ORIGINAL ARTICLE

Barriers to Reporting Child Maltreatment:
Do Emergency Medical Services Professionals Fully Understand Their Role as Mandatory Reporters?

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BACKGROUND Child maltreatment is underreported in the United States and in North Carolina. In North Carolina and other states, mandatory reporting laws require various professionals to make reports, thereby helping to reduce underreporting of child maltreatment. This study aims to understand why emergency medical services (EMS) professionals may fail to report suspicions of maltreatment despite mandatory reporting policies.

METHODS A web-based, anonymous, voluntary survey of EMS professionals in North Carolina was used to assess knowledge of their agency's written protocols and potential reasons for underreporting suspicion of maltreatment (n=444). Results were based on descriptive statistics. Responses of line staff and leadership personnel were compared using chi-square analysis.

RESULTS Thirty-eight percent of respondents were unaware of their agency's written protocols regarding reporting of child maltreatment. Additionally, 25% of EMS professionals who knew of their agency's protocol incorrectly believed that the report should be filed by someone other than the person with firsthand knowledge of the suspected maltreatment. Leadership personnel generally understood reporting requirements better than did line staff. Respondents indicated that peers may fail to report maltreatment for several reasons: they believe another authority would file the report, including the hospital (52.3%) or law enforcement (27.7%); they are uncertain whether they had witnessed abuse (47.7%); and they are uncertain about what should be reported (41.4%).

LIMITATIONS This survey may not generalize to all EMS professionals in North Carolina.

CONCLUSIONS Training opportunities for EMS professionals that address proper identification and reporting of child maltreatment, as well as cross-agency information sharing, are warranted.

There were 675,000 victims of child abuse and neglect (maltreatment) in the United States in 2011 [1]. Although this number represents about 1% of those under the age of 18 years, studies suggest that child maltreatment is underreported [2, 3]. The estimated lifetime cost per victim of maltreatment is $210,000 [4]. Children who experience maltreatment are at increased risk for drug abuse, depressive symptoms, and violent and delinquent behaviors during early adulthood [5]. States have enacted laws designating some professionals as mandatory reporters in order to protect children by better identifying those who are experiencing or are at risk for maltreatment.

Limited research exists on mandatory reporters' understanding of reporting requirements and procedures and their reasons for not reporting suspicions of child maltreatment. This study examines emergency medical services (EMS) professionals, as these mandatory reporters have a unique vantage point into children's lives. EMS professionals are often the first professionals to respond to emergency situations. This study assesses their knowledge of child maltreatment reporting requirements, their behavior and attitudes toward reporting, and barriers that may hinder them from adhering to these requirements.

This study sought to explain why prehospital medical personnel were underreporting suspected cases of child maltreatment. The North Carolina Child Fatality Task Force found that in nearly half of child fatality cases in North Carolina, EMS professionals documented suspicion of child maltreatment but did not report this suspicion to the Department of Social Services (DSS) as required by statute and EMS policy [6]. EMS professionals are uniquely positioned to report maltreatment because of their access to homes and their firsthand encounters with children in medical distress. In addition to signs of abuse, they may observe environmental risk factors for neglect, such as evidence of alcohol or drugs, lack of food, or inadequate housing [7]. In the United States, professionals such as educators, legal and law enforcement officers, social services professionals, and medical providers make nearly 60% of child maltreatment reports; only 8% of all reports come from medical personnel, including EMS professionals [1].

The reasons that professionals may fail to report child maltreatment fall into 2 broad categories [8]. The first is failure to recognize maltreatment. Even child maltreatment experts disagree as to what constitutes reasonable suspicion [9]. For example, nurses making home visits to first-time mothers were unsure when violence between adult partners

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was legally considered a danger to the child [10]. Second, professionals may choose not to report their suspicion [8]. Professionals may lack training on how to report maltreatment, or they may wish to avoid administrative hurdles imposed by their institution [11]. Professionals may also lack trust in child protective services [12] and may worry that reporting their suspicion would not benefit the family [13].

Training in child maltreatment issues improves reporting rates, but current training levels may be inadequate. In one study, professionals with at least 10 hours of continuing education on reporting procedures were more likely to report suspected maltreatment than were those with less than 10 hours of training [14]. A 2006 survey of 1,237 prehospital personnel found that nearly 11% received no training on child maltreatment during their initial certification course; 44% reported no training on child maltreatment during their continuing medical education in the past year; and 35.9% received only 1–2 hours of continuing medical education on child protection [15]. The majority (78%) of respondents indicated that they would like additional training on child protection, with 50% requesting more training on signs and symptoms and 46% requesting more training on protocols [15].

This paper examines 3 research questions: How familiar are EMS professionals with mandatory reporting laws and agency policy? Do differences in rank or experience make a difference in knowledge of mandatory reporting laws and agency policy? Finally, what are respondents' opinions on why an EMS professional may not adhere to mandatory reporting laws and agency policy? Prior surveys have assessed EMS professionals' knowledge of their mandatory reporting status, but this study is unique in that it also allows them to offer their opinion on why they and their peers may be reluctant to report suspicion.

North Carolina law requires that all persons or institutions report suspicions of child maltreatment to the county DSS [16]. In addition, the North Carolina Office for Emergency Medical Services (OEMS), which oversees the state's 100 county-level EMS systems, has policies for its staff; these policies call for EMS professionals to assess children for psychological abuse, physical abuse, and neglect and to immediately report any suspicious findings to both the receiving hospital (if transported) and to the county DSS [17-19].

Methods

We collected data using an anonymous, voluntary survey of EMS professionals across North Carolina. The committee that developed the survey included representatives of Prevent Child Abuse North Carolina, the state hospital system, the North Carolina Pediatric Society, the Child Medical Evaluation Program at the University of North Carolina, the North Carolina DSS, and the Center for Child and Family Policy at Duke University, as well as the Emergency Medical Services for Children (EMSC) program manager from the North Carolina OEMS.

The EMSC program manager emailed the survey to all 740 EMS agencies in North Carolina. Agency directors were asked to forward the survey to their employees. Data collection occurred in May and June of 2012. Failure to report suspicions of child maltreatment is illegal in North Carolina, and it is possible that employers would act punitively toward employees who acknowledged either not reporting suspicions or not knowing agency protocols. Therefore, in order to encourage honest feedback about a sensitive topic, this survey was anonymous.

EMS professionals were coded into 2 categories: line staff and leadership personnel. Line staff included emergency medical technicians (EMTs) of all levels (basic, intermediate, or paramedic), medical responders, and training coordinators. Leadership personnel included medical directors, training officers, and EMS directors. Responses of line staff versus leadership personnel were compared in order to test whether experience and rank had a substantial effect on knowledge of reporting procedures. Although leadership personnel may be aware of agency and state policies on child maltreatment, their knowledge may not be reaching line staff. Many respondents reported filling multiple roles; respondents were only considered to be line staff if they did not select a leadership role.

Respondents were asked if their agency has a written mandatory reporting protocol; respondents who answered yes were asked to select all parties who are responsible for making the report to DSS, from a list of 4 choices. For this analysis, answers were coded into mutually exclusive categories with prioritization in descending order: person with firsthand knowledge, supervisor, other, and "don't know."

Analyses were completed using Stata version 12 [20]. Chi-square analysis was used to compare responses between line staff and leadership personnel.

Results

Table 1 describes characteristics of the respondents. Most respondents (90.5%) reported that they were EMTs, and this percentage was higher among line staff (97.2%) than among those in leadership positions (73.2%). There were no differences between line staff and leadership personnel regarding whether the respondents were paid or unpaid, and the majority of all respondents (91.2%) were in a paid position. Over half (58.7%) of all respondents had more than 10 years of experience. Slightly more than one-quarter of all respondents reported over 20 years of experience; this percentage differed by position, with 25.0% of line staff reporting over 20 years of experience and 37.4% of leadership personnel reporting over 20 years of experience.

It was not possible to calculate the response rate because we do not know how many directors forwarded the survey to their staff. To understand the representativeness of our sample, however, we compared our sample to the population of EMS workers in North Carolina using data from the

TABLE 1.
Descriptive Statistics of Emergency Medical Services Personnel Who Responded to a Survey About Mandatory Reporting of Child Maltreatment

	All respondents (N = 444) No. (%)	Line staff (n = 321) No. (%)	Leadership personnel (n = 123) No. (%)	Chi-square value[a]	*P*-value[b]
Job title[c]					
Emergency Medical Technician (basic, intermediate, or paramedic)	402 (90.5)	312 (97.2)	90 (73.2)	59.9	.000
Training officer	72 (16.2)	0 (0.0)	72 (58.5)	224.3	.000
Training coordinator	56 (12.6)	22 (6.9)	34 (27.6)	34.9	.000
Emergency Medical Services director	52 (11.7)	0 (0.0)	52 (42.3)	153.7	.000
Medical responder	27 (6.1)	18 (5.6)	9 (7.3)	0.46	.500
Medical director	8 (1.8)	0 (0.0)	8 (6.5)	21.3	.000
Paid position	405 (91.2)	297 (92.5)	108 (87.8)	2.5	.116
Experience[d]					
Less than 2 years	19 (4.3)	16 (5.0)	3 (2.4)	1.4	.236
2 years to less than 4 years	47 (10.6)	33 (10.3)	14 (11.4)	0.11	.736
4–9 years	117 (26.4)	91 (28.4)	26 (21.1)	2.4	.123
10–19 years	134 (30.3)	100 (31.3)	34 (27.6)	0.52	.471
20 years or more	126 (28.4)	80 (25.0)	46 (37.4)	6.8	.009

[a]The chi-square test determines differences between responses of line staff and leadership personnel.
[b]*P*-value is determined by the chi-square test.
[c]Job titles were not mutually exclusive.
[d]One line staff respondent did not provide a response to the question about amount of experience.

EMS Performance Improvement Center at the University of North Carolina at Chapel Hill. Relative to the overall population of EMS professionals in North Carolina, our sample overrepresented paid EMS workers (91% in our study versus 75% in the state as a whole), and respondents in our study tended to have more years of experience. Specifically, nearly 60% of respondents in our study had at least a decade of experience, while only 12% of EMS professionals statewide had this much experience. Therefore the respondents in our survey may serve as leaders or mentors for others, and they may have a better understanding of mandatory reporting policies than those with less experience.

To better understand how familiar EMS professionals were with mandatory reporting laws, respondents were asked if their agency had a written mandatory reporting protocol. While nearly two-thirds (61.9%) of respondents said yes, 18.7% responded no, and 19.4% responded that they did not know if there was a written protocol. Line staff were significantly more likely to report that they did not know whether their agency has a mandatory reporting protocol (24.0%) compared to respondents in leadership positions (7.3%; see Table 2). These percentages do not reflect the percentage of EMS professionals who work at agencies that lack written protocols; rather, it represents the percentage of EMS providers who may be unaware of the protocols.

Respondents who indicated that their agency had a written mandatory reporting protocol were asked who is responsible for making the report to DSS. The most common response (75.3%) mirrored state law, with respondents saying that the person with firsthand knowledge of suspicion is responsible for reporting. Some respondents said that the supervisor of the person with firsthand knowledge (9.1%) or "other" (11.6%) was responsible for reporting; line staff and leadership personnel reported these responses at similar rates. A higher percentage of line staff reported not knowing who is responsible for reporting compared to leadership personnel (5.2% versus 0%). When asked to provide text to elaborate on the response "other," 20 respondents provided information. Twelve respondents mentioned the hospital or the emergency room; 4 mentioned law enforcement officers; 2 mentioned the receiving facility; and 1 mentioned the training officer.

Figure 1 presents results of EMS professionals' perceptions of why someone might not report child maltreatment. Respondents were allowed to select more than one reason. The most frequently reported response was that they believed the "hospital will make the report" (52.3%). The second most common response was that they "are not comfortable reporting without absolute certainty that abuse or neglect is happening" (47.7%). Over one-third selected the responses "not sure what should be reported and what should not" (41.4%) and "don't know how to make a report" (36.0%). About one-quarter (26.6%) said they were "not clear whether there is a protocol in place for reporting." Line staff and leadership personnel had significantly different selections in regard to believing "the hospital will make the report" (48.9% versus 61.0%), believing "law enforcement will make the report" (23.1% versus 39.8%), and feeling that "it takes too long to make the report" (6.2% versus 13.0%).

Discussion

Failure to report maltreatment can have serious consequences for children who are in need of protective services. Failure to report can keep families from accessing sup-

TABLE 2.
Survey Respondents' Knowledge of Written Mandatory Reporting Protocols and Who Is Responsible for Reporting Child Maltreatment

	All respondents (N = 444) No. (%)	Line staff (n = 321) No. (%)	Leadership personnel (n = 123) No. (%)	Chi-square value[a]	*P*-value[b]
Does your agency have a written protocol for reporting child abuse or neglect to the local Department of Social Services, per the mandatory reporting law in North Carolina?					
Yes	275 (61.9)	191 (59.5)	84 (68.3)	2.9	.088
No	83 (18.7)	53 (16.5)	30 (24.4)	3.6	.057
I don't know	86 (19.4)	77 (24.0)	9 (7.3)	15.8	.000
If your agency has a written mandatory reporting protocol, who is responsible for making the report to DSS?					
Person with firsthand knowledge of suspicions	207 (75.3)	136 (71.2)	71 (84.5)	5.6	.018
Supervisor of person with firsthand knowledge	25 (9.1)	18 (9.4)	7 (8.3)	0.08	.772
Other	32 (11.6)	26 (13.6)	6 (7.1)	2.4	.123
I don't know who reports to DSS	10 (3.6)	10 (5.2)	0 (–)	4.6	.033
Did not respond[c]	1 (0.4)	—	—	—	—

Note. DSS, Department of Social Services.
[a]The chi-square test determines differences in responses between line staff and leadership personnel.
[b]*P*-value is determined by the chi-square test.
[c]Sample sizes were too small (n<5) to allow for meaningful statistical comparisons; therefore, the chi-square test was not completed.

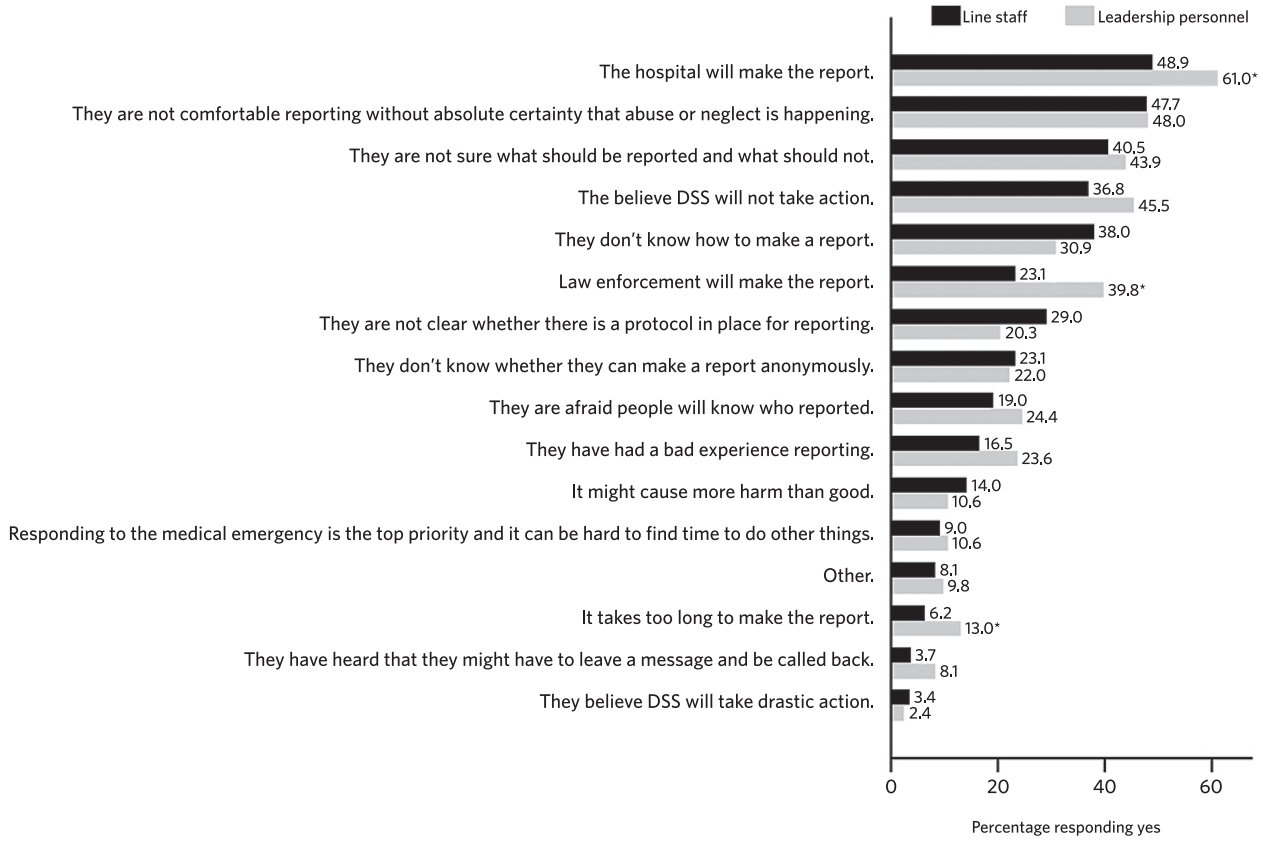
port services that prevent maltreatment and help children remain with their families. Findings from the North Carolina Child Fatality Task Force suggest that paying proper attention to warning signs of child maltreatment could save lives. Findings from this study suggest that one reason for low reporting rates by EMS professionals is their lack of familiarity with the mandatory reporting policy. Similar to findings of EMS professionals across the United States [15], nearly 40% of the EMS professionals in our study either did not know that their agency had a mandatory reporting policy or falsely indicated that their agency did not have such a policy. The 17 percentage point gap between line and leadership respondents who reported not knowing if their agency has a mandatory reporting policy suggests a communication gap between leadership and line personnel. While leadership personnel were more aware of their agency's mandatory reporting policy than were line staff, nearly one-third of leadership personnel were either unaware of or misinformed about the reporting policy.

These results also suggest that EMS professionals are unclear about who should report maltreatment to DSS, with only half of respondents correctly answering that it is the responsibility of the person with firsthand knowledge of the suspected maltreatment. This finding is in line with the responses that EMS professionals gave as reasons why their colleagues may fail to report suspicions. Specifically, respondents commonly reported that EMS professionals may defer the responsibility to notify DSS to hospital or law enforcement staff.

Better understanding of EMS professionals' underlying motivation for failing to report suspected maltreatment could illuminate specific training needs. For example, EMS professionals may feel that doctors and police officers are better informants because of their understanding of medicine or law. Other EMS professionals may be concerned about what will happen to the family if a report is filed. A substantial proportion of line staff and leadership personnel suggested that their colleagues might fail to report maltreatment due to negative views of how child protective services would handle reports, with 37% and 46%, respectively, indicating that their colleagues would not report suspected maltreatment because they believed child protective services would not take action, and 14% and 11%, respectively, indicating that action by child protective services would do more harm than good. This may result from common perceptions that child protective services will remove children from their homes, do little for the family, or provide low-quality services [21]. Other studies have found that professionals' negative views of child protective services are an important contributor to underreporting [12]. However, North Carolina's child protective services agency offers an extensive range of services, including a dual-track model that provides an array of family support services in response to most maltreatment reports [22]. One strategy to improve reporting might be for child protective services to better inform mandatory reporters about the process by which child protective services responds to reports and the range of services they offer families.

Training could help EMS professionals to more consistently notify DSS about children who are at risk of maltreatment. Only 1 of 8 modules in the current North Carolina EMT curriculum is related to pediatric health, including child maltreatment [23], and as little as 5–10 minutes may be dedicated to training on how to recognize and report child maltreatment [24]. Half of EMTs in a national sample requested additional training about the signs and symptoms of child maltreatment, and only 25% strongly agreed that they felt comfortable reporting physical abuse; fewer

FIGURE 1.
Reasons Emergency Medical Services Professionals May Fail to Report Suspected Child Maltreatment



Note. DSS, Department of Social Services.
*P<.05 for leadership personnel compared to line staff, per chi-square test.

felt comfortable reporting sexual abuse (9.2%) or neglect (21.0%) [15].

Effective training, policies, and practices that improve reporting rates already exist [25, 26]. For example, use of a structured screening tool in hospital emergency departments can increase the identification of child maltreatment [27]. Structured screening for professionals can decrease ambiguity in identifying the threshold for reporting, and having routine, universally used procedures can help to reduce the subjective nature of the evaluation of risk. Additional training on the recognition and reporting of child maltreatment improves professionals' knowledge and increases their confidence to report suspected maltreatment [15].

Inexpensive options are available for training first responders to recognize and report child maltreatment. A study of a web-based training program showed increased knowledge of reporting procedures among professionals who are mandatory reporters [28]. In North Carolina, the infrastructure for a web-based training program already exists. Prevent Child Abuse North Carolina offers a 2-hour web-based module, which is free to state residents, on recognizing and responding to suspicions of child maltreatment, including information on how to identify abuse and neglect, how to make reports, common barriers to reporting, and strategies for overcoming these barriers [29].

Limitations

One limitation of our study is that the results may not generalize to EMS professionals in other states, and they may not represent all EMS professionals in North Carolina. However, given that the respondents from our survey were generally more experienced than the average EMS provider in North Carolina, one might expect respondents in our study to be more familiar with both the agency protocols and the knowledge and actions of their peers and colleagues. Second, the question regarding why individuals may not report suspected maltreatment asked respondents to *presume* what others are thinking. This strategy was chosen in an attempt to solicit honest feedback from the respondents and to avoid the potential for respondents to provide socially desirable responses about their own behavior. Despite these limitations, and because EMS professionals have such a unique vantage point into family situations where maltreatment may occur, the results of this study suggest a need to improve EMS professionals' understanding of the state's mandatory reporting laws.

Conclusions

As with other professionals, EMS professionals underreport suspicions of child maltreatment [30]. Understanding the barriers to first responders' reporting of child maltreatment is important because first responders are an understudied yet crucial population of mandatory reporters. The disconnect between policy and practice calls for the enactment of a more streamlined and standardized system of rules. These rules should guide EMS professionals in the process of reporting suspicions of maltreatment. They should also include training to support decision making and should ensure that EMS professionals understand what constitutes abuse or neglect. Finally, the rules should include teaching EMS professionals about the variety of services that DSS offers and how families can access these services. This can be accomplished through additional interagency cross-training and through greater communication between agency leaders and line personnel. NCMJ

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