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COMPREHENSIVE ORAL CARE FOR CHILDREN WITH SPECIAL HEALTHCARE NEEDS: A NARRATIVE REVIEW

Dental Science

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ABSTRACT

Special children often face unique oral health challenges, make it necessary for a multidisciplinary approach. This review aims to identify the most effective oral healthcare measures and advancements in treatment procedures for special children. A comprehensive analysis of 150 articles from PubMed and Google Scholar was conducted, focusing on multidisciplinary oral health care strategies. Our findings highlight the importance of collaborative care involving dental specialists, pediatricians, and other healthcare professionals in providing optimal oral health outcomes for special children. This review provides insights into the latest advancements and best practices in multidisciplinary oral healthcare, ultimately contributing to improved treatment outcomes for this vulnerable population.

KEYWORDS

Multidisciplinary healthcare, Oral health, Dental care for special children, Special children, Special care dentistry

INTRODUCTION

Oral health is a vital component of overall health and well-being, encompassing not only the health of teeth and gums but also the ability to eat, speak, and interact with others without pain or discomfort. However, oral diseases such as dental caries, periodontal disease, and tooth loss disproportionately affect vulnerable populations, including children with disabilities. These children often face significant barriers in accessing healthcare services, resulting in poor oral health outcomes, reduced quality of life, and increased risk of systemic health problems. Previous studies have reported that the prevalence of dental problems in children with SHCNs is same to other children of the same age.[1] However, the oral health of children with SHCNs usually deteriorates at faster rate than that of the general population. There are fewer restorations, more missing teeth and more untreated dental caries seen in children with SHCNs.[2,3,4] Moreover, a systematic review carried out by Davis and Anders (2010) emphasised that the prevalence of untreated dental caries and periodontal disease is comparatively much higher among those with SHCNs.[3] Oral health also has a significant impact on the psychological health of an individual. Poor oral health, for example, can result in reduced nutritional intake, impaired social interactions, difficulty in day-to-day activities and associated anxiety.[5,6]

Children with disabilities, including intellectual disabilities, autism, and cerebral palsy, are particularly susceptible to oral health issues due to a range of factors. These may include dietary habits, medication use, limited mobility, and difficulties with oral hygiene practices. Furthermore, these children often experience challenges in accessing dental care, including communication barriers, lack of specialized services, and inadequate support from healthcare providers. It's also important to consider that children with special healthcare needs may face unique challenges in understanding and practicing good oral hygiene.[7] Some may require additional support due to their age, medical condition, or living situation, relying on caregivers to manage their oral health.

Apart from the well stated importance of the oral health status of special healthcare needs children, delivering effective oral care to these children can be difficult and very challenging. These children often have persistent oral health needs that may go unaddressed, and accessing dental care can be difficult due to the interplay of their medical conditions, behavioral factors, and the need for family support.[8,9] This highlights the need for well-coordinated comprehensive approaches that includes taking care of the unique requirements of each child and their family. However, if caregivers lack awareness about the importance of oral hygiene, it can create barriers to providing effective care.[8] Therefore, educating caregivers and healthcare providers about oral health practices tailored to the needs of these children is crucial for promoting their overall well-being.[10] As a result, they are at higher risk of developing oral health problems, which can have far-reaching consequences for their overall health, well-being, and quality of life. It is essential, therefore, to prioritize the oral health needs of these children, ensuring they receive equitable access to preventive and curative services tailored to their unique requirements.[11] Although, significant advancements in dental care over the years have been seen, providing high-quality oral care to children with special healthcare needs remains a persistent challenge. This review seeks to synthesize existing knowledge on the barriers that impede the delivery of effective oral care to this vulnerable population, with the goal of identifying potential solutions to improve their oral health outcomes with the multidisciplinary approach.

Search strategy

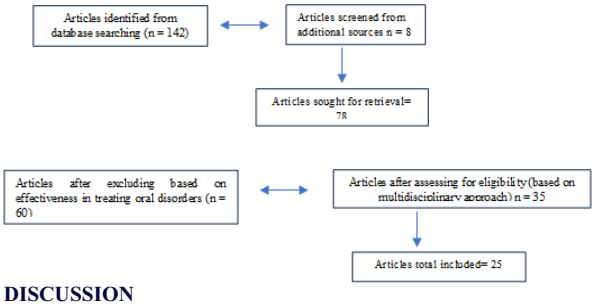
To identify key barriers and potential solutions, we conducted a targeted literature review focusing on oral health and dental care for children with special healthcare needs. We searched major databases, including MEDLINE and EMBASE, using relevant keywords such as “special health care” "oral health," "dental care," and "disabled children." This review aimed to separate and identify relevant research into actionable insights, focusing on synthesized evidence that could directly inform and improve oral care practices and service delivery for children with special healthcare needs, rather than conducting an exhaustive systematic review of all available literature.

Our goal was to gather synthesized evidence that could inform practice and service delivery for oral care in children with special needs. We prioritized studies published in English from 2005 onwards that addressed specific clinical circumstances, disabilities, or chronic health conditions in children under 18 and how a multidisciplinary approach is crucial in caring for children with special healthcare needs, as it brings together dental professionals, healthcare providers, and specialists to develop comprehensive treatment plans that cater to the unique needs of each child. By integrating expertise from various fields, we can improve access to care, reduce barriers, and enhance the overall oral health outcomes for these vulnerable populations.

The review examined evidence related to oral healthcare provision, care for children with special healthcare needs, and challenges in

delivering care, including access to services and managing behavior in both home and clinical settings. Our search yielded 150 database references and we screened 60 articles for their effectiveness in treating oral disorders. However, following further analysis, we discovered that a total of 25 articles provide interdisciplinary therapy options for disabled children.

This review primarily explored the systemic barriers and difficulties associated to oral healthcare for children with special healthcare needs. While there is a substantial body of research on barriers to oral healthcare access in general, studies specifically addressing the unique challenges faced by children with special healthcare needs are scarce. Our findings will be discussed within the context of this limited evidence base.



DISCUSSION

Historical Background

Historically, dental care for children with special needs was not a distinct focus area until the mid-20th century. Prior to and immediately after World War II, dental care was largely undifferentiated, driven by the high prevalence of dental caries and limited understanding of the unique needs of children with various health conditions. However, the late 1950s marked a turning point, with growing awareness and interest among dental practitioners in developing specialized approaches for individuals with additional healthcare needs.[12] This period came with the establishment of the Academy of Dentistry for the Handicapped, which was renamed the Academy of Dentistry for Persons with Disabilities.[13] The 1960s brought significant advancements, in providing comprehensive care, including specialized services for children with special needs, in collaboration with other medical and rehabilitative practices.

Oral Health Disparities and barriers in CSHCN

Children with special healthcare needs (SHCNs) are particularly vulnerable to oral health issues due to their unique challenges. Maintaining good oral hygiene can be a daily struggle for these children, and delivering effective oral care is crucial yet often difficult. Their complex medical and dental needs can create additional barriers to accessing suitable dental care, making it essential to tailor approaches to meet their specific requirements. Oral health disparities in CSHCN are well-documented, with higher rates of dental caries, periodontal disease, and other oral health issues.[14,15] These disparities are attributed to various factors, including limited access to dental care, inadequate caregiver education, and complex medical needs. CSHCN often require frequent hospitalizations, surgeries, and medical interventions, which can lead to neglect of their oral health needs. Furthermore, CSHCN may have difficulty cooperating with dental treatment due to physical, cognitive, or behavioral limitations.[16,17]

Comprehensive Oral Care Approach

A comprehensive oral care approach for CSHCN has to be introduced which should involves early intervention, prevention, and collaboration between dental professionals, medical providers, and caregivers. This approach requires a deep understanding of the child's medical and dental needs, as well as their unique circumstances.[18] Dental professionals must be aware of the child's medical history, including any allergies, medications, or medical conditions that may impact their oral health. Collaboration and coordination between dental professionals, medical providers, and caregivers are essential in providing comprehensive care for CSHCN. This may involve developing individualized treatment plans, sharing medical and dental records, and coordinating care to minimize hospitalizations and emergency department visits. Dental professionals should also communicate with medical providers to ensure that oral health needs are addressed in the child's overall treatment plan.[19]

Early Intervention and Prevention

Early intervention and prevention are critical components of comprehensive oral care for CSHCN. Regular dental visits, fluoride varnish applications, and caregiver education on oral hygiene practices can help prevent oral health issues. Dental professionals should also provide guidance on diet, nutrition, and oral habits to promote healthy oral development. Additionally, CSHCN may benefit from more frequent dental visits, depending on their individual needs and risk factors. Establishing a dental home and ensuring continuity of care are critical for CSHCN.[20] A dental home provides a consistent and supportive environment for the child, where their oral health needs are addressed in a comprehensive and coordinated manner. Dental professionals should work with caregivers to establish a dental home and ensure that the child receives regular and consistent care.[21,22]

Best Practices and Future Directions

Best practices for comprehensive oral care for CSHCN include early intervention, prevention, collaboration, and behavioral support.[23] Dental professionals should also prioritize caregiver education and empowerment, ensuring that they are equipped to provide optimal oral care for their child.[24] Future directions for research and practice include developing more effective strategies for preventing oral health issues in CSHCN, improving access to dental care, and promoting greater collaboration between dental professionals and medical providers.[25] Despite the importance of comprehensive oral care for CSHCN, there are several challenges and barriers to delivering high-quality care. These include limited access to dental care, inadequate caregiver education, and complex medical needs. Comprehensive oral care for children with special healthcare needs requires a multidisciplinary approach, incorporating early intervention, prevention, collaboration, and behavioral support. By adopting this approach, dental professionals can improve oral health outcomes, enhance quality of life, and promote overall well-being for CSHCN.

CONCLUSION

In conclusion, the provision of comprehensive oral care for children with special healthcare needs necessitates a multidisciplinary approach that integrates the expertise of pediatric dentists, specialists, and other healthcare professionals.[26,24] This collaborative approach enables dental professionals to address the complex medical and dental needs of these children, while also providing caregiver education and support to promote optimal oral health outcomes.[27] By working together, healthcare professionals can develop individualized treatment plans that cater to the unique needs of each child, ensuring that they receive the best possible care. Furthermore, a multidisciplinary approach facilitates the sharing of medical and dental records, coordination of care, and minimization of hospitalizations and emergency department visits, ultimately enhancing the overall quality of life for children with special healthcare needs. As emphasized by the American Academy of Pediatric Dentistry, a multidisciplinary approach is essential for providing high-quality care to children with special healthcare needs, and dental professionals must be equipped to manage the unique challenges and complexities associated with caring for this population.[27] By adopting a multidisciplinary approach and prioritizing collaboration, communication, and caregiver education, dental professionals can improve oral health outcomes, promote overall well-being, and enhance the quality of life for children with special healthcare needs.

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