

A Survey on Oral Health Condition in Primary School Children

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Abstract

This Study was carried out to evaluate the dental health condition in primary school going children (Class iii to class v) age group in 8 to 12 years, in the school named Mughda high school in Dhaka City. This cross sectional study was carried out during the month of July 2009. Data was collected by pre-set questionnaire of 183 students.

The following observations were made when the results were compared between:

1. Total Number of decayed, caries or missing teeth found in the children mouth involving only in Permanent teeth.

2. Total Number of decayed, caries or missing teeth found in the individuals mouth. involving only in deciduous teeth.

From this analysis we found the actual statistical analysis of oral health condition of the patients teeth in between the age of 8 to 12 years. And also impact of tooth brushing and contributing factors that results decay of the teeth and destruction of gingival tissue.

Introduction

Dental disease is very common in our country. Caries, gingivitis and periodontitis are the common dental disease. Lack of awareness about the dental disease and proper treatment facilities are the main cause of poor dental condition. Improper tooth brushing among the child age group and poor socio-economic status are the main cause of developing dental disease commonly in rural or in urban area also. Streptococcus and Staphylococcus species both anaerobic and aerobic species are found in the cases of dental disease. Oral health is a state of the oral and related tissue and structures that contributes positively to physical, mental and social well being and the enjoyments of life's

possibilities by allowing the individual to speak, eat and socialize unhindered by pain, discomfort or embarrassment. Oral health is essential for general health. Total decayed (D), Missing (M) and filled (F) Teeth (T) indicates DMFT index. According to child age group DMFT in permanent teeth indicates DMFT 1.05 and in case of deciduous teeth the dmft index 1.72. This index shows very poor oral health condition and need to grow awareness among the primary school children to take care about their teeth and gum by avoiding sticky and sweet food along with proper tooth brushing twice a day.

Materials and Methods:

It was a cross-sectional type of study carried out among 183 students in the Mugdha High school of class iii, iv, & v students age group between 8 to 12 yrs under the department of Dental Public Health of Update Dental College hospital. This study was carried out in 4th July 2009. Consent was taken from the Head master of the school and guardians of the study objects. Oral history was taken and through clinical examination were performed for all the students of above mentioned classes. The investigations were done by probing, naked eye examination, perio-probing, percussion of teeth, checking mobility of the teeth, gum bleeding etc.

Results:

Out of 183 students 42 students were in age group 8, 38 were in age group 9, 32 were in age group 10, 35 were in age group 11, 36 were in age group 12. Among them 92 were male students and 91 were female. Residential status all were urban. Family size were average 3 to 6 person in each students. Most of them are medium and rest of them were low socio-economic status. Most of the students brushed their teeth once a day specially before they took breakfast. Most of the students use tooth paste and brush & a few student use dentifrice to clean their teeth. Some of the students visited to a dentist one or once or twice in their life time and most of them never visited to dentist for dental check up purpose.

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Table 1.1 Distribution of the children according to age and DMFT (Permanent teeths) index.

Age in years	DMFT index		
	Total no. of children	Total DMFT	DMFT index
8-12	183	192	1.05

Tables shows that out of 183 students for permanent teeth, total decayed (D), Missing (M), Filled (F), Teeth (T) is 192 which indicated DMFT index 1.05. (Table-1.1)

Tables 1.2 Distribution of the children according to age and dmft (Deciduous teeths) index.

Age in years	dmft index		
	Total no. of children	Total dmft	dmft index
8-12	183	315	1.72

Table shows that out of 183 students for deciduous teeth., total decayed (d), Missing (m), and filled (f), Teeth (t) is 315 which indicates dmft index 1.72. (Table-1.2)

Table 1.3 Distribution of the children according to age & gingival status

Age in years	Gingival status				
	No of total children	Normal	%	Abnormal	%
8-12	183	105	57.38	78	42.62

Table shows that out of 183 students 105 student's gingival status was normal which means in 57.38% cases gingival status is good and out of 183 students 78 students gingival status is abnormal which indicates 42.62% cases gingival condition is poor that means gingivitis or periodontitis is present. (Table-1.3)

Discussion:

Total 183 students of Mughdha High School in Dhaka city of class iii, iv, & v, in the age group 8-12 years were taken.

Among the respondents 47.1% use tooth brush and tooth paste, 8.2 % use brush and tooth powder, 25.6% use finger and tooth powder 18.1% use finger and charcoal and only 1% use meswak.

And this study we found 42.62 % of total students suffering from gingival disease which is similiar to the study of Dr. A.K Joarder which was 40.7 % (1998).

We found in this survey that sweet/sticky food are the contributory factors of dental & periodontal Disease. Whereas avoiding of sweet food and intake of sour food that is vitamin 'C' containing food decrease the disease.

The survey revealed that in the age group 8-12 years students have DMFT index 1.05 for permanent teeth and

DMFT index of deciduous teeth is higher than that of the permanent teeth. The dmft index for deciduous teeth is 1.72.

In case of gingival status, it was found in the survey among the students of 8-12 years of age group normal gingival status was 57.38% and abnormal was 42.62%.

This study showed that dental disease like caries and periodontitis was a multifactorial disease. The ignorance, food habit, brushing technique, in adequate practice of oral hygiene are the main contributory factors for dental disease. Because dental disease was a multifactorial disease, so single technique would not be sufficient to prevent the dental disease.

Dental treatment is not so difficult but proper treatment facilities is not available all over the country.

So, simple preventive measure should be taken to maintaining good dental health as for example, maintainance of proper brushing techniques and use of tooth brush and paste and brushing the teeth twice daily. And eating of less sticky food and avoidance of suger containing food as far as possible and ringing of the mouth properly after taking sweet food is beneficial for patient. Vitamin 'C' containing sour food and calcium containing food is helpful for prevention of dental disease.

References:

1. Astemborski J,A Bourghman J,A Clinical and laboratory. 1989
2. Charactarizator of Early onset of Periodontitis. J, perio 60:557-563.
3. Bhuiyan A.M Prevalence of Dental Diseases in Banglaesh BDJ. 1998-99;56-9
4. Joarder M.A. K.W.V. Helderman High levels of Destructive Periodonatal Diseases in Bangladesh. J Oral Health. 1998;3:8-12.
5. Ramfjord S.PThe periodontal Diseases Index. J Perio 1967;38:602-610.
6. Vander velden U, Abbas F Prevalence of Periodontal Breakdown in Adolescents and Presence of A Actinomycetemcomitans in subject with Attachment Loss.j Perio 1989;60:604-61.
7. WHO Technical Repart Series 621 Epidemiology Etiology and Prevention of Periodontal Disease.
8. Cripian Scully. An Update on Mouth Uccr Dental Update.1983
9. Jane Luker and Crispian Scully. Padiatric Oral Medicine: 5 The oral Mucosa (i), Dental Update.1988
10. Sircus, W.R Chruch and J.Kelleher: 1957 Recurrent Ahtous Uleerations's of the Month. A study of the natural History. Etilogy and Treatment, quart, J.Med.

11. Stewart D.J Kernohan DC Self-inflicted, gingivitis, Dental Practitioner. 1972
12. Andlin Sonocki A. Marcusson A. Persson M, Three year observations on gingival recession in mandibular incisors in children journal of clinical periodontology. 1991
13. O' Brien M children's dental health in the united kingdom 1993. Office of population censuses and survey. Her Majesty's stationery office, London. 1994
14. Cawson, RA. Systemic disease in relation to dentistry. Essentials of Dental Surgery and Pathology, content.1984;21:375.
15. World Health Organization Technical Report Series Epidemiology, Etiology and Prevention of Periodontal Disease, report of a WHO scientific group. 1978;621:7
16. Henry M Goldman, D, Walter Cohen, General Health Status, effect on periodontal disease and therapeutic response, Periodontal therapy, sixth ed.160;503-504.
17. Chowdhury AR. Diabetes mellitus and periodontal disease. Bangladesh Dental Journal, 1990-1991; Number-
18. Jenkins W.M. Mason W.N periodontitis in the United Kingdom. British Dental Journal, 1984;21,43.
19. Mahmood J.U, Epidemiology of gingivitis and periodontitis among the people of Shibhalaya village under Manikganj District. Bangladesh Dental Journal, 1948; 21,43.
20. Davidson K.John M.D, Oral disorders in diabetes mellitus, Michalek E. Juitz and Sken Affenbacher. Clinical Diabetes Mellitus. 1986.537.
21. Faphee, T. and Cowley, G Age group and methods of scoring, Essentials of periodontology and periodontics, third ed.303.
22. Abraham J Stiles. H.M Kammerman, L.A and Forrester.D. Assessing periodontal pathogens in children with varying levels of oral hygiene. J. Dent. Child. 1990;57:90.