

RESEARCH ARTICLE



The experiences of Finnish dental professionals in handling child abuse and neglect issues in their daily work

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ABSTRACT

Objective: This study aimed to assess the experiences, attitudes and knowledge of child abuse and neglect (CAN) among dentists, dental hygienists and dental nurses in Finland.

Material and methods: A web-based CAN survey was sent to 8500 Finnish dental professionals, covering demographic characteristics, dental education, suspicion of CAN, actions taken and reasons for inaction as well as training on CAN issues. The chi-squared (χ^2) test was used to analyse associations.

Results: In total, 1586 questionnaires with valid data were completed. Among respondents, 25.8% had received at least some undergraduate training and 36.3% had received postgraduate training on child maltreatment issues. In addition, 43% of respondents had at least one suspicion of CAN at some point during their career. Of those, 64.3% did not refer to social services. Training positively associated with the identification of CAN and referral frequencies. Uncertainty about an observation (80.1%) and a lack of knowledge regarding procedures (43.9%) were the most frequently reported barriers.

Conclusions: Finnish dental professionals need more education on child abuse and neglect issues. Competence related to CAN is fundamental to their skills given that all dental professionals regularly work with children and are obligated to report their concerns to proper authorities.

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Introduction

Child maltreatment is a global health problem with far-reaching consequences [1]. There is growing evidence of an association between poor oral health and child maltreatment [2–5]. The 1989 United Nations' Convention on the Rights of the Child (CRC) declares that state parties shall take all appropriate legislative, administrative, social and educational measures to protect the child from all forms of physical or mental violence, injury or abuse, neglect or negligent treatment, maltreatment or exploitation, including sexual abuse [6]. Finland ratified the CRC in 1991.

Since 1984, all healthcare personnel in Finland have been obliged by the Child Welfare Act to refer their concern for a child or adolescent in need of additional social support to Child Welfare Services (CWS). In addition, the Child Welfare Act was revised in 2012, declaring that all healthcare personnel working with children are obligated to report their suspicion of sexual abuse both to the CWS and to the police. This amendment was expanded to cases involving a suspicion of physical child abuse in 2015 [7]. Thus, all individuals who work with children in Finland are legally obligated to report their suspicion of child maltreatment to the CWS without delay and in spite of any confidentiality regulations that may apply.

In 2009, the Nordic Ombudsmen for Children made a general statement, highlighting the dental professions' opportunity and role in recognizing child maltreatment when treating child patients in Nordic countries. They suggested that both under- and postgraduate dental students' and dental professionals' continuing education should include courses on the identification of child abuse and neglect (CAN) [8].

All Finnish children and adolescents up to the age of 18 are offered free dental care in public dental healthcare clinics [9]. As a result, nearly all Finnish children receive their dental care *via* the public health service and only a small number of child patients utilize private practices. In addition, public dental healthcare clinics should arrange children's oral health examinations at a minimum when they reach the ages of 1–2, 3–4, 5–6, 7, 11 and 15 years, respectively. According to Government Decree 338/2011, the oral health examinations of children under school age should be conducted by an oral hygienist or a dental nurse and, if necessary, by a dentist. A dentist, an oral hygienist or a dental nurse with supplementary training should conduct the regular oral health examinations for school children [10]. Thus, dental hygienists and dental nurses in Finland meet children and adolescents far more often than dentists.

Dental professionals' experiences, attitudes and knowledge of CAN in Europe have been reported in several studies. Previous research has established the varying need for continuous education in CAN [11–17]. In Finland, no previously published data on CAN experiences, attitudes and knowledge among dental professionals exist.

The aim of this study, therefore, was to assess the experiences, attitudes and knowledge regarding CAN among dentists, dental hygienists and dental nurses in Finland.

Materials and methods

Modification of questionnaire into Finnish

We used a Finnish version of a questionnaire originally designed by Cairns et al. for use in Scotland in 2005 [11]. The original questionnaire was translated into Finnish, then adapted to the conditions and terminology used in Finland and subsequently piloted among a small group of dentists, dental hygienists, social paediatricians and a social worker practicing in a children's hospital. Following this pilot sample, we made a few adjustments to improve the understandability of the questionnaire. Finally, the questionnaire was translated back into English and was found to be comparable to the original-language version. The questionnaire included 33 questions, 24 of which we analyse here (Supplement 1). Briefly, the questions covered (1) demographic characteristics and employment; (2) dental education; (3) suspicion of CAN; (4) action(s) taken and reasons for inaction; and (5) undergraduate and postgraduate training on child maltreatment issues and the perceived need for further education. The Finnish version of the questionnaire was converted into an online survey (Webropol survey and reporting tool version 3.0, Webropol Inc., Helsinki, Finland).

Study population

The web link to the online survey was sent *via* email to 4062 active members of the Finnish Dental Society Apollonia and to 4438 active members of the Finnish Federation of Oral Healthcare Professionals with the permission of these organizations. The members of the two associations represent most of the dental professionals working in Finland. Only members still in working life were contacted. Follow-up reminders were sent two weeks after the original survey was distributed. The researchers did not receive access to the email address distribution lists and, when participating in the survey, the anonymity of the respondents (IP addresses) was secured through the survey software.

Statistical analysis

The data were loaded from the Webropol cloud service onto a PC and subsequently analysed using SPSS version 25 (SPSS Inc., Chicago, IL, USA). We used the chi-square (χ^2) test to analyse associations between variables. The level of significance was set to 5% ($p=.05$). The risk of an event occurring was measured by calculating the risk ratios.

Based on the collected data, we defined four background variables for respondents: dental profession (1), year of graduation (2), employment (3) and municipal population size (4). Dental profession was dichotomized into two groups given the unequal distribution of respondents in the original four groups. Thus, the group 'dental nurses' consisted of both dental hygienists and dental nurses and the group 'dentists' included both general and specialized dentists. We asked respondents to provide the year in which they graduated and used the median year for the sample as a dichotomizing point (pre-1998 and in or after 1998). The employment variable consisted of three categories according to the primary workplace: a) public dental service, b) private practice and c) teaching institution or hospital-based dentistry. The size of the town where the respondent worked consisted of three possible categories: <20,000 inhabitants, 20,000–100,000 inhabitants and >100,000 inhabitants.

Results

In total, 1589 respondents completed the questionnaire, for which 1586 questionnaires were completed with valid data. From the 4438 dental nurses and dental hygienists invited to participate, 609 (13.7%) completed the survey and, from the 4062 dentists invited to participate, 977 (24.1%) completed the questionnaire. The total response rate was 18.7%.

Demographic characteristics

Table 1 summarizes the gender, age, profession, year of graduation, type of employment, type of work and municipal

Table 1. Distribution of respondents ($n=1586$) according to gender, age, dental profession, year of graduation, type of employment, type of work and municipal population.

	n (%)
Gender ($n = 1580$)	
Female	1362 (86.2)
Male	209 (13.2)
Trans or not willing to answer	9 (0.6)
Age ($n = 1580$)	
<30 years	173 (10.9)
30–39 years	346 (21.9)
40–49 years	290 (18.4)
50–59 years	523 (33.1)
≥60 years	248 (15.7)
Dental profession ($n = 1584$)	
Dental nurses	609 (38.4)
Dentists	975 (61.6)
Year of graduation ($n = 1577$)	
Pre-1998	811 (51.4)
In or after 1998	766 (48.6)
Employment ($n = 1576$)	
Municipal dental service	1025 (65.0)
Private practice	427 (27.1)
Teaching institution or hospital-based dentistry	124 (7.9)
Type of work ($n = 1582$)	
Clinical	1430 (90.4)
Administrative	152 (9.6)
Municipal population ($n = 1558$)	
<20,000 inhabitants	330 (21.2)
20,000–100,000 inhabitants	604 (38.8)
>100,000 inhabitants	624 (40.0)

population of the study participants. The dental nurse group consisted of 410 dental nurses (67.3%) and 199 dental hygienists (32.7%). In addition, the dentist group consisted of 827 general dentists (84.8%) and 148 specialist dentists (15.2%). Respondents represented all five university hospital districts in Finland (Helsinki: 38%, and Turku, Tampere, Kuopio and Oulu: 14–17%, respectively).

Training on the management of CAN

Figure 1 illustrates the undergraduate training received by dentists and dental nurses who graduated pre-1998 or in or after 1998. Only one-fourth of respondents had received any undergraduate training on CAN. Those respondents who graduated in or after 1998 more frequently received CAN training. Moreover, dentists received CAN training more frequently than dental nurses (33.2% versus 14.1%, $p < .001$). Fewer individuals working in private practice had received undergraduate training on CAN (18.6%) compared with those working in the public dental service (28.5%) and those working in teaching institutions or hospital-based dentistry (27.0%, $p < .001$). The size of the municipality within which respondents worked did not appear to affect training.

As seen in Figure 2, more respondents had received some training after graduation. Notably, the later the year in which respondents graduated negatively associated with postgraduate training attendance. Dentists took part in training more frequently than did nurses. In addition, those working in the public dental service (44.9%) and in teaching institutions or hospital-based dentistry (43.9%) had attended more postgraduate training than those working in private practices (13.1%, $p < .001$). The size of the municipality in which an individual worked did not affect postgraduate training.

Almost all of the respondents (97.2%) reported that dentists and dental nurses could recognize signs and symptoms of child maltreatment in their work, although 80% indicated that they possessed too little knowledge on CAN.

Frequency of having a suspicion of CAN, referring to social services and barriers to reporting

Table 2 summarizes information on a suspicion of CAN and referrals to social services. Among respondents, 43.0% reported having a suspicion of CAN at some point during their career. During the last five years, the median number of suspicions per respondent was 2 (interquartile range [IQR] 1–3). Those who received undergraduate training in identifying CAN issues reported having a suspicion 1.3 times more often and those who received postgraduate training reported having a suspicion 1.9 times more often than those who received no training at all.

One-fifth of all respondents had referred their concern to social services. The median number of referrals was 1 (IQR 1–2) in the last five years. Those who received undergraduate training in CAN issues referred their concern to social services 1.9 times more often and those who received postgraduate training referred their concern to social services 2.4 times more often than those who received no training at all.

Both a suspicion of CAN and a referral were more common among dentists than among dental nurses. During their entire working career, more than half of all respondents described having had a suspicion without referring a case to the social services; among these, only one-third noted their concern in the patient's medical record.

Figure 3 illustrates with whom respondents discussed a suspicion of CAN. Most of the respondents reported discussing their concern with their dental colleagues before reporting their suspicion; the most important individual with whom

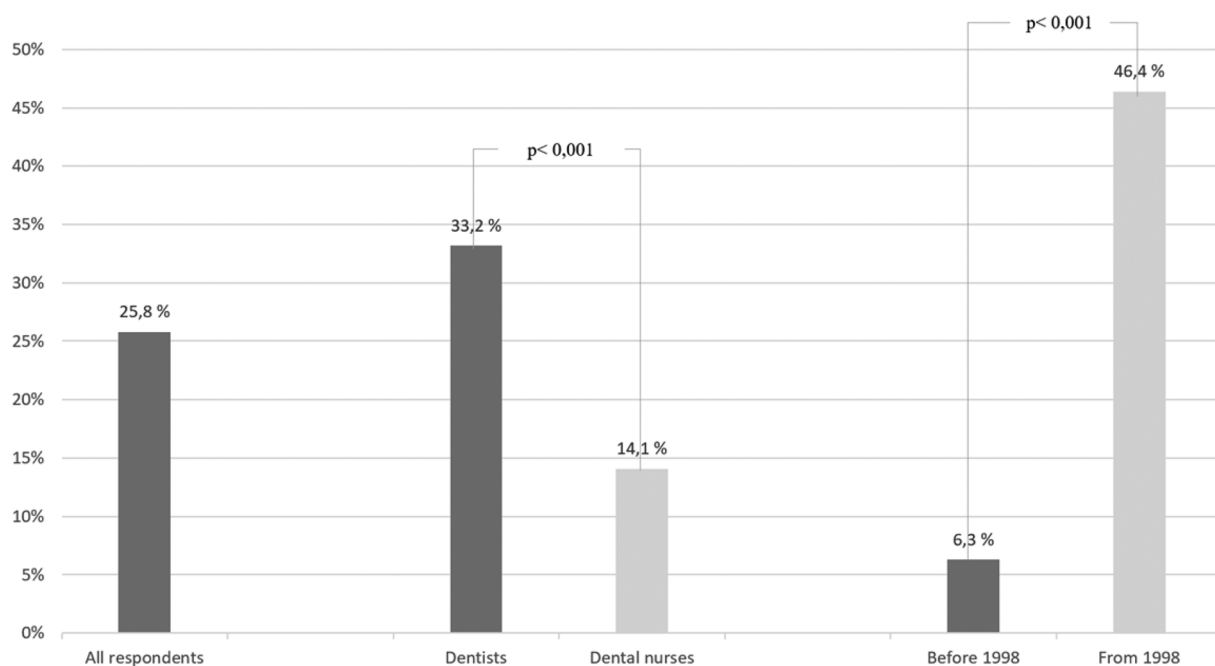


Figure 1. Respondents' undergraduate training related to child abuse and neglect according to dental profession and year of graduation.

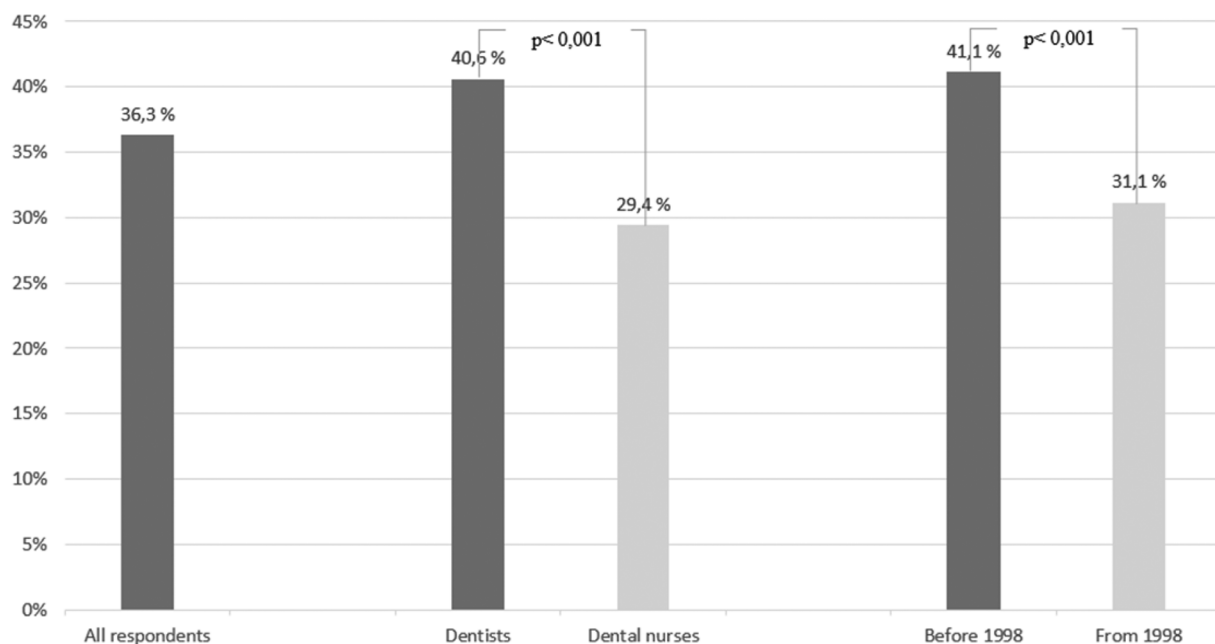


Figure 2. Respondents' postgraduate training related to child abuse and neglect according to dental profession and year of graduation.

Table 2. Frequency of having a suspicion of child abuse and neglect and referring a case to social services according to dental profession.

	All	Dentists	Dental nurses	
	% (# of yes responses/total # of responses)			p Value
Have you ever suspected child abuse in one or more of your patients?	43.0 (680/1581 ^a)	45.4 (441/972)	39.4 (239/607)	.019
Have you ever made a child welfare notification/referral to social services (if having suspected CAN)?	51.3 (349/680)	61.5 (271/441)	32.6 (78/239)	<.001
Have you ever made a child welfare notification/referral to social services?	22.1 (349/1581)	27.9 (271/971)	12.8 (78/610)	<.001
Have you ever suspected maltreatment/abuse, but did not report it?	64.3 (437/680)	61.7 (272/441)	69.0 (165/239)	.056
If you did not report your suspicion, did you make an entry of your observation in the patient's medical record?	31.5 (136/432 ^b)	33.5 (90/269)	28.2 (46/163)	.256

^aTwo ($n=2$) respondents did not report their profession.

^bFive ($n=5$) respondents did not answer this question although they answered 'yes' to the previous question.

they discussed their concern before making a referral to social services was a practice partner. Dental nurses described consulting with a child health clinic more often than dentists (50.8% versus 40.9%, $p < .001$).

Uncertainty about an observation was the most frequently reported reason for not referring a suspicion of CAN to social services, as illustrated in Figure 4. Those working in teaching institutions or hospital-based dentistry felt slightly more confident than those working in municipal dental care or in a private practice (71.7% versus 81.2% and 80.3%, $p = .041$). A considerable number of respondents thought that a lack of knowledge regarding referral procedures served as a barrier to doing so. If the respondent lived in a medium-sized community, a fear of violence directed at the child was more common than if the respondent lived in a small or a big town (37.8% versus 29.7% and 32.3%, $p = .027$). Fear of violence directed at the respondent specifically was more common among those who graduated later than among those who graduated earlier (26.0% versus 18.0%, $p < .001$). In addition, a fear of litigation was more common among

dental nurses than among dentists (24.7% versus 16.9%, $p < .001$).

Discussion

This study is the first to evaluate Finnish dental professionals' experiences, attitudes and knowledge of as well as education related to child abuse and neglect (CAN). This is an important topic given that dental professionals should be aware of both UNCRC safeguarding goals and Finnish national legislation [6,7]. One of our primary findings was that all dental professionals in Finland need additional training related to CAN. Surprisingly, in our study, 25.8% of respondents had received some undergraduate training and 36.3% of respondents reporting attending postgraduate training during their working life. Notably, those who graduated beginning in 1998 had received more undergraduate training (46.4%) than those who graduated pre-1998 (6.3%), indicative of some promising changes to dental education in Finland. Among those who graduated pre-1998, 41.1% reported receiving postgraduate training,

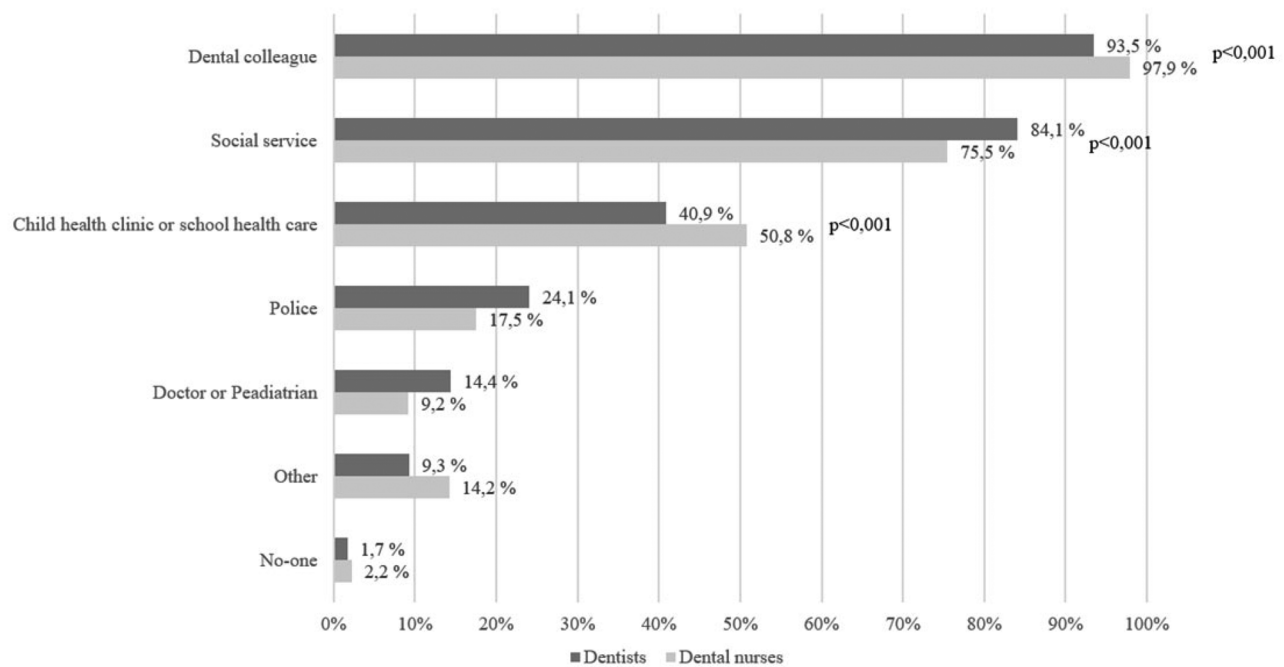


Figure 3. Responses regarding with whom dentists and dental nurses would prefer to discuss their concerns in cases of a suspicion of child abuse and neglect (more than one answer was possible).

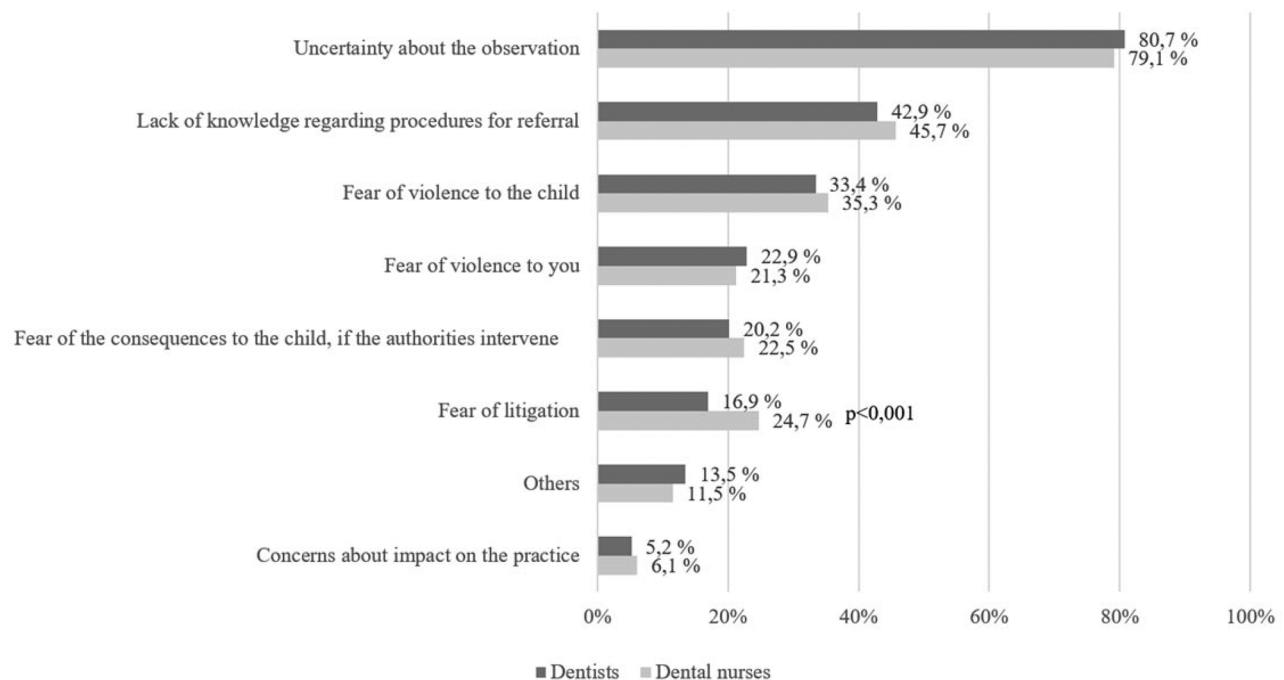


Figure 4. Respondents reported barriers to referring cases of a suspicion of child abuse and neglect to social services according to dental profession (more than one response was possible). 'Others' includes multiple reasons: family already in contact with social services, child protective services are powerless, disagreement within the dental team and the organisation has no protocol in place for reporting.

another positive finding given that they reported receiving less undergraduate training. However, the lack of knowledge among dental professionals remains worrying, given that reporting CAN has been mandatory for several years.

Training regarding issues related to CAN is essential to any person who works with children. Such training has been shown to affect professionals' confidence and knowledge regarding the management of child maltreatment [18,19].

Our study shows that training related to CAN positively associated with the frequency of identifying CAN and referrals related to it. The number of dental professionals who received undergraduate training suspected CAN 1.3 times more often and made referrals to CWS 1.9 times more often than those who received no training. These figures for those who received postgraduate training climbed to 1.9 times and 2.4 times more often respectively.

In earlier European studies, 21–29% of dental respondents reported receiving undergraduate training and 12–55% reported receiving postgraduate training on CAN [20,21]. Our findings that among respondents in the dental nurses group only 14.1% of received undergraduate training and 29.4% received postgraduate training are alarming, particularly since in Finland dental nurses meet children more frequently than dentists and have the same legal obligation to report their concerns to CWS. Both under- and postgraduate training figures among dental nurses are much lower than an earlier report from the UK, where 37% of respondents received undergraduate training and 63% received postgraduate training [22]. Thus, our results emphasize that dental nurses in Finland should have an equivalent opportunity to receive education on issues related to CAN in order to fulfil their statutory obligations. Our findings also indicate that there is a need for further training among dental professionals, especially in dental nurses' curriculum.

In the present study, 43% of respondents had suspected CAN on at least one or more occasions when treating child patients. This represents a higher figure than that reported in a Croatian study (26.67%) [13], although quite similar to an earlier Scottish (37%) [20] and a Danish (40.8%) study [16]. Compared with a study from the Danish Faroe Islands [23], where 61% of dental professionals had ever suspected CAN, our frequency is a bit low.

Our finding that 22.1% of all respondents had ever filed a report to the CWS is much lower than Norwegian studies [15,24], in which 58–60% of dental staff reported their concerns. In Finland, reporting has been mandatory since 1984. In our study, however, only 12.8% of dental nurses reported ever making a referral to the CWS, which is lower than reports from Finnish dentists (27.9%). The proportion of respondents reporting is also low compared with a recent Norwegian follow-up study, in which 56.9% of dental hygienists and 57.5% of dentists reported their concerns to the appropriate services in both 2014 and 2019 [24]. In Finland, dental nurses' responsibility for children's oral health has increased in recent years. Thus, dental nurses meet child patients more regularly than do dentists. This change in the clinical work of dental nurses and dental hygienists is either not observed in our results or indicates that dental nurses fail to fulfil their obligations. One explanation for this specific finding may be that we did not ask how frequently nurses practiced on their own and how often they worked as a team with a dentist. Working as a team could mean that only one member of the team makes a notification to the appropriate services (presumably, the dentist).

In our study, 64.3% of dental professionals described having had a suspicion of CAN without referring the case to social services; among these, only 31.5% made a note of the concern in the patient's medical record. This finding differs from a Scottish study, in which 17% of respondents admitted having suspicions but not referring the case, and 81% of such respondents made a note regarding their suspicions in the patient's medical record [20]. Ignoring possible child maltreatment is ethically unacceptable. Furthermore, not making a note in medical records hides such concerns from other medical professionals who treat the child in future. Our

finding that over half of respondents did not fulfil their legal obligation describes well the lack of knowledge regarding legislation in Finland. Specifically, these findings indicate a discrepancy between concerns and actions taken.

The dental team must collaborate with other health and social authorities on issues related to CAN. Thus, it is also important that all medical and other professionals are familiar with the role of dental professionals in recognizing CAN. We found that dental nurses more often want to discuss their concerns with child health clinic personnel or school health-care clinic personnel, while dentists prefer to contact social services, the police and a physician (Figure 3). Working closely with other professions or having the same level of education (as is the case regarding dental hygienists and public health nurses) could also lower the threshold for consultations and discussions regarding issues related to CAN. The importance of the support of close colleagues and a supervisor, as well as organizational protocols regarding questions related to CAN, was reflected in the respondents' open-ended answers. Each workplace should have clear instructions on how and with whom to consult regarding a suspicion of child maltreatment.

The most frequently cited barrier preventing dental professionals from reporting was the uncertainty of an observation (Figure 4), a finding that mirrors previous studies [16,20,21,25]. The second most frequently cited barrier was a lack of knowledge regarding the procedures required. These two barriers could perhaps be tackled with proper continuous education. In our study, a fear of violence directed at the child was the third most frequently cited barrier, findings similar to previous studies [17,20,22]. A fear of violence directed at the respondent, a fear of the consequences to the child and a fear of litigation were all the next most frequently cited barriers preventing dental professionals from reporting their suspicions. Those respondents who graduated later (in or after 1998) and who had shorter working life experiences were more prone to thinking that they could be in danger of violence themselves. This could indicate a misconception or a lack of experience. In our study as well as in earlier studies [13,18,22], the least commonly cited obstacle to reporting suspicions of child maltreatment concerned the impact on a professional's practice. In Finland, if a respondent works mostly with child patients, the individual is likely to be an employee in the public dental service, possibly explaining this result.

It is known that not recognizing CAN as well as not reporting it are common among all healthcare personnel in the Nordic countries as well as globally. The reasons for not reporting are similar everywhere according to previous studies [26,27]. There needs to be a more general and continuous discussion regarding CAN issues in different social fora in order to increase overall awareness both among professionals and among the public. Regular meetings and continuous conversations between dental healthcare professionals and other professions (e.g. health care, social services, police, etc.) could allow for a better understanding of each other's work and of the specific processes, and might lower the barriers to not reporting. Moreover, clear instructions for professionals on situations involving a suspicion of maltreatment and feedback regarding their actions could also prove beneficial.

We should acknowledge some methodological weaknesses to this study. First, the response rate among dental nurses was modest, and the number of participating dentists was also lower than earlier European studies [13,16,21]. One reason for this could be that we were neither able to confirm if an organization's email addresses for their members were valid nor if the invitations to complete the survey were erroneously identified as junk mail or spam. In addition, those who participated were probably more interested in the topic and those who had suspected CAN during their career were possibly more likely to respond. The actual situation in Finland may thus be worse than this study indicates. Nonetheless, the survey's representativeness of Finnish dental professionals was acceptable.

In addition, we could have asked respondents to more precisely indicate how often they worked with children and if the dental nurses worked independently or as part of a dental team.

In conclusion, Finnish dentists, dental hygienists and dental nurses require additional education on issues related to CAN. The Finnish dental staff reported their concerns to social services less frequently than their colleagues in Denmark and Norway, despite mandatory reporting existing for years.

In addition to the dentists, the competence of dental hygienists and dental nurses is also fundamental given that in Finland such dental professionals meet children frequently. Most reported that barriers preventing them from better collaboration with social services, the police and other authorities could be diminished through continuous education. Through education and training, dental professionals could gain knowledge and instructions, which would help them to recognize cases of CAN and to react in the appropriate manner.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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