

Original Article

A Survey of Knowledge, Attitude and Practice of Iranian Dentists and Pedodontists in Relation to Child Abuse

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KEY WORDS

Attitude;
Child Abuse;
Dentists;
Knowledge;
Practice;
Iran;

ABSTRACT

Statement of the Problem: Since almost half of the child abuse cases affect the head and neck region, dentists have an important role in the diagnosis and report of oral and dental aspects of child abuse cases.

Purpose: The objective of the current study was to evaluate the knowledge, attitude and practice of the general dentists and pedodontists regarding child abuse and child neglect.

Materials and Method: This cross-sectional study was carried out on the participants of the 12th congress of pedodontists of Iran. A self-administered questionnaire was used for evaluating their knowledge, attitude and practice toward child abuse. T-test and ANOVA were applied to analyze the data by SPSS software. $p < 0.05$ was considered statistically significant.

Results: The mean score of knowledge, attitude and practice of the participants regarding child abuse was 10.24 ± 2.68 , 41.54 ± 11.24 and 2.78 ± 1.05 , respectively. The knowledge of pedodontists was significantly higher than knowledge of general dentists. No statistically significant difference was observed in attitude and practice ($p > 0.05$).

Conclusion: Dentists had a moderate knowledge, poor attitude and moderate practice regarding child abuse. Considering this fact, improvements in child abuse education for undergraduate students and continuing post-graduate training in this field are recommended.

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Introduction

World Health Organization (WHO) defines child abuse/maltreatment as engaging in an action or not engaging in an action by the parents or a child's guardian (s) that violates the child's rights and puts his/her favorable life, development and dignity at risk. [1] Children are always more vulnerable than other community members due to their young age and lack of sufficient

skills. Based on the annual report of United Nations Children's Fund (UNICEF), a number of children lose their lives due to violence and maltreatment. [2] Different studies have evaluated child abuse in Iran. [1-3] The results of these studies have shown that maltreatment toward children is common in families. It is obvious that when children are maltreated, they suffer physical and psychological problems, which will influence them-

selves and the community in future. The majority of maltreated children today will be maltreating parents in future and such sequence will continue. [4]

Health care-givers (general practitioners, dentists, nurses, psychiatrists, and so on) have an important role in the identification, filing, treatment and reporting cases suspected of child abuse. In relation to dentists, especially pedodontists and surgeons, the odds of encountering oral and dental aspects of child abuse cases are high. Injuries inflicted due to child abuse can easily be diagnosed and parents who abuse their children are less conservative and careful in referring to dentists than physicians. [5] Therefore, the parents of such children frequently take their children to different physicians but usually take them to one dentist, which can play an important role. [6-7]

Approximately 50% of injuries due to child abuse occur in the orofacial region and almost 15% of these injuries are confined to the head region. [8-9] Therefore, since the majority of signs of child abuse are found in the head, face and oral regions, dentists have an important role in improving the status of abused children and saving them from their terrible situation. [10]

Dentists' awareness of the conditions that leads to identification of abused children and their understanding that how these cases should be reported to authorities is of great importance. Since dentists, especially pedodontists are highly probable to encounter child abuse cases and since a very limited number of studies are available in Iran on child abuse, the present study was undertaken to evaluate knowledge, attitude and practice of general dental practitioners and pedodontists in relation to different cases of child abuse.

Materials and Method

The subjects in this cross-sectional (descriptive/ analytical) study consisted of all the general dental practitioners and pedodontists who participated in the 12th Congress of the Iranian Association of Pediatric Dentistry in 2013. Only subjects signing an informed consent form were included in the study. The protocol of the study was approved by the Ethics Committee of Kerman University of Medical Sciences under the code K/92/558.

Data were collected by using a researcher-made self-administered questionnaire, which was prepared based on a structured literature review, [11-15] and con-

sisted of four sections. The first section consisted of the demographic data including age, gender, clinical experience, location of service, the educational major/field. The second, third and fourth sections, respectively, contained the questions on knowledge, attitude and practice of the participants regarding child abuse. The face and content validity of the questionnaire was assessed by a group of experts consisting of four pedodontists, two community oral health specialists, one community medicine specialist, one psychiatrist and two pediatricians. The face validity was confirmed. Two items were eliminated and three items were corrected; the remaining items were deemed very appropriate. Finally, the content validity index (CVI) of the questionnaire was calculated as optimal.

To evaluate the reliability of the questionnaire, in a pilot study, it was distributed among 20 general dental practitioners and Cronbach's alpha coefficients of 0.69, 0.67 and 0.73 were calculated for the knowledge, attitude and practice sections, respectively.

The final questionnaire consisted of 37 questions (8 items on demographic data, with 17, 7 and 5 items on knowledge, attitude and practice, respectively). For knowledge questions, zero and one were considered for incorrect and correct responses, respectively. Therefore, the knowledge score range was 0–17. Attitude questions were assessed on a five-point Likert scale, with score one for strong disagreement and score five for strong agreement. The attitude scores were converted to a score from zero to 100 (the total score minus the number of questions divided by the maximum score minus the minimum score multiplied by 100). The practice was assessed by "yes" or "no" questions. A score of one was given to each correct response and zero for incorrect response. Therefore, the score range was 0–5. Each section of the questionnaire was classified in three levels as follows: a score of less than 50% of the total achievable score was classified as poor; a score of 50–70% was classified as moderate and a score over 70% was classified as good (1).

During the Congress, the questionnaires were distributed by an intern dental student, sufficiently familiar with the procedures during evaluation of validity and reliability. Adequate information provided about the aims of the study, reassuring them that the data would be kept confidential. After the participants signed in for-

Table 1: The frequency distribution of participants in the study, who supplied correct responses to questions on the knowledge about child abuse

Statement used to evaluate knowledge	N(%)
1 A burn by a hot object is a sign of child abuse.	164(100)
2 Multiple bruises and ulcers at different stages of healing are signs of child abuse.	132(80.5)
3 There is a relationship between the number of children and child abuse.	124(75.6)
4 There is a relationship between maltreatment toward spouse and child abuse.	146(89)
5 There is a relationship between educational level and child abuse.	102(62.2)
6 There is a relationship between severe poverty and child abuse.	133(81.5)
7 There is a relationship between child age and child abuse.	62(37.8)
8 There is a relationship between the child's physical and mental ailment and child abuse.	160(97.4)
9 There is a relationship between the child abuse and the child's fear of being examined by a dentist of the opposite gender.	78(47.6)
10 There is a relationship between child abuse and the child being conservative and refraining from social relationships.	126(76.8)
11 There is a relationship between child abuse and excessive dependence on the mother.	53(32.5)
12 There is a relationship between non-proportional negligence and worrying in parents and the severity of trauma to the child.	53(32.5)
13 There is a relationship between child abuse and child's lack of smile and avoiding eye contact during dental examination.	90(55)
14 There is a relationship between child abuse and the child's excessive curiosity and alertness during dental procedures.	40(24.4)
15 There is a relationship between child abuse and the labial frenum tearing in a child still unable to walk.	112(68.3)
16 There is a relationship between the labial frenum tearing and the maltreatment of forcefully feeding the child.	98(59.8)
17 There is a relationship between child abuse and bruises and ecchymosis in the soft and hard palates.	92(56.1)

med consent forms, they were asked to answer the questions. The questionnaires were completed anonymously. Data were analyzed using SPSS software version 16.0 for Windows (SPSS Inc, Chicago, IL, USA). Independent t-test and Mann-Whitney tests were applied to compare the knowledge, attitude and practice scores between general dental practitioners and specialists. ANOVA was employed to compare the knowledge scores in terms of the subjects' practice (good, moderate and poor). Statistical significance was set at $p < 0.05$.

Results

A total of 98 (59.8%) general dental practitioners and 66 (40.2%) pedodontists participated in the study. The

mean age of the subjects was 37.82 ± 7.94 years; 92 (56.7%) participants were female, and 76 (46.3%) were working in the public sector. Table 1 and Figure 1 show the frequencies to questions on knowledge about child abuse and the frequencies of participants in terms of their attitudes toward child abuse, respectively.

The mean (\pm SD) of knowledge, attitude and practice scores are shown in Table 2. According to this table, there was a statistically significant difference in the means of knowledge scores between general dental practitioners and pedodontists ($p = 0.007$). No statistically significant difference was observed in the means of attitude and practice scores between the two groups ($p > 0.05$).

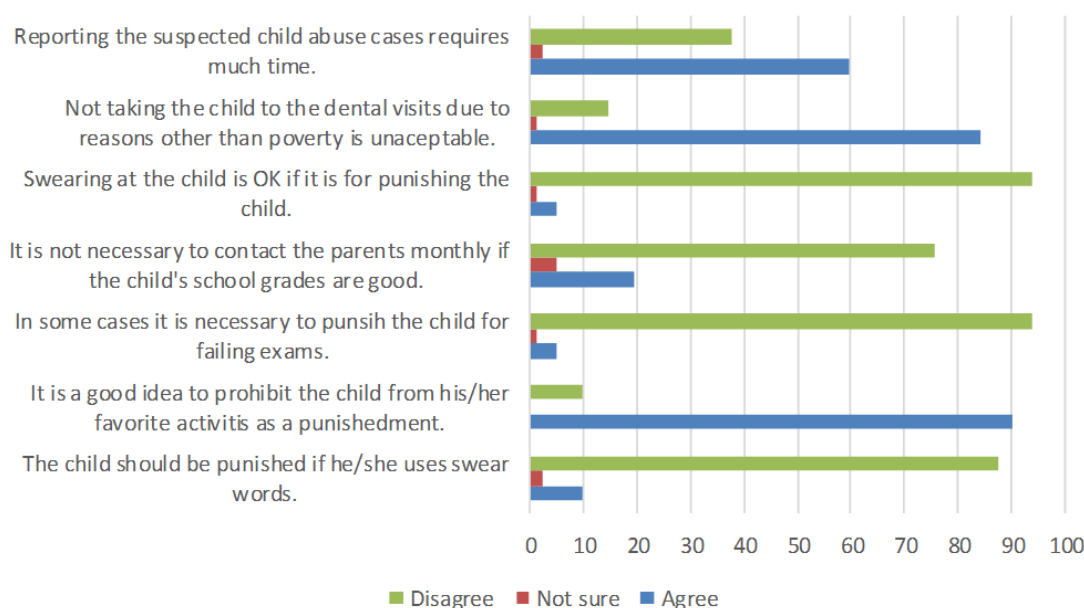


Figure 1: The frequencies of participants in terms of their attitudes toward child abuse.

Table 2: Comparison of the knowledge, attitude and practice scores of the participants in terms of their scientific degree

	General dentists (mean±SD)	Pedodontists (mean±SD)	p Value
Knowledge	9.78±2.72	10.93±2.49	0.007
Attitude	41.23±12.79	41.99±8.49	0.526
Practice	2.82±1.09	2.72±0.97	0.675

The knowledge scores were compared based on the participants' attitude and practice level (poor, moderate, and good). In the group with good attitude, the knowledge score was significantly higher than the other two groups ($p=0.005$) (Table 3). In post hoc test (Tukey), only, the difference between the groups with good and moderate attitude was statistically significant. However, the knowledge scores were not significantly different between dentists with poor, moderate and good practice ($p=0.139$) (Table 3). There was no statistically significant difference between the mean of knowledge, attitude and practice scores and age, gender, job experience, the number of years since graduation from the university, the number of hours a week in the business and the work center ($p>0.05$).

Table 3: Comparison of the participants' knowledge scores in terms of attitude and practice levels (poor, moderate and good)

	No.	Mean(SD)	p Value
Attitude	Poor	26 10.68 (2.30)	0.005
	Moderate	124 9.93 (2.74)	
	Good	14 12.25 (1.76)	
Practice	Poor	70 10.32 (2.84)	0.139
	Moderate	56 10.63 (2.12)	
	Good	38 9.53 (3.02)	

Discussion

The results of the present study showed a moderate level of knowledge (mean score of 10.24 of a total score of 17) and practice (2.78 of a total score of 5) for the participants in relation to child abuse. However, pedodontists exhibited significantly higher scores of knowledge compared to general dental practitioners. In the field of attitude, the participants exhibited relatively low scores (a mean of 41.99 of a total score of 100) in relation to child abuse. There were no significant differences in attitudes and practice between the general dental practitioners and specialists.

The knowledge scores in the present study were lower than those reported by other studies in other countries, [12-13] that might be attributed to more accurate

education on child abuse during the study period and greater emphasis on making the students aware of different signs of child abuse and the psychological and physical injuries of child abuse in children. In addition, in some countries there is systematic cooperation between health-care agents, social-support systems and dental schools to promote awareness of dentists about issues related to child abuse. Furthermore, books and websites are available in relation to supporting these children, [13] that elucidate the role of dentists in this context, resulting in an increase in awareness in this respect. In a study by Garrousi *et al.* [1] the knowledge and attitudes of almost half of the specialists and pediatric postgraduate students in this respect were deemed good and sufficient. These results are not consistent with the results of the present study. Such a discrepancy between the results might be attributed to better education the specialists and pediatric postgraduate students have received in this respect, and a wider range of referrals and a higher number of patients during their studies compared to dental practitioners.

In another study, Garrousi *et al.* [11] evaluated the knowledge and attitude of general practitioners (GPs) in relation to child abuse and reported that 55% of GPs had insufficient knowledge about the identification of child abuse cases, consistent with the results of their study mentioned above and close to the results of the present study.

In the present study, there was also a significant difference in knowledge between general dental practitioners and pedodontists, consistent with the results of a study by Saied Moallemi *et al.* [16] Pedodontists are more likely to encounter child abuse cases due to the greater number of child patients referring to their offices. In addition, more attention is paid to the education of different aspects of injuries due to child abuse during specialty courses and lessons. Therefore, it appears logical that pedodontists will have more knowledge about child abuse compared to general dental practitioners.

The practice of the dentists participating in the present study was at a moderate level, which is better than the results of studies carried out in Scotland, Brazil, Kuwait and Denmark. [7, 17-19]

It appears despite the large number of child abuse cases, the authorities in the majority of countries do not believe it is a priority to prepare policies to prevent it.

[4] It appears better practice of dentists when they encounter child abuse and negligence necessitates the legal obligation to report such cases. In other words, greater attention to child abuse by policy-makers might guarantee the good practice of dentists and physicians when they encounter child abuse cases.

The attitude of participants in the present study toward child abuse was poorer than that in other studies. [12-13] It appears the important position of dentists in relation to the identification of child abuse cases should be elucidated and specific guidelines should be prepared in relation to the diagnosis and preparation of different child abuse cases. In the present study, the knowledge of pedodontists about child abuse was significantly higher than that of general dental practitioners; however, there was no relationship between knowledge, attitude and practice with age and gender, while some studies have reported a higher level of knowledge in female and younger dentists in relation to child abuse. [20-21] This might be explained by the fact that females are more involved and concerned with children due to their conventional role and young individuals accept milder and democratic parenting styles. [19]

Based on the results of studies in other countries, it appears older individuals use tougher parenting styles compared to younger individuals, which is affected by the dominant culture of the community. [22]

Age and gender were not influencing factors, which might be attributed to a change in the knowledge of educated individuals, the involvement of the mother and father or both parents in bringing up children in this specific group of the community or even other factors. This would necessitate further evaluations and studies in relation to different parenting styles in different levels of the community. The knowledge, attitude and practice levels of the participants were not different in terms of job experience, the number of years since graduation from the university and the number of hours a week in the business, which might reflect the shortcomings of medical education in relation to child abuse. Specific educations in relation to child abuse might lead to better identification of child abuse cases. [23-24] The results of the present study showed that dentists with good attitude exhibited high knowledge scores. In a study by Saied Moallemi, too, this was confirmed, in which increases in the knowledge level of dentists resulted in a

more proper attitude toward the importance of child abuse in dentistry. [16] Therefore, it appears increasing the dentists' knowledge through continuous education programs and greater attention to education and increasing students' knowledge might be useful in improving the attitudes in relation to reporting child abuse cases.

The majority of studies have shown the rate of reports on suspected cases of child abuse by dentists working in the public sector was higher than in private sector. [17, 25-26] This difference might be attributed to accurate supervision by authorities in public sector centers and fears of losing patients in the private sector centers. However, in the present study, the dentists' work center did not affect their knowledge, attitude and practice, that might be due to similar education of dentists all over the country, resulting in identical trend of identification and reporting of child abuse cases in all the private and public sector centers. In addition, lack of supervision and the role of medical universities in the country in relation to child abuse in the public sector centers are other factors involved. A different factor might be a lack of definite laws in relation to how to behave toward dentists who refrain from reporting cases suspected of child abuse. Based on previous studies, in Iran, similar to some other countries, [12] there are no specific laws for identification and bringing to justice the medical and dental personnel who do not report child abuse cases and it appears lawmakers have many shortcomings in this respect. Currently, the Islamic Parliament in Iran is reviewing legislation in relation to the necessity of reporting child abuse cases in private offices in the form of an act to support children and adolescents [27] and it is obvious that the necessary laws should be made in this respect. Finally, it should be mentioned that one of the limitations of our study was the sampling method, which is not representative compared to random sampling.

Conclusion

It is suggested that more efforts be made to improve knowledge, attitude and practice of dentists in relation to child abuse in order to decrease child abuse cases in the community.

To achieve such an aim, it is suggested that a specific course be incorporated into the educational curriculum of dentistry on the identification of different signs

of child abuse, the importance of identifying cases of physical and psychological child abuse, how to report different cases, how to take a history of injuries, and so on. In addition, practicing dentists should be educated through continuous education programs and conferences.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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