More than 80% of respondents reported (either "strongly agreed" or "agreed") that their residency and fellowship had prepared them for recognizing and reporting child maltreatment (Table 4). Over 90% of the respondents continued to educate themselves after completion of residency/fellowship through a variety of sources, including CME, journal articles, case-based discussions, webinars and state required mandated training.

Table 4: Training and education presented in a likert scale.

Training and education (N=113)	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean likert scale ranking
My residency training has prepared me to recognize child maltreatment	61 (54.0%)	40 (35.4%)	10 (8.9%)	1 (0.9%)	1 (0.9%)	1.6
My residency training has prepared me to report child maltreatment	40 (35.4%)	49 (43.1%)	16 (14.2%)	6 (5.3%)	2 (1.8%)	1.9
My fellowship training has prepared me to recognize child maltreatment	73 (71.6%)	24 (23.5%)	4 (3.9%)	1 (1.0%)	0 (0.0%)	1.3
My fellowship training has prepared me to report child maltreatment	57 (55.9%)	36 (35.3%)	7 (6.8%)	2 (1.9%)	0 (0.0%)	1.5

I am confident recognizing child abuse	53 (46.9%)	54 (47.8%)	5 (4%)	1 (0.9%)	0 (0.0%)	1.6
I am confident recognizing child neglect	35 (31%)	63 (55.8%)	13 (11.5%)	2 (1.8%)	0 (0.0%)	1.8
I am confident report child abuse	65 (57.5%)	45 (39.8%)	3 (2.7%)	0 (0.0%)	0 (0.0%)	1.5
I am confident report child neglect	54 (47.8%)	51 (45.1%)	7 (6.2%)	1 (0.9%)	0 (0.0%)	1.6

Confidence and barriers to child maltreatment recognition and reporting

Confidence with recognizing and reporting child physical and sexual abuse was greater than confidence recognizing and reporting child neglect (p<0.01). Confidence in recognition of child maltreatment was greater than reporting of child maltreatment (p<0.001). Level of knowledge in child maltreatment recognition and reporting was significantly correlated with level of confidence in reporting and recognition (p<0.001). More than half of the respondents reported (either "strongly agreed" or "agreed") that a lack of knowledge and training, the appearance of a reliable caregiver, and uncertainty that clinical presentation is consistent with maltreatment are barriers to recognition of child maltreatment. Respondents further indicated that lack of access to child abuse expert's consultation, and fear of retaliation from parents was not barriers to child maltreatment recognition (Table 5). There was a wide variation in responses for questions relating to time spent for reporting, lack of social worker availability for psychosocial assessments, and lack of feedback after reporting to child protective services as potential barriers to child maltreatment reporting.

Table 5: Barriers to recognition and reporting presented in a likert scale.

Barriers to child maltreatment reporting and recognition (N= 113)	Strongly agree/agree	Neutral	Strongly disagree/disagree	Mean likert scale ranking
Lack of knowledge and training regarding child maltreatment recognition and reporting is a barrier to child maltreatment recognition	86 (76.1%)	7 (6.2%)	20 (17.7%)	2.2
When a caregiver appears to be reliable and caring, it is a barrier to child maltreatment recognition	84 (74.3%)	16 (14.2%)	13 (11.5%)	2.2
The uncertainty that the clinical presentation is consistent with abuse is a barrier to child maltreatment recognition	88 (77.9%)	11 (9.7%)	14 (12.4%)	2.2
Concern about potential radiation exposure during skeletal surveys or other imaging is a barrier to child maltreatment recognition	24 (21.3%)	11 (9.7%)	78 (69.1%)	3.7
Lack of availability of growth charts/percentiles	42 (37.1%)	21 (18.6%)	50 (44.2%)	3.1

for apparently thin, small, or macrocephalic children is a barrier to child maltreatment recognition				
Lack of availability of validated screening tools for child maltreatment in the ED is a barrier to child maltreatment recognition	46 (40.7%)	24 (21.2%)	43 (38%)	3.0
Lack of access to a child abuse consultant/expert with whom I can consult is a barrier to child maltreatment recognition	34 (30.1%)	9 (8.0%)	70 (61.9%)	3.4
Fear of retaliation from the family is a barrier to child maltreatment recognition	22 (19.5%)	11 (9.7%)	80 (70.8%)	3.8
Unknown benefits to reporting beyond physical child protection is a barrier to child maltreatment reporting	23 (20.4%)	22 (19.5%)	68 (60.2%)	3.5
Insufficient time to spend on the reporting process is a barrier to child maltreatment reporting	44 (38.9%)	12 (10.6%)	57 (50.4%)	3.2
Lack of social worker availability for psychosocial assessments is a barrier to child maltreatment reporting	49 (43.4%)	7 (6.2%)	57 (50.5%)	3.2
Having alternatives to reporting low-level suspicion cases of maltreatment is a barrier to child maltreatment reporting	47 (41.6%)	24 (21.2%)	42 (37.2%)	3.0
The possibility that medical reporting will keep the family from bringing the child for timely medical/trauma care in the future is a barrier to child maltreatment reporting	37 (32.8%)	23 (20.4%)	53 (46.9%)	3.2
Lack of feedback after reporting to child protective services is a barrier to child maltreatment reporting	50 (44.2%)	16 (14.2%)	47 (41.6%)	3.0

Scale for mean presented between 1-5, with strongly agree=1, agree=2, neutral=3, disagree=4, and strongly disagree=5. Scales combined only for manuscript presentation purposes.

Residency/fellowship training preparedness, knowledge, confidence with experience

Responses were compared between respondents with less than 10 years (35.9%) and more than 10 years of clinical experience (64%). Respondents with more than 10 years' experience reported feeling well prepared from residency/fellowship, have more knowledge, and have more confidence with child maltreatment recognition and reporting (p=0.01).

Knowledge amongst respondents from states with mandatory child maltreatment training requirement for medical licensure

Knowledge and confidence for respondents practicing in states

with mandated training in child maltreatment recognition and reporting (as a condition of licensure and re-licensure (81.6%)) were compared with other states without such requirements (18.4%). There was a significant relationship between the state of practice and knowledge (p<0.01). That relationship was still significant (p<0.01) after controlling for years in practice, indicating mandatory training independently correlates with knowledge and confidence (Table 6).

Table 6: Bivariate analysis comparing knowledge and practicing state after controlling for years in practice.

Knowledge	Co-efficient	Standard error	p-value
Practicing in mandatory training state	0.67	0.22	<0.01
Years in practice	0.03	0.01	<0.01

Open-ended responses

Using a mixture of concept-driven coding to develop themes and an inductive, grounded theory approach to further explore codes, we identified three overarching themes and 11 codes.

Open-ended questions provide context for how training, reporting, and recognition can be improved, as well as real world examples of barriers to recognition and reporting. Several insightful themes emerged (Table 7).

Table 7: Themes with their respective representative quotations derived from the open-ended responses.

Category	Theme	Representative quotations
Training	Mandated curriculum	"Have training content requirements so that there is some baseline consistency in training that learners/providers receive"
		"Mandated AAP/ABP or state-based curriculum beyond basic 2 hours for peds residents, EM residents, family practice residents"
		"Standardized education for all mandated reporters plus routine CME required in child abuse and neglect updates for hospital privileges Routine required CME for maintenance of board cert recert"
	Simulation training	"Using simulation to teach how to approach the families when there is a concern for abuse or neglect"
	Child abuse rotation	"Consider having all PEM fellows or interested residents do a 1-2-week rotation through their local CPS/DCFS agency"
	Case presentations	"If our ED group discussed the outcome of cases of child abuse in a formal fashion, we would collaborate more and support each other more in identifying suspicious cases"

		"Frequent case presentations demonstrating the subtle and difficult presentations of child abuse"
		"Education/education/education, social workers who perform reporting process, access either directly or indirectly to a child abuse pediatrician, EMR w/prompts or AI, institutional daily quality and safety review of cases concerning for child maltreatment by the child abuse peds team associated w/the hospital, feedback on cases to EM/PEM providers"
Recognition	Barriers	"We don't have a lot of training and usually adult ER providers don't have much experience with children, so they don't recognize signs"
	Time	"Sometimes lack of time for the patient encounter In the ED tend to focus on evaluation of the chief complaint when busy and may not do a more extensive HandP"
	Education	"Teach sentinel injuries and 10-4 faces stress critical nature of reporting CPS"
		"We have less training in child neglect (*vs.* child abuse)"
		"Neglect can be more subtle"
		"Sometimes our ED nurses do not put children in gowns for conditions that might not indicate abuse, however, the skin exam is important in doing surveillance for maltreatment"
Reporting	Barriers	"Frustratingly long process to report, sometimes no one answers the phones. Unsure what happens after the report, no follow-up. Concern that the wrong person will be blamed"
	Feedback	"Cooperation we are a team and need feedback the lack of feedback to know you are reporting appropriately is a monster problem with the department of child protective services"
		"Feedback after reports to help professionals and providers improve their recognition"
	Resources	"There are great online curricula on recognition, maybe more on reporting; social work availability (we have it, but not all places do) and training of SW's"
		"Need an easy, validated tool that is widely dispersed"
		"A web-based, free guideline including validated screener, recommended steps in the evaluation of child physical, sexual abuse, and neglect, state by state differences in reporting laws, and reporting mechanisms Follow up for mandated

		reporters after a report is made regarding the child, investigation outcome"
		"More access to abuse specialists during clinical work; encouraging greater care team communication regarding suspicions; more on-site SW presence/automatic referrals"
		"Overwhelmed by CPS sending in patients to the ED for physical exams for concern for both physical and sexual abuse"
		"We have a pretty robust and supported system for physicians to recognize and report child maltreatment no suggestions for any significant changes to what we have available at our institution "
Threshold of abuse		"Situations where child abuse may be a very slim possibility but still a potential consideration"
		"It feels futile to report to CPS sometimes CPS in my region has a very high threshold to take action, they are overstretched and under resourced"
		"I have been advised by social work not to report physical punishment of older children that I consider abusive, but which the SW has said is not illegal and therefore does not require reporting"
		"I have had times when I felt uneasy about a patient/family interaction and did not report because I was not sure it met the threshold where an investigation would be done"
		"We need more trained Forensic Pediatricians so that PCP's may refer to them directly for abuse workups. Anecdotally, there seems to be a reluctance of general pediatricians to report so they send patients to emergency departments relying upon ED staff to do exams and reporting for them"
Patient history		"Linkage of EMRs from multiple systems would help Sometimes patterns are picked up after repeated ED visits and concerns from PCPs. When patients go to other EDs that don't share their EMR data or use PCPs where we cannot access their records, it is possible for us to miss abuse cases"

DISCUSSION

Our survey revealed PEM physicians felt they had good training and knowledge, and overall high confidence with child maltreatment diagnosis and reporting. However, confidence in reporting was lower than confidence in recognition of child maltreatment and there was evidence of inadequate knowledge of state reporting laws. Respondents acknowledged that a lack of knowledge and uncertainty with certain clinical presentations continue to pose a barrier to child maltreatment recognition and reporting in clinical practice. Open-ended responses revealed that there is disproportionately less training in child neglect as opposed to physical abuse. Lack of access to child abuse experts was not identified as a barrier, while mixed responses were reported for social worker availability, feedback from child protection agencies, and availability to validated screening tool. Several actionable changes emerged from the

survey for increasing timely child maltreatment recognition and reporting.

Experienced PEM physicians that were surveyed felt well prepared from their residency/fellowship training had good knowledge, and high confidence with child maltreatment diagnosis and reporting. However, confidence in recognition of child maltreatment was higher than reporting, indicating disproportionately less training in reporting. Respondents had more confidence with recognition of child physical and sexual abuse as opposed to child neglect, and less knowledge in child sexual abuse compared to child physical abuse. A surprising number of respondents disagreed that growth chart and head circumference information would be of value in recognizing child neglect, indicating potentially less training in child neglect.

We identified that knowledge significantly correlated with confidence in reporting/recognition, indicating good training translates into high confidence in management during practice. Our study findings agree with those from a single institution study demonstrating that PEM physicians had greater knowledge as compared to general pediatricians [24]. That is likely due to additional training PEM physicians receive as part of their fellowship. However, currently only 41% of pediatric programs and 33% of pediatric emergency fellowships require mandatory clinical child abuse rotation and none of the EM residencies had a required child abuse rotation [25-26]. Therefore a logical first step to improving knowledge is strengthening the foundation with the inclusion of mandatory child maltreatment training by the AAP and American College of Emergency Physicians during PEM fellowship and EM residency, respectively. Simulation-based training could also be incorporated with an increased focus on child neglect, child sexual abuse, the importance of evaluating growth for every pediatric patient, and inclusion of skin exams as part of every physical exam. Additionally, physicians practicing with trainees could include them in discussions with families, CPS, multidisciplinary team discussion, and in the reporting process for more comprehensive learning to bridge educational gaps.

Respondents demonstrated poor knowledge of their state reporting laws, including the time limit to file a report. Respondents also demonstrated lack of awareness that a report must be filed even if EMS and the PCP have already done so. Questionable case scenarios where respondents failed to report included presumed good follow-up and presumed reliable caregivers. State-mandated reporting laws dictate that a previous report or lack of parental consent does not exempt mandatory reporters from reporting. 27 the definitions of mandated reporters, child maltreatment, criteria for reporting, and deadlines for reporting vary by state. Nonetheless physicians are universally mandated reporters in the entire United States. However, due to this variability in definitions and timelines, reporting misconceptions occur, serving as a hidden barrier resulting in under-reporting, despite being aware that maltreatment has occurred [19-27]. Since 2012, at least 18 states have extended their mandatory reporting laws. Failure to report can be charged as a violation of the laws and considered a misdemeanor or felony depending on the state of practice. Despite the expansion of reporting laws, our survey

demonstrated that knowledge in reporting laws is inadequate. It is crucial to incorporate education about state laws, timely reporting of cases before physical abuse indicators such as pattern marks disappear, and that suspicion, not proof, of maltreatment is all that is required for reporting. An important opportunity to save a life at the current visit may be lost if the child is lost to follow up and may return to the ED with far more severe injuries. Online universal streamlined systems with clear guidelines for reporting timelines and processes, a directory of a state-by-state variation in laws, and enhanced access to social workers could further aid in the process of physician reporting.

Comparison of respondent knowledge for those from states with training in child maltreatment recognition and reporting requirement as a condition of licensure/relicensure compared to respondents from states without the requirement, demonstrates a significant relationship between the state of practice and knowledge. This finding suggests that state-mandated training increases child maltreatment reporting knowledge. Our respondents were receptive to ongoing training, as evidenced by 90% of the respondents continuing self-directed child maltreatment training after completion of residency/fellowship. Prior experience with managing cases of child maltreatment and recent child abuse education (within 5 years) was predictive of better identification on our knowledge questions and increased physician's confidence in managing child maltreatment. A survey study performed amongst New York physicians revealed 88% of the participants agreed that mandated child abuse courses served as a source of knowledge in practice [28]. Thus, the inclusion of mandated reporter training in all states for medical licensure and re-licensure or during the acquisition of hospital privileges for physicians who care for children ensures knowledge stays current and can positively influence child maltreatment care.

Although a majority of the respondents felt lack of child abuse expert guidance was not a barrier to child maltreatment recognition, some appreciated the importance of consultation with a child abuse expert during times of medical diagnostic dilemmas. Many institutions lack the guidance of child abuse consultants in their ED. Our study results contradict past studies conducted amongst pediatricians and general emergency providers, where physicians indicated a lack of child abuse experts as a barrier to reporting. This may be in part due to the high confidence and knowledge demonstrated by the PEM trained respondents who have child maltreatment training. Child maltreatment is a diagnosis that entails a certain degree of uncertainty, particularly in the acute evaluation of a child/family, which may lead to non-reporting. Availability of a telemedicine child abuse consultant at times of uncertainty might help in resolving any diagnostic dilemmas.

Wide variation in responses were received regarding lack of validated screening tools, insufficient time to spend on the reporting process, lack of social worker availability for psychosocial assessments, and lack of feedback after reporting to child protective services as potential barriers to child maltreatment reporting. ACS recommends institution specific implementation of a standardized tool to screen for child

maltreatment. However, as few as 60% of hospitals have a protocol in ED for the response to child maltreatment. Facilities may strive to implement a validated screening tool, such as the TEN-4-FACES-P to aid in recognition of child maltreatment. Even after an adequate screening of a patient one must be cognizant that the small window of time available in ED doesn't always allow for an adequate social evaluation of a patient. Seeking support from ancillary staff for psychosocial evaluations could avoid premature diagnostic closure. Reporting processes were also cited as frustrating due to the high threshold of CPS to accept a case or lack of action by CPS for reported cases while the family faces the toxicity. Respondents reported that having a feedback mechanism would help them learn from their experiences and increase reporting confidence, in addition to aiding practice satisfaction, and burnout prevention.

CONCLUSION

Child maltreatment as a field has seen immense progress, including increased attention from the research community, yet the fatality rate from child maltreatment has increased over the past decade. Our national survey study demonstrates that PEM physicians have high confidence and knowledge with the management of child maltreatment, and that mandated training for state medical licensure may increase child maltreatment knowledge. Inclusion of mandated child maltreatment training in residency/fellowship and mandated training for medical licensure in all states could improve child maltreatment recognition and reporting. Future work should assess the effect of implementing the mandated training requirements on knowledge, validated screening guidelines and increasing access to child abuse pediatricians, on improving child maltreatment recognition and reporting in the emergency departments, thereby safeguarding children against a preventable cause of childhood mortality and morbidity.

LIMITATIONS

There are limitations to this study that merit consideration. Of the 486 PEM CRC members, we received 113 completed surveys for a 23.2% response rate. However, that rate is similar to physician survey response rates in other literature. An in-depth interview methodology would have yielded richer qualitative data but was not feasible to perform in a way that would give adequate geographic and demographic diversity of responses. Therefore, we added open-ended questions to increase the veracity and depth of this study. Our knowledge questions may have been subjected to responder bias with a preponderance of respondents from academic settings (90%) completing the survey. Lastly, our results stem from survey responses, physicians may have under or over-reported their confidence in the management of child maltreatment questions, and responses may not truly reflect confidence during the management of cases in clinical practice.

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