

DENTAL AILMENTS AMONG LOW AND HIGH SOCIOECONOMIC STATUS SCHOOL CHILDREN AGED 11-12 YEARS

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ABSTRACT

A cross sectional study was undertaken to compare the dental ailments in school children's among low and high socioeconomic status. The data was randomly collected from children, of two schools one in Private sector (High socioeconomic status, Group A) and one in Public sector (Low socioeconomic status, Group B) from Sep 2011 to Oct 2011.

School going children boys and girls were selected, and the final sample size was 216, one hundred and eight from each group with ages 11-12 years and with mean of 11.57 and SD of $\pm .659$, the levels of DMFT were identified by clinical examination only, using WHO standardize forms for data collection.

There was high percentage (62.06%) of DMFT with SD ± 1.84 and with mean 1.44 in the low SES group compared to the (50%) of DMFT with high SES group. The oral hygiene status was good in high SES compared to low SES.

Key words: High SES, Low SES, Dental ailments, School children, Oral hygiene status

INTRODUCTION

The prevalence of dental ailments varies between individuals and it is usually affected by different factors including socioeconomic status.¹ It is universal that is why oral diseases because of its high prevalence are considered huge public health problem.

People having low socioeconomic status show more dental caries than people of having high socioeconomic status, different reasons are considered to be the causative factor e.g. cariogenic food, bad oral hygiene and lack of dental prevention programmes.²

Dental caries is believed to be a multifactorial disease of microbial origin which destroys the calcified

structures of teeth by acid which are produced by bacteria³ and is considered to be most prevalent oral disease in the world. Globally there is trend towards high caries prevalence and high levels of periodontal diseases, the oral health condition in the developing countries is affecting 60 to 90% of the school going children.⁴

In Pakistan the dental health has been neglected for a long time and is still not a primary issue in most of the developing countries for so many different reasons.³

The change from bad oral habits to good oral habits usually occurs when there are good oral health programme which positively motivate the individuals to adopt good oral habits i.e. regular brushing.

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METHODOLOGY

A cross sectional study was undertaken to compare the dental ailments in school children's among low and high socioeconomic status. The data were randomly collected from children of two schools one in Private sector (High socioeconomic status, Group A) and one in Public sector (Low socioeconomic status Group B) from Sep 2011 to Oct 2011.

The sample size was collected on non probability convenient basis. School going children boys and girls

were selected, and the final sample size was 216, one hundred and eight from each group with ages 11-12 years and the levels of DMFT were identified by clinical examination only, using WHO standardize forms for data collection. Children of ages 11-12 were included in the study and only frank cavity was considered as caries, no radiographs were taken. The data were checked for error and omission and corrected as necessary and the data were analyzed by frequency and percentages using the SPSS version 17.

RESULTS

TABLE 1: AGE DISTRIBUTION AMONG THE TWO GROUPS

| S No | Age | Group-A | Group-B | Mean Age | SD |
|------|----------|-----------|------------|----------|----------|
| 1 | 11 years | 37(34.3%) | 40(37.04%) | 11.66 | +_ 0.477 |
| 2 | 12 years | 71(65.7%) | 68(62.96) | | |
| | Total | 108 | 108 | 216 | |

TABLE 2: FREQUENCIES OF TOOTH DECAYS AMONG THE TWO GROUPS

| S No | Number of decays | GROUP-A | | GROUP-B | |
|------|------------------|----------------|------------|----------------|------------|
| | | No of students | Percentage | No of students | Percentage |
| 1 | 0 | 54 | 50 % | 40 | 37.04 % |
| 2 | 1 | 13 | 12 % | 12 | 11.1 % |
| 3 | 2 | 16 | 14.8 % | 24 | 22.22 % |
| 4 | 3 | 13 | 12 % | 14 | 13 % |
| 5 | 4 | 11 | 10.2 % | 12 | 11.1 % |
| 6 | 5 | 1 | 9 % | 02 | 19 % |
| 7 | 6 | | | 03 | 2.8 % |
| 8 | 7 | | | 0 | 0 |
| 9 | 8 | | | 01 | 0.9 % |
| | Total | 108 | 100 | 108 | 100 |

SD = +_ 1.84

Mean = 1.44

TABLE 3: ORAL HYGIENE STATUS AMONG THE TWO GROUPS

| S No | Deposits | GROUP-A | | GROUP-B | |
|------|----------------------------|----------------|------------|----------------|------------|
| | | No of students | Percentage | No of students | Percentage |
| 1 | No Plaque | 07 | 6.5 % | 01 | 0.9% |
| 2 | Plaque detected on probing | 39 | 36.1 % | 43 | 39.8% |
| 3 | Visible plaque | 57 | 52.8 % | 44 | 40.7% |
| 4 | Calculus | 5 | 4.8 % | 20 | 18.5% |
| | Total | 108 | 100 | 108 | 100 |

SD = +_0.756

Mean = 1.7

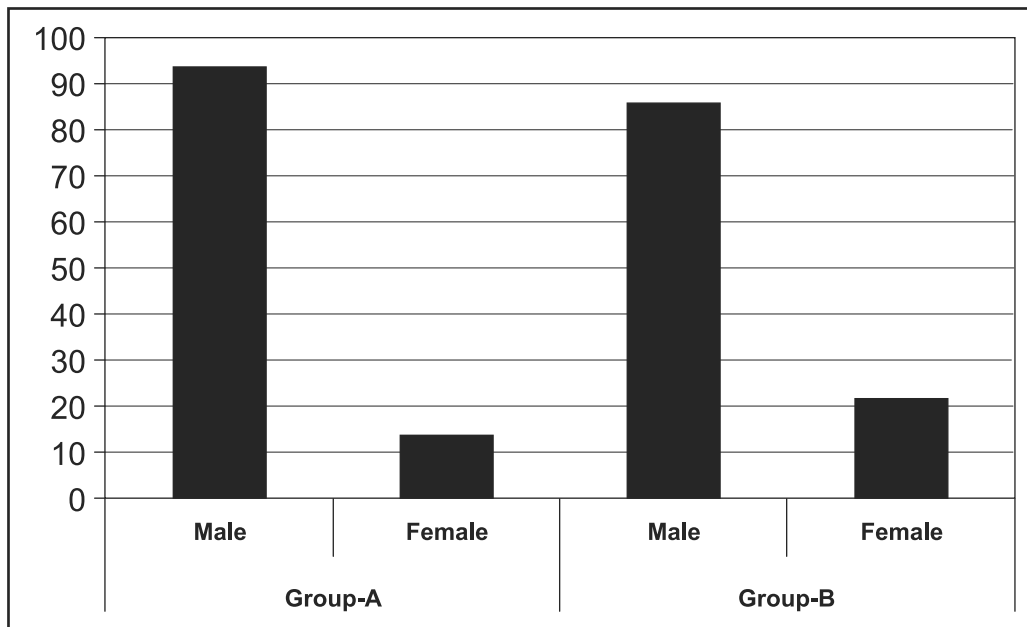


Fig 1: Gender distribution

DISCUSSION

Data on the oral health status of Pakistan school going children is limited, and this is particularly true for Khyber Pakhtunkhwa province, although there are no extra measures nor are any known preventive programs undertaken which would help in the reduction of dental ailments, although strange but probably the use of fluoride containing dentifrices and better oral hygiene has helped.^{1,4}

ST Reisine and W Psoter concluded in their review fairly strong evidence for an inverse relationship between SES and the prevalence of caries among children less than twelve years of age. The evidence for this relationship is weaker for older children and for adults because of the relatively small number of studies that partially support this study in which both below and above 12 years of age there is direct relationship.⁶

In another study, Claire Telford et al found that adolescents living below the federal poverty guidelines were more likely to report that the condition of their teeth was fair or poor than were adolescents who were least poor (odds ratio = 1.58; 95 percent confidence interval, 1.04–2.41) that coincides our results.⁷

Kate A Levin et al study show as the result of present study that the socio-economic inequalities in prevalence of children with d_3mft have decreased in

recent years, socio-economic inequalities in the amount of d_3mft for those with d_3mft persist. This suggests that improvements are only seen for those children with the potential for low d_3mft . High d_3mft persists among children from more deprived areas.⁸

Study by Nicole Darmon and Adam Drewnowski show the indirect relationship of dental caries with the quality of nutrition. Epidemiologic data show that diet quality follows a socioeconomic gradient. Whereas higher-quality diets are associated with greater affluence, energy-dense diets that are nutrient-poor are preferentially consumed by persons of lower socioeconomic status (SES) and of more limited economic means.⁹

Bruce A Dye in his study done in USA concluded that young children with poor eating habits are more likely to experience caries, his study strongly support this study.¹⁰

Okeigbemen Sa in his comparative study of public and private school took a total of 358 randomly selected school children aged 12 to 15 years from urban and rural, private and public schools in Egor district were examined for dental caries according to the World Health Organization (WHO) criteria. Sixty-seven percent ($n = 238$) of the school children were caries-free, mean $dmft$ score was 0.65 (SD = 1.14), decayed teeth accounted for the largest component (98.6%). No fill-

ings were recorded. Prevalence (mean dmft) was higher in females (0.70) than males (0.59); urban (0.72) more than rural (0.53); private schools (0.75) more than public schools (0.55) dmft scores at age 12, 13, 14 and 15 were 0.51, 0.63, 0.78 and 0.66 respectively.¹¹

In the present study there was difference between the dental ailments of the two groups of the high and low socioeconomic status school children.

The high caries prevalence may be attributed to different reasons including poor oral hygiene, limited resources and lack of dental prevention programs.

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