

## ATTITUDE OF GENERAL DENTAL PRACTITIONERS TOWARDS CHILD PATIENTS

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**ABSTRACT: Aim:** to evaluate the willingness of general dental practitioners to provide dental care to children of various age group, the role dental education plays in shaping future dentists' attitudes and behaviours concerning treatment and various treatment procedures carried out for child patients in private dental setup.

**Methods:** A 24-item questionnaire survey was developed to determine the variables associated with the attitude of dentists towards treating children. Questions in the survey focused on the dentists' willingness to treat child patients in general, whether they have specialist in clinic and practice regular follows up of 6 months for children, the barriers they face in treating children, their educational experiences, types of treatments rendered etc.,

**Results and Conclusion:** Majority of private practitioners participated in this study treat children and have a positive attitude towards them, even though time consumption and financial constraints was a major barrier. Recommendations could be made to modify undergraduate curricula to encourage dentists to provide treatment to child patients without any reluctance. Efforts should be made to promote the general dentists' willingness to treat children by overcoming the barriers or by referring the children to paediatric dentists as and when necessary.

**KEYWORDS:** Attitudes, Children, Dentistry, General Dentists

### INTRODUCTION

In today's world, the demand for the basic dental health care needs of infants to adults is increasing day by day. Even though new modalities of treatment have come into place in pediatric dental practice, the greatest challenge posed by a typical dentist is to achieve young patient's cooperation while rendering operative care<sup>1-2</sup>. Being a dentist of any level of experience, he/she must consider not only the nature and severity of disease, but also a good level of communication between the child, his/her parents and strictly adhering to informed consent protocols as a standard of health care. Unmet dental health care needs in children often leads to problems which interfere with their physical development, a loss of school days, increased period of restricted activity and decreased ability to learn<sup>3-4</sup>. "The earlier a child receives preventive oral health services, the less his or her risk of developing dental disease". Therefore it is crucial to have proper oral health care services for children to have a good general health and a positive quality of life, which fulfils them to live up to their academic potential<sup>4</sup>.

Dental education plays an important role in shaping future dentists' attitudes and professional behaviours concerning the treatment of young patients. Study conducted by Dao *et al.*, in 2005 showed the relationship between dental education and dentists' willingness to treat

special needs patients<sup>5-6</sup>. They concluded, those dentists who received proper undergraduate training were well prepared to treat both adult and child patients with special needs. In 2006, another study by Rich *et al.*, explored whether undergraduate dental education affects general dentists' a) practice characteristics, b) attitudes, and c) professional behaviour concerning the treatment of child patients. These authors found that, dentists' perceptions of the quality of their educational experiences were clearly related to their willingness to provide a variety of different treatments for children as well as their attitudes about child care<sup>7-10</sup>. Hence, the Aim of this study was to evaluate, the willingness of general dental practitioners to provide dental care to children of various age groups; the powerful role dental education plays in shaping future dentists' attitudes and professional behaviours concerning treatment, as well as the various treatment procedures carried out for child patients in private dental setup.

### Materials and Methods:

A pilot study was conducted among dentists working in private dental clinics and dental hospitals in Kothamangalam city and nearby towns of Ernakulam

District. A team of postgraduate students carried out the distribution of questionnaires to the dentists after explaining the purpose of the study and were requested to complete the questionnaire within a day.

A 24-item questionnaire survey was developed to determine the variables associated with the attitude of dentists towards treating children.

Questions in the first section of the survey focussed on the dentists' willingness to treat child patients in general, whether they consider it as a need for treating primary teeth, explain the parents about importance of primary and permanent teeth, whether they have specialist in clinic and practice regular follows up of 6 months for children. Respondents were asked to answer 5 questions about the barriers they face in treating children to which they could respond yes/ no. If the answer is given as No, reasons provided are 1)Uncooperativeness of the child 2)Time consuming 3) Money charged is less 4)Self-Management is / Not possible 5) Pedodontist not available in the locality 6) Less number of child patients.

Questions in the second section of the survey, dealt with 8 questions focused on the educational experiences help them to provide treatment for child patients. Questions asked were addressed in 3 areas of the paediatric dentistry; 1) pharmacologic and non-pharmacologic behaviour management 2) restoration of caries for children with extensive disease;3) infant oral health/treatment of very young children. The questions dealt with pharmacologic and non-pharmacologic behaviour management includes training in the use of nitrous-oxide conscious sedation, techniques such as Tell-Show-Do (TSD) and Hand over Mouth Exercise (HOME). The final questions addressed restorative procedure for children with extensive diseases, providing care to children less than 5 years of age, specifically infant oral health and Anticipatory Guidance, management of early childhood caries/nursing bottle caries, For each question concerning educational experiences, the respondents were asked whether they had hands-on training, lectures, or no training.

Questions in the third section of the survey focused on additional information regarding the types of treatment provided by the dentists who were willing to treat child patients of any age. Also regarding whether they referred children to specialists and specifically which types of oral health care needs they referred.

**Results**

**1. First Section:**

A total of 60 dentists participated in the study in which 79% of the dentists treated child patients in their own private dental clinic. Among the respondents, 40.2% reported financial loss and time consumption as a major barrier in treating children whereas 42.6 % reported self-management is not possible due to lack of undergraduate training in paediatric dentistry and 8.2 % reported uncooperativeness of the child causing intolerance in treating child patients. In addition, 4.8% of the respondents reported unavailability of Pedodontist in the locality and 4.2% stated less number of child patients visiting in the clinic.

**2. Second Section:**

**Have you received educational experiences regarding various treatments?**

**Table 1:Response to educational experiences**

Paediatric Experiences	Hands-on	Lectures	No Training
<b>BEHAVIOUR MANAGEMENT</b>			
a. Nitrous Oxide-Conscious Sedation	19%	46%	35%
b. Hand-Over Mouth Technique	35%	52%	13%
c. Tell- Show-Do	55%	33%	12%
<b>RESTORATIVE</b>			
a. Children with extensive diseases	23%	36%	41%
<b>VERY YOUNG CHILDREN</b>			
a. Treating children less than 5 years of age	8%	37%	55%
b. Infant Oral Health and Anticipatory Guidance	10%	49%	41%
c. Children with Early Childhood Caries	20%	70%	10%

### 3. Third Section:

**Which of the following treatments do you practice by yourself or refer to a Pedodontist?**

**Table 2: Response to methods of treatment**

Treatment	I Do All	I Do Some	I Refer All
Oral Exams	86.2%	13.8%	0
Fluoride Treatment	74.6%	25.4%	0
Scaling	92%	8%	0
Radiographs	67.7%	26%	6.3%
Pit and Fissure Sealants	65.2%	33.8%	1%
Restorations	83%	12%	5%
Extraction	23.8%	59.7%	16.5%
Crown	18%	16%	66%
Pediatric Endodontics	11.2%	23.3%	65.5%
Orthodontics	4%	19.7%	76.3%
Space Maintainers	8.6%	28.1%	63.3%
Pediatric Oral Surgery	3.2%	35.7%	61.1%

Out of 60 dentist participated in the survey, 86.2% of the dentist prefer to do oral exams, 74.6% do fluoride treatment, 92% do scaling, 67.7% takes radiographs, 65.2% do pit and fissure sealants and 83% do restorations. In spite of the undergraduate educational experiences or hands on training/lectures received, survey shows that few dentist prefer to do specialization practice by themselves and remaining they refer to a pedodontist. 23.8% do Extractions, 18% do Crowns, 11.2% practice paediatric Endodontics, 11.2% practice Orthodontics, 8.6% give Space Maintainers, 3.2% practice paediatric oral surgery.

### Discussion

This survey reports the attitudes of dentists in Kothamangalam city and nearby towns of Ernakulam District about managing and treating child patients in private dental clinic. In this survey, 79% of the respondents treat children in their private dental clinic even though they face the barriers of financial loss, time consumption, uncooperativeness of the child, lack of specialised training in Paedodontics practice. Results of this study differ in percentage with the study conducted by Seale and Casamassimo, reported that more than 90% general practitioners treated child patients from less than 4 years of age, patients with early childhood caries and those enrolled under Medicaid<sup>13</sup>. Mouradian recommended dental practitioners must be willing and comfortable in examining child patients, up to the needs and concerns of parents and do parental counseling on diet, caries and habits<sup>15</sup>.

This study reveals the barriers faced by the dental practitioners to treat child patients in which 42.6% reported lack of undergraduate training in paediatric dentistry. Study conducted by Hassan *et al.*, reported only 16% of respondents agreed their undergraduate training helped them to treat child patients effectively<sup>2</sup>. This outcome also agreed with the results of study by Cotton K.T *et al.* In this study only 10% of the participants had hands-on experience with infants which reveals the hesitancy among practitioners to perform even oral examination on or below 12-months of age. 19% of the participants had received hands on training in conscious sedation while 46% received only lectures and 35% received no training. The preferred behaviour management technique by majority of dentists was 'tell show-do' in which 55% received hands on experience through undergraduate training. 35% received experience in hand over mouth technique whereas 52% received only lectures. The hand-over-mouth technique is associated with professional controversy and poor patient compliance even though it is an effective method in gaining a troublesome child's attention and can be successful in selected cases. The differences in attitudes between dentists in different countries are probably caused by differences in the dental school training and curricula. Thus clearly a lack of good experience in practicing paediatric dentistry especially under the age of 5 appears to be evident in our respondents.

Table 2 displays the various treatments offered to child patients in private dental clinic. Majority of the dentist conduct oral exams, scaling, pit and Fissure sealants and restorations in child patients. Out of which only 23.8% do Extractions, 18% do Crowns, 11.2% practice paediatric Endodontics, 11.2% practice Orthodontics, 8.6% give Space Maintainers, 3.2% practice paediatric oral surgery. Thus few dentist prefer to do specialisation practice by themselves and remaining they refer to a Pedodontist. These findings are in contrast to the results of a study conducted by John *et al* in which the respondents were divided into a group with more positive educational experiences (40.4%) versus a group with less positive educational experiences (33.4%), the results indicate that the better-educated dentists were more likely to have set up their practices to treat children and had staff members who were both more comfortable and more knowledgeable about treating children than the less well-trained dentists<sup>6</sup>. In addition, they were more likely to have positive attitudes towards treating child patients, both younger and older than six years of age. They practice simple and complex procedures for child patients and are less likely to refer child patients to specialists than dentists with less positive educational experiences.

Overall, the data strongly support that dental education affects practitioners' practice characteristics, attitudes, and professional behaviour concerning treating child dental patients. These findings recommends to dental educators to make changes in undergraduate paediatric dental curricula. Infant oral health and experiences with oral examination of infants should be a mandatory component of the undergraduate paediatric dental curriculum. In the context of considering how to bring better oral health care to children at an early age, it is worthwhile to mention that the American Academy of Pediatrics (AAP) revised its policy on infant oral health care in 2003 and recommended the establishment of a "dental home" for all infants on eruption of their first tooth but no later than twelve months of age. Thus educators need to stress the recognized recommendations for a first dental visit at age 1 (or with the eruption of the first tooth)<sup>16-17</sup>. Far too many practicing dentists still believe first visits should be at age 3, and for high-risk children, a first visit at age 3 may be too late to prevent dental disease.

#### Limitations of the Study:

The study conducted is a pilot study which represents only the dental practitioners in a few towns of Ernakulum district in Kerala. A large sample size is required if the data to represent the nation and to analyse complex relationships. Cross-sectional studies cannot establish a cause-effect relationships. A low response rate was also noted in this study either due to lack of interest of dentists in participating in studies or due to a busy schedule. The study is unable to confirm the extent to which the self-reported attitudes concerning child patients' complements into actual deeds in clinical practice.

#### Conclusion:

To conclude, majority of private practitioners participated in this study treat children and have a positive attitude towards them, even though time consumption and financial constraints was a major barrier. Recommendations could be made to modify undergraduate curricula to encourage dentists to provide treatment to child patients without any reluctance. Efforts should be made to determine whether the graduate and post graduate students have the necessary knowledge and skills in treating children, promote concerns in infant oral health, anticipatory guidance and those with special healthcare needs. Efforts should be made to promote e the general dentists' willingness to treat children by overcoming the barriers or by referring the children to paediatric dentists as and when necessary.

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