ISSN Print: 2394-7489
ISSN Online: 2394-7497
IJADS 2017; 3(1): 25-28

www.oraljournal.com
Received: 07-11-2016
Accepted: 08-12-2016

Anzil KSA
Senior Lecturer, Department of Community Dentistry, St Gregorios Dental College, Chelad PO, Kothamangalam, Ernakulam District, Kerala, India

Kiran M
Senior Lecturer, Department of Community Dentistry, St Gregorios Dental College, Chelad PO, Kothamangalam, Ernakulam District, Kerala, India

Keerthi L
Intern, Department of Community Dentistry, St Gregorios Dental College, Chelad PO, Kothamangalam, Ernakulam District, Kerala, India

Dinny D
Intern, Department of Community Dentistry, St Gregorios Dental College, Chelad PO, Kothamangalam, Ernakulam District, Kerala, India

Sudeep CB
Senior Lecturer, Department of Community Dentistry, Sri Anjaneya Dental College, Calicut, Kerala, India

Aravind A
Senior Lecturer, Department of Community Dentistry, Al Azhar Dental College, Thodupuzha, Kerala, India

Correspondence
Anzil KSA
Senior Lecturer, Department of Community Dentistry, St Gregorios Dental College, Chelad PO, Kothamangalam, Ernakulam District, Kerala, India

Dental care utilization and expenditures on children with special health care needs- A review

Anzil KSA, Kiran M, Keerthi L, Dinny D, Sudeep CB and Aravind A

Abstract
The American Academy of Pediatric Dentistry (AAPD) recognizes that providing both primary and comprehensive preventive and the therapeutic oral health care to individuals with special health care needs (CSHCN) is an essential part in the specialty of pediatric dentistry. The American Academy of Pediatric Dentistry values the unique qualities of each person and the need to ensure maximum health for all, regardless of developmental disability or other special health care needs. As we decide how much hospital resources should be allocated to comprehensive primary care clinics for children with multisystem disorders, it is important to consider all of the non-primary care revenue streams associated with these childrens.

Keywords: Children with special health care needs (CSHCN), the American academy of pediatric dentistry (AAPD), financial burden, family centered care, health expenditures

Introduction
The AAPD defines special health care needs as "any physical, developmental, mental, sensory, behavioral, cognitive, or emotional impairment or limiting condition that requires medical management, health care intervention, and/or use of specialized services or programs. The condition may be congenital, developmental, or acquired through disease, trauma, or environmental cause and may impose limitations in performing daily self-maintenance activities or substantial limitations in a major life activity. Health care for individuals with special needs requires specialized knowledge acquired by additional training, as well as increased awareness and attention, adaptation, and accommodative measures beyond what are considered routine." [5]
Children with special health care needs (SHCN) experience higher health care utilization and expenditures than the average pediatric population [2] These children often use more hospital days, emergency room visits, surgical or medical procedures, medical specialist visits, and home health days than non-SHCN children. This extensive use of services may create a financial burden for many families.

Dental Care in Special Health Care Children
Some of the reasons given for increased occurrence of dental caries in them are increased thirst, 'eating for consolation' or 'comfort' consumption of sweets and drinks and long-term consumption of medications in form of sweetened syrups [6, 10]. In contrast to dental caries, almost half of the children (46.3%) had good oral hygiene compared with lower proportions of those in earlier studies in this environment and elsewhere but among children from parents of lower educational background [8, 9, 11]. This shows that the educational status of parents has a positive effect on the dental care of persons with SHCN [12]. These individuals require help for oral hygiene performance irrespective of their medical condition in order to achieve good oral cleanliness [6]. The prevalence of dental disease tends to be affected by demographic factors [13]. More than half of the children with Down syndrome (DS) had class III malocclusion. Class II malocclusion was also more prevalent in those children with cerebral palsy [6]
The consequences of unmet oral health care needs include infection of the oral tissues, negative behavior and aggravation of concomitant medical conditions [15-17]. This group of children would also not be able to complain when in pain so the condition may go un-noticed until it reaches the acute phase. The children may also not cooperate in the dental chair. In this case other forms of behavior management methods maybe utilized by the attending dentist for effective delivery of care [6]

Table 1: Surveys conducted worldwide on children special health care needs

Authors	Description
1. Folakemi A Oredugba and Yinka Akindayomi [6]	The institution where this study was carried out is a private institution, therefore patronized mostly by parents from the upper and middle socioeconomic status. Twenty-four percent had attended the dental clinic for treatment previously. This finding shows a better exposure to oral health care services than those subjects from public schools (3.6%) seen in an earlier study from the same environment and of comparable age range [15]. It is expected that the higher the educational level of an individual, the better the health seeking behavior of that individual and the family members. The majority of the subjects were caries-free, although the proportion of caries-free subjects was relatively low compared with that of subjects with special needs in public schools (93%).
2 Lisa C. Lindley and Barbara A. Mark [2].	Children with SHCN and their families: Over nineteen percent of the families perceived a financial burden associated the health condition of their SHCN child. Almost a quarter of the families spent over $1000 annually on their child's medical care. More than half the families were 200% of federal poverty level (FPL) or greater. English was the most common language spoken in the home, and the highest education level in the household was on average more than high school. Over 50% of the families reported that they did not provide home care, need additional income, cut work hours, or stop working because of their child's health condition. A majority of children were male and almost 11 years old with approximately two health conditions. Sixty-three percent of the children had private insurance only and 75% were Caucasian.
3 Laura Sices, Jeffrey S. Harman, Kelly J. Kelleher [3]	Subjects were children and adolescents aged 5–17 years included in the year 2000. Overall, 234 children (4.3%) received special education services, and 819 (15.2%) were classified as CSHCN based on the CSCHN screener. Subjects were categorized into four mutually exclusive groups for the analyses. *Group 1.* Children dually classified as receiving special education and having SHCN *Group 2.* CSHCN not in special education. *Group 3.* Children in special education who were not classified as CSHCN *Group 4.* Children classified as neither receiving special education nor as CSHCN **Result** Health-care and mental health use Mean rates of health-care use were highest for dually classified children compared to the single classification or neither classification groups for most categories Health-care and mental health expenditures In general, the proportion of children with any expenditure in the different categories was highest for dually classified children, followed by the SHCN-only, special education-only, and neither classification groups.
4 Bindu V. Bhaskar, Chandrashekar Janakiram, Joe Joseph [1]	A cross-sectional study was designed to collect information from 331 differently abled children aged 6–14 years attending four special schools and 21 integrated schools in Kochi. The children were grouped into intellectually impaired (II), visually impaired, hearing impaired, and orthopedically handicapped. Result Oral hygiene status of most the differently abled children were found to be good. The mean DMFT value was found to be higher among the children with orthopedically handicap than others (1.62 ± 2.7). A higher mean dmft value was found among the II (2.81 ± 3.4). Unmet need for preventive (29%) and restorative (71%) treatments was observed. The significant barrier to dental care was financial difficulty (68.6%). Limited access to dental care among the children with disabilities was observed.
5 Amitha M. Hegde, Aiswarya Ann Babu, Anshad Mohammed, Anu John, Kanwardeep Singh, Preethi V C & Swathi Shetty [7]	The study was conducted in 3 special schools in Mangalore among the parents of 250 children with disabilities (50-mentally retarded children, 50-deaf and mute children, 50- autistic children, 50-blind children, 50-physically handicapped children). Result The views and attitudes of the parents regarding oral health and treatment needs were influenced by a number of factors. The level of knowledge regarding oral health appeared to be low and parents were not aware of the unique problems faced by these children. It was also noted that the parents had not received / attended programs on oral health. One of greatest obstacle faced by the parents in providing dental care included lack of awareness, financial and transportation facilities.

Expenditure of Dental Care in Special Health Care Children

The more severe the child's health condition, the higher the odds of the family perceiving financial problems. Children with moderate to severe SHCN may require expensive medications, medical supplies, and medical equipment which may not be fully covered by insurance and increase the family's out-of-pocket expenditures. Child health conditions such as emotional problems, heart problems, and joint problems also influenced family perception of financial burden.

Families that experienced reduced financial resources perceived greater financial burden, and often responded that they needed additional income to cover medical expenditures. Meeting the fiscal demands of health care expenditures may result in seeking other options. Those families unable to meet the fiscal demands may find personal bankruptcy the only remaining option [2].

Primary health care providers may influence access to dental care by oral health assessment and prompt dental referral. One of the current themes in disability policy is the promotion of partnership with all key stake holders including people with disabilities and their families and careers, such as this screening exercise. The establishment of relationships with family support groups to reach parents and other care givers will improve the oral health of the children.

1. Guidelines

1.1 Patient assessment

Familiarity with the patient's medical history is essential to decreasing the risk of aggravating a medical condition while rendering dental care. An accurate, comprehensive, and up-to-date medical history is necessary for correct diagnosis and effective treatment planning. As many children with SHCN may have sensory issues that can make the dental experience challenging, the dentist should be prepared to modify the

traditional delivery of dental care to address the child's unique needs. If the patient/parent is unable to provide accurate information, consultation with the caregiver or with the patient's physician may be required. At each patient visit, the history should be consulted and updated [22]. A summary of the oral findings and specific treatment recommendations should be provided to the patient and parent/ caregiver. When appropriate, the patient's other care providers (physicians, nurses, social workers) should be informed of any significant findings.

1.2. Medical consultations
The dentist should coordinate care via consultation with the patient's other care providers. The dentist and staff always should be prepared to manage a medical emergency.

1.3. Patient communication
When treating patients with SHCN, similar to any other child, developmentally-appropriate communication is critical. An attempt should be made to communicate directly with the patient during the provision of dental care. A patient who does not communicate verbally may communicate in a variety of non-traditional ways [20].

1.4. Planning dental treatment
The process of developing a dental treatment plan typically progresses through several steps. Before a treatment plan could be developed and presented to the patient and/or caregiver, information regarding medical, physical, psychological, social, and dental histories must be gathered and clinical examination and any additional diagnostic procedures completed [23].

1.5. Informed consent
All patients must be able to provide signed informed consent for dental treatment or have someone present who legally can provide this service for them.

1.6. Behavior guidance
Behavior guidance of the patient with SHCN can be challenging. Because of dental anxiety or a lack of understanding of dental care, children with disabilities may exhibit resistant behaviors [24].

1.7. Preventive strategies
Individuals with SHCN may be at increased risk for oral diseases; these diseases further jeopardize the patient's health.[19]Education of parents/caregivers is critical for ensuring appropriate and regular supervision of daily oral hygiene.

1.8. Barriers
Dentists should be familiar with community-based resources for patients with SHCN and encourage such assistance when appropriate. While local hospitals, public health facilities, rehabilitation services, or groups that advocate for those with SHCN can be valuable contacts to help the dentist/patient address language and cultural barriers, other community-based resources may offer support with financial or transportation considerations that prevent access to care [21].

1.9. Patients with developmental or acquired orofacial conditions
The oral health care needs of patients with developmental or acquired orofacial conditions necessitate special considerations. While these individuals usually do not require longer appointments or advanced behavior guidance techniques commonly associated with children having SHCN, management of their oral conditions presents other unique challenges [25]

1.10. Referral
A patient may suffer progression of his/her oral disease if treatment is not provided. Postponing or denial of care can result in unnecessary pain, discomfort, increased treatment needs and costs, unfavorable treatment experiences, and diminished oral health outcomes. Dentists have an obligation to act in an ethical manner in the care of patients. Once the patient's needs are beyond the skills of the practitioner, the dentist should make necessary referrals in order to ensure the overall health of the patient [26].

Conclusion
There is a high prevalence of dental caries and need for restorative care among these children. It is important that regular visits must be made with parents and care givers and educates them on the need for diet modification, improvement in oral hygiene. Regular dental visits should be done in their wards. These childrens are medically fragile and require frequent hospitalizations and visits. Often families meet with financial crisis and it is also noted that the insurance policies doesn't cover the whole medical expenditure. Primary health care providers should keep in contact with these children to assess the oral health and provide primary care, they can also provide proper education and support to their families. A dental practitioner should always be vigilant and modify the treatment for these children.

References

1. Bindu V. B, Chandrashekar J, Joe J: Access to dental care among differently abled children in Kochi: Journal of Indian Association of Public Health Dentistry: 2016; 14(1).
2. Lisa CL, Barbara AM. Children with special health care needs: Impact of health care expenditures on family financial burden: NIH Public Access J Child Fam Stud. 2010; 19(1).
3. Laura S, Jeffrey SH, Kelly JK. Health-Care Use and Expenditures for Children in Special Education with Special Health-Care Needs: Is Dual Classification a Marker for High Use? : Public Health Reports: 2007, 122.
4. Dana H, Philip R. A Review of the Literature Pertaining to Family-Centered Care for Children with Special Health Care Needs: Lucile Packard Foundation for Children's Health
5. Guideline on Management of Dental Patients with Special Health Care Needs: American Academy of Pediatric Dentistry; Reference Manual, 37
6. Folakemi AO, Yinka A. Oral health status and treatment needs of children and young adults attending a day centre for individuals with special health care needs; BMC Oral Health, 2008.
7. Amitha MH, Aiswarya AB, Anshad M, Anu J, Kanwardeep S, Preethi VC *et al*. Special Needs of Special Children-Parental View: Nitte University Journal of Health Science, 2015, 5.
8. Oredugba FA, Sote EO: Oral hygiene status of handicapped children in Lagos, Nigeria. Nig J Gen Pract 2001; 5:75-79.
9. Oredugba FA. Use of oral health care services and oral findings in children with special needs in Lagos, Nigeria: Special Care Dentist. 2006; 26:59-65.

10. Ahlborg B. Practical prevention: In Disability and Oral Care Edited by: Nunn JH. FDI World Dental Press. 2000, 29-39.
11. Adenubi JO, Saleem FH, Martirez JN. Dental health care at The Disabled Children's Rehabilitation Center in Riyadh: The Saudi Dent J. 1997; 9:9-13.
12. Tsami A, Pepelassi E, Gizani S, Komboli M, Papagianoulis L, Mantzavinos Z. Oral hygiene and periodontal treatment needs in young people with special needs attending a special school in Greece: J Disabil Oral Health. 2004; (5):57-64
13. Tesini DA, Fenton SJ. Oral health needs of persons with physical or mental disabilities: Practical considerations in special patient care: Dent Clin North Am 1994; (38):483-498.
14. Oredugba FA. Oral health condition and treatment needs of a group of Nigerian individuals with Down syndrome: Down Synd Res Pract 2007; (12):72-77
15. Edelstein BL. Dental care considerations for young children: Spec Care Dentist 2002; (22):11s-25s.
16. Kanellis MJ. The impact of poor oral health on children's ability to function; J Southeastern Soc Ped Dent 2000; (6):12-13.
17. Schechter N. The impact of acute and chronic dental pain on child development: J Southeastern Soc Ped Dent 2000; (6):16-17.
18. Paul W. Newacheck, Sue EK. A National profile of health care utilization and expenditure for children with special health care needs: Arch Pediatr Adolesc Med. 2005; (159):10-17
19. American Academy of Pediatric Dentistry. Definition of special health care needs. Pediatr Dent 2012; 34:16.
20. Charles JM. Dental care in children with developmental disabilities: attention deficit disorder, intellectual disabilities, and autism. J Dent Child 2010; 77(2):84-91.
21. Nowak AJ. Patients with special health care needs in pediatric dental practices. Pediatr Dent 2002; 24(3):227-8.
22. American Academy of Pediatric Dentistry. Guideline on record-keeping. Pediatr Dent. 2012; 34:287-94.
23. Glassman P, Subar P. Planning dental treatment for people with special needs. Dent Clin North Am. 2009; 53(2):195-205
24. American Academy of Pediatric Dentistry. Guideline on behavior guidance for the pediatric dental patient. Pediatr Dent. 2012; (34):170-82.
25. American Academy of Pediatric Dentistry. Guideline on oral health care/dental management of heritable dental developmental anomalies. Pediatr Dent. 2012; 34:252-7.
26. American Academy of Pediatric Dentistry. Policy on the ethical responsibility to treat or refer. Pediatr Dent. 2012; 34:102.