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# Dental Graduates Awareness of Child Abuse and Neglect (CAN)

**Aron Arun Kumar Vasa[1*], Suzan Sahana[1], Kotha Ravichandra Sekhar[1], Bapurapu Rajaram[1], Pusphalatha[1] and Sowjanya Vemulapalli[1]**

*[1]Department of Pedodontics and Preventive Dentistry, St. Joseph Dental College, Eluru – 534 003, Andhra Pradesh, India.*

***Authors' contributions***

*This work was carried out in collaboration between all authors. All authors read and approved the final manuscript.*

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## ABSTRACT

**Aims:** To assess the knowledge and attitude of dental graduates regarding identification of child abuse and neglect (CAN).
**Study Design:** This study included Dental graduates from Krishna and West Godavari districts of Andhra Pradesh, India. A questionnaire with 15 questions about Dentists' attitudes, Dentists' knowledge on "Child Abuse and Neglect" was made. Two hundred randomly selected dentists who have minimum five years of clinical experience were selected from Indian Dental Association data base and questionnaire was sent to them by post with return postage paid.
**Place and Duration of Study:** Department of Pedodontics & Preventive Dentistry, St. Joseph Dental College, Duggirala, Eluru. Between June 2014-November 2014.
**Methodology:** In an effort to understand the dental graduates' mindset in an ever changing scenario so that children can be identified and rendered proper care at the right time in the right

**Corresponding author: Email: vasaaron@gmail.com;*

way. Questionnaires were sent via post to two hundred dental graduates with minimum of five years working experience, working in both public and private sectors. Questionnaire contained three sections with a total of 15 questions. The response formats were tabulated and analyzed statistically.

**Results:** Hundred and seventy dental graduates responded to the questionnaire.

**Conclusion:** The dentists who responded demonstrated an overall poor understanding about the problem of Child Abuse and Neglect, despite a very high level of interest showed by them for further information about their responsibilities.

*Keywords: CAN; child abuse; dentists' attitudes; dentists' knowledge; questionnaire.*

## 1. INTRODUCTION

Maltreatment of children is one of the major social problems and is a globally prevalent phenomenon [1]. However, in India, as in many other developing countries, there has been no understanding of the extent, magnitude and trends of the problem. The growing complexities of life and the dramatic changes brought about by socio-economic transitions in India have played a major role in increasing the vulnerability of children to various and newer forms of abuse [2].

Child Abuse and Neglect (CAN) often results in countless tragedies involving the physical, cognitive or emotional impairment of a child that may extend into adulthood [1]. According to WHO (1999) Child abuse or maltreatment constitutes all forms of physical and/ or emotional ill treatment, sexual abuse, or negligent treatment or commercial or other exploitation resulting in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship, trust or power [2]. Four types of child abuse may be recognized: (a) physical abuse, which occurs when a child suffers or is likely to suffer significant harm from an injury inflicted by the child's parent or caretaker; (b) sexual abuse, which is the exploitation of the child for the sexual gratification of an adult; (c) emotional abuse, which occurs when a child's parent or caregiver repeatedly rejects the child or uses threats to frighten the child; and (d) neglect, which is a failure of the parent or caretaker to provide for the child's basic needs such as food, clothing, shelter and medical attention to the extent that the child's health and development is, or is likely to be, significantly harmed [3].

The long-term effects of child abuse are painful and damaging. Victims are at higher risk of becoming violent adult offenders. They often experience more social problems and perform less well in school. Survivors of sexual abuse tend to harbor feelings of low self-esteem and extreme depression and often experience a higher than normal incidence of substance abuse and eating disorders. Experts predict that violence toward children will continue to rise and have a significant impact on the social system. Hence efforts should be made by all citizens to intervene and stop child abuse [1].

Protection of children who are at risk of abuse and neglect is a responsibility shared by different groups of professionals and dental profession is one of them. Dentists are in a unique position to identify the child abuse as they may be the first health care professional the child comes to contact after either abuse or for routine dental check-up. Dental professionals also have regular contact with children and families, some of whom will have no other contact with healthcare services. Physical abuse often manifested by oro-facial trauma and trauma to head and neck region [4,5,6]. Recording detailed history can be an important factor in detecting the child abuse, other factors which help in detecting child abuse include poor nutrition state, extra-oral injuries, bruises, abrasions, cigarette burns, friction marks, bite marks, bald patches (where hair has been pulled out), injuries on extremities or on the face, eyes, ears, or around the mouth. Findings on dental examination include, Typical Oral Lesions - include bruises, lacerations, abrasions, fractures. Tearing of the labial or lingual frenum, Oral mucosa torn from gingival, Loosened, fractured, or avulsed teeth, Previously missing teeth, Trauma to the lip, Trauma to tongue, other soft tissue injuries, fractures of the jaws and associated structures [7]. There is a large child population in India and a large percentage of this population is vulnerable to abuse, exploitation and neglect. There is also inadequate information about the extent of child abuse in the country [2]. Dental professionals are therefore in a good position to recognize and report suspected cases of abuse and neglect in order to safeguard and promote children's welfare [8].

Lazenbatt et al. [4] suggested that professional fear and anxieties and lack of Knowledge act as barriers to recognize and report abuse and that more specific education and support for primary care professionals is required. Many of these injuries are within the scope of dentistry or easily observed by the dental professional in the course of routine dental treatment. It is important to realize that all members of the dental team have a unique opportunity and a legal obligation to assist in the struggle against child abuse. However to our knowledge, there are no Cross-sectional studies among dental practitioners towards CAN in this part of the state. Hence the present survey was designed to be conducted among the dental graduates in West Godavari and Krishna districts, Andhra Pradesh, in order to assess the current status of their knowledge and attitudes about child abuse, to increase their awareness regarding child abuse and encourage the reporting of suspected cases.

## 2. METHODOLOGY

This study was conducted at the Department of Pedodontics and Preventive Dentistry, St Joseph Dental College, Andhra Pradesh. Two hundred randomly selected dentists who have minimum five years of clinical experience were selected from Indian Dental Association data base. A Questionnaire was prepared and was sent to them by post with return postage paid to dental graduates working in both public and private sectors in the provinces of West Godavari and Krishna districts. The questionnaire was written in English based on previous similar studies by John et al. [3] and Cairns et al. [6]. Questionnaire contained 15 questions related to child abuse and neglect with dichotomous and multiple choice options. Questions were divided into three sections to assess the: Awareness, Attitude and Knowledge of dental graduates. It also included a cover letter that was designed to survey the characteristics and demographics of the respondents. All participant data were coded to ensure confidentiality of information. Cluster random sampling was employed wherein first a sample of the clusters (population forms of a place) was selected and then randomly all units in each of the selected clusters were surveyed. To maximize the representativeness of the sample, the results analyzed were only those from the dentists who responded. The response formats for all sections included yes/no answers, multiple choice answers, or the selection of a response according to a five-point Likert scale which is considered reliable in providing an approximate ordering of respondents' concerns regarding a specific attitude [9].

## 3. RESULTS AND DISCUSSION

Response was received from One hundred and seventy dental graduates (approximately 85%) out of a sample size of two hundred, who completed the questionnaire.

Table 1 presents the demographics of the study sample. Most of them were females (68%). Over two third of the study sample were practitioners aged above thirty and the rest were in between 26-30 years. There is no data on those who refused to accept the questionnaire or those who took it but did not return it. From informal conversations, it was elicited that those who did not respond did not have the time or considered it a nuisance.

**Table 1. Survey respondents**

| | Number of respondents* | Percentage |
|---|---|---|
| Total | 170 | 85 |
| **Gender** | | |
| Male | 53 | 32 |
| Female | 117 | 68 |
| **Age (yrs)** | | |
| 26-30 | 39 | 22 |
| >30 | 131 | 78 |

** Not including missing values*

Table 2 shows the awareness of the participating dentists regarding child abuse and neglect. Almost all (89%) were aware of that and nearly half of them (44%) have encountered cases of CAN in their practice. Data showed that less than five cases a month were encountered by most of the dentists. More frequently seen was physical abuse (61%) followed by Educational abuse (21%) and Emotional abuse (12%). Least encountered were Sexual abuse and drugging/poisoning which accounted for only 3%. Most of the dentists recognized the cases of CAN through signs and symptoms (62%) and some of them noticed through the child behavior (33%). In the present study, a score of 80% was set as the cut-off between adequate knowledge and deficient knowledge [10]. Results of the previous similar studies in UAE, Saudi Arabia revealed that the knowledge among the dentists regarding the forms and indicators of CAN to be good [11]. However this can be attributed to the fact that respondents included were from the specialist category also and thus may have greater exposure to the literature on child protection.

Table 3 represents the knowledge of dental graduates regarding CAN. Most of them (84%) believed that socio-economic status plays a major role and is more commonly seen in lower income group which has been agreed by nearly all dentists (92%). More than half of the participant dentists said females are more likely to be abused and one fourth of them couldn't say which gender could be affected more. Children with either step mother/father are most commonly abused followed by families where parents are either divorcees or separated. Regarding identification of emotional abuse, most of the dentists (59%) made it out through isolation. Few of them could identify it through rejection (19%) and denial of affection (18%). Very less number of them (4%) could see terrorization in children who are emotionally abused.

In spite of encountering the cases of CAN, only 18% of the practicing dentists referred them while the rest 82% just ignored the cases. Among the referrals, most of them referred to medical professional (45%) followed by Pedodontists (22%), Women and child welfare and NGO's which accounted for 11% each. Least number of them referred to either Police or Psychiatrist.

In a study conducted in Jordan, it was reported that CAN occurred mostly in low socio-economic households, rather than in middle or high socio-economic classes [12]. Hobbs and Wynne [13] previously reported that low socio-economic status, poverty and temporary housing are highly and consistently linked to the incidence of CAN. Correspondingly nearly all the current respondents also conveyed that CAN was more common in low socio-economic classes.

Table 4 shows the attitude of dental graduates regarding CAN. All the suspected victims of abuse or neglect, including children in state custody or foster care, should be examined carefully not only for signs of physical trauma but also for oral injuries. Hence the questionnaire included queries on both physical and oral trauma. When asked on the kind of bodily injuries frequently encountered, around half of the respondents reported abrasions followed by burns as reported by one-third. Least reported were bite marks, bone fractures and other injuries. Among the oral injuries, oral ulceration has been noticed by most dentists (36%), oral bruises and fractured teeth account for around 27% each. Least commonly noted was Avulsion, Discoloured teeth and Fracture of jaw.

**Table 2. Awareness of dental graduates regarding CAN**

| Questions | Number of respondents* | Percentage |
|---|---|---|
| Total | 170 | 85 |
| **Are you aware of child abuse and neglect?** | | |
| a) Yes | 151 | 89 |
| b) No | 19 | 11 |
| **If yes, have you ever encountered a case of child abuse and neglect in your practice?** | | |
| a) Yes | 74 | 44 |
| b) No | 91 | 56 |
| **How frequently do you come across child abuse and neglect in a month?** | | |
| a) Less than five/month | 74 | 44 |
| b) Less than ten/month | 06 | 03 |
| c) No cases | 90 | 53 |
| **What type of child abuse do you encounter more frequently?** | | |
| a) Physical abuse | 89 | 61 |
| b) Sexual abuse | 04 | 03 |
| c) Emotional abuse | 18 | 12 |
| d) Educational abuse | 31 | 21 |
| e) Drugging/Poisoning | 05 | 03 |
| **How do you recognize a case of child abuse and neglect?** | | |
| a) Through a direct allegation | 07 | 05 |
| b) Through signs and symptoms | 98 | 62 |
| c) Through child behavior | 52 | 33 |

**Not including missing values*

**Table 3. Knowledge of dental graduates regarding CAN**

| Questions | Number of respondents* | Percentage |
|---|---|---|
| Total | 170 | 85 |
| **Do you believe socio-economic status plays a role in child abuse and neglect?** | | |
| a) Yes | 137 | 84 |
| b) No | 27 | 16 |
| **If yes, in which socio-economic strata is it more common?** | | |
| a) Lower income group | 124 | 92 |
| b) Middle income group | 09 | 07 |
| c) Higher income group | 01 | 01 |
| **Which gender children are more likely to be abused?** | | |
| a) Male | 23 | 14 |
| b) Female | 100 | 61 |
| c) Can't say | 42 | 25 |
| **Children from which type of families do you think are abused more commonly?** | | |
| a) Single parent | 09 | 06 |
| b) Divorcees/separated parents | 39 | 24 |
| c) Step mother/father | 109 | 66 |
| d) Working mother | 07 | 04 |
| **How do you identify emotional abuse?** | | |
| a) Isolation | 96 | 59 |
| b) Rejection | 32 | 19 |
| c) Denial of affection | 30 | 18 |
| d) Terrorization | 06 | 04 |
| **Have you ever referred a child abuse case?** | | |
| a) Yes | 29 | 18 |
| b) No | 135 | 82 |
| **If yes, to whom did you refer?** | | |
| a) Dental professionals (Pedodontist) | 06 | 22 |
| b) Police | 02 | 07 |
| c) Medical professionals (Pediatrician) | 12 | 45 |
| d) Women and child welfare | 03 | 11 |
| e) Psychiatrist | 01 | 04 |
| f) Non-government Organizations (NGO's) | 03 | 11 |

**Not including missing values*

**Table 4. Attitude of dental graduates regarding CAN**

| Sl no. | Questions | Number of respondents* | Percentage |
|---|---|---|---|
| 1 | **What kind of bodily injuries are frequently encountered?** | | |
| | a) Burns | 57 | 34 |
| | b) Abrasions | 79 | 48 |
| | c) Bite marks | 21 | 13 |
| | d) Bone fractures | 06 | 04 |
| | e) Others (specify) | 02 | 01 |
| 2 | **What kind of oral injuries are frequently encountered?** | 44 | 27 |
| | a) Fracture teeth | 04 | 02 |
| | b) Avulsed teeth | 06 | 04 |
| | c) Discolored teeth | 02 | 01 |
| | d) Fracture of jaw | 58 | 36 |
| | e) Oral ulceration | 46 | 28 |
| | f) Oral bruises | 03 | 02 |
| | g) Others (specify) | | |
| 3 | **Is multi-sectoral approach required for child** | | |

| Sl no. | Questions | Number of respondents* | Percentage |
|---|---|---|---|
| | **abuse and neglect?** | | |
| | a) Yes | 91 | 56 |
| | b) No | 46 | 28 |
| | c) Don't know | 27 | 16 |
| 4 | **Which agency do you think is appropriate to deal with child abuse and neglect?** | | |
| | a) Police | 07 | 04 |
| | b) Women and child welfare | 93 | 57 |
| | c) National human right commission | 33 | 20 |
| | d) Non-governmental Organizations | 08 | 05 |
| | e) Professionals (Pediatrics/Pedodontics) | 23 | 14 |
| 5 | **If detected a case of child abuse, what is your primary line of treatment?** | | |
| | a) Parent counseling | 64 | 39 |
| | b) Referral | 09 | 06 |
| | c) Treatment of presenting symptoms | 66 | 40 |
| | d) Refer to police as medico-legal case | 22 | 14 |
| | e) Ignore | 02 | 01 |
| **Total Responses** | | **170** | **85.00%** |

** Not including missing values*

Although more than half of the dentists agree that a multi-sectoral approach is required to deal with CAN, some (28%) of them disagree with this and few are not aware of it. Women and child welfare is the agency thought to be more appropriate to deal with CAN by most of the participants followed by National human-right commission, Professionals, NGO's and Police. The primary line of treatment after detecting a case of CAN was treatment of presenting symptoms as reported by most of dentists. Over one third of them would counsel the parents and few would report to police as Medico Legal Case (MLC) and then refer to others.

Despite the frequent occurrence of CAN among dental patients, most of the practicing dentists do not seem to fill their role sufficiently in child protection matters. One of the major problems in understanding the scope of the subject of 'child abuse' is that it is extremely difficult to get responses from children on such a sensitive subject because of their inability to fully understand the different dimensions of child abuse and to talk about their experiences. It is therefore difficult to gather data on abused children. The other reasons for ignoring the cases by most of the respondents might be due to the lack of knowledge and uncertainty regarding the availability of local social services for referral or may be due to fear of violence in the family towards the child. Uncertainty about referral procedures was also reported by Sonbol et al. [12] as a major concern that prevented dentists from reporting suspected cases at Jordan. "Lack of certainty about the diagnosis" was the second most barrier to referral as reported by Harris et al. [14] and Cairns et al. [6] Unfortunately, inadequate training in child protection is evident in this study too and therefore it is possible that there might be even larger percentage of practitioners who feel they have no legal obligation to report abuse.

As reported by Harris et al. [14] Interestingly, dental practitioners are not required to diagnose a case before making a referral; diagnosis is the shared responsibility of the child protection team and the team consists of a pediatric physician, a psychologist and a social worker.

## 4. CONCLUSION

This study of the knowledge and attitudes of dental graduates in West Godavari and Krishna districts about child abuse has demonstrated a overall poor understanding of the problem, despite a very high level of interest demonstrated by the respondents and a strong desire for further information about their responsibilities.

The study sample consisted fairly young dental practitioners, however further cross-sectional studies involving all the age groups of practitioners through out the country are required to understand the broader tends in dentists.

In view of the high likelihood of oro-dental injuries occurring in association with child abuse, and the low reporting of cases by the dental profession, this study has demonstrated a clear need for all dentists to receive further formal training in the form of national seminars, continuing

professional dental education in the recognition and reporting of child abuse for the Dental graduates.

The dental profession must become actively involved in the recognition of all types of child abuse. Although not currently mandated in all states of India to report the problem, all dentists should address their professional obligation to do so when confronted with a suspected case of child abuse, and should become fully aware of the appropriate reporting procedures in their location.

## CONSENT

All authors declare that written informed consent was obtained from the study participants for publication of this study and accompanying images.

## ETHICAL APPROVAL

All authors hereby declare that all experiments have been examined and approved by the appropriate ethics committee and have therefore been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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