



ISSN: 0976-3031

Available Online at <http://www.recentscientific.com>

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research
Vol. 10, Issue, 06(G), pp. 33142-33145, June, 2019

**International Journal of
Recent Scientific
Research**

DOI: 10.24327/IJRSR

Research Article

STUDY TO ASSESS THE KNOWLEDGE OF SCHOOL GOING CHILDREN REGARDING BENEFITS OF ORAL HYGIENE IN SELECTED SCHOOLS AT RURAL VADODARA, GUJARAT, INDIA WITH VIEW TO DEVELOP INFORMATION BOOKLET

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DOI: <http://dx.doi.org/10.24327/ijrsr.2019.1006.3614>

ARTICLE INFO

Article History:

Received 12th March, 2019

Received in revised form 23rd

April, 2019

Accepted 7th May, 2019

Published online 28th June, 2019

Key Words:

Oral health, oral hygiene, Teeth, Dental plaque, Dental caries, School Children, tooth lose, malocclusion.

ABSTRACT

Introduction: Oral health is an integral component of general health. It is also clear that causative and risk factors in oral diseases are often the same as those implicated in major general diseases. Oral hygiene refers to keeping the mouth, and particularly the teeth, clean and free of dental plaque. Dental caries is the major oral health condition in developing countries, affecting 60-90% of the school children and vast majority of adults. In India, the prevalence of dental caries is reported to be 50-60%. Though dental caries prevalence in school going children has declined in most of the industrialized countries over the last two decades, but it is still high in developing countries including India. Apart from this, the treatment of dental caries is not available to all due to lack of facilities in their areas. This has further caused an increase in tooth loss before time, resulting in malocclusion and other problems. **Objectives of the study** 1) to assess knowledge regarding benefits of oral hygiene with demographic variables. **Hypotheses: H₁:** There will be significant association between pre-test knowledge of school going children with their selected demographic variables. **H₂:** There will be significant association between pre-test knowledge of mothers with their selected demographic variables. **Material and Methods:** In this research study descriptive research approach is used. Non probability convenient sampling technique was used to select the 50 samples of school going children. Data was analyzed by using descriptive and inferential statistics such as mean, standard deviation and chi square. **Result:** The Result shown that majority of the school going children had poor knowledge about the oral hygiene

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INTRODUCTION

“Every tooth in a man’s head is more valuable than a diamond”
-Miguel de Cervantes

Oral health is an integral component of general health. It is also clear that causative and risk factors in oral diseases are often the same as those implicated in major general diseases¹. Oral hygiene refers to keeping the mouth, and particularly the teeth, clean and free of dental plaque. Considerable population of children in the developing nations is being affected by tooth decay and most of the time; their proper treatment is given the last priority owing to limited access to oral health services². The high prevalence of dental caries has also caused increase in the absenteeism of school hours and loss of working hours and economy for parents³. In India, the prevalence of dental caries is reported to be 50-60%. Though dental caries prevalence in school going children has declined in most of the industrialized countries over the last two decades, but it is still

high in developing countries including India. Despite great achievements in oral health of populations globally, problems still remain in many communities all over the world—particularly among under-privileged groups in developed and developing countries⁴. 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 A.D” 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 the major portion comes from the pediatric population, the researcher found that oral debris is very commonly seen in mouth with poor oral hygiene in the age group of 5-8 years⁵.

School is a place of learning for the children and is in fact micro cosmos of the larger community. Schools are the ideal setting for integrating oral health instruction in their curriculum⁶. Adverse experience during childhood may lead

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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. In many countries, a large number of children and parents have limited knowledge of the causes and prevention of the most common oral diseases⁷.

Need for the Study

Priya M, Kanagharekha Devdas, Deepti Amaralal, Venkatachalapathy A have conducted study on Oral health attitudes, knowledge and practice among school children in Chennai, India abstract was Background: Oral health is fundamental to general health and well-being. Sources of oral health information for adults have been examined but documentation of children's sources is limited. Aim: The aim of the following study is to investigate the dental health attitudes, knowledge and practice of school children in Chennai using a questionnaire. Materials and Methods: The subjects for this study were randomly selected from five private and five government schools in the age group of 10-16 years. A total of 592 children were screened, of which 219 were males and 373 were females.

RESULTS

Overall the level of knowledge score was statistically significant with $P = 0.004$. There was statistically significant difference with $P = 0.008$ when comparing the frequency of brushing the teeth twice per day among the two different age groups. Comparing the various other factors such as gender, type of school and age groups to the visit to the dentist, it was observed that statistically significant difference with $P < 0.001$ was found when comparing the female children (75.3%) and male children (60.3%) and $P = 0.002$ observed when comparing the younger and older age group who visited the dentist. Conclusion: The overall level of oral health knowledge among the surveyed children was low. A descriptive cross-sectional study carried out among primary school going children in Kapsaret Educational division, Uasin-Gishu District, Kenya. A researcher administered questionnaire was used to determine the oral health knowledge and practices in a random sample of 401 students in the period March to June 2002. 92% of the students claimed they brushed their teeth. About 48% brushed at least twice daily. More students (59.1%) reported using the chewing stick compared to those using commercial toothbrushes ($p = 0.000$). Female students brushed more frequently than their male counterparts ($p = 0.000$, $\chi^2 = 24.65$). 39.9% of the students knew the cause of tooth decay, 48.2% could state at least one method of prevention, while 16.5% knew the importance of teeth. Use of toothpaste was reported by 38.9% of the students. Less than half of the students knew the causes of tooth decay and how to prevent it. Only about half of the students brushed their teeth twice daily with the chewing stick being more frequently used

Objectives of the study was: 1) assess knowledge regarding benefits of oral hygiene. 2) to find association between pre-test knowledge score regarding benefits of oral hygiene with demographic variables.

Hypothesis: H₁: there will be significant association between pre-test knowledge of school going children with their selected demographic variables.

H₂: there will be significant association between pre-test knowledge of mothers with their selected demographic variables.

Research approach: the research method adopted for the present study was descriptive

Research design: in the present study the investigator selected descriptive non experimental,

Setting: the study will be conducted in Limda Primary School at rural Vadodara Gujarat state.

Variable: independent variables: in this present study information booklet on benefits of oral hygiene.

Dependent variable: in this present study knowledge level of school going children.

Population: the target population consists of school going children at rural Vadodara.

Sample: school going children.

Sample size: sample size constitutes of 50 school going children

Sampling technique: The samples of the study will be selected by using non-probability convenient sampling technique.

Findings

Section: A Socio demographic variables of School Going Children

It is finding that majority of the school going children belongs to the age group of 10-12 years (60%) and 6-9 year (40%). The computed that Male children were found more (34%) and females were (36%). Regarding religion of the children more than 50% founded that Hindu (68%), 10 (20%) were Muslim and 6 (12%) belongs to Christian. The data represent that majority 30 (60%) students were 5th to 7th standard and 20 (40%) students from 1st to 4th standard. The data shown that mother's education, majority of the mothers education were illiterate 30(60%), were primary 9 (18%) secondary 5 (10%) and 6 (12%) mothers were high school studied. Data represent that majority of the fathers were completed their secondary education 20(40%), were 17 (34%) have completed primary education, and 3 were Illiterate and Graduate 3 (6%) and 3 (6%). The data describe that mothers occupation majority of the mothers House Makers 42 (84%) and 8 (16%) were farmer. The table shown that majority of the father's occupation were farmer 38(76%), 10 (20%) had own business and 2 (4%) were government job. The data describe that addiction in children majority of the children have no addiction 45 (90%) and were 5 (10%) have addiction of tobacco. Brushing habits of children among all the children do 1 time brush only 50(100%). The data shown that information regarding oral hygiene majority information get through teachers 45 (90%) and only 5(10%) receiving information from parents.

Section: A Description of Sample Characteristic

Table 1 A Description of Sample Characteristic (n=50)

sr.no	characteritic	categories	frequency	percentag e%
1	Age	6-9 Years	20	40
		10-12Years	30	60
		TOTAL	50	100%
2	Gender	Male	32	64
		Female	18	36
		TOTAL	50	100%
3	Religion	Hindu	34	68
		Muslim	10	20
		Christian	6	12
		Others	0	0
		TOTAL	50	100%
4	Standard	1 st to 4 th std	20	40
		5 th to 7 th std	30	60
		TOTAL	50	100%
5	Mother's education	Illiterate	30	60
		Primary	9	18
		Secondary	5	10
		High school	6	12
		TOTAL	50	100%
6	Father's Education	Illiterate	3	6
		Primary	17	34
		Secondary	20	40
		High school	7	14
		Graduate	3	6
7	Mother's Occupation	Post Graduate	0	0
		TOTAL	50	100%
		House wife	42	84
		Farmer	8	16
		Business	0	0
8	Father's Occupation	Govt. Job	0	0
		Private Job	0	0
		TOTAL	50	100%
		Farmer	38	76
		Business	10	20
9	Addiction	Govt. Job	2	4
		Private Job	0	0
		TOTAL	50	100%
		Smocking	0	0
		No addiction	45	90
10	Brushing Habit per day	TOTAL	50	100%
		1 time	50	100
		2 times	0	0
		3 times	0	0
		More than 3 times	0	0
11	Information Regarding Oral hygiene	TOTAL	50	100%
		From Parents	5	10
		From teachers	45	90
		Attended education	0	0
		Others	0	0

Section: B Assessment of Pre Test Knowledge Score of School going children

Table 2 Pre Test Knowledge Score of School going children regarding Oral hygiene (n=50)

Level of knowledge	Number of subject	Percentage
Excellent	0	0.00%
Good	2	4.00%
Average	17	34.00%
Poor	31	62.00%

The above table represent the data of the pre-test knowledge score of the school going children on oral hygiene among that

31 (62%) have poor knowledge, were 17 (34%) average knowledge and 2 (4%) have good knowledge.

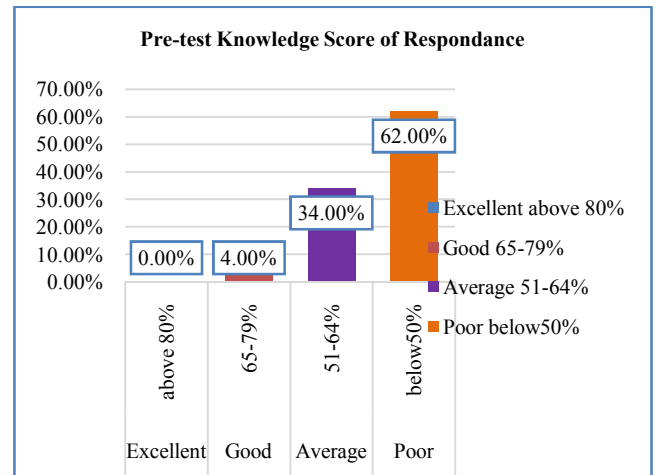


Figure 1 Bar diagram representing pre-test knowledge score

Section: C Association of demographic variable with the level of pre-test knowledge score of school going children.

Table 3 Association of demographic variable

Demographic Variable	Good	Avg.	Poor	χ^2	D.F	Level of Significance at 0.05 level
Age	6-9 Years	0	20	2.89	2	cal $\chi^2 > tab\chi^2$ NS
	10-12Years	1	26			
Gender	Male	0	31	8.73	2	cal $\chi^2 > tab\chi^2$ NS
	Female	0	12			
Religion	Hindu	0	29	2.61	6	cal $\chi^2 < tab\chi^2$ NS
	Muslim	0	10			
	Christian	0	6			
	Others	0	0			
Standard	1 st to 4 th std	0	20	2.12	2	cal $\chi^2 < tab\chi^2$ NS
	5 th to 7 th std	1	27			
Mother's education	Illiterate	0	27	2.12	6	cal $\chi^2 < tab\chi^2$ S
	Primary	0	9			
	Secondary	0	5			
	High school	0	6			
Father's Education	Illiterate	0	3	3.12	10	cal $\chi^2 < tab\chi^2$ S
	Primary	0	17			
	Secondary	0	18			
	High school	0	7			
	Graduate	0	3			
Mother's Occupation	Post Graduate	0	0	0.39	8	cal $\chi^2 < tab\chi^2$ S
	House wife	0	40			
	Farmer	0	8			
	Business	0	0			
	Govt. Job	0	0			
Father's Occupation	Private Job	0	0	4.08	6	cal $\chi^2 < tab\chi^2$ S
	Farmer	0	38			
	Business	0	9			
	Govt. Job	0	2			
	Private Job	0	0			
Addiction	Tobacco	0	5	0.48	4	cal $\chi^2 < tab\chi^2$ S
	Smocking	0	0			
	No addiction	0	41			
Brushing Habit per day	1 time	0	45	0.133	6	cal $\chi^2 < tab\chi^2$ S
	2 times	0	2			
	3 times	0	0			
	More than 3 times	0	0			
Information Regarding Oral hygiene	From Parents	0	5	0.355	6	cal $\chi^2 < tab\chi^2$ S
	From teachers	0	45			
	Attended education	0	0			
Others	0	0				

Above data shown that age gender and stander is not associate with the demographic variables but Mothre's and father's education, mothrer's and father occupation, addiction, brushing habits and source of information were associate with demographic variables

Recommendations

1. A similar study can be replicated with a large sample in order to generalize the data.
2. A similar study can be conducted with different teaching strategies like practice or attitude.

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How to cite this article:

Tejas Pandya., 2019, Study to Assess the Knowledge of School Going Children Regarding Benefits of Oral Hygiene in Selected Schools at Rural Vadodara, Gujarat, India With View to Develop Information Booklet. *Int J Recent Sci Res.* 10(06), pp. 33142-33145. DOI: <http://dx.doi.org/10.24327/ijrsr.2019.1006.3614>
