



## A Study On Myths About Periodontal Disease Among General Public

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### Abstract

**Background:** Periodontal health is essential for oral and systemic well-being, yet misconceptions persist among the general public, hindering preventive care and timely treatment. This study aimed to evaluate prevalent myths and misconceptions regarding periodontal disease.

**Methods:** A descriptive cross-sectional survey was conducted between July and September 2025 among 120 adults in Chennai, India. Data was collected using a structured, prevalidated self administered digital questionnaire distributed via the online platform. Responses were analysed for percentage distribution of common misconceptions.

**Results:** Awareness of periodontal health was moderate, yet myths were widespread. Key misconceptions included: receded gums can grow back naturally (66.7%), professional scaling damages enamel (35.8%), chewing hard foods strengthens teeth (37.5%), reliance on traditional remedies as cures (35.8%), and antibiotics replacing mechanical cleaning (30%). Awareness of systemic links, such as diabetes and pregnancy, remained suboptimal (29.2% and 21.7%, respectively). Overall, one third of participants held at least one major misconception.

**Conclusion:** Misconceptions regarding periodontal disease remain prevalent. Targeted educational interventions are essential to correct false beliefs and improve oral health literacy.

**Keywords:** Periodontal Health, Myths, Misconceptions, Oral Hygiene, Public Awareness

## Introduction

Periodontal health refers to the condition in which the supporting structures of the teeth, the gingiva, alveolar bone, and connective tissues remain free from clinically detectable inflammation. Maintaining healthy gums is essential not only for preserving teeth and ensuring proper oral function but also for overall systemic well-being.<sup>1</sup> Healthy periodontal tissues act as a protective barrier against bacterial invasion, thereby preventing the progression of local oral diseases and reducing the risk of associated systemic conditions such as cardiovascular disease, diabetes, respiratory infections, and adverse pregnancy outcomes.<sup>2</sup> Despite the preventable nature of periodontal disease, several misconceptions persist among the general public.<sup>3</sup> Many individuals mistakenly perceive bleeding gums as normal, believe that professional dental cleaning can loosen teeth, or assume that gum disease affects only older adults, neglecting the susceptibility of younger populations.<sup>4</sup> These myths, often perpetuated by misinformation, can cause individuals to underestimate the importance of oral health or ignore early signs of gum disease.<sup>5</sup> These misconceptions hinder timely diagnosis, preventive care, and appropriate management of periodontal conditions. Therefore, understanding and addressing these myths is vital, as doing so enables dental professionals to design effective educational and community outreach programs aimed at correcting false beliefs, promoting oral hygiene awareness, and ultimately improving periodontal health outcomes within the population.<sup>6,7</sup> The primary aim of a study was to identify and analyse the most common myths and misconceptions regarding periodontal disease in the general public.

## Materials and Methods

This descriptive cross sectional study aimed to evaluate the prevailing myths about periodontal disease among the general public. The research was conducted over a three month period, from July to September 2025, encompassing data collection and analysis. Prior to commencement, ethical clearance was obtained from the Institutional Review Board, and the study was carried out under the supervision of the Department of Periodontics at a private dental college in Chennai. Data was gathered using a structured, prevalidated questionnaire that focused on key misconceptions related to periodontal health. A total of 120 individuals from the general public participated in the study, with responses collected through a self administered digital survey disseminated via social media forums. The obtained data were analysed using Microsoft Excel to calculate percentage distributions and tabulate the findings for interpretation.

## Results

A total of 120 respondents participated in the study assessing myths about periodontal disease among the general public. The analysis revealed that while overall awareness of periodontal health was fair, a considerable number of misconceptions persisted across various aspects of gum health, prevention, and treatment. About 20% of respondents believed that bleeding gums while brushing is normal, and 7.5% thought gum disease affects only older people, indicating poor recognition of early signs and risk distribution. Around 14.2% associated bad breath exclusively with stomach problems, while 25% wrongly assumed that professional dental cleaning does not loosen teeth, reflecting scepticism about dental procedures. Similarly, 16.7% believed that using only mouth rinse can permanently cure gum disease, and 29.2% accepted that tooth loss is a natural part of ageing. Myths related to oral hygiene practices were also common. 15.8% thought brushing harder cleans better, 21.7% believed frequent toothpick use prevents gum problems and 37.5% believed chewing hard foods like carrots or bones can clean or strengthen teeth. In addition, 22.5% assumed that gum disease is not serious if painless, and 10% believed smoking does not affect gums if brushing is maintained. Regarding disease causation, 15.8% thought only people with cavities develop gum disease, and 66.7% believed receded gums can grow back naturally, which was identified as the most prevalent misconception. Around 35.8% held the misconception that scaling damages enamel, and 21.7% believed periodontal disease is hereditary and cannot be prevented. Similarly, 35.8% trusted herbal or saltwater remedies as a complete cure, 26.7% thought brushing twice a day is insufficient, and 21.7% believed pregnant women are not at increased risk of gum disease. A further 19.2% failed to recognize the link between periodontal and general health, while 9.2% believed regular dental visits were unnecessary. Myths about systemic and behavioural factors were also evident, with 29.2% unaware of impact of diabetes on gums and 33.3% denying any relationship between stress and periodontal disease. Regarding medication, 30% believed that antibiotics could replace mechanical debridement and 24.2% thought oil pulling can permanently cure gum disease. After this survey, 86.7% were aware of myths and truths about periodontal problems. Overall, approximately one third of participants held at least one major myth, with the most frequent misconceptions centered on gum regrowth, chewing hard foods, the role of scaling, and reliance on traditional or home based remedies.

No.	Myth Statement	% Believing the Myth
1	Bleeding gums while brushing is normal	20%
2	Gum disease affects only older people	7.5%
3	Bad breath is always due to stomach problems	14.2%
4	Professional cleaning does not loosen teeth	25%
5	Mouth rinse can permanently cure gum disease	16.7%
6	Tooth loss is a natural part of ageing	29.2%
7	Brushing harder cleans teeth better	15.8%
8	Chewing hard food cleans/strengthens teeth	37.5%
9	Gum disease is not serious if painless	22.5%
10	Smoking does not affect gums if brushing regularly	10%
11	Only people with cavities get gum disease	15.8%
12	Receded gums can grow back naturally	66.7%
13	Periodontal health doesn't affect general health	19.2%
14	Visiting a dentist regularly is unnecessary	9.2%
15	Scaling damages enamel	35.8%
16	Periodontal disease is hereditary and not preventable	21.7%
17	Herbal or saltwater remedies alone cure gum disease	35.8%
18	Brushing twice a day is insufficient	26.7%
19	Pregnant women are not at increased gum risk	21.7%
20	Diabetes doesn't impact gum disease	29.2%
21	Stress isn't related to gum disease	33.3%
22	Antibiotics can replace scaling completely	30%
23	Oil pulling can cure gum disease permanently	24.2%

No.	Myth Statement	% Believing the Myth
24	Using toothpicks frequently prevents gum disease	21.7%

## Discussion

The findings of the present study on myths about periodontal disease among the general public align closely with observations reported in previous literature, demonstrating that misconceptions regarding the nature, causes, and management of periodontal disease remain widespread across diverse populations. In the current study, 20% of respondents believed that bleeding gums during brushing is normal and does not require treatment—a misconception also emphasized by Lopes et al., who noted that many individuals perceive gingival bleeding as harmless. This persistent belief leads to neglect of early periodontal symptoms, thereby contributing to disease progression.<sup>8</sup> Similarly, the misunderstanding surrounding professional dental treatment was evident in our findings, where 35.8% believed scaling damages enamel and 25% thought that professional cleaning loosens teeth. This mirrors the results of Roopali Sankeshwari et al.<sup>9</sup>, who reported that 79% of participants believed scaling could loosen teeth, and Ravindranath Dhulipalla et al., where over half (52.6%) of medical faculty members shared the same misconception.<sup>10</sup> Such myths, as also discussed by Varela-Centelles et al., contribute to underestimation of professional care and delayed dental visits, thereby aggravating oral health conditions.<sup>11</sup> Our study further revealed that 66.7% of participants believed receded gums could grow back naturally, representing one of the most deeply rooted myths. This is consistent with the conclusions of Divya Khanna et al., who found that myths related to periodontal health showed the highest prevalence (58.5%) compared to other oral health domains.<sup>12</sup> Similarly, Gholami et al. reported that adults often failed to differentiate between the etiology, symptoms, and prevention of dental caries and periodontal disease, underlining the pervasive confusion regarding gum tissue regeneration and disease reversibility.<sup>13</sup> Moreover, 35.8% of respondents in our study believed that herbal or saltwater remedies could cure gum disease, and 24.2% trusted oil pulling as a permanent cure findings that highlight cultural and traditional influences in oral health perceptions. This aligns with Varela-Centelles et al., who observed significant cultural variability in oral health beliefs, underscoring the importance of tailored educational interventions rather than one-size-fits-all approaches.<sup>11</sup> Regarding causative factors, our findings revealed that only 15.8% recognized that individuals without cavities could still have gum disease, while 29.2% believed diabetes does not affect periodontal health and 33.3% denied any connection between stress and gum disease. These results support the observations of Sakthivelu & Yuvaraj, who emphasized that misconceptions about causative factors persist because many people attribute gum disease solely to poor oral hygiene, neglecting the roles of systemic and genetic influences.<sup>14</sup> Additionally, Ravindranath Dhulipalla et al. found that only 31.3% of participants identified plaque as the major cause of periodontal disease, while 56.7% were aware of its systemic implications.<sup>10</sup> This partial understanding mirrors our results, where awareness of systemic links such as diabetes and pregnancy related periodontal risks remained suboptimal (29.2% and 21.7%, respectively).

The pattern of treatment related misconceptions in our study also parallels findings from earlier works. A considerable proportion (30%) believed that antibiotics could replace mechanical cleaning, indicating poor understanding of the biological mechanisms of periodontal therapy. Comparable results were seen in studies by Pralhad S. et al.<sup>15</sup> and Srinidhi S. et al.<sup>16</sup>, which reported high levels of misunderstanding about periodontal treatment efficacy. The persistence of such myths supports Bader et al. highlighted that misinformation and false confidence in self care delay professional treatment-seeking behavior, ultimately leading to advanced disease stages.<sup>17</sup> The silent, painless progression of periodontal disease further contributes to delayed recognition and management, perpetuating misconceptions and poor periodontal health outcomes in the community.

Overall, the findings of our study reinforce the global trend that periodontal myths are not confined to specific demographics but are influenced by education, cultural beliefs, and misinformation. Similar to Ravindran, V. et al., who identified low socioeconomic status as a key determinant of oral health myths, our data suggest that misconceptions are more common among non dental and less medically informed participants.<sup>18</sup> These misconceptions highlight a significant gap in oral health literacy and preventive practices, emphasizing the need for targeted community education, awareness programs, and accessible periodontal care to improve understanding and promote early intervention.

## Conclusion

In conclusion, the present study revealed that misconceptions about periodontal disease remain widespread among the general public, particularly regarding gum bleeding, professional scaling, gum regeneration, and the role of traditional remedies. These findings align with previous research showing persistent myths and poor understanding of periodontal etiology and treatment. Tailored, evidence based communication strategies emphasizing the reversibility of early gum disease, safety of professional scaling, and the importance of systemic health interrelations are crucial to dispel long standing myths and foster better periodontal health literacy among the public.

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