

***“A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICES REGARDING ORAL HYGIENE AMONG MIDDLE SCHOOL CHILDREN STUDYING AT UDAIPUR.”***

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### ***ABSTRACT***

#### ***Introduction***

Oral health for healthy life maintaining good oral hygiene is the most simple, economical way for a happy, healthy smile. It is easy to understand why oral hygiene is important. But poor oral hygiene can cause problems throughout the rest of the body. Besides creating health issues, poor oral hygiene can create social issues. Nobody want to be known as the person with bad breath.

***Methods:*** The research design of the study is pre experimental one group pre test post test design with one group pretest and posttest. Total 60 children study in 6<sup>th</sup> and 7<sup>th</sup> class, simple random sampling technique was used to select the parents. A structured knowledge question naire was prepared by the investigator. Descriptive and inferential statistics i.e., frequency, percentage, paired t test, chi-square test were used for analysis.

***Results:*** The total mean percentage of knowledge score of the middle school children during pretest mean was 30.75% with SD was 3.28 and in the post test mean was 74.98% and SD was 2.83. Whereas the total mean percentage of pretest practice was 31% and SD was 1.14 and in the post test mean was 79% and SD was 5.48. Significant difference was found between pre and post knowledge and practices scores.

***Conclusion:*** The structured teaching programme through flash cards, charts and roller board etc found to be very effective in improving the knowledge among children study in 6<sup>th</sup> and 7<sup>th</sup> class. The knowledge regarding oral hygiene was improved by health teaching through flash cards, charts and roller board etc.

***Keywords:-*** Assess, STP, Parents, Children

### ***INTRODUCTION***

The health of children has historically been of vital importance to all societies because children are the basic resource for the future humankind. A nation's most important and precious resource is its children who constitute its hope for continued achievement and productivity. Majority of the child health problems are preventable and oral health problem is among one of them.<sup>1</sup>

Oral health for healthy life' Maintaining good oral hygiene is the most simple, economical way for a happy, healthy smile. It is easy to understand why oral hygiene is important. But poor oral hygiene can cause problems throughout the rest of the body. Besides creating health issues, poor oral hygiene can create social issues. Nobody wants to be known as the person with bad breath.<sup>2</sup> Numerous recent studies have shown that ignoring oral hygiene could encourage heart diseases and that there is a relationship between periodontal disease and a greater risk for developing problems with the heart and circulatory system. Poor oral hygiene can give systemic injuries. Pyorrhea is an infection of the gums and tooth-sockets. Pyorrhea is also the culprit of tooth loss. Bad breath also known as halitosis caused by poor oral hygiene.<sup>3</sup> The function of each part has some effects on others. Oral cavity is one of the main organs of the body, which has great effect on people health and as a consequence, the health of the society. As a result, dental health indexes are not only indicators of health status but also can be hall marks of socioeconomic condition.<sup>4</sup> Nursing journal of India (2000)- nursing journal of India revealed that health is not complete without oral health and health for all by the year 2025 can only be achieved through the medium of primary health care approach. The concept of dental health under the theme "health for all by 2025 ad" is a significant issue among human beings because 95% of all human beings have one or other dental problem at least once in their life time. Among them a proportion comes from the pediatric populations.<sup>5</sup>

B kamahi conducted a study which shows oral debris is most commonly seen in children with poor oral hygiene. Thorough brushing of the teeth at least twice daily is a basis to an effective oral hygiene program. Almost millions of new cases of poor oral hygiene are diagnosed each year *i.e.* one child every minute every day. maximum school children in post test were as follows: 46(92%) had adequate knowledge, 27(54%) school children has most favorable attitude, and 23(46%) had favorable attitude about oral care, 47(94%) school children had fair oral practice.<sup>6</sup>

Bhavneet Kaur conducted a study: This study was conducted to evaluate the status of oral health awareness in parents of preschool children. Materials and Methods: A total of 230 preschool children were included in the study and their parents were analyzed for their child dental awareness by holding free dental checkups and interactive meetings with the help of their respective schools. Results and Conclusion:<sup>7</sup>

Praveen v bagali et al conducted a study on relationship between oral health and oral hygiene, diet behaviors. Oral health is closely related to hygiene and diet behaviors. Programs that promote oral health behavior, attitudes and knowledge are extremely important for the overall reduction in caries experiences of those children. Schools provide an opportunity to reach the children, not merely who seek dental care.<sup>8</sup>

S Kumar conducted a study to assess the impact of socio-demographic and clinical variables on the oral hygiene and periodontal status in a sample of mentally disabled subjects. Stepwise linear regression analysis revealed that the best predictors in the descending order for oral hygiene index were disabled sibling, medical diagnosis, IQ level, education of mother and father. Having Down syndrome, less educated parents, poor economic status and a disabled sibling were the most important predictors for poor periodontal status.<sup>99</sup>

## **METHODOLOGY**

**Research Approach:** Research approach is an umbrella that covers the basic procedure for conducting research. Evaluative approach was used to evaluate the effectiveness of structured teaching programme on knowledge and practices of oral hygiene.

**Research Design:** The research design is the plan structure and strategy of investigation of answering to the research question and it spells out strategies that the researcher adopted to develop information *i.e.* accurate, objective and interpretable.

**Setting:** Setting is the physical location and condition in which data collection takes places. The setting of the present study in of middle school, at Udaipur.

**Population:** The term population refers to the aggregate or totality of all subjects or number that confirm to a set of specifications. The population for the present study includes the students of class 6<sup>th</sup> and 7<sup>th</sup> of middle school, at Udaipur.

**Sample:** The sample for the present study comprises of 60 students of class 6<sup>th</sup> and 7<sup>th</sup> from of middle school, at Udaipur.

**Sampling technique:** In this study simple random sampling technique is found to be appropriate

**Sample size:** The sample size for the present study 60 students of class 6<sup>th</sup> and 7<sup>th</sup> from of middle school, at Udaipur.

### **Data collection technique and tools**

Since the purpose of the study was to assess the level of knowledge and practice of oral hygiene among middle school children studying. A demographic data, knowledge questionnaire, and observational checklist were found appropriate.

## **RESULTS**

The Pre-experimental design was used in the study; the data was collected from 60 students of class 6<sup>th</sup> and 7<sup>th</sup> in order to assess the effectiveness of structure dteaching programme on knowledge and practice so for alhygiene. The

**Presentation of data and analysis**

The data is organized, analyzed and presented under the following headings.

**Section A**– This section deals with Frequency and percentage distribution of the demographic variables.

**Section – B** This section deals with an analysis of pre-test and posttest knowledge and practice on oral hygiene was made as under:

- a) Assessment of pre-test level of knowledge and practice.
- b) Assessment of post-test level of knowledge and practice.

**Section –C** This section deals with the evaluation of the effectiveness of structured teaching programme regarding knowledge and practices of oral hygiene.

**Section –D** This section deals with Relationship between the post-test knowledge score and the post-test practice score.

**Section –E** This section deals with the association between demographic variables and post-test knowledge score.

**Section-F** This section deals with the association between demographic variables and post-test practice score.

Section A– This section deals with Frequency and percentage distribution of the demographic variables.

TableNo.1: Frequencyandpercentagedistributionofthedemographicvariables.

S. N.	Characteristics	Frequency	Percentage(%)
1	<b>Ageof children</b>		
	9-10 years	46	76.67
	11-12 years	14	23.33
2	<b>Gender</b>		
	Male	38	63.3
	Female	22	36.77
3	<b>Religion</b>		
	Hindu	58	96.77
	Muslims	2	3.33
	Christian	0	0
	Others	0	0
4	<b>Numberofsiblings</b>		
	Nil	8	13.33
	One	22	36.67
	Two	24	40
	More than two	6	10
5	<b>Typeof family</b>		
	Joint	44	73.33
	Nuclear	16	26.67
6	<b>Educationoffather</b>		
	Illiterate	8	13.33
	Primary education	16	26.67
	Secondary education	19	31.67
	Higher secondary education	13	21.67
	Graduate & above	4	6.67
7	<b>Educationof mother</b>		
	Illiterate	8	13.33
	Primary education	21	35
	Secondary education	17	28
	Higher secondary education	8	13.33
	Graduate & above	6	10
8	<b>Occupationoffather</b>		
	Government employee	16	26.67
	Private employee	17	28.33
	Business	3	5
	Laborer	6	10
	Agricultural	18	30
9	<b>Occupationof mother</b>		
	Government employee	8	13.33
	Private employee	7	11.67
	Laborer	21	35
	Housewife	24	40
10	<b>Familyincome</b>		
	<5000	10	16.67
	5000-10,000	18	30
	10,000-15000	21	35
	> 15,000	11	18.33
11	<b>Sourceof information</b>		
	Television	10	16.67
	Newspaper	6	10
	Teacher	22	33.33
	Elders	24	40

**SECTION – B**

*This section deals with an analysis of pre-test and post-test knowledge and practice on oral hygiene was made as under:*

- a) Assessment of pre-test level of knowledge and practice.
- b) Assessment of post-test level of knowledge and practice.

Table No.– 2, Comparison of pre-test and post-test Knowledge Score of Respondents on oral hygiene. n= 60

Knowledge Aspect	Respondents knowledge			
	Pre test		Posttest	
	N	%	N	%
Inadequate (0-33%)	45	75	0	0
Moderate (34-66%)	11	18.33	13	21.67
Adequate (67-100%)	4	6.67	47	78.33
<b>Total</b>	<b>60</b>	<b>100</b>	<b>60</b>	<b>100</b>

The pretest knowledge score of respondents 45 (75.0 percent) had inadequate knowledge, 11 (18.3 percent) had moderate knowledge, and 4 (6.67 percent) had adequate knowledge.

The post-test knowledge score of respondents 0 (0 percent) had inadequate knowledge, 13 (21.67 percent) had moderate Knowledge 47 (78.33 percent) had adequate knowledge.

Table No.–3, Comparison of pre-test and post-test practice Score of Respondents on oral hygiene.

Practice Aspect	Category score	Response			
		Pre test		Posttest	
		n	%	n	%
Unfavorable	0-3	45	75	4	6.67
Favorable	4-6	15	25	12	20
Most favorable	7-10	0	0	44	73.33
<b>Total</b>	<b>10</b>	<b>60</b>	<b>100</b>	<b>60</b>	<b>100</b>

The pre-test practice score of respondents 45 (75.0 percent) had poor practice, 15 (25.00 percent) had fair knowledge and 0 (0 percent) had good practice.

The post-test Practice score of respondents 4 (6.67 percent) had poor practice, 12 (20.0 percent) had fair practice and 44 (73.33 percent) had good practice.

Section –C This section deals with the evaluation of the effectiveness of structured teaching programme regarding knowledge and practices of oral hygiene.

Table No.–4 Evaluate the effectiveness of structured teaching programme regarding knowledge and practices of oral hygiene.

Sl. No	Area	Mean	Mean difference	Mean %	Standard Deviation	Paired 'T' Value
1.	<b>Knowledge</b>					
	Pretest	6.15	8.83	30.75	3.28	3.43
	Post test	14.98		74.90	2.83	
2.	<b>Practice</b>					
	Pretest	3.13	4.85	31.30	1.14	2.48
	Post test	7.98		79.80	5.48	

n=60

Data in (Table 4) Illustrates that the mean post-test knowledge score was higher than mean pretest knowledge score (6.15). The computed 't' value 3.43 ( $p < 0.05$ ) showed that there is significant difference between the pre-test and post-test knowledge score.

The mean post-test practice score was higher than mean pre-test practice score (3.13). The computed 't' value 2.48 ( $p < 0.05$ ) showed that there was a significant difference between the pre-test mean practice score.

Hence hypothesis H1 was accepted. This indicates that the structured teaching programme regarding knowledge and practices of oral hygiene was effective.

**Section-D**, It deals with relationship between the post-test knowledge score and the post-test practice score.

Table No. -5. Correlation between the knowledge and practice

S.N.	Variables	Correlation value	Statistical value
1	Post-test Knowledge and practice scores	$r = 0.33$	Positive correlation

**Correlation value ( $r = 0.33$ )** shows that there is positive relationship between post-test knowledge and practice score.

H2: there will be significant relationship between post-test knowledge and practice score.

Since table statistical value is showing that there is highly positive correlation between post-test knowledge and practice scores hypothesis H2 is accepted.

**Section-E** This section deals with the association between demographic variables and post-test knowledge score.

Table No. -6, Association between selected demographic variables and post-test knowledge score

Sr No.	Demographic variables	Frequency	knowledge			d.f.	Table value	c2
			Inadequate	Moderate	adequate			
1	<b>Age</b>							
	9-10 years	4 6	0	10	36	2	5.99	0.49 NS
	11-12 years	1 4	0	3	11			
2	<b>Gender</b>							
	Male	3 8	0	7	31	2	5.99	0.62 NS
	Female	2 2	0	6	16			
3	<b>No. of siblings</b>							
	Nil	8	0	4	4	6	12.6	4.65 NS
	One	2 2	0	3	19			
	two	2 4	0	6	18			
	More than two	6	0	0	6			
4	<b>Family type</b>							
	Joint	4 4	0	11	33	2	5.99	1.07 NS
	Nuclear	1 6	0	2	14			
5	<b>Occupation of father</b>							
	Govt. employee	1 6	0	3	13	8	15.5	1.40 NS
	Pvt. employee	1 7	0	4	13			
	Business	3	0	0	3			
	laborer	6	0	1	5			
	Agriculture	1 8	0	5	13			
6.	<b>Family income (Monthly)</b>							
	<5000 Rs.	1 0	0	4	6	6	12.6	2.41 NS
	5000-10,000 Rs.	1 8	0	3	15			
	10,000-15,000 Rs.	2 1	0	4	17			
	>15,000 Rs.	1 1	0	2	9			

**SIG- SINGNIFICANT, NS-NO SINGNIFICANT**

There is no association between knowledge and selected demographic Variables like age, gender, number of siblings, type of family, occupation of father, family income. **H3:** There will be significant association between post-test knowledge score and selected demographic variables.

Since there is no association between knowledge and selected demographic Variables like age, gender, number of siblings, type of family, occupation of father, family income. Hypothesis H3 is rejected.

Section-F This section deals with the association between demographic variables and post-test practice score.

Table No. -7. Association between selected demographic variables and post-test practice score

n=60

Sr No.	Demographic variables	Frequency	practice			d.f.	Table value	c2
			unfavorable	Favorable	Most favorable			
1	<b>Age</b>							
	9-10 years	4 4	3	8	3 3	2	5.99	0.34 NS
	11-12 years	1 6	1	4	1 1			
2	<b>Gender</b>							
	Male	3 8	3	11	2 4	2	5.99	5.86 NS
	Female	2 2	1	1	2 0			
3	<b>No. of siblings</b>							
	Nil	8	2	1	5	6	12.6	7.69 NS
	One	2 2	2	5	1 5			
	Two	2 4	0	4	2 0			
	More than two	6	0	2	4			
4	<b>Familytype</b>							
	Joint	4 4	3	9	3 2	2	5.99	0.14 NS
	Nuclear	1 6	1	3	1 2			
5	<b>Occupation of father</b>							
	Govt. employee	1 6	0	2	1 4	8	15.5	26.38 SIG
	Pvt. Employee	1 7	0	1	1 6			
	Business	3	0	1	2			
	Laborer	6	2	4	0			
	Agriculture	1 8	2	4	1 2			
6.	<b>Family income (Monthly)</b>							
	<5000 Rs.	10	3	0	7	6	12.6	22.41
	5000-10,000 Rs.	18	1	8	9			
	10,000-15,000 Rs.	21	0	4	17			
	>15,000 Rs.	11	0	0	11			

## **SIG- SINGNIFICANT, NS-NO SINGNIFICANT**

There is no association between practice and selected demographic variables like age, gender, number of siblings and type of family. However, the chi- square value (26.38 & 22.41) established denotes that the association between practice of oral hygiene and occupation of father & family income respectively is statistically significant at 0.05 level.

Since only two demographic variables (occupation of father& family income) are associated with practice, hypothesis H4 is partially accepted.

## **DISCUSSION**

The present study was conducted to evaluate the effectiveness of structured teaching programme regarding oral hygiene for middle school children. In order to achieve the objectives of the study, a one group pretest, post-test design with pre-experimental design was adopted; simple random sampling technique was used to select the sample. The data was collected from 60 middle school children; the findings of the study have been discussed with reference to the objectives and hypothesis. The data are organized, analyzed, and presented in sections.

## **CONCLUSION**

On the basis of the findings of the following, conclusions were made-

- The present study revealed that the middle school children had inadequate knowledge regarding oral hygiene in pre test.
- The total mean percentage of knowledge score of the middle school children during pretest mean was 30.75% with and SD was 3.28 and in the post test mean was 74.98% and SD was 2.83. Whereas the total mean percentage of pretest practice was 31% and SD was 1.14 and in the post test mean was 79% and SD was 5.48. Significant difference was found between pre and post knowledge and practice scores.
- There was no significant association between the knowledge and practice with demographic variables such as age and gender etc. however association was found between demographic variables viz. occupation of father and family income and practices of oral hygiene.

## **BIBLIOGRAPHY**

1. Dutta parul, pediatric nursing, Jaypee publisher, edition-second, pp. 7.
2. Marlow Dorothy r., "text book of pediatric nursing", 6<sup>th</sup> edition. 2007, Saunders Elsevier, pp. 265, 754-756.
3. Indian journal of dental research, Year: 2009, Volume: 20, Issue: 4, pp. 463-465.
4. Z Tohidast akrad, JM Beitollahi , AA Khajetorab, DMFT (Decayed, Missing, Filled, Teeth) Oral Health Index in Sweets and Cable Industry Workers Iranian J Publ Health, 2006, Vol. 35, No. 2, pp. 64-68.
5. The nursing journal of India, vol.-c, no.-11, Nov. 2000, pp.246 -247.
6. B kanmani, Effectiveness of oral care among children in Acharapakkam primary school, kanchepuram district-Tamil Nadu, Nightingale nursing times, May 2010, abstract pp. 28-30.
7. Bhavneet Kaur, a study to evaluate the status of oral health awareness in parents of preschool children, Indian journal of dental research, Year: 2009, Volume: 20, Issue: 4, pp. 463-465.
8. Praveen v bagali, a study to to find out relationship between oral health and oral hygiene and diet behaviors, Indian journal of dental research, Year: 2008, Volume: 21, Issue: 4, pp. 463-465.
9. S Kumar, a study to assess the impact of socio-demographic and clinical variables on the oral hygiene and periodontal status in a sample of mentally disabled subjects, Indian Society of Pedodontics and Preventive Dentistry, year-2009, volume-27, pp. 151-157.