

Research Article

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Knowledge of children regarding oral hygiene: A school based descriptive study

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Abstract

Oral health is an integral component of general health. Therefore, the mouth has to be kept clean and healthy. School age is a period of overall development. During this period the child learns to become productive members of the peer group. If proper oral hygiene habits are cultivated during this period, habits will go a long way in maintaining the oral health of a child throughout the life. The present study conducted to assess the knowledge regarding oral hygiene among the school children in selected schools in Mangalore. The sample size was 100 school children. The samples were selected by non-probability convenience sampling technique. The tool used was demographic pro forma and structured knowledge questionnaire. The result showed that the mean and standard deviation of pre- test knowledge score of school children were (69.62% \pm 3.070). The study found that there was no significant association between the levels of knowledge with selected demographic variables. Hence the null hypothesis were accepted.

Keywords: Assess knowledge, oral hygiene, school children.

Introduction

“Every child has rights to survival and life”

Convention on rights of the child

Oral health is a part of general health. Oral health also influences the quality of life. Dental caries and periodontal diseases are the common diseases in populations. These diseases are highly irreversible, once occur and also have complex etiology. Although primary preventive techniques exist to total protection.¹

Dental caries contributes to be a major problem in many countries, especially in India, where it has consistently reflected an increasing trend in the last couple of decades. The point prevalence surveys have shown persistence of “untreated carious lesions” among children in rural areas. It reflects either non-availability of oral health care services or poor oral health seeking behavior of rural people. Awareness related to oral health among the children is also found to be poor.²

Is a common saying mere teaching of cleanliness of body and surrounding is not enough unless it is effectively demonstrated, essential and obligatory “Cleans” to be observed by all children include clean environment, clean hands, clean food, clean water, clean mouth and clean teeth said, and also the house of the most important sense organ, ‘the tongue’. Therefore, the mouth has to be kept clean and healthy. School age is a period of overall development.³

During this period the child learns to become productive members of the peer group. If proper oral hygiene habits are cultivated during this period, habits will go a long way in maintaining the oral health of a child throughout the life.⁴

The goal of WHO is that, oral health as one among the healthy life. So WHO has selected the theme "oral health for healthy life. The purpose behind is to make the people aware about various diseases of oral cavity and to educate them in relation to prevention of these diseases. Healthy, clean, strong and good teeth are valuable. Therefore, attention should be paid to the dental care.⁵

Dental care broadly speaking, oral hygiene is an important aspect of personal health of an individual. Oral hygiene is essential for prevention of dental disease mainly dental caries and periodontal disease. Dental caries are a leading dental problem of children. 90% of all children have some tooth decay by 12 years of age. Children from socio-economically deprived areas have more dental caries than those from other groups. Tooth brushing, use of fluorides regular dental check-up, diet and habits are important in the prevention of dental caries.⁶

Children between the age group of 5-14 years spend their time in school. The school is an ideal place for learning and growing up. If the schools are to become a powerhouse of health education, and need to change in the curriculum. The World Health Organization considers schools are the healthiest promoting one when it is constantly strengthening its capacity as a healthy setting for living, learning and working. Health education, health services, and healthy environment are components of schools.⁷

The children frequently suffer from dental diseases and defects. Dental caries and periodontal diseases are two common diseases in India. Further, they emphasize that a school health program should have provision for dental examination at least once a year and the success of the school health program depends largely on the community health nurse plans the health education in the school provides guidance to the teachers and parents in the matters of oral health.⁸

The teachers have maximum opportunity for close observation of children's health and to find out any problems from normal health. As a community health nurses are not appointed in the schools and these responsibilities falls on the school teachers. Teachers need

to be helped to cope up with health and illness of the children.⁹

Today's children are tomorrow's leaders. The children from 38%-40% of general population. One of the major health care concept faced by these promises of the future are oral health problems, more commonly dental caries. The higher concentration of health care facilities in urban areas of India prevents the rural population from receiving proper health care service in developing countries including India. Adding to this, illiteracy, poverty and overgrowing population made it difficult to render better health care services to all. Hence, prevention seems to be the only solution in promoting the oral health and thereby the overall health.¹⁰

Health habits if thought early would last throughout the life. Oral health helps to maintain the health state of all the structures like lips, teeth, gum, tongue and palate, good oral hygiene emphasis on cleanliness and moisturizing of mouth structures. It gives a sense of well-being and also stimulates appetite. Brushing and flossing and rinsing mouth could maintain good oral hygiene. Brushing clears the teeth of food particles. Plaque & bacteria.¹¹

India is facing many challenges in rendering oral health care to the rural masses. Out of this 70-72% residing in rural areas more than 40% are children. This report is based on research survey with respect to different parameters me. e. Oral hygiene practices, dietary pattern, tobacco smoking & chewing, habits and awareness regarding dental treatment to get the complete overview of the existing oral health related problems and the factors responsible for poor oral health among rural children.¹²

The main purpose of dental hygiene is to prevent the build-up of plaques. Poor oral hygiene allows the accumulation of acid producing bacteria on the surface of the teeth. The acid demineralises the tooth enamel causing tooth decay (cavities). Dental plaque can also invade and infect the gums causing gum disease and periodontitis. In both conditions, the effect of poor oral hygiene is the loss of one or more teeth. Many health problems occur in the mouth, such as oral thrush, bad breath and others are considered as the effects of poor oral hygiene. Most of the dental and mouth problems may be avoided just by maintaining good oral hygiene.¹³

Prevention is always better than cure. Good oral hygiene habits will prevent most of the dental problems. Savings the costly dental treatments. The interesting part can be achieved by spending some minutes every day to dental

hygiene care. A large number of various products, the usual toothpaste and toothbrush, are available in the market to help in this effort.¹⁴

Most of the individual will remember the importance of oral hygiene only when a problem occurs. Maintaining good dental hygiene should be a lifelong everyday habit. Awareness regarding the importance of oral hygiene has significantly increased in the developed countries, but the modern dietary lifestyle habits are posing a greater risk for oral health. Healthy teeth not only enable to look and feel good that make it possible to eat. Good oral health is very important to the well-being of an individual. Daily preventive oral care, with proper brushing and flossing, will help to stop dental problems.¹⁵

Promotion of health as a level of prevention is most appropriate for the formative years of life, pre-scholar and school children, based learning begins in the life cycle in the early years of life and, thereafter continuous throughout the life with varied degree of acquisition. Health is not valued unless lost. Organized value based learning can be achieved much more effectively in school, homes and families. It would be a real investment in the health and development of future citizen's. Parents and teachers are best suited to lay foundations and nurture the values of staying healthy. A new step and enthusiasm is in the present system directing efforts at community levels.¹⁶

Health and hygiene as a subject cannot be taught, but hygiene can be learnt throughout life. The primary school imparts a broad set of values that gives specific knowledge acquired during the time of school will determine what kind of child will become. Community health centers, primary health centers and sub canters make some efforts through providing awareness to the school children. School health services are available to promote the personal hygiene practices in school children. The prevalence of dental caries was highest in the age group of 8-10 years in urban areas, whereas rural children the caries were significant in the age of 10to12 years. The dental health education is a cost effective method for promoting oral health and ultimately the general health is only the best place for the promotion of oral health, where all children irrespective of their socioeconomic status. Approximately 35% of pediatric population visits the dentist yearly among them most after the occurrence of any dental problems.¹⁷

A study was conducted on the prevalence of periodontal disease and dental caries among school children of both sexes aged 5-14 years in rural areas of Delhi. 458 children

studying in primary school in 4 different villages with low socioeconomic level and following the traditional rural lifestyle and dietary habits were examined. The study revealed that prevalence of periodontal disease and dental caries was found to be low despite oral health care system with indifference to oral health care practices among children.¹⁸

During the community field experience, the investigator noticed that majority of the school children of rural area had dental caries and inadequate knowledge regarding dental caries and prevention. Hence the investigator planned a structured teaching program regarding dental caries and prevention among Government primary school students.

Objectives

1. Assess the level of knowledge regarding oral hygiene among school children.
2. Find out the association between knowledge scores with the selected demographic variables.

Materials and Methods

A non-experimental approach and descriptive design was adopted to assess the knowledge regarding oral hygiene among the school children. The sample comprised of 100 school children in selected schools in Mangalore. The ethical clearance was obtained from concerned authorities. The samples were selected using the convenience sampling technique. The reliability coefficient was calculated by using Karl Pearson's co-relation co-efficient and split half method. The reliability co-efficient was found to be ($r = 0.76$). The participants were explained and consent was obtained from the study participants. The participants were assured about the confidentiality of their responses. Data was collected using demographic pro forma and structured knowledge questionnaire. Data was analyzed using descriptive and inferential statistics.

Results

Section I: Sample Characteristics

In the present study majority of (34%) school children were in the age group of 11 years, 34% in the 12years and 32%of students were in the age group of below 10years. Majority 52% were females. Majority 47% were Hindu, a majority of 57% were the nuclear family, a majority of 52% were 1child, a majority of 61% mothers had primary education, the majority of (45%) fathers were

had primary education, a majority of 57% mothers were daily wages, majority of 57% fathers were farmers, a majority of 44% monthly income were Rs 10, 0000/, majority of 65% siblings were having tooth decay, a majority of 53% students were absent to the class due to tooth pain.

Section II: Description of knowledge scores of school children

Figure 1 depicts that, the majority (59.00%) of school children had moderate level of knowledge of oral hygiene, and only 41% had adequate knowledge of oral hygiene and none of them had inadequate knowledge regarding oral hygiene.

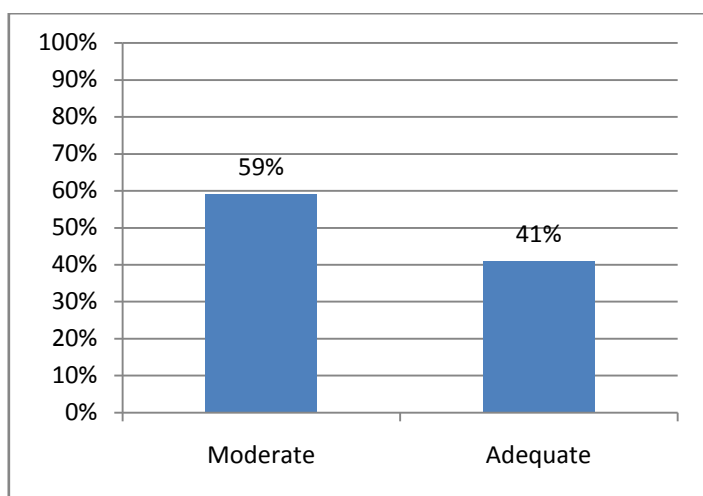


Figure 1: Percentage distribution of level of knowledge score

Table 1: Overall mean, median, SD and mean percentage of knowledge score N=100

Max possible score	Range	Mean	Median	SD	Mean%
24.00	11-24	18.100	18.000	3.070	69.62

Data in table 1 shows that the range of knowledge scores was in between 11-24, and mean knowledge score of subjects was 18.100, median 18.000, standard deviation 3.070 and mean percentage is 69.62%.

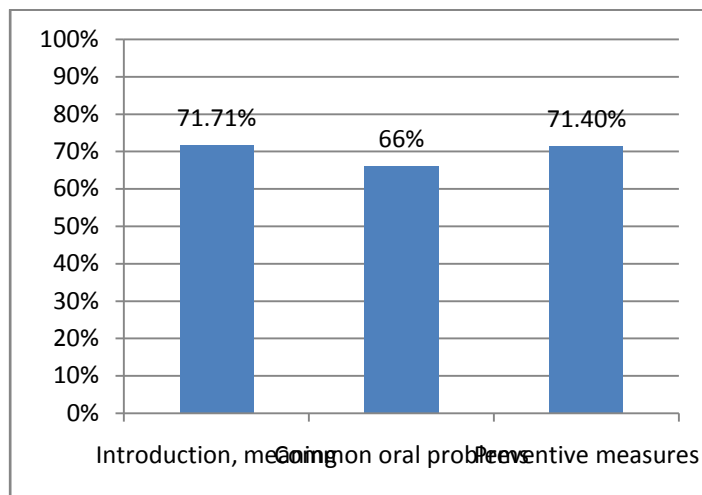


Figure 2: Area-wise distribution of percentage of knowledge score of school children

Figure 2 reveals that the majority (71.79%) had knowledge in the area of introduction and meaning, 66% in the area of common problems and complications, and 71.40% in the area of preventive management.

Section III: Association between knowledge score and selected demographic variables

It was found that there is no association between the selected demographic variables and knowledge scores. Hence the null hypothesis is accepted.

Discussion

The study reveals that, maximum percentage (59%) of the children had a moderate level of knowledge, only 41% had adequate knowledge regarding oral hygiene. Overall mean knowledge score found was 69.62% and also reveals that, the majority (71.79%) had knowledge in the area of introduction and meaning, 66% in the area of common problems and complications, and 71.40% in the area of preventive management.

It was supported by a cross sectional study conducted on oral health knowledge, attitude and preventive practices of third grade school children by means of self administered, and bilingual questionnaire. Data collected from 1031 school children regarding dental caries, peritonitis and flourosis. The study revealed most of the children had “fairly adequate” oral hygiene habits (58%) and oral health knowledge (48%) and “adequate” dietary pattern (59%). Inadequate oral health knowledge were twice as likely to have caries as with adequate knowledge (OR=2.05, 95% CI=1.29, 3.28).¹⁹

The study revealed that, there was no significant association between level of knowledge with the selected demographic variables. It was supported by a study conducted on the prevalence pattern of dental caries in cooper municipal general hospital, Mumbai and taken sample consisted of 2000 children in age group of 1-14 years attending pediatric OPD, a school clinic and well body clinics. The study found that 35.6% children had dental caries. There was no significant association between knowledge scores and selected demographic variables.²⁰

Conclusion

In the present study, school children's knowledge regarding oral hygiene was assessed. This study concludes that school children had moderate level of knowledge of oral hygiene. Nurses are confronted with the responsibility to give information for school children and it is very important to maintain oral hygiene and prevent complications of oral cavity.

Conflict of Interest

None declared.

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