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Study about general dentists' perception, involving educational and treatment issues, which affect dental care for children with special health care needs in the state of Punjab (India)

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***Abstract*---**Aim: The aim of this survey was to assess the general dentists' attitude and desirability for additional training in treating children with special health care needs(CSHCN) in the region of Punjab state, India. Methods: A ten item questionnaire was sent to 1200 licensed general dentists in Punjab. The survey questioned about their demographics and their behavior in treating CSHCN. Responses to the questionnaire were tabulated and percent frequency distributions for answers to each question were computed. Results: Of the 1200 survey forms sent, 537 (44.75%) were received back. From the responses, 422 (78.60%) general dentists reported that they never treat CSHCN and the most common answer (79.10%) given for not seeing CSHCN was lack of education and treatment skills. Conclusions: These data indicate that most general dentists in Punjab state hardly treat CSHCN and the reasons they cited were poor training skills and educational experience in managing CSHCN

***Keywords*---**children, special health care, oral health, general dentists.

Introduction

Oral health is an integral part of general health and significantly affects the well-being and quality of life.(Sagheri D 2013) Children have a unique spectrum of childhood diseases that can interact with their oral health, especially Children

with Special Health Care Needs (CSHCN). These children are vulnerable: they are dependent on others for their health care, and they are disproportionately represented among disadvantaged populations in our society. . The impact of oral conditions on quality of life can be profound especially for disabled children.(Mouradin WE 2001,Wehr E 1994,Stein RK 1997)

Maternal and Child Health Bureau defines children with special needs as all children who have (or who are at risk for) a chronic physical, developmental, behavioural or emotional condition and who also require health and related services of any type or amount beyond that required by children generally.(McPherson M 1998, Health Sources and Services Administration April 2013) 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."

This statement was subsequently followed by a definition from the American Academy of Paediatric Dentistry's Council on Clinical affairs in 2004, describing the PSHCN as individuals having a physical , developmental , mental, sensory , behavioural, cognitive or emotional impairment or limiting condition that requires medical management , health care intervention, and /or use of specialized services or programs.(American Academy of Paediatric Dentistry 2013) Developmental disabilities [includes intellectual disability(ID)] are a diverse group of chronic disorders that begin at any time during the development process (including conception, birth, and growth) up to 22 years of age and last throughout an individual's lifetime.(Patel DR 2010)

According to the census of India (2011), 21 million people are suffering from one or the other disability. This is equivalent to 2.1% of the total population of India. The state of Punjab has 6,54,063 disabled people, out of which 3,79,551 are males and 2,74,512 are females. 1,04,913 children below 19 yrs of age, in Punjab, are affected by some form of disability. Although recent advances in medical care have contributed to a substantial increase in the life expectancy of individuals with Intellectual Disability (ID) (Bittles et al., 2002; Janicki, Dalton, Henderson, & Davidson, 1999), dental care remains the most frequently quoted unmet health need for CSHCN. (Waldman & Perlman, 2002). Individuals with ID are more likely to receive a lower quality of dental care, or are less likely to have had a preventive dental visit, compared with individuals without ID (Charles, 2010; Chi, Momany, Kuthy, Chalmers, & Damiano, 2010; Reichard, Turnbull, & Turnbull, 2001.(Kancherla V 2013)

In 2000, Oral Health in America: A Report of the Surgeon General identified abstruse disparity in oral health and negligence to care for sensitive population of CSHCN. This report identified crunch of dental school faculties and an

overcrowded curriculum as dental education factors responsible for this disparity. CSHCN are among the most underserved in our society: they have more dental ailments and difficulty in procuring dental care than any other section of the population.(US Department of Health and Human Services 2002, Newacheck PW 2002)

Stiefel et al., studied persons with disabilities and reported that, as a population, they had significantly poorer hygiene than individuals without disabilities.(Stiefel DJ 1997) Lack of amenability to treat CSHCN can be ascribed to insufficient reimbursement for dental services, uncooperative behaviour during treatment , a credence that special equipment is required to provide care , inability to spare necessary time to treat CSHCN and lack of training in treating special need care patients.(Maternal and Child Health Bureau 2005-2006) McIver has described five key barriers to dental care for CSHCN :(1) the primary medical care system: (2) the child's parents: (3) the child himself: (4) the dentist: and (5) payment for dental care.(McIver FT 2001)

Improving access, treatment and quality of care to CSHCN is a crucial public health issue for the dental profession that needs to be addressed in no time by the combined efforts of paediatric specialists and general dentists. The primary purpose of this survey was to determine the attitude, behaviour and demographics of general dentists in the state of Punjab, India, with regard to patients with special health care needs.

Methods

This is a cross sectional, question based survey. Ethical clearance was taken from the institute and a ten item questionnaire survey sheet with a covering letter, explaining the purpose of the study, was prepared. A postage paid, preaddressed envelope for the purpose of returning the response sheet was sent to 1200 licensed general dentists in various regions of Punjab state. The questionnaire was adopted and modified from a standardized, validated questionnaire developed by the AAPD (2001). Included in the survey were a series of questions like: did the general dentist provide care for CSHCN ?; what was their perception of training they has received in dental schools related to CSHCN ?; what was their interest in additional training for CSHCN ?;what factors influenced their willingness to care for CSHCN ?.(Seale NS, Casamassimo PS) The survey also asked for demographic information such as age, gender and number of years in practice. Descriptive statistics and chi-square tests were conducted using IBM(R) SPSS(R) Statistics 20 to analyze the data. All tests utilized a 0.05 level of statistical significance

Results

Of the 1200 survey forms sent, 537 (44.75%) were received back with responses. All age brackets of practitioners were well represented; 64 (11.9%) of the respondents were between 26 to 30 years old; (21.04%) 113 were 31 to 35 years old, (35.38%) 190 were 36 to 40 years old and (13.03%) 70 were 41 to 45 years old.(Figure 1) General dentists were asked to check all that apply for the following questions: Whether they treat children with special health care needs? 78.60% of the general dentists never treated CSHCN, 19.60% reported seeing CSHCN rarely

and only 1.90% responded that they sometimes treat such children.(Figure 2) The most common answer for whether they had obtained any additional training for the treatment of CSHCN was, no training in 79.10% dentists and 20.90% dentists reported that they had attended Continuing Dental Education (CDE) programs (Figure 3). 80.40% dentists responded that they had attended only lectures during their dental school education curriculum and 19.60% did not even had lectures while none of the dentists listed for hands on courses(Figure 4). When asked about their attitude for need of additional training, 72.60% dentists reported that they are desirable, 19.60% opted that they are very desirable and 7.80% showed no desirability (Figure 5). Regarding application of ART in CSHCN, 93.9% dentists reported that they have never done this kind of procedure while 3.70% rarely used ART and 2.40% often performed ART(Figure 6). 98.50% dentists responded that they have never used any type of physical restraints, whereas only 1.50% rarely used immobilization devices (Figure 7). None of the general dentists performed procedures like stainless steel crowns on CSHCN and there was not a single respondent who ever used oral sedation drug, N_2O analgesia or general anaesthesia for managing CSHCN in their practice. Statistically no significant association was found between different age groups and response to different questions. ($p>0.05$)

Discussion

Children with disabilities may present challenges that require special preparation before the dentist and office staff can provide acceptable care. In addition, parental anxiety concerning problems associated with a child's disability frequently delays dental care until significant oral diseases have developed. Also, some dentists feel uncomfortable providing treatment for children with disabilities, which results in a loss of greatly needed services. Giddon, Rude and Belton indicate that it is not accessibility, availability and acceptability that determine the extent to which a patient with disabilities will be treated by a dentist. Rather, it is the perception of the situation by the dentist and patient and their willingness to interact. (Giddon E, Rude C, Belton D, 1975)

The disabled form a substantial section of the community, and it is estimated that worldwide there are about 600 million people with disabilities. (Watson, 2000) According to the United Nation Convention on Rights of the child ;every child has a right to equal care and to be treated with respect for their personal needs and opinion. Apart from the specific impairment, people with disabilities have the same needs and interests as of the rest of the population. According to Census 2011 the number of disabled persons in India was 21 million which accounts for about 2.1 percent of the total population.(Report No. 485(58/26/1)Disabled persons in India , July-December 2011 Census)

It has been reported, "Dental treatment is the greatest unattended health need of the disabled". Providing health care services for CSHCN will continue to be a challenge in the 21st century for the dental professionals.(Giardino AP 2000) A dropping number in the devoted dental professionals, deficit of specialist dental faculty and deficient dental education curriculum all contribute against the development of competent dental health workers who can provide oral health care to CSHCN. The present survey was aimed at assessing the general dentists'

knowledge and attitude in managing CSHCN. A wide range of age groups were selected so as to make out whether increase in clinical experience is a significant factor that effects the provision of oral health services to CSHCN. Since no statistically significant relation was found between age of the dentist and the number of CSHCN treated by general dentists, it certainly denotes that the scenario has not changed from past to present. Dental practitioner's lack of experience in treating and resultant anxiety over initiating care for CSHCN, are the most important barriers to access of oral health for these children. According to the syllabus recommended by Dental Council of India, knowing the Definition, Aetiology, Classification, Behavioural and Clinical features & Management of children with below mentioned conditions is a part of Undergraduate Course in India

- Physically handicapping conditions.
- Mentally compromising conditions.
- Medically compromising conditions.
- Genetic disorder,

But this theoretical knowledge is not sufficient to treat special children. An increase in the practical training is required so as to increase the general practitioner's experience and hence his/her confidence in treating such cases. Majority of general dentists reported that they never treat CSHCN in their private practice but they have a desire to learn additional skills for treating such children..The reason they have cited is;inadequate educational experience and lack of special training during or after their dental school curriculum. Very few dentists reported to perform procedures like stainless steel crowns, ART and use of immobilization devices on CSHCN. None of the dentists ever used oral sedation drug, N_2O or general anesthesia. General dentists are the ones who can take the responsibility of providing solution to this unmet need of society. Academic efforts need to be continuously reinforced and increased focus should be on continuing dental education programs so as to help those in practice. A study by Dao et al demonstrated that if a dentist is well versed with skills to treat PSHCN, greater is the likelihood that he will treat a more diverse population (including paediatrics); set up their practices for people with special need; be more confident in staff skill levels, and be more positive and confident in their own abilities.(Dao LP 2005)

A number of academic institutions sponsor mini residency or home developed operating room training programs for practicing general dentists. A significant number of general dentists in the present study responded that they desire to be trained in treating PSHCN.. Hence, it is important to introduce training programs to undergraduates in treating CSHCN during their internship period so that they become competent to treat such cases. According to Thierer, education may improve sensitivity to the needs of the population, such awareness is ineffective, unless coupled with action on the part of providers to see patients. Such willingness may be tampered by reimbursement issues that plague the population.(Thierer T 2005)

The oral health of the disabled may be neglected because of the disability condition, a demanding disease or limited access to oral health care. However, with appropriate planning, clear communication, incorporation of necessary

education/training in the dental school curriculum at graduate level and proposal to have mandatory specific number of hours in special needs care for licensure renewal can help in alleviating the dental neglect experienced by the CSHCN. Considering the value of prioritizing limited paediatric dental resources for the most complex children (CSHCN), revision of education standards for undergraduatesl , standards for advanced general dentistry programs to include curricular content in provision of dental care to CSHCN should be done at the earliest.

The results of this study are limited because of the small sample size. Less than 50% general dentists returned the response sheets, which may not be ideal. However, it may be appropriate to consider this number of respondents to be sufficient. Recall bias might have affected the data collected because of individual's intentional deception, poor memory and not understanding the questions correctly. Apart from this, participants might have not answered the questions honestly about their knowledge and attitude regarding treatment of CSHCN. Moreover, a cross sectional study cannot establish a cause –effect relationship. Hence, a longitudinal study covering a large population is required.

Conclusion

A lack of competent dental faculty , and the inadequacy of dental curriculum all work against the development of socially responsible dental professionals who are competent enough to provide care to CSHCN. Among these, the inadequate dental academic pipeline poses the biggest threat to the future training of dentists in India. This disparity can only be addressed by dental academic community. The drive to create a specialty in Special Care Dentistry will be a positive influence in uptake of similar curricula for undergraduates. There has to be support from within the departments that can organize and teach the course, but also support from Heads of Dental Colleges and Dental Council of India (DCI). As dental professionals we must consider that there is a large number of individuals with special needs living in our communities requiring oral health care. The ethics of the dental profession obligate the dental team to provide treatment to those in need. Persons with disabilities do present challenges for the dental team, but most can receive care in the private office with a few modifications to treatment.

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