Oral debris, dental caries and periodontal diseases being quite pan
demic, it is essential that even
the layman should be made aware of the
importance of proper oral care, and also
educated regarding the consequences of
poor oral hygiene.

Along with dental plaque, oral debris is the
causative factor for both dental caries and
periodontal diseases. If proper hygienic
measures are taken, debris may not get
accumulated and hence dental diseases
will be prevented. Gingival diseases are seen in
higher frequencies during the late mixed dentition
periods; hence the study is restricted to children aged
between five to eight years.

In spite of the fact that oral problems are increasing
day by day, not much attention is given to its preven-
tion. These problems can be prevented by educating
the children at earlier stage in relation to the main-
tenance of good oral hygiene. Oral health is now seen
as a preventive measure that maintains health and
contributes to good looks and quality of life.

Need for the Study
Various studies have revealed that one cannot be said
to have good health without proper oral health; further,
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 hu-
man beings because 95 percent of all human beings
have one or other dental problems at least once in their
life time. A significant portion of them belong to paedi-
atriac population. The researcher found that oral de-
bris is commonly seen in mouth with poor
oral hygiene in the age group of 5-8 years.
The children going to school need to think of
the maintenance of proper oral hygiene.

“Prevention is better than cure.” In order
to develop healthy teeth for the children,
they should be taught about the dental hy-
giene, dental visit, daily mouth care, com-
mon dental problems and the methods of
prevention. Personal oral hygiene is the
single most effective measure for preven-
tion of dental caries. If the children are
taught preventive methods, this problem would be
minimised.

Objectives
This study was undertaken to:
1. Assess the knowledge, attitude and practice of
oral care among children,
2. Evaluate the effectiveness of oral care procedure
(method of brushing) among children, and
3. Find out the association between demographic
variables and effectiveness of oral care among
children.

Conceptual Framework
The conceptual framework of the study parameters
is shown in Fig 1.

Methodology
Research Design: Quasi-experimental design type
was chosen consisting of a pre-test group and a post-
test group.

Setting: The study was conducted in Acharapakkam
Primary School at Kancheepuram district. The school
has a population of 182 children.
**Fig 1 : Modified version Rosenstoch and Becker Health Belief Model (2002)**

**Part - I :** Questionnaire to assess the knowledge and practice regarding oral care.

**Part - III :** Observation check list to assess the practice regarding oral care.

**Part - IV :** Debris index – simplified assessment scale was used to assess the children with poor oral hygiene.

Oral hygiene was evaluated by using debris index-simplified assessment scale. The total number of selected children was 50. The debris assessment was scored from 0-3 which was characterised as good, fair, poor. The major portions of index had been adapted from simplified oral hygiene index which was developed in 1964 by John C Greene and Jack R Vermillion.

### Data Collection

The data collection was made among the school children in Acharapakkam primary school at Kancheepuram district and who met the inclusion criteria were selected by using convenient sampling techniques. After making proper arrangements in the classroom, instructions were given to school children. First section of the questionnaire guide on the demographic variable was completed, after which the second and third part of the questionnaire guide on general knowledge, attitude and practice of oral care were given to the selected students who were asked to fill the answers in the box provided. The duration for answering the questionnaire was prolonged from 30-40 minutes, and then debris index scales were used to assess the oral condition of the selected children. A planned brushing procedure was conducted for 45 minutes after the pre-test.

Then 15 minutes were allotted for discussion. All the school children participated in the proper brushing procedure with great interest. The same procedure was adopted for four weeks. They were cooperative and attentive. After 14 days of proper brushing procedure post-test was conducted with the same questionnaire with the same school children.

### Data Analysis and Interpretation

**Section – A :** Frequency and percentage distribution of demographic variables of children.

**Section – B :** Comparison of level of knowledge (Fig 2), attitude (Fig 3), and oral care practices (Fig 4) using debris – index simplified assessment scale among children in terms of adequacy between pre and post-tests (over all scores) has been shown in Figs 2-4.

**Section – C :** Mean and standard deviation and comparison between pre and post-test scores regarding knowledge, attitude, and oral care practices among

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**Population :** The children in the age group of 5 – 8 years and those who were studying in I, II, and III standard, at Acharapakkam Primary School, Kancheepuram District were included.

**Sample Size :** A total number of 50 school children (5-8 years) were selected.

**Sampling Technique :** Convenient Sampling technique was used for sampling the children.

**Criteria For Sample Selection**

**a. Inclusion Criteria**

- Children with poor oral hygiene
- Children who could understand Tamil and English.
- Both male and female students.

**b. Exclusion Criteria**

- Children below the age of 5 years and above the age of 8 years.
- Children sick and with other oral problems at the time of study.
- Children with good oral hygiene.

**Description of the Tool**

**Part - I :** Demographic variables.

**Part - II :** Debris index – simplified assessment scale was used to assess the children with poor oral hygiene.
Section D: Correlation of the level of knowledge, attitude and practice about oral care among children.

Section E: Inferential statistics, especially Chi-square test was carried out to assess the association between the demographic variable with knowledge of oral care, attitude and practice among children. The assumption was examined at 0.1 level of significance.

Findings of the Study

Maximum school children in post-test were as follows: 46 (92%) had adequate knowledge, 27 (54%) school children had most favourable attitude, and 23 (46%) had favourable attitude about oral care, 47 (94%) school children had fair oral practice.

In the post-test regarding knowledge, the mean was 13.44 with the standard deviation of 0.733. Regarding attitude, the mean was 11.72 with the standard deviation of 1.278. Regarding practice the mean was 0.95 with the standard deviation of 0.227. Statistically there was an improvement in the knowledge and attitude of oral care among children. The overall mean and standard deviation was lower on the post-test in practice. Statistically there was a reduction of debris in the teeth of children.

The improved mean and standard deviation in knowledge of oral care were 7.220 and 1.075 respectively and in attitude the improved mean was 5.860 with the standard deviation of 1.414 and in practice, the improved mean was 0.538 with the standard deviation of 0.1356. The comparison of improved mean and standard deviation regarding the level of knowledge, attitude and practice in pre-test score as well as post-test score of children shows some improvement. The calculated value was less than the tabulated value. This proves that statistically there was an improvement in oral care among children after effective health education and brushing procedure with a significance level of p<0.001.

Health education and brushing procedure was more effective among children in the maintenance of good oral hygiene. Brushing chart was given to all 50 samples to maintain regular tooth brushing practice twice a day among children. The children had statistically significant increase in knowledge, attitude and practice regarding oral care (p<0.05). In relation to effectiveness of oral care procedures there had been marked increase in oral care after brushing procedures among children with poor oral hygiene.

There was a significant association between level of knowledge, attitude and practice with demographic variables such as family income, occupation of the father and mother, religion, history of previous visit to dentist by family members at p<0.05 level.

Nursing Implication

Nursing care is the core of any care. Holistic
nursing care could be provided for individual family and community to achieve optimum oral care.
1. The present study can help nurses to enrich the knowledge on oral care.
2. Understanding the needs of school children with poor oral hygiene may help the nurse to plan and provide appropriate oral care to students.

Nursing Service
1. Nurses working in Paediatrics units should have special training about paediatrics nursing.
2. Nurses working in Paediatrics ward should have enough knowledge about oral care of children; they should be a keen observer since the children cannot speak out their needs.
3. Nurses should never fail to assess the children before starting oral care so that they can plan the nursing care accordingly.
4. Not only nurses but all the health care providers such as the auxiliary nurses and midwives, village health nurses, nurses working in community centre should be also given in-service education.
5. Rewards can be given to the outstanding nurses each year in all institutions which will boost the morale of nurses.
6. Facilities to be made available for managing children with poor oral hygiene in all hospitals including the community setup.

Nursing Education
1. Nursing curriculum can be modified with increased emphasis on child health nursing.
2. It is recommended to have short-term courses on Paediatrics nursing.
3. Students can be also trained to work in Paediatrics care under proper guidance.

Nursing Administration
1. People at the administration position can make necessary policies to implement the concept of child health nursing.
2. Administration can organise in-service education programmes.
3. Adequate staff in Paediatrics ward to be given as per norms.

Nursing Research
1. The study is a preliminary step for exploring the concept of nurse and involved nursing care with respect to the involvement of the children.
2. Further investigator can use this study as a reference material.
3. The study provides awareness for further studies among the student in their area

Recommendations
Based on the findings of the present study the following recommendations are made:
❖ The study can be repeated by taking a larger sample which would help to generalise the findings of this study.
❖ Comparative study may be conducted to find out the similarities or differences between the knowledge and practices of urban and rural school children.
❖ Annual dental check up may be conducted for school children.
❖ School syllabus may include topics related to oral care.
❖ Education of school teachers on oral care who are the sources of knowledge for children.

Conclusion
About a million new cases of poor oral hygiene are being diagnosed each year making it about 2000 children everyday or one child each minute for a day. The study was conducted to find out the effectiveness of oral care programme among school children. It is concluded that health education and proper brushing procedure twice a day is very effective among children in improving the knowledge and awareness about maintenance of good oral hygiene.

References

Books
2. Alligard MR. Nursing theorists and their work, 5th edn, 2002; Mosby company.
7. Soben Peter S. Essentials of preventive and community dentistry*, 2007; Arya (Medi) Publishing House, New Delhi

Journal Reference
9. Arowojolu MO, et al. Oral hygiene status and occlusal characteristics of orthodontic patients at University College Hospital, Nigeria, American Dental Journal, 2003; Sep 28(103): 24-8

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www.google.com
www.medline.com
www.pubmed.com
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