

A Study to Assess the Effectiveness of Knowledge Regarding Oral Hygiene Among the Primary School Children's Studying at Selected School at Bagalkot

Mrs. Boramma Sanageri^{1*}, Mrs. Jayashri G. Itti²

¹Lecturer, Department of Pediatric Nursing, B.V.V Sangha's Shri B.V.V.S Institute of Nursing Sciences, Bagalkot.

²Principal, Department of Community Health Nursing, Shri BVVS Institute of Nursing Sciences, Bagalkot

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*Corresponding author: Mrs. Boramma Sanageri

Lecturer, Department of Pediatric Nursing, B.V.V Sangha's Shri B.V.V.S Institute of Nursing Sciences, Bagalkot.

Abstract

Original Research Article

According to World health organization (WHO) oral health is a state of mouth, teeth, and orofacial structures that enables individual to perform essential functions such as eating, breathing, and speaking and encompasses psychosocial dimensions such as self-confidence, wellbeing and ability to socialize and work without pain discomfort and embarrassment. Knowledge of oral health is a fundamental prerequisite for healthy behavior, allowing individuals to take measures to protect their overall health. A study was conducted to assess the knowledge regarding oral hygiene among primary school going childrens selected school at Bagalkot. A sample of 60 students, who fulfilled the inclusion criteria were selected using simple random sampling method. A structured knowledge questionnaire was used to assess the knowledge regarding oral health among school students. Data was collected from primary students attending a selected school of Bagalkot. The data analysis and interpretation was done using descriptive and inferential statistics. The study result reveals that basic oral hygiene knowledge and oral health of the studied participants were good and study suggested improving advanced knowledge in children. **Aims:** The aim of the study was to determine the effectiveness of planned teaching programmed regarding knowledge on Oral health among the school children's. **Methodology:** The knowledge was measured using a oral health questionnaire from a convenient sample of 60 primary school students studying Basaveshwar English medium school at Bagalkot. This is a qualitative study and follows a pre-screening plan, i.e. a pre-test and post-test are written without a control group. The target group of these study primary school students Basaveshwar English medium primary school, Bagalkot. A total of 60 students were rescued for investigation. Additional information was collected from a closed survey. **Result:** Students' knowledge regarding oral hygiene, pre-test scores showed that 51.6% of the sample had moderate knowledge, 31.6% had poor knowledge about oral hygiene and 16.6% percent had good knowledge. About oral hygiene post test score have the good knowledge 63.3% and 15% have the poor knowledge. **Conclusion:** The result of the study concluded that knowledge regarding oral hygiene and health of primary school children could be improved by providing the planned teaching programmed oral hygiene.

Keywords: Awareness, Dental, Habits, Knowledge, Oral health, Oral hygiene School-going children.

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INTRODUCTION:

There is much more to oral health than beautiful and healthy teeth. It is fundamental to overall health and affects the wellbeing and quality of life of every individual

The oral cavity is one of the most significant structures of the human body, which has a direct impact on the oral and physical health of an individual. The primary function of the oral cavity is to initiate the digestion process and to break down food into carbohydrates through the enzymatic reaction caused by

the enzymes in the saliva, however it has a secondary function too, which is to defend against the bacteria that might enter the body with the food eaten by that individual. Oral hygiene is a crucial aspect of maintaining good overall health and wellbeing. It refers to the practice of taking care of your mouth, teeth, and gums to prevent various oral health issues such as cavities, gum disease, bad breath, and more serious conditions like oral cancer. Good oral hygiene not only contributes to a healthy mouth but can also impact your overall quality of life.

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Childhood dental caries is a major health concern in children that continues to negatively affect the oral health. The condition if left untreated, can lead to disruption of growth and development of permanent teeth, pain, life threatening infections and expensive treatment. This study was done to assess the prevalence of the dental caries in primary school children and see their current level of awareness about dental hygiene practices

OBJECTIVES:

- To assess the knowledge regarding oral hygiene among the primary school children\ studying selected school at Bagalkot.
- To evaluate the effectiveness of planned teaching programme on oral hygiene among primary school children in selected schools, Bagalkot.
- To find out the association between knowledge score regarding socio- demographic variables.

MATERIAL AND METHODS:

Research design:

A temporary non experimental small group design pre- test and post test to determine the effectiveness of planned teaching programme on oral hygiene.

Hypotheses:

H1 – There's a significant difference in a pre-test and post test level of knowledge regarding oral hygiene among primary school children in selected schools at Bagalkot.

H2– There's a significant association of post-test level of knowledge regarding oral hygiene among primary school.

Sample Technique: Use a simple random scale to select sample.

Part I: Data Collection Instruction:

Demographic performance includes information related to primary school children's age,

religion, Education status, mothers' occupation, fathers' occupation, type of family, sources of information regarding oral hygiene and health

Part II:

Scoring is done by counting correct answer as the total points earned. the maximum score is 30 points, which is arbitrarily divided into four levels. Harnwegs knowledge survey has 30 questions were instructed to check letters 0-10 (bad), 11-20(fair), 21-30(good).

Variables in the Study:

Variables:

dependent variables, which refers to the knowledge of oral hygiene among primary school going children's selected school at Bagalkot.

Independent variables: planning education programme. participants

Data Collection:

Data collected for the year 2025 -12-3 Actual date 2025-12-12 Time and data for the year up to be prepared with the school authorities and communicated to the participants.

Research Methodology:

Information was collected by a survey of demographic information and information samples. With a total of 30 questions.the reliability of the questions was determined by test conducted by Carl Pearson on six primary school children's ($\alpha=0.05$). The main study was conducted 60 students studying at BVVS English medium school at Bagalkot.

RESULT:

The study began with the selection of 60 primary school children's who were presented at the BVVS English medium school at Bagalkot:

It consist of 11 items It includes age, sex, religion, mothers educational status, father educational status, father occupation, mother occupation, Sources of information Etc.

TABLE 1: Description of socio demographic characteristics of sample

Age	11-12	14	23.3
	13-14	22	36.6
	14 above	24	40
Sex	Male	38	68.3
	female	22	36.6
Education status	5 th	16	26.6
	6 th	19	31.6
	7 th	25	41.6
Religion	Hindu	21	35
	Muslim	14	23.3
	Christian	9	15

	Others	16	26.6
Type of family	Nuclear	36	60
	Joint	24	40
Father Education status	No formal Education	8	13.3
	Primary Education	17	28.3
	Secondary education	23	38.3
	Graduation	13	21.6
Mother Education status	No formal Education	9	15
	Primary Education	13	21.6
	Secondary education	23	38.3
	Graduation	15	25
Father Occupation	Agriculture	13	21.6
	Business	16	26.6
	Others	31	51.6
Mother Occupation	House wife	17	28.3
	Business	16	26.6
	Others	27	45
Family Income	Below 10.000	23	38.3
	10.000-20.000	19	31.6
	20.000 Above	18	30
Sources Information	News Paper/Magazines	37	61.6
	TV/ Health professionals	13	21.6
	Others	10	16.6

Table 2: Comparison of Pre test and Post test knowledge levels of primary school children's.

Level of knowledge	Pre test		Post test	
Good	10	16.6	38	63.3
Average	31	51.6	13	21.6
Poor	19	31.6	9	15
Total	60	100	60	100

Table 2: comparison of pre test and the post test knowledge levels of primary school children's

Comparison of knowledge in pre test showed that majority of students (51%) had average knowledge, And (16%) had good knowledge, and(31%) had a poor knowledge. However

After the teaching model, it turned out that 63% had a good knowledge, and 21% had a average knowledge, and 21% had a poor knowledge.

Table 3: Regional Effectiveness of knowledge regarding oral hygiene teaching method.

Information area	Max score	Pre test		Post Test		Effectiveness	
		Mean#SD	Mean	Mean#SD	Mean	Mean#SD	Mean %
Effectiveness of educational module on oral hygiene	30	13.5 ±1.48	45.8	16.75±2.26	70.93	3.25	25.13%

The overall result shows that the post knowledge test score (16.75 #2.26) account for 70.93% of the total score: this is higher than the prior knowledge test score (13.5#1.53), which accounted for 45.8% of the total score total score The effectiveness of teaching

method in this area was measured with a knowledge score of 25.13 of the total score. Hence it indicates that structure of the teaching program me was effective in enhancing the knowledge level of primary school children's.

Table 4: A Significant difference between the pre-post knowledge scores of childrens studying at Shri BVVS English medium school at Bagalkot.

Test (Knowledge)	Mean	Mean Diff	SD Diff	Paired t-value	Table value
Pre-test (O ₁)	12.08	413.86	3.42	11.49	1.66
Post-test (O ₂)	18.37				

The calculated “t” value (11.49) was higher than the table value (1.66) for degree of freedom (45) and

5% level of significance. There was a significant positive difference (11.49) between pre-post knowledge scores; hence, null hypothesis H1 is accepted.

Table 5: A research hypothesis was developed to investigate the relationship between knowledge and socio-demographic variable.

S/ No	Socio-demographic variables	Degree of freedom	Chi-square value	P value
1	Age	2	0.01	0.0995
2	Sex	1	0.03	0.8625
3	Religion	3	0.01	0.9997
4	Type of family	1	0.03	0.8625
5	Educational staus	2	0.02	0.99
6	Father's educational status	3	0.02	0.9993
7	mother's educational status	3	0.02	0.9993
8	Father's occupation	2	0.03	0.9851
9	Mothers' occupation	2	0.01	0.995
10	Family Income	2	0.01	0.995
11	Source of knowledge	2	0.03	0.9851

Above table shows that association between oral hygiene knowledge & selected socio-demographic variable of school children's. Findings depict that, there was no a significant association found between the knowledge regarding oral hygiene and any of the socio-demographic variables of Basaveshwar English medium school students.

The main objective of the present study was to find the knowledge regarding oral hygiene school children who are studying at Basaveshwar English medium School at Bagalkot.

DISCUSSION:

WHO in 2007–2008 on oral health showed prevalence of dental caries to be approximately 31.5%–89% and fair to oral hygiene in children, and high prevalence of fair 65%.a significant percentage of children's brush only once a day or not at all. only 13 – 27% children's brush a daily.

Similar study shows Goyal *et al.* showed an increase in the dental caries in spite of a high literacy rate of 82% and a favorable dentist population ratio of 1:3000. This increase shows a lack of awareness and proper motivation on the part of the parents and children and again need for communicating right context of oral hygiene.^[13] Oral health also shows social gradient, as is evident in overall health literacy. It is of paramount importance to take cognizance of role of preventive and primitive oral health and its association with socioeconomic factors.

CONCLUSION:

From the data we have collected from Basaveshwar English medium School we conclude that high prevalence of dental caries and inadequate brushing habits, Ex Irregular brushing the teeth, and un healthy habits and also avoiding the junk food, studies indicate

significant need for improved awareness, school-based education program and regular dental check up to prevent the dental problems. Particularly in rural or lower socio-economic areas.

Dental health education:

Each interactive 20-minute session utilized audio-visual aids and focused on: Structure and functions of teeth, number and types of teeth present in each dentition; dietary components and their effects. Importance e of a balanced diet; etiology, clinical manifestations, treatment and prevention. influence of oral health on general health; importance of brushing teeth twice daily, and mouth rinsing; proper tooth-brushing technique

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