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Sensitization of Dental Team Towards Management of Child Abuse and Dental Neglect

Pankaj Datta*

Sonia Datta**

*Principal, Professor & Head, Department of Prosthodontics & Dental Materials, Inderprastha Dental College & Hospital, Sahibabad, Ghaziabad, UP.

**Senior Lecturer, Department of Public Health Dentistry, Inderprastha Dental College & Hospital, Sahibabad, Ghaziabad, UP.

Abstract

This article aims to review the various forms of child abuse and neglect and its management in dental settings. Health, education and social services are placing increasing emphasis on preventing abuse and neglect by early intervention to support families where children and young adults may be at risk. The importance of an early recognition is based on the effective intervention. All members of dental team have a unique opportunity and ethical obligation to assist in identifying and reporting child abuse. They should be aware of the warning signs, recognizing what to consider as abuse or dental neglect and know how to deal with such cases. However, oral health professionals may not detect dental aspects of abuse or neglect, as readily as they do with symptoms and signs involving oral health and dental injury and disease. Therefore, dentists are encouraged to collaborate to increase the prevention, detection and treatment of these conditions.

Key words: Child abuse; Dental team; Dental neglect; Forensic odontology.

Introduction

The abuse and neglect of children is a worldwide problem, although its manifestations and extent vary. It is far more prevalent than is generally recognized.

This article intends to is to show every dental professional that a thorough understanding of their involvement in concerned issue can lead to a feeling that we can do something to stop this awful epidemic.

Child abuse can be defined as any non-accidental trauma, failure to meet basic needs or abuse inflicted upon a child by the caregiver that is beyond the acceptable norms of childcare in our culture. Abuse may cause serious injury to the child and may even cause death. [1], [2]

Such acts include physical, sexual, or emotional abuse, as well as physical neglect, inadequate supervision and emotional deprivation. [3,4]

Research over the past 40 years has shown that at least half and up to 75.5% of all physical injury in child abuse occurs in the head or neck region[5-7] [11–13].

Oral health professionals are one of the first healthcare providers to come in contact with the presumed victim of the abuse (3).[8] They probably have more chances to see those cases of hypodermal bleeding in faces, abrasions and mandibular fractures.

Dentists should be aware that physical or sexual abuse may result in oral or dental injuries or conditions that sometimes can be confirmed by laboratory findings. Furthermore, injuries inflicted by one's mouth or teeth may leave clues, regarding the timing and nature of the injury, as well as the identity of the perpetrator.

Corresponding author: Dr. Pankaj Datta, Principal, Professor & Head, Department of Prosthodontics & Dental Materials, Inderprastha Dental College & Hospital, Sahibabad, Ghaziabad, UP.

Email: pankajdatta97@gmail.com

Dentists are encouraged to be knowledgeable about such findings and their significance and to meticulously observe and document them. When questions arise or when consultation is needed, a pediatric dentist or a dentist with formal training in forensic odontology can ensure appropriate testing, diagnosis and treatment.[9]

Forms of child abuse

Physical abuse is defined as any physical injury on a child, inflicted by a person responsible for the child's care other than by accidental means; any injury that cannot reasonably be explained by the history of injuries.

Physical abuse by parents or caregivers includes beatings, shaking, scalding and biting. Physical abuse may also involve hitting, shaking, throwing, burning, drowning and suffocating.[10] Pathological presentations of minimal clinical relevance such as irritations, bruises, scratches and abrasions may in fact provide legitimate grounds for suspicion, or even certainty of the occurrence of abuse. It is assumed that the child is fully dressed during a dental examination. Nevertheless, areas like the side of the face, ears, neck, top of shoulders and forearms, should be explored during a dental checkup when there is a suspicion of abuse[5]. The detection and identification of skin lesions (TABLE 1) constitutes a basic step to be performed before they lose their medico-legal value or significance.

Some injuries may be reported by parents / teachers as accidental but are in fact bite marks. The correct identification of non-accidental lesions may permit and / or contribute to the demonstration of abuse arising from a violent interaction between individuals. Bite lesion examples in USA are related to bite wounds. Human bites are third common, after dog and cat bites[6].

Table 1: The physical signs of abuse

Spiral or greenstick fractures
Skull fractures
Hand and digital fractures, or metaphyseal (growth center) fractures Bruising in multiple locations or of varying ages
Finger marks on the victim's upper arms or identifiable patterns such as human bite marks [15].
Hot objects or water may be used to burn a child. High water marks from forcible immersion, especially with a lack of splash marks or the circular burns from a cigarette (1/2–1 cm diameter) all are highly suspicious [16].
Retinal hemorrhage,
Subdural hematoma and subgaleal hematoma, which is frequently caused by hair pulling
Poisoning or Munchausen syndrome by proxy is another subtle abuse process[12].

Orofacial injuries include:
Torn labial or lingual frenum,
Scarring of the lips,
Maxillary and mandibular fractures,
Fractures or avulsion of teeth
Multiple root fractures or
Unusual (likely trauma induced) malocclusion.

However, unintentional or accidental injuries to the mouth are common and must be distinguished from abuse by judging whether the history, including the timing and mechanism, is consistent with the characteristics of the injury and also the child's developmental stage. Multiple injuries, injuries at different stages of healing, or of a discrepant history should arise a suspicion of abuse.

Sexual abuse

When a child under 15 years old is the victim of criminal sexual conduct or threatened criminal sexual conduct by a parent, guardian, caregiver, or sibling. When a child is engaged in prostitution or when is the subject of pornographic materials.

Mental injury-Emotional abuse

Emotional abuse frequently occurs as verbal abuse (constantly yelling at insulting and criticizing a child), or as excessive demands on a child's performance, which result in a negative self-image on the part of the child or disturbed behavior. Emotional abuse also, includes the withholding of love and affection. Mental injury, usually the result of emotional abuse, is an injury to the psychological capacity or emotional stability of a child.

It is worth noting that these types of abuse are more typically found in combination than alone. A physically abused child, for example, is often emotionally abused as well and a sexually abused child also may be neglected. [2,3]

Bite marks

Bite marks should be suspected when ecchymoses, abrasions or lacerations are found in an elliptical or ovoid pattern. Bitemarks may have a central area of ecchymoses (contusions) caused by two possible phenomena: positive pressure from the closing of the teeth with disruption of small vessels; or negative pressure caused by suction and tongue thrusting [7].

Bites produced by dogs and other carnivorous animals tend to tear skin.

Whereas, human bites compress flesh and can cause abrasions, contusions and lacerations but rarely avulsions of tissue. An intercanine distance measuring more than 3.0 cm is suspicious of an adult human bite [8].

In addition to photographic evidence, every bite mark that shows indentations should have a polyvinyl siloxane impression made immediately after swabbing the bite mark for secretions containing DNA[11]. This impression will help provide a three-dimensional model of the bite mark. Written observations and photographs should be repeated daily for at least 3 days to document the evolution of the bite.

Child neglect

Child neglect is omission of care, such as health care, education, supervision, protection from environmental hazards, not meeting physical or emotional needs resulting in actual or potential harm. Neglect, from a child's perspective is also, not adequately meeting his basic needs, regardless of the reasons.

The actions against the victim do not involve physical infliction of pain. Rather they are the conduct of the parent or guardian of the minor resulting in nutritional deficits and omissive behavior such as negligence and neglect, including necessary medical and dental care [12].

Dental neglect, is the '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' [13].

However, many adults visit the dentist only when in pain for emergency treatment and choose not to return for treatment to restore complete oral health. This behavior is sometimes the

consequence of poor attention to self and professional oral care but can also be a consequence of financial difficulties in accessing dental services. Access to dental

treatments is, in fact, is most countries not covered by the national health services. However, they may adopt the same attitude for their children. The result of this behavior can be particularly painful in children affected by dental caries (severe early childhood caries), periodontal diseases, and other oral conditions, left untreated[14].

Risk factors

Child abuse can occur in all cultural, ethnic and income groups; in rich households and poor ones. About 95% of victims know their perpetrators. They are usually the primary caregivers.

Recognizing the problems underpinning neglect helps interventions to be tailored to the specific needs of the child and family [17,18].

patients and their families from the cycle of violence all too prevalent in society today.[4]

Recognizing

History

The history may be the single most important source of information. Because legal proceeding may follow, the history should be recorded in detail. Abuse or neglect should be considered when the history reveals the following:

- History of multiple injuries.
- The family offers an explanation that is not compatible with the nature of the injury. (i.e. if the dental injuries resulted from a fall, one would usually expected to also find bruised or abraded knees, hands, or elbow). [3]

Table 2: Risk factor in families in which abuse is more common: [4,10]

Those who are isolated and have no friends, relatives or other support systems.

- Parents who were abused as children.
- Those who are often in financial crisis.
- Parents who abuse drugs or alcohol.
- Parents who are very critical or with great expectations of their child.
- Parents who are very rigid in disciplining their child.
- Parents who show too much or too little concern for their child.
- Parents who feel they have a difficult child.
- Parents who are under a lot of stress, with lack of confidence or depressed.
- Teenager parents and unmarried mothers.
- Children with mental problems.

Role of dental team

The modern concept of health is a state of physical, mental and social wellbeing and not merely the absence of disease or infirmity. This is particularly important when dealing with children and the vulnerable.

The responsibilities of the dental team may be summarized as recognizing, recording and reporting of the suspected abuse to protect our

- Delay in seeking care for the injury.
- The family avoids discussing about the injury. [4]
- The parent refuses to cooperate with the planned course of treatment or refuses to be separated from the child.
- The parent takes the child from office to office or from one hospital emergency

room to another, so as to avoid the chances of recognition.

- Refusal to consent to diagnostic studies for the child.
- Parent behaves inappropriate to the child's condition; either overly concerned or generally apathetic.
- Parent persists in presenting symptoms unrelated to the obvious condition of the child. [2]

Of great importance is considered to be the victim's and the abuser's behavior. The abused child may appear unduly aggressive or may be withdrawn.

Interviewing

The objective is to promote a trusting relationship; discussing neutral topics and those of interest to the child (school, sport and hobbies) in order to get him D her to feel at ease and relax, thereby allowing the him/her to speak openly. For these reasons, it is important to provide an atmosphere of security and protection, minimizing sources of disturbance within the clinic.

Children often fail to report because of the fear, that disclosure will bring consequences even worse than being victimized again. We should tell them that, violence is not their fault and give them an opportunity to talk, while reinforcing that they are not alone. [19-21] If possible, we should interview the child with a witness present, but without family members in attendance, so the child may speak freely without fear of reprisal. We should use open-ended, non-threatening questions that require a descriptive answer rather than just a "yes" or "no" answer.

Then we should interview the parent separately from the child, ideally with a witness present and find out if the child's explanation is consistent with the parent's explanation. [10,22]

Recording

It is recommended that a second staff member witness and assist in the documentation of evidence. Written records should include the child's name, age and address as well as the name and address of the parent or whoever brought the child in for care. Also record the name of any staff member assisting in the examination. [2]

Documentation may involve written notes, photographs, radiographs, videotapes or audiotapes. [3]

Drawing the injuries on an anatomic diagram in the child's chart is recommended. Ideally, photographs should be taken with a 35mm camera with a macro lens. Both close-up and distant photographs should be taken. [2] It is important that the critical photographs include a ruler or scale held adjacent to the injury and on the same plane as the injured surface. [3]

Complete and accurate descriptions must be recorded in the child's dental record. Begin with the size, shape, color, location and radiographic description of the injury. Identify the number of injuries present at each site. Sketch the injury and the body part where it is located, if necessary.

Document all aspects of your interviews with the child and parent. Record verbatim the comments made by the child and parent explaining the injury. [3,10,23]

Reporting

If the child requires medical attention, referral should be made to the proper resource.[3] If the presence and appearance of the injury does not relate to the history of the injury and the explanation of its cause by both the child and the care-giver, suspected abuse must be reported. Reporting suspected abuse is not an accusation of abuse by the reporter. It is a call for help for the child and for the abuser.

The dentist's mission involves knowing the signs of child abuse and neglect and fulfilling the legal and moral obligation (box 3) to prevent further abuse by documenting the injuries and reporting the matter to the police, social welfare agency or local child protective service.

The most common reason for not reporting is uncertainty about the diagnosis, fear of litigation, unfamiliarity with symptoms, possible effect on the practice, reluctance to believe one could inflict cruelties on one's offspring and uncertainty about the reliability of the child's account of the injury.[3]

signs but also psychological and emotional behavior that may be clues to possible abuse.

However, incorrect or irresponsible accusations of child abuse can have a devastating effect upon the life of an innocent individual.

Therefore, in order to avoid misunderstandings and increase sensitivity, it is recommended to increase awareness and more training for oral health professionals in the area of behavioral and forensic science.

Table 3: Responsibilities of oral health professionals

To observe and examine any suspicious evidence that can be ascertained in the clinic.

- To record, per legal and court rules, any evidence that maybe helpful in the case, including physical evidence and any comments from questioning or interviews.
- To treat any dental or orofacial injuries within the treatment expertise of the dentist, referring more extensive treatment needs to a hospital or specialist.
- To establish/maintain a professional therapeutic relationship with the family.
- To become more familiar with the perioral signs of child abuse and neglect and to report suspected cases to the proper authorities, consistent with state law. [24]

Conclusion

The dental team can be an important resource in the field of child abuse and dental neglect as they could identify not only physical

References

1. Misawa S. Feature: Child Abuse and what Dentists can do. *Forensic Odontology Today* 2001; 5: 1.
2. Kenney JP, Spencer ED. Child Abuse and Neglect. In Bowers CM, Bell GL. *Manual of Forensic Odontology* 1995; 191-93.

3. Vale GL. Dentistry's role in detecting and preventing child abuse: In Stimson PG, Mertz CA. *Forensic Dentistry*. Boca Raton, N.Y: CRC press, 1997; 161-2.
4. Stavrianos C, Metska ME, Petalotis N. Child Abuse: It's Recognition by Dentists. *Balkan Journal of Stomatology* 2005; 9: 204-07.
5. Cameron JM, Johnson HRM, Camps FE. The battered child syndrome. *Med Sci Law* 1966; 2.
6. Kenney JP. *The incidence and nature of orofacial injuries in child abuse cases reported by selected hospitals in Cook County*, Illinois. Thesis. Chicago; Loyola University of Chicago, 1977.
7. DeFonseca MA, Feigal RJ, Ten Bensel RW. Dental aspects of 1248 cases of child maltreatment on mile at a major county hospital. *Pediatr Dent* 1992; 14: 152–57.
8. Nuzzolese E, Lepore MM, Marcario V. Legal bitemark evaluation: issues for the dental hygienist (article in italian). *Prevenzione & Assistenza Dentale* 2008; 3: 15–19.
9. Kellog N. Committee on Child Abuse and neglect: Oral and Dental Aspects of Child Abuse and Neglect. *Pediatrics* 2005; 116(6): 1565-8.
10. Stavrianos C, Metska ME. Child Abuse and Neglect. *Dental and Forensic Dental Aspect* 2002; 27-30 .
11. Feldman MD, Sheridan MS. Muchausen syndrome by proxy. In: RA Alexander, AP Giardino (Eds.). *Child Maltreatment, A Comprehensive Photographic Reference Identifying Potential Child Abuse*. St. Louis: GW Medical, 2005; 395–97.
12. Harris J, Sidebotham P, Welbury R et al. Child protection and the dental team, the Committee of Postgraduate Dental Deans and Directors. *COPDEND* 2006; 2: 1.
13. American Academy of Pediatric Dentistry. Definition of dental neglect. *Pediatr Dent* 2003; 25(Suppl.): 7.
14. Pretty IA, Sweet D. Anatomical location of bitemark and associated finding in 101 cases from United States. *J Forensic Sci* 2000; 45: 812.
15. Herschaft EE, Alder ME, Ord DK, Rawson RD, Smith ES. Bite mark analysis. In: Herschaft EE, Alder ME, Ord DK, Rawson RD, Smith ES, eds. *Manual of Forensic Odontology*. 4th edn. New York:American Society of Forensic Odontology; 2006.173–76.
16. Bowers C Michael. *Forensic Dental Evidence*. California, Elsevier;2004.
17. American Academy of Pediatrics, Committee on Child Abuse. Guidelines for the evaluation of sexual abuse of children: a subject review. *Pediatrics* 1999; 103: 186–191.
18. Mouden LD, Bross DC. Legal issues affecting dentistry's role in preventing child abuse and neglect. *J Am Dent Assoc* 1995; 126: 1173–80.
19. Mouden LD. Dentistry addressing family violence. *Missouri Dent J* 1996; 76(6): 21.
20. Mouden LD. Child abuse and dentistry: why you should know. *Missouri Dent J* 1994; 74(1): 33.
21. Needleman HL. Orofacial trauma in child abuse: types, prevalence, management, and the dental profession's involvement. *Pediatr Dent* 1986; 8: 71-80.
22. Sanger RG, Bross DC. *Clinical Management of Child Abuse and Neglect: A Guide for the Dental Professional*. Chicago, IL: Quintessence Publishing Co, Inc; 1984.
23. Mouden LD. The Dentist's role in detecting and reporting abuse. *Quintessence Int* 1998; 29(7): 452-455.
24. American Dental Association, Council on Dental Practice. *The Dentist's Responsibility in Identifying and Reporting Child Abuse*. Third edition. Chicago; American Dental Association, 1995.