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Editorial

Intersection of dentistry and child welfare through invisible scars of child abuse: Forensic odontology, the emerging field of dentistry

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A vigilant dentist can play a crucial role in promoting child welfare by recognising signs of child abuse and trauma. By staying attentive and collaborating with medical, social, and forensic experts, dentists can provide valuable support. This editorial discusses how observant dental surgeons can assist forensic odontologists in cases of abuse. It also highlights the role of forensic odontologists, the challenges they face, and their ethical responsibilities when handling child abuse cases. Forensic odontology is a vital discipline in both the identification and investigation of child abuse, offering unique scientific and clinical insights that often bridge gaps in medico-legal cases involving vulnerable children. Its function in these instances transcends clinical practice, including the identification, documentation, analysis, and reporting of abuse.

"Child abuse and neglect', as defined by the World Health Organization (WHO), include physical, emotional, and sexual abuse, as well as neglect and exploitation." "Center for Disease Control and Prevention (CDC) define child maltreatment as any act or series of acts of commission or omission by a caregiver that threatens or impairs a child."

1. How Dental Professionals Can Contribute to Stop Abuse

Dentists play an important role in identifying signs of abuse, as they regularly examine areas of the body that are most likely to show evidence of harm—the head, face, and mouth.

Because of this, they may be the first to notice injuries or behavioral signs that suggest a child is being mistreated. In cases of physical abuse,2 a child might have bruises, cuts, burns, or fractures that don't match their explanation or developmental stage. Common warning signs include torn lip or tongue frenula, unexplained broken teeth, facial swelling, or bruises shaped like a hand or an object. Signs of sexual abuse may include sexually transmitted infections, such as gonorrhea or herpes, found in the oral region. Emotional abuse might not leave visible marks, but children may show signs of neglect—like severe tooth decay, poor oral hygiene, or untreated dental pain—because their caregivers intentionally ignore their dental needs as a form of punishment or neglect. Dentists are uniquely equipped to identify indicators of abuse, which may encompass intraoral and extraoral signs such as contusions, lacerations, fractures, or bite marks.3 Forensic odontologists use their specialised knowledge to tell the difference between injuries that are caused by child abuse and injuries that are caused by accidents. They do this by using both clinical expertise and forensic protocols.2

Distinct characteristics, patterns, and histories associated with dental injuries act as warning signs that warrant additional inquiry, especially when the offered explanation is inconsistent with clinical observations.⁴

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1.1. Keeping and writing down evidence

Proper documentation and preservation of dental evidence are crucial for ensuring justice for the child and holding the perpetrator accountable. Forensic odontologists and paediatric dentists maintain very detailed dental records, including photos and X-rays, that can be used in future investigations or court cases.⁴

1.2. Collaboration across disciplines and reporting to the law

When it comes to child abuse cases, forensic odontology always needs people from different fields to work together. This includes paediatricians, forensic pathologists, social workers, legal authorities, and child protection units. Dentists and forensic odontologists have a moral and legal duty to "recognize, record, report, and refer the four R's of responsibility'.5 Reporting should be systematic and sensitive, with prioritisation given to the child's safety and welfare. Discussions with parents or guardians may be avoided if there is a risk to the child or the healthcare provider. Talking to different authorities makes sure that cases of abuse are thoroughly looked into and correctly diagnosed, which lowers the chance of missing or misreporting them.6 Dentists and healthcare teams need training and awareness programs to learn how to find, document, and refer cases.

2. Obstacles and Difficulties in Forensic Odontology

Even though more people are aware of child abuse and technology is getting better, dental professionals still have a lot of trouble identifying and reporting the observations. Many dentists feel unprepared or unsure when they have to deal with complicated diagnostic situations. For example, determining whether an injury was caused by an accident may require advanced forensic knowledge. Practical challenges include differential diagnosis, lack of forensic training, insufficient understanding of legal mechanisms, and concerns about breaching confidentiality or risking retaliation. Research indicates a deficiency in both undergraduate and postgraduate education regarding the recognition of dental indicators of abuse and the procedures for forensic documentation and reporting. Professionals may be afraid of legal consequences and social stigma, which can deter them from reporting or acting on suspicions. This exacerbates underreporting and leaves victims vulnerable to further abuse.8 Enhanced collaboration between medical and dental practitioners, standardised protocols, and ongoing education are essential to address these shortcomings.

3. Moral Duty and the Way Ahead

Dentists have a moral duty to protect children's rights and fight for justice in the healthcare and legal systems. Recognising, documenting, and reporting child abuse goes beyond individual clinical encounters; each case has the potential to affect the welfare of society as a whole. Every

dentist should be truthful and assist with medical-legal investigations because it is the right thing to do to protect innocent lives. Campaigns to raise public awareness, educational outreach, and active involvement with the law are all important for breaking the silence around child abuse. We suggest that professional organisations must strengthen protocols, guidelines, and training initiatives for forensic odontology concerning child abuse.

4. Summary

Dentists are the first to notice head and neck injuries that often involve dental tissues. Knowledge of forensic odontology is essential in the fight against child abuse because it connects clinical detection with legal action (**Figure 1**). The field requires not only technical skills but also a moral commitment to maintaining detailed records, collaborating with individuals from diverse fields, and consistently advocating for the rights and safety of children. Advancements in education, research, and interprofessional collaboration are essential for tackling this intricate and pressing issue—society must enable forensic odontologists to uncover concealed abuse and guarantee that every child attains justice and protection.

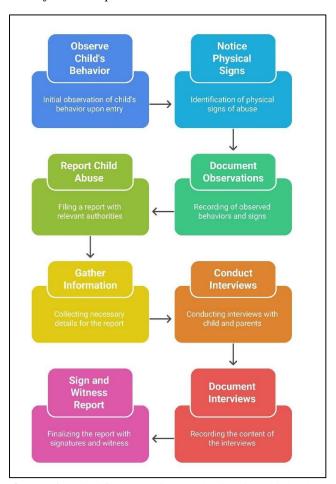


Figure 1: Significance of the dentist in child abuse recognition and documentation

The Women and Child Development Department (WCD) has a national toll-free number, 1098, dedicated to children in difficult situations. Calls can be received, with 49675 calls answered from 01.09.2023 to 11.11.2024. https://wcdhry.gov.in/

Reporting child abuse is crucial in order to protect these kids from more abuse. In certain instances, these victims might subject their own children to the same pattern of abuse. Such reporting is mandated by Section 21 of the POSCO Act, 2012, in addition to being necessary for ethical reasons. It is illegal to ignore a suspicion of child abuse. Furthermore, whether the information was obtained through professional duties or within a confidential relationship of information, reporting is still necessary.¹⁰

5. Source of Funding

None.

6. Conflict of Interest

None.

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