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Attitude of graduating dental students about children first dental visit

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ABSTRACT

Dental fear leads to a lack of child cooperation. In general, without the patient's cooperation, success in the remedy is impossible. Fear can be considered as an inevitable thrilling, a response to a certain external threat and with an identified origin in which individual is afraid without no clear reasons. Dental fear leads to lack of cooperation of the children and generally without the cooperation, treatment will not succeed, and this is why the child's dental fear and anxiety from dentistry services is the main concern of children, parents and dentists. Behaviour guidance/management of the child is an integral component in pediatric dental practice. A considerable percentage of children do not cooperate in the dental chair, limiting the provision of quality dental care. The dentist must rely on behaviour guidance or management techniques as alternatives or adjuncts to communication in treating the uncooperative child. These techniques include tell-show-do (TSD), protective stabilization or physical restraints (both active and passive), hand-over-mouth exercise (HOME), though not recommended contemporarily, conscious sedation, and general anaesthesia. Behaviour guidance techniques (BGTs) are employed to establish communication, alleviate fear and anxiety, facilitate delivery of quality dental care, build a trusting relationship between dentist, child, and parent, and promote the child's positive attitude toward oral/dental health and to cope with dental treatment procedures undertaken. The aim of this study is to know about the Attitude of Graduating dental students about the children first dental visit. A questionnaire using the questions adapted from the several studies related to the attitude of graduating dental students about the children first dental visit was given to 50 students in our college.



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INTRODUCTION

Dental caries is the most common health problem in dental health. Dental caries is the progressive loss of tooth mineral followed by invasion into the demineralised tooth. Dental caries is a relatively complex disease because it is not only damaging the tooth surface, but also can be the focal infection of another disease in other parts of the body. There are several bacteria that involve in dental caries process, but the most primary causative agent is *Streptococcus mutans* which cause dental caries by triggering the formation of plaque.

Early childhood caries (ECC) is a significant socio-behavioural and oral health problem that affects

infants and toddlers. (Douglass JM, *et al.*, 2001) In children younger than three years of age, any sign of smooth-surface caries is indicative of severe early childhood caries (S-ECC). From ages three through five, one or more cavitated, missing (due to caries), or filled smooth surfaces in primary maxillary anterior teeth or a decayed, missing, or filled score of ≥ 4 (age 3), ≥ 5 (age 4), or ≥ 6 (age 5) surfaces also constitutes S-ECC (American Academy of Pediatrics 2008). The consequences of ECC include a higher risk of new carious lesions in both primary and permanent dentition, hospitalisations, increased treatment expenditure, the risk for delayed physical growth and development, loss of school days with restricted activity, diminished oral health-related quality of life and psychological distress to parents. (Kim Seow W. 2012; Hallett KB, 2006). The prevalence of ECC in south Indian population ranges from 19.2% to 63.2%, with high prevalence as age increases from 2 to 5 years. (Priyadarshini HR, *et al.*, 2011; Sankeshwari RM, *et al.*, 2013). It is based on 'medical home' concept by American Academy of paediatrics (AAP), should be within six months of the eruption of the first tooth and no later than 12 months of age, to conduct a caries risk assessment and provide parental education including anticipatory guidance for prevention of oral disease (Sanchez OM, *et al.*, 1997; Jawdekar AM. 2013; Kumari NR, *et al.*, 2006).

However many studies reveal that primary caregivers have inadequate knowledge among early childhood oral health and often lack relevant training (AlYousef Y, *et al.*, 2013; Fux-Noy A, *et al.*, 2011) It is a feasible option to train medical graduate students during their professional course and translate the knowledge into practice. However, both the medical and dental students' knowledge and attitudes on early childhood oral health (ECOH) have not been tested in India and the objective of the present study was to evaluate the same. (Mouradian WE, *et al.*, 2003)

Knowledge-based questionnaire

1. What is the normal age at which the first tooth erupts?
a. 3-6 months b. 6-12 months c. 12-18 months d. 18-24 months
2. At what age, a child should have a first dental visit?
a. 6-12 months b. 12-18 months c. 18-24 months d. not required if the child is at less oral risk
3. How important do you think that a child should see a dentist at an early age?
a. not much b. Important c. Very important d. very important if the child is under risk
4. By what age AAPD/AAP recommends that a child is weaned off the bottle?

- a. 12-18 months b. 18-24 months c. 24-30 months d. as and when required
5. The main cause for early childhood caries is
a. bacteria b. Fungus c. Parasite d. virus

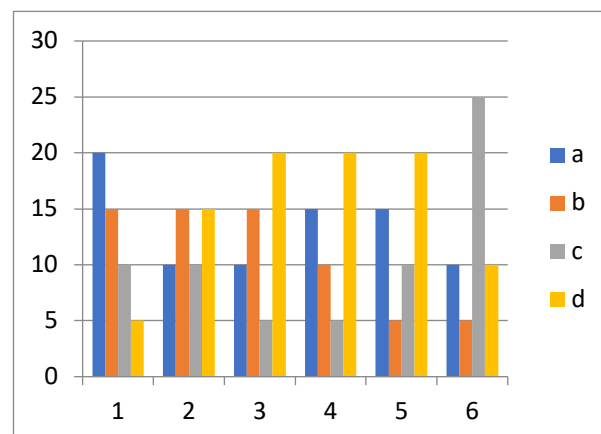


Figure 1: The normal age for the first tooth eruption is 3-6months

Attitude, self-assessment, the source of infection based questionnaire (Skelton J, *et al.*, 2002)

6. Self-assessed knowledge in early childhood oral care
a. none b. little c. Moderated. high
7. Satisfaction with self-assessed knowledge
a. Very low b. low c. moderated. high
8. Enthusiasm for more education in the subject
a. not interested b. little interested c. very interested
9. The primary source of information in the subject
a. dentist b. friends c. books d. article
10. What is the better source to gain knowledge about early childhood oral care
a? lecture class b. mass media c. internet

Statistics: In a Knowledge-based questionnaire;

Figure 1 shows the normal age for the first tooth eruption is 3-6months.

Graph 2 shows the first dental visit should be at 12 years to 18 years or not required if the child is at less oral risk

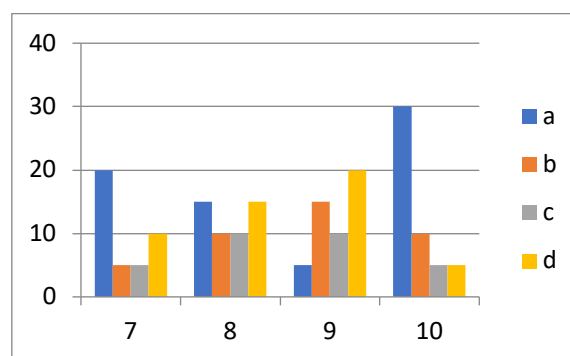


Figure 2: The first dental visit should be at 12 years to 18 years or not required if the child is at less oral risk

RESULT

From the questionnaire filled by the students, statistics have been made for the questionnaire from which we come to know that the students have moderate knowledge about the early childhood oral care. Most of the students thought mass media is the better source to gain knowledge about ECOH followed by lecture classes. Based on the results majority of the students prefers lecture classes and mass media to gain knowledge about early childhood oral health care.

DISCUSSION

Child psychology is the science that deals with the study of a child's mind and its function. Guidance of child's behaviour in the dental office is an essential prerequisite to accomplishing appropriate dental care. To treat a child successfully or manage the children in a dental setting, one should have sufficient knowledge on the psychological development of a child, related dental anxiety, fear, and various modalities of behaviour guidance. Hence, there is a need to evaluate the knowledge and attitudes of dental graduates regarding the theories of child psychology and behaviour guidance (Douglass JM, *et al.*, 2005; Graham E, *et al.*, 2003).

AAPD recommends that the child should see the dentist within six months of the eruption of the first primary tooth and no later than 12 months of age. Traditionally, the developmental age for the initial dental visit was thought to be three years, the rationale for this being, children, are better manageable at this age and treatment will be more effective and efficient. However, early interventions are needed to educate parents on oral hygiene, prevention of dental injuries and ECC (Mouradian WE, *et al.*, 2003).

Most of the students thought, it is important for a child to visit the dentist at an early. This was an expected finding and also noted in the past. The knowledge on recommended age of weaning from a bottle was poor among all students. These findings suggest that emphasis on the preventive aspect is necessary. The recent AAPD guidelines recommend that the child should be weaned off the bottle by 12-18 months of age and introduction to semisolid food can begin at six months, and Iron-fortified cereals along with breast milk/infant formula are most preferable. Most of the students knew that bacteria is the primary cause for ECC, which is an expected trend and the endorsements on television could be the reason for better awareness.

Dental anxiety is high among the young children, but it also manifests in the older children, influencing the child's behaviour in the operatory. For the management of these children, many BGTs such as

desensitisation, modelling, positive reinforcement, and distraction are available. Desensitisation technique can be followed in a child who has preestablished fears and anxiety, and the child is gradually introduced to noninvasive to minimally invasive procedures through the invasive treatments until there is no evidence of stress on his part. It was also reported by Davey in his Latent inhibition theory that children tend to become less anxious if they have had more neutral visits before exposure to invasive dental treatments (Mouradian WE, *et al.*, 2005).

Most of the students thought that they have moderate to little knowledge in ECOH and are moderately satisfied with their self-assessed knowledge. Textbooks are the primary source of information on ECOH for dental students. Majority of them answered that the main source was textbooks and friends. However, the answers of students were haphazard on the primary source of information; with most of the students thinking that mass media is the better means to gain knowledge about ECOH followed by lecture classes. Majority of pregnant women do not get anticipatory guidance during pregnancy regarding oral health, even though this is a phase of increased acceptance of instructions that should be used as an opportunity to introduce preventive programs. Various methods of training initiatives to improve the oral health knowledge are through mass media, national rural health programmes, addressing key oral health issues distributed over four years, continuing education courses, workshop dealing with oral health issues, web-based training, and incorporating oral health preventive measures into clinical medical education curriculum (The American Academy of Pediatric Dentistry 2013).

Most of the students thought that they have moderate to little knowledge in ECOH and are moderately satisfied with their self assessed knowledge. Dental students showed more enthusiasm for learning a subject than medical students. Textbooks are the primary source of information on ECOH for dental students. Majority of the students answered that the main source was textbooks and friends, as students share the common hostel with dental students at this campus, leading to the sharing of knowledge on ECOH. However, the answers of students were haphazard on the primary source of information; with most of the students thinking that mass media is the better means to gain knowledge about ECOH followed by lecture classes. The mean knowledge score was better for students over others and final year students over first-year students, thus confirming our alternate hypothesis (Chung MH, *et al.*, 2006).

CONCLUSION

From this research, we came to know that the knowledge on ECOH among students was moderate and students need to be emphasised more on the preventive aspects of ECOH. Mass media would be a better means of imparting knowledge on ECOH.

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