



Knowledge, attitude and practice regarding oral hygiene measures among government school teachers in and around Melmaruvathur

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ABSTRACT

The school is an important avenue for promoting oral health most especially in developing countries with low resources. However, the success of any school based preventive oral health programme is dependent on the teachers about whom there is little information on their present state of oral health awareness and practices. The aim of the study is to investigate the oral health awareness and practice of Govt primary school teachers in and around Melmaruvathur. A cross sectional study of randomly selected public primary school teachers in Melmaruvathur was performed. Data are collected and analyzed using SPSS version 21. Chi square statistics is used to test for association between variables and p value set at < 0.05. Poor oral health awareness and practices still exists and there is a need for urgent intervention to promote oral health among the teachers.

Keywords: Dental Awareness, Oral Health Knowledge, Teachers

INTRODUCTION

Children who suffer from poor oral health are twelve times more likely to have restricted-activity days, including missing school, than those who do not. Annually, more than 50 million hours are lost worldwide from schools due to oral diseases. A school is not just a place for a student to receive education, but an institute which molds the behavior, attitude and perceptions towards life. The World Health Organization's Global School Health Initiative encourages "Health-Promoting Schools" to create a healthy setting for living, learning and working. This initiative is designed to improve the health of students, school personnel, families and other members of the community through schools.¹

Oral disease can be considered a public health problem due to its high prevalence and significant social impact. Chronic oral disease typically leads to tooth loss, and in some cases has physical, emotional and economic impacts: physical appearance and diet

are often worsened, and the patterns of daily life and social relations are often negatively affected. Because of the failure to incorporate oral health into general health promotion, millions suffer intractable toothache and poor quality of life, and end up with few teeth.²

Elementary schools are suitable for the presentation of oral health information. Children, the potential recipients, spend a considerable amount of time in this setting. They can be reached at a time when their health habits are forming. Oral health information can be made available to all children, including those who may not have access to other sources of health information.³

Teachers play a vital role in shaping the behaviour and overall comprehensive development of school children. School teachers are known to exert

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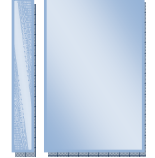
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considerable influence on their pupils and to an extent on the community at large. School teachers are more authoritative on children than parents in the Indian context. The instructions imparted by the teachers are generally followed more religiously by the pupils. The advantages of using school personnel are the potential for improved continuity of instruction and lowered cost of the service.⁴

In a developing country like India with a population of more than 1 billion, where more than 70% of the people reside in rural areas, schools can function like a bridge between the seekers and the providers of Oral health information. Studies that have investigated the oral health awareness among school children have revealed that they have a low level of oral health knowledge. It is recommended that health education programs in the schools be conducted by adequately trained teachers.⁵

Teachers need to have a sound knowledge regarding constructive oral health habits to train their students. Children enter Grade I of the primary school between the ages of 5 to 6, and continue until grade 7, approximately 13 years of age. This is a highly appropriate age group to inculcate good oral hygiene habits. Very few studies assessing the oral health knowledge, attitude and practice of primary school teachers have been reported from this part of the country. A study conducted on primary school teachers in Dharwad, India have shown that school teachers have fair knowledge regarding oral health. Such studies can be helpful to gather the baseline data on the existing knowledge of the school teachers and plan appropriate health education programs for them.⁶

This study was conducted to assess the knowledge, attitude and practice regarding oral health among the Rural Government Primary school teachers in and around Melmaruvathur.

MATERIAL AND METHODS

This was a cross-sectional questionnaire study to assess the knowledge, study design and study population. The study population was all the primary

school teachers of Melmaruvathur rural. Ethical approval to conduct the study was obtained from Institutional ethical committee of Adhiparasakthi Dental College and Hospital. Informed consent was obtained from the school teachers participating in the study. Participants were assured that their responses would be kept confidential.

A self-administered, pre-tested close ended questionnaire consisting of 16 items was distributed among the rural primary school teachers of Melmaruvathur. The questionnaire was prepared in English. The questionnaires given in person to all the primary Govt school teachers in & around Melmaruvathur rural along with an informed consent. The questionnaire collected sociodemographic information and the educational qualification of the school teachers. Questions were framed to assess the knowledge (n=8), attitude (n=4) and practice (n=4) of the rural primary school teachers regarding oral health. Knowledge questions were based on the primary and the permanent dentition, oral hygiene measures, dietary habits, and common myths about extraction.

The questionnaire was distributed to and collected back from 16 rural primary school teachers by the investigator. The questions assessed the level of knowledge on oral health, oral hygiene practices and oral health education.

RESULTS

The cross sectional questionnaire study was carried among 165 Govt primary school teachers in and around Melmaruvathur, in an anonymous fashion with the questionnaire carrying 16 different questions targeting their knowledge regarding the various aspects of primary dentition and methods of healthy oral hygiene maintenance.

The first figure depicts that 58% had satisfactory knowledge regarding the same, while 26% had mediocre knowledge about primary dentition and only 16% had below average knowledge regarding children dentition.

The second figure represents the attitude among teachers towards the preservation of primary

Government school tooth. The figure shows that 68% wanted to preserve the tooth as it is necessary for the proper eruption of the permanent teeth while 22% was interested in its extraction as they were not

interested in the protocols to be followed for tooth extraction and 10% were ignorant towards the relevance of preserving primary tooth for proper eruption of the permanent tooth concept.

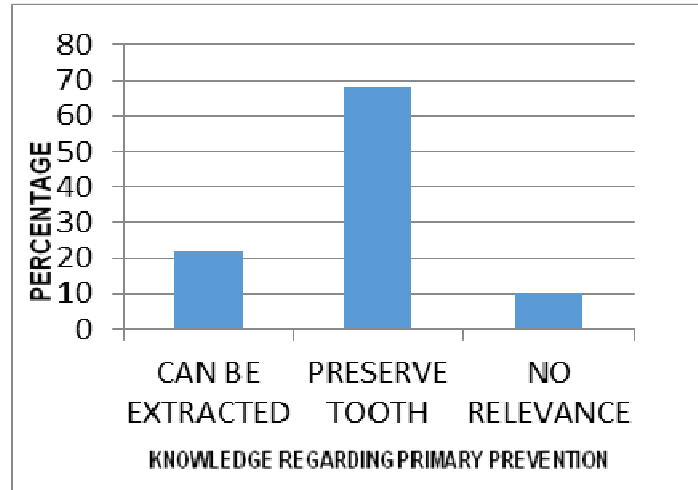


Fig 1 Knowledge Regarding Primary Prevention

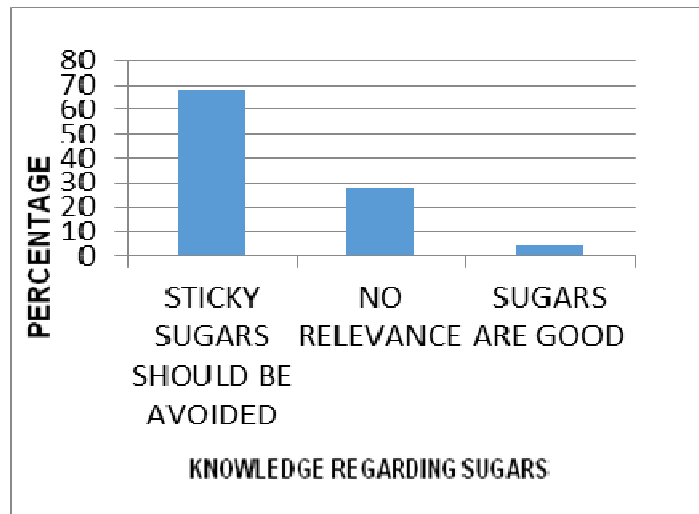
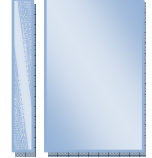


Fig 2 Knowledge Regarding Sugars

The degree of knowledge among teachers regarding the frequency of brushing and whether brushing frequency is related to the progression of caries. In the study 52% of the teachers were satisfied with brushing once a day, while 33% thought that brushing twice daily was required to maintain a healthy and caries free oral environment.

The knowledge school teachers possessed regarding various brushing techniques and their relation with a healthy oral environment was also assessed. 78% of the teachers thought that children right after the eruption of the first teeth should be brushed using a proper tooth brush, whose width should be broad for better grip and with reduced number of bristles. 19% of teachers preferred the use of fingers for brushing young children as they thought that the hard bristles



may damage the tender gingival environment. 3% thought that Neem sticks were a better and safer way for brushing child dentition as compared to a conventional tooth brush.

DISCUSSION

The present study assessed the knowledge, attitude and practice regarding oral health among the primary school teachers of Melmaruvathur. A search in the existing literature revealed very few reported studies assessing the knowledge, attitude and behavior of primary school teachers regarding oral health in India. The results of the present study show that the mean knowledge score across all age groups was 6.2 ± 1.3 , which is suggestive of an average knowledge regarding oral health among the teachers. The attitude of the teachers was favorable, and all of them (100%) wished to have a dental health education program in the future. A study conducted on primary school teachers in Benin-City, Nigeria also demonstrated positive attitudes among the teachers. However, a majority of primary school teachers in Lagos state, Nigeria, had negative attitudes about oral health issues.⁷

The difference observed from the 2 different regions could be due to environmental and cultural factors, which can affect individual's attitude to health matters. Most of the teachers in the current study, visited a dentist for a dental treatment to relieve pain in the form of either an extraction or a filling. Only 6 teachers out of 153 respondents had visited a dentist for a routine check-up, which indicates that the utilization of dental services was mainly for pain relief, rather than for prevention.⁸

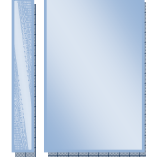
Oral diseases and conditions are often chronic, painful and disfiguring. Together, they represent a huge economic and social burden of illness. While rarely fatal, the costs of these oral diseases and conditions have a large economic impact. An estimated total of 40.36 million hours are spent each year on check-ups or problems with teeth. Some of the consequences of dental decay are acute and involve chronic pain, interference with eating, sleeping and proper growth, tooth loss, and compromised general health. The competencies of

dental hygienists focus on disease prevention and oral health promotion.⁹

Investing in public health dental hygienists who focus on oral disease prevention and oral health promotion will also decrease the need for costly oral disease treatment. It will build capacity within the public health system to improve oral health and not simply treating oral disease after it arises. Public health dental hygiene programs require a small investment with potentially large dividends. For example, a Canada-wide school based program would cost an estimated \$564 million — about 4.5% of the \$12.6 billion being spent on dental care today and 0.3% of total health spending. Many of the services that dental hygienists provide can prevent future oral diseases, for example applying fluoride varnish on new teeth can reduce the amount of dental caries, educating the school teachers and school children on importance of maintain oral health.¹⁰

Dental hygienists can serve as a vital link to emphasize the value of good oral hygiene. They can provide remedial home oral hygiene practice instructions, apart from the treatment provided at their clinics. Dental hygienists can encourage regular dental attendance of the teachers, which in turn would be passed on to their students.¹¹

Teachers, apart from just merely providing education to the pupils, also have a moral responsibility of ensuring their health and safety. To accomplish this task, teachers need to have sound knowledge regarding health and oral health. While teachers are crucial to the implementation of school oral health education, they do not necessarily possess adequate knowledge and skills to enable them to deliver the programmes effectively.¹² Teachers in all disciplines should be encouraged to include oral health in their teaching programs and activities. They should be inspired to make the curriculum exciting and stimulating for students to acquire good oral health knowledge and behaviors and to make healthy decisions. When teaching a practical skill such as tooth brushing technique, it is necessary for the teachers to learn, and be competent on brushing their own teeth effectively first. This is particularly important as teachers are often considered as role



models by students. The results of this study did not show favorable performance from the teachers. Most of the oral health promotion programs are targeting the school children only, sidelining this other most important group. In view of the present study results, there is an urgent need to take measures in this regard and conduct oral health awareness programs for the teachers as well.^{13,14}

CONCLUSION

The findings of the present study indicate that oral health knowledge was lacking among the primary school teachers. Teachers require training programs, on oral health aspects which could be beneficial. Coordination between the school authorities, parents, dental care providers and funding agencies is required to implement a teacher's training program in between the school's academic schedule.

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