

Questionnaire Study regarding the Knowledge, Attitude, and Practice (KAP) of Parents towards their Children's Oral Health Care in Greater Noida

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Running Title: Knowledge, Attitude, and Practice (KAP) of Parents toward Their Children's Oral Health in Greater Noida-A Questionnaire Study

Abstract: ***Aim:** The aim of the present study is to assess the knowledge, attitude, and practices of parents toward the oral health of 5–10 years old schoolchildren in Greater Noida, Uttar Pradesh. **Materials and methods:** A total of 400 parents participated in the study. Data were collected using a self-administered questionnaire addressing various aspects of knowledge and attitude of parents toward oral health. **Results:** Majority (25%) of the parents had low knowledge regarding the importance of using fluoridated toothpaste. Only 28% of parents commenced the cleaning of your child's teeth soon after first milk tooth eruption. **Conclusion:** Parents have satisfactory knowledge and a positive attitude toward oral health and children display good practices; however, there are a number of gaps noted in overall parental knowledge. **Clinical significance:** Oral health awareness programs should be directed toward parents and should emphasize on topics such as importance of milk teeth and their treatment, regular dental visits, and dietary practices.*

Keywords: Parents, Pediatric dentistry, Primary teeth, Questionnaire, Knowledge

1. Introduction

Oral health in children plays a very important role as it lays down the foundation for healthy permanent teeth. The knowledge and attitude of parents towards maintaining young children oral health effects the overall quality of life. {Figure 1}. More positive parent's attitude towards children dentistry, better will be the dental health of their children. [1] To achieve optimal oral health into child and adulthood, education about Infant oral health care and preventive measures is must. [2] Thus it requires the need for more in-depth understanding of the healthy practices of caregivers with respect to their children's oral healthcare. [3]

Due to insufficient literature findings on oral health attitudes of parents toward their children in developing countries like in India, this study was conducted to assess the knowledge, attitude, and practices of parents toward their children's oral health and also to compare the knowledge, attitude, and practices with regard to age, educational level, and socioeconomic status.

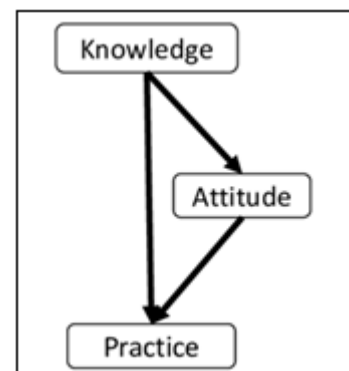


Figure 1: Knowledge, Attitude and Practice Model

2. Material and Methods

A cross-sectional study was conducted among 400 respondents in the outpatient Department of Pedodontics and Preventive Dentistry, I. T. S Dental College and Hospital, from August 2020 to October 2021. A self-administered structured questionnaire survey divided into two parts was constructed using multiple choice questions based on previous questionnaire's on study. Informed consent was obtained from the study participants. The first part constituted demographic data such as the name, age, gender, education, and occupation of parent. The second part was the questionnaire consisted of 15 questions related to knowledge, attitude, and practices toward children's oral health, out of which five questions were related to knowledge, five were related to attitude, and five were related to practices. The questionnaire was framed in English and was validated by a group of experts in the field.

3. Statistical Analysis

Data received were decoded, tabulated, and recorded into excel database, and analyzed using the statistical package for social sciences (IBM SPSS version 20 (SPSS Inc., Chicago IL, USA). The *P* value was considered as statistically significant when <0.05 (confidence interval of 95%). One-way ANOVA was done for the association between the results and educational level of the participants.

4. Results

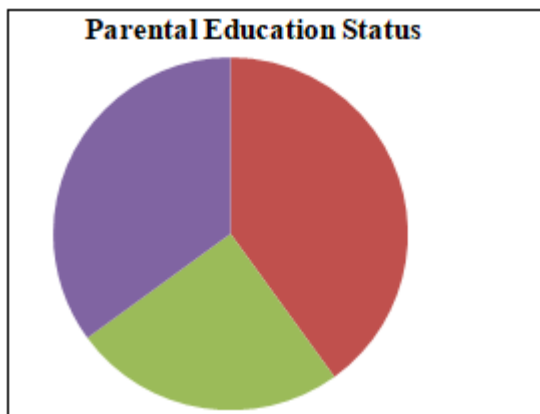


Figure 2: Pie Chart of Distribution of Parental education status

Table 1: Demographic status

Age Group	
20 – 29	24%
30 – 39	75%
> 40	1%
Parental Status	
Father	48%
Mother	52%

Among 400 parents, 192 were mothers and 208 were fathers. Nearly 75% of the participants were from 30 to 39 age groups. {Table-1}The level of education of the parents ranged from primary education (40%), higher secondary (25%), and university level education (35%). Participants with higher education level had significantly better overall knowledge scores than less educated parents [Figure 2].

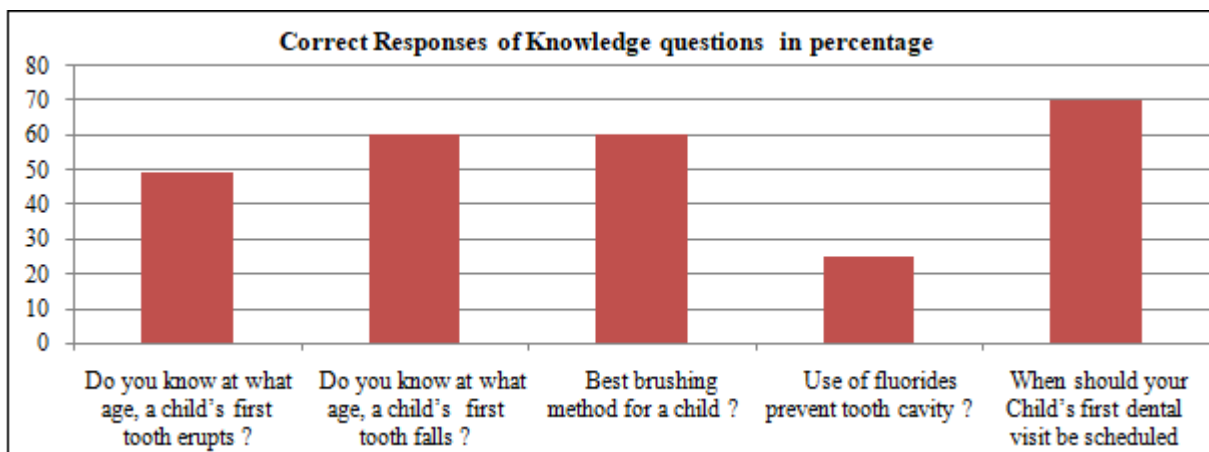
Association between qualification and knowledge, attitude and practice scores has been demonstrated.

KNOWLEDGE DOMAIN	
1) Do you know at what age, a child's first tooth erupts?	
a) Soon after birth	20%
b) Around 6 months	49%
c) After 1 year	31%
2) Do you know at what age, a child's first tooth falls?	
a) 3-5 years of age	30%
b) 5-7 years of age	60%
c) 10-12 years of age	10%
3) Best brushing method for a child?	
a) Circular motions	60%
b) Scrubbing-to and fro	30%
c) Does not matter	10%
4) Use of fluorides prevent tooth cavity?	
a) Agree	25%
b) Disagree	40%
c) Does not matter	25%
5) When should your Child's first dental visit be scheduled	
a) As soon as Child's first tooth appears	70%
b) First birthday	20%
c) Does not matter	10%

Figure 3: Percentage of responses for Knowledge questions

a) Knowledge

Figure 3. Shows the percentage of parents with correct answers for individual knowledge questions. awareness about presence of milk teeth in child's mouth was reported by very few parents. Only 49% of the parents had knowledge regarding the correct period of their children's erupted teeth in the oral cavity, and a majority of 60% of the parents know the correct age at which a child's primary tooth falls off.60% of parents knew that Circular motion of brushing is best for children. Nearly 25% of parents had knowledge regarding the importance of using fluoridated toothpaste in preventing dental decay. Almost 70% of parents acknowledged that Child's first dental visit should be scheduled as soon as Child's first tooth appears – (Gpah-1)



Graph 1: Correct Responses of Knowledge questions in percentage

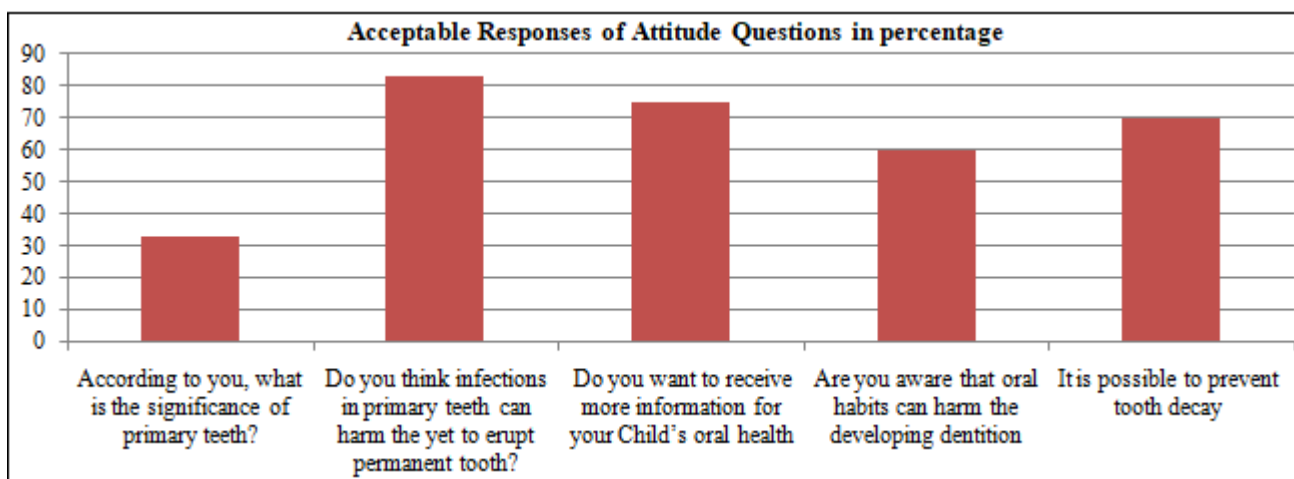
b) Attitude

The percentage of participants who correctly answered individual attitude questions is shown in [Figure 4]. Awareness function of primary teeth is eating, speaking, esthetics and also as a space maintainer for permanent teeth was reported by 33% of parents. About 83% of parents

agreed that infections in primary teeth can harm the yet to erupt permanent tooth. Only 60% of parents were aware that oral habits such as thumb sucking, mouth breathing, tongue thrusting etc. can harm the developing dentition. About 70 % percent of parents believed that it is possible to prevent tooth decay (Graph 2)

ATTITUDE DOMAIN		
1) According to you, what is the significance of primary teeth?		
a) eating, speaking, esthetics and also as a space maintainer for permanent teeth		33%
b) only for esthetics		50%
c) no significant function		17%
2) Do you think infections in primary teeth can harm the yet to erupt permanent tooth?		
a) Yes	83%	
b) No	17%	
3) Do you want to receive more information for your Child's oral health		
a) Yes	75%	
b) No	25%	
4) Are you aware that oral habits such as thumb sucking, mouth breathing, tongue thrusting etc. can harm the developing dentition?		
a) Yes	60%	
b) No	30%	
c) don't know	10%	
5) It is possible to prevent tooth decay		
a) Yes	70 %	
b) No	20 %	
c) It is a natural process	10 %	

Figure 4: Percentage of responses for Attitude questions



Graph 2: Correct Responses of attitude questions in percentage

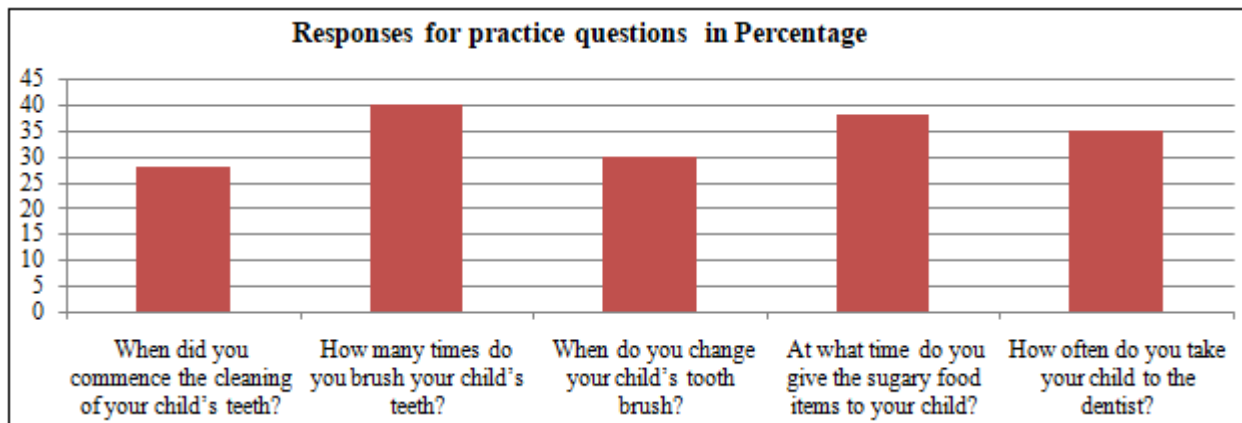
c) Practices

About 35% of parents reported that they take their child to visit the dentist every six months (Figure 5). Only 28% of parents had started cleaning their child's teeth soon after first milk tooth eruption. Only 40% of parents brushed their

child's teeth twice a day.30 percent parents change their child's tooth brush in 2-3 months and 38 percent of parents had restricted to give sugary items during meal time only. (Graph 3)

PRACTICE DOMAIN		
1) When did you commence the cleaning of your child's teeth?		
a) Soon after first milk tooth eruption		28%
b) After first birthday of the child		72%
2) How many times do you brush your child's teeth?		
a) Once	60 %	
b) Twice	40%	
3) When do you change your child's tooth brush?		
a) Once in 15 days	30%	
b) Once in a month	40%	
c) Every 2-3 months	30%	
4) At what time do you give the sugary food items to your child?		
a) With meals	50%	
b) In between meals	38%	
c) Before going to bed	12%	
5) How often do you take your child to the dentist?		
a) Only during problems	15%	
b) Every 6 months	35%	
c) Every 1 year	50%	

Figure 5: Percentage of responses for Practice questions



Graph 3: Correct Responses of Practice questions in percentage

5. Discussion

Oral health of children depends on the awareness of their parents as oral health knowledge of parents dictates the oral health-related habits of the children which are established during infancy and maintained in early childhood. [4] Dental caries is a preventable disease. If preventive strategies are implemented at an early age, valuable time and money spent on dental treatment can be saved by parents. In Preschool age groups (2-4 years of age), oral health education of parents is essential as these children are more dependent on them for their oral healthcare needs. In later stages different programs under oral health promotion measures such as proper brushing and fluoridated toothpaste can be conducted to bring more awareness. So, it becomes imperative to assess the existing levels of knowledge, attitude, and practices so that preventive strategies can be formulated and later implemented.

Different preventive programs include, administering fluoride which is through the regular use of fluoridated toothpastes. However, in the present study, parents have low awareness of fluoride application and its effects on

children's oral health. Despite the fact that the absence of fluoride intake does not produce caries, but it does help in inhibiting the disease. The results were similar to the studies done by Moulana *et al.* and Suresh *et al.* [3], [5] Maintenance of routine oral health practices like brushing their teeth twice daily was reported low among children. Only 40% of parents reported that their children brushed twice a day. Adair *et al.* stated that children are more likely to be caries free if their teeth are brushed twice daily with fluoridated toothpaste, with parental involvement and in an environment where sugar intake is controlled. [6]

In present study, 38% of the parents had awareness regarding the harmful effects of intake of sugary items such as chocolate, which can result in tooth decay. The results of this study were similar to the results of studies conducted by Moulana *et al.* and Wyne *et al.* [3], [7]

Majority of parents had not acknowledged role of night-time bottle/breastfeeding as a cause of tooth decay. The results were in accordance to the results of a previous study by Rwakatema and Ng'ang'a. [8] It is recommended that infants should not be put to bed with the baby bottle and that

ad libitum breastfeeding at night should be avoided in order to prevent deleterious effects of nocturnal breastfeeding,

Various complications such as pain, oral infection, problems with eating and sleeping, alterations in growth and development, and premature loss of teeth can occur due to untreated carious deciduous teeth. [9] Thus, in the present study, majority of the parents did not acknowledge about taking good care of milk teeth. The reason can be attributed to poor knowledge regarding the importance of primary teeth among parents which is due to the fact that these are temporary teeth and they will shed away.

6. Conclusion

There is a low level of awareness in parents regarding knowledge and attitude toward the oral health of children. Parents as primary caregiver plays a vital role in promoting good oral health by imbibing healthy oral habits themselves which can positively influence their children. They must actively participate in various oral health promotion programs, so can educate and aware themselves about oral hygiene. If child's oral health is affected, it can have direct impact on the overall quality of life. Thus, parents' knowledge about their kids' oral health and its importance and methods to promote are poor and there is an awareness among the parents, but with insufficient knowledge.

There is a need to create more awareness about the knowledge and importance of deciduous teeth and regular dental visits among the society. Health-care professionals need to educate expectant and new mothers about oral health care for infants, especially the use of nursing bottle at night and regular dental visits.

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Conflicts of interest

There are no conflicts of interest.

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