

# Assessment of Knowledge and Attitude toward Pediatric Dental Procedures among Parents in Bareilly City: A Cross-sectional Study

Swati Misra<sup>1</sup>, Pallavi Vashisth<sup>2</sup>, Nekraje S Naik<sup>3</sup>, Anshu Kesharwal<sup>4</sup>

## ABSTRACT

**Introduction:** Most parents are unaware of the role that a pediatric dentist plays in their child's life, and the importance of dental visits at an early age is underestimated as most believe that the milk teeth are going to exfoliate and it not worth paying much attention to. Hence, the study was conducted with the objective to assess the parental knowledge of the importance they give to primary teeth and to evaluate their attitudes toward the management of a symptomatic primary tooth, and acceptance of preventive procedures.

**Materials and methods:** A questionnaire was given to all the parents of children who were in the age group up to 12 years. One hundred completely filled questionnaires were included in the study.

**Statistical analysis:** All data were entered in an excel sheet and the analysis was done using Pearson's Chi-square test.

**Results:** Out of the selected parents, over 81% of the parents knew the importance of primary dentition, whereas 18% were unaware of the same. The awareness about the specialty of pediatric dentistry was among 54.5% of the parents. Whereas the knowledge of root canal treatment as well as the capping procedure was among 40.6% of the parents.

**Conclusion:** From the results of the study, it was apparent that attitude and awareness among parents regarding regular dental visits and the importance of accepting preventive dental procedures at an early age is limited. Improvement of knowledge in this regard is of utmost importance for long-term maintenance and improvement of healthy dentition for children.

**Keywords:** Pediatric dentist, Preventive dental procedures, Primary dentition.

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## INTRODUCTION

General health cannot be attained or maintained without oral health. The mouth is regarded as the mirror of the body and the gateway to good health. Oral health is the most important component of good health and general well-being of the individuals. Parents influence the child's development in the early childhood years. Good oral health habits in childhood are shaped by the parents.<sup>1,2</sup>

Parent's awareness and knowledge leads to the improvement in children's oral health. Primary teeth play an important role in the development of speech, chewing, maintaining space, and also guiding the eruption of permanent teeth. In 3–5-year-old children, the prevalence of caries is relatively high. Thus, the intervention in the form of dental prevention therapy should start early in child's life.<sup>3,4</sup>

The first dental visit of the child according to American Academy of Pediatric Dentistry (AAPD) and American Dental Association (ADA) should be approximately at the time of eruption of the first primary tooth or at latest at the age of 12 months. Also, twice daily tooth brushing and limited in between meal snacks.<sup>1</sup> Comprehensive oral health educational programs for both children and their parents are required to achieve this goal.<sup>5,6</sup>

The importance of dental visits at an early age is underestimated as most parents believe that the milk teeth are going to exfoliate, and it is not worth paying much attention to them. Parents are also unaware of the role of the pediatric dentist in their child's life. Dental caries is the most common disease affecting children, preserving the primary teeth until their exact time of exfoliation is a priority as it determines the oral health status of the future generations.

<sup>1–4</sup>Department of Pediatrics and Preventive Dentistry, Institute of Dental Sciences, Bareilly, Uttar Pradesh, India

**Corresponding Author:** Swati Misra, Department of Pediatrics and Preventive Dentistry, Institute of Dental Sciences, Bareilly, Uttar Pradesh, India, Phone: +91 9760763416, e-mail: Swatichiranjeevmisra@gmail.com

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One of the major issues in pediatric dentistry is the behavior management of the child.<sup>5</sup> The attitude of an individual toward oral health depends upon his own experience, lifestyle, beliefs, cultural values, financial status, time, and influence of the surroundings. It has been suggested that early childhood caries (ECC) should be assumed as an infectious disease associated with behavioral and social factors, with public-oriented prevention actions being recommended. Due to lack of knowledge of caries risk factors, the importance of deciduous dentition and oral maintenance results in increased prevalence of caries.<sup>7,8</sup>

Inequality for seeking dental care services and the age for the child's first dental visit are influenced by variables such as age, parents' level of education, race, and income. It has been found that the more positive the attitude of parents toward dentistry, the better is the dental health of their children.<sup>9,10</sup>

Thus, the aim of the present study is to assess the parental knowledge of the importance they give to primary teeth and to evaluate their attitudes toward the management of a symptomatic primary tooth, and acceptance of preventive procedures.

## MATERIALS AND METHODS

The present study was a cross-sectional questionnaire-based study which was conducted at the Department of Pedodontics and Preventive Dentistry, Institute of Dental Sciences, Bareilly, over a period of 5 months. A questionnaire was formulated to study the knowledge and attitude of parents on pediatric dental procedures and importance of preventive procedures which was obtained from the previous study.<sup>11</sup> The participants were asked to tick the most appropriate answer from the list of given answers. Questionnaires were translated in the local language (Hindi) and were given personally for data collection.

All the parents of children aged up to 12 years with primary or mixed dentition were included in the study. All the parents who gave informed written consent to take part in this study were included. Parents who showed readiness to fill up the questionnaires were also included in this study. Patients who refused to fill the questionnaires and incomplete filled questionnaires were excluded from the study.

The questionnaire was given to 100 parents of children up to the age group of 12 years who were willing to participate in the survey. Participants were asked to respond to each item of the questionnaire in the format provided. One of the investigators was always available during the completion of the questionnaire and participants were encouraged to approach the investigator for clarification if any. On the completion of the questionnaire, each participant was given educational handouts and guidelines on the importance of maintaining healthy primary teeth.

## STATISTICAL ANALYSIS

The data were entered into the MS excel sheet and the descriptive statistics was performed using the frequency and the percentage using the SPSS software version 21.

## RESULTS

The study included 100 participants in the city of Bareilly. The parents were selected from both the low and the high socioeconomic status. The demographic data are shown in Table 1. Out of the selected parents, over 81% of the parents knew the importance of primary dentition, whereas 18% were unaware of the same (Table 2).

The awareness about the specialty of pediatric dentistry was among 54.5% of the parents. Whereas the knowledge of root canal treatment as well as the capping procedure was among 40.6% of the individuals (Table 2).

About 43.5% of people agreed to the fact that the infection from decayed milk teeth can spread to the permanent teeth lying under it and also can cause damage to it. Out of all the parents, around 67.3% wanted the information about the children's teeth protection as well as the oral hygiene maintenance instruction (Table 2).

There was a difference in the opinion about the few questions among the low and high socioeconomic status people. There was more awareness among the low socioeconomic group because the institution has the maximum number of low socioeconomic patients (Table 3).

**Table 1:** Distribution of demographic data

S. no.	Demographic data	Numbers (%)
1	Sex	
	Female	38 (37.6)
	Male	62 (61.4)
2	Educational qualification	
	Graduate	24 (23.8)
	Illiterate	8 (7.9)
	Postgraduate	21 (20.8)
	Up to 12th grade	46 (45.5)
3	Occupation	
	Working	58 (57.4)
	Non-working	40 (39.6)
4	Family's annual income	
	More than 2 lakhs	20 (19.8)
	Less than 2 lakhs	79 (78.2)
5	Are you a working parent?	
	Yes	60 (59.4)
	No	39 (38.6)

## DISCUSSION

Health is a universal human need for all cultural groups. General health cannot be attained or maintained without oral health. The mouth is regarded as the mirror of the body and the gateway to good health.<sup>1</sup> Habits established in early childhood are retained in the adulthood and also the oral health care received comes from the oral care regimens practiced by the parents. Hence, the child's parents play an important role in the development of healthy habits in children and sustaining the same during the child's transition into adulthood. It has been reported that the more positive the parent's attitude toward dentistry; the better will be the dental health of their children.<sup>12,13</sup>

In the present study, Table 2 depicts the frequency distribution of the responses of the patients toward the questions. Out of 100 participants, 94.1% were aware of the 2 sets of the teeth, whereas 5% were unaware. This is similar to the study done by Jain et al. About 80.2% of the individuals knew the importance of the primary teeth. A study done by Sherawat et al. reported that parents who believed that primary teeth are important had children with a high number of sound primary dentition.<sup>9</sup>

Earlier studies revealed that earlier and regular care among children is uncommon in developing countries. In this study, 54.5% of the people knew that there is a specialty called a pediatric dentist who is trained in the subject of child psychology and behavior management. This finding was in correlation with the study done by Mounissamy et al.<sup>3</sup>

In the present study, 54.5% of the parents were not aware of the fact that root canal treatment and capping procedure can also be done in primary teeth. This was in line with a study done by Lone et al.<sup>2</sup>

According to a study conducted by Lone et al., only 36% of the parents were aware that the problems associated with primary teeth can affect the permanent teeth, while in this study the awareness was among 43.5% of the individuals. About 67.3% of people wanted to be informed about the child's teeth protection and oral hygiene maintenance.

In the present study, there are 66% of people who said they will give medication and try to manage the decay of the child's tooth,

**Table 2:** Frequency distribution of the responses of the patients towards the questions

S. no.	Questions	Yes	No
1	Do you know that we have 2 sets of teeth-milk and permanent?	95 (94.1%)	5 (5.0%)
2	Do you think milk teeth are important?	81 (80.2%)	18 (17.8%)
3	Has your child ever been to a dentist?	42 (41.6%)	53 (52.5%)
4	Do you know there is a specialty called pediatric dentist?	55 (54.5%)	42 (41.6%)
5	Are you aware that root canal treatment and capping can be done for milk teeth as well?	41 (40.6%)	55 (54.5%)
6	Do you know that only a pediatric dentist is trained in child psychology and behavior management?	62 (61.4%)	36 (35.6%)
7	If you were referred by your family dentist to go to a pediatric dentist would you go?	51 (50.5%)	44 (43.6%)
8	Do you feel that infection from a decayed milk tooth can spread to a permanent tooth lying under it and damage it?	49 (43.5%)	45 (44.6%)
9	Do you think that space between milk teeth is normal	36 (35.6%)	60 (59.4%)
10	Do you think teeth decay can be prevented?	46 (45.5%)	50 (49.5%)
11	If a dentist advice you for a treatment like sealants and fluoride application to prevent decay in your child's teeth, will you do it?	70 (69.3%)	25 (24.8%)
12	Do you know that medicine syrups play a big role in tooth decay?	84 (83.2%)	13 (12.9%)
13	Would you like to receive more information about your child's teeth protection and oral hygiene maintenance?	68 (67.3%)	26 (25.7%)

**Table 3:** Awareness regarding treatment of deciduous teeth

S. no.	Options	High SES	Lower SES	Total
1	If your child has a toothache. Who would you go to			
	• Family doctor	17 (23)	56 (77)	73 (73.7)
	• Family dentist	2 (11.2)	16 (88.8)	18 (18.1)
2	When do you think should be the first dental visit? When your baby is			
	• 6 months	14 (19.8)	57 (80.2)	71 (74.7)
	• One year	4 (28.5)	10 (71.4)	14 (14.7)
3	If your child's milk teeth decay what would you do?			
	• Give medicine and try to manage it on your own	13 (19.6)	53 (80.3)	66 (68)
	• Get it treated by visiting a dentist	7 (12.5)	24 (77.5)	31 (32)
4	If your child has a toothache and swelling in the mouth and after taking medicines the toothache and swelling subsides what would you do next?			
	• Will not treat it as it is anyways going to fall off	0 (0)	0 (0)	0 (0)
	• Still take him to the dentist to know the cause and treat the cause	6 (18.7)	26 (81.2)	32 (33.6)
5	If your dentist advises you for preventive treatment like sealant and fluoride application to prevent decay in your child's teeth, will you do it? If no or may be why?			
	• Wait for the pain to recur and then take him	14 (22.2)	49 (77.7)	63 (66.3)
	• You think it is not going to help	14 (18.9)	60 (81.0)	74 (76.2)
	• Visit to dentist will increase	4 (28.5)	10 (71.4)	14 (14.5)
	• Cost factor	2 (22.2)	7 (77.7)	9 (9.25)

31% said they will visit the dentist and get the treatment done whereas nobody was in the favor of not getting the treatment done as they will shed off on its own with time. This finding was contradicting the study done by Sehrawat et al.<sup>9</sup> Probably, the parents with higher education level had better knowledge regarding their children which resulted in favorable attitudes and adoption of better practices to render oral health care to their child.

About 63% of individuals agreed to the fact that if the pain and swelling of the child subsides after taking medication, then they

will not visit a dentist until they recur. A study done by Farid et al. also suggested the same.<sup>12</sup>

It has been reported that 40% of world's population fears dental treatment which can be derived from vexatious experiences a child faces during the childhood. Dental phobias beginning in childhood often continue to adulthood so it is of paramount importance that children have positive experiences in their early years.<sup>14,15</sup> Hence, it is essential that the child's first dental visit should be friendly and comfortable experience with a dentist trained in dealing with the children.

## CONCLUSION

It was observed that there were variations in the knowledge and attitude of parents toward the dental treatment of the child. The results obtained in our study were taken with a smaller sample size; therefore, a study with larger samples would be required in future to validate these results.

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