



# Challenges Faced by Dentists in Providing Dental Care to Children with Special Needs in India: A Comprehensive Review

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## **Authors' contributions**

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

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## **ABSTRACT**

Special care dentistry for children with special needs encompasses a range of conditions, including developmental, cognitive, and systemic disorders. There are significant inequalities in oral health among these children, highlighting the need for advancements in oral healthcare. To address these challenges, dental practitioners need specialized training, and policymakers need to consider the unique needs of children with special health care needs when developing dental care provisions. The objective of the review is to understand the challenges faced by dentists in providing dental care to children with special needs in India. The comprehensive review of challenges faced by dentists in providing dental care to children with special needs in India has shed light on several critical issues. The findings underscore the need for targeted interventions and policy measures to address the deficiencies in dental care for this vulnerable population. The findings have significant implications for improving dental care for children with special needs in India.

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## 1. INTRODUCTION

Special care dentistry for children with special needs encompasses a range of conditions, including developmental, cognitive, and systemic disorders [1]. These children often face barriers to accessing dental care, and it is crucial to establish preventive strategies from a young age [2]. However, there are significant inequalities in oral health among these children, highlighting the need for advancements in oral healthcare [3]. To address these challenges, dental practitioners need specialized training, and policymakers need to consider the unique needs of children with special health care needs when developing dental care provisions [4]. Special care dentistry also requires a patient-centred approach, with a focus on understanding the expectations of these children and making necessary adjustments [5].

Addressing the oral health needs of children with special needs in the diverse landscape of India is of paramount importance due to the heightened risk of dental diseases, such as dental caries and periodontal diseases, among this population [6]. Studies have shown that children with disabilities have a significantly higher burden of oral diseases due to factors such as lack of oral health knowledge and limited access to care [7]. Dental practitioners in India have identified the level of training and the lack of motivation of caretakers as significant barriers in providing dental care to children with special needs [8]. Children with special needs, including those with physical, developmental, medical, or neurocognitive conditions, require special consideration during dental treatment. Factors such as delayed tooth eruption, malformed or congenitally missing teeth, and difficulty in maintaining oral hygiene due to poorly aligned teeth contribute to the greater need for dental treatment among these children. In light of these findings, it is evident that children with special needs in India require focused attention and specialized dental care to address their unique oral health challenges. Efforts to improve the training of dental practitioners, increase awareness among caretakers, and provide accessible and tailored dental care for children with special needs are crucial in the Indian context. The objective of the review is to understand the challenges faced by dentists in providing dental care to children with special needs in India.

## 2. INSUFFICIENT EDUCATION AND TRAINING

The limited exposure of dentists to training programs specific to treating children with special needs is a significant issue [9]. This lack of training is particularly concerning given the increased risk for oral diseases in this population. Despite the recognition of this need, most dental schools provide limited educational opportunities related to the care of individuals with special needs [10]. Thierer et al emphasizes the importance of dental education in addressing this issue, suggesting that more education and training in special care dentistry can lead to better access to care for special needs patients. However, the specific approach to this education, whether at the pre- or postdoctoral level, remains a topic of debate [11]. The limited exposure of dentists to training programs specific to treating children with special needs in India is a significant concern, as evidenced by the following findings. A study conducted in Kerala, India, revealed that the greatest barriers perceived by dental practitioners in providing dental care to children with special needs were their level of training and the lack of motivation of caretakers [8]. This highlights the insufficient training and the need for specialized programs to equip dentists with the necessary skills and knowledge to effectively address the oral health needs of children with special needs. The study emphasized the importance of identifying these barriers as the first step in addressing the deficiencies in dental care for children with special needs, underscoring the critical need for targeted training programs to bridge this gap [8]. Additionally, a systematic review highlighted the difficulties faced during dental treatment delivery for children with special needs, emphasizing the necessity for enhanced training and support for dental practitioners to effectively manage the unique challenges presented by these patients [12]. The limited exposure of dentists to training programs specific to treating children with special needs in India underscores the urgent need for specialized training initiatives to better equip dental practitioners in addressing the oral health needs of this vulnerable population. Specialized education and training in paediatric special care dentistry are essential to ensure that dental practitioners are equipped to address the unique oral health needs of children with special needs. Specialized Training Requirements: The Commission on Dental Accreditation (CODA)

mandates that all oral health professionals receive didactic or clinical training on the oral health of persons with special health care needs. This underscores the importance of specialized training to ensure that dental practitioners are competent in providing comprehensive oral health care to children with special needs. Tailored Dental Care: Special care dentistry involves the delivery of dental care tailored to the individual needs of patients with disabling medical conditions beyond routine care. This highlights the need for dental practitioners to receive specialized training and clinical experiences that prepare them to be competent in providing all levels of oral health care to children with special needs. Barriers to Dental Care: Studies have identified the level of training as a significant barrier perceived by dental practitioners in providing dental care to children with special needs [8].

### **3. COMMUNICATION AND BEHAVIOURAL MANAGEMENT**

Communication barriers between dentists, children, and their caregivers can pose significant challenges in special care dentistry. A lack of understanding due to a limited command of the language used can be a significant barrier to communication between dentists, children, and their caregivers. This can lead to misunderstandings, unexpected outcomes, and a lack of valid consent for treatment. Children with special needs may experience heightened anxiety, which can make it difficult for them to process information provided by dental practitioners. This can lead to communication breakdowns and frustration for both the patient and the dental professional. Patients with communication disorders, such as hearing or visual impairments, may face difficulties communicating with dental practitioners, leading to a lack of access to care and a lower quality of care received. Patients with intellectual disabilities may require specialized communication techniques, such as augmentative and alternative communication, to facilitate effective communication with dental practitioners. Patients with dental fears may require tailored communication approaches to alleviate their anxiety and facilitate effective communication with dental practitioners [13]. Language barriers, emotional barriers, communication disorders, intellectual disability, and dental fears can all pose significant challenges in this domain. Dental practitioners need to be aware of these challenges and

employ specialized communication techniques to ensure effective communication and provide quality dental care to children with special needs.

Managing challenging behaviours exhibited by children with special needs during dental procedures can be a complex task. Children with special needs, such as those with physical, developmental, medical, or neurocognitive conditions, may exhibit challenging behaviours during dental procedures due to their unique conditions, which can make usual dental procedures more difficult. Children with special needs often have a greater need for dental treatment due to factors such as delayed tooth eruption, malformed or congenitally missing teeth, and difficulty in maintaining oral hygiene, which can contribute to the challenges faced during dental procedures. Communication difficulties, emotional barriers, and dental fears can contribute to challenging behaviours exhibited by children with special needs during dental procedures, making it essential for dental practitioners to employ specialized communication techniques and behavioural management strategies. The level of training and lack of motivation of caretakers have been identified as significant barriers perceived by dental practitioners in providing dental care to children with special needs, emphasizing the need for enhanced training and support in managing challenging behaviours [8].

### **4. SENSORY SENSITIVITIES AND ENVIRONMENTAL FACTORS**

Heightened sensory sensitivities in children with special needs can significantly impact their dental experience. Children with special needs may experience sensory overload in dental settings, which can lead to increased anxiety, fear, and difficulty in coping with dental procedures. Sensory overload can make it challenging for these children to remain still and cooperative during dental treatment. Children with special needs may have a lower pain threshold, making dental procedures more painful and distressing for them. This can lead to increased fear and avoidance of dental care, which can further exacerbate their oral health issues [12]. Heightened sensory sensitivities can also contribute to communication challenges, making it more difficult for children with special needs to express their feelings and needs during dental procedures. This can further complicate the provision of dental care and may lead to unmet dental needs. To address these

challenges, dental practitioners need to be equipped with specialized training and behaviour management strategies to effectively manage the unique sensory needs of children with special needs during dental procedures. Additionally, creating a familiar and supportive environment in dental clinics can help children with special needs cope better with dental treatment.

## 5. ACCESS TO DENTAL CARE

The limited availability of specialized dental services for children with special needs presents significant challenges. Children with special needs, such as those with physical, developmental, medical, or neurocognitive conditions, have a greater need for dental treatment due to factors such as delayed tooth eruption, malformed or congenitally missing teeth, and difficulty in maintaining oral hygiene. However, the limited availability of specialized dental services may result in unmet dental care needs for these children, leading to oral health disparities. Dental practitioners in Kerala, India, have identified the level of training and the lack of motivation of caretakers as significant barriers in providing dental care to children with special needs, emphasizing the challenges faced in accessing specialized dental services for this population [8]. A systematic review has highlighted the barriers faced by children with special needs during the utilization of dental services, emphasizing the challenges related to access to dental care delivery and the difficulties faced during dental treatment [12]. The provision of dental services for children with special health care needs requires a comprehensive oral health need assessment and oral hygiene improvement, emphasizing the necessity for tailored and accessible dental services to address the unique oral health challenges faced by these children [4].

## 6. LACK OF AWARENESS AND UNDERSTANDING

The lack of awareness among parents and caregivers about the oral health needs of children with special needs presents significant challenges. Children with special needs are at an increased risk of developing oral diseases throughout their lifetime, and there are significant inequalities and limitations related to oral health among these children. The lack of awareness among parents and caregivers about the oral health needs of children with special needs contributes to unmet dental care needs and limitations to the activities of daily living for these

children [3]. Children with special needs are considered to be a high-risk group for dental diseases, especially dental caries and periodontal diseases, emphasizing the critical need for increased awareness and understanding of their oral health needs among parents and caregivers [6]. Children with special needs, such as those with physical, developmental, medical, or neurocognitive conditions, face challenges in day-to-day dental care, making it essential for parents and caregivers to have knowledge and understanding about the significance of oral hygiene for these children. The lack of awareness among parents and caregivers about the oral health needs of children with special needs contributes to barriers in accessing appropriate dental care for these children, further exacerbating disparities in oral health care access and oral health status [8].

## 7. RESOURCE CONSTRAINTS AND TIME CHALLENGES

Dental practitioners may not have access to specialized equipment designed for children with special needs, such as dental chairs that can accommodate wheelchairs or sensory-adapted dental equipment. This can limit the provision of appropriate dental care for children with special needs. Dental clinics may not be designed to accommodate the unique needs of children with special needs, such as those with mobility or sensory challenges, leading to difficulties in accessing dental care [14]. The lack of trained personnel in specialized paediatric dentistry and special care dentistry can limit the provision of appropriate dental care for children with special needs. This can lead to unmet dental care needs and oral health disparities for this population. The cost of specialized dental equipment and facilities can be prohibitive, limiting access to appropriate dental care for children with special needs. This can further exacerbate oral health disparities and unmet dental care needs for this population.

Time constraints significantly impact the ability to provide comprehensive and patient-centred care in paediatric special care dentistry. The duration of dental procedures can influence children's behaviour and anxiety during and after treatment. Shorter appointments have been suggested as a cooperation-enhancing approach for paediatric dental patients, as children generally interpret longer treatment sessions as a sign of major problems that might cause significant anxiety [15]. Dentists may face time constraints due to various factors, such as insufficient remuneration

or perceived time limitations, which can impact their willingness to administer care to children with special needs. This can lead to limitations in the delivery of comprehensive and patient-centred care for this population [3]. Time constraints related to access to operating room time in hospitals for paediatric dental care can pose significant challenges, impacting the ability to provide comprehensive care for children with special needs. Time constraints serve as a structural barrier, particularly when parents may not have enough time to take their children to dental appointments, leading to disparities in the quality of paediatric dental care [16].

## **8. INTERPROFESSIONAL COLLABORATION AND LEGAL CONSIDERATIONS**

Collaboration in paediatric special care dentistry is crucial for providing comprehensive and effective care for children with special needs. Collaboration among dentists, healthcare professionals, educators, and specialists allows for a comprehensive approach to addressing the physical, emotional, and social aspects of a child's health. This holistic approach leads to more effective and personalized care for children with special needs. Collaboration enables the development of coordinated treatment plans that address the unique oral health needs of children with special needs [3]. These plans require active liaisons with healthcare facilitators and involvement from various professions to prioritize the oral health of these vulnerable children. By fostering collaboration, professionals can combine their unique expertise and perspectives, leading to better decision-making and improved outcomes for children with special needs. This interprofessional collaboration can enhance the quality of care provided to children with special needs in paediatric special care dentistry. Collaboration also extends to involving parents and caregivers in the care of children with special needs. Fostering open communication and collaboration empowers them to take an active role in their child's care, enhancing their understanding and engagement. Collaboration among dentists, healthcare professionals, educators, and specialists ensures continuity of care for children with special needs as they transition through different stages of their lives. This continuity of care is essential for addressing the evolving oral health needs of these children as they grow and develop.

Dentists face several legal and ethical considerations when treating children with

special needs. These considerations are crucial in ensuring the provision of appropriate and patient-centred care. Informed Consent: Obtaining informed consent from parents or legal guardians for dental treatment is a critical legal and ethical consideration when treating children with special needs. Respecting the confidentiality and privacy of children with special needs is essential, particularly when communicating with caregivers and other healthcare professionals involved in the child's care. Ethical considerations include ensuring equitable access to dental care for children with special needs, addressing disparities in oral health care access and oral health status [12]. Collaboration among dentists, healthcare professionals, educators, and specialists is essential for addressing the legal and ethical considerations in paediatric special care dentistry, ensuring a comprehensive and patient-centred approach to care.

## **9. SPECIAL CARE DENTISTRY PROGRAMS IN INDIA**

Education and Training in Special Care Dentistry - A Review" by the Centre for Dental Education and Research, AIIMS, India, 2008-2009. This review discusses the challenges in providing oral health services for people with special needs and the limited requirement for Special Care Dentistry in the undergraduate curriculum in many countries [17]. "Special Care Dentistry Lectures" by the Global Child Dental Fund. This series of video lectures has been created primarily for dental undergraduates studying in South East Asia and India. This open access learning resource aims to provide education and training in special care dentistry for dental students [18].

## **10. CONCLUSION**

The comprehensive review of challenges faced by dentists in providing dental care to children with special needs in India has shed light on several critical issues. The findings underscore the need for targeted interventions and policy measures to address the deficiencies in dental care for this vulnerable population. The findings have significant implications for improving dental care for children with special needs in India. Addressing the identified barriers, enhancing education and training, fostering collaboration, increasing parental awareness, and creating a sensory-adapted dental environment are crucial steps towards ensuring that children with special needs receive the appropriate and patient-centred dental care they require.

## CONSENT AND ETHICAL APPROVAL

It is not applicable.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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