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Danish dentists' and dental hygienists' knowledge of and experience with suspicion of child abuse or neglect

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Background. Studies from several countries have shown that knowledge of child protection matters among the dental team is inadequate. No such data are available from Denmark.

Aim. To describe dental teams perception of their role in child protection matters.

Design. A previously used questionnaire regarding the role of the dental team in child protection was adopted to Danish terminology, and mailed to a sample of Danish dentists and dental hygienists.

Results. A total of 1145 (76.3%) returned a questionnaire with valid data; 38.3% reported to have had suspicion of child abuse or neglect. Of those who reported a suspicion, 33.9% had reported their suspicion to social services. This was more frequent for dentists than for dental hygienists, and more frequent for respondents working in the municipal dental service than in private practice. Most frequently reported barriers towards referring suspicion to social services were uncertainty about observations, fear of violence in the family towards the child, and lack of knowledge regarding referral procedures. The majority of the respondents expressed a need for further education.

Conclusions. Members of the dental team in Denmark do not seem to fill their role sufficiently in child protection matters, and perceive a need for undergraduate and continuing postgraduate training.

Introduction

The role of the dental team in child protection has received considerable attention in the scientific dental literature in recent years[1–5]. As signs of child abuse and neglect often manifests in the oro-facial region[1,6–10] members of the dental team are in a key position to identify children who have been subjected to abuse. Furthermore, child neglect is often also associated with poor oral health. Studies from a number of countries have shown, that knowledge about child protection issues is inadequate[1,3], but no such data are available from Denmark.

In Denmark, the municipalities have the responsibility to offer comprehensive oral health services to all children from birth to the age of 18 years. The services are financed by taxes. Most children are treated in public clinics, established and staffed by the municipality, whereas a small proportion of children (<10%) are treated by general practitioners. The attendance rate is close to 100%. At regular, individualised recalls, the children are examined by either a dentist or a dental hygienist, who is also authorised to perform examinations independently. Current Danish legislation, the Social Assistance Act Section 153 and Section 154, requires that all public employees, including dental personnel, have the responsibility to inform the social services about their concern for children and adolescents in need of additional support.

The aims of this study was to identify Danish dentists' and dental hygienists' perception of their role in child protection issues, and ascertain to what extent this was influenced by their type of education and employment.

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Materials and methods

This study was conducted as a questionnaire study using a Danish version of the questionnaire used by Cairns *et al.* in 2005[3]. The Scottish questionnaire was translated, adapted to Danish terminology and back-translated by a person with a dental background proficient in the English language. The WHO-definition of child abuse and neglect was quoted in the introduction to the questionnaire[11] and the questionnaire contained questions on (1) demographic characteristics and type of employment; (2) dental education; (3) suspicion of child abuse or neglect; (4) action taken and reasons for not acting; (5) local area child protection guidelines and (6) undergraduate and continuing education in child protection, present knowledge and perceived need for further education. The questionnaire was piloted in a small group of dentists and adjusted according to their feedback in order to improve understanding. A randomised, systematic 25% sample was drawn from lists of all members of the three organisations organising dentists and dental hygienists in Denmark. The lists were obtained in August 2008 and the questionnaire was mailed with a covering letter explaining the purpose of the study, and included an envelope with prepaid postage. Reminders were sent after 2 and 4 weeks in order to increase the response rate.

Data were double entered using EpiData and analysed using SPSS v. 11.5 (SPSS Inc., Chicago, IL, USA). Descriptive statistical methods were used and chi-squared (χ^2) tests were used to test associations. The level of significance was set at 5% ($\alpha = 0.05$).

Results

A total of 1501 persons were included in the sample. Of these, 1145 (76.3%) returned a questionnaire with valid data. Of the remaining: 7 did not do clinical work any longer; 8 did not want to answer; 30 could not be reached and 311 did not return the questionnaire. Table 1 shows that the distribution of respondents reflects the high proportion of females among the younger age-groups of dental personnel in Denmark. Table 2 shows that 2/3 of the respondents have contact with children either in municipal dental service or in private practice. This holds true for both dental hygienists and dentists.

A total of 433 (38.3%) of the respondents reported to have had suspicion of child abuse or neglect at one or more occasions during their professional career. Of these 273 (65.8%) reported that they had had suspicion on between one and five occasions. Fourteen

Table 1. Distribution of respondents according to gender and age.

	Age					
Gender	**≤ 30 years**	**31–40 years**	**41–50 years**	**51–60 years**	**>60 years**	**Total**
Females	108 (13.5%)	197 (24.7%)	233 (29.2%)	195 (24.4%)	66 (8.3%)	799 (100.0%)
Males	26 (7.8%)	47 (14.1%)	57 (17.1%)	120 (36.0%)	83 (24.9%)	333 (100.0%)
Total	134 (11.8%)	244 (21.6%)	290 (25.6%)	315 (27.8%)	149 (13.2%)	1132* (100.0%)

*Information on age was not available for 13 respondents.

Table 2. Distribution of respondents according to education and type of employment.

	Municipal dental service	**Private practice with children**	**Private practice without children**	**Other**	**Total**
Dentists	234 (27.5%)	270 (31.7%)	305 (35.8%)	42 (4.9%)	851 (100.0%)
Dental hygienists	84 (35.7%)	69 (29.4%)	73 (31.1%)	9 (3.8%)	235 (100.0%)
Total	318 (29.3%)	339 (31.2%)	378 (34.8%)	51 (4.7%)	1.086* (100.0%)

*Information was missing on 59 of the respondents.

Table 3. Proportion of respondents reporting child abuse and neglect according to dental education.

	Had suspicion within the last 6 months	Been certain within the last 6 months
Dentists	13.9% (116/835)	6.3% (53/840)
Dental hygienists	12.7% (30/227)	8.9% (21/236)
Total	13.6% (146/1077)	6.8% (74/1081)

Table 4. Proportion of respondents reporting child abuse and neglect according to employment.

	Had suspicion within the last 6 months	Been certain within the last 6 months
Municipal dental service	32.4% (108/333)	17.5% (58/331)
Private practice with children	9.3% (32/345)	4.0% (14/349)
Private practice without children	2.3% (9/390)	1.2% (5/392)
Total	14.0% (149/1068)	7.2% (77/1072)

percent reported to have had suspicion within the last 6 months, and 6.8% were certain of having had contact with a child who had been abused or neglected (Table 3). No statistically significant differences were found in the reporting of suspicion between dentists and dental hygienists. Marked differences were found in reporting of suspicion between respondents with different types of employment ($P < 0.001$), with suspicion being reported most frequently by respondents employed in the municipal dental service (Table 4). Of those who reported to have had suspicion, some 33.9% had reported their suspicion to the social services. This was done more frequently by dentists than by dental hygienists (36.7% *vs* 23.8%; $P < 0.05$), and more frequent for respondents working in the municipal dental service than in private practice with or without children (42.7%, 20.0% and 22.2%, respectively; $P < 0.001$).

In cases of suspicion of child abuse or neglect, almost all respondents would prefer to discuss their concern with the social services and/or with colleagues (Fig. 1). About half would discuss their concern with the parents, and this was reported more frequently by respondents employed in the municipal dental service compared to respondents employed in private practice ($P < 0.05$). More respondents employed in private practice would choose to report their concern to the police compared to respondents employed in the municipal dental service. About half would also discuss their concern with others being own family, school nurse, teacher, clergyman or vicar, or the child's general medical practitioner.

The most frequently reported barriers towards referring suspicion to the social services were uncertainty about their observations, fear of violence in the family towards the child, lack of knowledge regarding referral procedures, and fear of consequences to the

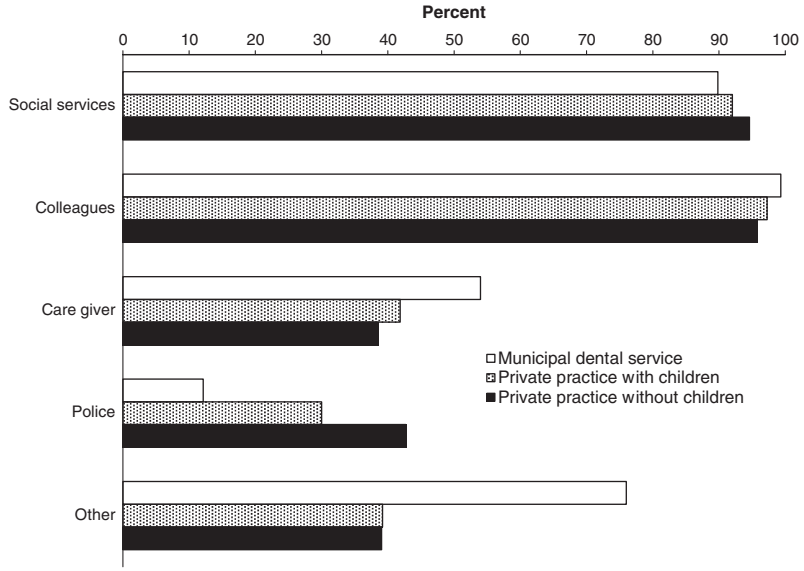

Fig. 1. The respondents' answer regarding to whom they would prefer to discuss or refer their concern in cases of suspicion of child abuse or neglect. More than one answer was possible.

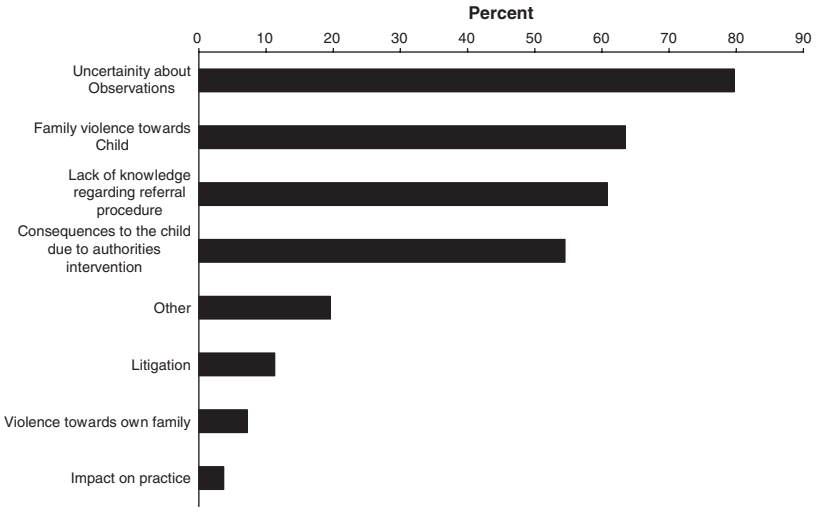

Fig. 2. Respondents' answer regarding the barriers to reporting suspicion. More than one answer was possible.

child due to the intervention of the authorities (Fig. 2).

Only 97 (8.7%) of the respondents had received their local area child protection guidelines. Finally, the vast majority (75%) of the respondents expressed a need for further education both with regard to recognition of signs and symptoms of child abuse or neglect as well as referral procedures. Almost all respondents (95.7%) stated that dentists and dental hygienists were inadequately informed about their role in child protection. Eighty-eight per cent stated that child protection issues should be part of the undergraduate dental curriculum.

Discussion

This study's findings on the Danish dental team's practice related to reporting child abuse or neglect, the barriers perceived, and the need for further education are consistent with findings in studies from several different countries[3,12,13].

This study is based on a large representative sample, and the response rate is as high as or higher than that obtained in most previous studies[3,12,14]. Thus the sample of this study can be considered representative of Danish dentists and hygienists. As dental team's role in child protection is a relatively new issue on the agenda in Denmark the WHO definition of child abuse or neglect was quoted in the questionnaire in order to establish a common understanding of the concept. The Scottish questionnaire was translated, adapted to Danish terminology, piloted, and back-translated as recommended[15]. However, it is still safe to assume that the findings of this study can be considered comparable to those, which have used the same questionnaire[3].

It is notable that 38.3% have reported to have had concern for a child in need of help once or more in their professional career. This is consistent with findings from Scotland and Norway and higher than other studies[3] (personal communication with Kristiansen A, Urke MF, Hernæs TG, University of Oslo). One explanation for this could be the high age of the respondents with two thirds being above 40 years of age. However 14.0% claimed to have been sure of having had contact with a child who they *suspected* of being abused or neglected within the last 6 months, while 6.8% were *certain* of having had contact with a child who had been abused or neglected. These estimates are lower for respondents employed in private practice compared to respondents employed in the municipal dental service. This is most probably a reflection of the low number of children being treated in private practice in Denmark. As Danish legislation implies that public employees have a responsibility to inform Social Services about their concern for children and families in need of additional support it is remarkable that only 33.9% had done so. These estimates are higher for dentists compared to dental hygienists and for employees in the municipal dental service

compared to employees in private practice and are probably due to a different educational background and the low number of children treated in private practice.

This study has identified a number of barriers such as uncertainty about clinical observations, fear of violence in the family towards the child, lack of knowledge regarding referral procedures and fear of consequences to the child due to the intervention of the authorities. These findings are similar to findings in other studies[3,12] and may at least partly explain the high proportion of non-reporters. Another explanation could be the lack of knowledge of local child protection guidelines. However, it is encouraging that these barriers can be amended through education and that the respondents perceive such a need for further education.

Conclusion

Members of the dental team in Denmark do not seem to fill their role in child protection matters sufficiently as implied in current Danish legislation, and perceive a need for both undergraduate and continuing postgraduate training.

What this paper adds

- Information about Danish dentists' and hygienists' involvement in child protection.
- Identifies barriers Danish dentists and hygienists perceive to reporting their concern for children who need additional support.

Why this paper is important to paediatric dentists

- Provides an important input for future undergraduate and continuing postgraduate education.
- Provides a baseline for assessment of improvement in Danish dentists' and hygienists' involvement in child protection.

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