

Knowledge, Attitude and Practices of Parents toward the Oral Health of their School-going Children in Faridabad City

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ABSTRACT

Aim: To determine the knowledge, attitude, and practice of parents toward the oral health of their school-going children in Faridabad city.

Materials and methods: A cross-sectional study was conducted among 312 parents who reported in the outpatient department of Pedodontics and Preventive Dentistry at Sudha Rustagi College of Dental Sciences & Research, Faridabad, Haryana, India. Data was collected through a self-administered questionnaire. The statistical analysis was performed using the Statistical Package for the Social Sciences (SPSS) (version 18) software for descriptive and multivariate analysis, and the level of statistical significance used in this study was chosen at $p < 0.05$.

Result: The results of this study showed that the sample selected had relatively good knowledge regarding the number of teeth present in the mouth of their child, the importance of filling the primary teeth, and trauma-related knowledge. Parents were aware that excess sugar intake, germs/bacteria, and sticky food are responsible for causing caries. On the contrary, a few of the parents were not aware of the ideal time for the first dental visit. Parents showed a positive attitude regarding the importance of supervised brushing twice with fluoridated toothpaste.

Conclusion: We concluded in the present study that the knowledge of parents regarding the oral health of their children in Faridabad city is relatively good, but in a few aspects, it's been observed that this knowledge is not implemented, and the attitude of the parents toward good oral health practices needs to be improved more. As pedodontists, we can help to bring this change to the present society as we can counsel parents to take appropriate care of their children's oral health.

Clinical significance: This article will help to assess the awareness of parents toward the oral health of their school-going children, which will further help in improving their knowledge, attitude, and practices, hence improving the oral hygiene of children.

Keywords: Attitude and awareness, Oral health, Parental knowledge, Pediatric dentistry.

International Journal of Clinical Pediatric Dentistry (2022): 10.5005/jp-journals-10005-2438

INTRODUCTION

Oral health is a reflection of general health, and any neglect concerning it will affect the general well-being of an individual.¹

Children enact the behavioral habits of their parents by observation at home, with parents here acting as the primary models.² Parental attitude toward their oral health has a direct influence on the dental health of their children³ as it is an evidence-based fact that the more positive the parent's attitude toward dentistry, the better will be the dental health of their children.⁴

Children facing dental problems are very common these days. In today's millennial era, parents are very concerned about the dental well-being of their children, and these millennial parents prefer to visit a pediatric dentist over a general dentist for the same.³ It has been noticed over the past 50 years that there has been an improvement in the oral health of children due to the increased awareness of parents toward dental health.¹

In the present times, dental caries is a global health problem and is the primary dental disease in children.

Prevention of dental caries is an extreme challenge for parents, so increasing parental knowledge and implementing various preventive methods like incorporating healthy eating habits, use of fluoridated toothpaste, monitoring proper tooth brushing,⁵ seeking professional care with respect to pit and fissure sealants, fluoride varnishes, etc. may lead to decreased dental caries and hence improved health of their children.

This study focuses on the importance of parental knowledge about oral health, their attitude toward it, and how oral health practices are being carried out. It has been shown in many studies

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How to cite this article: Singh R, Mendiratta P, Saraf BG, *et al.* Knowledge, Attitude and Practices of Parents toward the Oral Health of their School-going Children in Faridabad City. *Int J Clin Pediatr Dent* 2022;15(5):549–553.

Source of support: Nil

Conflict of interest: None

that parents directly influence the oral health of their children right from their formative years' grade.⁶

Therefore, in order to advocate healthy oral hygiene habits, there is a need to know about dental knowledge, attitude, and practices of parents toward the oral health of their school-going children. Hence, the present study was conducted.

MATERIALS AND METHODS

Sample Size Estimation

The sample size was estimated using nMaster software (version 2, Christian Medical College, Vellore, Tamil Nadu). Anticipating a 28.4% prevalence of knowledge among parents toward the oral health of their children, an absolute precision of 5%, and a 95% confidence interval, a sample size of 312 is found to be sufficient.

Formula

$$N = [Z^2 * p * (1 - p) / d^2] * \text{design effect}$$

Where,

p : expected prevalence = 0.284 or 28.4%

d : absolute precision required on either side of prevalence = 0.05 or 5%

Z : 1.96

A cross-sectional study was conducted amongst 312 parents who reported to the outpatient Department of Pediatrics and Preventive Dentistry at Sudha Rustagi College of Dental Sciences & Research, Faridabad, Haryana. Data was collected through a questionnaire consisting of 20 questions about the knowledge, attitude, and practice of parents toward the oral health of their school-going children. The study was approved by the Ethical Committee of the institution, and permission to conduct the study was granted by the Department of Pediatric and Preventive Dentistry.

Parents' participation in this study was voluntary, free of constraint, and in a fully informed manner. The questionnaire prepared was asked on an interview basis from the parents of children. Parents explained the entire questionnaire in the local language comprehensible to them, and their responses were elicited.

Statistical Analysis

Data was first entered into the Microsoft Excel sheet using SPSS (version 18) software. As the variance was categorized into nature, thus summarized as absolute and relative frequencies. Inferential statistics were computed using the Chi-squared test. The level of significance was set at 0.05 (Table 1).

RESULTS

Results of the study showed that 32.6% of the total parents had knowledge of the total number of teeth in their children, while very few, that is, 14.1%, were absolutely unaware of it. The majority of the parents knew that milk teeth were important in children and hence should be treated if needed. (Fig. 1).

A total of 40.7% of the parents answered that the first visit should be around the first birthday, while 15.4% of the parents answered that it should be when all permanent teeth have erupted, which shows a lack of knowledge in this area (Fig. 2). Majority of the parents knew that they should start cleaning the mouth of their child after the eruption of the first tooth. Dental caries is one of the most challenging problems in today's era; 45.7% of parents knew that dental caries is caused by germs/bacteria, excess sugar, and sticky foodstuff.

The majority of parents (46%) knew that healthy food, good oral hygiene, and fluoridated toothpaste could prevent dental caries. According to the results, a maximum number of the parents had sufficient knowledge that genetics, mouth breathing, and early loss of milk teeth were responsible for a malocclusion (Fig. 3).

When asked about trauma-related knowledge, a maximum number of parents knew that avulsed teeth could be reimplanted and milk could be used as a safe storage media.

In the attitude section, 45.9% of the parents answered that they should take their child to the dentist every 6 months, and 10.8% of the parents believed that they were not too regular when it came to visiting a dentist.

During this millennial era, parents are concerned about the dental health of their children. A maximum number of parents (43.4%) prefer to take their children to a pediatric dentist, while 32.2% still prefer a general dentist (Fig. 4).

Around 66.7% of the parents knew that wearing a mouth guard was beneficial/safe for kids while playing. A total of 48.7% of the parents practice twice brushing their children with fluoridated toothpaste (Fig. 5) and use smear-size toothpaste (44.6%).

The majority of the parents (31%) reported that they change the brush of their children once a month, while many of the parents lack sufficient knowledge.

DISCUSSION

This present study was designed to assess the knowledge, attitude, and practice of parents of school-going children toward the oral health of their children in Faridabad. It has been proved in the literature that appropriate behaviors of school-going children can promote health, but they did not develop an awareness of this relationship until the third and fourth grades.⁶

Social Influence on Behavior of the Child

As it has been shown in Bandura's social cognitive theory,⁷ overt behaviors of significant others represent important sources of social influence; hence knowledge, attitude, and practices of parents toward their dental health directly influence their children's attitude toward the maintenance of their oral hygiene.

Importance of Primary Teeth

The questionnaire used in the study was prepared with different aspects, parents were asked about the importance of primary teeth, and results showed that a good percentage of parents knew that milk teeth were important, while some authors like Ng have reported that certain cultures place little value on primary teeth and that caries and early loss of the primary dentition is an accepted occurrence.⁸ Frequently, it has been noticed in pediatric dental practice parents ignore the importance of the primary tooth and its function. They are always in conflict regarding the treatment to save and maintain the milk tooth function.⁹

Responses about the child's first dental visit showed that maximum parents had knowledge that the first dental visit of their children should be around the first birthday. According to the latest guidelines given by the American Academy of Pediatric Dentistry, a child's first dental visit should be within the 1st year of life; hence parents are aware of this aspect.

Importance of Prenatal Counseling

Prenatal counseling of the mother plays a very important role in the maintenance of oral hygiene of the children. According to Furze and Basso, the first dental visit of the mother should be scheduled around the 4th month of pregnancy. During this visit by the expectant mother, the dentist has an opportunity to explain the importance of the dental visit at 6 months of age, educate the mother on the eruption of teeth and preventive procedures, and provide parent counseling.¹⁰

Pediatric dentists should emphasize to parents to seek regular preventive oral care for their children along with a routine oral hygiene recommendation.¹¹ Parents should have proper knowledge about the dietary habits of the child; the proper watch has to be there regarding their sugar intake, etc.

Amount of Sugar Intake

According to a study on children, the highest intake of sugary beverages could lead to a child being overweight or obese than that

Table 1: Significance of the questions

| Questions | % (n) | p-value |
|---|-------------|-----------------------------|
| How many teeth your child has? | | |
| <10 | 22% (67) | 0.25, nothing significant |
| <20 | 31.6% (96) | |
| <28 | 32.2% (98) | |
| I don't know | 14.1% (43) | |
| Do you think milk teeth are important? | 84.4% (256) | 0.333, nothing significant |
| Yes | 15.8% (48) | |
| No | | |
| When, according to you, should be your child's first dental visit? | | |
| Around the first birthday | 40.7% (124) | 0.302, nothing significant |
| When all the milk teeth have erupted in the mouth | 28.2% (86) | |
| When all the permanent teeth have come into the mouth | 15.4% (47) | |
| Don't know | 15.7% (48) | |
| When should you start cleaning the mouth of your child? | | |
| After the child's first tooth erupts | 63.4% (192) | 0.659, nothing significant |
| Only after all the teeth have erupted | 23.4% (71) | |
| Not required | 13.2% (40) | |
| Do you think it is important to fill a child's decayed milk teeth? | | |
| Yes | 60.7% (184) | 0.431, nothing significant |
| No | 22.4% (68) | |
| Don't know | 16.8% (51) | |
| What, according to you, can cause cavities in the mouth of the child? | | |
| Germ/bacteria | 23% (70) | 0.996, nothing significant |
| Excess sugar in the diet | 13.2% (40) | |
| Sticky foodstuff | 18.1% (55) | |
| All of the above | 45.7% (139) | |
| Which of the following can lead to irregular teeth in the mouth of the child? | | |
| Genetics (runs in the family) | | 0.188%, nothing significant |
| Mouth breathing | 24.7% (75) | |
| Early loss of milk teeth | 9.2% (28) | |
| All of the above | 16.1% (49) | |
| Don't know | 50% (152) | |
| Do you think the avulsed tooth (a tooth that comes out of the tooth socket because of a fall or any trauma) of your child can be reimplanted (placed back in the socket)? | | |
| Yes (in the case of permanent teeth) | 67.5% (204) | 0.314, nothing significant |
| No | 32.5% (98) | |
| Do you think milk can be used as an appropriate storage media for carrying the avulsed tooth to the pediatric dentist? | | |
| Yes | 45.7% (138) | 0.891, nothing significant |
| No | 18.9% (57) | |
| Maybe | 35.4% (104) | |
| When do you take your child to visit the dentist? | | |
| Only during problem | 12.8% (39) | 0.82, nothing significant |
| Every 6 months | 45.9% (140) | |
| Every year | 30.5% (93) | |
| Not regular | 10.8% (33) | |
| Do you think oral bacteria can be transmitted from parents to children, which are responsible for tooth decay? | | |
| Yes | 54.3% (165) | 0.411, nothing significant |
| No | 45.7% (139) | |
| Whom do you prefer for your child's dental problem? | | |
| General dentist | 37.2%,(113) | 0.175, nothing significant |
| Pediatric dentist | 43.4% (132) | |
| Treat yourself | 11.5%, (35) | |
| Leave it as milk teeth will shed | 7.9%, (24) | |

Contd...

Contd...

| Questions | % (n) | p-value |
|---|-------------|----------------------------|
| Do you think your child should wear a mouthguard while playing sports? | | |
| Yes | 66.7% (200) | 0.803, nothing significant |
| No | 33.3% (100) | |
| How many times does your child brush (his/her) teeth? | | |
| Twice a day | 48.7% (148) | 0.259, nothing significant |
| Once a day | 35.5% (108) | |
| Not regular | 5.9% (18) | |
| Never | 9.9% (30) | |
| Which material do you think your child should use for brushing his teeth? | | |
| Fluoridated toothpaste | 55.8% (169) | 0.215, nothing significant |
| Nonfluoridated toothpaste | 22.4% (68) | |
| Tooth powder | 10.2% (31) | |
| Any other | 11.6% (35) | |
| How much toothpaste should your child use to brush his or her teeth? | | |
| Smear layer | 44.6% (136) | 0.969, nothing significant |
| Pea size | 34.8% (106) | |
| Full brush | 20.7 (63) | |
| Do you supervise the brushing of your child? | | |
| Yes | 62.5% (190) | 0.491, nothing significant |
| No | 34.5% (105) | |
| Other | 2.6% (8) | |
| When do you change your child's toothbrush? | | |
| Once in 15–20 days | 28.1% (85) | 0.67, nothing significant |
| Once a month | 31% (94) | |
| After every 6 months | 29.7% (90) | |
| Once bristles fray out | 11.2% (34) | |

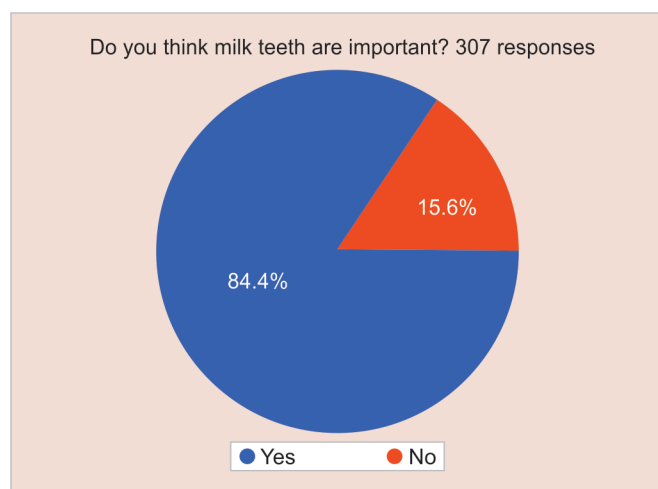


Fig. 1: Perception of parents regarding the importance of milk teeth

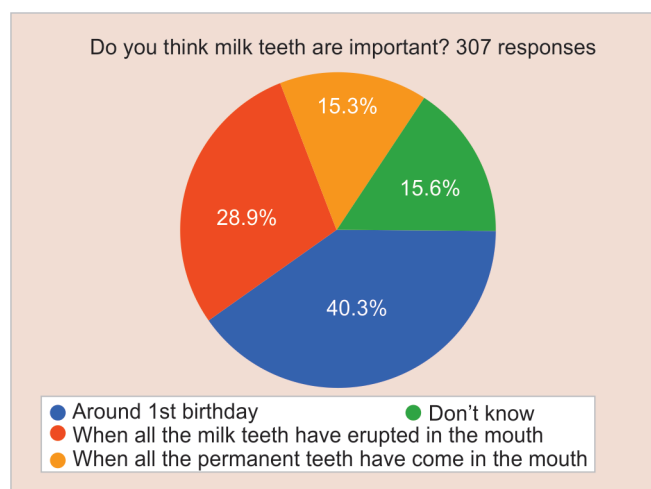


Fig. 2: Perception of parents regarding their child's first dental visit

children with a low intake of sugar. The evidence for an association between intake of free sugars and risk of dental caries was provided from epidemiological studies, which showed a positive association between the amount of free sugars consumption and dental caries experience.¹² Young children are very prone to injuries, avulsion being one the most common traumatic experience of children; it is very important for the parents to have general knowledge about the management of avulsions like storage media to be used in an emergency, precautions to be taken so that injuries to the children could be prevented.

The attitude of the parents toward their child's oral hygiene in this study showed a positive response; knowledge about

the bacteria responsible for tooth decay and how they can be transferred to the children is good, as seen in the results. It is important to spread awareness amongst parents about the use and size of fluoridated toothpaste, monitoring the brushing of children, and prescribed medications given should not be in syrups in which pediatricians and pedodontists play an important role. They should inform the parents about the sugar content of these medications. Brushing should be advised after breakfast and before bed, and medication should be given at mealtimes rather than between meals.¹³

Hence, having knowledge is one thing, while practicing it in real life is altogether a different challenge, so what the parents will practice

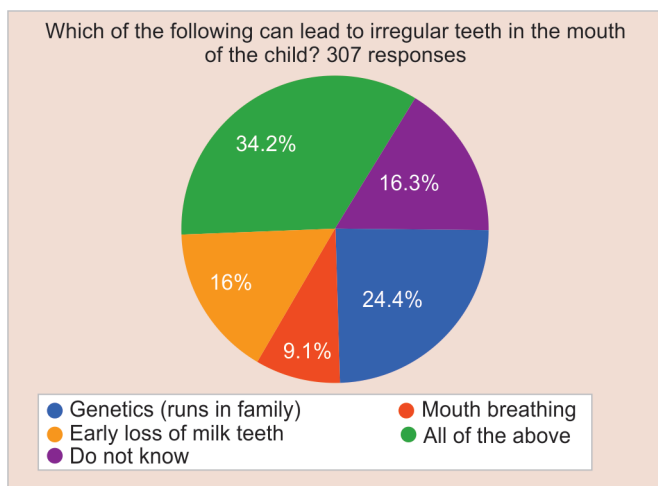


Fig. 3: Knowledge of parents regarding the reasons for irregular teeth

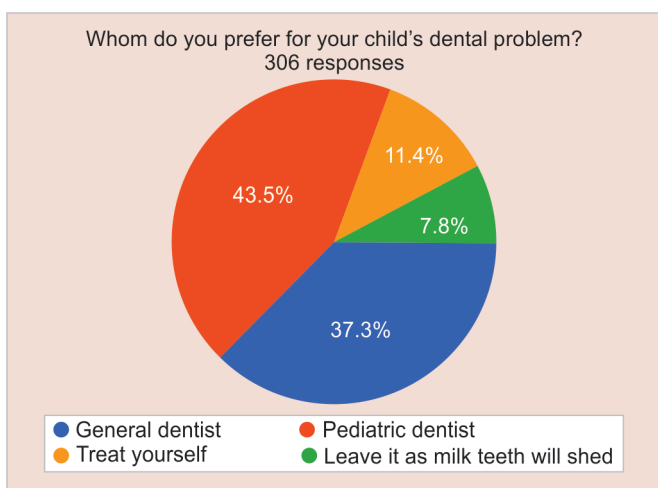


Fig. 4: Consideration of the dentist regarding their child's dental problem

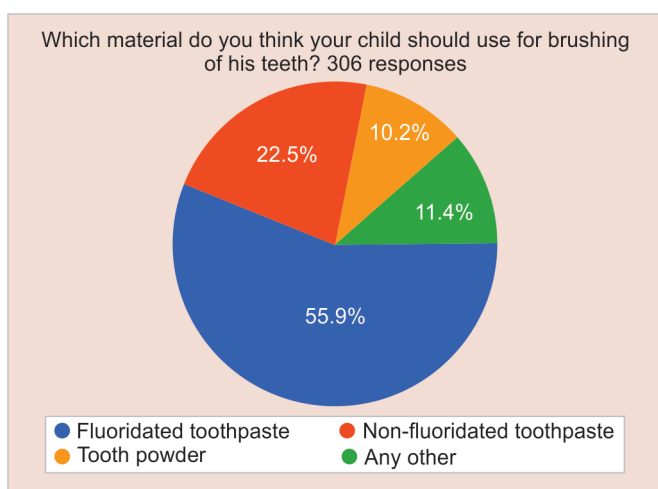


Fig. 5: Knowledge of parents regarding the material used by children for brushing their teeth

for the betterment of their own oral health will directly reflect on the child's oral health as children learn by observation of adults.

CONCLUSION

We can conclude from the present study that the knowledge of parents regarding the oral health of their children in Faridabad city is relatively good, but in a few aspects, it's been observed that this knowledge is not implemented, and the attitude of the parents toward oral health needs to be improved more. As pedodontists, we can help to bring this change to the present society by counseling the parents to take appropriate oral hygiene measures, which will help in improving the oral health of their children.

Clinical Significance

This article will help to assess the awareness of parents toward the oral health of their school-going children, which will further help in improving their knowledge, attitude, and practices and hence improving the oral hygiene of children.

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