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Dentists' involvement in identification and reporting of child physical abuse: Jordan as a case study

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Objectives. The objectives of this study were to assess the knowledge, attitude, and experience among Jordanian dentists regarding child abuse, and to explore the factors that affect their hesitation to report any suspected cases.

Materials and methods. A self-administered structured questionnaire was sent randomly to 500 Jordanian dentists. It investigated dentists' knowledge, attitude, and experience in recognizing and reporting child abuse cases. It also investigated several factors associated with dentists' hesitation to report suspected cases of child physical abuse.

Results. The response rate was 68%. More dentists were aware of their ethical obligations (80%) than their legal responsibilities (71%) to report child abuse cases. One-third of the dentists knew where to report suspected cases. Although 42% of dentists suspected cases of child abuse, only 20% of them reported these cases. The most frequently cited reasons for hesitation to report such cases were lack of history (76%), uncertainty about diagnosis (73%), and possible consequences on the child (66%). Reporting was significantly associated with suspicion of child abuse cases, as well as the belief of legal responsibilities.

Conclusion. There was a low reporting rate of child abuse among Jordanian dentists. They lack the adequate knowledge about recognition and reporting issues of suspected cases.

Introduction

Child abuse is a public health problem that no nation is immune to. Victims of child abuse fall into two categories: those who do not even survive the experience and those who suffer short and long-term life-damaging physical and psychological consequences[1]. Jordan is a party to many human rights agreements, including the Convention on the Rights of the Child. Article 19 of the Convention on the Rights of the Child obligates ratifying states to

> ... 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, while in the care of parent(s), legal guardian(s) or any other person who has the care of the child[2].

On the other hand, the criminal law gives the right to parents and caregivers to use violent forms of punishment[3].

To limit the negative impacts of child abuse and in order not to leave the issue of child abuse debatable, there has been extraordinary awareness in the Jordanian government's side in handling cases of child abuse. Jordan was the first country in the region to break the silence about this 'taboo' issue, and act towards prevention and treatment of child abuse. The establishment of the Jordan River Foundation and the creation of 'Dar Al Aman' centre in Jordan are among the policies announced to tackle the problem of child abuse. Dar Al Aman centre serves abused children at the psychological, medical, social, and educational levels to address the multiple consequences of abuse on children and their families[4].

Dental professionals rarely report child abuse cases. Previous worldwide studies in the

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literature have consistently shown over the last 30 years that dentists lack the knowledge regarding the recognition and reporting of child abuse cases[1,5–7].

Earlier in 1960s and 1970s, dentists were not considered among reporters of child abuse cases[1].

Between 1986 and 2001, no significant changes were noticed in the dentists' reporting and recognition of child abuse. The percentage of dentists in Texas who reported at least one case to authorities slightly increased from 19% in 1986 to 25% in 2001. The ratio of suspected reported cases remained unchanged[5]. Almost the same results were obtained by McDowell *et al.*[6] and Needleman *et al.*[7].

Results of a recent study by Thomas *et al.*[8] had shown that 83% of the dental professionals knew that they had to report suspected cases of child abuse, but only 20% of the dentists and 9% of the dental hygienists had reported at least one case of suspected child abuse confirming the same attitudes along the years in the United States.

Many countries across Europe had not shown any significant difference in attitude and knowledge among dental professionals. A recent study by Lazenbatt and Freeman in Northern Ireland stated that 59% of the respondents had seen suspicious cases of physical abuse; only 47% of them reported such cases[9]. The main reason for under-reporting in the same sample group was lack of knowledge.

It was mentioned by Ter Horst *et al.* in Germany that lack of knowledge was the main reason for not reporting cases of abuse[10]. This was in agreement with the findings from studies conducted in Scotland[11], North Ireland[12], and Australia[13,14].

Statistics from the Jordanian Family Protection Department (FPD) shows that the magnitude of child abuse in Jordan has increased during the last decade. The number of reported cases in 1998 was 295, whereas the reported cases reached 1423 in the year 2004[4]. It was also revealed that only 1% of child abuse cases were reported by health care providers, whereas 75% by police. The remainder of the cases were reported by relatives (10%), government ministries (9%), and school staff (5%)[4].

In Jordan, there is still lack of knowledge among dentists in recognizing cases of child abuse. There is also no clear consensus about Jordanian dentists' involvement in recognizing and reporting child abuse cases as a measure to address and fight this phenomenon. The aims of this study were twofold. First, to assess the knowledge and attitudes of dentists in recognizing and reporting child abuse in Jordan; second, to determine the reasons for some dentists' hesitation to report such cases.

Materials and methods

This survey utilized a self-administered structured questionnaire (comprising 36 questions). The survey instrument was constructed and reviewed to eliminate duplicative, biased, or leading questions. The questionnaire was provided in the Arabic and English languages, and piloted by sending each version to 20 dentists to critique the instrument for validity, confusions, and misunderstandings, and to suggest additional comments. Accordingly, the questionnaire was modified. The final questionnaire (Appendix S1) was first ethically approved by the Institutional Review Board (IRB) at Jordan University of Science and Technology and then posted to a randomly selected sample of the four representative sectors of dental care in Jordan. Five hundred copies were distributed

The questionnaire contained three sections

Section I, composed of eight questions, surveying dentist characteristics and demographic data including gender, date of birth, date, country of dental degree, specialty, years of experience, place of work, and the number of children seen each week.

Section II composed of two parts; the first part contained seven multiple-choice questions in the area of dentists involvement towards reporting child abuse. The second part of this section included 12 questions with 'yes', 'no', or 'don't know' answers for possible reasons listed for hesitation to report a suspected case of child abuse. Section III contained nine questions, covers the knowledge regarding the recognition of types of child abuse, as well as indicators of physical child abuse. Each

questionnaire had a covering letter explaining the purpose of the study and asking dentists to kindly participate and give the questionnaire back to the field worker.

All data were coded and entered into a personal computer. The analysis of data was carried out using Statistical Package for Social Sciences (SPSS) computer software (SPSS 15.0, Inc., Chicago, IL, USA). Simple descriptive statistics to each question was obtained to compile prevalence data. The factors related to hesitation to report child abuse cases were analysed using the chi-squared test. A significant difference was assured to exist between the groups if the probability of such a difference is found to be less than 5% ($P < 0.05$).

Results

Demographics

Three hundred and forty-two dentists out of the 500 dentists responded to the questionnaire yielding a response rate of 68%. The characteristics of the respondents and their practices are shown in Table 1.

Knowledge about reporting of child abuse

Legal and ethical issues towards suspecting and reporting of child abuse. Regarding the legal and ethical obligations in reporting child abuse in Jordan, (71%) and (80%) of the dentists believed that they had legal and ethical obligations, respectively, to report cases of child abuse, and 98 dentists (29%) and (20%) thought that they had no legal and ethical obligations, respectively.

When respondents were asked where to report a suspected case of child abuse if ever, 17% claimed that they would never report cases of child abuse, 33% of the respondents knew that suspected cases would be reported to the FPD, 22% said that they would report to the local police department, and 28% indicated that they would report to the direct superior. The relation between the place of work and the answer to whom or where they should report was found to be statistically significant ($P < 0.001$). Seventy percent of the dentists who would never report were in private practice, whereas only 3% of the non-reporters worked in universities. Fifty-five percent of the dentists working in the army medical forces said they would report to their direct superior, whereas 53% of dentists working in universities mentioned that they would report to the Jordanian FPD.

Dentists were asked regarding their ability to identify an abused child. Seventy per cent claimed that they were able to identify the cases. Twenty-four per cent were not confident that they could recognize a case of child abuse; only 6% said that they were unable to identify an abused child. Assessing difficulty in identification of child abuse by dentists revealed that it was a difficult job to two-thirds of them.

The respondents were asked whether they suspected and reported cases of child abuse during last year. Forty-two per cent of the

Table 1. Characteristics of the respondents and their practices.

		Number	Percentage
Dentists	General practitioners	253	74
	Specialists	89	26
Gender	Female	117	34
	Male	225	66
Experience	≥ 5 Years experience	185	54
	< 5 Years experience	157	46
Dental practice	Private sector	157	46
	Ministry of Health	74	22
	Royal Medical Services	46	13
	Universities	64	19
Country of graduation	Middle East	257	75
	Eastern Europe	62	18
	Western Europe and USA	23	7

Table 2. Factors affecting the decision towards reporting child abuse among Jordanian dentists.

Reason	Yes number (%)	No number (%)	Do not know number (%)
Lack of history	259 (76)	56 (16)	27 (8)
Uncertainty about the signs and symptoms of abuse	249 (73)	80 (23)	13 (4)
Consequences to the child	226 (66)	98 (29)	18 (5)
Effects on child's family	178 (52)	138 (40)	26 (8)
Concerns about confidentiality	170 (50)	154 (45)	18 (5)
Hostility of Jordanian families	167 (49)	156 (46)	19 (5)
Unsure about consequences of reporting	164 (48)	148 (43)	30 (9)
Availability of time	139 (41)	176 (52)	27 (8)
No legal obligations	110 (32)	145 (42)	87 (25)
Effects on work	107 (31)	208 (61)	27 (8)
Fear of litigation	96 (28)	217 (64)	29 (8)
Not dentist's responsibility	76 (22)	233 (68)	33 (10)

Table 3. The association between legal belief and reporting of child abuse cases.

Legal belief	Reporting	Total	
	No reporting *N* (% within legal belief)	Reporting *N* (% within legal belief)	*N* (%)
There are no obligations	42 (95.5)	2 (4.5)	44 (100.0)
To report only known cases of child abuse	66 (94.3)	4 (5.7)	70 (100.0)
To report all suspected cases of child abuse	18 (72.0)	7 (28.0)	25 (100.0)
To counsel families involved in cases of child abuse	51 (94.4)	3 (5.6)	54 (100.0)
To counsel families and report suspected cases of child abuse	44 (95.7)	2 (4.3)	46 (100.0)
To counsel families and report known cases of child abuse	88 (85.4)	15 (14.6)	103 (100.0)
Total	309 (90.4)	33 (9.6)	342 (100.0)

($X^2 = 17.6$, $P < 0.01$).

dentists said they suspected, and only 20% of them had actually reported at least a suspected case.

Factors affecting the decision towards reporting child abuse. Table 2 shows that the main factors which influence a dentist's decision to report a case of suspected child abuse are lack of history (76%), uncertainty about diagnosis (73%), and possible consequences to the child (66%). Other factors that almost half of the dentists commented on as influencing factors included: effects on the child's family, concerns about confidentiality, hostility of the Jordanian families, and the uncertainty about the consequences of reporting. Effect on work and fear of litigation were reported by less than one-third of the dentists. The least reported factor was the belief that 'it is not the dentist's responsibility' (22%).

Chi-squared test was applied for the different variables to see the association between reporting and the demographic, knowledge, and attitude variables. The association was only significant between reporting and two variables: the suspicion of cases and the awareness of legal obligation to report. Suspecting cases of child abuse was the most significant factor associated with reporting ($X^2 = 36.7$, $P < 0.001$).

Table 3 shows the second most important factor which is the awareness of legal obligation to report. Out of the dentists who thought there was no legal obligation, 95.5% did not report any case ($X^2 = 17.6$, $P = 0.004$).

Knowledge of child abuse: definition, ability to identify, knowledge of physical child abuse indicators

Almost all dentists (97%) identified physical abuse as a form of child maltreatment, followed by sexual abuse (92%). Emotional abuse and neglect were equally identified as forms of

child maltreatment and were the least identified (84%).

Indicators of child abuse were recognized by most dentists. These were: bruises on the cheek (88%), burns in the shape of hot objects (84%), bite marks (83%), avulsed or discoloured teeth (62%), and bruises circumscribing the neck (49%).

Discussion

Dentists are in a better position to identify and diagnose child abuse cases because abusers continue visiting the same dentist and do not hesitate to change their physician. Additionally, most of the injuries of child abuse occur in the head and neck region which makes it easy for dentists, if educated to do so, to detect them[15–18]. However, legal and ethical factors arise in this regard. In our study, knowledge about the legal obligation in reporting cases of child abuse was poor. This was slightly lower than the previous report by Thomas *et al.*[8]. With regard to the ethical obligation, majority of the dentists agreed that it was an ethical obligation to report cases of child abuse. Attitude and knowledge towards ethical obligation to report were not studied separately in the literature to compare.

The reporting rate among respondent Jordanian dentists (9.6%) was one of the lowest rates found in the literature. This poor reporting rate might be attributed to the lack of knowledge towards recognizing and reporting of child abuse among Jordanian dentists, the absence of a clear definition of child abuse in the criminal law, and the absence of a clear legal message that mandated reporting by dentists.

In agreement with earlier studies, lack of adequate history and knowledge about child abuse signs and symptoms were cited as important factors in this study. This percentage was higher than that reported in the literature (50–60%)[5–11,15]. Clearly, Jordanian dental professionals need additional education and training in taking the history of young patients, assessing patients who may have suffered abuse, and establishing the aetiology of injuries and behaviours that arouse suspicion.

The third reason cited for not reporting child abuse was fear of consequences on the child (66%). This was in agreement with the ranking given by other studies in the UK[9,11,12] and Australia[13,14]. Effects on child's family had also been reported by almost half of the respondents. In fact, the vast majority of investigated cases resulted in the family remaining intact because interventions such as counseling often enabled parenting to be improved, whereas the children remained in the home[19]. Concerns about confidentiality were considered by 50% of the respondents. This result had a lower rank than what was reported by Kilpatrick *et al.* in Australia where confidentiality was the most important factor to consider[13]. Confidentiality for a child in the Jordanian society, where corporal punishment is still lawful at home, may not be the first factor to think of when deciding to report. Unsure about consequences of reporting was noted by 48% of the respondents. This is an issue of awareness and knowledge. FPD states that the dentists do not have to mention their names.

Adults who abuse their children may claim or even think that it is not abuse; rather, it is referred to as 'corporal punishment'[20]. They describe it as a way of teaching their children good behaviour. Zero tolerance is generally accepted as a target for anybody whether children or adults and dentists have a role in sending this clear message to the community: 'corporal punishment is incompatible with international standards of human rights'.

This study also analysed the degree to which these respondents had basic knowledge about signs of intentional injuries indicating child abuse in children. Results came in agreement with previous reports and showed that although extraoral head injuries were frequently reported as signs of child abuse, intraoral signs were reported in considerably fewer cases[13,18]. Avulsed teeth, being not considered as a sign, might be explained by the fact that protection guidelines against orofacial trauma are not strongly applied in Jordan. Very few Jordanian children use helmets, mouth guards, and other protective wear while playing sports which may contribute to the dentists being unaware of abuse case if the story report was trauma while playing.

Conclusions

Based on this study, the following conclusions can be made: (i) low reporting of child abuse was found among Jordanian dentists (10%); (ii) the reasons for low reporting were lack of history, uncertainty about diagnosis, and possible consequences on the child; and (iii) an overall lack of adequate knowledge about how to diagnose and report suspected cases of child abuse was noticed.

What this paper adds

- This paper sheds light on the poor knowledge that dentists exhibit regarding child abuse. Therefore, educational and training programmes are recommended to assure better dentist involvement.

Why this paper is important to paediatric dentists

- Dentists in general, and paediatric dentists in particular, might be the first authority to discover child abuse. They should be familiar with the signs, possess enough knowledge about legal issues, and hold responsibility to report such cases.

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Supporting information

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Appendix S1. Knowledge and attitude of dentists in recognition and reporting of child abuse in Jordan.

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