Poster # 0749

Effect of Oral Health Curriculum on Children's Oral Health Awareness

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BACKGROUND

The **high incidence** of **dental diseases** among Indian children can be attributed **to low awareness** regarding oral health maintenance. Long-term input is needed to achieve behavioural changes in children and the **school environment** is considered ideal for behaviour altering[1,2].

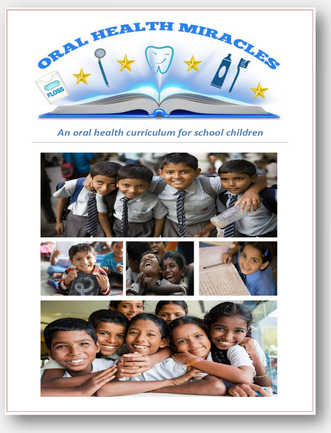
But, the school health curriculum in India is **deficient of an oral health component** and there are no organized oral health programs covering the entire age group of school children existing at present.

OBJECTIVES

To assess the **effect** of an **oral health curriculum** in improving **oral health awareness** and **dental caries experience** in Indian school children.

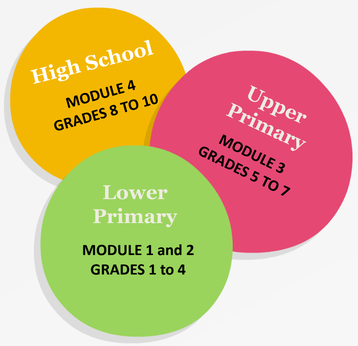
METHODS

INTERVENTION – ORAL HEALTH CURRICULUM



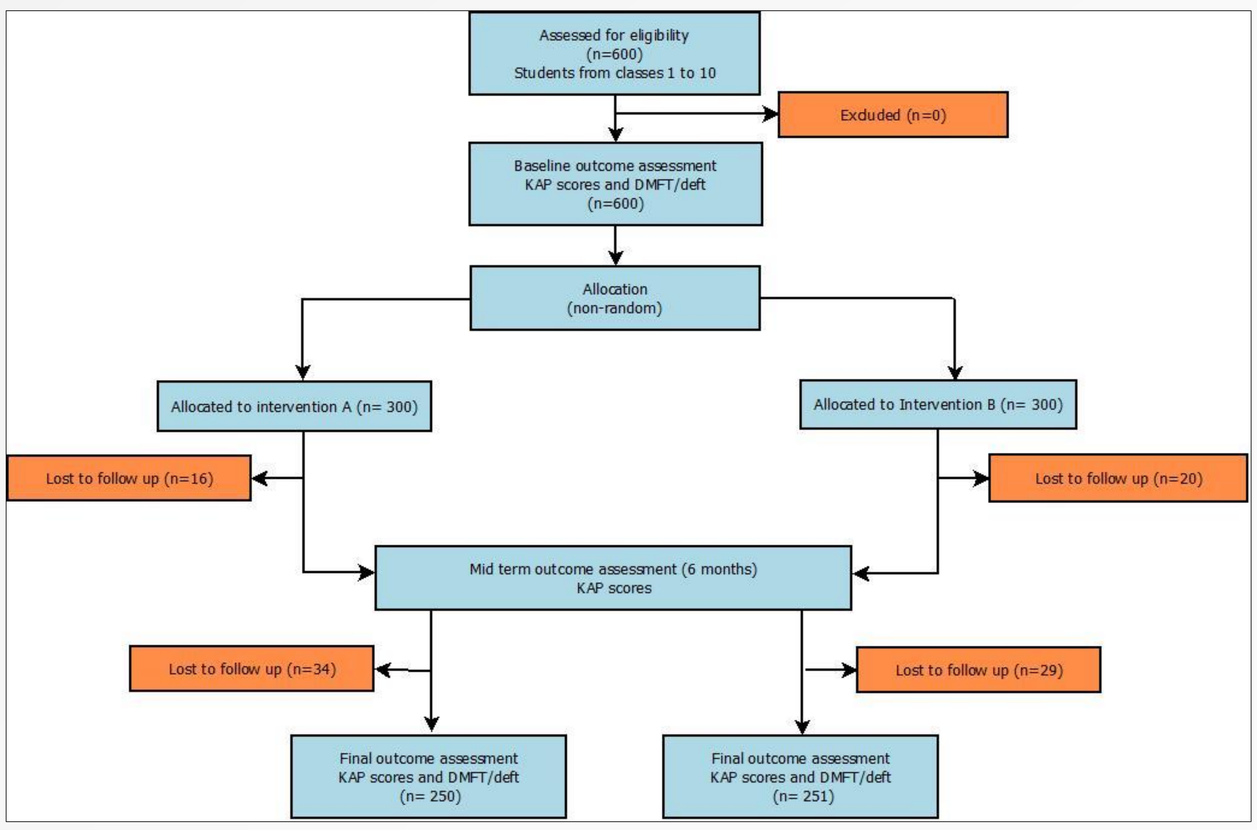
Education material was developed based on existing oral health curriculums from other countries in **English** language[3]. It was **customized** to suit for **Indian school children** by experts**.**

The curriculum had **four modules** with **age appropriate instructions** for **different sections** of school children.



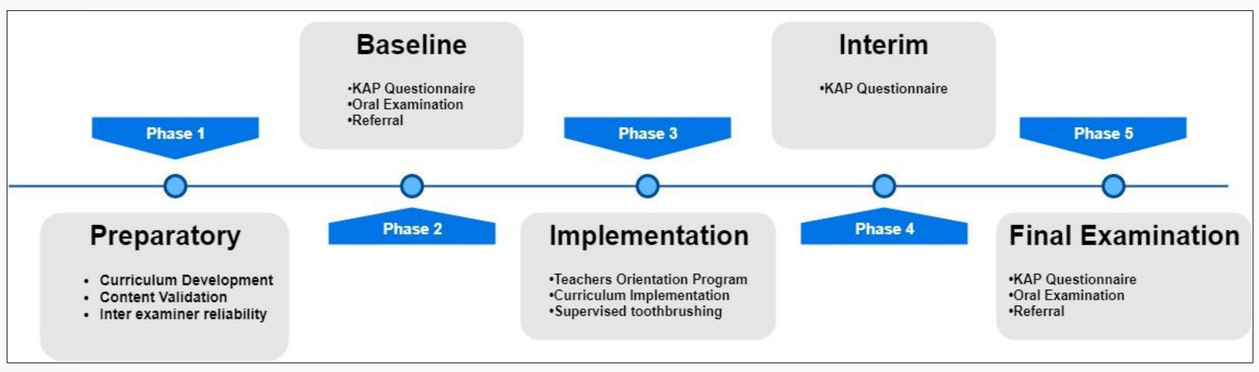
STUDY DESIGN

A **non-randomised trial** with pre-test/post-test design was conducted among **600 school children** of a selected school covering the entire student population. Two intervention arms were designed with one group receiving health education from a **dental health professional** (GROUP A) and other from a **school teacher** (GROUP B).



Ethical approval was obtained from the Institution Review Board. The trial was registered with **Clinical Trial Registry of India** (Registration number CTRI/2018/01/011407).

ORGANIZING THE STUDY



STATISTICAL ANALYSIS

To test the statistical significance of the change **in knowledge, attitude and practice** for oral health curriculum across time periods in each group, **Repeated Measures ANOVA** was used in lower primary and upper primary school children. In case of statistical significance **Bon ferroni** multiple comparison **post-hoc** test was applied.

For high school children **paired t-test** was used to arrive at an inference.

CONCLUSION

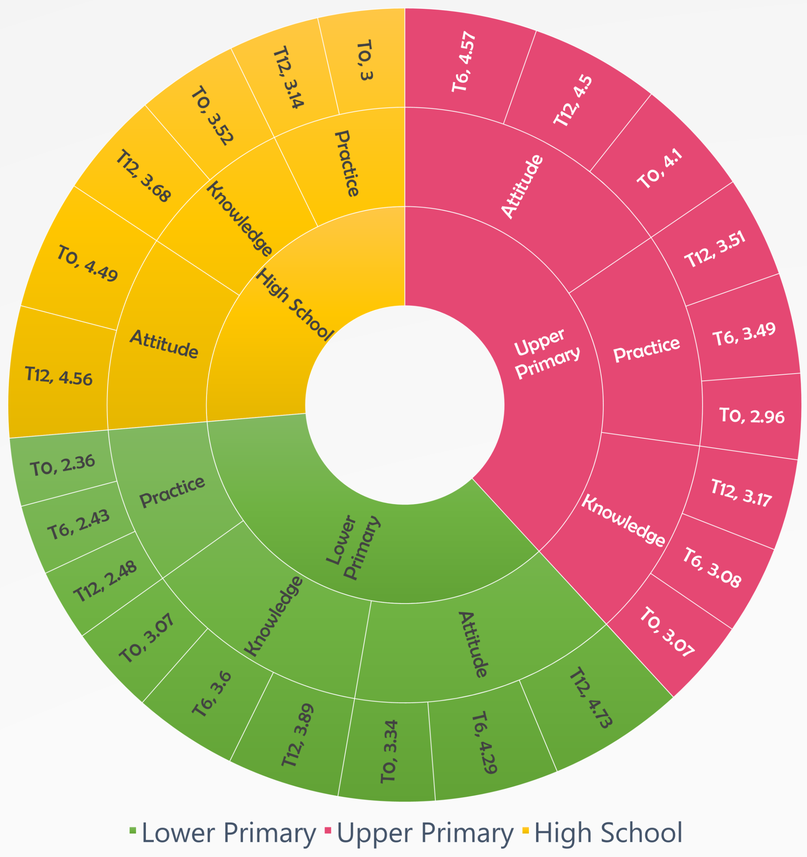
- **Oral health curriculum** was found to be **effective** in improving oral health awareness and dental caries experience **among Indian school children**.
- The gradual and increasing incorporation of basic information on oral health in the form of a health curriculum is the **way forward** for **oral health promotion** in Indian children, where a majority of their parents consider dental treatment unaffordable or inaccessible.
- This signifies the potential value of **school children** as **targets** for health messages to **control oral diseases** and to **create awareness** about **prevention** of oral diseases at a younger age.

RESULTS – ORAL HEALTH AWARENESS

COMPARISON OF OVERALL KAP SCORES BETWEEN THREE SECTIONS AT DIFFERENT TIME INTERVALS

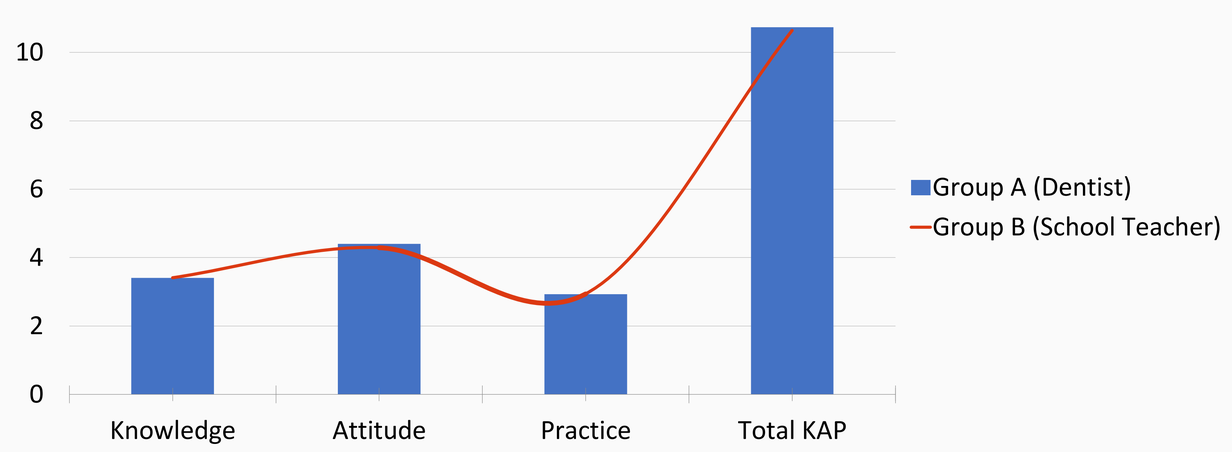
The **impact** of **OHC** varies in different sections (**LP, UP, HS**) as

- The **knowledge** and **attitude** scores before and after imparting oral health education were **highly significant** in **lower primary children** in both intervention group (p=0.001*).
- The **attitude** and **practice** scores were found to be **significantly improving** in **upper primary children** ($p < 0.05$).
- In **high school** children **knowledge** and **attitude** were found to have **significant improvement** in **Group B (Teacher)** ($p < 0.05$).



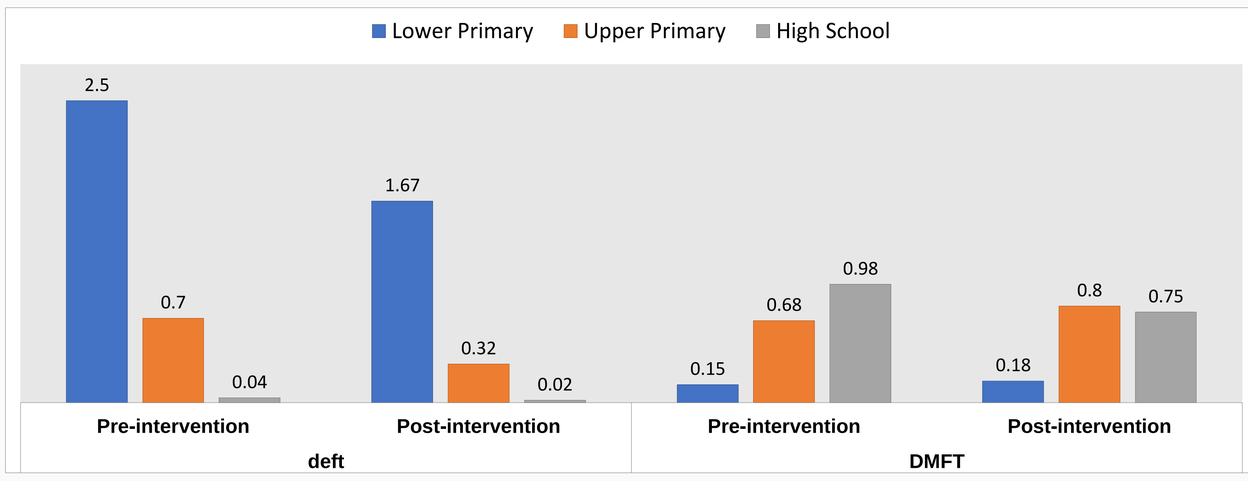
COMPARISON OF OVERALL KAP BETWEEN GROUPS

There was no significant difference in KAP between the two intervention groups A- Dentist and B- Teacher) suggesting oral health curriculum delivery can be multidisciplinary .



RESULTS – DENTAL CARIES EXPERIENCE

- A **reduction** in **total DMFT** scores were noticed in **high school** children and an **increase** in **DMFT** were noticed in **lower primary and upper primary** children post intervention.
- There was **a significant reduction in deft scores** post intervention in **upper primary** and **lower primary** children due to d component of deft.
- The **increase** in **filled permanent teeth** does reflect the positive effect of oral health education but it was not statistically significant.



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2) Van Palenstein Helderman WH, Munck L, Mushendwa S, Van't Hof MA, Mrema FG. Effect evaluation of an oral health education programme in primary schools in Tanzania. Community Dent Oral Epidemiol 1997; 25:296-300.

3) *Thomas PA, Kern DE, Hughes MT, Chen BY, editors. Curriculum development for medical education: a six-step approach. JHU Press 2016*

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CCSTDS
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