

PREVALENCE OF DENTAL CARIES AMONG SCHOOL CHILDREN IN SULUR - COIMBATOREAbhirami Kannan¹, Valli Govindarajan²¹Associate Professor, Department of Dental Surgery, PSG Institute of Medical Sciences and Research, Coimbatore.²Senior Resident, Department of Dental Surgery, PSG Institute of Medical Sciences and Research, Coimbatore.**ABSTRACT****BACKGROUND**

Dental caries is a universal health problem with involving the people globally of all regions and society. The agonising fact is that despite several efforts towards total eradication, dental caries is still prevalent. As the prevalence of dental caries is very high among school children and there is a paucity of such data in Coimbatore and the literature review does not reveal many such studies from this area, the study was conducted in the school going children in Sulur.

MATERIALS AND METHODS

All the students were screened visually using torch with the help of mouth mirror and probe and the observation recorded. A health screening camp was conducted for the students in private school, Sulur, February 20-25, 2017, by a team of doctors from PSG UHTC. A total of 1945 students were screened. The students health details have been entered in their health card and those requiring further evaluation have been counseled and the nursing staff at school has been requested to facilitate and guide for followup. All the students were screened visually using torch with the help of mouth mirror and probe and the observation recorded. All the students who were present in school during 20th to 25th were screened and considered as the inclusion criteria. The exclusion criteria were the absentees during this period. The students were made to sit in an ordinary chair in broad daylight facing away from the sunlight and examined in their school. Data were compiled in an excel worksheet and the percentage calculated.

RESULTS

A total of 1945 students were screened, of which, 541 students were found to have dental problems that is about 28% of the total screening done. The percentage of dental caries were found to be higher compared to other dental diseases like deep caries, malalignment, malocclusion and calculus. The percentage of dental caries was found to be higher in the females about 78% than the male for whom it was about 72%. The percentage of deep caries in female was 12% and male was 13%. The malocclusion in female 14% and 1% MFA (myofunctional appliance), male were about 15%. The percentage of calculus in female was 8% and male 13% and the follow up procedure for these conditions will be restoration, extraction, braces and MFA appliance and scaling.

CONCLUSION

The high prevalence rate shows further follow up and awareness among teachers, parents and students regarding dental caries and dental hygiene is needed. Awareness among students can be generated by the school teachers because they are role model for the students.

KEYWORDS

Dental Caries, Malalignment, Malocclusion, Calculus.

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BACKGROUND

Oral health is an integral part of general health. In the developing countries like India, changing lifestyle and dietary pattern are distinctly expanding caries incidence. Dental caries is a disease with multifactorial cause. The incidence pattern of dental caries varies not only with age,

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sex, socioeconomic status, race, geographical location, food habits and oral hygiene practices, but also within the oral cavity. The seriousness and societal costs of dental caries in preschool children are enormous. The prevention of dental caries has long been considered as an important task for the health profession. Scientific research continues to make progress in identifying the best practices for diagnosing, treating and preventing dental caries.

MATERIALS AND METHODS

A health screening camp was conducted for the students in private school, Sulur, February 20-25, 2017, by a team of doctors from PSG UHTC. A total of 1945 students were screened. The students health details have been entered in their health card and those requiring further evaluation have been counseled and the nursing staff at school has been



requested to facilitate and guide for follow up. All the students were screened visually using torch with the help of mouth mirror and probe and the observation recorded.¹ All the students who were present in school during 20th to 25th were screened and considered as the inclusion criteria. The exclusion criteria were the absentees during this period. The students were made to sit in an ordinary chair in broad daylight facing away from the sunlight and examined in their school. Data were compiled in an excel worksheet and the percentage calculated.

RESULTS

The collected data is subjected to the excel worksheet and the proportions, percentage calculated.

Statistical Analysis

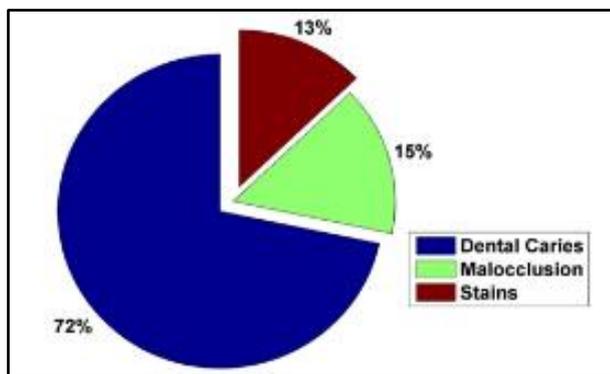


Figure 1. Diagnosis in Male

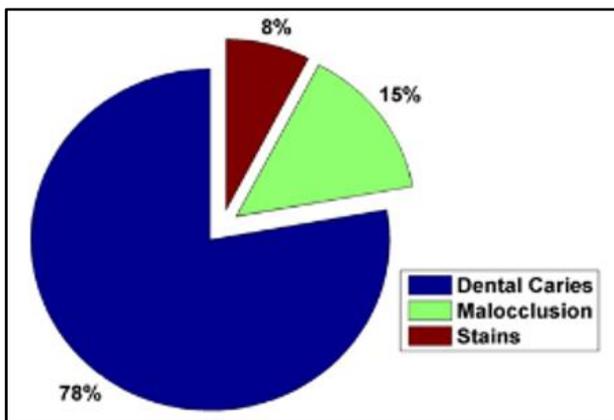


Figure 2. Diagnosis in Female

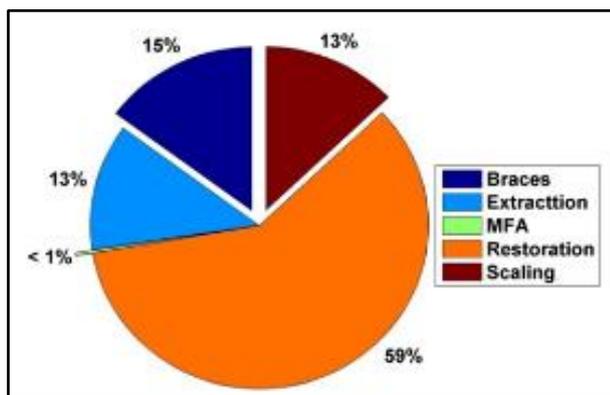


Figure 3. Treatment in Male

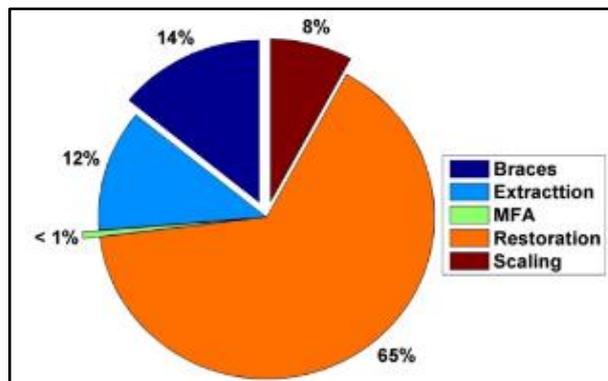


Figure 4. Treatment in Female

The above statistical analysis shows that out of the total number of students screened 28% of students were found to have dental diseases, out of which, the females were affected by dental caries by 78% than the males 72%. The other criteria, the students were screened for deep caries, malocclusion and calculus (stains). The malocclusion in both male and female were 15% and the stains in male are higher about 13% and female 8%. The follow up treatment for the above conditions will be restoration for dental caries, which in female was 65% and male was 59% for deep caries extraction was the treatment of choice for the percentage was 12% in female and 13% in male. Children with mixed dentition with skeletal dental problem were advised for myofunctional appliance. The percentage were the same for both male and female about 1%. The dental malalignment were advised for orthodontic appliance (braces). The treatment need for female was 14% and male 15%. The treatment advised for chronic gingivitis and stains was scaling the percentage was female 8% and male 13%.

DISCUSSION

Oral health is an integral part of general health.² In developing countries like India, changing lifestyle and dietary pattern are distinctly expanding caries incidence.³ The incidence pattern of dental caries varies not only with the age, sex, socioeconomic status, race, geographical location, food habits and oral hygiene practices, but also within the oral cavity.^{4,5} Dental caries though preventable is a most prevalent oral condition, which can detrimentally affect different demographic groups and can have huge public health impact on the oral and systemic health, social wellbeing, income of individual and healthcare systems.

Dental caries currently represents the most common chronic disease among adolescents and dental caries is the most expensive to treat.⁶ It affects about 60% to 90% of school children and almost 100% of adults throughout the world.⁷ Almost, 50% of tooth loss occurs due to dental caries and its complications.⁸ A very extensive and comprehensive national health survey conducted in 2004 throughout India has shown dental caries about 51.9% in 5-year-old children 53.8% in 12-year-old children and 63.1% in 15-year-old teenagers.⁹ The prevention of dental caries has long been considered as an important task for the health profession, scientific research continues to make progress in identifying

the best practices for diagnosing, treating and preventing dental caries.

Despite of credible scientific advances and the fact that caries is preventable, the disease continues to be a major health problem. The study by Rahul Bansal found that the prevalence of dental caries was very high in the school children of Meerut City and it was concluded that regular dental checkup and education on routine oral hygiene procedure are needed for better dental health of school children.¹⁰

A study to find out the prevalence of dental caries was undertaken in 5-13 year old children from Mangalore City. Dental caries was examined visually and the observation recorded. The prevalence of dental caries was highest in 5-7 year age group. This increasing prevalence of dental caries needs dental health programs, which target the specific segment of population.¹¹

Since, there is a paucity of such data in the state and the literature review does not reveal many such studies from our area in view of addressing the demand for this need, this study was undertaken with the objectives to determine the prevalence of dental caries among school going children in Sulur.

The above statistical analysis clearly shows that the most of the school children screened were found to have some kind of dental problem and regular followup were needed.

CONCLUSION

Dental caries is not only a medical problem, but also a social problem. Awareness among the students can be generated by the school teachers, because they are role model for the students. Regular oral health programs should be conducted in school. Parents could also benefited from oral health education and should be advised regarding continuous dental follow up with dietary instructions to maintain good oral hygiene.

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