



## **A pre-experimental study to assess the effectiveness of self-instructional module regarding knowledge and practice on oral hygiene among school children aged (6-12 years) studying at selected schools of Naraingarh, Haryana**

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### **Abstract**

**Background:** Oral hygiene is the practice of keeping your mouth clean and disease-free. It involves brushing and flossing your teeth as well as visiting your dentist regularly for dental X-rays, exams and cleanings. Oral health is also linked to whole-body health. For example, if an infection is present in your mouth, your bloodstream can carry the bacteria to other areas of your body, leading to other health concerns like heart disease and stroke. Keeping your teeth and gums healthy is an important part of long-lasting overall health. The present study was pre-experimental research design. The study was conducted on 60 school going children aged among (6-12years) studying at selected school of Naraingarh, in District Ambala, Haryana recruited using non probability convenient sampling technique. Data was collected by using validated socio-demographic variables and knowledge questionnaire. Result shows that knowledge of students has improved by information booklet and teaching programme regarding oral hygiene practices among school children. In pre-test 93.3% of sample was having average knowledge and 6.7% of sample was having poor knowledge regarding oral hygiene practices. There was a significant improvement in post-test knowledge. 88.3% of the sample was having good knowledge and 11.7% of the sample was having average knowledge regarding oral hygiene practices among school children.

**Keywords:** The keywords of the study includes to assess the knowledge regarding, oral hygiene, among school children aged (6-12 year) studying at selected schools of Naraingarh, Haryana.

### **Introduction**

Oral hygiene is the practice of keeping your mouth clean and disease-free. It involves brushing and flossing your teeth as well as visiting your dentist regularly for dental x-rays, exams and cleanings. Oral health is also linked to whole-body health. For example, if an infection is present in your mouth, your bloodstream can carry the bacteria to other areas of your body, leading to other health concerns like heart disease and stroke. Keeping your teeth and gums healthy is an important part of long-lasting overall health.

Healthy oral cavity is of great significance for an individual's overall health and well-being. Further, it enables an individual to masticate, speak and socialize without any active discomfort or embarrassment. Oral health is now regarded as important as general health with mounting evidence suggestive of oral-systemic health links for major illnesses e.g., cardiovascular disease, diabetes, obesity, arthritis, mild cognitive impairment and even cancer.

Oral disease is health problem of considerable burden which often leads to pain and more significantly tooth loss; a

condition that affects the appearance, quality of life, nutritional intake and consequently the growth and development. Dental caries and periodontal disease are amongst the most widespread oral conditions in human population, affecting from about 67.5% to over 80% of school children in some countries which amounts to a great health burden. Fortunately, many of the oral health problems are preventable and their onset is reversible. A number of factors namely diet, smoking, alcohol, hygiene, stress and exercise are linked to a wide range of high morbidity diseases forming the fundamental basis of common risk factor approach of World Health Organization in order to prevent a range of conditions including oral diseases. Among these, hygiene is the single most significant factor when it comes to the prevention of oral diseases.

### **Need of study**

Studies have revealed that dental diseases have been increasing both in prevalence and severity over the last few decades. Therefore, there is an urgent need to prevent the

rising trend of dental disease in India. The methods used for primary prevention of dental diseases aim at achieving primary prevention of periodontal diseases and oral cancers. Good oral hygiene gets rid of the plaque and thus preventing these diseases. Good oral hygiene involves at-home cleaning of teeth using a toothbrush, toothpicks, dental floss with dentifrices particularly toothpastes and mouthwashes. Regular visits to a dentist for checkups and professional management is also crucial for good oral health.

Oral hygiene practices in ancient times were aimed at freshening of breath, protecting against toothache, cleaning the teeth and healing gums. Goat's milk, white wine in the 15th century as well as strawberries in 19th century was used to freshen breath. Cleaning of teeth was done using chewed sticks, linen towels, and paste from burnt bread, charcoal and combination of myrrh, honey and sage. Later in the ancient Greece and roman periods, mouth rinsing became common among upper classes.

Avoidance of professional dental care is apparent in some individuals by adolescence, as youths of this age are able to influence their dental clinic attendance and personal oral hygiene. In the UK, 48% of 16-24-year-olds go to the dentist less frequently than they did 5 years previously. A second study of 14-15-year-olds in England found that about 13% of boys and 16% of girls of this age had not been to the dentist in over a year.

The WHO provides overarching guidance for the prevention of disease. The WHO has placed emphasis on non-communicable diseases with priority given to diseases linked by common, preventable and lifestyle related risk factors (such as diet and tobacco use), including oral health, with a particular focus on disadvantaged and poor populations. In 2007, the WHO introduced a strategy to improve oral health.

**The Global Oral Health Programme (GOHP) has developed policies for the improvement of oral health in the 21 Century, The GOHP's four strategic directions**

1. Reduce oral disease burden and disability, especially in poor and marginalized populations
2. Promote healthy lifestyles and reduce risk factors to oral health that arise from environmental, economic, social and behavioral causes.
3. Develop oral health systems that equitably improve oral health outcomes, respond to people's legitimate demands, and are finally fair.
4. Framing policies in oral health, based on integration of oral health into national and community health

programmes, and promoting oral health as an effective dimension for development policy of society and students.

**Research Methodology**

In this study, Quantitative research design and research approach was used. And pre-experimental study was considered as appropriate for the study information. A Chi-square test method was found to be appropriate for collecting the data as the pre-experimental study aims to assess the knowledge regarding the oral hygiene among school children aged (6-12 years) studying at selected schools of Naraingarh, District Ambala, Haryana. The research is a study in which the data has been collected, recorded and analyzed. It is an experimental and descriptive research used to checklist, solve a problem or establish a causes and effects relationships. The sample consists of 60 school children aged among 6-12 years. The sample selection approach used the non-probability convenient sampling technique. The reliability of the tool was found using Karl Person's correlation-coefficient formula. It was done to check out the items for clarity of items, relevancy, and nature of response.

**Results**

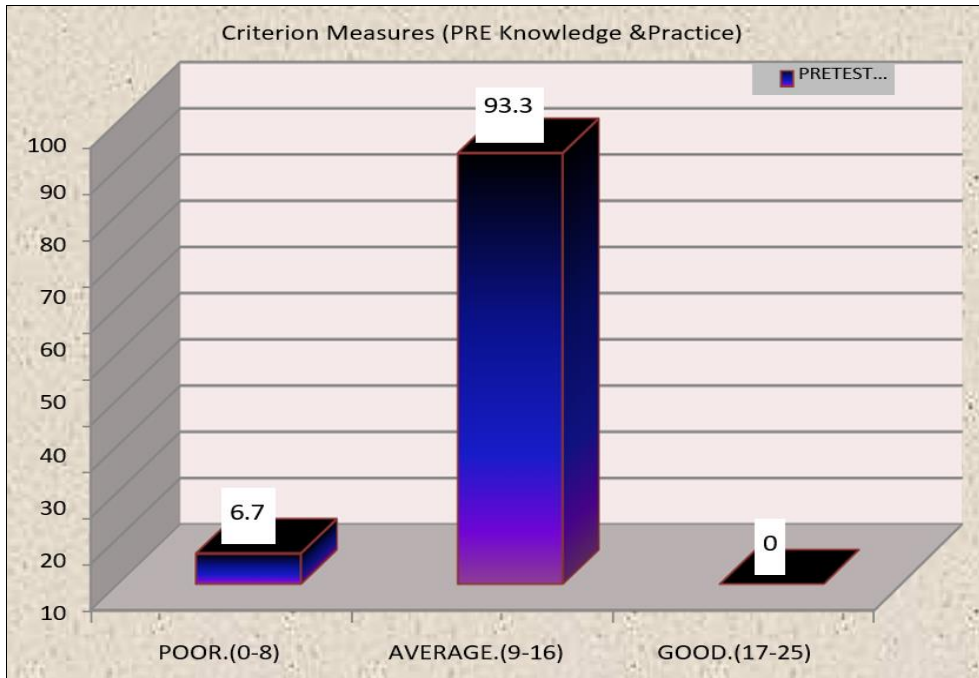
Reveals that knowledge of students has improved by information booklet and teaching programme regarding oral hygiene practices among school children. In pre-test 93.3% of sample was having average knowledge and 6.7% of sample was having poor knowledge regarding oral hygiene practices. There was a significant improvement in post-test knowledge. 88.3% of the sample was having good knowledge and 11.7% of the sample was having average knowledge regarding oral hygiene practices among school children.

**Analysis of level of knowledge and practice of school children regarding oral hygiene**

**Pre-Score**

**Table 1:** Showing level of scores, N=60

Criteria measure of pre-test knowledge & practice score	
Score Level (N=60)	Pre-Test (F%)
Poor (0-8)	4(6.7%)
Average (9-16)	56(93.3%)
Good (17-25)	0(0%)
Maximum Score=25, Minimum Score=0	



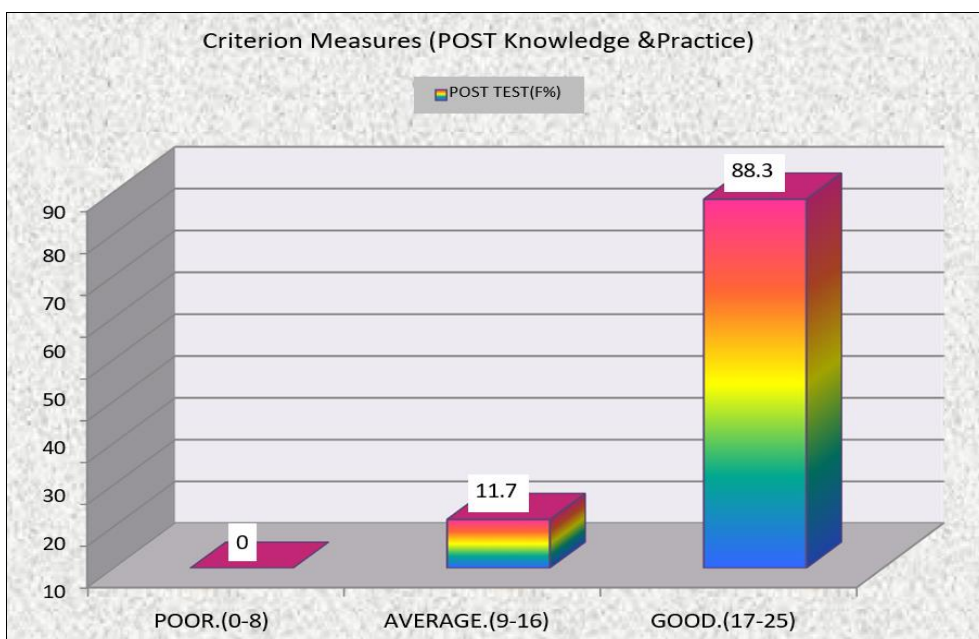
**Graph 1:** Showing pre-knowledge level of scores post score

This table shows the pre-test knowledge scores. It shows that 6.7% of students have poor knowledge whereas 93.3% have average knowledge about oral hygiene practices.

**Table 2:** Showing level of scores, N=60

Criteria measure of post-test knowledge & practice score	
Score Level (N=60)	Post-Test (F%)
Poor (0-8)	0(0%)
Average (9-16)	7(11.7%)
Good. (17-25)	53(88.3%)
Maximum Score=25, Minimum Score=0	

Table shows that 88.3% of students were having good knowledge regarding oral hygiene practices and 11.7% of students were having average knowledge. This shows that knowledge of students has improved by information booklet and teaching programme.



**Graph 2:** Showing level of knowledge score post-test

## Discussion

The study was conducted to find out the knowledge of school children regarding oral hygiene practices. The findings of the study have been discussed with objectives and hypothesis stated and with findings of other studies under the following sections.

1. **Section A:** Socio-demographic variables (age, class, father's education, type of family, father's occupation, residence, family income, mother's education, mother's occupation, source of information).
2. **Section B:** Analysis of level of knowledge of school children regarding oral hygiene practices.
3. **Section C:** Evaluating the effectiveness of information booklet along with teaching programme of knowledge of school children oral hygiene practices.

## Conclusions

The association between the level of score and socio demographic variable. Based on the objective used to Chi-square test used to associate the level of knowledge and selected demographic variables. The Chi-square value shows that there is significance association between the score level and demographic variables (father's education and type of family). There is no significance association between the level of scores and other demographic variables (age, class, mother's education, father's occupation, mother's occupation, residence, source of information) The calculated chi-square values were less than the table value at the 0.05 level of significance.

## Conflict of Interest

Not available

## Financial Support

Not available

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