

**Awareness of Oral Hygiene measures in the population of Bhavnagar District**

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**Conflicts of Interest:** Nil

**Abstract**

**Background:** Periodontitis is one of the most ordinarily discovered oral issues, with its pervasiveness around the world. It regularly prompts poor oral cleanliness in the end causing number of oral issues like halitosis, bleeding gums eventually bringing about tooth misfortune.

**Objective:** The purpose of the study was to determine the oral hygiene status in the population of Bhavnagar .

**Methods:** A cross sectional study was done with total of 468 patients of age group  $\geq 10$  years was examined. The target population constituted randomized sample of population of Bhavnagar. Oral hygiene status was evaluated according to Green and Vermilion Simplified Oral Hygiene Index (OHI-S). Chi square test was done and was calculated by using software sociostatistics which

was found to be statistically significant ( $P$  value =.000764 at  $p < 0.05$ ).

**Results:** Good oral hygiene was maintained by females under age group 10-19 years, fair oral hygiene was observed in males under age 20-29 years and poor oral hygiene was observed in females under age  $> 50$  years.

**Conclusion:** In this study we observed that there was absence of alertness with poor oral hygiene status in the majority of the populace. Ordinary dental registration, oral prophylaxis and instruction about significance of keep up great oral hygiene should be accomplished for changing the current situation.

**Keywords:** OHI-S, Oral hygiene, Periodontitis.

## Introduction

Oral ailments are significant as they can cause tooth misfortune and influence the general wellbeing and prosperity of a person by affecting their eating regimen, discourse and disintegration.<sup>1</sup>

Additionally, oral issues and tooth loss may prompt low positive mental self-esteem, fearlessness and thus, low nature of life.<sup>2</sup> Cavitation has been perceived as the most constant and incessant youth dental issue, numerous kids and grown-ups worldwide have side effects of periodontal diseases.<sup>3</sup> Most of the periodontal ailments can be turned around in the beginning periods; however, on the off chance that they are not treated and progress, they can get difficult, irreversible and their inconveniences as a rule stay for a lifetime.<sup>4</sup> Therefore, gingival and periodontal sicknesses may in the end cause tooth loss.<sup>5</sup> Periodontal disease is an incessant fiery sickness bringing about pulverization of tissues and structures encompassing the teeth. The nearness of analytics demonstrates poor gingival and periodontal status.

Viable plaque expulsion as far as sufficient brushing time, successful brushing system, or the two factors as opposed to recurrence of tooth brushing might be answerable for the reasonable and great oral cleanliness status.

Plaque has been a significant causative factor in the improvement of oral maladies, for example, dental caries and periodontal conditions and the decrease in its amassing advances oral hygiene status. Oral hygiene is viewed as the most significant factor in the anticipation of oral ailments. It was assessed by Green and Vermilion Simplified Oral Hygiene Index (OHI-S).

Present examination was attempted to decide the pervasiveness of periodontal disease in a populace and to additionally describe the degree and seriousness of the ailment.

## Materials & Methods

The study population consisted of 468 randomly selected individuals of varied age groups in Bhavnagar. Detailed demographic data of the all the subjects were recorded and an intensive clinical assessment was performed with the help of diagnostic instruments so as to assess the periodontal status of subjects. The obtained data was recorded in the data structure planned by the WHO standard chart.<sup>6</sup>

Ethical approval was taken from the institutional ethical committee prior to the research. The oral hygiene status was determined via the Simplified Oral Hygiene Index (OHI-S) developed by Greene and Vermillion. It is a simplified index consisting of two components of debris and calculus, each with a possible score ranges of zero to three.<sup>7</sup> The total score was obtained by calculating the sum total of both the individual indices i.e.  $OHI-S = DI-S + CI-S$ , so the possible score ranges from zero to six. The amounts of calculus and debris were determined by examining the facial surfaces of teeth numbers 11, 16, 26 and 31, as well as the lingual surfaces of 36 and 46. OHI-S scores may be interpreted as; good (0–1.2), fair (1.3–3.0) and poor (3.1–6.0). The chi-square statistic is 26.804. The  $p$ -value is .000764. The result is significant at  $p < .05$ .

## Results

A total of 468 participants, 237 males and 231 females of various age groups were included in this cross-sectional study.

This study was performed for the assessment of periodontal health by Oral hygiene status. On comparing the results obtained the interpretation was; Good oral hygiene was maintained by females under age group 10-19 years, fair oral hygiene was observed in males under age 20-29 years and poor oral hygiene was observed in females under age > 50 years (Table1).

Table 1: Depicting the maintenance of Oral Hygiene amongst genders in a population

Age Groups (in Years)	GOOD		FAIR		POOR	
	Male N (%)	Female N (%)	Male N (%)	Female N (%)	Male N (%)	Female N (%)
10-19	15 (71%)	16 (76%)	19(46%)	21 (53%)	7 (44%)	9 (56%)
20-29	23 (55%)	19(45%)	28 (60%)	19 (40%)	30 (48%)	33(52%)
30-39	14(58%)	10(42%)	16(57%)	12(43%)	17 (47%)	19 (52%)
40-49	9 (60%)	6 (40%)	14(48%)	15(54%)	21 (45%)	26 (55%)
>50	5(63%)	3 (38%)	9(47%)	10 (53%)	10 (43%)	13(57%)

**Discussion**

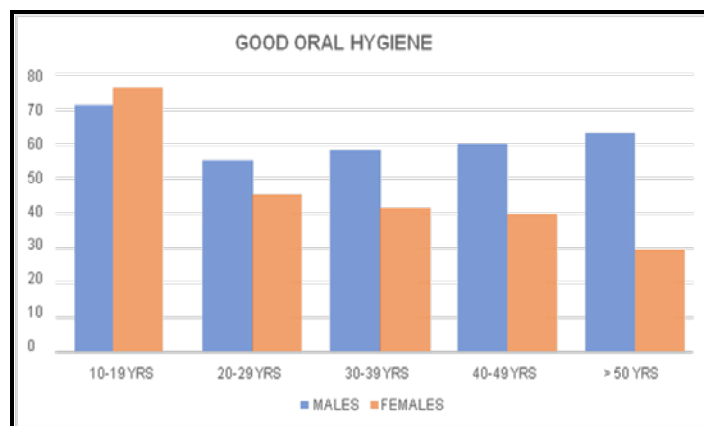
Oral hygiene status might be impacted by an assortment of components including failure to keep up a solid oral cleanliness, desserts utilization and propensities like smoking and so forth, which could make the oral depression an appropriate situation for microbial development, microscopic organisms & plaque, accordingly influencing the oral hygiene status. Plaque is a significant causative factor in the advancement of oral infections, for example, dental caries and periodontal illnesses and its diminished aggregation improves oral wellbeing status of a person. Oral cleanliness is viewed as the most significant factor in the counteraction of oral illnesses and can be handily accomplished by instilling certain propensities like customary brushing and flossing of teeth to expel plaque and tartar from the teeth.

This epidemiological review was directed to evaluate the oral cleanliness status. There is a common connection among ailment and personal satisfaction. Physical scatters

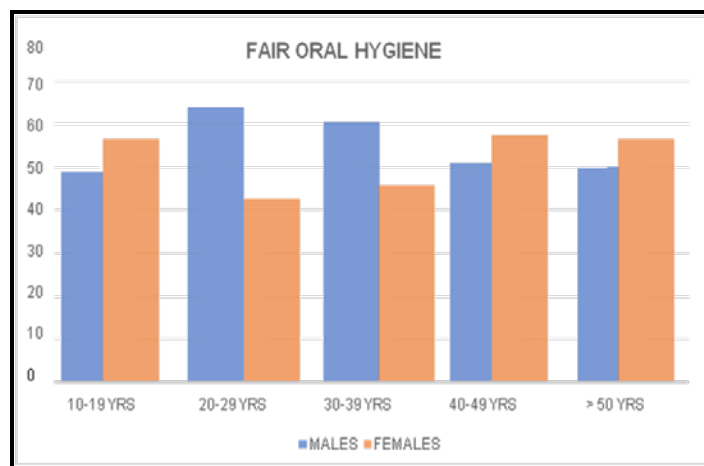
and manifestations legitimately influence all parts of the personal satisfaction including oral wellbeing.

In the study, 237 (51%) of males and 231 (49%) of females were included. It was observed that there was a gender difference in oral cleanliness with females under age 10-19 years exhibiting good (76%) (Graph 1) and poor hygiene status in age > 50 years (57%) (Graph 2) whereas males under the age 30-39 years (57%) were having moderate hygiene status (Graph 3). This was in similar with the study of Popoola et al and Bamgboye O et al.<sup>12,13</sup> However, in line with the study of Ojahanon PI et al where poor oral hygiene was found in males.<sup>14</sup>

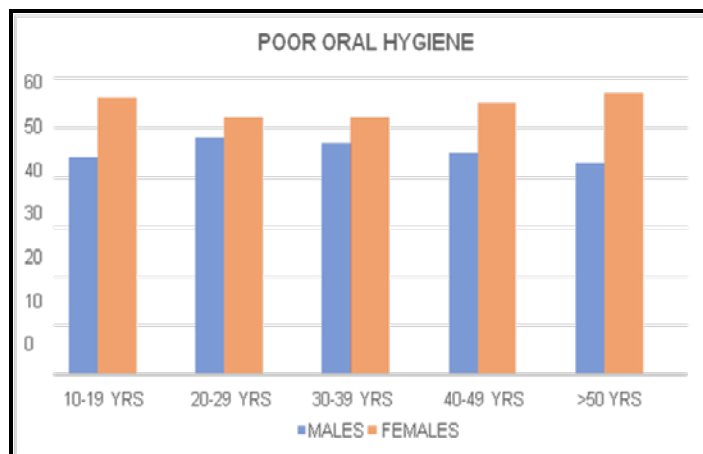
Graph 1: The current graph shown is depicting the good oral hygiene status



Graph 2: The current graph shown is depicting the fair oral hygiene status



Graph 3: The current graph shown is depicting the poor oral hygiene status



The explanations behind this low act of routine dental visits and oral wellbeing usage right now be because of absence of dental consideration information, poor availability to oral medicinal services administrations and significant expense effectiveness of dental administrations.

This is demonstrative of absence of mindfulness with respect to great oral cleanliness and advantages of keeping up the equivalent. Moreover, when the relationship old enough and periodontal ailment was surveyed it was seen that, the seriousness of periodontal illness increments with the progressing age but can be improved and maintained by brushing twice a day for minimum two minutes .<sup>8-11</sup>

### Conclusion

Present investigation furnishes with proof of high predominance of periodontal infection among the populace. This examination likewise discloses the absence of mindfulness for dental wellbeing in the midst of the populace.

After effects of present examination immovably express that the investigation populace requires inspiration for support of oral cleanliness as lion's share of the populace were uninformed towards their oral wellbeing status.

### References

1. World Health Organization. Fact Sheet No. 318, April 2012.
2. Philip B, Chithresan K, Vijayaragavan VS, Maradi A. Prevalence of periodontal diseases among the adult tribal population in Nilgiris – an epidemiological study. *Int J Pub Health Dent.* 2013;4:8–12.
3. Jin L, Lamster I, Greenspan J, Pitts N, Scully C, Warnakulasuriya S. Global burden of oral diseases: emerging concepts, management and interplay with systemic health. *Oral diseases.* 2016; 22(7):609– 6019. <https://doi.org/10.1111/odi.12428> PMID: 26704694
4. Jurgensen N, Petersen P. Promoting oral health of children through schools– Results from a WHO global survey 2012. *Community Dent Health.* 2013; 30(4):204–18. PMID: 24575523.
5. Health NIo. Periodontal (Gum) Disease: Causes, Symptoms, and Treatments. 2008.
6. Organization WH. Oral health surveys: basic methods: World Health Organization; 2013
7. Greene JG, Vermillion JR. The simplified oral hygiene index. *The Journal of the American Dental Association.* 1964; 68(1):7–13
8. Doifode VV , Ambadekar NN, Lanewar AG. Assessment of oral health status and its association with some epidemiological factors in population of Nagpur, India. *Indian J Med Sci.* 2000;54:261–69
9. Singh A, Agarwal V , Tuli A, Khattak BP. Prevalence of chronic periodontitis in Meerut: A crosssectional survey. *J Indian Soc Periodontol.* 2012;16:529–32.
10. Goswami D. Periodontal treatment needs of a rural population of North East India. *The Clarion.* 2014;3(1):8–12.
11. Sekhon TS, Grewal S, Gambhir RS. Periodontal health status and treatment needs of the rural

- population of India: a cross-sectional study. *J Nat Sci Biol Med.* 2015;6(1):111–15
12. Bamgboye O, Akande TM. Oral hygiene status of students in selected secondary schools in Osogbo, Nigeria. *Nig Med Pract* 2007;51:71-
13. Popoola BO, Dosumu EB, Ifesanya JU. Periodontal status and treatment need among adolescents in Ibadan, Southwestern Nigeria. *Braz J Oral Sci* 2015;14:117- 21.
14. Ojahanon PI, Akionbare O, Umoh AO. The oral hygiene status of institution dwelling orphans in Benin City, Nigeria. *Niger J Clin Pract* 2013;16:41-4.