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## A study to assess the knowledge on prevention of dental carries among mothers of school children in Koyambedu

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### Abstract

Dental caries is more prevalent in Asia and Latin America while less severe in Africa. It is relatively high in America as compared to other countries. The main reason of dental caries in developing countries in rural areas is consumption of processed sugar and inadequate oral hygiene. Dental caries is an infectious disease that affects 60-90% of children worldwide between the ages of 2 to 11 year. The children under 5 years of age usually spend most of their time with their parents and caregivers, especially mothers, even when they join playgroups. The present study aims to assess the knowledge on prevention of dental carries among mothers of school children in Koyambedu. A non-experimental descriptive research design was conducted among 30 mothers of school Children by using convenience sampling technique. The demographic data and knowledge was assessed using self-structured interview questionnaire. Out of 30 samples 12(40%) members had mild knowledge, 10(33%) members had moderate level of knowledge, 8(27%) members had severe level of knowledge. Mean scores for mild (8.62), moderate (12.1) and severe (18.17) and standard deviation score for mild (1.685), moderate (0.9944) and severe (1.7495). Mothers have moderate knowledge on dental hygiene in Koyambedu. Conducting structured teaching program will help the mothers to maintain good oral hygiene.

**Keywords:** Knowledge, dental carries, school children

### Introduction

Dental caries is an infectious disease that affects 60-90% of children worldwide between the ages of 2 to 11 years. The children under 5 years of age usually spend most of their time with their parents and caregivers, especially mothers, even when they join playgroups. The prevalence of dental diseases and factors related to it were found different between countries and within country. Socio-behavioral and environmental factors mainly play a significant role in the occurrence of dental diseases <sup>[1]</sup>.

Dental caries is more prevalent in Asia and Latin America while less severe in Africa. It is relatively high in America as compared to other countries. The main reason of dental caries in developing countries in rural areas is consumption of processed sugar and inadequate oral hygiene.

About 90% of oral diseases are left untreated in India because it is not taken as a serious health problem. The ignorance of seeking treatment of dental caries due to lack of awareness may lead to 90% of extraction of teeth <sup>[2]</sup>.

Childhood dental caries is completely dependent on their parent because they are the gatekeepers who decide whether to take them to the dentist for treatment or not. Inquiry showed that Children's from younger parents with low socioeconomic status and lower level of education had less potential to visit dental clinics, and more prone to oral disease <sup>[3]</sup>.

The American Dental Association (ADA) recommends that parents wipe their child's gums with clean cotton after each feeding, and tooth brushing should be started when the first tooth erupts with a baby toothbrush, along with low sugar consumption and not sleeping.

Prevention and early diagnosis are just as important in managing dental diseases, specially dental caries as in managing any other infectious disease <sup>[4, 5]</sup>.

Prakash *et al.* (2018) conducted a study in 10-15 year old School children using WHO (1987) criteria and reported an average Decay missing filled teeth of 2.61 for the effected children. School is a place of learning for the children and is in fact microorganisms of the larger community. Schools are the ideal setting for integrating oral health instructions in the curriculum. At the school age, children are receptive to guidance and familiar with the learning environment and culture <sup>[6]</sup>.

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In India, a very less percentage of mothers have received proper advice on oral care of the children from dentists or health care workers. In many countries, the number of children brushing their teeth is very unsatisfactory including India. A small proportion of children do not clean their teeth at all, some may not have access to a toothbrush and many are using the traditional cleaning aids like datun, salt and oil, coal ash and locally made powders etc. This high prevalence of dental caries has also caused increase in the absenteeism of school hours and loss of working hours and economy for the parents [7].

The lack of availability and affordability of oral health services not only results in aggravation of the disease but also enhances the cost of treatment and care. There is no single country that claims to have caries free children. Adverse experience during childhood may lead dental phobia, impacting on attitudes to oral health and self care as well as availing oral health care services for life. Poor oral health in childhood often continues into adulthood, effecting economic productivity and quality of life. [8]

The purpose of the study is [1] To assess the knowledge on dental carries among mothers [2]. To associate the level of knowledge on prevention of dental carries and demographic variables among mothers.

### Methods and Materials

A non-experimental descriptive research design was used to conduct the study in Koyambedu among mothers of school going children. 30 samples were selected by using a convenience sampling technique. The criteria for sample selection are mothers of school children in the primary health centre, mothers who are willing to participate in the study, mothers of school children who know and understand Tamil. The exclusion criteria for the samples are mothers who are health professionals and mothers who are not having school children. The data collection period was done with prior permission from medical officer. The purpose of the study was explained to the samples and written informed consent was obtained from them. The demographic data and knowledge were assessed using a self structured interview questionnaire. The data were analyzed using descriptive and inferential statistics. The sample characteristics and knowledge were described using frequency and percentage. Chi square was used to associate the knowledge of mother and the selected demographic variables.

### Results and Discussion

#### Section A: Sample characteristics

The present study shows that, age out of 30 samples 2(7%) samples were come under type age group of 15-20 years, 16(53%) were under the age group of 20-30 years, 12(40%) samples were under the age group of above 30 years. Regarding religion out of 30 samples 23(77%) samples were Hindu religion, 3(10%) samples were Christian, 4(13%) samples were under Muslim religion. Regarding type of marriage out of 30 samples 8(27%) samples were consanguineous marriage, 22(73%) samples were non consanguineous marriage. Regarding type of family, out of 30 samples, 24(80%) samples were lived in nuclear family, 6(20%) samples were lived in joint family. Regarding number of children out of 30 samples 17(57%) samples were one children, 11(36%) samples were two children, 2(7%) samples were three children. Regarding occupation out of 30 samples 4(14%) samples were

unemployed, 1(3%) samples were government jobs, 25(83%) samples were private job. Regarding Socioeconomic status out of 30 samples 2(7%) samples were upper class, 18(60%) were middle class, 10(33%) samples were lower class. Regarding life style modification, out of 30 samples 6(20%) samples were eating fast food, 7(23%) samples were unhealthy diet, 17(57%) samples were improper hygiene. Regarding education out of 30 samples, 8(27%) samples were uneducated, 9(30%) samples were primary educated, 9(30%) samples were secondary educated, 4(13%) samples were graduated.

#### Section B: (a) Frequency and percentage distribution of knowledge on dental carries among mothers

The present study states that out of 30 samples 12(40%) members had mild knowledge, 10(33%) members had moderate level of knowledge, 8(27%) members had severe level of knowledge. (Table 1)

**Table 1:** Frequency and percentage distribution of knowledge on dental carries among mothers

	Frequency	Percentage
Mild	12	40%
Moderate	10	33%
Severe	8	27%

#### (b) Mean and standard deviation of knowledge on dental carries among mothers.

The present study shows the mean scores for mild (8.62), moderate (12.1) and severe (18.17) and standard deviation score for mild (1.685), moderate (0.9944) and severe (1.7495). (Table 2)

**Table 2:** Mean and standard deviation of knowledge on dental carries among mothers

	Mean deviation	Standard deviation
Mild	8.62	1.685
Moderate	12.1	0.9944
Severe	18.17	1.7495

The present study is supported by Rajab(2018) Conducted a study to assess the level of knowledge and attitudes of children and parents. 49 percentage of the children had tooth extraction and 8 percentage had preventive services. Tooth brushing at least twice a day was reported for (31%) of the children. Dental care habits of children were highly affected by dental visiting habits of parents, and variation by level of education of parents was also found. The discrepancy between dental knowledge and attitudes of children and parents and oral health care practices indicate the need for oral health education. [9]

#### Section C: Associate between the knowledge on dental carries among mothers of school children with selected demographic variables among school children

The present study shows that there is no significant association with variables like age, religion, type of marriage, type of family, number of children, socio economic status, occupation, life style, education.

#### Conclusion

Mothers have moderate knowledge on dental hygiene in koyambedu. Conducting structured teaching program will help the mothers to maintain good oral hygiene.

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### **Authors contribution**

All the authors actively participated in the work of the study. All authors read and approved the final manuscript.

### **Conflicts of interest**

The authors declare no conflicts of interest.

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