



Research Article

KNOWLEDGE AND ATTITUDE OF PARENTS IN ORAL HEALTH CARE OF THEIR CHILDRENS IN PREVENTION OF EARLY CHILDHOOD CARIES- A QUESTIONNAIRE STUDY

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ABSTRACT

Aim: The aim of the study is to assess the knowledge, attitude and awareness of parents in oral health care of their children in prevention of early childhood caries.

Objectives: The objectives of this study,

- To assess the existing knowledge in prevention of early childhood caries
- Awareness in maintaining good oral health for their children

Materials and Methods: A structured, self-administered validated close ended questionnaire was distributed to 100 parents who accompanied their children for dental treatment in Saveetha dental hospital, Chennai. The data from the questionnaire was evaluated, analysed and the results were obtained.

Results: It was observed that very few parents were aware of the oral health of preschool children on early childhood caries.

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INTRODUCTION

Early childhood caries has been a major serious oral health issue affecting the normal growth and development of young children. Early childhood caries is defined as the presence of 1 or more decayed, missing or filled tooth surfaces in any primary tooth in a child 71 months or younger [4]. When caries is left untreated, it can lead to infection which can spread to other parts of the body including the brain and progression of caries from the primary dentition can affect a child's growth, early loss of a carious tooth can affect speech, cause malocclusion, low self-esteem, thereby diminishing the quality of life. Despite recent advances in caries prevention and management early childhood caries remains a threat in the development of oral health in young children. It is a multifactorial disease with an etiology that involves a complex interaction between biological and socioeconomic factors classifying as mild, moderate, and severe [Muthu MS; Textbook of pediatric dentistry; principles and practice, 2nd edition]. Deciduous teeth and permanent teeth are directly related, and infection from deciduous teeth can directly affect the permanent teeth.

MATERIAL AND METHODS

Study Design

A questionnaire based survey was conducted among 100 parents who came to Department of Pedodontics and Preventive Dentistry for their children's treatment in Saveetha dental hospital. This study was conducted for a period of six

months and prior informed consent was obtained from the parents.

Inclusion Criteria

- Parents accompanying their children aged between 1-5 years undergoing treatment for dental caries
- Parents who were willing to participate
- Parents of children with no medical/ drug history

Exclusion Criteria

- Parents who could not read and write
- Parents who were not the primary caretakers of their children
- Parents of children with medical problems

Questionnaire

Mother's diet During Pregnancy has an Impact on the Development of baby's teeth

- a. yes
- b. No
- c. No idea

Do you Think it is Important to clean the Infant's Mouth after Feeding Before bed?

- a. Yes
- b. No
- c. Not sure

Is it important to maintain the health of deciduous teeth?

- a. Yes
- b. No

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c. Unaware

Does Night-Time bottle Feeding Directly Affect Infants teeth?

- a. Yes
- b. No
- c. No idea

If is Okay to put Baby to Bed with a Bottle

- a. Yes
- b. No
- c. Not sure

Babies Without Teeth need Mouths Cleaned?

- a. Yes
- b. No
- c. No idea

Primary Teeth are Important as Permanent teeth

- a. Agreed
- b. Disagree

When do you visit a Dentist for your Child?

- a. Pain
- b. Regular check up
- c. It is not necessary to do fillings in baby's teeth.
- d. Agreed
- e. Disagree

Does Fluoride Toothpaste help Prevention the Tooth decay?

- a. Yes
- b. No
- c. No idea

Do Problems with Milk Teeth Affect Permanent teeth?

- a. Yes
- b. No
- c. No idea

Does a child Require Dental Checkup Even if no Dental Problems Exist?

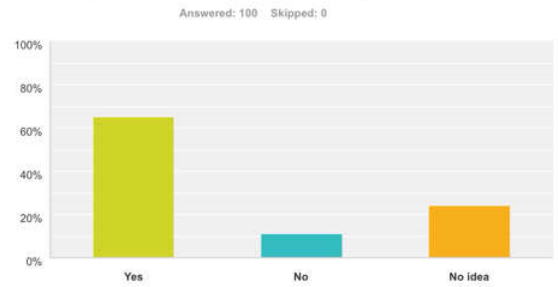
- a. Yes
- b. No
- c. Not sure

METHODOLOGY

- A self-administered questionnaire written in English consisting of 12 questions were distributed to 100 parents.
- This questionnaire covered all aspects of oral health promoting factors in children including oral hygiene, diet, and fluoride, and awareness regarding infant oral health and practices were addressed.
- Suggestions from public health dentists, regarding the content of the questionnaire, was obtained.
- All the participants were given adequate time to complete the questionnaire and encouraged to submit it at the earliest after completion
- The collected data from the questionnaire was analysed and results were obtained.

RESULTS

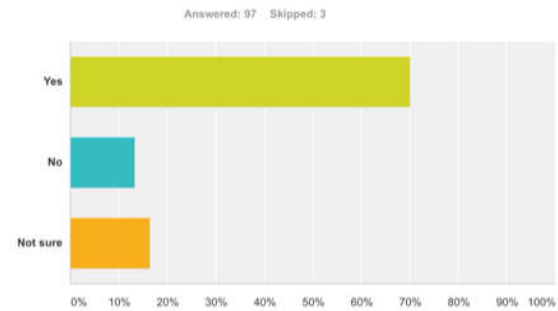
1) mother's diet during pregnancy has an impact on development of baby's teeth



Answer Choices	Responses	
Yes	65.00%	65
No	11.00%	11
No idea	24.00%	24
Total		100

Table I, Graph I

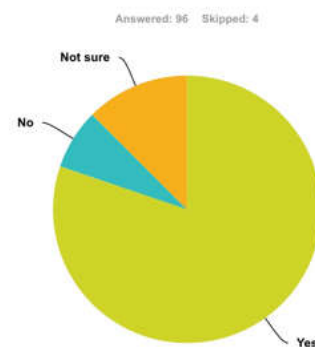
2) Do you think Is it important to clean the infant's mouth after feeding before bed?



Answer Choices	Responses	
Yes	70.10%	68
No	13.40%	13
Not sure	16.49%	16
Total		97

Table II, Graph

3) Is it important to maintain the health of deciduous teeth?

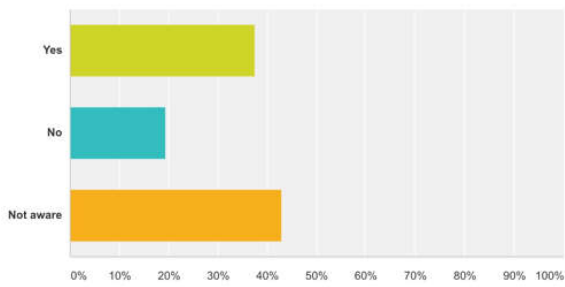


Answer Choices	Responses	
Yes	80.21%	77
No	7.29%	7
Not sure	12.50%	12
Total		96

Table III, Graph III

4) Does Night-time bottle feeding directly affect infants teeth?

Answered: 93 Skipped: 7

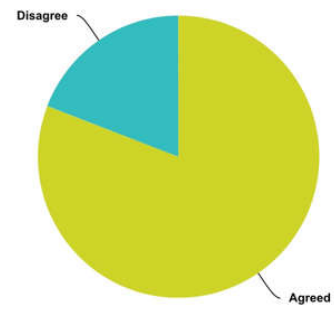


Answer Choices	Responses	
Yes	37.63%	35
No	19.35%	18
Not aware	43.01%	40
Total		93

Table IV, Graph IV

Primary teeth are important as permanent teeth

Answered: 94 Skipped: 6

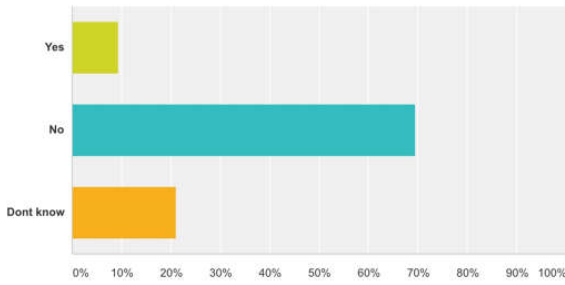


Answer Choices	Responses	
Agreed	80.85%	76
Disagree	19.15%	18
Total		94

Table VII, Graph VII

5) It is Okay to put baby to bed with a bottle

Answered: 95 Skipped: 5

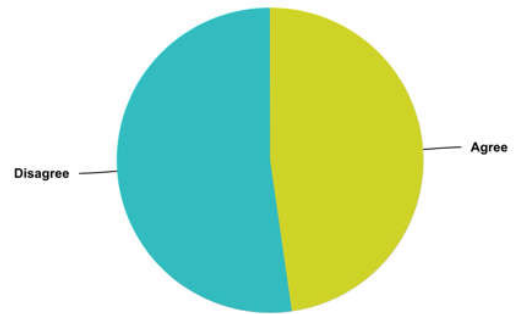


Answer Choices	Responses	
Yes	9.47%	9
No	69.47%	66
Dont know	21.05%	20
Total		95

Table V, Graph V

It is not necessary to do fillings in baby's teeth.

Answered: 88 Skipped: 12

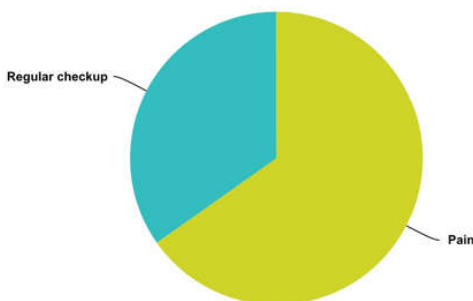


Answer Choices	Responses	
Agree	47.73%	42
Disagree	52.27%	46
Total		88

Table VIII, Graph VIII

When do you visit a dentist for your child.

Answered: 92 Skipped: 8

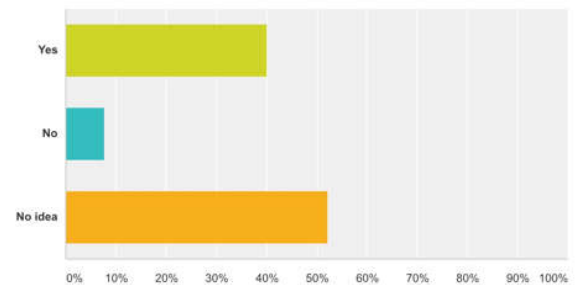


Answer Choices	Responses	
Pain	65.22%	60
Regular checkup	34.78%	32
Total		92

Table VI, Graph VI

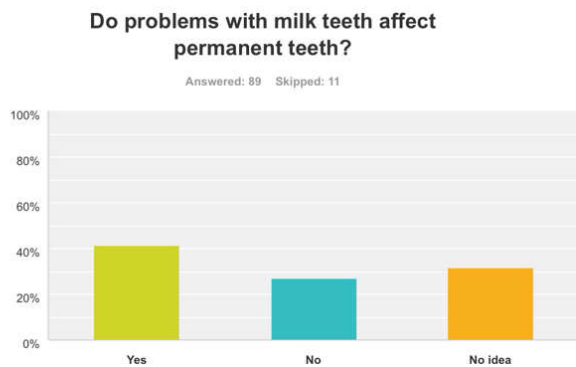
Does fluoride toothpaste help prevention the tooth decay?

Answered: 90 Skipped: 10



Answer Choices	Responses	
Yes	40.00%	36
No	7.78%	7
No idea	52.22%	47
Total		90

Table IX, Graph IX



Answer Choices	Responses	Count
Yes	41.57%	37
No	26.97%	24
No idea	31.46%	28
Total		89

Table X, Graph X

DISCUSSION

The purpose of this study is to assess the knowledge and attitude of parents in prevention of early childhood caries and awareness in maintaining good oral health for their children.

During childhood days parents have the opportunity to shape their children’s behavior by encouraging and discouraging certain habits, and parents have always been a role model for their children. Children learn habits and practices by visualizing and imitating their parents. As per the results of our study, parents showed inadequate knowledge about oral health. About 65.3% of the parents believed that it was not essential to take their children for regular dental visits and thought that pain to be the primary indicator for treatment. A similar result was reported by (Lone *et al*, 2016)⁵ in a survey conducted in government dental hospital of Kashmir, where 53.73% participants believed that it was not necessary to have a regular dental check-up for their children. It is thus recommended to educate the parents on the importance of oral health and periodic dental check-ups.

There is a direct relationship between caries in the deciduous teeth and increased likelihood of caries development in the permanent teeth. Deciduous teeth left untreated affects the developing permanent teeth and thereby worsens the quality of oral health in children (Lone *et al*, 2016)⁵. 41.5% of the parents were aware that problems associated with primary teeth can affect the permanent teeth. (Lone *et al*, 2016)⁵ reported that 71% were aware of the same, while in our study 52.2% of the parents were not aware of the importance of deciduous tooth.

Children of parents who were aware of the importance of primary teeth had significantly lesser tooth decay than those who thought otherwise, which makes it apparent that those parents who consider deciduous teeth to be important are more likely to raise children with noticeably less dental caries (Tinanoff *et al*, 2009)⁹.

The prevalence of the mild, moderate and severe form of ECC with complications was higher in children who were born with body mass less than 2500g as opposed to children of normal weight at birth. From our study 65% of parents were aware of the correlation of mothers nutrition on baby's teeth. A study by

(Ivancevic *et al*, 2015)³ stated that mothers with poor maternal nutrition status results in children with low birth weight. Prematurely born children mostly had lower birth weight and accordingly a significantly higher prevalence of linear enamel defects and other developmental anomalies. They were also more predisposed to frequent diseases and rapid progression of ECC.

It was stated that teeth with linear enamel disease (LEDs) were more affected with ECC when compared to healthy teeth. The teeth with linear enamel defects are more predisposed to caries because they had rough surface on the enamel which could increase plaque accumulation and mutans streptococci colonization (Ivanacevic *et al*, 2015)³.

Patient response to a question whether it is right to put baby to bed with a bottle, 20% of patients were unaware of this practice, and 9% of parents said it is right to do such practices. (Lone *et al*, 2016)⁵ reported that most of parents believed that it was correct to put the baby to bed with a bottle. Parent’s attitudes toward putting the baby to bed with a bottle was significantly associated with increased caries activity. This might be attributed to the fact that nursing bottle caries occurs because of prolonged feeding of the baby at night (Sogi *et al*, 2016)⁷.

The potential relationship between feeding practices and early childhood caries were correlated. In our study 37% parents do night bottle feeding and 47% parents were unaware of this bad practice. A study by (Vadiakas *et al*, 2008)¹⁰ reported that overnight bottle use in children showed increased caries risk while among caries free children, none had slept with the bottle.

Cleaning a child’s mouth should begin before teeth erupt and tooth brushing is recommended when the first tooth erupts at least once daily till 2 years and subsequently twice daily. In our study, it was very encouraging to note that 70% parents knew that baby’s mouth should be cleaned even before the eruption of teeth. 30% of parents were unaware of such good practices. A direct correlation was found with (Mani *et al*, 2012)⁶ where 81.4% parents knew that a baby’s mouth should be cleaned even before the teeth eruption, 88% agreed that they should brush their baby’s teeth as soon as it erupted. About 60% and 28% of the parents reported brushing their child’s teeth twice and once daily respectively. However, 52% thought that effective cleaning can be achieved by the children themselves.

The role of tooth brushing in the prevention of tooth decay has long been considered self-evident. Studies have shown that many parents are not clear as to whether and how much fluoride should be used in young children. Our study showed that 40% of parents knew that fluoride in toothpaste is important for preventing caries in teeth, 52% of parents were unaware of using fluoridated toothpaste in young children. However, 7% disagreed to the use of fluoride toothpaste. In a study by (Mani *et al*, 2012)⁶, 46% of the parents disagreed that swallowing of fluoride toothpaste is harmful to the health and 31% were not aware of fluoridated tooth pastes. Clinical trials have shown that daily tooth brushing with fluoride. (Sogi *et al*, 2016⁷, Tang *et al*, 2014⁸).

It is therefore the responsibility of physicians, pediatricians and general dentists who see these children early in life, to

advise the parents to take their children to a pediatric dentist for routine check up once they have attained the age of 6 months. A first dental visit at the age of 6 months enables the dentist to lay the foundation for preventive education and dental care to help and ensure the child an improved oral health.

The limitations of this study were that it was carried out in one institution only with a small sample size study. Long term studies are necessary for creating better awareness and positive attitude among parents in prevention of early childhood caries for promoting good oral health maintenance in our society.

CONCLUSION

Majority of parents believed that primary teeth were not important and were not aware of the various oral health practices that can decrease the occurrence of caries in children. From our study, we conclude that awareness should be created even among parents in the low socio economic status and parents must have an positive attitude in primary care of their children's oral health, thereby leading a disease free society.

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