



RESEARCH ARTICLE

ASSESSMENT OF BASIC PERIODONTAL TREATMENT NEEDS IN SCHOOL CHILDREN IN  
SUBURBAN MUMBAI

\*Dr. Shyamacharan A Samanth

Dr Sheeja S Varghese, Saveetha Dental College, 162 Poonamallee High Road, Vellappanchavadi  
Chennai 600077, India

ARTICLE INFO

Article History:

Received 03<sup>rd</sup> November, 2016  
Received in revised form  
17<sup>th</sup> December, 2016  
Accepted 10<sup>th</sup> January, 2017  
Published online 28<sup>th</sup> February, 2017

Key words:

School children, Mumbai,  
Incidence of gingival disease,  
Tooth brushing habit.

ABSTRACT

**Aim:** To check for Periodontal Treatment needs in school children of suburban Mumbai.

**Objective:** To evaluate the Gingival disease in school children in suburban Mumbai.

**Materials and Methods:** The data was collected from 409 students screened for signs of gingivitis in the age group of 10-18 in a private school in suburban Mumbai. All the children were otherwise healthy and had no signs of any other disease.

Each student was checked for presence of dental caries, gingival inflammation and presence of malocclusion. A report was generated on the dental health requirements of each child and with information on tooth-brushing.

**Results:** 409 children were examined out of which 390 had need for basic Periodontal Therapy and 19 were healthy with no sign of gingivitis or periodontal disease. In terms of oral hygiene maintenance out of 409 - 38 (9.3%) brushed twice daily and 371 (90.7%) brushed once. All the children brushed their teeth using toothbrush and toothpaste.

**Conclusion:** According to this study the prevalence of gingivitis is 95% therefore a sustained awareness and treatment campaign should be considered.

Copyright©2017, Dr. Shyamacharan A Samanth. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Dr. Shyamacharan A Samanth, 2017. "Assessment of basic periodontal treatment needs in school children in suburban Mumbai", *International Journal of Current Research*, 09, (02), 46271-46274.

INTRODUCTION

The prevalence of gingivitis and periodontal diseases in school children (a period of mixed dentition) has been as high as 90% according to various studies. This has contributed to a significantly high overall dental disease related debilitation. Also, current scientific evidence points towards association of gingival and periodontal diseases and various systemic diseases including diabetes, hypertension and cardiovascular diseases etc. Therefore it is necessary to treat and prevent periodontal diseases to promote over-all health general well being. This high level of disease incidence and prevalence has been attributed to various causes including poor oral hygiene, socio- economic status, low levels of awareness, type time and quality of food intake, genetic predilection, familial and cultural factor amongst other things. The current scenario is complicated by the lack of focussed intervention and education of the general public on the deleterious effects of long standing periodontal disease and its relation to systemic diseases. Therefore it is necessary to provide proper education and support to all with special attention to children who can be

educated and encouraged to practice better oral hygiene and dietary habit thus preventing or at least retarding the progress of disease. With this in mind the Saveetha Dental College Chennai (Saveetha University) in association with the Times Group arranged multi-city school dental camps for screening the general dental status. The finding represented here are reflective of 409 children examined at the SVPSS school in Kandivili West Mumbai in the last week of November 2014.

Aim

To check for Periodontal Treatment needs in school children of suburban Mumbai.

Objective

To evaluate the prevalence Gingival disease in school children in suburban Mumbai.

Reasons

To be able to create a focussed delivery of information and resources to the most susceptible and affected group of children depending on their age group.

\*Corresponding author: Dr. Shyamacharan A Samanth,  
Dr Sheeja S Varghese, Saveetha Dental College, 162 Poonamallee  
High Road, Vellappanchavadi, Chennai 600077, India

## MATERIALS AND METHODS

Periodontal diseases are not limited to adults. On the contrary, periodontal diseases are prevalent among children and adolescents. For example, gingivitis affects more than 70% of children older than seven years of age (Page & Schroeder 1982, Stamm 1986).

## RESULTS

409 children were examined out of which 390 had need for basic Periodontal Therapy and 19 were healthy with no sign of gingivitis or periodontal disease. In terms of oral hygiene maintenance out of 409 - 38 (9.3%) brushed twice daily and 371 (90.7%) brushed once.

Age of patient

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 10.00	3	.7	.7	.7
11.00	10	2.4	2.4	3.2
12.00	57	13.9	13.9	17.1
13.00	106	25.9	25.9	43.0
14.00	110	26.9	26.9	69.9
15.00	88	21.5	21.5	91.4
16.00	29	7.1	7.1	98.5
17.00	5	1.2	1.2	99.8
18.00	1	.2	.2	100.0
Total	409	100.0	100.0	

Sex

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	257	62.8	62.8	62.8
Female	152	37.2	37.2	100.0
Total	409	100.0	100.0	

Gingivitis

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	390	95.4	95.4	95.4
No	19	4.6	4.6	100.0
Total	409	100.0	100.0	

Brushing Frequency

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Once	371	90.7	90.7	90.7
Twice	38	9.3	9.3	100.0
Total	409	93.6	100.0	

Bimstein (1991) stressed the importance of prevention, early diagnosis and early treatment of periodontal diseases in children and adolescents. This study was carried out to check for basic periodontal treatment needs in school children in suburban Mumbai. A general dental examination was done using mouth mirror and probe. 409 students were screened for signs of gingivitis in the age group of 10-18 in a private school in suburban Mumbai.

All the children were otherwise healthy and had no signs of any other disease. Each student was checked for presence of dental caries, gingival inflammation and presence of malocclusion. A report was generated on the dental health requirements of each child and with information on tooth-brushing. The case sheet noted the age, gender, mode and frequency of brushing, presence of gingival and periodontal diseases, presence of dental caries in both primary as well as secondary dentition.

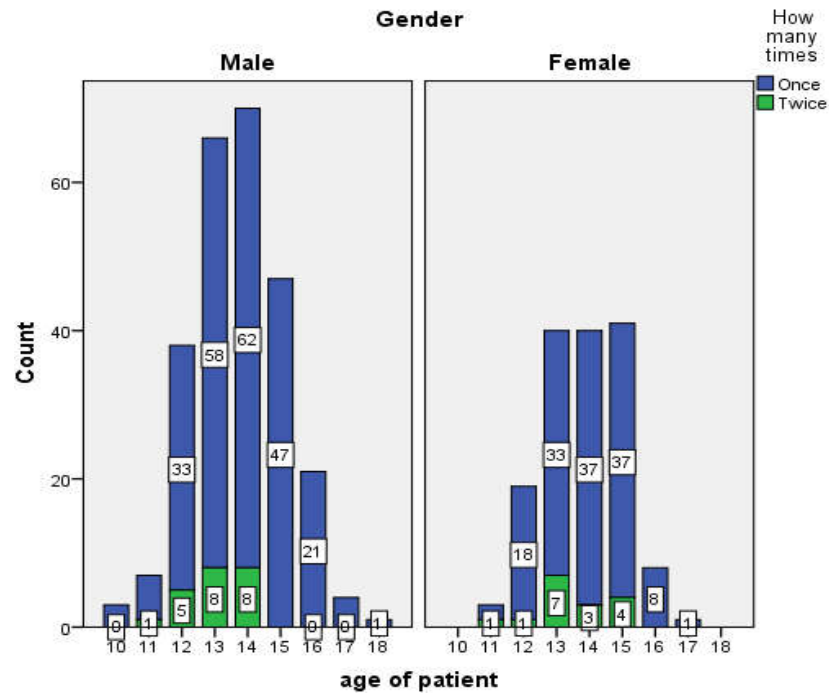
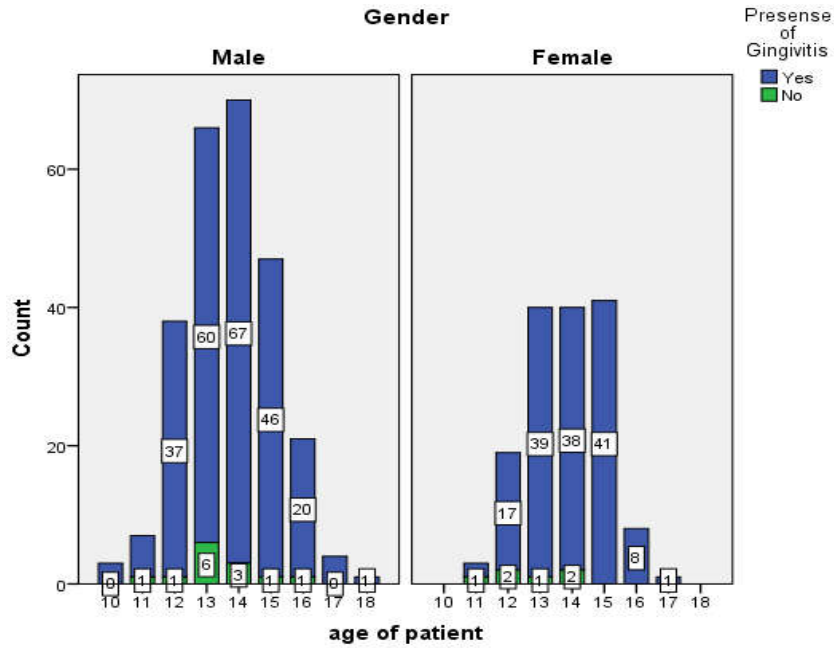
**Study Design:** Cross-sectional study

**Sample Size:** 409 children.

All the children brushed their teeth using toothbrush and toothpaste.

## DISCUSSION

Prevalence of gingival diseases is universal and the factors influencing it include age, gender, race, socio-economic status, level of education, hormonal changes, diet, genetics, systemic diseases and local factors. Since prevalence of gingival disease vary amongst the population treatment needs will also reflect the same. This study has endeavoured in assessing the basic periodontal treatment needs of school children in an urban area. 409 students were examined out of which 390 (95.4%) children between 10 and 18 years of age required periodontal treatment. On the other hand 19 (4.6%) had good oral hygiene. The distribution of treatments need did not follow any pattern and the maximum number of students who did not require basic periodontal treatment were 13 year old males and had better hygiene than females in our study group. In terms of Oral Hygiene Maintenance out of 409 children - 38 (9.3%) brushed twice daily, while 371 (90.7%) brushed once a day.



All children brushed their teeth using a toothbrush and toothpaste. More than 82% of U.S. adolescents have overt gingivitis and signs of gingival bleeding, with similar or higher prevalence of gingivitis being reported for children and adolescents in other parts of the world<sup>1</sup>. The prevalence in Brazil was reported as high as 90% to 100% among children 7-14 years of age. The prevalence and severity of intense gingivitis increased with age in a study from Argentina with a large sample (2,279) of 8-9- and 12-13-year-old children. The prevalence of gingivitis is as high as 68% in a study done in Moradabad.

**Conclusion**

According to this study the prevalence of gingivitis is 95% and therefore it can be considered ubiquitous in school children. The following factor should be considered

- The prevalence of periodontal diseases are high;
- Incipient periodontal diseases in children may develop into advanced periodontal diseases in adults;
- There is association between periodontal and systemic diseases;
- Patients, families, or populations at risk may be identified and included in special prevention or treatment programs; and
- Prevention and treatment of most periodontal diseases are relatively simple and very effective, providing lifetime benefits.

Therefore we need to arrest the disease at the earliest and then encourage frequent recalls for review and maintenance. Also it is important to communicate to the child on how important

oral hygiene maintenance is and about good home care practices to achieve it.

#### **Acknowledgements**

Dr N.D Jayakumar, Staff and non teaching staff of Department of Periodontology Saveetha Dental College.

#### **REFERENCES**

Gingival and Periodontal Diseases in Children and Adolescents. *Vivek Singh Chauhan Journal of Dental & Allied Sciences* 2012;1(1):26-29

Global epidemiology of periodontal diseases: an overview  
Jasim m. Albandar & Thomas e. Rams *Periodontology*  
2000, Vol. 29, 2002, 7–10.

Periodontal diseases in the child and adolescent. Oh T-J, Eber  
R, Wang H-L: *J Clin Periodontol* 2002; 29: 400–410.

\*\*\*\*\*