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Malocclusion of Permanent Teeth in Primary School Children (6-12 Yrs) is A Risk Factor for Caries Teeth

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Abstract-

Dental health is a part of school health services. Dental caries and peridontal disease are the two common dental diseases in India. Prophylactic cleansing is of great value in preventing gum diseases and in improving personal appearance and personality development. In developed countries, dental hygienists' are employed in schools to assist the school dentist in the examination of teeth.

Aim and Objectives:

1. *To study prevalence of malocclusion in school children of urban and rural children*
2. *To study the prevalence of caries in primary school children with malocclusion*

Results

Rural Government primary school: 400 out of 456 primary class children in the age group of (6-12 yrs.') of rural government primary school have participated in the study. Mean age of the students was 8.2 yrs. Malocclusion is found in 11%. Prevalence of caries in these children is 95%

Urban school: 350 out of 367 primary school children assessed. Mean age of students was 7.9 yrs. Malocclusion is found in 7%. Prevalence of caries in these children is 90%

Discussion

Prophylactic dental health check-ups: None of the rural school children had undergone any prophylactic dental health check-ups and 15% the urban children had undergone any prophylactic dental health check-ups in less than a year. ($p< 0.001$). Mal alignment is found in 11% in rural area and 7% in urban area.

BACKGROUND

Dental health is a part of school health services. Dental caries and peridontal disease are the two common dental diseases in India. Prophylactic cleansing is of great value in preventing gum diseases and in improving personal appearance and personality development. In developed countries, dental hygienists' are employed in schools to assist the school dentist in the examination of teeth. They make preliminary inspection of the teeth and do prophylactic cleansing which is of great value in preventing gum problems and in improving personal appearance. They take part in teaching of dental hygiene as they work with children.1 As there is only one government dental college, private sector plays a major role in providing dental health in Tamilnadu. It would be a highly beneficial to primary school children if private sector would join hands in providing health education to these children about oral hygiene and do prophylactic services, as this is the time when permanent tooth erupts. If private dental sector is involved in school health services, it would be of great use to the needy, belonging to lower socio- economic group. Because of the large number of preventive methods available to individuals for use outside the dental office, patient counselling by dental professionals is important..2 Oral Health is an integral component of general health. It has also become clear that causative and risk factors in oral diseases are often the same as those implicated in the major general diseases (WHO,2003)3. In 1995, an Oral Health Policy was accepted as part of a National Health Policy during the Fourth Conference of Central Council of Health & Family Welfare. Contained within this policy were a set of nationwide goals similar to the goals 0f World Health Organization.

(1)Oral Health for all by 2010 (2)To reduce the prevalence of oral and dental disease to less than 40%, down from the current 90% prevalence For children ages 6-12, reduce the average DMFT to less than 2, down from a current approximate average of 4 (3)To reduce the high prevalence of periodontal disease to a lower prevalence(4) 85% of children age 18 should retain all of their teeth (5)To reduce the prevalence of malocclusion and dento-facial deformities by 50% of the present level .4

Access to dental care is a significant determinant in the poor oral health status of rural populations in India. This was demonstrated through the experiences that the absence of a dentist and the long travel time associated with seeking the services of a dentist both affect the ability of village residents to access proper dental care.5Research in cariology is sky-rocketing, bringing out the hidden facts of this age-old disease, but the education and clinical practice is adopting them is still in a snail pace.6

AIM AND OBJECTIVES

- To study prevalence of malocclusion in school children of urban and rural children

- To study the prevalence of caries in primary school children with malocclusion

MATERIALS AND METHODS

Before performing clinical examination and KAP questionnaire recording, the children were given a consent form to be filled up by the parents. After obtaining the parents' consent, children were examined. It is a Descriptive cross- sectional study among primary school children of rural and urban area. 400 out of 456 primary class children in the age group of (6-12 yrs.) of government primary school and 350 out of 367 primary school children from urban school at Chennai were involved in the study.400 Primary class children were asked the on knowledge about oral hygiene, data recorded and analysed in SPSS 21. Students were briefed about the objective of the study and their informed consent was taken for participation. A self-administered multiple choice questionnaire was used for data collection to assess the knowledge of students on dental hygiene. The questionnaire was pre-tested earlier on a group of 30 children and based on their responses questions were modified before it was distributed in its final form to the participants .Reliability of the questionnaire was assessed using Cronbach's Alpha value of which was 0.86 indicating good internal consistency.

RESULTS

Rural Government primary school: 400 out of 456 primary class children in the age group of (6-12 yrs.') of rural government primary school have participated in the study. Mean age of the students was 8.2 yrs. Malocclusion is found in 11%. Prevalence of caries in these children is 95%

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Prophylactic dental health check-ups: None of the rural school children had undergone any prophylactic dental health check-ups and 15% the urban children had undergone any prophylactic dental health check-ups in less than a year. ($p < 0.001$). Mal alignment is found in 11% in rural area and 7% in urban area.

There is significant differences in the caries in children with and without malocclusion. ($p < 0.001$)

No significant differences in the caries experience were noted between the genders and between the urban and the rural children with malocclusion. The prevalence of malocclusion in India reportedly ranges from 20% to 43%7 ,but in our study the percentage is less.

Re-orienting the dental school health services: Time and again it has been proven that schools can provide an ideal platform for the promotion of oral health. Children spend considerable period of their life time in the school right from their childhood to adolescence. This period has a special importance in their growing age as they

are particularly receptive during this phase. In 2006, the California Dental Association (CDA) sponsored legislation that requires that children have a dental health assessment by the end of their first year in public school, either kindergarten or first grade. The law considers the requirement met if a child has had such an assessment in the prior 12 months8. In a project, during the one year implementation phase, the field dental surgeon used to visit the schools at bi-monthly interval to find out the feedback and number of activities performed regarding oral health education in the school. The oral hygiene practices and eating habits of the children including brushing aids, frequency of brushing and rinsing etc. improved marginally during the one year study period.9 screening programme in school health services is often done occasionally and continuous monitoring is not possible. These lacunae can be overcome if PPP [Public Private Partnership] model is implemented in school health services, by posting dental interns at government primary schools on rotation for providing primordial dental prevention to the primary school children, so that continuous monitoring is possible.

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