



Child Maltreatment: To Report or Not to Report? It's More Complex than That

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Abstract

Child maltreatment (CM) is a widespread problem, contributing to health and societal difficulties often throughout the lifespan. Healthcare professionals (HCPs) who see potential warning signs for CM are responsible for protecting the child from future harm, which may involve alerting the authorities. The decision-making is challenging as unwarranted reporting may lead to mistrust and not benefit the child. We sought to explore what factors might influence HCPs' decisions to report suspected CM in a Norwegian sample. Using a cross-sectional survey among HCPs in Norwegian hospitals with pediatric wards, we presented five case vignettes describing different probabilities of CM and variables assessing experience, knowledge, and confidence. A total of 382 HCPs completed the survey. Despite recognizing warning signs for CM in the case vignettes, a large proportion were reluctant to report to authorities. Recognition of CM and expressed willingness to report four or all five of the case vignettes (high reporters) was associated with the profession, knowledge, experience, and confidence in handling CM cases. Expressed confidence in performing physical examinations for physical or sexual abuse and talking with parents about abuse was significantly associated with high reporting (OR 2.3 to 17.8). Qualitative data further supported the role of self-efficacy. In summary, reporting to the authorities is an important but complex aspect in cases of suspected CM, but many HCPs relate that they fail to do so. This study indicates reporting suspicion of CM is correlated with self-efficacy and knowledge among HCPs, which should inform educational, social, and policy decisions.

Keywords Child maltreatment · Healthcare professionals · Complex

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Introduction

Child maltreatment (CM) has been established to be a major global public health problem due to its high incidence and prevalence, and its detrimental and potentially life-long health consequences (Palusci et al., 2019; World Health Organization (WHO), 2022). CM includes physical, sexual, emotional, and psychological abuse and neglect. While types of CM can be difficult to adequately define given the sometimes complex nature and societal and cultural contexts, there is an increase in consensus building around recent robust conceptual models (Mathews & Collin-Vézina, 2019; Mehta et al., 2023). Neglect consists of a child's basic needs being unmet, whether this be a need for protection, affection, education, or physical or other emotional needs (Dubowitz et al., 2005). Physical abuse is defined by WHO and ISPCAN as "...the use of physical force against a child that results in or has a high likelihood of resulting in harm for the child's health, survival, development or dignity" and describes the physical acts that may be inflicted (World Health Organization (WHO), 2006). Sexual abuse, though steadily becoming more multifarious with the complexities of the internet and changing norms (Laird et al., 2023), has been defined as "...the involvement of a child in sexual activity that he or she does not fully comprehend, is unable to give informed consent to, or for which the child is not developmentally prepared, or else that violates the laws or social taboos of society" (World Health Organization (WHO), 2006). Psychological abuse, a term still being developed (Hayashi, 2022; Hoffmann & Heim, 2024; Slep et al., 2022), often encompasses both neglect and emotional abuse and involves "degrading, manipulative, or neglectful behavior by caregivers," and the failure of caregivers to provide a developmentally appropriate and supportive environment. These have a high probability of "...damaging the child's physical or mental health, or its physical, spiritual, moral or social development" (World Health Organization (WHO), 2006), and many believe them to be the most under-reported, misunderstood, and harmful of all types of abuse (Dye, 2020; Hoffmann & Heim, 2024; Slep et al., 2022). Lastly, polyvictimization, or a child suffering more than one type of abuse, is common and has been shown to have very detrimental outcomes which are difficult to fully assess due to a lack of consensus and clarity on operationalized definitions and approaches (Finkelhor et al., 2007; Lee et al., 2023).

While the obvious risk to physical health and well-being from inflicted injuries such as burns, head and abdominal trauma, and other wounds may leave permanent scarring, disability and death (Christian, 2015), mental health disorders, criminality, physical illness, and poor school and job performance have all been linked to CM (Anda, et al. 2006; Hughes et al., 2017). Immediate and severe life and death types of outcomes are more associated with physical abuse, although all types of CM share many of the same negative consequences over time. A study from 2019 considered seven life domains life that reinforced the considerable persistent personal and societal costs from sexual abuse (Guiney et al., 2022), including "...internalizing, externalizing, and thought disorders, suicide attempts, health risk behaviors, systemic inflammation, poor oral health, sexually transmitted diseases, high-conflict relationships, benefit use, financial difficulties,

antisocial behavior, and cumulative problems across multiple domains in adulthood.” Emotional abuse has been associated extensively with depression, and in one study, depression, anxiety, stress, and neuroticism personality were more highly associated with emotional abuse than the other types of CM (Dye, 2020). Neglect, also shown extensively to be associated with depression and both externalizing and internalizing behaviors (Dubowitz et al., 2005; Ogle et al., 2022), may also in the worst cases be fatal (Scott, 2020). All types of CM have long been seen as public health and economic threats (Westman & Westman, 2019).

In a web-based survey, 19% of Norwegian adolescents aged 12–16 years reported being victims of physical abuse, with 4% describing they had experienced serious abuse, “...such as being beaten up, beaten with an object, or beaten with a fist” (Hafstad et al., 2020). Furthermore, 6% reported they had experienced sexual abuse from adults (Hafstad et al., 2020). Another study from the Nordic countries showed an increased risk of sexual abuse during adolescence, with peer perpetrators being the main concern (Kloppen et al., 2016). Although quantifying the impact of CM is complex, and prevalence varies between studies, evidence suggests that many cases remain hidden and unreported. In a meta-analysis of the prevalence of child sexual abuse, rates of child sexual abuse were (Christian, 2015) more than 30 times higher in self-report studies (12.7%) than in official report investigations (0.4%) (Stoltenborgh et al., 2011).

Ensuring that exposed children receive protection and support to reduce the detrimental effects of CM is crucial and depends on professionals’ ability and willingness to detect and report CM. Effective child protection demands a team approach including judicial, welfare, health, and therapeutic intervention (Lalayants, 2008; Sedlak et al., 2006). Each of these agencies provides unique and important contributions to CM cases (Cleek et al., 2019).

Norwegian health personnel law states that reporting to Child Protection Services (CPS) is mandated in cases where there is reason to believe that a child may be experiencing CM. Health care professionals (HCPs) are also required to report to law enforcement (LE) when there is suspicion of inflicted injuries, to protect the child from further harm (see ESM Appendix 1 for a full translation of the laws). While these strong reporting laws are in place, there is no clear data on how they are interpreted and followed. In 2022, only 11% of CM reports to CPS came from HCPs (Statistics Norway, 2022).

On one hand, HCPs who see potential warning signs for CM are responsible for protecting the child from future harm, which may involve alerting the authorities. On the other hand, there is always a possibility that the concern for CM is mistaken. Unwarranted reporting may cause difficulties for the parents, lead to mistrust, and thus not benefit the child. The complexity of the different factors involved, including child, family, and injury characteristics, as well as HCP personal and previous experiences have all been discussed in previous research (Flaherty et al., 2008). International studies have addressed various reporting barriers for professionals and found that there is often a large degree of hesitancy, even when there is a high degree of suspicion of CM. These involve fear of negative consequences for the child and families, fear of negative consequences for oneself (including loss of positive clinical relationship to the family and child), and feelings of uncertainty

(Albaek et al., 2019a; Berkowitz, 2008; Flaherty et al., 2006, 2008; Kuruppu et al., 2020; Tiyyagura et al., 2015). Conversely, self-efficacy has been shown to improve decision-making and increase adopting behaviors (Bandura & Watts, 1996; Lee et al., 2012). Bandura describes confidence as assurance in one's own ability to perform a task or behavior, while self-efficacy is the belief that this behavior will influence outcomes (Finch et al., 2008). In our questionnaire, we used the term "confidence" in order to determine the participants' belief in their specific abilities, but in the discussion, we applied this confidence to the broader clinical decision-making process using the term "self-efficacy."

The impact of the cultural context in decision-making seems to be important to understanding the reporting behaviors of HCPs specific to their country (Hartmann & McLaughlin, 2018; Hussain & Oestreicher, 2018; Yates & de Oliveira, 2016). To date, we could not find any studies in Northern Europe that examined barriers to reporting CM in hospital-based HCPs. Therefore, our aim was to explore which factors influence whether or not HCPs report suspicion of CM to CPS or LE in a Norwegian context.

We performed a two-tiered survey of Norwegian HCP knowledge, attitudes, and management of CM cases. The first analysis of the data involved pediatrician participants only. We found little agreement among the participants on the management of CM, and most worryingly a hesitancy to report recognized cases of maltreatment to the authorities (Vollmer-Sandholm et al., 2021). In this second part of the study, we also included other HCPs involved in the examination of children as participants and explored their knowledge, attitudes, and reporting of CM.

Methods

Data Collection

We performed a cross-sectional national survey between May 2019 and January 2020 at 17 of the 22 hospitals in Norway with children's wards. We arranged on-site seminars at the hospitals. At the beginning of the seminar, the attending HCPs were asked to complete a questionnaire. For a full description of our research project, see our previous article (Vollmer-Sandholm et al., 2021).

A total of 486 HCPs participated in the study, of which 104 were excluded because they did not complete the questionnaire. Participation in the study was anonymous and voluntary. The study was reviewed and approved by the Regional Committee for Medical and Health Research Ethics (reference number 31839).

Questionnaire

The questionnaire had 170 items with a mix of dichotomous, semantic differential, and Likert-type scale response options split into sections: (I) vignettes, (II) barriers/challenges, (III) knowledge and confidence, (IV) work experience with CM cases, and (V) demographics (see ESM Appendix 2.) Under the vignette questions, we

included open-ended questions for participants to explain why they suspected CM or why they did not.

Including all types of CM under a single umbrella can lead to over-simplification and a too-nebulous consideration of the topics at hand. Our vignettes focused primarily on physical abuse, followed by one case of sexual abuse (#2) and two that bore elements of psychological abuse (#4) and neglect (#6) in addition to possible physical abuse. Based on six potential CM vignettes (see Table 1), the questionnaire assessed the following: (a) Whether the participants suspected CM and their assessed need for further evaluation, (b) the reason for such, (c) if they felt confident that they had the competence to handle this case, and (d) whether or not they would report to the authorities. An open-ended question offered the possibility to include other management alternatives that we had not mentioned. Five of these vignettes had previously been used in a European study, three of which were published (Naughton et al. 2018). The sixth, vignette 3, was a control case the study authors developed based on an actual event. An advisory group to the research project consisting of eight experts from LE, CPS, and healthcare determined the five patient vignettes (minus the control vignette) to be suspicious for CM and qualified for a report to either CPS or LE. After the control case established that the HCP participants recognized the non-abuse case and that they would not report this to the authorities, we eliminated it from further analysis.

In addition to demographic information, the questionnaire assessed various aspects of the participants' knowledge and experience, including confidence, previously researched perceived barriers to engaging in cases of CM, and whether or not they had access to expert advice and guidelines (see ESM Appendix 2.) These questions and answers were developed by the authors and research team from a broad sweep of the literature of previously reported findings in order to assess if there was relevance for our population. We summarized and categorized participant responses, collectively refining categories out of the coding, which were then stratified into quartiles according to normal distribution.

Data Analysis

All data were coded from the printed questionnaire into the statistics program SPSS (version 29.00, IBM Corporation, Armonk, NY) database. A conventional significance level of 5% was used. An initial analysis involved assessing the frequency distributions of the responses. Following this, the participants were split into groups based on their

Table 1 Summary of vignettes used in survey (see ESM Appendix 1 for full text)

Vignette questions:

Case 1: 10-week-old with torn labial frenulum and scratches to face, no history of trauma

Case 2: 7-year-old with disclosure of sexual abuse by teen neighbor

Case 3: Control case—4-year-old with single small burn to arm

Case 4: 2-year-old with ear bruise, face bruises, and history of family violence

Case 5: 2-year-old with femur fracture

Case 6: Repeated burn injuries with delay in seeking care and other signs of neglect

responses as to whether or not they would report to CPS and/or LE in the five case vignettes. Those who stated readiness to report in four or all five vignettes were designated high reporters. Reporting two or less were labeled low reporters. Those reporting three vignettes were labeled medium reporters.

Logistical regression analysis was done with high/low reporters as the outcome variable. We used multivariate logistical regression analysis in which the independent variables that were significant in univariate analysis were included in the model. Moreover, the gender and years of experience of the participants were included. Non-significant variables were removed stepwise, and in the final multivariate analysis, only significant variables were included.

The HCP free text explanations for suspicion were analyzed by the first and second authors using content analysis (Graneheim & Lundman, 2004) and team-based qualitative data analysis (Binder et al., 2012). After familiarizing ourselves with the qualitative data, we compared responses of high and low reporters to see if there was a difference in their reasons for suspicion of abuse and or neglect (see Supplement Table 1.) Next, the responses to each open-ended question were systematically coded and grouped (Braun & Clarke, 2023). This analysis was later, together with the descriptive statistics, discussed with the research team. Thus, our findings were derived from a combination of descriptive statistics, correlation analysis, and qualitative content analysis, as presented below.

Ethical Considerations

The participants were informed prior to the questionnaire administration that it would be used for research purposes. Participation was anonymous and voluntary.

Results

A total of 382 participants were included in the study, consisting of 150 pediatricians, 50 physicians working in other pediatric specialties such as orthopedics, gynecology, and radiology, 147 nurses, and 35 ancillary care providers (i.e., physical therapists). Among the 147 nurses, 74 (50%) reported being trained in pediatric nursing. The participants consisted of 81% females and 68% of the participants were between 30 and 50 years of age (see Table 2).

While 63% of the participants answered that they at some point in their career had suspected physical abuse in a patient, only 38% answered they had ever reported suspicion of physical abuse to CPS. The participants' experience with reporting other forms of CM is presented in Table 2.

Recognition of CM in Vignettes

The participants' reported suspicion of CM and their readiness to report after reading the vignettes is illustrated in Fig. 1.

Table 2 Demographic and child maltreatment recognition and reporting patterns of the healthcare personnel respondents surveyed

Variables	Pediatrician	Other physician	Nurse	Other HCP	Total
<i>N</i> (% of total)	150 (39%)	50 (13%)	147 (39%)	35 (9%)	382 (100%)
Sex (% female)	66%	76%	97%	94%	81%
Age group (median)	30–39	30–39	40–49	30–39	30–39
Years working experience (median, range)	6–10 (0–> 30)	6–10 (0–> 30)	11–20 (0–> 30)	6–10 (0–> 30)	6–10 (0–> 30)
Affiliation					
University hospitals (%)	39%	16%	29%	17%	30%
Regional/local hospitals (%)	61%	84%	71%	83%	70%
Have previously suspected physical abuse	80%	63%	53%	25%	63%
Have previously reported physical abuse:					
CPS	62%	52%	21%	13%	38%
LE	54%	16%	6%	7%	27%
Both	50%	16%	5%	7%	23%
Have previously suspected sexual abuse	59%	27%	38%	18%	43%
Have reported sexual abuse:					
CPS	26%	18%	5%	7%	14%
LE	21%	8%	2%	7%	11%
Both	16%	6%	2%	7%	9%
Have previously suspected neglect	79%	59%	61%	57%	68%
Have previously reported neglect:					
CPS	79%	48%	38%	33%	44%
LE	19%	6%	5%	3%	11%
Both	18%	6%	5%	3%	10%
Have previously suspected all 3 types—PA, SA, and neglect (%)	58%	16%	34%	14%	40%
Have previously reported all 3 types—PA, SA, and neglect (%)	21%	12%	3%	6%	12%

CPS Child Protection Services, LE law enforcement, PA physical abuse, SA sexual abuse

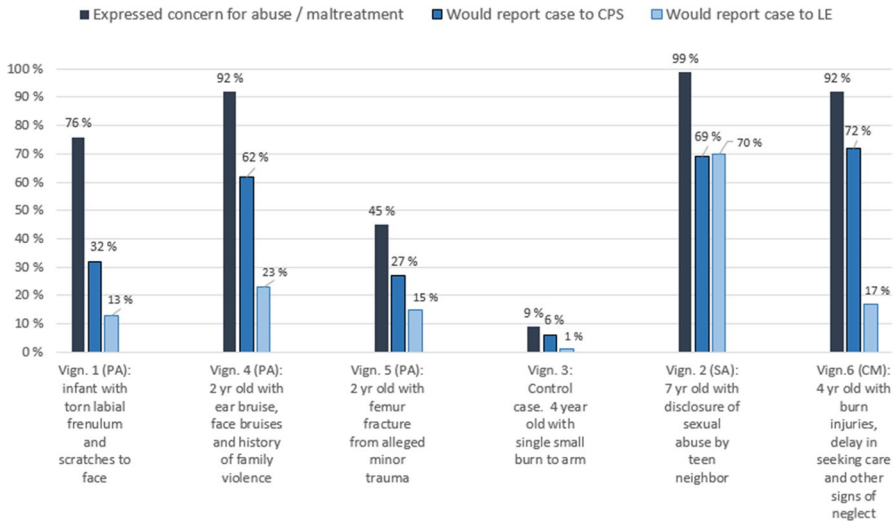


Fig. 1 Reporting to the authorities in cases of suspicion of CM. Vign, vignette. CPS, Child Protective Services. LE, law enforcement, PA, physical abuse. SA sexual abuse. CM child maltreatment (multiple forms of CM)

In four of five case vignettes (#1, 2, 4, and 6), 74% or more of the HCPs recognized and were concerned about potential CM (Fig. 1). Despite their suspicion, a large proportion indicated they would not have contacted the authorities, even when they gave clear, detailed, and warranted reasons for their suspicion in the free-text answers, “Worried because this is a high-energy injury. Requires rapid physician evaluation and is suspicious” (see Table 4). In the final vignette (#5) which described a femur fracture in a 2-year-old, only 42% were worried about CM, and 29% stated they would report. In all of the vignettes, the respondents were more willing to report to CPS than LE, often by large percentages (Fig. 1). They were most willing to report vignette #2 to LE, a case of child sexual abuse where the suspect was not a family member.

In summary, 136 (36%) of the participants were designated low reporters as they stated they would only report two or fewer of the five cases to either LE or CPS. There were 116 (30%) medium and 130 (34%) high reporters, the latter stating they would report four or all five of the cases.

Compared to nurses, pediatricians were more likely (OR 2.5, $p < 0.001$) and other HCPs less likely (OR 0.2, $p = 0.01$) to be high reporters (Fig. 2).

There was no significant difference between nurses and non-pediatric physicians. When adjusting for other factors in multivariate analysis, no significant difference between pediatricians and nurses was observed (Table 3). Neither age, gender, years of experience, nor affiliation to a university clinic or regional/local hospital had a significant influence on reporting. All variables significantly associated with reporting are shown in Supplement Table 1.

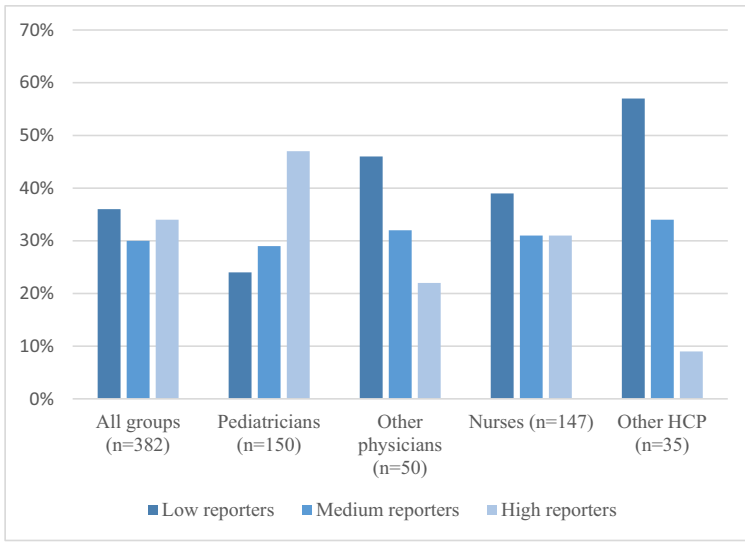


Fig. 2 High, medium, and low reporters by career

Table 3 Variables significantly associated with being high reporters of child maltreatment by multivariate logistic regression analysis. Complete univariate analyses are given in Supplement Table 1

Variable	Low reporters		High reporters		% high reporters within group	OR	p	AOR	p
	n	%	n	%					
Career (last)									
Pediatricians	36	26%	71	55%	66%	2.50 (1.40–4.37)	<0.001	1.60 (0.81–3.17)	0.18 N.S
Physicians, other	23	17%	11	8%	32%	0.61 (0.27–1.37)	0.23 N.S	0.56 (0.22–1.43)	0.22 N.S
Other HCP	20	15%	3	2%	13%	0.19 (0.05–0.68)	0.011	0.05 (0.05–0.49)	0.01
Nurses*	57	42%	45	35%	44%	*			
Confident in managing the vignettes									
No*	87	86%	64	53%	42%	*			
Yes	14	14%	56	47%	80%	5.44 (2.79–10.6)	<0.001	2.73 (1.30–5.73)	0.008
Confident in performing a sexual abuse exam									
No*	126	98%	96	78%	43%	*			
Yes	2	2%	27	22%	93%	17.8 (4.10–76.0)	<0.001	24.7 (2.08–295)	0.01

OR odds ratio, AOR adjusted odds ratio, N.S. not significant

*Reference category

Those numbers of statistical significance are shown in bold (p-value = <0.05)

Confidence

HCP level of confidence was shown repeatedly to be a primary factor correlated with willingness to report to the authorities (Fig. 3), and the theme of uncertainty arose frequently in the qualitative answers. When stating their reason for concern for abuse after a vignette, many participants ended their statements with a question mark. For example, “The baby must have cried as the injury occurred?” and “The explanation from the father that he was awakened by the baby crying, but how could the baby have done that to him/herself?” “Is someone abusing this child or do the parents need education and support?” or from the spiral fracture case, “Unusual injury from the reported mechanism?” and; “I have never seen/heard of this.”

Interestingly, two of the significant determinants of being a high reporter according to multivariate analysis support this: Those that were confident in performing a sexual abuse exam were almost 25 times (AOR 24.7, $p=0.01$) more likely to be in the high reporters group, and those that reported being confident in managing the vignette cases were almost three times more likely to be in the high reporters group (AOR 2.7, $p=0.008$).

Univariate analysis also reflected the relationship between confidence, experience, career, and reporting choices. Those who reported feeling confident performing a CM exam and those that reported being confident talking to parents and children about abuse were more likely to be high reporters (OR 2.8, $p < 0.001$ and OR 2.3, $p = 0.006$, respectively). Those who felt confident in their knowledge

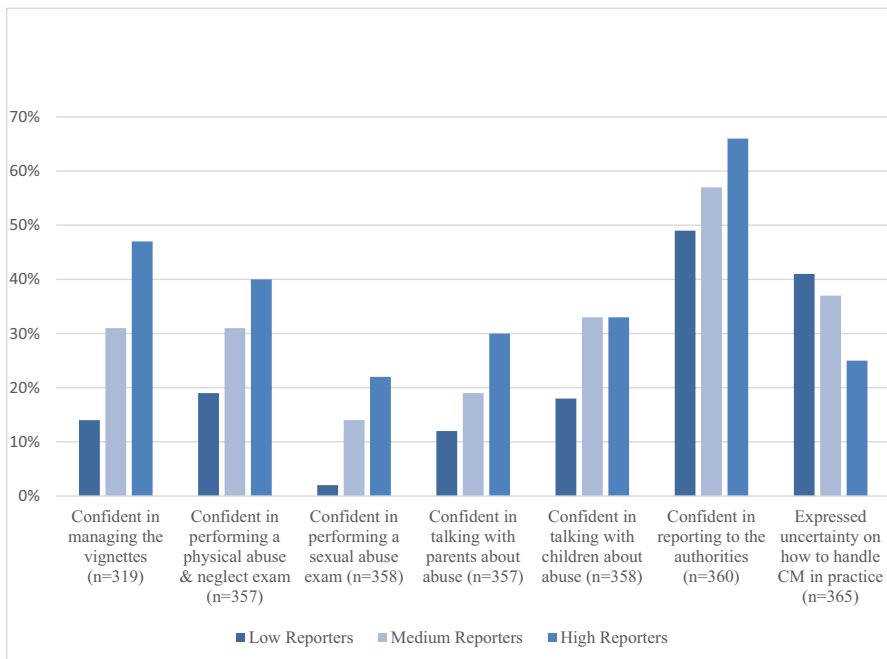


Fig. 3 The relationship of confidence in practice to high, medium, or low reporters

and ability to report to the authorities were two times more likely ($p=0.005$) to be in the high reporter category.

Reported experience with performing CM exams and previous reporting to the authorities was associated with being high reporters (see Supplement Table 1). Sixty-eight percent of those who stated they examined a child for CM > 1 time per month were high reporters (OR 3.0, $p=0.01$).

Reasons for Suspicion?

On all five vignettes, we analyzed the HCP free-text explanations as to why they suspected abuse or not; however, we could find no difference in the reasoning between those that said they would report and those that would not. For example, in vignette 5, an HCP who would report to the authorities wrote: "A fall in the sandbox shouldn't cause a spiral fracture, unless the child has an underlying sickness such as brittle bones" and another HCP who would report wrote: "The fracture is not consistent with the history of injury." On the other hand, an HCP who chose not to report wrote the following: "Femur fracture is a high-energy trauma and should require more than a stumble in the sandbox" and another non-reporter wrote: "Worried because this is a high-energy injury. Requires rapid physician evaluation and is suspicious" (Table 4).

Barriers

We analyzed and categorized the quantitative Likert scale perceived barrier questions into four categories: (1) lack of knowledge, (2) personal barriers, (3) feeling

Table 4 Participants' written responses to their reason for concern in the case of a femur fracture were very similar between those healthcare professionals that would report and those that would not

Vignette 5: You are consulted about the following case: An almost 2-year-old boy was presented to the emergency department because of an injury to his left leg. Parents reported that the boy tripped in the sandpit in their garden. During the fall he seemed to twist on his left leg and was immediately in pain. The boy's six-year-old brother observed the incident and called for their parents who were in the garden as well but did not see the incident. His parents immediately took him to the emergency department. Physical examination showed a painful boy with a painful swollen left upper leg. A radiograph of his left leg showed a spiral fracture of the left femur

Did not report to the authorities:

"Femur fracture is a high-energy trauma and should require more than a stumble in the sandbox"

"Little bit of a serious fracture, but it can happen, I would do a thorough exam"

"Fracture of a large bone without a clear explanation"

"Worried because this is a high-energy injury. Requires rapid physician evaluation and is suspicious."

Reported to both CPS and law enforcement:

"This is a high-energy injury. Must investigate brittle bones."

"A fall in the sandbox shouldn't cause a spiral fracture, unless the child has an underlying sickness that explains brittle bones"

"The fracture is not consistent with the history of injury"

"Shouldn't this kind of fracture require a lot of force?"

powerless, and (4) situational barriers. Only knowledge (OR 2.3) and personal barriers (OR 2.7) were measured as statistically significant for being a high or low reporter, with particularly strong results on the statement: “I don’t know how to manage this case” (Supplement Table 1 and ESM Appendix 3). After splitting the individual barriers into groups and spreading them over a normal distribution, we saw that among those participants that were affected by barriers, lack of knowledge and conversely, personal barriers, such as “What if I am wrong?” (OR 2.3) were those that bore significance (Supplement Table 1.)

Overall, 81% (297/365) answered that they would have asked about abuse more often if they were convinced that they could make things better by doing so. Stating awareness of a CM consultant and organizational CM guidelines was associated with being a high reporter (OR 2.0, $p=0.04$) (Supplement Table 1). Strangely, in vignette #6 some of the participants who denied being concerned about CM stated that they would regardless report a refugee child to LE (7%) or CPS (20%).

Discussion

Does Recognition of CM Lead to Reporting?

CM is documented to affect a substantial proportion of children in Norway (Hafstad et al., 2020), and many victims of CM never tell or do not disclose until adulthood (Bottoms et al., 2016; Brattfjell & Flåm, 2019). Therefore, it is concerning that little more than half of HCPs had ever suspected physical abuse or neglect during their career, and under half had suspected sexual abuse (see Table 2.)

It is interesting that although they had not suspected CM in their clinical practice, our participants were skilled at recognizing abuse in most (four out of five) of our vignettes. However, our participants’ recognition of CM in the vignettes did not cause most of them to convey intent to report to LE or CPS.

Uncertainties and Fear of Consequences

Funambulism, or a mental tightrope walking, plays a noticeable role in the field of CM when it comes to all aspects of these sensitive cases, including reporting. In an article by Cleek and colleagues (2019), the HCPs conveyed suffering a pervasive uncertainty when they faced potential or factual CM (Cleek et al., 2019). In our vignette about sexual abuse, the caregivers themselves were not implicated, and this allowed the HCP to stay in the supportive role of the family even as they reported the abuse. One might wonder if this helps to explain why they were so much more willing than in the other vignettes. Other research has shown that there is a reluctance on the part of HCPs to address abuse (Albaek et al., 2018), and this is often accompanied by a lack of confidence in their own abilities as well as that of the outside agencies with which they collaborate (Foster et al., 2017). This confidence has also been shown to be a determinant in

other clinical areas, such as violence prevention and domestic violence patient counseling (Finch et al., 2008).

The HCPs' experience of reporting to authorities may be important, as for most HCPs, there is a lack of understanding about how LE and CPS approach these cases, as well as what the process and outcomes may be for the family, child, and HCPs themselves. A lack of trust in LE and CPS has previously been cited as a reason for HCPs not to report (Albaek et al., 2019b; Foster et al., 2017). In our study, however, it was interesting that those who had reported previously were more likely to do so. It may be that they had good experiences of reporting, or they could have the conviction that reporting is the right thing to do. Experiences where reporting was perceived to have detrimental effects on the child or where the HCP did not receive updates from LE or CPS have been shown to negatively affect future reporting (Albaek et al., 2018; Hartmann & McLaughlin, 2018; Hussain & Oestreicher, 2018; Keenan et al. 2017b). Additionally, the process of reporting involves a paradox for HCPs, because it requires both letting go and becoming responsible: they must relinquish some control over their patient's case, and at the same time, they become accountable to other non-medical professionals. This involves letting people into their professional world and becoming vulnerable to others' scrutiny of their work and their decisions. The uncertainty exposed by most of our participants could explain their reluctance to the risk of making rash decisions open to second-guessing.

Complexities around legal ramifications such as regarding what constitutes "reasonable suspicion" and confidentiality concerns should also be a consideration in this discussion. In a study from the US and Germany, there were different thresholds for what constituted reasonable suspicion within the respective pediatrician groups (Berthold et al., 2022), and stringent confidentiality laws are often interpreted in a way which hinders both reporting and communication between professionals who wish to share information in order to protect children. Fear of prosecution or ethical compromise creates a difficult dilemma when implementing reporting laws (Lines et al., 2020).

In our findings, the vignette where the parents were not the suspects, but their 7-year-old disclosed molestation by a neighbor boy (vignette 2) registered the most willingness to report among the participants. Previous literature concurs that when parents were not the suspects, HCPs found it easier to report (Stige et al., 2022). The case of the immigrant child the participants wanted to report despite lack of suspicion may illustrate, as previous studies have shown, that it is easier to recognize and report parents who are not like us or to whom it is more difficult to identify (Halvorsen et al., 2013). This tendency of immigrant children to be overrepresented in CPS has previously been revealed in Norway and elsewhere (Fauske et al., 2018; Keenan et al., 2017a, 2017b; Kojan and Storhaug 2021; Palusci & Botash, 2021).

Uncertainty of the Best Interest of the Child

Although Norway has ratified the United Nations' Convention on the Rights of the Child, our judicial determinations tend to rely on the penal code as the more decisive factor. The participants in our study expressed doubt as to whether reporting could make the situation better for the child, and 81% answered they would have asked about abuse more often if they knew it would make a positive difference. Handling CM is complex, and sometimes it may not be in the child's best interest to convict one of the parents. Other times, reporting may put on hold support and treatment for the child from CPS or child mental health services pending investigation. Reporting may also damage the child's relationships and cause the child to lose valuable allies (Devries et al., 2015; McTavish et al., 2017). All of these factors may create reluctance to report among HCPs.

Low Self-Efficacy

Self-efficacy has previously been associated with child abuse reporting (Lawrence & Brannen, 2000), and in our participants, low self-efficacy became evident in four main areas of care: responding to the vignette cases, communicating with patients and caregivers regarding issues of CM, performing the exams, and reporting to the authorities.

The participants' lack of confidence may be well founded. Norway does not currently have a CM subspecialty nor other formalized education for HCPs working with these cases. Several studies over the last two decades have demonstrated the efficacy of education and training on reporting patterns, tolerance of uncertainty, and sense of confidence (Carson, 2018; Doran and Mortel 2022; Harris et al., 2002; Lawrence & Brannen, 2000; Stephens et al., 2022). However, a recent article indicated that further research in this area is needed (Walsh et al., 2022). Moreover, as both previous research (Boroon et al., 2023; Carson, 2018) and our study have demonstrated, having the knowledge and even skill may influence but not necessarily correlate with action. Not only did our participants have the knowledge and skill to recognize abuse in the vignettes, but both high and low reporters expressed the same reasons for suspicions in their open-ended answers.

We need to investigate further why many HCPs choose not to report suspected CM. How much does their reported emotional discomfort talking about CM, the ambiguity of assessing cases, or possible detrimental consequences from reporting CM impact their decisions? Perhaps education, integrated with Bandura's four primary sources of self-efficacy, may be a key (Bandura & Watts, 1996; Pfitzner-Eden, 2016). He suggested that education may not be pivotal to self-efficacy. Rather, it is influenced by four primary sources: mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective states (Bandura & Watts, 1996). These sources include the wide range of experiences that build true confidence in a specific area; learning to navigate both success and failure in the tasks involved; sharing the comparison, mentoring, and inspiration of others who are accomplished

in the field; positive verbal reinforcement, especially from credible sources; and lastly, experiencing and enduring the physiological and emotional aspects that are inherent in these interactions (Albaek et al., 2019a, 2019b).

Disagreement with Barriers

Why so few participants seemed to agree with the barriers that we presented in our study is puzzling. One explanation could be that they answered in light of the previous vignettes, and it is less complex and stressful to assess vignettes than real-life clinical cases. Or they could have been under the influence of social desirability, where people answer in accordance with a desired self-image rather than realistic scrutiny of themselves (Bell & Bishai, 2021; Dovran et al., 2019; Weijters et al., 2013). Acquiescence may also affect validity, and it is unclear whether the participants' answers reflect confusion around what they feel and think or their experienced barriers.

The barriers that correlated most with reporting in our study were related to personal barriers, such as "What if I am wrong?" Those participants who reported being unaffected by this were over two times more likely to be a high reporter. This may reflect the impact of self-efficacy which participants conveyed in the other portions of the survey.

Case-by-Case Considerations

In case 1, featuring physical abuse in an infant, a very young child, unable to ambulate or generate enough force to cause their own injuries, presents with an unexplained trauma to the face (oral cavity). While the injury in itself may not be considered life-threatening, most seasoned child abuse pediatricians will recognize that they are common red flags for other abusive injuries, and the lack of history further reinforces a need for a multidisciplinary approach (Christian, 2015, 2019). Infants are extremely vulnerable to severe injury and death, and unexplained injuries necessitate quick and steady reactions. The fact that 26% of HCPs were not suspicious and around 67% would not report should awaken concern and motivation for better education and recognition of physical abuse.

Case 2, featuring sexual abuse, is interesting for several reasons, not the least of which is that it had the most consensus regarding suspicion as well as reporting it was the only vignette presenting sexual abuse, and the abusers were unrelated to the child, therefore negating, at least in part, the barrier of potential consequences of reporting for the family and provider. In addition, it was also the only vignette where a child themselves disclosed what had occurred. While sexual abuse is generally not life-threatening, in some studies, it has been shown to be the most influential in mental health outcomes (Gardner et al., 2019; Stewart et al., 2023) and HCP need to be skilled at recognizing and reporting the subtle signs regardless of who the perpetrator might be.

Case 3 was the control case involving a waffle-iron burn and was reassuring in terms of illustrating that the HCP respondents were alert to cases that could,

while potentially indicative of abuse, also be more suggestive of accidental injury. The complexity and seriousness of the injury were less than some of the others, which may also have helped the HCP to recognize it as more likely to be non-abusive. At the same time, the smaller injuries may also be harbingers of other underlying concerns and should be noticed.

Case 4 (primarily focused on physical abuse, but also included neglect and emotional abuse) involved many potential facets, with perhaps the most unique being that of previous repeated family violence, yet many HCPs remained reticent to report. In addition, the parents' apparent lack of communication and the concerning placement of the injuries should have been further red flags that there was concern for abuse. Injuries to the head and neck are always concerning (Boos et al., 2022; Christian, 2019), particularly in the context of previous family violence. In this case, some may have considered the mom's explanation plausible, despite the facial and ear bruises.

There is a correlation between partner violence and CM. In addition, a child being witness to violence in the home, whether or not they themselves are targets, is considered by most literature to be either neglect or emotional abuse, or both (psychological maltreatment) (Gardner et al., 2019; Pearson et al., 2023), and one might suppose that a family that has already demonstrated this characteristic should be reported to the authorities when there is any further concern. HCP education should familiarize them with the complexities of partner violence and its effect on children, in some cases both physically and emotionally.

Case 5 features possible physical abuse in a toddler who presents with a spiral femur fracture. The fact that it was a witnessed injury (albeit only reportedly by another young child) in a mobile toddler may help to explain why so few HCPs were concerned and even fewer wanted to report. While it is true that the literature is not as clear regarding the seriousness of this injury in this age group, particularly in regard to a witnessed spiral fracture, the low rates of suspicion and response are concerning as there should still be consideration regarding possible CM and other occult injuries (de Marco et al., 2023; Kemp et al., 2008; Mitchell et al., 2021) and an exploration of other possible red flags.

Finally, case 6 involves the case of an immigrant child with concern for several types of CM, including repeated injuries, delay in seeking care, inappropriate response to and care of injuries, and indications of lack of supervision which might constitute neglect or a child's needs being unmet. This case has the extra complexity of social and cultural implications in an immigrant family who may themselves have suffered trauma and be significantly lacking in resources. Hesitancy to report in this instance might be an example of depriving a family of support that may benefit the child. HCPs need to be skilled at understanding and sorting through cases of polyvictimization in order to see clearly where the most significant concerns lie and to ensure that the details in the report and subsequent interventions will encompass the child and family's needs (Finkelhor et al., 2007; Lee et al., 2023). Though our data does not clearly explain the reason, it may be that the few respondents in this vignette who stated they were not concerned about CM but reported anyway were seeing this potential for neglect and responding in kind.

Strengths and Limitations of the Study

We collected data from HCPs from all over the country, thus ensuring a representative participant sample. A multi-disciplinary consulting team of experts endorsed the validity of our previously published vignettes, and we composed the research team with researchers with various expertise within the field of CM. The survey applied a mixed-method approach and included variables from previous research on facilitators and barriers for reporting CM.

While our mixed method approach did add depth to the study, we collected a limited amount of qualitative data. Qualitative focus group interviews or in-depth individual interviews could have given us more insight and understanding of why HCPs choose to report suspected CM or not. Furthermore, reactions towards vignettes, while useful, may deviate from how HCPs would react in “real-life” scenarios.

Clinical Implications

In some ways, our study led to more questions than answers. The medical profession is steeped in the Hippocratic Oath “First do no harm,” and it is reasonable to believe that for HCPs to feel they are morally and ethically obligated to report all cases of suspicion, they need to be convinced it is in the best interest of the child. Moreover, experience with successful protection and care for children who are reported for suspected CM might motivate HCPs to report. Reporting is inherently difficult, and HCPs need to have reassurance that the actions they take will more likely be of benefit than unnecessary cost to their patients and their families.

There also remains obscurity around how the reporting laws and confidentiality laws are to be interpreted and adhered to. The ability to understand and recognize the different types of CM and the dynamics they might represent for the child, their trajectory, and their family over time are also important. A restructured system of evidence-based, child-centered, multi-disciplinary CM training and shared teamwork should be implemented going forward.

Conclusion

Despite several challenges, the literature remains clear that inter-agency collaboration is the most effective means of protecting children from CM (Cleek et al., 2019; Lalayants, 2008; Okato et al., 2020; Sedlak et al., 2006). This study indicates that many children suspected of CM in the Norwegian healthcare system are not being reported to the authorities and therefore do not receive a comprehensive investigation and multi-agency response. This may leave children exposed to CM without the help they require, to great personal and societal costs (Mathews et al., 2008). We hope our study will motivate all agencies to acknowledge areas where they could contribute to a more joint protocol and team to facilitate better recognition of the needs of children (Nouman et al., 2020). An approach where

HCPs and the other agencies have the CM education and tools they need and equal yet shared responsibility to work in coordination with reciprocal exchange of information should be considered. One example of this would be reciprocal regional multi-disciplinary team meetings on a regular basis.

We hope that the findings in this study can further our understanding and inspire empowerment in overcoming the barriers and challenges that HCPs face in reporting suspected CM.

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Data Availability The data that support the findings of this study are not openly available but are available from the corresponding author upon reasonable request. Data are located in controlled access data storage at Oslo University Hospital.

Declarations

Conflict of Interest The authors declare no competing interests.

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