

## The Knowledge and Attitude on Oral Health Among Mothers of Under Five Children Attending Paediatric Area in Selected Hospital Vadodara

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### Keywords

assess, knowledge, attitude, oral health, mothers of under-five, children

### Abstract

Background of the study: The World Health Organisation states that "Oral health is a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects such as cleft lip and palate, periodontal (gum) disease, tooth decay and tooth loss, and other diseases and disorders that affect the oral cavity." The study's objectives are to evaluate the attitudes and knowledge of mothers of children under the age of five who visit the paediatric department of a particular hospital about oral health. Resources and Approach: The 245 samples of mothers of children under five years old were collected using a non-probability convenience sampling technique in an evaluative research approach with pre-experimental one group pre-test post-test design. It was examined using descriptive and illuminating statistics including the standard deviation, chi-square test, and paired t-test. Results: In the pre-test, 106 (43.27%) of the samples had insufficient knowledge, 125 (51.02%) had moderate knowledge, 14 (5.71%) had adequate knowledge, and 221 (90.57%) had a negative attitude towards oral health care while 23 (9.43%) had a positive attitude. In the post-test, 11 (4.48%) of the samples had insufficient knowledge, 51 (20.81%) had moderate knowledge, 183 (74.69%) had adequate knowledge, 231 (94.28%) had a positive attitude towards oral hygiene, and 14 (5.71%) had a negative attitude. At the 0.05 level, the resultant 't' values for attitude and knowledge were both highly significant at 41.817 and 21.732, respectively. The study's findings indicated that the plan teaching programme was successful with mothers of young children under the age of five.

### 1. Introduction

According to World Health Organization, "Oral health is a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects such as cleft lip and palate, periodontal (gum) disease, tooth decay and tooth loss, and other diseases and disorders that affect the oral cavity."<sup>1</sup> Oral health is not just about healthy teeth but how it affects their growth, function, speech, and socialize, as well as their feelings of social well-being. This is a very important issue which needs constant and regular check up from health care professional<sup>2</sup>. In childhood years, parents are the primary care giver of the child therefore, parents with higher education are seen to be more cautious about oral health problems such as dental caries compared to low educated parents.<sup>3</sup> Oral hygiene is the practice of keeping teeth and tongue clean, having healthy gums and mouth free of disease and other problems such as bad breath, bleeding

gums, dental caries, etc. by regular brushing of the teeth and by dental floss. It is very important to brush the teeth at least twice a day to prevent oral disease and to promote health hygiene<sup>4</sup>. Children under the age of 5 years spend most of their time with parents and guardians. These initial period of child includes primary training in which they learn primary things such as toilet training, socializing, attitudes and norms, etc. These all things are acquired at home by their parents and guardians hence, they are called as primary care givers. In all these primary things, oral care is also included. Children learn the health care by their parents. Therefore, parents play a vital role in teaching health hygiene to the children<sup>5</sup>.

### 2. Methodology

In this study, 245 samples of mothers of children under the age of five were gathered using a non-probability convenience sampling technique as part of an evaluative research approach with pre-

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experimental one group pre-test post-test design. Data were collected by administering self-structured questionnaires. It has 10 self-structured questions about attitude towards oral health and 15 self-structured questions about knowledge. It was divided into three categories for knowledge: inadequate knowledge (1–15), intermediate knowledge (6–10), and adequate knowledge (11–15). Positive attitude scores ranged from 26 to 50 for attitude, whereas negative attitude scores ranged from 1 to 25. The standard deviation, chi-square test, and paired t-test were among the descriptive and influential statistics used in the analysis of the data. Vadodara's official approval of the study's approval was attained. the 4 week period during which the data was collected. The researcher used a non-probability convenient sampling strategy to choose 245 samples of mothers of under-five-year-old children in a chosen hospital who met the inclusion requirements for data collection. Before getting verbal assent, the researcher chose the subject and built rapport by outlining the goals of the study, the level of cooperation required, and the assurance of anonymity. Self-structured questionnaires were initially used as a demographic tool to gauge the sample's degree of knowledge and attitude.

### 3. Result:

**Table 1:** Frequency and percentage distribution of sample, according to their demographic characteristic.

Socio-demographic data	Categories	Frequency	Percentage (%)
Age of the mother in year	18 to 25	20	8.16
	26 to 33	86	35.10
	34 to 41	139	57.73
	42 to 49	0	0.00
	0-1	59	24.08

Age of the child in year	2-3	147	60.00
	4-5	39	15.92
Educational status of the mother	No formal education	29	11.84
	Primary Education	95	38.78
	High school	87	35.51
	Higher secondary	34	13.88
	Graduate and above	0	0.00
Number of the children in family	1	94	38.37
	2	112	45.71
	3	37	15.10
	4	2	0.82
	More than 4	0	0.00
Experience of mother in hospitalization	Once or twice	67	27.35
	thrice	97	39.59
	4 times	68	27.76
	More than 5 times	13	5.31

**Table 2:** Data on the level of knowledge regarding Oral Health

Pre test		Post test	
F	P(%)	F	P(%)
106	43.26	11	4.48
	51.00	51	20.81

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14	5.7	183	74.69
245	100	245	100

Table2: shown In the pre-test 106(43.26%) samples were having inadequate knowledge, 125(51%) were having moderate knowledge, 14 (5.7%) were having adequate knowledge level. In the post-test 11(4.48%) samples were having inadequate knowledge, 51(20.81%) were having moderate knowledge, 183 (74.69%) were havingadequate knowledge level.

**Table 3:** Data on the level of attitude regarding oral health

	Attitude level	Pre test		Post test	
		F	P(%)	F	P(%)
1	Positive	23	9.38	231	94.28
2	Negative	222	90.61	14	5.71
Total		245	100	245	100

In pre-test 23(9.38%) samples were having positive attitude, 222(90.61%) samples were having negative attitude. In post-test 231(94.28%) samples were having positive attitude, 14(5.71%) samples were having negative attitude.

**Table 4:** Data on effectiveness of plan teaching program of knowledge amongmothers under five.

Knowledge				
Aspect	Mean	Mean difference	Std. Deviation	“t”-value
Pre test	1.6245	245	0.59179	21.732
Post Test	2.7102	245	0.54481	

The above table shows that the pre-test and post-test knowledge level mean was 1.6245 and 2.7102, the mean difference was 245, standard deviation of pre-test was 0.59179 and standard deviation of post-test was 0.54481, the obtained ‘t’ value was 21.732, so it was highly significant at 0.05 level and shows that the plan-teaching program of knowledge was effective

**Table 4:** Data on effectiveness of plan teaching program of attitude amongmothers under five.

Attitude				
Aspect	Mean	Mean difference	Std. Deviation	“t”-value
Pre Test	1.9265	245	0.26144	41.817
Post Test	1.049	245	0.21627	

The above table shows that the pre-test and post-test attitude level mean was 1.9265and 1.049, the mean difference was 245, standard deviation of pre-test was 0.26144 and standard deviation of post-test was 0.21627, the obtained ‘t’ value was 41.817, so it was highly significant at 0.05 level and shows that the plan-teaching program of knowledge was effective.

## 4. Discussion

In this study first section of the questionnaire was the demographic data, which had 5 variables: age of the child, age of the mother, education status, no of children, experience of mother in hospitalization. The analysis was done through descriptive (Frequency, percentage) and inferential statistics. Discussion on the findings was arranged based on the objective of the study. It was analyzed by using descriptive and interferential statistic such as standard deviation, chi square-test, paired t-test. In the pre-test 106(43.27%) samples were having inadequate knowledge, 125(51.02%) samples were having moderate knowledge, 14(5.71%) samples were having adequate knowledge and 221(90.57%) samples were having negative attitude, 23(9.43%) samples were having positive attitude regarding oral health care. In the post-test 11(4.48%) samples were having inadequate knowledge, 51(20.81%) samples were having moderate knowledge, 183(74.69%) samples were having adequate knowledge level and 231(94.28%) samples were having positive attitude, 14(5.71%) samples were having negative attitude towards oral

hygiene. The obtained 't' value was 41.817 for attitude and the obtained 't' value was 21.732 for the knowledge, so both values were highly significant at 0.05 level. The present study concluded that there is an improvement in the level of knowledge and level of attitude among mothers under five of selected hospital in Vadodara.

## References

- [1] World Health Organization, Oral health [Internet]; [cited 25th July 2014]. Available from: [http://www.who.int/topics/oral\\_health/en/](http://www.who.int/topics/oral_health/en/).
- [2] Hakan C, Çoruh TD, Mehmet D, Mustafa HM. Early childhood caries update: a review of causes, diagnoses, and treatments. *Journal of natural science, biology, and medicine* 2013; 4.1: 29.
- [3] Reang T, Bhattacharjya H. Mother's knowledge and practice regarding oral hygiene and challenges in the prevention of dental caries of under-five children in an urban resettlement colony. *International journal of Medical Science and Public Health* 2014;3(1): 76-80.
- [4] Darby M, Walsh MM (2010). *Procedures Manual to Accompany Dental Hygiene: Theory and Practice*. St. Louis, Mo.: Saunders/Elsevier.
- [5] Holm AK. Caries in the preschool child international trends. *Journal of dentistry* 1990; 18(6): 291-5
- [6] Nanda Kishor KM. Public health implications of oral health –inequity in India. *J Adv Dent Res* 2010;1(1):1-9.
- [7] Oral health [Internet]. Who.int. 2022 [cited 18 February 2022]. Available from: <https://www.who.int/news-room/fact-sheets/detail/oral-health>
- [8] [webmd.com/oral-health/guide/tooth-decay-prevention](https://www.webmd.com/oral-health/guide/tooth-decay-prevention) How to Prevent Tooth Decay [Internet]. WebMD. 2022 [cited 18 February 2022]. Available from: <https://www.webmd.com/oral-health/guide/tooth-decay-prevention>
- [9] Antunes J, Frazão P, Narvai P, Bispo C, Pegoretti T. Geographic Information Systems

(GIS) in assessing dental health. *Int J Environ Res Public Health* 2010; 7:2423–2436

- [10] Begzati A, Bytyci A, Meqa K, Latifi-Xhemajli B, Berisha M. Mothers' behavior's and knowledge related to caries experience of their children. *Oral Health Prev Dent* 2014; 12:13

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