Evaluation of Postgraduate Students’ Attitude towards treatment of children with special needs
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Abstract

Introduction: Special care dentistry deals with the provision of oral health care to an individual with impairment or disability. This study aimed to assess the attitude of dental postgraduate students toward the treatment of differently abled children in and around Mangalore City.

Materials and Methods: An exploratory study was conducted by giving structured questionnaire among 110 postgraduate students, evaluating their attitude and barriers they face while treating differently abled children in and around Mangalore City. The variables obtained by the response were statistically evaluated.

**Results:** The majority of the respondents were willing to treat children who were differently abled. Out of which, 24% were male and 76% were female. 82.35% of respondents felt that a lack of cooperation from patients was the most difficult barrier they faced while treating a differently-abled child. Around 97.04% reported that advanced training in special health care dentistry in the post-graduation curriculum is essential for effective management of children with Special Health Care Needs (SHCN).

**Conclusion:** In view of the findings of this study, a multidisciplinary approach has to be implemented in the post-graduation curriculum in order to provide quality dental treatment to differently-abled children and hands-on training.

**Keywords:** attitude, oral health, dental education, special care dentistry


**Introduction:**
Differently-abled is an impairment that is physical, cognitive, intellectual, mental, sensory, and developmental. This refers to restrictions on an individual's ability to participate on what is considered “normal” in everyday life (1). Children with special health care needs (SHCN) are amongst the most underserved in the population since they have more dental diseases than any other segment of the population. They have not likely fulfilled their oral care needs compared to other children. Therefore, the need for an educational component of a preventive oral health care program for children with SHCN is important (2). Dental Education on special care dentistry will provide an opportunity among dental students to help improve the oral care of children with SHCN. Furthermore, dental schools would benefit by exploring different models to instruct and teach dental students with regard to the best way to deal with and address oral care of children with SHCN (3, 4). However, research on educational approaches related to children with SHCN is limited.

In dentistry, the treatment plan for special health care need of children requires an extensive vision of the dentist, which often leads to a multidisciplinary approach (5). However; many dental professionals face difficulty in providing adequate treatment to children with SHCN. Such difficulties can range from a lack of professional training, insecurity, possible ergonomic limitations, changes in the routine of the consulting room requiring physical adaptations and special equipment, to lack of scientific knowledge (6-8).
Attitude is a hypothetical construct that represents the individuals like or dislike for an item (9). The attitude of a professional in treating differently-abled children will affect his/her interaction and competency in providing quality treatment. Lack of specialized knowledge on individuals with disabilities, inappropriate attitude of dentists, and behavior toward differently-abled children become the biggest barriers to their access to health services (8). Hence, disability research should focus on measuring the attitude of healthcare professionals toward differently-abled children since little attention has been devoted to the development of dental curriculum in India to prepare dental students to attend to the needs of the disabled. It is essential to evaluate the attitude and the barriers students face while managing differently-abled children. Hence, this study assessed the attitude of postgraduate students of Department of Pediatric and Preventive Dentistry toward dental treatment of differently-abled children in and around Mangalore City.

Materials and Methods
A study was conducted by giving self-structured questionnaire among dental postgraduate students from Pediatric and Preventive Dentistry within Mangalore City. The validity and reliability of the questionnaire were reassessed through a pilot study among 10 students. Each questionnaire consists of 12-item questions pertaining to the attitude of the dentist and barriers one faces while treating differently-abled children. A total of 110 questionnaires were given to all the postgraduate and diploma students from the Department of Pediatric and Preventive Dentistry from various dental colleges within Mangalore City. The questionnaires were either given by person or mailed to the respective postgraduate student. The data were collected after the variables were statistically evaluated. All the variables obtained by the response were tabulated and statistically evaluated through frequency distribution.

Results
Out of 110 postgraduate students, only 102 students from the Department of Pediatrics and Preventive Dentistry from different dental colleges within Mangalore City participated in the study. Demographic data like name, age, and name of the institution were not recorded to ensure anonymity. Among 102 students, 24% were male and 76% were female. Data reflected that a higher percentage of dental college students were willing to treat children with special needs. 76.47% students felt that their respective college/institution had adequate facilities and support staff in treating SHCN children. Lack of cooperation (82.35%) and behavioral problems (75.48%) were the major challenges that dental college students faced while treating such children. Other barriers that students faced were inability to communicate (38.49%), time consumption (29.4%), lack of tolerance (13.73%),
and lack of interest (4.90%). Figure 1 shows barriers faced by postgraduate students in treating differently-abled children. 79.41% of students felt that treatment for differently-abled children should be provided in a dental healthcare institution than in a private practice setting. Majority of the postgraduate students (96.07%) felt that a pre-visit parental consultation and parental presence during treatment would help in order to improve compliance to treatment in a differently-abled child. 65.69% felt that non-pharmacological behavior management techniques are ineffective in managing SHCN children and would opt for a pharmacological behavior management technique.

![Figure 1: Barriers to Dental Treatment of Differently-Abled Children](image)

Majority of the dental college students (72.3%) agreed that the training and education provided to them regarding special care dentistry was not sufficient in their curriculum. 97.07% agreed that advanced training in "special needs dentistry" in the post-graduation curriculum is essential for effective management and treatment of SHCN children. Furthermore, 97.06% agreed that more exposure to SHCN children would help build their confidence and expertise in treating SHCN children. Figure 2 shows students’ attitudinal responses to other variables in the study.
Discussion

In the present study, majority of the respondents were willing to treat differently-abled children. However, few students experienced the following barriers while treating SHCN children: lack of cooperation (82.35%), behavioural problems (75.49%), inability to communicate (38.49%), and lack of time (29.4%). This is similar to a study conducted by M.S Ahmed (2015)(10) where they assessed the perception attitude and educational experience among Malaysian dental college students where students faced challenges while treating patients with special needs. Majority of these dental college students had difficulty in the following: management of patients’ behaviour (50%), communication with patients (44.1%), time management (48%), lack of training (60.8%), and physical barriers to access their clinics (53.9%). Hassan et al. (2011)(11) conducted a study among private practitioners toward treatment of special care needs. They reported that 64.7% of private practitioners have a positive attitude toward treating children, but they encountered a major challenge with time management and financial loss. The findings of the study conducted among US dental college students’ experiences with their attitude revealed that around 60% of these students had little to no confidence in providing care toward people with mental retardation(12). In a study conducted by Chadha G. et al. (7), 60.2% of the respondents reported that the present academic course does not prepare them to treat SHCN children. 89% and 96% of the respondents reported that CDE Continuing Dental Education and hands-on training would improve the

Figure 2. Postgraduate Students’ Attitudinal Responses to Other Variables

Pre-Visit Parental Consultation and Parental Presence: 96.07%
Institutional treatment vs. Private Practice: 79.41%
Adequate Facilities and Support (Support Staff) in College/Institution: 76.47%
Preference for Pharmacological Behaviour Management Technique: 65.69%
More Exposure to Build Up Confidence and Expertise: 97.06%
practitioner’s ability to care for these individuals. These findings were in accordance to the present study where 72.3% students reported that the training and education provided to them with regard to special care dentistry was not sufficient. 97.07% students agreed that for management of SHCN children to become effective, advanced training in “special needs dentistry” should be included in the post-graduation curriculum.

In a study conducted by Nagarajappa R. et al. (2013) (13), 60.7% of dentists and postgraduate students had a favorable attitude toward adults with disabilities, which increased with higher qualification and past experience. Mohebbi, SZ et al. (2017) (9) evaluated dentists’ attitude and perceived educational barriers for oral health care among the individuals with disabilities. The study reported that dentists were not satisfied with the kind of education they had received. The most important barrier was the shortage of experts for training (52.1%).

A study by Alamoudi, NM et al. (2017) (14) reported that dentists faced low confidence in caring for patients with SHCNs. A relationship existed between the quality of dental education and the dentists’ perception of their patient care. A great proportion of respondents were willing to attain educational activities in order to enhance their knowledge and skills. Another study conducted by Delucia et al. (2009) (15) suggested that dental students’ expectations of general and dental capabilities of those with disabilities were higher after a two-hour lecture focusing the capabilities of special need dentistry.

The study revealed that the number of differently-abled children treated by post-graduate students was very minimal. However, there are studies assessing the attitude of general practitioners in dentistry in managing children with special needs (10, 11). However, there are very limited studies conducted with regard to evaluation of the attitude of postgraduate students toward treatment of differently-abled children in India.

The following additions like field visits to various institutions catering to special needs children, providing a didactic teaching for the students can be performed to the existing post-graduate curriculum of the specialty of Pediatric Dentistry to necessitate the importance of specialized and hands-on training through a multidisciplinary approach. Adoption of special schools, awareness programs, and supervised treatment of children with disabilities should be made mandatory. These additions will help to facilitate students in providing quality dental treatment among differently-abled children.

**Conclusion**

Specialized training and didactic teaching for students on special care dentistry should be given an importance. The development of more favorable attitudes with regard to the treatment of children with SHCN should be encouraged. However; further research can be carried out on changing the perception, attitude, and behaviour of postgraduate students on managing children with special needs.
References


