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RESEARCH ARTICLE

EXTENT OF DENTAL AWARENESS PREVAILING AMONG PRIMARY GOVERNMENT SCHOOL STUDENTS – MATHUR, A PRE AND POST AWARENESS QUESTIONNAIRE STUDY

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ABSTRACT

The aim of this study was to assess the dental awareness prevailing among primary government school students. A cross-sectional school-based study design was carried out. School children from Mathur primary government school were involved in this study. Data were collected by using structured pre and post questionnaires. The questionnaire was designed to evaluate the dental awareness of primary school children regarding their oral health and dental treatment. This study included 300 primary school students from Mathur, Kanchipuram district, Tamilnadu. Data were analyzed. Before awareness programme majority of sample 230 (78%) had average level of knowledge, 62(20%) poor level of knowledge and only 8 (2%) had good level of knowledge regarding Dental hygiene. After structured awareness programme 68% students had average and 32% had good level of knowledge and no one had poor level of knowledge regarding dental hygiene. It was concluded that knowledge and practice about oral health among study participants were poor before awareness and much more improved after awareness programme. Therefore, comprehensive oral health educational programs for both children and their parents are required to achieve more knowledge regarding dental and oral health.

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INTRODUCTION

Oral health is important for appearance, sense of well-being and also for overall health and oral health can affect quality of life directly, and has been linked to sleeping problems, as well as behavioral and developmental problems in children. Oral health may be defined as a standard of health of the oral and related tissues which enables an individual to eat, speak and socialize without active disease, discomfort or embarrassment and which contributes to general well-being (Al-Omiri, 2006). Good oral health practices are necessary from a young age to ensure positive long term dental health and hygiene and the oral health of children is important towards their overall well-being. "Oral health is an integral part of general health; therefore, its disregarding will give rise the negative health and social consequences" oral health status is often determined by the amount deposited on the surfaces of teeth and poor oral hygiene introduced as a predisposing factor to periodontal diseases and associated with cardiovascular diseases and even pre-term low-birth weight infants in contrast, healthy oral behaviors reduce the amount of deposits particularly plaque on the surfaces of teeth. With developing country like Iran, Dental hygiene is poor with inadequate and improper brushing of teeth, no washing of mouth after intake of sweets, wide-spread substance abuse and addiction, hyperacidity, increased consumption of refined sugar and sweetened foods (Amin, 2008). A child is a precious gift which has lots of potential within, which can be the best resource for nation if raised and moulded in good manner. Healthy children can become healthy citizen constituting a healthy nation. Healthy children are also successful learners. School age children represent about 25% of total population, so it indicates that health care of the school children can contribute to the overall health status of the country. Dental caries is the leading dental problem of children, 90% of all children have some tooth decay by 12 years of age. 95% of all cavities are caused by specific eating sugar habits like candies, ice-cream, canned juice which usually develop during early childhood as a result of changing life style (Harikiran, 2008). Dental diseases affecting the child are not same as affecting that adult. The target organs are the same like, teeth, gingival, but the etiopathogenesis are different because, primary dentition is morphologically different, food habits are different from that of adult and poor control over maintance of oral hygiene leads to common dental problems

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that include dental plaque, dental caries, malocclusion, gingivitis etc. Hence the importance of preventing dental caries is at the school age level is very essential. So this study was done to assess the pre and post awareness knowledge of primary school children regarding Dental hygiene in primary government school, Mathur (Lang et al., 1987).

MATERIALS AND METHODS

This study was conducted at Government Primary School Mathur, Kanchipuram district, Tamilnadu. The sample included 300 primary school children on the basis of inclusion and exclusion criteria were selected. Non probability convenience sampling technique was used for this study. Ethical clearance obtained from IRB of Adhiparasakthi Dental College and Hospital. In order to assess knowledge about oral health, knowledge regarding dentition, awareness of oral health and its importance a questionnaire having 20 questions was prepared for the school children. The structured questionnaire was distributed to the students both before and after the dental awareness campaign. Data were analyzed. Split half technique was used to find the significant difference in the means of oral health knowledge and awareness in participated primary government school children.

RESULTS

A pre-experimental study was conducted to assess the effectiveness of structured teaching programme on knowledge regarding dental hygiene among primary schoolchildren. The reliability of tool was computed by applying split half technique and was calculated by Karl Pearson's coefficient of correlation formula, which was found 0.78.

Table 1: School Children Knowledge regarding dental Hygiene

Before Awareness		
	TOTAL	%
POOR	62	20
AVERAGE	230	78
GOOD	8	2
After Awareness		
	TOTAL	%
POOR	0	0
AVERAGE	210	68
GOOD	90	32

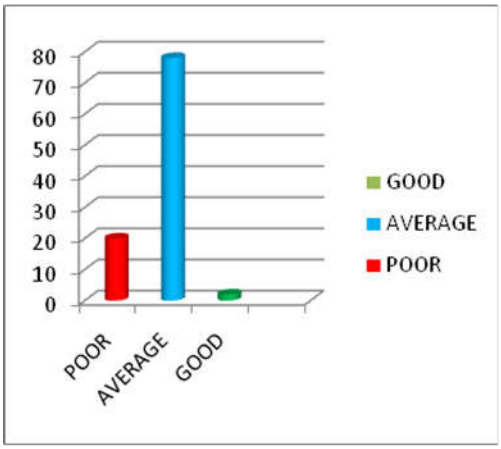

Figure 1. Pre-awareness knowledge score of primary school children

Figure 1 shows that in pre- awareness majority of sample 230(78%) had average level of knowledge, 62(20%) poor level of knowledge and only 8(2%) had good level of knowledge regarding Dental hygiene.

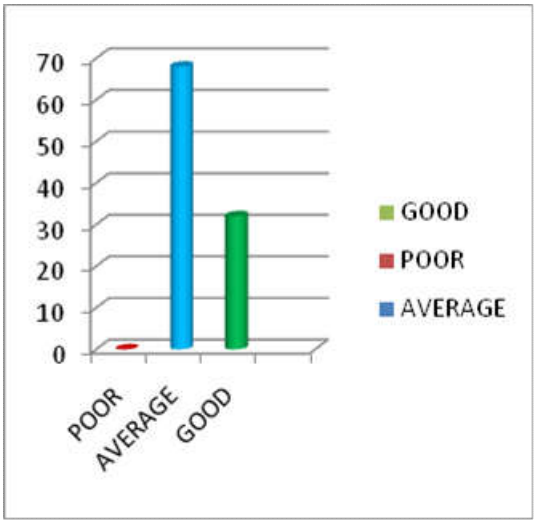

Figure 2. Post-awareness knowledge score of primary school children

Figure 2 Shows that in post awareness it was observed that 210(68%) sample had average level of knowledge, 80 (32%) had good level of knowledge and no one had poor level of knowledge after administration of STP.

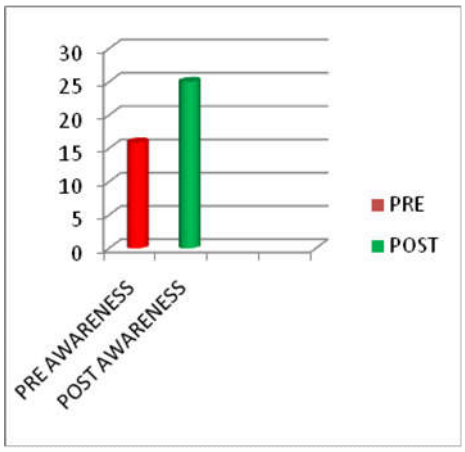

Figure 3.Comparison of pre-awareness and post- awareness knowledge score

Figure 3 shows that in the mean pre awareness knowledge score was (15.91) and post awareness mean knowledge score was (25.01) and. The difference between mean pre awareness and post awareness knowledge score was-8.1* significant at $p< 0.05$ level of significance hence there was an impact of structured teaching programme on knowledge regarding Dental hygiene.

DISCUSSION

Oral health is an integral component of general health. Childhood is the age where children develops reflexes to maintain general hygiene practices and attitude toward health.[5] Children can be ruptured well for their general and oral health

(Linn, 1976). It is the duty of parents, teachers as well as children themselves to know the importance of oral hygiene. We can target children for educating and motivating them for oral health maintenance and awareness. It is important to start oral health education in their regular curriculum at school level. School health education services are an economical and powerful means of raising standard of community health, especially for the future generations (Mahesh Kumar et al., 2005). School is considered as a best setting for the positive health and prevention of diseases, awakening health consciousness in which the child grows and develops. This will help not only in creating awareness but also in development of correct oral health practices thereby to control orodental problems. In many countries, a large number of children and parents have limited knowledge on the causes and prevention of the most common oral diseases (Mirza et al., 2011). This study focuses on dental awareness of primary school children. The school children showed very good response towards the study.

The pre-questionnaire results showed that prior to the awareness program, 62% of the children had poor oral hygiene. After the awareness program, there was a tremendous change in the children knowledge towards the oral health. The study showed that children knowledge toward the oral hygiene should be guided properly by the parents and the guardians as well as the school dental health programs. To have an impact on attitude and practices, children may take more time, but in the long term it will have positive effects. Similar results are seen in the studies by Petersen and Torres (Petersen et al., 1995; Petersen et al., 2001). While assessing knowledge, children thought that irregular brushes cause only decay (46.80%), but they were less unaware of gum diseases. This showed that around 64% of children commented that dental problems were caused due to eating ice creams only; however, other causes like improper brushing methods, not rinsing the mouth, and irregular visit to dentist were little cited by the children. And 48.28% children cited that dental problems can be prevented by avoiding sweets and sticky foods, whereas other prevention technique like proper brushing methods, rinsing mouth after meals, and regular dental visit were lesser known. These results indicated that improvement in knowledge toward learning proper brushing technique is needed. Interventions to increase the knowledge, regular visit to the dentist, subsequent use of flossing are essential and are in argument with other studies.

While assessing the attitude of the school children, most of the children knew that the individual has prime responsibility toward maintaining healthy mouth and also that periodic dental visit is required to maintain oral health. Only 46.86% children had visited dentist, among which 22.29% visited for the reason of decay. Almost 53% children did not visit the dentist. This may be due to fear of dental setup, lack of toothache, or lack of parental encouragement. We also agree with the fact stated by Punitha VC et al in 2001 that lack of parents' regular dental attendance might be reflected in children dental attitude (Punitha et al., 2011). The behavior displayed by parents might also be the cause of lack of attendance regarding visit to the dentist. Barker and Horton showed that delay in seeking dental care could be attributed to other factors like parental belief and practices, lack of economic resources, and accessibility of dental services. They also showed that parents play a vital role in influencing child's oral health. This concludes the fact that dental caries is one of the most common diseases in children. Other conditions like gingival and periodontal conditions, oral hygiene maintenance, orthodontic treatment was least considered. Lack of both parental and child oral health education might also explain these findings. So more educational program and importance of maintaining oral health to motivate children as well as the parents is required (Smyth et al., 2007; Vigild, 1999). While assessing the oral hygiene practices of the children, all children used toothbrush and toothpaste as oral hygiene aids, as reported elsewhere. About 99.14% of children were aware of tongue cleansing methods out of which 79% children used tongue cleaner. Only 30.43% of children bushed twice daily pertaining to the fact that parental guidance toward oral health education is still lacking. Survey found that high percentage of children brushed their teeth once daily only. The same results were seen in the study done by Al-Omari MK et al 2006 in North Jordan. Lack of both parental and child oral health education might explain these findings. The other reasons may be due to the age of our children who were included in the survey that they try to achieve independence and start their attempts to build their own identity without family interference (Walsh, 1985; Zhu et al., 2003). Lack of both parental and child oral health education may explain this. According to the children's opinion the major factors that cause dental problems were sweets (81.8%) and fizzy drinks (77.7%), which is in parallel to the observations made by Al- Omiri *et al.* in Jordanian children who found that sweets (87.4%) and fizzy drinks (76.5%) had the same response to cause tooth decay. A similar study done by Mirza *et al*., where he compared high and low socio-economic school children, who knew sweets (64.9%), (51.2%) and soft drinks (68.8%), (43.31%) respectively does affect the dental health. The overall mean score of pre-test was 15.91 with the S.D. 3.82, whereas in post-test the overall mean score of 25.01 with S.D. of 3.70. The t-test value was -8.1* which is statistically significant at $p<0.005$ level of significance. After structured awareness programme 68% students had average and 32% had good level of knowledge and no one had poor level of knowledge regarding dental hygiene. The study finding implied that the education had a vital role in improving the knowledge of school children regarding dental hygiene.

Recommendation

- The study can be repeated on the large scale sample to validate and for better generalization of the findings.
- Descriptive study can be conducted to assess knowledge, attitude and practice of school children regarding Dental hygiene.
- Comparative study may be conducted to find out the similarities or differences between the knowledge and practices of urban and rural school children.
- Regular Dental check-up (screening program) may be conducted for school children.
- Special dental related awareness programs can be conducted regularly in schools
- School syllabus may include topic related to Dental hygiene.
- Education can be given to school teachers and also to the parents on Dental hygiene who are the sources of knowledge for children.

Conclusion

The study findings implied that the education has a vital role in improving the knowledge of the children regarding dental

hygiene. Adequate knowledge about oral health and following proper oral hygiene practices has a great clinical significance. Optimal knowledge keeps the mouth clean, thus preventing various oral diseases. Maintenance of proper oral health results in reduction of all gum diseases. Studies have shown that there is a decrease in the incidence of dental caries in people who maintained good oral hygiene. It is also well documented that healthy mouth is essential for a healthy body. Hence, studies like ours would give a correct idea about the present scenario in terms of oral hygiene young children. Today's students are tomorrow's leaders. The student community needs to be strengthened with the treasure of knowledge especially with health related issues.

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