

Assessment of Parents Involvement and the Awareness of Oral Hygiene Practices among 5–12 Years Old School-children

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ABSTRACT

Objective: To assess parent's involvement and awareness of oral hygiene practices for children aged 5–12 years.

Methods: A cross-sectional questionnaire-based study was done among, $N = 162$ parents of children aged between 5 and 12 years using convenience sampling reporting to Asan Memorial Dental College and Hospital.

Results: Majority of the parents reported that they started brushing their child's teeth at 1 year of age $N = 69$ (42.6%) followed by $N = 63$ (38.9%). Parents reported brushing their child's teeth after the 1st tooth erupts into the oral cavity $N = 81$ (50%). Only $N = 30$ (18%) parents reported brushing their child's teeth 2 times per day as per recommendation, while $N = 81$ (50%) of the parents reported changing the child's toothbrush once every 3 months. $N = 71$ (43.8%) parents reported that once or twice the child had complained of toothache in the past few months. $N = 107$ (66%) parents reported visiting the dentist if the child complaints of decay or tooth pain. $N = 88$ (54.3%) parents reported visiting a dentist once in a year.

Conclusion: Role of the parents in the oral hygiene practices of children is relatively good but the attitude of the parents toward oral hygiene needs to be improved more in order to further improve and maintain the oral hygiene and oral health of children.

Keywords: Brushing and tongue cleaning, Children, Oral hygiene practices, Parents.

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INTRODUCTION

The vital part of good overall health is having a healthy mouth. In order to develop a preventative strategy and ensure that their children have a good oral health status, parents' knowledge and awareness of their children' oral health is a crucial component.¹ Furthermore, parents who are unaware of the importance of dental health for their kids will have an impact on the attitudes and practices that they develop about oral health in the future, which will follow them into adulthood.²

Maintaining good oral hygiene is essential to preventing dental caries, and oral health is a major indication of general health.³ It has been disregarded everywhere in the world, particularly with children, which has a direct impact on their physical and emotional well-being. Maintaining good oral hygiene is essential to preventing dental conditions including periodontitis and gingivitis.⁴ It may be accomplished simply cleaning your teeth on time, making a habit of cleaning teeth after meals, tongue cleansing and proper brushing technique.^{5–8} Early adoption of healthy habits promotes long-term dental and overall health.

Parents need to know about dental healthcare as it affects their children's overall health.

Early intervention helps by giving parents the chance to learn about a variety of topics, including healthy oral hygiene (brushing their teeth properly, preventing cavities, and stressing the value of routine dental checkups). Therefore, the purpose of this study was to assess parent engagement and awareness in maintaining their children's oral hygiene.

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MATERIALS AND METHODS

A research using a cross-sectional questionnaire to evaluate the parent's involvement and awareness of oral hygiene practices of their children of 5–12 years old. Approval was obtained from the Institutional Scientific Review Committee, Asan Memorial Dental College and Hospital toward the study. The sample size was calculated to be $N = 162$ using G*Power software based on the study conducted by Hammouri *et al.*, parents who have children aged between 5 and 12 years were included in the current study, convenience sampling method was employed, parents of children aged between 5 and 12 years reporting to Asan Memorial Dental College and Hospital were incorporated into the research.⁹

Table 1: Oral hygiene practices of children as reported by parents

Questions	Response	N (%)
1. When do you start brushing your child's teeth	1. As soon as first tooth erupt	63 (38.9%)
	2. One year of the age	69 (42.6%)
	3. Above one year of the age	30 (18.5%)
2. How often do you change the child's toothbrush?	1. Once in 3 months	81 (50%)
	2. 3–6 months	56 (34.6%)
	3. As soon as it gets frayed	25 (15.4%)
3. Does your child do tongue cleaning?	1. Yes	56 (34.6%)
	2. No	91 (56.2%)
	3. I do not know	15 (9.3%)
4. How many times does your child brush per day?	1. 0	9 (5.6%)
	2. 1	115 (71%)
	3. 2	30 (18%)
	4. More than 2 times	8 (4.9%)
5. Does your child rinse his/her mouth after every meal?	1. Yes	49 (30.2%)
	2. No	95 (58.6%)
	3. I do not know	18 (11.1%)
6. How long does your child brush?	1. 30 seconds	45 (27.8%)
	2. 1–2 minutes	81 (50%)
	3. 2–3 minutes	32 (19.8%)
	4. I do not know	4 (2.5%)
7. Do you use any specific toothpaste for your child?	1. Yes	82 (52.5%)
	2. No	77 (47.5%)
8. How much toothpaste you use for brushing your child's teeth?	1. Size of pea	53 (32.7%)
	2. Half the length of brush	75 (46.3%)
	3. More than half the length of brush	34 (21%)

Parents of children who have no developmental defects as well as psychological disorders are included in the present study. Two sections of 20 questions made up the self-administered questionnaire: (1) Demographic details included name, age, and sex. (2) Involvement as well as awareness questions on oral hygiene practices of children, cause for dental caries. Questionnaire was validated by doing a pilot study, Questionnaire was allocated to the parents in the waiting area of the Department of Pedodontics, Asan Memorial Dental College and Hospital. Data collected was subjected to statistical analysis using SPSS Version 23, frequency tables were computed.

RESULTS

A cross-sectional questionnaire survey was administered to parents of children in the age range of 5–12 reporting to Asan Memorial Dental College and Hospital, Chengalpattu.

Table 1 depicts that majority of the parents stated that they began cleaning their child's teeth at 1 year of age $N = 69$ (42.6%) followed by $N = 63$ (38.9%) stated cleaning their child's teeth after the first tooth's eruption into the oral cavity, $N = 81$ (50%). Parents stated that they only clean their children's teeth for 1–2 minutes, as opposed to the suggested 2–3 minutes $N = 32$ (19.8%), $N = 115$ (71%) parents stated that they only brushed their children's teeth once a day, only $N = 30$ (18%) of the parents stated that they followed the suggestion and brushed their child's teeth twice. $N = 81$ (50%) of the parents reported that they change their child's toothbrush every 3 months. Most of the parents reported no tongue cleaning procedure done for their children. $N = 91$ (56.2%) as a part of routine oral hygiene care, $N = 82$ (52.5%) parents reported using a specific toothpaste for

their child. $N = 75$ (46.3%) parents reported taking toothpaste half the length of toothbrush for brushing their child's teeth.

Table 2 depicts the dental attendance pattern of Children, $N = 71$ (43.8%) parents reported that once or twice the child had complained of toothache in the last 1 year. $N = 107$ (66%) of the parents reported visiting the dentist if the child complaints of decay or tooth pain. $N = 88$ (54.3%) parents reported visiting a dentist once in a year.

Table 3 depicts the snacking habits among children, $N = 63$ (38.9%) parents reported milk as their child's favorite drink followed by fruit juice $N = 50$ (30.9%) and soft drinks $N = 35$ (21.6%), $N = 73$ (45.1%) parents reported that their child consumes soft drinks one or two times a week. $N = 97$ (57.9%) parents reported cakes/biscuits are their child's favorite snack followed by chocolate $N = 89$ (54.9%), fruits $N = 24$ (14.9%), and dry fruits $N = 14$ (8.6%).

DISCUSSION

The current study illustrated the degree of parental participation and awareness of their children's oral hygiene routines. Nonetheless, parents' levels of awareness, understanding, and participation differed. As stated by the American academy of pediatric dentistry the tooth-brushing should be supervised by the parent at least until the age of 8 years.⁹ We found that most parents clean their child's teeth as soon as the first tooth emerges, which is better than the findings of a research by Suresh et al., in which most parents believed that they should brush their child's teeth once all of the primary teeth had erupted into the oral cavity.¹⁰

Most parents replaced their child's toothbrush once every 3 months, according to our survey. $N = 81$ (50%) which is in contrast

Table 2: Dental attendance pattern of children as reported by the parents

Questions	Response	N (%)
1. If your child has sign of decay, what would you do?	1. Try to cope up	24 (14.8%)
	2. Visit the dentist	107 (66%)
	3. Brush the teeth	26 (16%)
	4. Visit general physician	5 (3.1%)
2. How often do you visit the dentist?	1. 6 months once	41 (25.3%)
	2. Yearly	88 (54.3%)
	3. Never	33 (20.4%)
3. In the last 12 months, how often does your child complained of toothache or feel discomfort from teeth?	1. Never	31 (19.1%)
	2. Once or twice	71 (43.8%)
	3. Almost every week	46 (28.4%)
	4. Almost everyday	9 (5.6%)
	5. I do not know/I do not remember	5 (3.1%)

Table 3: Snacking habits of children as reported by parents

Questions	Response	N (%)
1. What is your children's favorite drinks?	1. Water	14 (8.6%)
	2. Milk	63 (38.9%)
	3. Fruit juice	50 (30.9%)
	4. Soft drinks	35 (21.6%)
2. How often do your child drink soft drinks?	1. Only on special occasions	42 (25.9%)
	2. One or two times a week	73 (45.1%)
	3. Most of the days of the week	47 (29%)
3. What is your child's favorite snack?	1. Fruit	24 (14.9%)
	2. Cake/Biscuit	97 (59.9%)
	3. Chocolate	89 (54.9%)
	4. Dry fruits	14 (8.6%)

to the result obtained by Vishwanathaiah's study which showed 43.43% of children change their toothbrush once in 6 months.¹¹

Our study shows that most of their children brush their teeth once daily according to the research carried out by Vishwanathaiah. which shows 69.75% of the children brushes their teeth once a day.¹¹ Parents N = 91 (56.2%) don't do tongue cleaning to their children which is in contrast with the study conducted by Pedrazzi which showed three fourth of the parent's population do tongue clean for their children (84.4%).¹²

From the study it is concluded that most of the children don't rinse their mouth after every meal N = 95 (58.6%) which is contrast to the study conducted by Hammouri et al. which showed most of the children (80%) do rinse their mouth after every meal, hence parents need to be educated on emphasizing the importance of rinsing the mouth with water after meal by the children to remove food debris accumulation.⁹

This study shows that most of their parents N = 85 (52.5%) used specific toothpaste for their children which is in contrast to the study conducted by Bennadi et al. which showed that most of the parents used common toothpaste for their children N = 64 (53.2%).¹³

As per the study parents take their children to dentist once yearly N = 115 (71%) which is in contrast to the result obtained by Bhavan Gupta Saraf et al. that stated most of the parents take their children every 6 month to their children N = 65%, difference attributed to the area of the study population.¹⁴ The present study uses convenience sampling, hence the results can be

generalized with caution, further studies can be carried out with oral examination of children.

CONCLUSION

Parents involvement in oral hygiene practices of children is found to be good, Parents role in oral hygiene maintenance of children can improve the oral health of children.

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