

Original Research Article

# Assessment of awareness among parents about preventive measures of oral health problems in children

Jayashri Navalkishor Chandak<sup>1</sup>, Jaishree Chahande<sup>1</sup>

<sup>1</sup>Department of Prosthodontics, VSPM's Dental College and Research Centre, Nagpur, Maharashtra, India.

## ABSTRACT

**Objectives:** Oral health is an essential factor of day to day life. The habit of maintaining oral health and daily routine for the same should be incorporated into the children from their childhood. An oral cavity free from all disease is maintained by awareness about the preventive measures. Parents play a key role in their kids' life, thus their understanding toward oral health are important. The aim of the study was to assess awareness among parents about preventive measures of oral health problems in children. The main objective is to assess awareness of problems related to oral cavity and to encourage parents to maintain good oral hygiene of their children by adapting preventive measures and also to know the requirement of encouraging oral health promotion programs.

**Materials and Methods:** A pre-validated questionnaire was distributed among the parents of children aged till age of 12 years old. The questionnaire related to oral hygiene practice and awareness of oral health problems including 13 questions were distributed through Google forms to parents through WhatsApp and email.

**Results:** A questionnaire with 13 items was used to evaluate parents' knowledge of oral health. Forty-two men and 62 women made up the 104 parents of children between the ages of 6 months to 12 years. Demographic details include 59.61% of females and 40.38% of males were participated. A total of 104 parents participated in the study. In a poll of 104 parents, it was determined that 81.73% of the parents believed that brushing twice a day was important, and 51.92% of the parents felt that they should visit their dentist at 6–12 months of age of child. It was determined from the survey that 81.73% of the parents wanted more information on how to maintain their children's teeth better. To address all of the survey's questions, an educational brochure was issued once the questionnaires were collected. It is essential that parents and dentists teach their kids good brushing and oral hygiene habits.

**Conclusion:** Although the parent's understanding of the many elements that affect dental health was good, there are some aspects where still lack of knowledge exist that must be taken into account. Parents' education can be the most encouraging factor in preventing oral health problems because prevention is always preferable to cure. To enhance awareness and start dental caries prevention techniques early, it is necessary to supervise dental health education initiatives that are directed at parents of school-aged children.

**Keywords:** Oral health problems, Parents, School going children, Awareness

## INTRODUCTION

“Awareness precedes choice and choice precedes results.”

- Robin Sharma

As rightly said by Robin Sharma, awareness among the people leads to real change. Oral health is an essential factor of day to day life. The habit of maintaining oral health and daily routine for the same should be incorporated into the children from their childhood. An oral cavity free from all disease is maintained by awareness about the preventive measures. Parents play a key role in their kids' life, thus their understanding toward oral health are important. The

management and prevention of dental health concerns, on the whole, demand a significant amount of time and effort, self-awareness, and intervention.

Children should visit dental clinic for an oral health assessment within 1 year of birth as per the Academy of Pediatric Dentistry (AAPD) recommends.<sup>[1]</sup>

Parents' education and understanding of the need of early dental care at home may be greatly aided by the dental professionals.<sup>[2]</sup> Since many parents may have limited literacy skills, education and knowledge about oral health should be simple to understand and as easily readable as

\*Corresponding author: Jayashri Navalkishor Chandak, Department of Prosthodontics, VSPM's Dental College and Research Centre, Nagpur, Maharashtra, India. jayashrinchandak@gmail.com

Received: 30 November 2022 Accepted: 16 June 2023 Published: 23 August 2023 DOI: 10.25259/JADPR\_44\_2022

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, transform, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms. ©2023 Published by Scientific Scholar on behalf of Journal of Advances in Dental Practice and Research

possible.<sup>[3]</sup> The use of a pre-validated questionnaire to assess parents' knowledge and attitudes helps in the formulation of a successful oral health promotion program. The intention of the research is to gather information to evaluate the knowledge and skills of the parents and their attitude towards oral health and its connection to the frequency with which their children suffer from oral health issues.

## AIM AND OBJECTIVES

The aim of the study was to assess awareness among parents about preventive measures of oral health problems in children. The main objective is to assess awareness of problems related to oral cavity and to encourage parents to maintain good oral hygiene of their children by adapting preventive measures and also to know the requirement of encouraging oral health promotion programs.

## MATERIALS AND METHODS

A 6-month–12-year-old child was taken into consideration and a cross-sectional study was carried out. A pre-validated self-administered questionnaire containing 13 questions related to oral hygiene practice and awareness of oral health problems was distributed. Out of 13, four questions were taken from published study,<sup>[4]</sup> four questions from published study,<sup>[5]</sup> and five questions were newly added and the whole questionnaire was pre-validated and distributed among the parents. The awareness level was enumerated based on options provided in the survey questionnaire. It indicates the knowledge of dental hygiene among the parents. A self-administered questionnaire was distributed among the participants through WhatsApp and email. All willing and eligible participants were included in the study. Any incomplete questionnaire was excluded from the study. The data collected were inserted in an excel sheet.

## RESULTS

There were 104 parents who participated in the study. In demographic details of all 104 parents out of this, 59.61% are female parents and remaining 40.38% of male parents were involved. All the parents have children of age group 6 months–12 years were involved. Following the responses of the parents, it was determined that 81.73% of the parents believed that brushing twice a day was important, and 51.92% of the parents felt that they should visit their dentist at 6–12 months of age.

Around 91.35% of the parents know the best way to clean his or her child's teeth with a toothbrush and toothpaste. Sugary products if having frequently lead to tooth decay faster. About 75.96% of parents know this fact. They can take care of the cause of the oral health problems more efficiently as they are more aware than the other 24.04% of the parents who believe the quantity of sugar causes tooth decay. It is clearly seen that 66.35% of parents are aware about the fluorides and its benefits as it prevents decay.

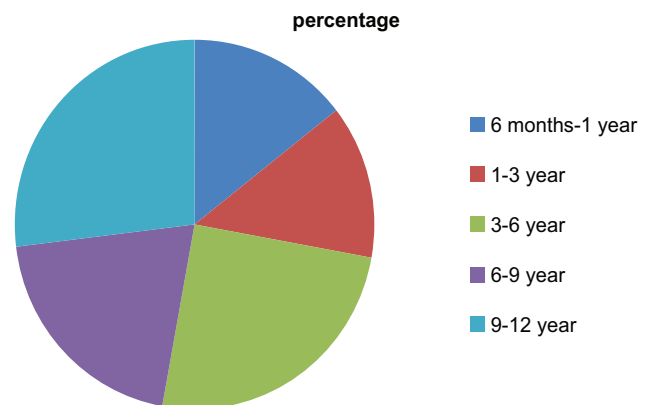
It was determined from the survey that 81.73% of the parents wanted more information on how to maintain their children's teeth better. To address all of the survey's questions, an educational brochure was issued once the questionnaires were collected. It is essential that parents and dentists teach their kids good brushing and oral hygiene habits.

## DISCUSSION

To evaluate parents' understanding of oral health, a 13-item questionnaire was prepared. [Table 3] displays each question's results individually. Demographic details include that 62 of the 104 parents were female, while 42 were male. That means almost equal participation was there which is shown in [Table 1]. In this study, different age groups were slotted to evaluate the awareness among which age group of children have more. Children having age group between 6 months and 1 year were 14.42%, age group of 1–3 years were 13.46%, age group 3–6 years were 25%, 6–9 years were 20.19%, and 9–12 years age group were 26.92% involved in this study [Table 2].

Female participants significantly gave good attention to their oral health in a previous study done by Azodo CC, showing female participants were more aware about oral health.<sup>[6]</sup> Parental participation is seen as a significant tool for evaluating the health of the child. According to reports, children's tooth-brushing practices were strongly correlated with the parents' perspective on the value of instilling proper dental hygiene. Children of the parents who were between the ages of 6 months and 12 were included in the current survey. This is in keeping with the AAPD Guidelines, which emphasize empathizing with children up to the age of 7–8.<sup>[4]</sup> Their development of fine motor skills occurs at this age till that age parents have a very crucial role.

This study showed that 91.35% of the parents know the best way to clean his or her child's teeth with a toothbrush and toothpaste as compared to the previously done study in Panchkula, Haryana, this percentage is almost 100%. Maximum population of the parents in our survey knew to brush their children's teeth with a toothbrush and toothpaste, and 81.73% knew to brush twice a day which is better than the previous study that is only 61.2% of parents took care to guide about the 2 time brushing and cleaning of tooth in their children personal hygiene routines.



**Table 1:** Frequency of oral health awareness among the parents.

1	Best way to clean teeth	Datun	4.81%
		Toothbrush with paste	91.35%
		Toothbrush with powder	3.85%
2	Frequency of cleaning teeth in a day	After each meal	9.62%
		Once a day	7.69%
		Twice a day	81.73%
		Never/	0.96%
3	What causes tooth decay more?	Frequency of intake of sugar	75.96%
		Quantity of sugar	24.04%
4	Do you know fluorides prevent decay?	No	33.65%
		Yes	66.35%
5	What kind of toothpaste do you use for your child?	Fluoridated	52.88%
		I don't know	30.77%
		Non fluoridated	16.35%
6	When did you start using toothbrush on your child's teeth?	1 Year of age	25.96%
		Above 1 year of age	58.65%
		As soon as first tooth erupted	15.38%
7	Are you aware about child's first dental visit at months/at least 12 months of age?	No	47.12%
		Yes	51.92%
		Maybe	0.96%
8	Does your child rinse his mouth after every meal?	Maybe	16.35%
		No	18.27%
		Yes	65.38%
9	Do you know about flossing?	Maybe	12.50%
		No	49.04%
		Yes	38.46%
10	Does your child use mouthwash?	Maybe	5.77%
		No	54.81%
		Yes	39.42%
11	Are you aware of the consequences of tooth decay?	No	19.28%
		Yes	64.37%
		Maybe	16.35%
12	Have you attended an oral health awareness programme?	Yes	32.64%
		No	67.36%
13	Would you like to attend oral health awareness program?	No	17.31%
		Yes	81.73%
		Maybe	0.96%

**Table 2:** Demographic details of participants in the study.

Gender	Frequency	Percentage
Male	42	59.61
Female	62	40.39

In the case of dental caries, numbers of factors are to be taken into consideration for determining its spread and intensity. There are multiple factors responsible for caries as follows: Consumption of sugar and its frequency, easy availability of sugar containing food, lack of fluoride intake, and limited concern regarding oral health.<sup>[7]</sup> Sucrose is an important etiological factor in caries. This study indicates that a 75.96% proportion of parents are aware of the reality that increased frequency sugary products can cause tooth decay. Almost similar results were seen by Winnier *et al.* study<sup>[5]</sup> where 78% of parents are aware of the same.

**Table 3:** Frequency of no of parents having children in the following age group.

Age group	Percentage	Frequency
6 months–1 year	14.42	15
1–3 years	13.46	14
3–6 years	25	26
6–9 years	20.19	21
9–12 years	26.92	28

For keeping the oral cavity clean and away from the risk of oral health problems, dentifrice plays a significant role in preventing accumulation of dental plaque as far selection of the best toothpaste and toothbrush is important especially for developing teeth. These toothpastes are fluoridated and can prevent dental caries. In this study's sample of parents,

66.35% parents have an idea what fluoride was or how it affects the dental caries. Only 54% of the parents knew about the significance of fluoride in preventing dental caries which was in disagreement with the previous study conducted by Bamba *et al.* in Panchkula, Haryana.<sup>[4]</sup>

The first dental checkup should take place in 12 months after the eruption of the first primary tooth, according to the AAPD.<sup>[5]</sup> It is good to know the improved finding of 51.92% participants knew that the child should go to the dentist for the 1<sup>st</sup> time at 6–12 months of the age. The outcomes of the present study were different from those of other studies, where the majority of participants had no idea of the first checkup, what age was appropriate for their first dental appointment in study published by Winnier *et al.*<sup>[5,8]</sup> The objectives are to increase access to early detection and treatment of the oral health problems of the children, which will enhance their oral health for rest of the lives, similarly, shown in the study done by Donahue GJ.<sup>[9]</sup> The most concerning finding is that only 15.38% of participants have the idea when to start using toothbrush on their child's teeth. According to the present study, over half of the respondents (58.65%) started brushing their children's teeth when they were above 1 year old. Parents were not aware that tooth brushing begins the moment the first tooth erupts.

About 2700 BC, Chinese medicine is credited with first using mouthwash as a professional procedure to treat gum problems. It is imperative to use mouthwash after every meal to avoid food lodging, which creates an ideal environment for bacterial growth. After every meal, 65.38% of the parents in our survey had taught their kids to rinse and spit with water.

Only 38.46% of parents said that they knew about flossing and 16.35% agreed that they had no clear idea of their kids cleanse their mouths after eating with mouthwash. This is in contrast to a prior study by Winnier *et al.* study,<sup>[5]</sup> where only 4.5% had the confusion of using mouthwash. Similarly, unawareness about the flossing is also shown in the study done by Winner JJ.

It was wonderful to discover that 81.73% of the parents wanted additional knowledge about how to maintain their child's dental health, thus after obtaining the data, an educational leaflet including the answers to every question addressed in the survey was distributed after receiving a questionnaire from the kids on the WhatsApp and e-mail of the participants. Education of parents improves their understanding of oral health behavior, which therefore improves their capacity to monitor their children's hygiene practices. According to reports, parents with greater levels of education exhibit healthier behaviors, have a more positive outlook on life, and want to exert more parental control over their kids.

## CONCLUSION

Although the parent's understanding of the many elements that affect dental health was good, there are some aspects where still lack of knowledge exist that must be taken into account. Parents' education can be the most encouraging factor in preventing oral health problems because prevention is always preferable to cure. In order to enhance awareness and start dental caries prevention techniques early, it is necessary to supervise dental health education initiatives that are directed at parents of school-aged children.

## Limitations

The limitations of the study include that study sample of limited age group parents having 12-year-old children was taken into consideration, biased answers, and study provides limited data due to small sample size. Thus furthermore studies have to be done with larger sample size.

## Declaration of patient consent

Patient's consent not required as there are no patients in this study.

## Financial support and sponsorship

Nil.

## Conflicts of interest

There are no conflicts of interest.

## REFERENCES

- Ramos-Gomez F, Jue B, Bonta Y. Implementing an infant oral care program. *J Calif Dent Assoc* 2002;30:752-61.
- Dela Cruz GG, Rozier RG, Slade G. Dental screening and referral of young children by pediatric primary care providers. *Pediatrics* 2004;114:642-52.
- Psoter WJ, Zhang H, Pendrys DG, Morse DE, Mayne ST. Classification of dental caries patterns in the primary dentition: A multidimensional scaling analysis. *Community Dent Oral Epidemiol* 2003;31:231-8.
- Bamba S, Chachra S, Duhan H. A questionnaire-based study to assess the level of awareness among parents about preventive measures and its relationship with dental health status of 6-12 years old children in Panchkula, Haryana, India. *J South Asian Assoc Pediatr Dent* 2019;2:10-3.
- Winnier JJ, Parmar A, Mehta S, Bambal K, Bhatia R. Oral hygiene maintenance in children- a survey of parental awareness. *Int J Oral Health Med Res* 2015;2:1-5.
- Azodo CC, Unamatokpa B. Gender difference in oral health perception and practices among medical house officers. *Russ Open Med J* 2012;1:0208.
- World Health Organization. *Oral Health Surveys: Basic Methods*. 4<sup>th</sup> ed. Geneva: World Health Organization; 1997. Available from: <https://apps.who.int/iris/handle/10665/41905> [Last accessed on 2019 Jan 18].
- Sultan S, Ain TS, Gowhar O. Awareness of mothers regarding oral health of their children in Kashmir, India. *Int J Contemp Med Res* 2016;3:2168-71.
- Donahue GJ, Weddell N, Plough AL, Del Aguila MA, Garland TE. The ABCDs of treating the most prevalent childhood disease. *Am J Public Health* 2005;95:1322-4.

**How to cite this article:** Chandak JN, Chahande J. Assessment of awareness among parents about preventive measures of oral health problems in children. *J Adv Dental Pract Res* 2023;2:7-10.