

# Study to Assess the Knowledge Regarding Dental Caries among Mothers of Children (1-15) Years

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**Abstract:** - Dental caries continues to be a major problem in many countries, especially in developing countries like India, where it is consistently reflecting increasing trend in last couple of decades. It is generally accepted that dental caries is caused by acid resulting from the action of microorganisms, on carbohydrate. Pre experimental research design with one group pre-test post-test was used. Convenient sampling technique with a sample of 30 mothers of children age group 1 to 15 years women. Data was collected using socio demographic variables with structured knowledge questionnaire. Mothers of children 1 to 5 years was (63.3%) in number. 90% of mother of children belongs to joint family. 40% of mothers of children has completed primary education. Mean post-test knowledge score (71.85%) was higher than mean (51.1%) pre-test knowledge score. After implementation of the PTP 60% mothers have good score. The planned teaching program was found to be effective in increasing the knowledge of mothers regarding prevention and early detection of dental caries.

**Key Words:** —Dental caries, Mothers of children, Rural, Planned teaching programme.

## I. INTRODUCTION

Oral health is an integral component of general health. Research in the past few years has revealed the casual link between oral disease and systemic disease. Oral health has also been found to profoundly influence the quality of life. Dental caries and periodontal disease are the highly prevalent disease in many populations. They are highly irreversible once they occur and also have a complex etiology. Although primary preventive techniques exist, they do not confirm total protection. Dental caries continues to be a major problem in many countries, especially in developing countries like India, where it is consistently reflecting increasing trend in last couple of decades. The point prevalence surveys have shown persistence of 'untreated carious lesions' among children in rural areas. It reflects either non-availability of oral health care services or poor health seeking behavior of rural people. Awareness related to oral health among them is also found to be poor. It is generally accepted that dental caries is caused by acid resulting from the action of microorganisms, on carbohydrate.

Decay results from the action of bacteria that live in plaque, which is a sticky, whitish film formed by a protein in saliva (mucin) and sugar substances in the mouth. The plaque bacteria sticking to tooth enamel use the sugar and starch from food particles in the mouth to produce acid. Children are exposed to different media sources and spend most of their free time watching them. They are attracted by messages of advertisers and susceptible to stylish advertisements of foods that are high in sugars and carbohydrates often harmful to oral and general health. These beverages include candies, soda fruit drinks and energy drink. [5].

## II. NEED FOR STUDY

Epidemiological survey conducted by Ramachandran in south India the result so that caries prevalence of 66.2% in rural population and 47.8% in urban population. Tooth decay is one of our most prevalent diseases, affecting almost 100 percent of the total population. School age children represent about 25% of total Healthy population. The very size of the population suggests that health care of the school children can contribute to the overall health status of the country. The health and wellbeing of school age children has become a high profile issue, lying at the heart of numerous government initiatives and policies and receiving considerable public attention.

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### III. METHODOLOGY

Research approach- quantitative approach with 30 sample. Convenient sampling technique was used. A structured questionnaire was prepared to assess the knowledge regarding dental caries among mothers of children.

#### A. Section A

Structured knowledge questionnaire to assess the demographic data of mothers such as age of child, gender, education status of father & mother, type of family, family income (Annually), previous source of knowledge, type of water supply.

#### B. Section-B

This section consist of 18 items asses the knowledge regarding dental carries among mothers of children.

An informed consent was obtained from mothers of children after proper explanation about the purpose and usefulness of the study.

### IV. RESULTS AND DISCUSSION

#### A. Section I

*Description of sample characteristics:*

This section described the characteristics of women under study. The sample consisted of 18 mothers of children 1-15 year's age group.

*Frequency and Percentage Distribution:*

Table.1. Frequency and percentage distribution of mothers of children 1-15 years age group by age of child, gender, education status of father, education status of mother, type of family, family income, previous knowledge. N=18

Variables	Opts	Percentage (%)	Frequency(f)
Age of Child	1-5 Years	63.3	19
	6-10 Years	23.3	7
	11-15 Years	13.3	4
Gender	Male	16.7	5
	Female	83.3	25
Education status of father	Illiterate	20.0	6
	Primary education	40.0	12
	Secondary education	36.7	11
	Senior secondary & above	3.3	1
Education status of mother	Illiterate	33.3	10
	Primary education	46.7	14
	Secondary education	20.0	6
	Senior secondary & above	0.0	0
Type of family	Nuclear Family	10.0	3
	Joint Family	90.0	27
Family income (Annually)	Up to 60000	50.0	15
	Up to 100000	43.3	13
	Above 100000	6.7	2
Previous source of knowledge	Media (newspaper or TV)	66.7	20
	Health worker	33.3	10
	Any other	0.0	0
Type of water supply	Tap water	70.0	21
	Well water	3.3	1
	Other sources	26.7	8

Nineteen subjects (63.3%) are between 1-5 years of age. 7 (23.3%) are between 6-10 years of age. 4 (13.3%) are between 11-15 years of age. 5 (16.7%) of male candidate. 25 (83.3%) of female candidates.

6 (20.05) are illiterate candidates. 12 (40.0%) had primary education. 11 (36.7%) had secondary education. 1(3.3%) had senior secondary and above education.

10 (33.3%) are illiterates. 14 (46.7%) had primary education. 6 (20.0%) had secondary education. 0 (0.0%) had senior secondary and above education.

3(10.0%) had nuclear family,27 (90.0%) had joint family. 15 subjects (15.0%) had annually income up to 60,000. 13 (43.3%) had annually income up to 1,00000. 2(6.7%) had annually income above 1,00000.

20(66.7%) peoples have previous knowledge regarding dental carries through media channel.

10(33.3%) peoples have previous knowledge through health care workers. 0(0.0%) others. 21(70.0%) had tape water supply. 1(3.3%) had well water supply. 8(26.7%) had other sources of water supply.

**B. Section B**

Table.2. Showing Descriptive statistics

Descriptive Statistics	Pre Knowledge
Mean Score	9.20
S.D.	2.455
Median Score	9
Max Possible	18
Minimum Possible	0
Range of Possible Score	18
Maximum Obtained	14
Minimum Obtained	5
Range of Obtained Score	9
Number	30
Scored	276
Total Score	540
Mean Percentage	51.11

In descriptive statistics the mean score of knowledge is 9.20 In S.D of knowledge score is 2.455 Median score of test score is 9.The maximum possible score in knowledge is18.

The minimum possible score knowledge 0.The range of possible score is 18 .Maximum score obtained in tests 14. Minimum score obtained in test is 5.

The range of obtained score is 9 in test .Total number is 30 in test .Complete scored 276 in test. Total score 540 in test. The mean percentage 51.11 in test.

Table.3. Criteria measure of knowledge score

Score Level (n=30)	(F%)
Below Average (0-6)	16.7
Average (7-12)	76.7
Good (13-18)	6.7

Criteria Measure of knowledge score in %:-Below Average (0-6) is 16.7% in frequency. Average (7-12) is 76.7% in frequency. Good (13-18) is 6.7% in frequency.

As shown in the table.4. Mothers of children in the age group of 1-15years scored better which was not a significant association (p>0.05).

Age of child 1-15years (p>0.05) which is not significant. Gender male and female value (p>0.05). Which is not significant.

Fathers of children who have education up to senior secondary and above value (p>0.05) which is not significant.

Mothers of children who have education up to senior secondary scored better who have primary and higher secondary level of education respectively which was a significant association (p<0.05) .

The types of family value (p>0.005). Which is not significant. It is shown in the table mothers of children who had annually income up to 1, 00000 and above value (p>0.05). Which is not significant.

Previous sources of knowledge regarding dental caries is through media, newspaper, tv, health care workers value (p>0.05). This is not significant.

Types of water supply tape water, well water and others value (p>0.05). Which is not significant.

Table.4. Association of pre-test knowledge among mothers of children 1-15 year's age group with selected socio - demographic variables.  
N=18

Association of Pre-test Knowledge scores of with selected socio-demographic variables.									
Variables	Opts	Good	Average	Low	Chi Test	P Value	df	Table Value	Result
Age of Child	1-5 Years	2	15	2	4.737	0.315	4	9.488	Not Significant
	6-10 Years	0	6	1					
	11-15 Years	0	2	2					
Gender	Male	0	5	0	1.826	0.401	2	5.991	Not Significant
	Female	2	18	5					
Education status of father	Illiterate	0	4	2	5.241	0.513	6	12.592	Not Significant
	Primary education	0	10	2					
	Secondary education	2	8	1					
	Senior secondary & above	0	1	0					
Education status of mother	Illiterate	0	7	3	4.934	0.294	4	9.488	Not Significant
	Primary education	2	10	2					
	Secondary education	0	6	0					
	Senior secondary & above	0	0	0					
Type of family	Nuclear Family	0	3	0	1.014	0.602	2	5.991	Not Significant
	Joint Family	2	20	5					
Family income (Annually)	Up to 60000	2	10	3	2.891	0.576	4	9.488	Not Significant
	Up to 100000	0	11	2					
	Above 100000	0	2	0					
Previous source of knowledge	Media (newspaper or TV)	2	14	4	1.748	0.417	2	5.991	Not Significant
	Health worker	0	9	1					
	Any other	0	0	0					
Type of water supply	Tap water	2	15	4	1.447	0.836	4	9.488	Not Significant
	Well water	0	1	0					
	Other sources	0	7	1					

## V. CONCLUSION

The following conclusions were drawn from the following findings of the study. The participants had less knowledge regarding dental caries, which indicated the need to improve knowledge regarding dental caries among mothers of children in rural areas.

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