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Special Care Dentistry: A Challenge to the Profession

Özel Bakım Diş Hekimliği: Mesleğin Karşılaştığı Zorluklar

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ABSTRACT
Special healthcare needs (SHCN) can be developmental, congenital or acquired through trauma, disease or environmental causes, which may limit activities related to daily self-maintenance. Approximately 1 billion people (15% of the population globally) have some disability or special need. Among the dental diseases, dental caries is the most common issue across various disability groups, having a prevalence rate between 27.55% to 91.90% globally, along with poor periodontal health (23.9% - 97%) and Traumatic dental injuries (12.1%-40%). Due to challenges of limited access, financial constraints, lack of trained dental professionals and insufficient awareness about oral health, children's dental problems go undetected, causing a substantial unmet demand for dental treatment later in adulthood. By increasing access to appropriate healthcare facilities, providing dentists with specialized training, and continually implementing new treatment methods, special children can be empowered to receive the dental care they deserve.
Keywords: Autism spectrum disorder, children with special healthcare needs, dental caries, intellectual and physical disabilities, oral health

ÖZ
Özel sağlık bakımı ihtiyaçları (ÖSBİ) gelişimsel, doğuştan veya travma, hastalık veya çevresel nedenlerle edinilmiş olabilir ve günlük öz bakımla ilgili aktiviteleri sınırlayabilir. Yaklaşık 1 milyar kişi (küresel nüfusun %15'i) bir miktar engelli veya özel ihtiyaç sahibidir. Diş çürükleri, çeşitli engellilik grupları arasında en yaygın sorundur ve küresel olarak %27,55 ile %91,90 arasında bir yaygınlık oranına sahiptir, ayrıca zayıf periodontal sağlık (%23,9- %97) ve travmatik diş yaralanmaları (%12,1- %40) ile birlikte görülür. Sınırlı erişim, finansal kısıtlamalar, eğitimli diş hekimlerinin eksikliği ve ağız sağlığı konusunda yetersiz farkındalık zorlukları nedeniyle çocukların diş sorunları tespit edilememekte ve yetişkinlikte diş tedavisi için önemli bir karşılanmamış talebe neden olmaktadır. Uygun sağlık tesislerine erişimi artırarak, diş hekimlerine özel eğitim sağlayarak ve sürekli yeni tedavi yöntemleri uygulayarak, özel çocuklar hak ettikleri diş bakımını almaları için güçlendirilebilir.
Anahtar Kelimeler: Ağız sağlığı, diş çürükleri, otizm spektrum bozukluğu, özel sağlık bakımına ihtiyaç duyan çocuklar, zihinsel ve fiziksel engelliler

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INTRODUCTION

Special healthcare needs (SHCN) involve "any physical, developmental, mental, sensory, behavioral, cognitive or emotional impairment or limiting condition that requires medical management, healthcare intervention or specialized services or programs.[1] The condition can be developmental, congenital or acquired through trauma, disease or environmental causes, which may limit activities related to daily self-maintenance or a major life activity. [2]Approximately 1 billion people, i.e. 15% of the global population, have some form of disability or special needs.[3] Based on a recent systematic review,[4] the Global Burden of Disease (GBD) estimate for Autism Spectrum Disorder (ASD) is around 0.4 % globally and a prevalence of 0.7% for higher-income countries. In India, the combined prevalence of autism varies from 14/10,000 to 12/10,000 in the rural to the urban population.[5] This is much lower than the figures of the United States (US) and the United Kingdom (UK). Another systematic review of the South Asian region (Bangladesh, India, Sri Lanka) reported prevalence rates of 0.09% to 1.07% for children in the 0- 17 age group.[6] ASD is the most common comorbidity, which is also associated with seizures and intellectual disability. Globally, 8.1 million children under five years old, or 1.2% of that demographic, are impacted by cerebral palsy (CP), while approximately 16.1 million, or 2.4%, experience intellectual disabilities. Most of these children

(about 98%) belong to low-income and middle-income countries (LMICs),[7] whereas the prevalence rate in high-income countries is just 0.6%.[3] The combined cerebral palsy prevalence in India is 2.95 / 1000 children.[8] According to a WHO report,[9] the global incidence of Down's syndrome is 1 in 1000-1100 live births. Based on the literature, 37,000 children with Down's syndrome are born annually in India, with an incidence of 1.4 in 1000 live births.[10] The GBD global estimate for intellectual disabilities is 3.1% and 0.7 % for epilepsy, while for attention-deficit hyperactivity disorder, it is 1.9% for children aged 0- 19 years. The prevalence of epilepsy varies from 3.2 to 5.5 per 1,000 children in developed countries to 3.6 to 44 per 1,000 in developing or underdeveloped countries.[11] Reports also suggest that 4% and 1.3% of the global population suffer from hearing and vision loss, respectively, and 7.1 % of the population suffers from developmental dyslexia.[3] Globally,1.4 million children below the age of 16 years have been reported to be visually impaired, of which about 75% belong to developing countries. Studies estimate the prevalence of blindness in children to be 0.3/1000 in developed countries and 1.5/1000 in developing countries.[12]

Meeting the oral health needs of these groups necessitates tailored interventions and specialized dental care services for this section of the population. Prolonged neglect of these oral issues can escalate into systemic complications. Enhancing dental care accessibility, bolstering awareness initiatives, and providing regular dental check-ups can be pivotal in mitigating and managing dental caries in this vulnerable population. This article reviews the literature on oral health issues in various groups of Special Children and explores the barriers to receiving oral health care. This paper also discusses the need to create a dental healthcare delivery system that is handicapped-inclusive so that individuals with disabilities may receive the dental attention they deserve.

METHODOLOGY

This article is a review study with the editor's invitation. Ethics committee approval is not required. The collection of statistical data is essential for improving oral well-being and quality of life in a population with special needs. Also, such data will aid in spotting vulnerable members in a community, establishing their dental requirements, developing preventive and remedial strategies, and tracking the improvement and fulfilment of their dental needs over time.[13] With this objective, dental literature was searched using databases like Pubmed, Scopus, and Web of Science. Studies related to dental caries, gingival or periodontal diseases, dental trauma, and malocclusion in "Children with Special Healthcare Needs (CSHCN)" were included. The broad-based search was performed individually with keywords: Dental Caries OR Dental trauma OR Early childhood Caries (ECC) OR Gingivitis OR Periodontal diseases OR Malocclusion, with the Boolean tool AND was done with the above keywords individually with the term "Special Healthcare Needs (SHCN)," in different possible combinations. We included epidemiological studies only in the English language till 2021. The prevalence of different oral diseases in various special groups has been summarised in Table 1.

Table 1. Dental issues in children with special healthcare needs.

Author/ Country	Special Health Group	Oral health problems	Prevalence
Brown et al.;[14] Saudi Arabia	Medically compromised	Dental Caries	Prevalence of caries was 91.90%; Mean DMFT Score was 9.91.
Roberts et al.;[15] Johannesburg, South Africa	Cerebral palsy, hearing, mental disabilities, Intellectually disabled	Dental Caries	Prevalence of caries 27.55% and 33.56% in the primary and permanent dentition, respectively; Mean DMFT Score was 3.58 & 3.85 in age groups of 4 -5 and 6 in hearing impairment group.
Ameer et al.;[16] Nalgonda, South India	Visually impaired, deaf and dumb, intellectually disabled, physically challenged	Dental Caries Oral Hygiene Periodontal status	Intellectually disabled group -highest plaque scores. Visually impaired and deaf and dumb -better oral hygiene compared with other disability groups. Individuals with physical disabilities exhibited higher loss of attachment scores and harmful parafunctional habits.
Anaise et al.;[17] Israel	Visually impaired	Periodontal and oral hygiene status	Visually impaired students showed a "*fair-to-poor level*" of oral hygiene (according to Greene & Vermil-

*DMFT: Decayed missing and filled teeth; TDI: Traumatic dental injuries.

Table 1. Continue.

Zahrakhanom Hashemi et al.;[18] Iran	Most frequent group of disability - mentally retarded	Caries experience, oral hygiene status, periodontal health	Mean DMFT score was 5.14. 90% of special children had gingival inflammation. No significant (P = 0.34) difference was found between caries experiences of different disabled groups.
Manish Jain et al.;[19] Udaipur, India	Hearing impairment	Dental Caries	Mean DMFT score was 2.61; High prevalence (83.92%) of decayed teeth
Venugopal K Reddy et al.;[20] Central India	Hearing impaired; visually impaired	Dental Caries Oral Hygiene Status	Mean OHI(S) score for Hearing and impaired group was 1.15 ± 0.72 while it was 1.51 ± 0.93 for the visually impaired children (P < 0.05) Mean DMFT scores among the hearing impaired and visually impaired groups were 1.4 ± 1.95 and 0.94 ± 1.45, respectively.
Singh et al.;[21] Rajasthan, India	hearing impaired visually impaired	Dental Caries Oral hygiene status	Mean DMFT scores in the deaf children and visually impaired children were:2.1 and 2.3, and DMFT values were:1.3 and 1.87 Oral hygiene status scores in visually impaired children and deaf children, respectively, were as follows: Good Category- 0.14 and 0.1; Fair category- 0.04 and 0.02; poor category - 0.22 and 0.33.
L Shaw et al.;[22] Birmingham, UK	Different types of handicapping condition, including mental retardation	Oral hygiene status; Periodontal treatment needs; Dental caries	Poorer levels of oral hygiene in special children (7%) as compared to normal children (3%); DMFT higher (1.85) in special school children in comparison to normal children (1.44);51% of the special children were in need of oral prophylaxis in comparison to 29 % of normal children
Bennadi et al.;[23] Mysore, India	Mentally disabled children	Oral hygiene status	Majority of children (36.73%) reported poor oral hygiene in comparison to normal children (9.18%)
Purohit et al.;[13] South India	SHCN	Dental caries, Malocclusion, Periodontal status	Higher prevalence of caries (89.1%), malocclusion (66.4%) and poorer periodontal status among special children as compared to the healthy control group.
Altun et al.;[24] Turkey	Mental Retardation, Autistic Disorder, Down Syndrome, Cerebral Palsy, Other	Dental Caries	Autistic children were found to maintain the best oral hygiene, and those children with mental retardation (MR) reported the poorest oral hygiene. Overall mean DMFT and DMFT scores: 1.18±2.11 and 1.58±2.72, respectively.
Khursheed et al.;[25] Mathura, India	Deaf and Dumb, Mentally retarded (MR), Down's syndrome, Learning disability, Complex group (Children who have multiple handicapping conditions or disabilities.)	Dental Caries; Oral hygiene status	Down's syndrome: highest prevalence of dental caries and poorest oral hygiene recorded on the Oral Hygiene -Simplified Index (OHI-S) as compared to other groups Mean DMFT Score: highest for Down's syndrome.
Gadiyar et al.;[26] Goa, India	SHCN	Dental Caries	Prevalence of caries - 68.60% DMFT for permanent dentition and primary dentition was 2.83 ± 3.23 and 0.35 ± 1.00, respectively
Prasad et al.;[27] Delhi, India	Visually impaired, Hearing and Speech impaired, and orthopedically physically challenged children	Dental Caries	Prevalence of caries 56.4%, higher in the visually impaired group (63.2%) and lesser in the speech and hearing-impaired group (51.7%)

*DMFT: Decayed missing and filled teeth; TDI: Traumatic dental injuries.

Table 1. Continue.

Schmidt et al.;[28] Germany	Physical or intellectual disabilities	Dental Caries	Prevalence of caries was 56.4% in deciduous teeth and 13.1% in permanent teeth. Mean DMFT Score was 2.11 in deciduous teeth 0.22 in
Pathak et al.;[29] Nepal	Visually impairment (16.5%), hearing and speech impairment (25.3%), and orthopedically challenged (58.2%)	Dental Caries	Overall caries Prevalence: 75.9%; Untreated dental caries was 62% Mean DMFT Score was 3.07
Alkhadra et al.;[30] Saudi Arabia	Autism Disorder; Down's Syndrome	Malocclusion	Higher incidence of class III malocclusion (66%) in DS Higher percentage of class I malocclusion (40-41%) in AD
A K Murthy et al.;[31] India	SHCN	Traumatic dental injuries [TDIs]	Prevalence of TDIs: 12.1 % among disabled children in comparison to 6.9 % among the control group
K Gerreth al.;[32] Poland, Europe	Epilepsy	Traumatic dental injuries [TDIs]	Crown's fracture of permanent teeth reported in 15.9% of all patients
A Dubey et al.;[33] India	Cerebral Palsy	Traumatic dental injuries [TDIs]	Dentinal fracture seen in 40% of cases.
R C H Habibe et al.;[34] Europe	Autism Spectrum Disorder (ASD)	Traumatic dental injuries [TDIs]	TDI prevalence in the ASD group higher (39.3%) than in the control group (26.2%)
Ola B Al-Batayneh et al.;[35] Jordan	Multiple disabilities, intellectual disabilities, cerebral palsy	Traumatic dental injuries [TDIs]	Highest among children with multiple disabilities (14.0%), followed by intellectual disabilities (13.1%), and then cerebral palsy (12.2%)
Munot et al.;[36] Chhattisgarh, India	Visual impairment	Traumatic dental injuries [TDIs]	39% suffered from TDIs.
Jaber et al.;[37] Dubai	Autism	Periodontal Status	Gingivitis was present in 97.00% of the autistic children.
Jnaneswar et al.;[38] Odisha, India	Hearing Loss	Periodontal diseases; Dental caries	23.9% of children had bleeding on probing, and 47.2% had calculus. Bleeding on probing- in 13.3% of female children as compared to 10.6% of male children. Total caries prevalence reported was 19.3%
S. Al-Sehaibany et al.;[39] Pakistan	ASD	Oral Habits	Prevalence of oral habits seen in 87.3% of special children. Bruxism was the most prevalent oral habit among them (54.7%) Prevalence of oral habits seen in 49.3% of the control group

*DMFT: Decayed missing and filled teeth; TDI: Traumatic dental injuries.

DISCUSSION AND CONCLUSION

Based on the published reports in the medical field, dental caries appears to be the most common dental issue across various disability groups, with rates ranging from 27.55% to 91.90% globally. Among individuals with disabilities in India, the prevalence of dental caries stands between 68.60% and 91.90%. While, developed countries report lower prevalence rates, ranging from 27.55% to 56.4%.[13-39] From the table, it can also be summarised those children with Down's syndrome showed the highest prevalence of dental caries and the poorest oral hygiene. They also had the highest mean DMFT scores and experienced significant oral health challenges. Children with Autism Spectrum Disorder (ASD) have a higher prevalence of gingivitis and traumatic dental injuries and also indulge more in oral habits like bruxism. Preschool and Early School Age group of 4-6 years was more frequently studied, mostly showing high DMFT scores and varying levels of oral hygiene. Males and females with disabilities show more or less similar prevalence rates for dental caries and periodontal problems. Few studies highlighted differences in oral health problems like bleeding on probing, which might vary slightly according to gender. Children from lower socioeconomic backgrounds, experienced poorer oral health outcomes as compared to the richer households. The elevated prevalence in India may stem from factors like restricted access to dental services, limited awareness regarding oral health, and socio-economic challenges typical of developing nations. The data also underscores the increased susceptibility to oral health problems within special needs populations, showcasing elevated prevalence rates of dental caries, traumatic dental injuries, periodontal diseases, and mal-

occlusion.[5]

Barriers to Dental care and Health Inequalities

One of the most significant health requirements that go unmet or untreated in children with disabilities is oral hygiene and dental care. Having a child with a Special Health Care Needs (SHCN) can often result in substantial caretaking demands and the burden of high healthcare expenses on the families, particularly on the families at or below the poverty level whose children suffer extensive impact. Due to unfortunate circumstances and insufficient awareness about their oral well-being, children's dental problems go undetected, which creates a substantial unmet demand for dental treatment later in adulthood. Inequalities in Oral health continue to affect CSHCN as they suffer from chronic physical, behavioural, developmental, or emotional ailments seeking healthcare and related services of a type or amount beyond compared to other children.[40] Most children below seven years of age need assistance from adult caregivers to maintain proper dental hygiene. Even after reaching the age of seven, kids with special needs, due to cognitive and physical limitations, often continue to require extra help and may face challenges in following tooth-brushing instructions. Due to the combined effects of poor oral hygiene, limited awareness among parents and children, and a huge financial burden on the family due to their other disabilities, such children show a high incidence of caries and gingival diseases.[41] The dental professionals should be aware of different needs- behavioural, physical, emotional, and cognitive that the patient with SHCN may have.

The proportion of unmet dental treatment demands is higher in children with special needs. There are many reasons the children with special needs have difficulty accessing dental health services. Moderate to severe dental anxiety is observed in patients with intellectual disabilities. Gordon et al.,[42] reported fear/ anxiety regarding dental treatment in 27.9 % of special children, with almost half of them being very nervous or terrified before going for a dental visit. In children with Down's syndrome, "Autism Spectrum Disorder", comorbidity, diminished cognitive functioning, sensory hypersensitivities (olfactory, auditory, visual or gustatory stimuli), and motor skills pose many difficulties in their dental care. Such patients are on certain medicaments that can interfere with local anesthesia or oral antibiotics and can result in adverse oral reactions. They often demonstrate unexpected and atypical reactions with oral or intravenous (IV) sedation, so in 40% of cases, dental treatment is possible under general anesthesia only.[43]

The unmet dental care needs of children with disabilities are also significantly influenced by socioeconomic constraints, with financially disadvantaged groups in society more likely to have unmet dental needs.[44,45] In addition to other challenges, patients with special needs frequently struggle to pay for their dental care, inadvertently raising roadblocks to dental care. In the USA, over 1.5 million individuals who are mentally retarded or developmentally delayed rely on Medicaid for their general health coverage, and this excludes dental treatment.[46,47] In India, we have seen several general health insurance policies in the market, but these do not cover preventive dental treatments. Individuals pay personally for dental services at government-funded and privatized dental centres because of a lack of dental insurance.[48]

There are also reports indicating a shortage of healthcare workers trained in special care dentistry. The dental professionals dealing with such patients lack sufficient knowledge and skills. In a study by Lakshmi Krishnan et al.[49] Also, nearly 84% of practising dentists reported inadequate training as a barrier to managing children with special needs at their private dental clinics. Similarly, according to Adhyanthaya et al.,[50] a similar lack of training was felt by 84.6% of dentists. This underscores the necessity for improved guidelines, recommendations, and training for treating children with special needs. Also, there is a lack of handicap-friendly dental specialised centres, especially in developing countries like India.[49,50]

Regional or geographic disparities have also been found in unmet dental care needs in CSHCN. The inequalities can manifest in various ways, such as differences in access to dental care, prevalence of dental diseases like cavities and gum disease, and disparities in oral health outcomes. These disparities often affect vulnerable and marginalized populations disproportionately. Addressing these oral health inequalities for special children requires comprehensive strategies that aim to improve access to dental care, promote preventive measures such as community-based oral health programs and education, address social determinants of health, and advocate for policies that prioritize oral health equity. By addressing these factors, irrespective of a person's background, disability, or circumstances, we can all strive to improve oral health conditions and lessen inequities. These findings can help in extensive healthcare initiatives at the local and state levels, particularly for individuals who are further marginalised, such as members of marginalised populations. Therefore, public health strategies should aim to overcome the lack of primary and dental healthcare providers in these communities.[44]

Clinical Guidelines and Recommendations for Special Dental Care

The need for specialized dental care for severely affected children with special healthcare needs (CSHCN) is evident from variations in the demand

for unmet dental care.[45] Classification of all CSHCN into one single category also creates problems with the term overlooking the fact that many CSHCN are not much different from healthy children in the context of oral health outcomes and associated behaviours. There is an urgent need to identify individuals with disabilities who have similar oral health needs and caries risks as healthy children to distribute expenditures to those who need them the most. Placing individuals with an intellectual or developmental disability and a well-controlled asthma patient into a single category would consider the same barriers to dental visits and tooth brushing, making it challenging to implement tailored interventions for these two different special needs categories.[51]

Since patients with SHCN are at an increased risk of oral diseases, the American Academy of Pediatric Dentistry (AAPD) has given specific recommendations for the management of the oral health of these children, which include scheduling appointments, thorough patient assessment with a focus on the medical and dental history, physician consultations, patient communication, prior formulation of an appropriate dental treatment plan, taking informed consent, behaviour management or guidance and most importantly, timely referrals if the patient's needs are beyond the practitioner's skills to prevent further health deterioration. Since most of the patients with special needs have poor periodontal health and higher caries incidence as their home-care abilities are compromised, hence basic dental therapies should be aimed at oral prophylaxis and periodontal care. A comprehensive oral hygiene regimen, including brushing, flossing, and gum massage, should be provided to caregivers or trainers of individuals with moderate, severe, and profound disabilities. Dental care should emphasize preventive strategies like brushing twice daily with a fluoridated dentifrice under the caregiver's supervision, fluoridated mouth rinses, electric toothbrushes, flossing, and a diet with low carbohydrates. Professional dental care involves pit and fissure sealants, topical fluorides and regular dental visits every 2 or 3 months.[52] For a more effective anti-caries treatment, the AAPD recommends Silver Diamine Fluoride (SDF) applications to control dental caries in children with special healthcare needs, especially those with compromised oral hygiene.[53] Soft tissue lesions like ulcers, mucoceles, fibromas, and papillomas can also manifest commonly in SHCN children. Frequent examinations in a dental home would enable the dentist to identify and address dental ailments before they become serious health problems.[54]

Preventive strategies should also focus on anticipatory guidance for traumatic injuries regarding the risk of trauma in patients with seizure disorders or motor disabilities, mouthguard fabrication for additional protection, and guidelines on what is to be done in case of dental trauma. Also, children with SHCN are at an increased risk of physical, sexual, or emotional abuse, dental, and general health neglect. So, pediatricians and dentists should be aware of the signs of abuse and the protocol and legalities of reporting such cases.[54]

Children with physical and cognitive disabilities commonly suffer from injuries around the head, face, and mouth. Injuries to primary anterior teeth are seen more frequently in them. When treating dental injuries in children with SHCN, it is crucial to approach the situation with sensitivity and understand their unique needs and circumstances. Pediatricians and dentists ought to provide proactive education to parents regarding the management of childhood injuries, emphasizing the critical timeframe between injury occurrence and seeking care to prevent potentially permanent damage. In cases of tooth avulsion, parents should be instructed to locate the tooth, handle it only by the crown, rinse it under cold water without scrubbing, try to reinsert it into the socket correctly or store it in cold milk or water before seeking immediate dental attention.[54]

Utilization of behaviour management methods like desensitization, effective communication strategies, positive reinforcement, and incorporating supportive devices or aids to ease dental appointments and foster cooperation should be incorporated throughout treatment sessions. For anxious patients, some additional behaviour management techniques include sensory-adapted dental environments, picture exchange communication systems, animal-assisted therapy, breathing exercises to calm the mind, biofeedback and nitrous oxide-oxygen inhalation. Some other advanced and extreme behaviour guidance techniques can include protective stabilization, conscious sedation and general anaesthesia. Healthcare providers must be aware of all alternatives' unique objectives, indications, instructions, and precautions in order to treat special needs children effectively.[55] Additionally, parents should closely supervise infants and children to prevent falls and potential injuries when they are on elevated surfaces such as chairs or furniture.[42]

The clinicians should update themselves with the latest guidelines for managing patients with special needs. They should upgrade their knowledge with appropriate skills and techniques to manage the unique demands of dental patients with disabilities and deliver efficient dental care. Performing a comprehensive evaluation of the child's medical background, oral health condition, cognitive capacity, physical constraints, and any particular requirements or obstacles they might encounter will form an integral part of the treatment approach. There needs to be a greater emphasis on preventive measures such

as oral hygiene education, regular dental examinations, and professional cleanings to minimize the risk of periodontal disease.[54]

In India, creating specific dental care guidelines for CSHCN is crucial. Challenges include limited access, financial constraints, and a lack of trained dental professionals. Addressing these issues will ensure that all children, including CSHCN, have equal access to quality dental care services.[49] As the number of people with disabilities rises, more dentists will face such patients in their routine practice. Proposed solutions include establishing specialized referral centres and revising national survey instruments to assess dental care needs and satisfaction better. Although it may appear initially challenging to provide for the requirements of patients with impairments, regular dentistry practices may readily integrate this type of care. Besides, the incorporation of Inclusive Dental Services can guide policy-making and legislation by ensuring that dental health strategies, legislation, and policies mandate equal access to dental services for all, irrespective of age, gender, or disability; capacity building by strengthening the capacity of individuals with disabilities and organizations supporting them to advocate for and promote inclusive dental services both in clinics and the community.[56]

In conclusion, ensuring that children with SHCNs receive optimal oral care requires a multi-pronged approach and a collaborative effort from various stakeholders, including healthcare providers, dentists, and researchers. By increasing access to appropriate healthcare facilities, providing dentists with specialized training, and continually implementing new treatment methods, special children can be empowered to receive the dental care they deserve.

Ethics Committee Approval: This article is a review study with the editor's invitation. Ethics committee approval is not required.

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