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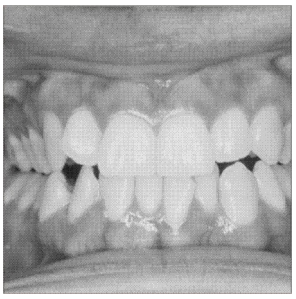

CARIOUS-MISSING-FILLED TEETH AND PERIODONTAL STATUS;

12-15 YEARS OLD BOYS FROM A GOVERNMENT SCHOOL OF MULTAN.

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ABSTRACT … www.brainassistant.org , doctorpervaiziqbal@yahoo.com **Aims and Objectives:** Objectives of this study were to find the extent of dental and periodontal diseases in 12 – 15 years old school children and to find the co relation with the socioeconomic status, brushing habits and number of meals. **Materials and Methods:** 160 students of 12 – 15 years age of a government school were examined for this purpose and a proforma was filled for socioeconomic status, food habits and brushing etc. The examination was performed in day light using a dental mirror and a blunt probe. The records were made in the proforma by an assistant. **Results:** The DMFT was 1.67 in average. The poor group (N: 22) 2.4, the middle class (N: 132) 1.5 Those claiming once a day brushing showed better DMFT score (1.8) while those claiming twice daily brushing had more DMFT score (2.1). More frequent meals were related to more DMFT (1.86) as compared to less frequent meals (0.8). The periodontal health was better in middle socioeconomic status than the poor group. Once a day brushing and less frequent meals were related to better gums. Only 8.1 % of total 160 participants assessed were having healthy gums while 47% had zero DMFT score. **Conclusion:** Although the DMFT scores are not very high but there is a need to have dental education programs involving all strata of population for better understanding and better prevention of diseases. Brushing technique has to be taught more tactfully and elaborately so as to further minimize DMFT and to reduce periodontal problems.

INTRODUCTION

Pakistan being a developing country has very limited resources. The medical facilities are not very good. The major part of the medical facilities is of curative type while preventive aspects are not well established. Now the conditions are getting better. The disease patterns are being estimated through different surveys carried out

at individual level, usually in collaboration of different donor agencies.

Dental diseases are also being explored. Some studies were carried out in early eighties. Iqbal[1] did the first of its kind, survey of his area. Another study was conducted by Moller[2] in three big cities of Pakistan in collaboration of WHO. Then some reports were published later by others[3,4]. Some estimation can be drawn from all of these useful surveys.

AIMS AND OBJECTIVES

This study is a part of series of studies planned by the authors to evaluate the severity and pattern of oral/dental diseases in south Punjab. This study will evaluate the DMFT (Decayed, Missing, and Filled Teeth) and periodontal involvement in 12 – 15 years students of government sector school of heavily populated area of Multan. Socioeconomic status, the frequency of meals and tooth brushing habits will be co related to the diseases.

MATERIALS AND METHODS

A public sector school was selected from a heavily populated area of Multan. Majority of the students came from poor and middle socioeconomic strata of population. Families having average monthly income less than 10 thousands were labeled poor while those having average monthly income 10 – 20 thousands were labeled middle income status. 160 students of 12 – 15 years age were randomly selected.

A performa, as used in an early study[4], was used to enter the data about identity, socioeconomic status, food habits and brushing frequency etc. Examination was performed by two of the authors who had already discussed the protocol with the first author, who helped and supervised the whole survey. Oral examination was made with the help of a dental mirror and a blunt probe in day light. The volunteers were seated in common arm chair. Debris if present were cleaned with a cotton ball held in a tweezers. The caries were detected according to the criteria described in "WHO Oral Health surveys 1981".

The Periodontal involvement was labeled when the inflammation or presence of hard deposits or bleeding on gentle probing was detected. The oral cavity was divided into six sixants (two posterior and one anterior in each jaw) and number of sixants involved were noted. DMFT was calculated for every volunteer, over all average and an average for different groups was calculated for comparison purpose. Results were analyzed by student's test.

RESULTS

Two groups were made on socioeconomics status i.e. poor and middle class. No participants were from rich status. The results are given in table I to table III. All the tables are self explanatory. Over all DMFT was 1.67 while average 4.13 sixants were involved in one or other periodontal problems. 47% of participants had zero DMFT while only 8.1% of the participants had no periodontal disease.

Table-I The socioeconomic (SE) Status, DMFT & Periodontal involvement

SE Status	N	DMFT	Periodontal Involvement
Poor	22	2.4	4.5 sixants
Middle	138	1.5	4.07sixants
Differences in DMFT are statistically significant.			

Table-II. The brushing habits, DMFT & Periodontal Involvement

Brushing Habits	N	DMFT	Periodontal involvement
Once a day	108	1.8	4.06 sixants
Twice a day	52	2.1	4.21 sixants
Differences have been found non-significant statistically.			

Difference in DMFT among the poor and middle class students are statistically significant.

Table-III. Meals, DMFT & Periodontal Involvement			
Meals	**N**	**DMFT**	**Periodontal involvement**
Two time	30	0.8	3.7 sixants
Three time	130	1.86	4.1 sixants

DISCUSSION

The survey has been conducted in an area which consists of poor and lower middle class families. The people have meager resources which are just enough to make both ends meet. Curative type of medical facilities are availed whenever necessary while prevention of disease is not the subject properly understood, oral and dental health being one of the most neglected aspect.

People do know that refined carbohydrates are harmful to the general health and the teeth but generally no care is taken to avoid them. Brushes are thought helpful in oral hygiene maintenance but proper brushing is not performed which is evident from the result of present study. Only 8.1% of the participants had healthy gum in spite of the fact that all of the participants claimed to do brushing at least once a day. Again the students claiming twice a day brushing had more DMFT scores and had more periodontal problems. The more DMFT in the twice or once per day brushing group may also be explained on the assumption that brushing techniques were faulty. More DMFT may also be due to different types of food consumed by students of different socioeconomic status. The frequency of meal has a strong positive co-relation to more caries prevalence specially the candies and toffees consumed by children has very bad effect to the Dental health due to a long drop of pH in the dental plaque leading to more demineralization.

The periodontal problems are very common in almost all over the world including the developed countries like USA in which a study[5] showed that about at least 90% of the population surveyed, required periodontal treatment. It is a high score and shows the neglect of people in general in even the developed areas. Results of the present study are about same.

In another study carried out in Ghana[6], 67% of the 13 – 16 years old participants of the study population had hard deposits on teeth. The present study shows more periodontal involvement.

The results of the present study are a bit better than the previous study[4], carried out by one of the authors. Almost 100% of study population was suffering from periodontal diseases while in this study 8.1% of the participants have healthy gums. The DMFT score of present study are a bit more as compared to that of previous study. This may be due to the simpler food consumed by the poor boarder students of the religious schools in which refined carbohydrates are usually not supplied.

In a path finder study carried out in Gambia[7], the DMFT score was 2.3 to 2.8 for 12 and 15 years old students respectively. The results of the present study are better. A longitudinal study about the DMFT score was carried out in Poland[8], it was found that the DMFT score of 12 years old students was reduced from 4.2 in 1995 to 3.8 in 2000. This minimum score is much more than that of present study.

A study in different boys and girls schools of Lahore[9], published in 1991, gives 1.2 to 1.26 DMFT score of 12 – 15 years old boys and girls. The scores of present study are a bit more.

CONCLUSION

It is evident from the results of this study that poor living is related to poor oral hygiene. The facilities are purchased by money and better socioeconomic status showed better oral health in this study.

The study reveals an important fact i.e. the frequency of brushing in not related to better DMFT score or to the better gums. Authors feel that our population needs more oral hygiene instructions specially the brushing techniques have to be properly explained to the common population. The preachers and the teachers must be involved in this type of programs.

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