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# Perspectives towards child abuse and neglect among dental practitioners in Belagavi city: A cross-sectional study

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#### **Abstract:**

**BACKGROUND:** Child abuse (CA) is prevalent in every segment of society and is witnessed in all social, ethnic, religious, and professional strata. In this situation, dentists are in an ideal position to help detect signs of CA and should be able to recognize those signs.

AIM: To assess the perspectives toward CA and neglect among dental practitioners of Belagavi city.

**MATERIALS AND METHODS:** A cross-sectional survey was conducted among 102 dental practitioners. The data were collected by self-administered structured questionnaire. Data were analyzed using descriptive analyses for responses to each question, and Chi-square test was applied to test the association.

**RESULTS:** 59.8% had learned the topic of CA and neglect as a student. Overall, 16 participants have recognized suspicious case of CA and neglect in their dental office. Only 34.3% had knowledge regarding the findings pointing to CA and neglect, and 96% had reported that there are barriers regarding reporting the same. 93% are of opinion that the topic is of utmost importance and more training is required in this aspect.

**CONCLUSION:** Training and continuing dental education programs should be tailored to the specific needs of all professionals to diagnose, report, and prevent CA.

#### **Keywords:**

Attitude, child abuse and neglect, dental practitioners, knowledge

#### Introduction

Every child deserves a loving environment where they are not afraid of parental or elderly figures. In recent years, the community has become increasingly aware of the problem of child abuse (CA) in our society. CA is prevalent in every segment of society and is witnessed in all social, ethnic, religious, and professional strata. CA and neglect constitutes a pediatric, public health problem of enormous magnitude. CA in India is often a hidden phenomenon, especially when it happens in the home or by family members. Most of these crimes go unreported as numbers of cases of CA are hard to attain.

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Research has shown that parents/guardians, who abuse their children typically, change their child's physician frequently but are more likely to continue to visit the child's dentist. Dentists would typically see patients at least twice a year. This repeated and consistent contact with children, coupled with the high rate of injuries in the orofacial region (which is present in approximately 50%–75% of all reported cases of physical abuse), [5] gives dental care providers a unique opportunity to recognize and report suspected cases of child maltreatment. [4,5]

The term "Child Abuse" may have different connotations in different cultural milieu and socioeconomic situations. A universal

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definition of CA in the Indian context does not exist and has yet to be defined.

According to the WHO:[6]

# Physical abuse

Physical abuse is the inflicting of physical injury upon a child. This may include burning, hitting, punching, shaking, kicking, beating, or otherwise harming a child. The parent or caretaker may not have intended to hurt the child. It may, however, be the result of over-discipline or physical punishment that is inappropriate to the child's age.

#### **Emotional abuse**

Emotional abuse is also known as verbal abuse, mental abuse, and psychological maltreatment. It includes acts or the failures to act by parents or caretakers, who have caused or could cause serious behavioral, cognitive, emotional, or mental trauma. This can include parents/ caretakers using extreme and/or bizarre forms of punishment, such as confinement in a closet or dark room or being tied to a chair for long periods of time or threatening or terrorizing a child. Child neglect is commonly defined as a failure by a child's caregiver to meet a child's physical, emotional, educational, or medical needs.<sup>[7]</sup> Forms of child neglect include allowing the child to witness violence or severe abuse between parents or adult; ignoring, insulting, or threatening the child with violence; not providing the child with a safe environment and adult emotional support; and showing reckless disregard for the child's well-being.[8] According to the American Association of Pediatric Dentistry, child neglect is defined as "willful failure of parent or guardian to seek and follow through with treatment necessary to ensure a level of oral health essential for adequate function and freedom from pain and infection."[9]

India is home for 19% of the world's child population, with every fifth child in the world living in India. Forty-two percent of the Indian population is aged below 18. Some of the facts in India related to CA and neglect are discussed below.

India is a country with huge population, but birth registration is only just 62%. Every second child in India is underweight. Every third malnourished child in the world lives in India. 1104 lakh children are child labors in the country (sample registration office 2000). Immunization coverage is very low (polio - 78.2%, measles - 58.8%, DPT - 55.3%, BCG -78% [NFHS-III]). Decline in the female-to-male ratio is maximum in 0–6 years: 927 females per 1000 males. Women and children trafficking in India is high; the number of missing children in India is about 44,476. Three to

five lakh girl children are involved in commercial sex and organized prostitution. This is according to the survey carried out by the Ministry of Women and Child Development, Government of India, in 2007, and it was done in 13 states.<sup>[10]</sup>

In India, we may not be able to give such statistical numbers. In fact, of all the reported cases of CA and neglect, only 1% of the cases were reported by dentists. These findings raise questions concerning dentists' rationale for not reporting suspected CA or neglect. The plausible explanations could be a lack of or insufficient knowledge about professional responsibilities, concerning CA and neglect, and the other could be that dentists were not adequately trained and had not received the information needed to address CA and neglect professionally. One important piece of information that dental care providers and students may not have is concerned with their legal responsibilities, and especially how to proceed when they encounter suspected CA and neglect.<sup>[4]</sup>

Considering how damaging abuse and neglect can be to child's health, life, and development, medical professionals must act to detect, treat, and prevent it. Although dentists are able to detect injuries, there is a great lack of knowledge about how to report cases of CA to the authorities. It is interesting to establish guidelines for the detection and reporting of suspicious cases. Improved training in forensic and legal dentistry is needed, together with the establishment of detection and reporting protocols. The clinical signs detected in the case of CA and neglect include untreated caries, poor oral hygiene, traumatisms, burns, lacerations, and biting. Recognition of such signs and correct case history compilation are essential for the detection of CA. Thus, the present study was planned with an aim to assess the perspectives toward CA and neglect among dental practitioners of Belagavi city.

#### **Materials and Methods**

#### Study design

The present study is a descriptive, cross-sectional, questionnaire study conducted to assess the perspectives toward CA and neglect among dental practitioners of Belgaum city, Karnataka.

# **Ethical approval**

Ethical clearance was taken from the research and ethical committee (no: IL0213003-859) KLE VK Institute of Dental Sciences. Informed consent was obtained from each participant before starting the study.

#### Sampling method

Convenient sampling was done.

#### **Inclusion criteria**

- All registered dentist in Belagavi city
- Those who gave informed consent.

#### **Exclusion criteria**

Those who have not given informed consent.

#### Sample size

A total of 110 forms were given, but only 102 dental practitioners returned the forms filled; hence, the final sample constituted of 102 dental practitioners.

#### Pre testing of the pro forma

A self-designed questionnaire in English was used to collect the data. The questionnaire was reviewed by experts using face validity and content validity. Item rating and scale-level rating have been proposed for content validity. Scale content validity index (S-CVI) means the level of agreement between raters. S-CVI of  $\geq 0.78$  as significant level for inclusion of an item into the study. A pilot study was done among 10 dental practitioners to check the flaw and feasibility. The respondents were also asked for feedback on clarity of the questions and whether there were difficulty in answering the question or ambiguity as to what sort of answer was required. The participants who participated in the pilot study were not included in the final sample. Modifications were made in the questionnaire based on the results obtained from pilot study. Based on pilot study test-retest reliability and the correlation coefficient (*r*) values are considered good ( $r \ge 0.70$ ).

## Scheduling

• This study was carried out for a time period of 2 months from August 8, 2014, to September 30, 2014.

# Questionnaire

- 26-item questionnaire was prepared to collect th information regarding sociodemographic status, knowledge, and attitudes of dental practitioners toward CA and neglect
- The questionnaire was divided into three parts; among them, five were open-ended and 21 were closed-ended questions
- The first part comprised of sociodemographic data of the practitioners that is age, gender, education, year of experience, and place of work
- Second part of the questionnaire pertained to the knowledge and attitudes of the practitioners toward CA and neglect
- Third part comprised of photographs with clinical description.

# Collection of data

 The questionnaires were filled by the practitioners themselves. Color photographs were shown to the practitioners to identify the type of abuse • The questionnaire was distributed to the participants and collected on the same day.

# Data entry

It was determined that all correct answers were coded as 1 and wrong answers as 2. All those who answered don't know where coded as 3. The first, second, and third questions regarding age, gender, and education from the sociodemographic set, as well as second and ninth questions such as Have you ever recognized a suspicious case of CA or neglect in your dental office? If yes – please mention the type of abuse and What are the possible findings you can think in a CA/neglect case? from knowledge and attitude set could not be categorized as correct and wrong answers; hence, it was decided to analyze these five questions separately.

# **Statistical analysis**

Data were entered into Microsoft excel sheet. All scores were calculated; data analysis was done using SPSS for Windows 16.0 SPSS Inc. Chicago, IL, USA. Descriptive statistics and Chi-square tests were applied to generate the results.

#### Results

A descriptive, cross-sectional study was conducted to assess the knowledge and attitudes of dental practitioner's toward CA and neglect. A total of 110 forms were given, but only 102 dental practitioners returned the forms filled; hence, the final sample constituted of 102 dental practitioners. The data obtained from 102 participants were entered into Microsoft excel sheet, subjected to statistical analysis, and the following results were obtained. Among the total 102 dental practitioners, 71.6% (73) were males and 28.4% (29) were females. 31 (30.4%) had BDS and 71 (69.6%) had MDS degree. Among MDS, 50 (49.0%) had both clinic and college as their workplace, whereas among BDS, 39 (38.2%) owned clinic.

# Discussion

Maltreatment of children continues to be a major social and health problem. Abuse often results in countless tragedies involving the physical, cognitive, or emotional impairment of a child that may extend into adulthood. Dentists are in an ideal position to help detect signs of CA and should be able to recognize those signs (injuries to the mouth, lips, tongue or cheeks, fractures of the maxilla and mandible, oral burns, and maxillary labial frenum).<sup>[11,12]</sup> Dental health professionals continue to under-report CA, despite growing awareness of their potential role in detecting this crime.<sup>[13,14]</sup>

The present study was a descriptive, cross-sectional questionnaire study which consisted of 102 dental

practitioners of Belgaum city. Pretested and validated questionnaire was given to assess the knowledge and attitudes of dental practitioners toward CA and neglect.

Dentists who treat children regularly are more likely to attend a victim of abuse. However, it is widely believed that abuse is being under-reported by healthcare professionals, including the dental community. In the present study, it was seen that only 16% of the dentists had seen a case of suspected abuse in their dental office; similar results were reported by the study conducted by Ramos-Gomez *et al.*, 1998 on Californian dentists. [15]

Most of the respondents (80%) for this survey were found to have adequate knowledge of different forms of CA and neglect, which included physical, emotional, and sexual abuse, as well as neglect, in the questionnaire distributed. Results were consistent with the study done by John *et al.*, 1999.<sup>[16]</sup> It is a common finding that when an individual is attacked for whatever reason, the head and/or facial areas often are involved. This is because these areas are exposed and accessible and because the head often is considered representative of the whole being or self. Among the total participants, 35% answered the possible findings of CA and neglect, but >50% said that most of the lesions were seen on head, face, and neck. Similar results were shown in the study conducted by Cameron *et al.*, 1966.<sup>[11]</sup>

Most of the injuries from an accidental fall are uniplanar (i.e., located on the front surface of the body). This is much different from the typical injuries of physical abuse, which are multiplanar. The dentist should routinely question the child and the parent separately about what caused any observed injuries, and a staff member should be present to act as a witness. Dental professionals are obligated by law to document and maintain accurate records. These records provide documentation that is relevant to legal and forensic situations. In the present study, 64.7% of the dental practitioners were aware of documentation and reporting suspected cases, but this was less than the response obtained in the study conducted by Bsoul *et al.* in 2003 (84%).<sup>[17]</sup>

The present study on dental practitioners has identified clearly their strong interest in the subject of CA. This was evident in the high response rate of the participants and in the demand from >90% of the respondents for further specific information. This response was much higher than the study conducted by John *et al.*, 1999 (79%).<sup>[18]</sup>

Few respondents (35.3%) were aware that the current epidemiological reports of CA indicate that it is not more prevalent in particular socioeconomic groups and that the scope of the problem knows no social, educational,

or financial boundaries. Similar results were found in the study conducted by John *et al.*, 1999. [16]

Majority of the dental practitioners said that 90% are of opinion that there is a difference between discipline and physical abuse. They are of opinion that the child will not talk about the abuse in an effort to stop it. Similar results were seen in the study conducted by Al-Jundi 2010.<sup>[19]</sup>

As healthcare professionals, dentists should be especially sensitive to the need for protecting children from abuse or neglect. They must of course treat dental injuries. It is also important for dentists to know that they are legally mandated to report suspected CA or neglect. In the present study, 52.9% of the practitioners selected providers of services to children as the mandatory reporting agency followed by law enforcement officers (26.5%) and social workers (20.6%). Similar results were shown in the study conducted by John *et al.*, 1999. [16]

Reporting is initiated with a simple telephone call to the appropriate child protective service agency. The telephone call initiates a response by appropriately trained professionals, but the dentist should follow the call with a written report. Dentists are mandated to report based on "reasonable suspicion," and they are not responsible for any further investigation.<sup>[20]</sup> In the present study, 47% of the practitioners had chosen telephone as the best mode to report the cases to appropriate agencies followed by personally informing (39.2%), letter (8.8%), and e-mail (4.9%).

There are different reasons for dentists' hesitancy to report suspected cases. In the present study, majority of the practitioners said that their major reason for hesitating to report was the lack of knowledge in referral procedure (45%). Other reasons cited were consequences to the child (15.7%) and concern about confidentiality (9.8%). Effect on work and fear of litigation were reported by less than one-third of the dentists. This was similar to the results obtained in the studies conducted by Owais *et al.*, 2009 and Bsoul *et al.*, 2003.<sup>[14,17]</sup> These findings highlight the need for mandatory training in the recognition and reporting of CA.

CA and neglect is identifiable in the dental office. When photographs with clinical description were given, most of the practitioners were able to identify physical abuse as correct answer regarding picture 1 and 3 followed by dental neglect with respect to picture 2. Knowledgeable practitioners must be able and willing to identify, document, and report suspicious cases of child maltreatment. Awareness of local child protective community resources and professionals can facilitate

Table 1: Responses regarding knowledge and attitude toward child abuse and neglect

Questions	Masters (MDS)			Bachelors (BDS)		
	Yes (%) No (%)		Yes (%)	N	0 (%)	
Have you come across the topic of child abuse and neglect when you were a student?	33 (32.4)	24	(23.5)	28 (27.5)	17	(16.7)
Have you ever received information, instruction, or training in diagnosing and reporting of suspected cases of child abuse and neglect?	7 (6.9)	50	(49.0)	1 (1.0)	44	(43.1)
Child abuse is an important topic and more information is required about this topic	54 (52.9)	3	(2.9)	45 (44.1)	(	(0.)
There is a difference between discipline and physical abuse	52 (51.0)	5 (4.9)		40 (39.2)	5 (4.9)	
Do you think more training regarding child protection is needed for dentists in this field			(6.9)	43 (42.2)	2 (2.0)	
	Yes	No	Don't know	Yes	No	Don't know
Child abuse and neglect is one of the most relevant causes of pediatric mortality. Mark your opinion	22 (21.6)	17 (16.7)	18 (17.6)	28 (27.5)	7 (6.9)	10 (9.8)
All licensed professionals are obligated in all states to document and report suspected cases of abuse	37 (36.3)	5 (4.9)	15 (14.7)	29 (28.4)	4 (3.9)	12 (11.8)
Do you think child abuse and neglect is primarily associated with the low socioeconomic strata (levels)?	26 (25.5)	21 (20.6)	10 (9.8)	26 (25.5)	15 (14.7)	4 (3.9)
More than 50% of child abuse and neglect lesions are on head, face, and neck $$	40 (39.2)	5 (4.9)	12 (11.8)	24 (23.5)	10 (9.8)	11 (10.8)
Do you think there is a strong correlation between dental neglect and the presence of physical neglect?	40 (39.2)	5 (4.9)	12 (11.8)	24 (23.5)	10 (9.8)	11 (10.8)
Emotional abuse consists of continual insulting of a child, name calling, shaming, and mocking in the presence of others	48 (47.1)	2 (2.0)	7 (6.9)	43 (42.2)	0 (.0)	2 (2.0)
The abuser is most commonly a stranger to the child.	9 (8.8)	39 (38.2)	9 (8.8)	5 (4.9)	38 (37.3)	2 (2.0)
Do you think failure to report child abuse is a crime	43 (42.2)	5 (4.9)	9 (8.8)	37 (36.3)	0 (.0)	8 (7.8)
Early reporting is encouraged so that the child may be removed from the home of abusive parents	30 (29.4)	6 (5.9)	21 (20.6)	33 (32.4)	8 (7.8)	4 (3.9)
Responses	Maste	ers (%)	Bachelo	ors (%)	To	tal (%)
Responses regarding abuse, in general						
Can be purposeful or involuntary act	4 (	3.9)	1 (1	.0)	5	(4.9)
May be partner related or abuse of a helpless child	3 (	(2.9) 3 (2.		.9)	6 (5.9)	
More than one of the above	30 (	(29.4) 31 (30		0.4)	61 (59.8)	
Don't know	20 (	) (19.6) 10 (9		9.8)	30 (29.4)	
Total	57 (	57 (55.9) 49		4.1) 102 (100)		2 (100)
Response regarding various types of abuse						
Sexual and physical abuse	2 (	2.0)	4 (3	.9)	6	(5.9)
More than one of the above	47 (	46.1)	39 (3	8.2)	86	(84.3)
Don't know		7.8)	2 (2	.0)	10 (9.8)	
Total	57 (	55.9)	45 (4	4.1)	102	2 (100)
Mandatory reporters of child abuse						
Providers of services to children	31 (30.4)		23 (22.5)		54 (52.9)	
Law enforcement officers	14 (13.7)		13 (1	2.7)	27 (26.5)	
Social workers	12 (11.8)		9 (8.8)		21 (20.6)	
Total	57 (	55.9)	45 (4	4.1)	102	2 (100)
Method chosen to report suspected cases of child abuse						
E-mail	3 (2.9)		2 (2.0)		5 (4.9)	
Phone	26 (25.5)		22 (21.6)		48 (47.1)	
Letter	6 (5.9)		3 (2.9)		9 (8.8)	
Personal	22 (21.6)		18 (17.6)		40 (39.2)	
Total	57 (	55.9)	45 (4	4.1)	102	(100.0)
Barriers in reporting child abuse and cases						
Yes	52 (51.0)		44 (43.1)		96 (94.1)	
No	5 (	4.9)	1 (1	.0)	6	(5.9)
Total	57 (	55.9)	45 (4	4.1)	102	(100.0)
Various barriers pointed out in reporting child abuse and neglect cases						
No barriers	6 (	5.9)	1 (1	.0)	7	(6.9)

Contd...

Table 1: Contd...

Questions	Master	Bachelors (BDS)			
	Yes (%)	No (%)	Yes (%)	No (%)	
Lack of certainty in diagnosis	3 (2.9)	6 (5.9)		9 (8.8)	
Lack of knowledge in referral procedure	26 (25.5)	20 (19.6)		46 (45.1)	
Consequences to child	7 (6.9)	9 (8.8)		16 (15.7)	
Concern about confidentiality	5 (4.9)	5 (4.9)		10 (9.8)	
Fear of negative impact on dental practice	6 (5.9)	1 (1.0)		7 (6.9)	
Fear of litigation	3 (2.9)	3 (2.9)		6 (5.9)	
Reporting is against my social norms	1 (1.0)	0 (0.0)		1 (1.0)	
Total	57 (55.9)	45 (44.1)		102 (100)	

interaction with the legal system and improve the ability to appropriately protect abused or neglected children. [Table 1].

#### Limitations

- The findings are based on self-reports and rating self-reported measures are commonly used in cross-sectional studies, but are subject to over estimation and recall bias
- Dentists who lack knowledge on the topic of CA or how to approach the reporting of abuse may feel uncomfortable in answering a survey on the topic and thus may choose not to participate.

#### **Summary**

A descriptive, cross-sectional questionnaire study was conducted to assess the perspectives toward CA and neglect among dental practitioners of Belgaum city, Karnataka. A total of 102 dental practitioners constituted the final sample. Ethical approval was obtained from the institutional review board of KLE VK Institute of Dental Sciences Belgaum, Karnataka.

26-item questionnaires were prepared to collect information regarding sociodemographic status, knowledge, and attitudes of dental practitioners toward CA and neglect. The questionnaire was divided into three parts; among them, five were open-ended and 21 were closed-ended questions. The questionnaire was filled by the practitioners themselves. Color photographs were shown to the practitioners to identify the type of abuse. The questionnaire was distributed to the participants and collected on the same day. It was determined that all correct answers were coded as 1, wrong answers as 2, and don't know as 3.

The second and ninth questions (Have you ever recognized a suspicious case of CA or neglect in your dental office? If yes – please mention the type of abuse and What are the possible findings you can think in a CA/neglect case?) from knowledge and attitude set could not be categorized as correct and wrong answers; hence, it was decided to analyze these two questions separately. Data were entered in Microsoft excel sheet.

All scores were calculated, and data analysis was done using SPSS for windows 16.0 SPSS Inc. Chicago, IL, USA. Descriptive statistics and Chi square were generated.

In the present study, among the total 102 practitioners, 71.6% (73) were males and 28.4% (29) were females. Among the total practitioners, 31 (30.4%) were bachelors (BDS) and 71 (69.6%) were masters (MDS). 38.2% (39) of the bachelors (BDS) and 6.9% (7) of the masters (MDS) worked only in clinic, whereas 49% (50) of the masters (MDS) and 5.9% (6) of the bachelors (BDS) worked in both college and clinic.

Even though dentists considered themselves able to identify cases of children maltreatment, only 16% could identify a suspicious case in their dental office. The present study demonstrated that even though they could identify the types of abuse, >90% did not receive any instructions or training regarding CA and neglect and majority are of opinion that more training is mandatory about this topic. In view of the high likelihood of orodental injuries occurring in association with CA, most of them said that certain barriers are there in reporting these cases such as lack of knowledge in referral procedure (45%), consequences to the child (15.7%), concern about confidentiality (9.8%), and effect on work and fear of litigation. Overall study indicates that there is a need for further information and training at all levels of the dental profession in the recognition and reporting of CA and neglect.

#### Conclusion

All members of the dental team have a responsibility to respond to concerns and to share such concerns with their colleagues and with professionals in other fields who are able to respond appropriately.

Multidisciplinary management and long-term follow-up of cases with abuse and neglect are recommended. Neglect, in general, and dental neglect, in particular, are the least known and detected types of abuse, even though they are the most frequent ones.

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There is a need for further information and training at all levels of the dental profession in the recognition and reporting of CA and neglect.

Awareness campaigns, designed to awaken not only physicians and dental professionals but also parents and society, in general, could reduce the frequency of dental abuse and neglect.

As a moral responsibility to care for children and young people, members of the dental team have both professional and legal requirements to work with other agencies to safeguard and promote the welfare of children.

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#### Conflicts of interest

There are no conflicts of interest.

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