

## Original Research

### Effect of lifestyles on the periodontal health of adults in Silchar, Assam

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#### ABSTRACT:

**Introduction:** Periodontal disease continues to be a significant problem worldwide. It is closely linked to lifestyles and strongly determined by behavioral factors. It is a well-known fact that chronic periodontitis is a multifactorial disorder. **Aim and Objectives:** In the present study an attempt was made to investigate the effect of lifestyle on the periodontal health status of a randomly selected adult population in Silchar, Assam. **Materials and methods:** A study was conducted in a dental clinic in Silchar, Assam, India. A total of 1500 subjects were examined and 800 subjects were randomly selected. Later a questionnaire was used to get information about their lifestyle followed by clinical recordings of inflammation, bleeding on probing, periodontal pockets, and clinical attachment loss. **Results:** The prevalence of CGG was 39.44 % among unhealthy lifestyle adults and 60.56 % in healthy lifestyle adults. Whereas CGP was 79.03 % among unhealthy lifestyle adults and 20.96 % among healthy lifestyle adults ( $P < 0.0001$ ). **Conclusions:** The association of lifestyle with periodontitis supports the concept that behavior should be taken into consideration for the prevention of chronic diseases.

**Key words:** Unhealthy lifestyles, healthy lifestyles, periodontitis, behavior, multifactorial disorder

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#### INTRODUCTION

Worldwide periodontal disease continues to be a significant problem. It is very closely linked to lifestyles and strongly determined by behavioral factors. It is a well-known fact that chronic periodontitis is a multifactorial disorder. The primary aetiology is shown to be poor oral hygiene which leads to the accumulation of dental plaque, but several other lifestyle factors have important role in its pathogenesis. In studies done by Locker et al. and Sakki et al., unhealthy lifestyles are found to be associated with a higher prevalence of periodontitis.<sup>1,2</sup> Healthy lifestyles were related to better immunity with higher natural killer cells activity<sup>3</sup> whereas elevated or suppressed immunoglobulin levels was reported among with unhealthy lifestyle.<sup>4</sup> Hence in the present study an attempt was made to investigate the effect of lifestyle on the periodontal health status of a randomly selected adult population in Silchar, Assam.

#### MATERIALS AND METHODS

A study was conducted in Silchar, Assam, India. A total of 1500 subjects were examined and 800 subjects were

randomly selected. Consent was taken from all the subjects to participate in the study. Later a questionnaire was used to get information about their lifestyle followed by clinical recordings of inflammation, bleeding on probing, periodontal pockets, and clinical attachment loss. The patients were categorized into chronic generalized gingivitis (CGG) and chronic generalized periodontitis (CGP), based on the relevant findings. The study showed that the lifestyle is measured by means of questions about physical activity, dietary habits, tobacco-related habits and alcohol consumption.<sup>3</sup> All data were recorded in an interview. In order to achieve one representative variable which measures a subject's orientation toward health, the four behaviors were combined into one lifestyle variable.

- Physical activity was high if the subject was used to any physical form of exercise. In other cases, it was rated as low (high 1, low -1).
- Dietary habits were based on three factors: how often the subjects ate vegetables, consumed sweets, and used ghee or butter. If the subject

chose the healthiest alternative in all three factors, the habit was rated as positive; if there was one unhealthy alternative as moderate and if more than one then as negative (positive 1, moderate 0, negative -1).

- Tobacco related habits were rated negative if he or she used any form of tobacco regularly or occasionally (positive 1, negative -1) and rated positive if the subject had no habits or quit habit for more than 2 years.
- Alcohol consumption was measured by enquiring about the number of alcoholic beverages consumed in a 1-week period. The results were then used to categorize the subjects into non drinkers, those who consumed less than seven drinks as moderate and those who consumed more than seven drinks as heavy drinkers (non drinkers 1, moderate drinkers 0, and heavy drinkers -1).

Thus the total sum score could range from 4 to -4. The combined lifestyle variable was categorized as “healthy” (2-4) and “unhealthy” (-4 to 1).

**RESULTS**

The results were calculated by using Pearson's chi-square test to calculate the *P*-value. When the association between the lifestyle and periodontal status was compared, the prevalence of CGG was 39.44 % among unhealthy lifestyle adults and 60.56 % in healthy lifestyle adults.(Table 1) Whereas CGP was 79.03 % among unhealthy lifestyle adults and 20.96 % among healthy lifestyle adults(*P* < 0.0001). (Table 2)

**Table 1: lifestyle and periodontal status (CGG)**

Lifestyle	CGG	Percentage
Healthy lifestyle	86	60.56
Unhealthy lifestyle	56	39.44
Total	142	100

**Table 2: lifestyle and periodontal status (CGP)**

Lifestyle	CGP	Percentage
Healthy Lifestyle	138	20.97
Unhealthy lifestyle	520	79.03
Total	658	100

**DISCUSSION**

Studies have shown that people with an active lifestyle had fewer symptoms in teeth and gums than those with inactive ones.<sup>5,6</sup> Life style sheds more light on the personal characteristics of an individual and makes it possible to study behavior in a wider sense. Our results showed a positive association between lifestyle and periodontal status. This is in accordance with Rajala<sup>7</sup> who has shown a positive association between dental health behavior and lifestyle variables. People with an unhealthy lifestyle have a poor periodontal status because of their aberrant brushing habits and detrimental effects of smoking. According to Revicki,<sup>8</sup> smokers generally have a more negative lifestyle. It indicates that association of tobacco with periodontal health was not only linked to poor oral hygiene but also to poor general lifestyle. Studies have shown that females have a more positive dental health behaviour and a better periodontal status compared to males.<sup>9</sup>

The reasons behind this could be social pressure and esthetics on women to look physically attractive thus causing them to lead a healthier lifestyle than men.

**CONCLUSIONS**

The concept of lifestyle affects an overall view of health. The concept that behavior should be taken into consideration for the prevention of chronic diseases, is supported by the association of lifestyle with periodontitis. Public health action on conditions which determine unhealthy lifestyle behaviors across the population is imperative. This is only be possible by the patient’s involvement in self-care by promoting healthy lifestyles.

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