

Assessment of knowledge, Attitude & Awareness of parents towards age and reasons for the first dental visit of the child

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Abstract :

The ideal time for the first dental visit of a child, as recommended by many professional dental organizations across the world, is the age of one year. It is extremely important that the first adaptation visit of a child to the dentist takes place at an early stage of the child's life and no later than 18 months of age. The aim of this study was to survey the age and the most common causes for the first visit to the dental office, as well as to assess parent awareness regarding their child's oral health.

Materials and methods :

The study involved 360 children aged between 0-13 years visiting the dentist for the first time. Data on the child's age and reason for the dental visit were collected from interviews with parents. All of the study's participants were divided into three age groups: Group 1 (children ages 0-5 years), Group 2 (children ages 6–10 years), and Group 3 (11-13 years). Four reasons for the child's first dental visit were considered: Regular check-ups (R), Tooth discomfort and swelling (P), Tooth decay (D), and Tooth injury (I). Questions regarding oral health status were asked by parents in questionnaire format.

Results :

The group 2 children making their first dental visit were (52 %) followed by group 1 (29%) and group 3 (19%). The most common cause of dental visit was tooth decay (48.3%). The decay as the

reason for the visit was significantly more amongst 0-5 years old children (p value $<.05$). Regular check-up as reason for visit to the dentist was significantly more amongst 11-13 years old children (p -value $<.05$). Toothbrushing habit, Frequency of toothbrushing, Sugar intake timings, Frequency of sugar consumption and Frequency of sugar consumption was not found to differ significantly between different age groups (p -value $>.05$).

Conclusion :

Based on the findings of the present study, it is concluded that most children visit the dentist for the first time during 6-10 years of age and have a common complaint of tooth decay or tooth pain. It is necessary to work out recommendations on the age for the first visit to the pediatric dentist and related prophylactic measures.

Keywords :

Knowledge for child dental visit, First dental visit, Oral health, Awareness for child.

INTRODUCTION

Early dental visits are important for young children's preventive care. These visits give dental professionals a chance to identify early childhood caries (ECC), evaluate dental development, instruct and inspire parents and caregivers about their children's proper oral hygiene, offer dietary advice, discuss the risk and emergency treatment of traumatic dental injuries, and encourage parents to adopt preventive behaviors. Even though we already have the knowledge and technology to stop dental problems in children from developing, a significant number of children still suffer with these preventable conditions. In India, the trend indicates an increase in the incidence and severity of oral health problems, especially dental caries, with prevalence as high as 78.9% amongst children aged 6-11 years.[1] By preventing the new dental disease from developing and treating existing dental illness, regular dental care visits at intervals based on professional risk assessment can be successful in improving oral health. As recommended by AAPD (American Academy of Pediatric Dentistry) and ADA (American Dental Association), the child's first visit to the dentist should take place within 6 months of the eruption of the first primary tooth and no later than at the age of 12 months. [2]

This study planned to determine the common chief complaints and the average age group at which they report for their first dental visit.

Materials & Method :-

This cross-sectional, hospital-based survey was conducted for a duration of 6 months. The study population comprised parents of children (aged less than 14 years) receiving dental treatment. The questionnaire-based study included parents of 360 children.

Methodology

This survey utilized a pre-determined set of 6 questions. Questions regarding oral health status were asked from parents. The questions were pertaining to the teeth cleaning habit such as toothbrushing/flossing/mouthwash, sugar intake timings, and frequency of sugar intake per day. Interviews with parents provided information on the child's age and the reason for the dental appointment. All of the study's participants were divided into three age groups: group 1 (children ages 0-5), group 2 (children ages 6–10), and group 3 (11-13 yrs). Based on the interviews, four reasons for the child's first dental visit were considered: Regular check-up (R), tooth discomfort and swelling (P), tooth decay (D), and tooth injury (I) are listed in that order. The questions were asked by the principal investigator.

Statistical Analysis

Data was analyzed using SPSS (Statistical Package for Social Sciences) 21.0 version, IBM, Chicago. Descriptive statistics was performed. A comparison of responses between different age groups was done using Chi-square test. P value < .05 was considered statistically significant.

Results

Amongst the study participants, 52.2% belonged to the age group of 6-10 years. The commonest cause for dental visit was tooth decay (48.3%). It was found that toothbrushing was practiced by 93.1% children, and only 15.8% children were found to brush teeth twice daily, with majority of the children were not using any other teeth cleaning practice like dental floss, tongue cleaner, and mouthwash. The prevalence of in-between meal consumption was high amongst these children (55.3%). A large number of children consume sugars for 3-5 times (29.2%), although majority of children consume sugars for less than 3 times (64.4%) [Table 1]. On comparing between the different age groups, it was found that decay as the reason of the visit was significantly more amongst 1-5 years old children (p value <.05). Regular check-up as a reason for visit to the dentist was significantly more amongst 11-13 years old children (p-value <.05). No significant difference was seen in the tooth injury and pain amongst children of different age groups (p-value>.05). [Table 2] Toothbrushing habit as well as frequency of toothbrushing was not found to differ significantly between different age groups (p value >.05).

The proportion of children using mouthwash or tongue cleaner was most prevalent amongst children aged 6-10 years (20.7%) but it was non-significantly different between different age groups.

Sugar intake timing and frequency was also non-significantly different between the children of different age groups (p value >.05).

		Number	Percentage
s	0-5 years	105	29.2
	6-10 years	188	52.2
	11-13 years	67	18.6
Reason of visit	Pain	124	34.4
	Decay	174	48.3
	Injury to tooth	8	2.2
	Regular check up	59	16.4
Tooth brushing practice	Yes	335	93.1
	No	25	6.9
Frequency of tooth-brushing	Once	273	75.8
	Twice	57	15.8
	Thrice	5	1.4
	No	25	6.9
Other teeth cleaning habits	Yes (mouthwash and/or tongue cleaner)	62	17.2
	No	298	82.8
Timings of sugar intake	During meals	161	44.7
	In between meals	199	55.3
Frequency of sugar intake	<3 times	232	64.4
	3-5 times	105	29.2
	>5 times	23	6.4

Table 1. Distribution of study participants based on age, reason and questions related to oral health status

		Age Group			Chi-square value	Df	P value ^a
		0 - 5 Yrs.	6 - 10 Yrs.	11 - 13 Yrs.			
Regular Checkup (R)	Number	8	10	21	16.853	2	0.001*
	% Percentage	7.6%	16.0%	31.3%			
Tooth discomfort & Swelling (P)	Number	35	65	24	0.115	2	0.944
	Percentage	33.3%	34.6%	35.8%			
Tooth Decay (D)	Number	62	91	21	12.572	2	0.002*
	Percentage	59.0%	48.4%	31.3%			
Tooth Injury (I)	Number	2	5	1	0.378	2	0.828
	Percentage	1.9%	2.7%	1.5%			

^aChi-square test. *p value <.05 was considered statistically significant.

Table 2. Comparison of reason of visit amongst different age groups.

Discussion :-

Early preventive care results in sound health and economic benefits. It has been reported that dental costs for children who had their First Dental Visit before one year of age was 40.0% lesser than for those who had no dental visit before the first birthday.

Viswanath S (2021) and Ghimire N (2013) have reported that majority of the children make their first dental visit after 5 years of age with the complaint of toothache, ^[3] ^[7] which was similar to our study where a majority of the children having their first dental visit takes place at the age more than 5 years, i.e., 6-10 years.

Dental visit at an early age can help to build the foundation of a lifetime of preventive education and dental care and can help assure optimal oral health into childhood. As recommended by ADA and AAP, the oral health risk assessment should be initiated as early as 6 months of age, and establishment of Dental Home for all infants should be done by 12 months of age. The concept of the Dental Home reflects AAPD and ADA policies and best

principles for the proper delivery of oral health care to all, with an emphasis on initiating preventive strategies during infancy. An infant oral health examination is simple, easy and effective. The Dental Home enhances the dental professional's ability to provide optimal oral health care, beginning with the age one dental visit for successful preventive care and treatment as part of an overall oral health care foundation for life. Additionally, the establishment of the Dental Home assures appropriate referral to dental specialists when care cannot directly be provided within the Dental Home. ^[4] Contrary to the recommendations, most children are not exposed to dental care at an early age. ^[7] Infant oral health care is essential to break the cycle of early childhood caries; manage the risk/benefit of habits; establish a dental home for health or harm; impart optimal fluoride protection; and use anticipatory guidance to arm parents in the therapeutic alliance. ^[6]

In the present study, majority of the patients visiting the dentist for the first time belonged to the age group of 6-10 years (52.2%). Surprisingly, no children visited the dental clinic during Infancy (the recommended age for first dental visit). This indicated towards the lack of awareness amongst Indian parents regarding the appropriate time for first dental visit. Similar to the findings of present study, a study from Chennai reported that 59.08% of children visiting the dentist for the first time belonged to the age group of 6-12 years. ^[7] Atulkar M et al. (2015) reported similar findings from Vidharbha Maharashtra. They found that children report for their first dental visit only after 5 years for the complaints like pain, malocclusion and trauma. ^[8] Subramaniam P et al. (2019) reported that in Bengaluru the mean age of the first dental visit was 8.18 ± 3.2 years, children majority of them reported for their first dental visit at age 6 years and 96% of them reported when their was a problem. ^[9]

A study from Nepal, also reported the similar observations. ^[4] The probable reason behind this behavior could be the fact that the eruption of permanent dentition begins by the age of 6 years ^[10], and majority of the parents give importance to permanent teeth only, and very few believe that the primary teeth are equally important as permanent teeth ^[11]. This attitude is reflected in age and reason for first dental visit of children.

We found that the most common reason to seek dental care was the decay of tooth and the second most common reason was toothache. Similar findings were reported by Meera R et al. (2008)^[7]. Olatosi OO et al. (2019) amongst Nigerian children found pain to be most common and decay to be the second most common cause for first dental visit. Similar to our study, in

their study too very few (21.0%) visited the dentist for regular check-up, ^[12] Findings from Bulgaria were also similar in which the greatest number of children making their first dental visit were in the 3-6 year-olds (51.90 %) with the predominant cause was caries and its complications.. ^[13]

It was observed that the recommended frequency of toothbrushing i.e., twice/thrice daily was achieved by only 15.8%/1.4% children, along with this in between meal sugar consumption was prevalent amongst 55.3%. Singh A et al. (2011) reported 100% prevalence of between meal consumption of sugar amongst tribal children. ^[14] Comparatively lower prevalence of between mean sugar consumption in our study pointed towards the rural-urban variations in oral health awareness. Recently Jaiswal D et al. (2021) in their study also found that appropriate toothbrushing of twice daily was practiced by only 17.3% in school going Indian children. ^[15] Kanagavelu KSK et al. (2020) reported a comparatively greater prevalence (58.6%) of twice a day toothbrushing habit amongst school children age. ^[16] These inappropriate oral hygiene habits and eating habits are consistent with the occurrence of caries and tooth pain as a consequence of caries among these children. Frequency of sugar consumption and form of sugar consumed are the factors determining the development of dental caries. ^[17]

Alike other parts of India, the children from Central India also pay first dental visit quite late and the purpose of first dental visit is to seek treatment rather than screening for dental diseases. Based on the findings of the study, it has been realized that inclination towards prevention is poor and preventive dentistry has not reached the common population in India.

It has been emphasized that there is a need to raise awareness among masses regarding the significance of oral health care of children at the earliest budding stage of their life. ^[18] Baliga MS (2019) suggested that it can be achieved by integrating preventive oral healthcare with the vaccination visits of the child. On these visits, pediatricians can get an opportunity to encourage parents to make well-child visit to the pediatric dentist. ^[19]

Limitations of the study

Being single hospital-based, the information obtained from this study lacks generalizability.

Acknowledgment

We are grateful to all the children and their parents for their participation in the present study.

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