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PREVALANCE OF ORAL HEALTH STATUS, MALOCCULUSION AMONG SCHOOL GOING INDIVIDUALS IN CHENNAI: AN EPIDEMOLOGICAL STUDY

***Dr. Vidhyadharan J. BDS and Dr. Evangeline Dorothy BDS**

Chennai, Tamilnadu, India.

***Corresponding Author: Dr. Vidhyadharan J. BDS**
Chennai, Tamilnadu, India.

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ABSTRACT

Background: Health is a universal human need for all cultural groups. General health cannot be attained or maintained without oral health. The mouth is regarded as the mirror of the body leave space and the gateway to good health. **Aim:** The level of oral health status and sweet intake of school students is scarce and worthy of investigation, and this study aimed at assessing the same among school going students in Chennai, Tamil Nadu, India. **Methodology:** A structured questionnaire (English versions) considering all objectives of the study was used in data collection. Data were collected on the basis of Age, gender, oral health status including malocclusion and intake of sweet food substances. Data were collected through face-to-face interview of the students, and by oral examination. **Results:** About 14.11% of students had Angle class 1 malocclusion about 61.96% had Angle class 2 sub-division 1 13.10% had Angle class 2 sub-division 2 and about 4.79% had angle class 3 is about 2.27%. On evaluating the characteristic data of DMFT it was observed 68.88% of student's presented had no decay and 29.87% of student's had decayed teeth. **Conclusion:** The authors conclude that oral hygiene awareness education and motivation are needed to improve oral health status among school going students.

KEYWORDS: Oral Health, questionnaire, DMFT.

INTRODUCTION

Health is a universal human need for all cultural groups. General health cannot be attained or maintained without oral health. The mouth is regarded as the mirror of the body and the gateway to good health. The increase in the prevalence of dental caries has been attributed to factors such as high sugar consumption, a shift to westernized diet, socioeconomic status, the rate of urbanization, and the mother's level of education.[1] These factors may be influenced by economic transition. Economic improvement in a low income country like India may have an effect on dental health. However, these efforts will not succeed in influencing of oral health; hence, the attainment of good oral health is based upon the awareness of good dietary habits and oral hygiene practices. Children who suffer from poor oral health are 12 times more likely to have restricted activity days than those who do not[4]. More than 50 million school hours are lost annually due to oral health problems, which affect children's performance at school and success in later life.[6] Although knowledge contributes to good oral health but unless attitudes and habits are developed and put into practice little will be gained. Healthy behaviour and lifestyles developed at a young age are more sustainable.

Oral diseases are one of the most common of non-communicable diseases affecting varied population. It is an important public health problem owing to the prevalence, socio-economic aspect, expensive treatment and lack of awareness. Though oral and dental diseases are rarely life threatening, they do have an impact on the quality-of-life. The health-care in India is still under various stages of development with vast differences between regions and states. For the oral health of the general population at the global level, marked changes in oral disease pattern has been observed over past decades. The level of oral health knowledge and practices of school students is unknown and worthy of investigation, and this study aimed at assessing the level of oral health knowledge and practices of school going students in Chennai, Tamil Nadu, India.

MATERIALS AND METHODS

A descriptive cross-sectional study was carried out at a randomly selected secondary school at Chennai. Students of 10^{th}, 11^{th}, 12^{th} standard have been examined in the study. Materials used for oral examination were – CPITN probe, dental mirror, cotton, antiseptic solution. The students' dental examinations were carried out with torch light on normal chair. A structured questionnaire (English versions) considering all objectives of the study

was used in data collection. Data were collected on the basis of Age, Sex and knowledge and dental status. Data were collected through face-to-face interview of the students, and by oral examination. Only those students present on the day of the study and those willing to participate were included in the study.

The students who were not present on the day and those unwilling to participate were excluded from the study. The nature and purpose of the study was explained to the students before the survey. The questionnaire was distributed in their respective classrooms and once answered it was collected. Incompletely filled questionnaires were discarded. Dental examination of the students and interview of them were done after taking verbal consent of the class teachers. The data were checked before leaving the interview area and necessary correction were made at the spot. Statistical Analysis: SPSS software package was used to analyse the data. Descriptive statistics were used for all variables. Values were expressed as percentage.

RESULTS

A total of 392 students involved and examined in the study shows 50.63 % respondents were males and 49.37 % were females. The percentage of age group is 19.14% from 14 years and 42.07% from 15 years and 20.91% from16 years and 14.86% from 17 years and, 1.51% from 18 years has been analysed in the study. The percentage of students from the urban region were 86.22% and suburban region was 13.78%. The angle classification was used to diagnose the malocclusion of the patient with some occlusal problems. Students with Normal occlusion were about 14.11% with Angle class 1 malocclusion were about 61.96% and Angle class 2 sub-division 1 were about 13.10% and Angle class 2 sub-division 2 were about 4.79% and angle class 3 was about 2.27%. (Table 1)

It was observed that 29.87% of students had decayed tooth. The percentage of filled teeth was 2.30% and missing teeth were 3.08%. These values have been shown in (Table 2).

The most important thing of the students undergoing daily food habits with most varied and repeated foods has been noticed and they were taking coffee, chewing gum, jams, sweet pies .The percentage of sweets intake of students was 32.14% for once a week and the intake of jam in several times a month was 24.74% and the intake of chewing gum never takes was 31.38% and the intake of coffee never takes was 36.88% shown in (table 3).

Table 1: Table showing the malocclusion status among the study population.

Characteristic Feature		Frequency	Percentage
Age	14	76	19.14
	15	167	42.07
	16	83	20.91
	17	59	14.86
	18	6	1.51
Gender	Male	201	50.63
	Female	190	49.37
Residence	Urban	54	13.78
	Suburban	338	86.22
Angle classification	Normal **occlusion**	56	14.11
	Class 1	246	61.96
	Class 2 sub division 1	52	13.10
	Class 2 subdivision 2	19	4.79
	Class 3	9	2.27

Table 2: Table showing the DMFT status among the study population.

Characteristic feature		No of students	Percentage (%)
Decayed Tooth	Decayed tooth	117	29.87
Missing Tooth	Missing tooth	13	3.08%
Filled Tooth	Filled tooth	14	7.32%

Table 3: Table showing the routine selected food intake status among the study population.

Characteristic feature		Frequency	Percentage
Sweet Pie:	Several times a day	15	3.83
	Everyday	22	5.61
	Several times a week	71	18.11
	Once a week	126	32.14
	Several times a month	88	22.45
	Never	66	16.84
Jam :	Several times a day	13	3.32
	Every day	31	7.91
	Several times a week	58	14.80
	Once a week	93	23.72
	Several times a month	97	24.74
	Never	96	24.49
Chewing Gum	Several times a day	12	3.06
	Every day	49	12.50
	Several times a week	58	14.80
	Once a week	59	15.05
	Several times a month	87	22.19
	Never	123	31.38
Coffee:	Several times a day	31	7.91
	Every day	98	25.80
	Several times a week	35	8.93
	Once a week	48	12.24
	Several times a month	32	8.16
	Never	143	36.88

DISCUSSION

The present studies shows that (29.87%) students having decay teeth and (3.08%) students have their missing teeth and (7.32%) students have filled teeth of these total population 42% of students have been affected through food habits and there oral health has been affected. We have been compared our study with similar factors of certain factors are affecting students oral health status. These have been age, gender, residence, food habits. These students have been reported with various age of 14, 15, 16, 17, 18 has been reported from these the percentage of the students will classified and they are more likely been affected oral hygiene with (42%) of students out of 392 of population 167 students of 15 years age have been affected poor oral hygiene of 18 years of age with 6 students 0f (1.51%) with lesser affected. On the other hand males (50.63%) and females (49.37%) so males have slightly higher percentage of poor oral hygiene than females. Based on the residence students from suburban places are more noted people with poor oral hygiene with the highest percentage of (86.22%) out 392 students 338 students are from suburban places maintaining poor oral health because of their food habits or water the place they are living are majorly caused.

It has been observed that oral hygiene awareness education and motivation are the basic steps to improve oral health status among school going students. This data may be of importance in the evaluation of past and future planning of oral health prevention and treatment programs targeting schoolchildren. This calls for early preventive strategies and treatment services. We suggest the incorporation of oral health education in school curricula to help in improving the oral health status of schoolchildren with limited access to oral health care services. With a contemporary understanding of social sciences, it has been acknowledged that oral health is influenced by many social and environmental factors. One such factor is accessibility to oral health care services. Individual knowledge, the perceptions of one's need for, oral health care, financial, concerns. The impact of such limited access to health care services is of even greater consequence on strata of the population, such as children. They depend entirely on their parents to utilize health care service.[10]

A Study conducted by Salma A. Bahannan et al among total of 734 schoolchildren the prevalence of decayed teeth was 79.7% and was significantly higher among boys (88.9%) than girls (69.0%). About 11% of students had missing teeth, with a significantly higher figure among females than males (15.9% versus 7.3%); 19.8% of students had filled teeth. Moreover, a DMFT of seven or more was significantly more prevalent among males (43.3%) than females (26.8%), while the percentage of females with sound teeth was significantly higher than for males (20.4% and 9.6% respectively). The CPITN revealed 0, 1 and 2 scores among 14.6%, 78.2%, and 41.6% respectively. Males had a significantly higher percentage of healthy periodontal condition (23.8%) than females (3.8%).[10]

This Study conducted by Aasim F Shah et al As it affects 60 to 90% of school-aged children and the vast majority of adults, dental caries is still a major health problem in most industrialized countries. In the Americas [decay, missed, filling teeth (DMFT) = 3.0] and in the European region (DMFT = 2.6), dental caries experience in children is relatively high, whereas the index is lower in most African countries (DMFT = 1.7).[12]

This Study conducted by Sogi G.M et al Dental caries and periodontal disease. The most commonly seen disease show striking geographic variation, socio-economic patterns and severity of distribution all over the world. Hence, an attempt has been made to determine the relationship of oral health status with socio-economic status in Davangere town. A total of 2007 children of 13 to 14 years age belonging to both sexes were examined. Type III examination was carried out during the survey. DM Fcaries Index and Oral Hygiene Index was used to assess caries experience and oral hygiene status. Prasad's classification was used to know the social classification of the children. It was concluded that dental caries experience and oral hygiene status of children are strongly correlated to Socio-economic status. The present study shows that economic status is one of the contributing factors for developing dental caries. Low prevalence of dental caries was found among socio-economic status (SES) group I and II and it has steadily increased upto to socio-economic status V group, the mean decayed teeth of socio-economic status I and II group was 2.56 and 2.54 respectively while socio-economic status V group recorded a highest mean decayed both of 3.30. As research in industrialized countries has revealed that children of high social class families experience less caries than those of lower social classes.[11] However, this relationship appears to be reversed in the developing countries.[3] This variation in caries experience and the oral hygiene status in various socio-economic groups are usually explained by differences in oral habits, sugar consumption, use of fluoride in its various forms and oral hygiene practices addition to this utilization of oral health services has been related to social class differences in caries experiences.[11]

Hence, this study aimed to assess the oral health status of intermediate and school children with limited access to oral health care services in the Chennai city in order to raise the level of health awareness and to promote good habits for oral health so from our survey. The study of 392 populations of students has been examined through dental check-up and survey activity the results have been compared by further studies. The students of these populations less affected to decay and missing and filled teeth. Their food habits of daily routine life will cause a little drawback of these changes in oral health.

CONCLUSION

Oral health awareness program has to be conducted by dental college and association to increase the awareness of oral health hygiene among students. The school health policy should be used to promote oral health provision by oral health instruction and education on harmful dietary practices. We can conclude the various activity caused by the students like mentally or physically eating habits has been caused the damage to their daily routine habits. Preventive practices such as regular dental check-up should be advocated and promoted in schools.

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