

Knowledge And Practice Regarding Oral Hygiene Among Primary School Children Of Selected Schools, Dhangadhi, Kailali

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Abstract- Background: Oral hygiene is the practice of keeping the mouth and teeth clean to prevent dental problems, especially dental caries, gingivitis and bad breath. The purpose of maintaining oral hygiene is to prevent the build-up of plaque, the sticky film of bacteria and food that forms on the teeth.¹ This research study was conducted to find out the Knowledge and Practice regarding Oral Hygiene among Primary School Children of selected school, Dhangadhi, Kailali.

Methods: A Descriptive co-relational research design was used. A total of 112 primary school children of Hill World English Boarding School, Dhangadhi, Kailali were included as samples and total enumerative Sampling technique was used for sample selection. Data was collected by using structured knowledge and practice questionnaire.

Results: The study results shows that 12.5% respondents had inadequate knowledge, 58% respondents had moderate knowledge and 29.5% respondent had adequate knowledge regarding oral hygiene. A least (1.8%) respondent had good practice where as majority (67.9%) students had satisfactory practice and 30.45% respondents had poor practice regarding oral hygiene. There is no significant association found between level of knowledge and selected socio-demographic variables as well as level of practice and selected socio-demographic variables. there is statistically significant positive correlation found between the knowledge score and practice score of respondents' regarding oral hygiene ($P < 0.001$).

Conclusion: Finding of current study showed that the knowledge and practice about oral hygiene among primary school children was not satisfactory and had to improved significantly. School based health promotion for oral hygiene is a must for improving oral health among school children.

Index Terms- Knowledge, Oral hygiene, Practice, Primary School children

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I. INTRODUCTION

Dental caries is a multifactorial oral disease developed by the localized dissolution of the tooth hard tissues, caused by bacteria.^{2,3}

The dental caries burden has been increasing among children due to the unlimited consumption of sugary substances, poor oral care practices and inadequate health service utilization. Dental caries is most prevalent and chronic oral disease of childhood having multifactorial etiology. The etiological factors are host factors, microorganisms, diet and time.⁴

Dental caries is a common disease with low mortality and high morbidity and has great impact in the general health of a population.^{5,6}

Nepal has a high morbidity of dental caries in all age groups of both genders. The disease is on different factors such as lifestyle, diet and lack of dental health care.^{5,6,7}

The National Pathfinder survey of Nepal 2004 shows that 57.5% of five to six years age group and 25.6% of 12 to 16 years age group suffer from dental caries. Pain and discomfort due to untreated dental caries was 18% in five to six year old.⁷

Many children fail to brush their teeth effectively and tend to consume cariogenic foods and may underestimate health risks despite having basic knowledge of dental health, such as importance of proper brushing and diet in preventing dental caries.⁸ Poor oral health can have negative impacts on children's quality of life and academic performance apart from causing chronic pain and discomfort. If untreated it can impact daily activities in terms of play, sleep, eating and school activity.⁹ As dental caries is the most common dental disease with high prevalence it is necessary to control the disease by assessing and rendering the treatment required along with spreading awareness regarding its prevention.¹⁰

Nepal is currently facing an oral healthcare crisis. Fifty-eight percent of children and 69 percent of adults in the country suffer from bacterial tooth decay. This can lead to infections, gum disease, and chronic pain as well as heart disease and diabetes. A national Oral Health Care Plan was drafted in 2004, but is being implemented at a glacial speed. And thousands of Nepalese in rural villages have no access to basic care such as fillings or even fluorinated toothpaste and water. Meanwhile, intense superstition

surrounds dental care, including the belief that tooth extraction can cause blindness.¹¹

School is a place of learning for the children and is in fact the ideal setting for integrating oral health instructions in the curriculum. Children are receptive to guidance and familiar with the learning environment and culture. School teachers can effectively influence student's knowledge and practices regarding oral health and can bring change in behavior. It is very important to target oral health education to the children since the lifestyle and hygiene practices once established at an early age can go a long way in spending rest of the life in a healthy way. They should be empowered to take control of their own health early in their lives and encouraged to develop positive attitude towards preventive measures.¹²

The researcher felt that oral hygiene contributes a major role in the prevention of dental diseases. Hence assessing the knowledge and practice of primary school children regarding oral hygiene is important to identify the dental problems in order to manage and prevent the problems associated with oral health.

II. METHODS AND MATERIALS

A Descriptive co-relational research design was used for the study to achieve the study objectives. The population included both male and female primary school children of age group 6-11 years of selected primary school, Dhangadhi, Kailali. The total sample size was 112 students, who met the sampling criteria. Total enumerative Sampling technique was used for sample selection. The study was conducted in Hill World English Boarding School, Dhangadhi, Kailali. The researcher used structured knowledge and practice questionnaire to collect the data. The content validity of

the research instrument was ascertained before the data collection. The reliability of tool was determined by pre-testing it in 12 samples (10% of total sample) and was tested by using Split half method and the reliability of the tool was found 0.97 for knowledge and 0.89 for practice items. The researcher herself collected the data from 15th July 2019 to 30th July 2019. The data was collected and recorded systematically and was organized in a way that facilitated computer entry.

III. RESULTS

The data were analyzed using descriptive and inferential statistics. The results have been organized and presented as given below:

Section A: Description of the demographic characteristics of the respondents

Analyzed data reveals that, most 86.6% of students were in age group 8-9 years. Majority (56.3%) of students were male where as 43.8% were female. Maximum (92.9%) of students were Hindu and least (0.9%) were Christians. Majority (73.2%) of students were from nuclear family and only 5.4% from extended family. Most of the students (57.1%) had one sibling and least (1.8%) had no sibling. Majority 52.7% of students fathers had achieved secondary level of education where as only 3.6% were illiterate. Regarding mother's education 33% had achieved primary level of education where as least (7.1%) were literate but no schooling. Among them, 42% of students fathers had their self business and least (2.7%) were farmers and among mothers majority (73.2%) were housewives and 1.8% were laborer.

Section B: Assessment of the level of knowledge regarding Oral hygiene

Table 1: Frequency and percentage of Respondent's Level of Knowledge regarding oral hygiene n=112

Level of knowledge	Frequency	Percentage (%)
Inadequate knowledge <50%	14	12.5
Moderate knowledge 50-75%	65	58
Adequate knowledge >75%	33	29.5
	112	100

Section C: Assessment of the level of practice regarding Oral hygiene

Table 2: Frequency and percentage of respondent's Level of practice regarding oral hygiene n=112

Level of practice	Frequency	Percentage (%)
Good practice <50%	2	1.8
Satisfactory practice 50-75%	76	67.9

Poor practice >75%	34	30.3
	112	100

Section D: Association between level of knowledge & level of practice and socio-demographic variable of respondents.

Table 3: Association between level of knowledge and socio-demographic variable of respondents' n=112

Variables	Frequency of Level of knowledge			χ^2	p-value	Df
	Inadequate	Moderate	Adequate			
Age (in years)						
6-7	1	1	4	6.664	0.155	4
8-9	11	58	28			
10-11	2	6	1			
Gender						
Male	7	38	18	0.390	0.823	3
Female	7	27	15			
Religion						
Hindu	13	59	32	1.269	0.530	3
Other than Hindu	1	6	1			
Type of family						
Nuclear	9	48	25	0.691	0.708	3
Joint	5	17	8			
Number of sibling						
<=1 sibling	8	38	213	0.063	0.969	3
>=2 siblings	6	27				
Father education						
Up to primary	3	11	4	3.084	0.544	4
Secondary	8	36	15			
Above secondary	3	18	14			
Mother education						
Illiterate	1	6	2	10.073	0.260	6
Literate but no school education	2	5	1			
Primary	6	25	6			
Secondary	4	17	14			
Above secondary	1	12	10			
Father occupation						
Business	5	30	15	2.650	0.618	4
Laborer	2	7	1			
Service	7	28	17			

Mother occupation						
Housewife	11	45	26			
Service	2	6	5	5.231	0.264	4
Business	1	14	2			

*P < 0.05 statistically significant values

Data presented in Table 3 shows that there is no significant association between level of knowledge and age, gender, religion, type of family and number of sibling, education of father and mother, occupation of father and mother occupation.

Table 4: Association between level of practice and socio-demographic variable of respondents' n=112

Variables	Frequency of Level of practice			and χ^2	P-value	Df
	Poor	Satisfactory	and good			
Gender						
Male	16	47		1.676	0.195	2
Female	18	31				
Religion						
Hindu	31	73		0.003	0.955	2
Other than Hindu	3	5				
Type of family						
Nuclear	26	56		0.264	0.607	2
Joint	8	22				
Number of siblings						
<=1 sibling	20	46		0.000	0.988	2
>=2 siblings	14	32				
Father education						
Illiterate	1	3				
Literate but no school education	1	4				
Primary level	2	7		1.712	0.789	4
Secondary level	21	38				
Above secondary level	9	26				
Mother education						
Illiterate	4	5				
Literate but no school education	5	3				
Primary level	13	24		8.243	0.083	4
Secondary level	6	29				
Above secondary level	6	17				
Father occupation						
Business	14	36				
Laborer	3	7				
Service	17	35		0.266	0.875	2
Mother occupation						
Housewife	21	61				
Laborer	1	1				
Self business	7	10		8.541	0.074	

Government employee	4	1	
Private employee	1	5	4

*P < 0.05 statistically significant values χ^2 Yates correction

Data presented on Table 4 reveals that, there is no association between level of practice and gender, religion, type of family and number of sibling, education of father and mother, occupation of father and mother.

Section E: Correlation between knowledge score and practice score of respondents regarding oral hygiene.

Table 6: Correlation between Knowledge Scores and Practice Scores of Respondents Frequency regarding oral hygiene n=112

	Mean \pm SD	Karl Pearson's coefficient	p-value
Knowledge Scores	11.81 \pm 2.79	0.434	<0.001*
Practice Scores	6.08 \pm 1.68		

* Significant at the level of (p=0.05)

Table 6 shows that there is statistically significant positive correlation i.e. r= 0.434 between the knowledge score and practice score of respondents' regarding oral hygiene (P<0.001).

IV. DISCUSSION

Regarding socio-demographic characteristics findings, majority (86.6%) of the students were in age group 10-11 years. Majority (56.3%) of students were male. Most (92.9%) of students belongs from Hindu religion. Majorities (73.2%) of the students were from nuclear family and majority (57.1%) of the students had one sibling. Majority (52.7%) of the students' father had achieved secondary level of education and 33% of student's mother had achieved primary level of education. Regarding occupation, 42% of the students' fathers had their self business and majorities (73.2%) of mothers were housewife.

The study results showed that 12.5% respondents had inadequate knowledge, 58% respondents had moderate knowledge and 29.5% respondent had adequate knowledge regarding oral hygiene. The present study findings is consistent with the cross sectional study conducted in Jalandhar district, Punjab by Manveer, (2013), which reported that (23.1%) of respondent had adequate knowledge regarding oral hygiene.

A least (1.8%) respondent had good practice where as majority (67.9%) students had satisfactory practice and 30.45% respondents had poor practice regarding oral hygiene. These findings is consistent with the cross sectional study conducted in Iran by Aziz, (2014), which reported that 62% of responded had good practice regarding oral hygiene.

The present study shows that there is no association between knowledge and socio demographic data related age, gender, religion, type of family, number of sibling, education of father and occupation of father and mother. Also there is no association between practice and socio demographic data related age, gender, religion, type of family, number of sibling, education of father and occupation of father and mother. This study identified that there is a positive significant correlation (r=0.434, p<0.001) between knowledge and practice of respondents regarding oral hygiene which is supported by descriptive cross

sectional study conducted in Iran by Aziz, (2014) which reported that there was positive correlation (r=0.695, p<0.001) between knowledge and practice regarding oral hygiene among the students.

V. CONCLUSION

One of the burning issues regarding practice of oral hygiene is the seriousness of regular visits to the dentist, not only when there is some dental problem but also for routine check-ups as a preventive measure against disease such as caries. A poor dental and oral health and untreated oral disease can have a significant impact on quality of life according to WHO report.¹³ The systematic school and community-oriented oral health promotion programs are needed to target the needs of primary school children. Also, information regarding oral health should be included on wider basis in the school curriculum in an attempt to prevent and control dental and oral diseases. The study concluded that there is a great need for focusing on awareness programme and good practices among primary school children since primary school children lack adequate knowledge and practice regarding oral hygiene for the prevention and management of oral and dental problem and to prevent from further complications.

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