

ORIGINAL ARTICLE

Child physical abuse: assessment of dental students' attitudes and knowledge in United Arab Emirates.

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Abstract

Purpose: the aim of this study was to investigate dental students' educational experience, attitudes and knowledge with regard to child physical abuse in all dental schools in United Arab Emirates.

Material and methods: The data were collected by self-administered structured questionnaire completed by 578 under graduate dental students in four (all) dental schools in United Arab Emirates. Data analyzed using descriptive analyses for responses to each question.

Results: The results indicated that there is lack of knowledge of reporting procedure, signs of physical abuse and social indicators among all respondents. Most students indicated that their dental school was the main source of information on this topic.

Conclusions: the finding of the current study revealed that dental students were not sufficiently prepared to know what to look for when they suspect child abuse and what to actually do when they encounter this problem in a professional setting. To provide better care for these young domestic violence victims, dental schools' curriculum modifications should focus on providing students with concrete educational experiences regarding child abuse cases.

Introduction

Child Abuse is a serious problem, and an improper diagnosis carries tremendous consequences for the patient, his or her family, and the health care provider. The role of the dental team in child protection has received considerable attention in the scientific dental literature in recent years [Welbury et al., 2003; Cairns et al., 2005a; Harris et al., 2007]. Dentists are probable in the most favorable position to recognize child abuse, because 50% to 75% of reported lesions involve the mouth region, the face and the neck [Welbury and Murphy, 1998; Cairns et al., 2005b,]. In addition dentists have a continuing relationship with pediatric patients and their families, as it is often necessary for a given patient to be seen frequently. This fact gives the dentist an opportunity to observe not only the physical and psychological condition of the children, but also their family environment. Often the abuser avoid returning to the same physician or emergency room to obtain treatment for an abused child, however, they do not seem to avoid repeat visits to the same dental care provider who are expected to provide a technical service only [Kassebaum et al., 1991]. Dental students need to be well educated concerning the signs of child abuse to ensure that they can recognize cases of suspected child abuse. The quality of dental education could be one crucial factor that may contribute to an increase in the identification and the reporting of child maltreatment by dental care providers and dental students [Thomas et al., 2006a]. Although, dental care providers' decisions to report child abuse are due to many factors, one key factor could be their educational background. Two studies [Thomas et al., 2006a, 2006b] from the United States have addressed the need to evaluate the level of preparation graduating dentists possess regarding how to manage child abuse cases, they concluded that dental curricula have to be reviewed to adequately prepare the students to undertake their expected role in protecting children from abuse. In United Arab Emirates (UAE), efforts to protect children from abuse have stressed the need to raise the knowledge and awareness of all health care providers on this issue. Therefore, the aim of our study was to investigate dental students' educational experience, attitudes and knowledge with regard to child physical abuse in dental schools in UAE.

Methods

The current study was approved by the ethics committee of Ajman University of Science and Technology. The data were collected by self-administered structured questionnaire distributed at the end of scheduled classes for all undergraduate students in the fourth and fifth year in four universities that have dentistry program in UAE, namely: Ajman University of Science and Technology (AUST), Gulf Medical College (GMC), University of Sharjah (UOS), University of RAK of Medical Sciences (RAK). Prior to distribution of the questionnaire, the students were informed that their participation was voluntary and that refusing to participate would not affect their grades. No identifying information was gathered. The average time to complete the survey was approximately ten minutes. The questionnaires were distributed by the co-researcher between January 2012 and February 2012.

The questionnaire used in this study consists of 23 questions and was modified from previous similar studies [Kassebaum et al., 1991; Ramoz-Gomez et al., 1998; Al-Jundi et al., 2010]. It was constructed using multiple choice or true- false formats and consisted of three parts. Part one asked about individual characteristics such as gender, age, dental school and level of study. The other part assessed student's knowledge of diagnostic indicators, signs of physical abuse, and knowledge of legal responsibilities regarding reporting child physical abuse. The section on legal responsibilities asked the participants whether there is a law in UAE mandating dentists to report suspected abuse cases and where to report such cases. It also assessed students' attitudes by asking them whether they thought dentists should have a legal or ethical duty to report abuse cases. The last part of the questionnaire investigated the respondents' source of information on child abuse and requested them to self-assess their level of knowledge on the topic by questioning whether they thought their training in the topic was enough to undertake their future responsibility in protecting children from abuse. The validity of the questionnaire was assessed by two staff members in pediatric dentistry. All the data entered into the Microsoft Excel, and then transferred into SPSS windows version 13.0 (SPSS Inc., Chicago, IL, USA). Data analyzed using descriptive analyses for responses to each question.

Results

A total of 578 under graduate dental students responded to the distributed questionnaires giving a response rate of 94 percent, Table 1, present a summary of distribution of respondents by gender, age, year of education and university. More than three-quarters of the participants (76.6 percent) were females (N=443) the majority of the participants were younger than 25 years old (89.1 percent).

When the dental students were asked about their knowledge and attitudes regarding legal and ethical responsibilities towards child physical abuse, Table 2 illustrate that the majority of dental students reported that they are legally required to report child abuse cases. The second question concerning the legal and ethical responsibility asked the dental students where they would report child abuse. The correct response was family protection department. Only 36.2% of the students knew where to report child abuse. Around quarter of the students said that they did not know the answer. Over 80% of the students agreed that dentists should be legally mandated to report abuse cases; however a higher percentage 94.3% of the participants believed they have an ethical duty to report child abuse.

Data on source of information and perceived adequacy of training in recognizing and reporting child abuse among UAE dental students, presented in Table 3. The majority of the students considered their dental

school to be the main source of knowledge on child abuse. More than 91% of the respondents indicated that they did not receive enough formal training in recognition and reporting child abuse.

Dental students' knowledge of signs of physical abuse, presented in Table 4. When the dental students were asked whether bruises on the cheek may indicate slapping or grabbing of the face, 496 (85.8%) dental students responded positively. However, 52.8 % disagreed that bruises noted around the neck are usually associated with accidental trauma. Most of the dental students (87.4%) agreed that burns are noted in many child abuse cases and they may have the shape of a heated object. Similarly, 77.5 % recognized that bite marks are frequently a component of child abuse.

When the dental students were asked about knowledge of diagnostic & social indicators of abuse, responses illustrated in Table 5. Only 40.3% of the students responded correctly to the statement "Child abuse are primarily associated with the stresses of poverty and rarely occur among middle or high income earner" as being false and only 61.9 % responded correctly to the statement " Child abuse may be indicated if a parent reports a child's injury as a sibling inflicted injury" as being true. Overall, the result in Table 5 showed that the students had gaps in their knowledge about child abuse.

Discussion

To our knowledge, this is the first study to report on dental students' knowledge on child physical abuse cases in UAE. The response rate to the survey was high, making the sample representative of dental students in UAE. Our findings indicate that there is a clear lack of knowledge in many areas related to child physical abuse, as has been reported by other researchers in similar studies [Thomas et al., 2006a, 2006b]. This lack of knowledge in this critical area might preclude future dentists from reporting abuse cases in UAE. In a study conducted by Owais et al, (2009) among dentists in Jordan, it was found that the rate of reporting child abuse and neglect cases was extremely low and that one of the main factors affecting their decision not to report suspected cases was the lack of knowledge to recognize such cases. There are many studies in the literature that turn out with the same results [Ramos-Gomez et al., 1998; Lazenbatt and Freeman, 2006; Sonbol et al., 2012].

The current study finding showed that one quarter of the participants did not know where to report suspected cases of child abuse, this finding in consistency with the result of other studies in the literature [Thomas et al., 2006a, 2006b; Owais et al., 2009]. Essential prerequisites for actually reporting of suspected cases of child abuse are an awareness of the professional responsibilities concerning this matter as well as the knowledge about what to look for and how to diagnose these cases. The results of this study showed that the respondents' knowledge of their legal responsibilities to report suspected child abuse was not sufficient. Around one fifth of the dental students were unaware about their legal responsibilities

concerning reporting suspected abuse cases. The law in the UAE obligates all health care workers including dentists to report child abuse cases.

However, the majority of the dental students in the current study were aware of their ethical responsibility toward protecting children from abuse, and the percentage was almost similar to what has been reported among dental students in Jordan [Al-Jundi et al ., 2010]. This finding give us the feeling that the future dentists of the UAE really want to protect the children from being abused and this well in those dental students should be an incentive for them to be a good tool in detection and proper diagnosis of such cases.

More than three quarter of the dental students reported that they learned about child abuse in their dental school, however, their knowledge was lacking. The majority received no formal training in recognition and reporting child abuse the findings reported here support the results from other studies [Lazenbatt and Freeman, 2006; Manea et al., 2007] that showed that child abuse are addressed to limited extent in dental school curricula. However, the coverage most frequently occurs in a classroom setting, and may not be reinforced in clinical settings. Therefore more formal education with more emphasis on the topic using problem-based learning rather than purely lecture based learning might be beneficial for all dental students in UAE.

Child abuse might take on various forms. It is therefore crucial for future dentists to recognize this problem and are well educated to recognize all of its varieties. Parents may justify their abuse to their own children as a way for teaching their children good behaviors. One of the main roles of future dentists is to send clear message to the community that "corporal punishment is incompatible with international standards of human rights" [Owais et al., 2009].¹¹ The lack of correct responses to the knowledge questions concerning the diagnostic indicators, as well as the signs of physical abuse, could be a result of the students' lack of knowledge concerning what constitute child abuse. However, the finding of this study regarding the sign of child abuse was quite encouraging compared to what has been reported previously [Thomas et al., 2006a, 2006b; Al-Jundi et al .,2010] indicating that dental students in UAE are more aware on those intentional injuries specially those related to "bruises on the cheek", " burns", and "bite marks".

In conclusion, the finding of the current study revealed that dental students were not sufficiently prepared to know what to look for when they suspect child abuse and what to actually do when they encounter this problem in a professional setting. It has been reported by [Dupare et al., 2012] that child abuse victims fall into two categories: those who survive the experience and those who do not. To provide better care for these young domestic violence victims, dental schools' curriculum modifications should focus on providing students with concrete educational experiences about the process of detecting and reporting child abuse, more formal education with more emphasis on this topic using problem –based learning rather than purely lecture-based learning is needed.

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Conflict of interest

The authors declare that they have no conflict of interest with respect to the submitted work.

Ethical statement

The authors confirm that this research has been conducted in full accordance with the World Medical Association Declaration of Helsinki. The current study was approved by the ethics committee of Ajman University of Science and Technology AUST. Written consents were obtained from all participants in this study.

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Table 1. Demographic information and characteristics of the participants, by number and percentage.

Characteristic	<i>n</i>	(%)
Gender		
Male	135	23.4%
Female	443	76.6%
Age		
< 25	515	89.1%
25-35	60	10.4%
> 35	3	0.5%
Education (year at dental school)		
4 th year	348	60.2%
5 th year	230	39.8%
University		
AUST	346	59.8
UOS	164	28.4
GMC	42	7.3
RAK	26	4.5

Table 2. Knowledge and attitudes regarding legal and ethical responsibilities among UAE dental students, by number and percentage.

Characteristic	<i>n</i>	(%)
Dentists are legally required to report child abuse in the UAE		
Yes	506	87.5%
No	70	12.1%
Where to report child abuse in the UAE		
Family protection department	209	36.2%
Local police	196	33.9%
The nearest hospital	28	4.8%
Don't know	139	24.0%
Dentists should be legally responsible to report child abuse		
Yes	465	80.4%
No	111	19.2%
Dentists have an ethical duty to report child abuse		
Yes	545	94.3%
No	32	5.5%

Table 3. Source of information and perceived adequacy of training in recognizing and reporting child physical abuse among UAE dental students, by number and percentage.

Characteristic	<i>n</i> (%)
What was your source of information on child abuse?	
Dental school	114 77.0%
Dental journals and literature	16 10.8%
Continuing education courses	16 10.8%
National dental meetings and conferences	2 1.4%
Have you ever received enough formal training in recognition and reporting child abuse?	
Yes	47 8.8%
No	528 91.2%

Table 4. Knowledge of signs of physical abuse among UAE dental students, by number & percentage.

Characteristic	<i>n</i>	(%)
Bruises on the cheek may indicate slapping or grabbing of the face		
True*	496	85.8%
False	78	13.5%
Additional bruises usually occur in areas overlying bony prominences in abuse victims		
True	458	79.2%
False*	112	19.4%
Repeated injury to the dentition resulting in avulsed teeth or discolored teeth may indicate repeated trauma from abuse		
True*	452	78.2%
False	121	20.9%
Bruises noted around the neck are usually associated with accidental trauma		
True*	268	46.4%
False	305	52.8%
Burns are noted in many child abuse cases and they may have the shape of a heated object		
True*	505	87.4%
False	68	11.8%
Bite marks noted on a child's neck or less accessible areas should be investigated, as bite marks are frequently a component of child abuse		
True*	448	77.5%
False	124	21.5%

* Correct responses.

Table 5. Knowledge of diagnostic & social indicators of abuse among UAE dental students, by number & percentage.

Characteristic	<i>n</i>	(%)
Child abuse are primarily associated with the stresses of poverty and rarely occur among middle or high income earners		
True	340	58.8%
False*	233	40.3%
Children who have been abused usually tell someone soon after the abuse		
True	169	29.2%
False*	402	69.6%
If a child readily states that an adult has caused harm, the accusation should be addressed		
True*	510	88.2%
False	58	10.0%
Child abuse may be indicated if a parent delays seeking medical attention for a child's injury		
True*	472	81.7%
False	101	17.5%
Child abuse may be indicated if a parent describes a child's injury as a self-inflicted injury		
True*	416	72.0%
False	154	26.6%
Child abuse may be indicated if a parent reports a child's injury as a sibling inflicted injury		
True*	358	61.9%
False	214	37.0%

* Correct responses.