

# Survey Regarding the Evaluation of Awareness Among General Public on Professional Scaling and Its Effect on Gum Disease

Dr.Vijay.V.K<sup>1</sup>, Dr. Deepshika Saravanan<sup>2</sup>, Dr.Maria Subash Aaron M<sup>3</sup>, Dr.Srishilesh kumar.S<sup>4</sup>, Dr. Sujitha. S<sup>5</sup>, Dr.Sriha.S<sup>6</sup>  
*<sup>1,2,3,4,5,6</sup>RVS Dental College and Hospital*

**Abstract BACKGROUND** -Gum disease is really common, and it happens when plaque builds up. Left to get worse, it causes red, swollen gums, gums pulling away from teeth, and eventually, teeth falling out. A thorough cleaning at the dentist (scaling) is a hugely important way to prevent and treat gum disease, getting rid of plaque and tartar and keeping your mouth healthy.

Unfortunately, most people don't know enough about scaling. What's more, lots of people think scaling will make your teeth sensitive, damage the protective coating of your teeth, or even make your teeth wobbly, and so they don't get it done. Also, many only go to the dentist when something hurts instead of trying to avoid problems in the first place.

Because of this, it's important to find out what the public understands, and what they believe, about scaling. Knowing what people don't know or are wrong about will help people plan good programs to teach people about looking after their mouths and encouraging them to get preventative dental work.

**AIM** -To evaluate the level of awareness among the general public regarding professional scaling and its effect on gum disease.

**MATERIALS AND METHODS**- A cross-sectional study involved the general public through questionnaire. The study incorporated individuals from different age groups and educational backgrounds as participants. A well-structured questionnaire consisting of questions related to awareness of professional scaling, knowledge about gum disease, oral hygiene practices, and common myths regarding scaling was distributed.

The questionnaire was conducted online and/or directly after getting consent from the respondents. The information gathered were compiled and analyzed by appropriate statistical methods. Researchers summarized all data using descriptive statistics. The association among awareness with different variables such as age, gender, education and more was established using the Chi-Square test.

**RESULTS** -The present study evaluated the awareness and perception of the general public regarding professional dental scaling and its effect on gum disease. Out of 500 patients who were included in the study who were selected and participants, the 75.2% were aware of scaling, 17.2% were not aware and 7.6% were not sure. The most important information sources were dentists/hygienists and family/friends (32.7% each), followed internet/social media (22.8%) and others (11.8%).

When asked about scaling frequency perception, 38.7% answer is should not be once in a lifetime whereas 40.5% expressed it depends on one's condition. Nevertheless, 19.4% were of the opinion that scaling should be done once, while 0.6% were not sure.

As far as knowledge regarding tartar removal, 52.9% correctly stated that tartar cannot be removed by brushing harder. Nevertheless, 13.8% felt that brushing could remove it and 7.0% thought he needs a special toothpaste. About 26.3% did not know.

Most participants (63.1%) agreed that if gums bleed while brushing, it indicates a gum problem. Nonetheless, 16.8% viewed it as normal, 10.6% believed it was due to hard brushing, and 9.6% responded unsure. Responses regarding perceived effect of scaling on tooth surface were varied with 34.7% reporting it does not cause harm; 33.9% reporting it does cause damage and 31.3% unsure. Likewise, 48.9% reported that scaling does not cause loosening of the tooth, while 20.4% reported that it does and 30.7% were not sure.

The 24.1% respondents believe that scaling will not cause the formation of gaps between teeth. However, more than 25.0% respondents believe that scaling will cause the formation of gaps. Furthermore, 28.9% respondents were not sure if scaling will form gaps between teeth. When asked whether scaling causes permanent gum shrinkage, 52.5% reported 'No', 16.6% replied 'Yes' and 30.9% were 'Don't Know'.

In terms of tooth sensitivity, 39.1% reported scaling does not cause permanent sensitivity, 29.1% believed it does and 31.7% were not sure.

In the end, almost half of the participants (49.5%) reported knowing that gum health could influence the body's diseases 21.6% denied it and 28.9% didn't know. In conclusion, the results suggest that there is moderate awareness, but there are still considerable misconceptions and uncertainties among the population regarding professional dental scaling and its effects on periodontal health.

**CONCLUSION** -The present study revealed that the awareness regarding professional dental scaling among the general population is moderate. However, it is not adequate. While participants were aware of scaling, many had wrong perceptions about scaling and its benefit for teeth and gums. A large number of subjects felt that scaling can damage the teeth structure, cause teeth mobility or create gap, etc., indicating myths. Awareness regarding removal of tartar and bleeding gums was comparatively better but still a large number of subjects remained unaware. A large section of the population had little awareness of the connection between periodontal health and systemic diseases. These findings suggest that poor knowledge and beliefs may have a negative impact on oral health.

The emphasis of study is to increase the education about oral health and awareness programs to correct misbeliefs related to professional scaling. Dental experts are important to make patients aware and use preventive care for periodontitis. The enhancement of public awareness helps in maintaining a proper oral hygiene and better health.

**Keywords** - I scaling, gum disease, oral health awareness, dental prophylaxis, oral hygiene practices, misconceptions on scaling

## I. INTRODUCTION

Oral diseases are significantly a public health problem worldwide as they are very common, and affect the quality of life of an individual. The World Health Organization (WHO), lowering the burden of oral diseases, promotion of oral health gives benefits mainly for the cavity-free children's development and health. Almost all populations of the world experience oral health conditions, most notably – periodontal diseases, dental caries, malocclusion and oral cancer. This is true for India too. According to various studies, around 60-80% of children are diagnosed with dental caries and periodontal diseases are common in adults.

Oral condition from a combination of factors such as heredity, developmental disturbances, poor oral hygiene, and trauma.<sup>1</sup> Oral health is a key part of staying healthy overall. Skip good oral hygiene, and you could end up with pain, lost teeth, trouble chewing, and a lower quality of life. Plus, ongoing issues like gum disease and infections have links to bigger problems such as heart disease, diabetes, breathing troubles, and even complications during pregnancy.<sup>34</sup> That's why sticking to solid daily habits—like brushing right, controlling plaque, and seeing your dentist regularly—is so important for your mouth and your whole body.

Oral hygiene means keeping your mouth clean and free of disease with proper brushing, plaque management, and check-ups. But in India, studies show many folks aren't quite there yet. The National Oral Health Survey by the Indian Dental Association (IDA) found that a huge chunk of people deals with gum disease, yet only a tiny fraction sees the dentist regularly. <sup>1</sup> Things like limited access to care, low awareness, and iffy attitudes toward oral health keep these problems going strong.

Procedures like professional dental scaling are game-changers for keeping your gums healthy. Scaling removes built-up plaque and tartar from your teeth, stopping gingivitis and gum disease before they start. Pair it with good daily habits at home, and it dramatically cuts your risk of gum issues while boosting your overall mouth health. <sup>3</sup> the catch? Lots of people buy into myths—like thinking it weakens teeth, makes them loose, creates gaps, or leaves them super sensitive forever.

In a place as culturally rich as India, old beliefs and home remedies shape how we view dental care. Without solid info, myths spread through word-of-mouth or bad advice, scaring folks away from the dentist and letting oral problems fester. <sup>2</sup>

Your know-how and mindset about oral health drive your habits. Family, friends, social media, TV, and doctors all play a part in what you know. That's why dentists are key in setting the record straight and encouraging smart prevention. <sup>45</sup>

Improving public awareness regarding periodontal health and professional dental procedures is essential for reducing the burden of oral diseases.

Many people still have misconceptions about dental scaling even though there have been numerous health promotions and awareness campaigns aimed at

promoting good oral health. By identifying some of the more common myths about dental scaling as well as understanding the extent to which people are aware of what dental scaling is, we will be in a position to create more effective educational strategies and therefore help improve practices of preventative dental care. Therefore, the present study was conducted to evaluate the awareness among the general public regarding professional dental scaling and its effect on gum disease.

## II. MATERIALS AND METHODS

### STUDY DESIGN AND POPULATION

A descriptive, cross-sectional study was performed on the general population of Avinashi and its surrounding areas in 2016. People aged 18 years and older from varied socioeconomic and educational backgrounds made up the study's sample population. The final number of subjects who participated in this study was 409. Inclusion criteria required each subject to have provided written informed consent and to have completed the questionnaire in its entirety. Only complete/fully completed surveys were included in the analysis.

### SURVEY INSTRUMENT

For this study, data was obtained through a self-administered, structured questionnaire developed from current data in the literature concerning scaling and periodontal disease. The information contained within the questionnaire addressed participants' awareness of professional scaling; knowledge of periodontal disease, their oral hygiene habits, as well as common misconceptions about scaling.

The questionnaire consisted of two sections

Section 1: Demographic Details

Name

Age

Gender

Address

Phone number

Section 2: Awareness and Knowledge Regarding Professional Scaling and Gum Disease

The questions assessed participants' knowledge and perceptions regarding:

1. Awareness of Dental Scaling

2. Source of Information Regarding Dental Scaling
3. Perception Regarding Frequency of Dental Scaling
4. Knowledge Regarding Removal of Tartar
5. Perception of Bleeding Gums During Brushing
6. Perception Regarding Effect of Scaling on Tooth Surface
7. Perception Regarding Tooth Mobility After Scaling
8. Perception Regarding Formation of Gaps After Scaling
9. Perception Regarding Gum Shrinkage After Scaling
10. Perception Regarding Tooth Sensitivity After Scaling
11. Awareness of the Relationship Between Gum Health and Systemic Disease

Participants responded to the questions using options such as Yes/No/Not sure, multiple-choice responses, or equivalent choices provided in both English and Tamil

## III. DATA ANALYSIS

Microsoft Excel was used to compile, code, and enter all of the responses and SPSS is used for analysis. Descriptive statistics are used to determine how many times a particular response is given (frequency) and what percentage of the total responses fall into that category (percentage). For evaluating the distribution of responses across items on the survey, a Chi-square goodness-of-fit analysis will be used. Also, a Chi-square test of association will be used to look for any associations between demographic variables (age and sex) in relation to awareness about dental scaling. A p-value of less than 0.05 was considered statistically significant.

### Awareness of Dental Scaling

Most of the participants (75.2%) stated that they have heard about the procedure of dental scaling. 17.2% of the participants say that they are unaware of dental scaling and 7.6% do not know if they know about dental scaling.

This also shows the evident that even a good percentage of the population has knowledge about dental scaling, a percentage is unaware or unsure of it, implies that more awareness needs to be created regarding oral health among the general public.

#### IV.RESULTS

Participants: total of about 502 users of the general population in the study were included. Males or females, the majority of them in the age range of 17–30 years.

Most of the participants knew about dental scaling, and the first source of knowing was family or friends, and then online media and social media. Most of the participants knew that tartar is not removable with toothbrush, and bleeding gums show a gum disease.

However, there was much uncertainty and misconception around some of the effects of scaling. Tooth damage, sensitivity, spacing and shrinkage of gums were a strong example where people would answer ‘not sure’.”

While a few are aware of the connection between gum health and systemic health, this is not widely appreciated.

Chi-square analysis revealed statistically significant differences in the distribution of responses to each question ( $p < .05$ ).

##### Source of Information Regarding Dental Scaling

Amongst respondents, the source of information about dental scaling most often cited was from dentists/hygienists (32.7%). These were followed equally by family and friends (32.7%). The Internet and social media platforms represented 22.8% of responses and the rest (11.8%) of the information was reported to have come from other sources.

##### Perception Regarding Frequency of Dental Scaling

A large number of participants (38.7%) held a view that scaling should not be done on a once-in-a-lifetime basis. A fairly high number of responders (40.5%) however stated that the frequency of scaling should be determined according to the individual course of condition. Amongst a very small number of participants (19.4%) there was a notion of once-in-a-lifetime scaling. 0.6% of the respondent had no idea. From these results it can be suggested that although a significant number of the population seem to be aware of the recommended interval at which the professional scaling should be undertaken, a large proportion of the study population do not know the correct frequency of scaling.

##### Knowledge Regarding Removal of Tartar

Most of those surveyed (52.9%) knew tartar cannot be removed through a firmer brush. 13.8% were of the opinion that it can be removed through vigorous brushing, 7.0% through a special toothpaste and 26.3% did not know.

These results reflect that despite majority of the subjects possessing correct knowledge, large number of the subjects still had wrong concepts or were uncertain about the correct method of tartar removal, which further emphasizes the point to improve the oral health education.

##### Perception of Bleeding Gums During Brushing

Most of the participants that answered this question were correct (63.1%), reporting that bleeding gums while brushing is a sign of gum disease. Others (16.8%) thought this bleeding to be normal, or due to hard brushing (10.6%), with (9.6%) being unsure.

Hence, these results indicate most of those who participates in this study is having adequate knowledge about bleeding gums, still there is a need to educate more people about periodontal health.

##### Perception Regarding Effect of Scaling on Tooth Surface

The responses on the effect of scaling to the tooth surface were nearly dispersed equally between the participants; 34.7% of participants agreed that scaling dose not damage the tooth surface and 33.9% responded that scaling damage the surface to a certain extent. The remaining 31.3% did not know.

This high level of uncertainty and misconception among those subjects suggest that this may be an area that requires improvement in their general knowledge of the effects of periodontal therapy.

##### Perception Regarding Tooth Mobility After Scaling

About 48.9% of the participants stated that teeth do not become loose after dental scaling. On the other hand, 20.4% thought that scaling causes loose teeth and 30.7% of participants were confused.

These results suggest that despite a relatively high proportion of participants having the right knowledge, there was still a high proportion of participants with confusion or lack of awareness on the issue, thus indicating a further need for patient education.

**Perception Regarding Formation of Gaps After Scaling**

Almost half (46.1%) of the participants did not think scaling causes gaps between teeth. According to other participants, it causes gaps (25.0%) or participants were not sure (28.9%).

These results show that, although a large proportion of the participants answered correctly, there is still a considerable proportion of the group that is not well informed or clear about the effects of scaling with regards to the interdental space.

**Perception Regarding Gum Shrinkage After Scaling**

The majority of subjects (52.5%) answered that scaling does not cause permanent shrinking of the gums. Interestingly, 16.6% of participants thought that scaling causes shrinkage while 30.9% did not know.

Although most of the subjects performed correctly, there was still a lot of people with misconceptions/confusions due to the fact that more than half of the subjects did not understand the true concept of scaling on the developing gingival tissues. Here is your journal-style Results write-up based on the given data:

**Perception Regarding Tooth Sensitivity After Scaling**

An increased percentage of participants (39.1%) believe that scaling does not make teeth more sensitive permanently. However a higher percentage of patients (29.1%) reported that scaling causes permanent sensitivity, while 31.7% of participants were unsure.

While there was a higher percentage of participants who were able to answer correctly, the fact that many patients are still misinformed or uneducated shows that more can be done to better their understanding and awareness of post-scaling sensitivity.

**Awareness of the Relationship Between Gum Health and Systemic Disease**

Almost half the respondents (49.5%) agree that gum condition may be related to systemic diseases. 21.6% of the respondents stated there is no relationship between the two, while the remaining 28.9% did not know.

These results also show that while the amount of participants aware of the association between periodontal and systemic disease is high, there still exists a large portion of the population who do not have the knowledge or are unsure of the knowledge that periodontal disease can have a systemic effect.

1. Awareness of Dental Scaling	Yes: 98.29% No: 1.47% I don't know: 0.24%	p < 0.001
Source of Information Regarding Dental Scaling	Dentist/Hygienist: 32.7% Family/Friends: 32.7% Internet/Socialmedia: 22.8% Others: 11.8%	p < 0.001
Perception Regarding Frequency of Dental Scaling	Yes: 19.4% No: 38.7% Maybe/Depends: 40.5% Not sure: 0.6%	p = 0.002
Knowledge Regarding Removal of Tartar	Yes: 13.8% No: 52.9% Only with special toothpaste: 7.0% Not sure: 26.3%	p < 0.001
Perception of Bleeding Gums During Brushing	Yes (normal): 16.8% No (gum problem): 63.1% Only with hard brushing: 10.6% Not sure: 9.6%	p < 0.001
Perception Regarding Effect of Scaling on Tooth Surface	Yes: 33.9% No: 34.7% Not sure: 31.3%	p = 0.004

Perception Regarding Tooth Mobility After Scaling	Yes: 20.4% No: 48.9% Not sure: 30.7%	p = 0.001
Perception Regarding Formation of Gaps After Scaling	Yes: 25.0% No: 46.1% Not sure: 28.9%	p = 0.006
Perception Regarding Gum Shrinkage After Scaling	Yes: 16.6% No: 52.5% Not sure: 30.9%	p = 0.003
10. Perception Regarding Tooth Sensitivity After Scaling	Yes: 29.1% No: 39.1% Not sure: 31.7%	p = 0.002
Awareness of the Relationship Between Gum Health and Systemic Disease	Yes: 49.5% No: 21.6% Not sure: 28.9%	p < 0.001

#### Awareness of Dental Scaling

The majority of participants reported that they had heard about dental scaling (75.2%), while a smaller proportion were unaware (17.2%) or unsure (7.6%). A statistically significant association was observed ( $p < 0.001$ ), indicating variation in awareness among the study groups.

#### Source of Information Regarding Dental Scaling

Participants reported dentists/hygienists (32.7%) and family/friends (32.7%) as the primary sources of information, followed by internet/social media (22.8%) and other sources (11.8%). A statistically significant association was observed ( $p < 0.001$ ), suggesting differences in sources of information among participants.

#### Perception Regarding Frequency of Dental Scaling

A considerable proportion of participants reported that scaling depends on individual conditions (40.5%), while 38.7% stated it should not be limited to once in a lifetime. However, 19.4% believed it should be done only once. A statistically significant association was observed ( $p = 0.002$ ).

#### Knowledge Regarding Removal of Tartar

More than half of the participants (52.9%) correctly stated that tartar cannot be removed by brushing harder. However, a notable proportion believed otherwise or were unsure. A statistically significant association was observed ( $p < 0.001$ ).

#### Perception of Bleeding Gums During Brushing

The majority of participants (63.1%) correctly identified that bleeding gums indicate a gum problem. Nevertheless, some believed it to be normal or related only to hard brushing. A statistically significant association was observed ( $p < 0.001$ ).

#### Perception Regarding Effect of Scaling on Tooth Surface

Responses were nearly evenly distributed, with 34.7% reporting no damage, 33.9% believing that scaling causes damage, and 31.3% being unsure. A statistically significant association was observed ( $p = 0.004$ ).

#### Perception Regarding Tooth Mobility After Scaling

Nearly half of the participants (48.9%) reported that scaling does not cause tooth mobility, while others either believed it does or were unsure. A statistically significant association was observed ( $p = 0.001$ ).

#### Perception Regarding Formation of Gaps After Scaling

A higher proportion of participants (46.1%) reported that scaling does not create gaps between teeth. However, misconceptions and uncertainty were present. A statistically significant association was observed ( $p = 0.006$ ).

#### Perception Regarding Gum Shrinkage After Scaling

More than half of the participants (52.5%) reported that scaling does not cause permanent gum shrinkage,

while others were either unsure or held misconceptions. A statistically significant association was observed ( $p = 0.003$ ).

**Perception Regarding Tooth Sensitivity After Scaling**  
A greater proportion of participants (39.1%) reported that scaling does not cause permanent sensitivity, while a considerable number believed otherwise or were unsure. A statistically significant association was observed ( $p = 0.002$ ).

**Awareness of the Relationship Between Gum Health and Systemic Disease**

Nearly half of the participants (49.5%) were aware of the association between gum health and systemic diseases, while others either denied or were unsure. A statistically significant association was observed ( $p < 0.001$ ).

Figure 1: Awareness of Dental Scaling

Among the study participants, 75.2% reported yes, 17.2% reported no, and 7.6% reported that they were not sure regarding awareness of dental scaling ( $p < 0.001$ ).

**Count of 1) Have you ever heard of dental scaling ? / நீங்கள் பல் ஸ்கேலிங் (பல் கறை அகற்றுதல்) பற்றி கேள்விப்பட்டீர் இரூக்கிறீர்களா?**

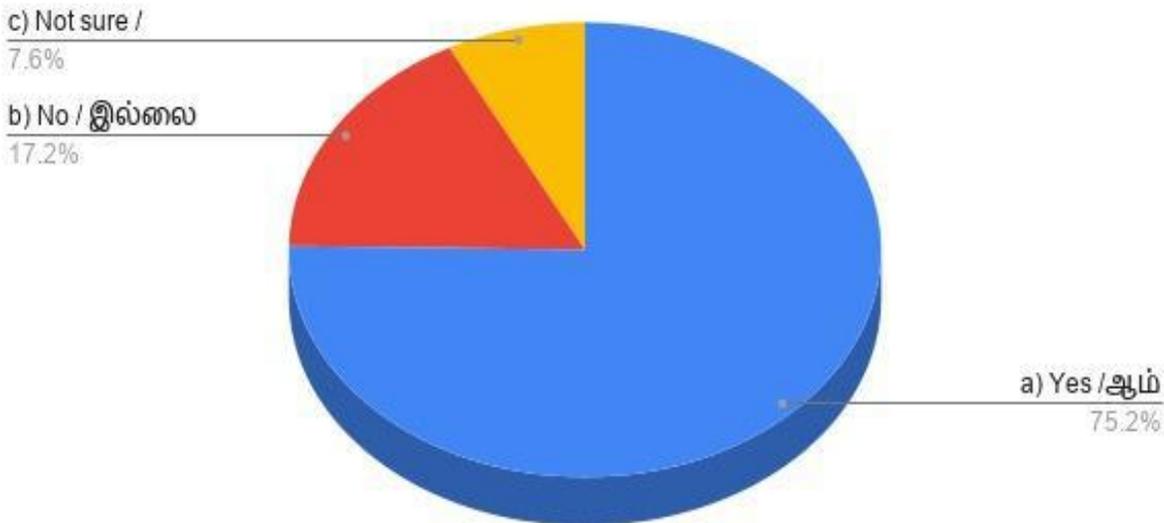


Figure 2: Source of Information Regarding Dental Scaling

Among the study participants, 32.7% reported dentists/hygienists, 32.7% reported family/friends, 22.8% reported internet/social media, and 11.8% reported other sources of information regarding dental scaling ( $p < 0.001$ ).

Count of 2) From where get information about dental scaling ? / பல் ஸ்கேலிங் (பல் கறை அகற்றுதல்) பற்றிய தகவல்களை நீங்கள் எங்கிருந்து தெரிந்து கொண்டீர்கள்?

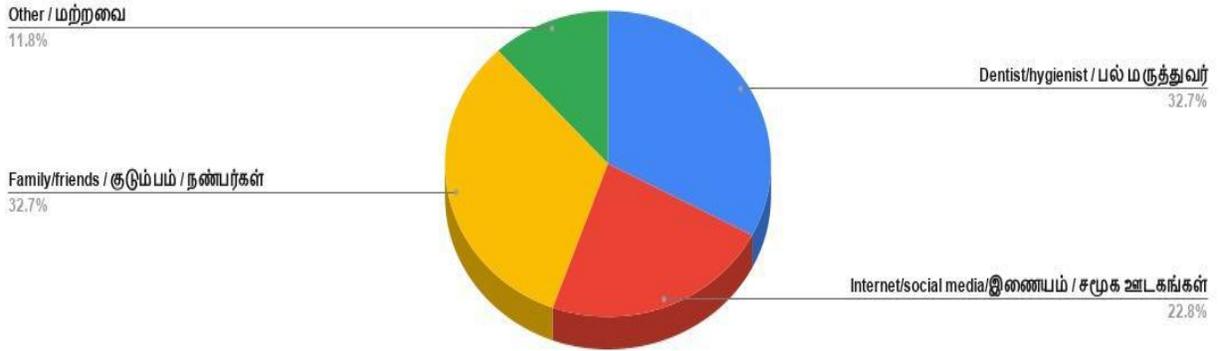


Figure 3: Perception Regarding Frequency of Dental Scaling

Among the study participants, 19.4% reported yes, 38.7% reported no, 40.5% reported maybe/depends, and 0.6% reported that they were not sure regarding whether scaling should be done only once in a lifetime ( $p = 0.002$ ).

Count of 3) Do you believe that scaling should be done only once in a lifetime? / பல் ஸ்கேலிங் (பல் கறை அகற்றுதல்) வாழ்க்கையில் ஒரு முறை மட்டும் செய்தால் போதும் என்று நீங்கள் நம்புகிறீர்களா?

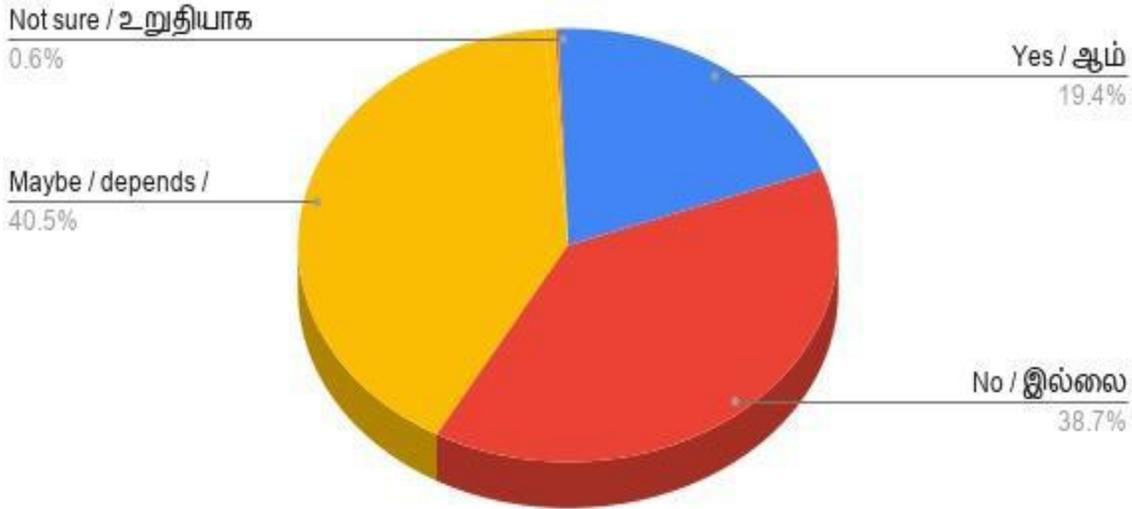


Figure 4: Knowledge Regarding Removal of Tartar

Among the study participants, 13.8% reported yes, 52.9% reported no, 7.0% reported only with special toothpaste, and 26.3% reported that they were not sure regarding removal of tartar by brushing harder ( $p < 0.001$ ).

**Count of 4) Do you think tartar can be removed by brushing harder ? / பல் கறை (டார்டர்) கடினமாக துலக்கினால் நீங்கும் என்று நீங்கள் நினைக்கிறீர்களா?**

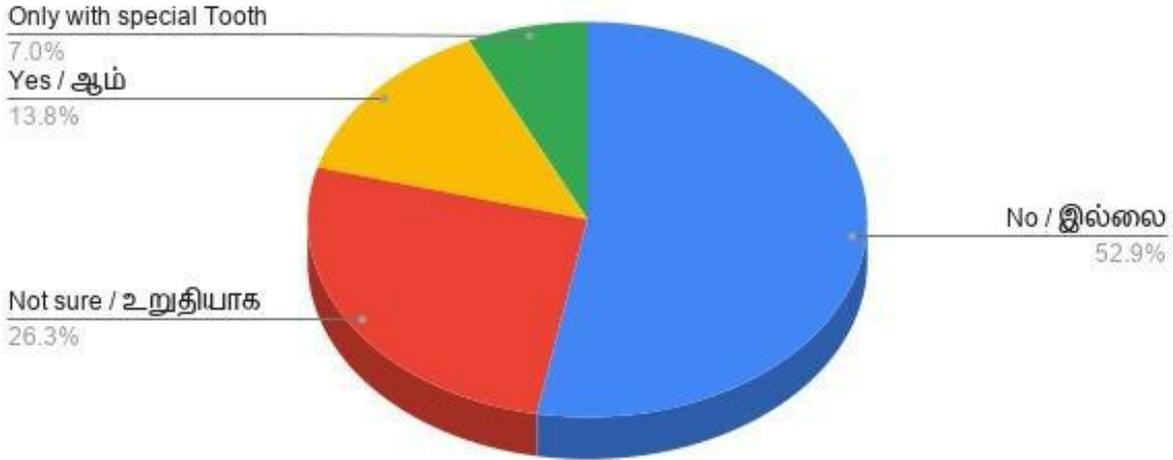


Figure 5: Perception of Bleeding Gums During Brushing

Among the study participants, 16.8% reported yes (normal), 63.1% reported no (indicates gum problem), 10.6% reported only with hard brushing, and 9.6% reported that they were not sure regarding bleeding gums during brushing ( $p < 0.001$ ).

**Count of 5) Do you believe that bleeding from gums during brushing is normal ? / பல் துலக்கும் போது ஈறுகளில் இரத்தப்போக்கு ஏற்படுவது இயல்பானது என்று நீங்கள் நம்புகிறீர்களா?**

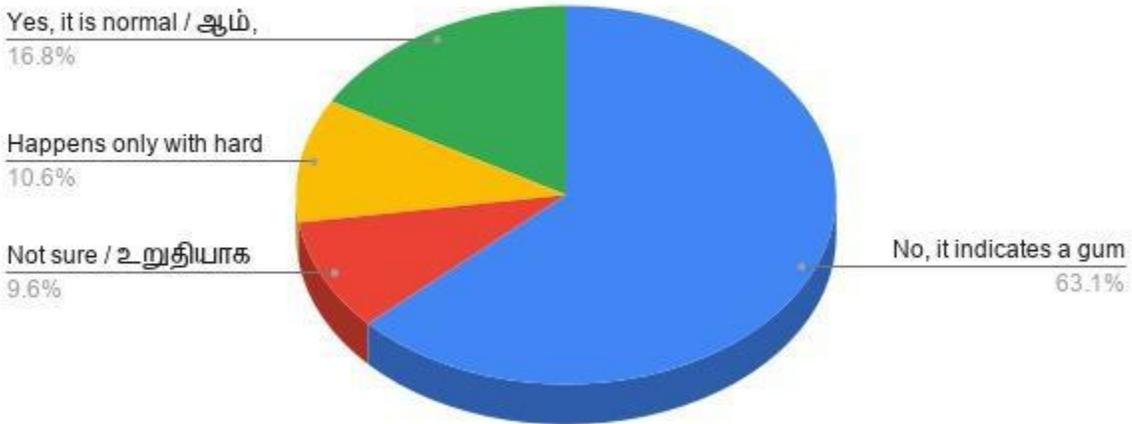


Figure 6: Perception Regarding Effect of Scaling on Tooth Surface

Among the study participants, 33.9% reported yes, 34.7% reported no, and 31.3% reported that they were not sure regarding whether scaling damages the tooth surface ( $p = 0.004$ ).

**Count of 6) Do you think scaling damages the tooth surface ? / பல் ஸ்கேலிங் (பல் கறை அகற்றுதல்) செய்தால் பல் மேற்பரப்பு சேதமடையும் என்று நீங்கள் நினைக்கிறீர்களா ?**

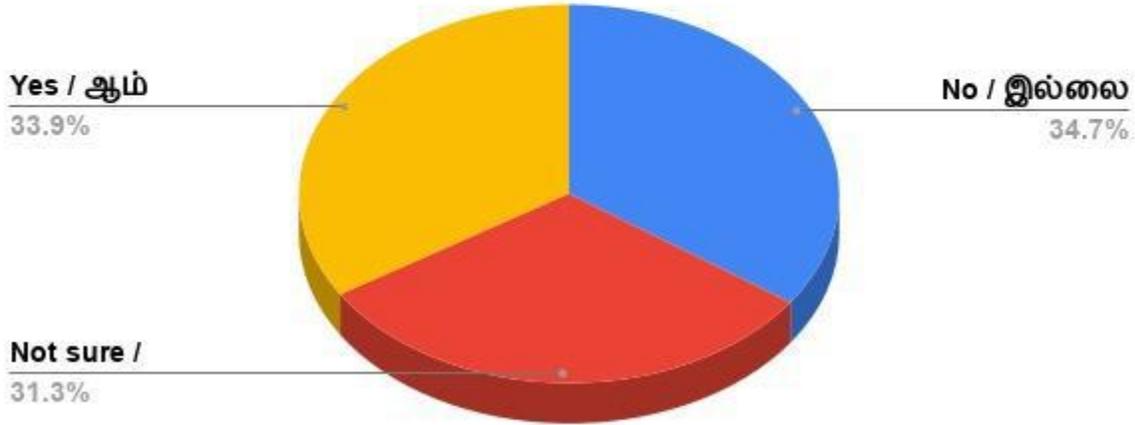


Figure 7: Perception Regarding Tooth Mobility After Scaling

Among the study participants, 20.4% reported yes, 48.9% reported no, and 30.7% reported that they were not sure regarding whether scaling causes tooth mobility ( $p = 0.001$ ).

**Count of 7) Do you believe that dental scaling makes the teeth to become loose? / பல் ஸ்கேலிங் (பல் கறை அகற்றுதல்) செய்தால் பற்கள் தளர்ந்து விடும் என்று நீங்கள் நம்புகிறீர்களா ?**

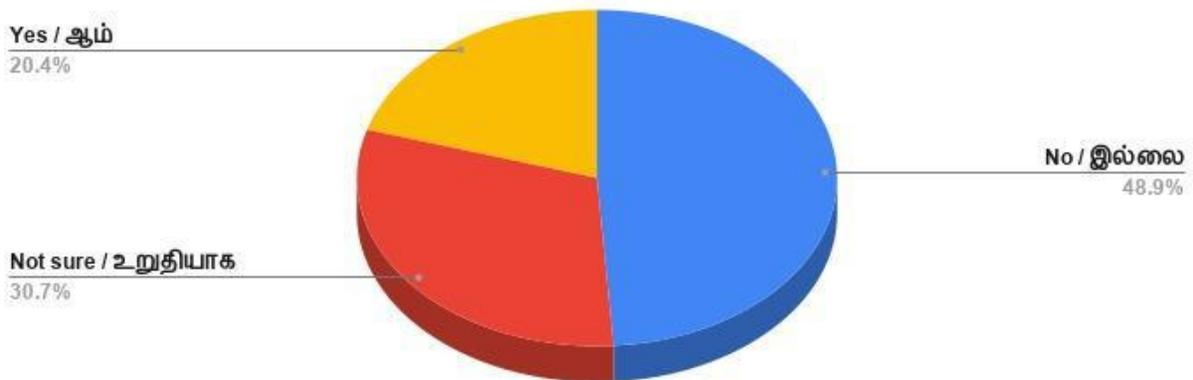


Figure 8: Perception Regarding Formation of Gaps After Scaling

Among the study participants, 25.0% reported yes, 46.1% reported no, and 28.9% reported that they were not sure regarding whether scaling creates gaps between teeth ( $p = 0.006$ ).

Count of 8) Do you believe scaling creates gaps between teeth? / பல் ஸ்கேலிங் (பல் கறை அகற்றுதல்) பற்களுக்கு இடையில் இடைவெளி உருவாகும் என்று நீங்கள் நம்புகிறீர்களா?

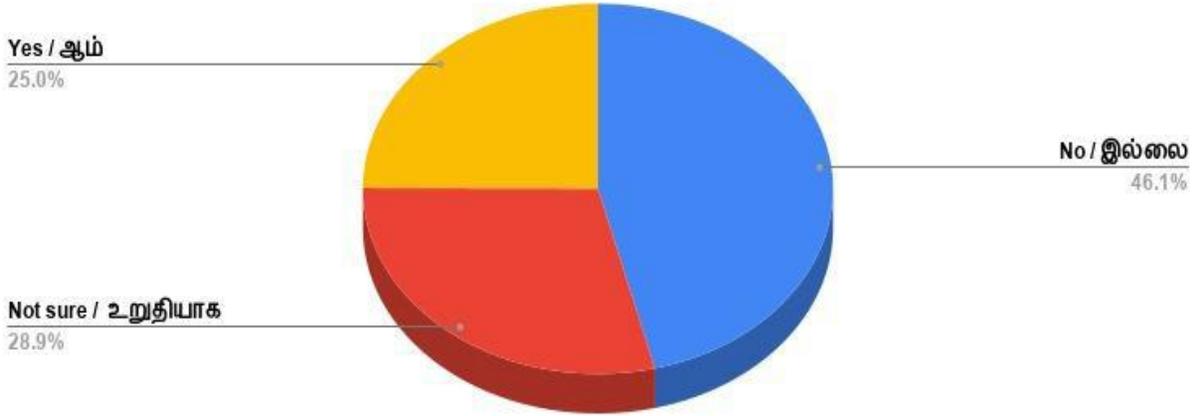


Figure 9: Perception Regarding Gum Shrinkage After Scaling

Among the study participants, 16.6% reported yes, 52.5% reported no, and 30.9% reported that they were not sure regarding whether scaling causes permanent gum shrinkage ( $p = 0.003$ ).

Count of 9) Do you believe scaling shrink the gums permanently? / பல் ஸ்கேலிங் (பல் கறை அகற்றுதல்) செய்தால் ஈறுகள் நிரந்தரமாக சுருங்கிவிடும் என்று நீங்கள் நம்புகிறீர்களா?

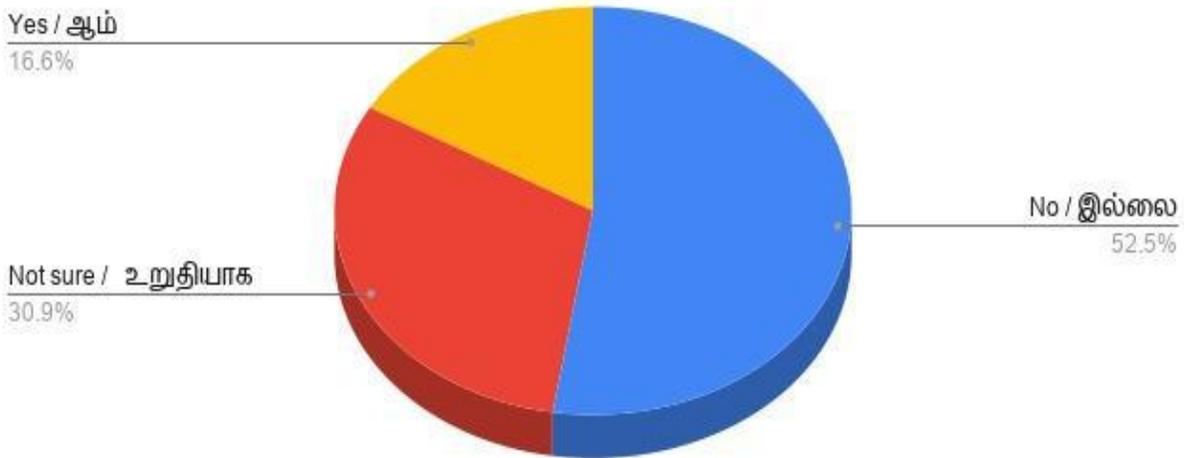


Figure 10: Perception Regarding Tooth Sensitivity After Scaling

Among the study participants, 29.1% reported yes, 39.1% reported no, and 31.7% reported that they were not sure regarding whether scaling increases tooth sensitivity permanently ( $p = 0.002$ ).

Count of 10) Do you think scaling increases sensitivity of teeth permanently? / பல் ஸ்கேலிங் (பல் கறை அகற்றுதல்) செய்வதால் பற்களில் ஏற்படும் கூச்சம் நிரந்தரமாகி விடும் என்று நீங்கள் நினைக்கிறீர்களா?

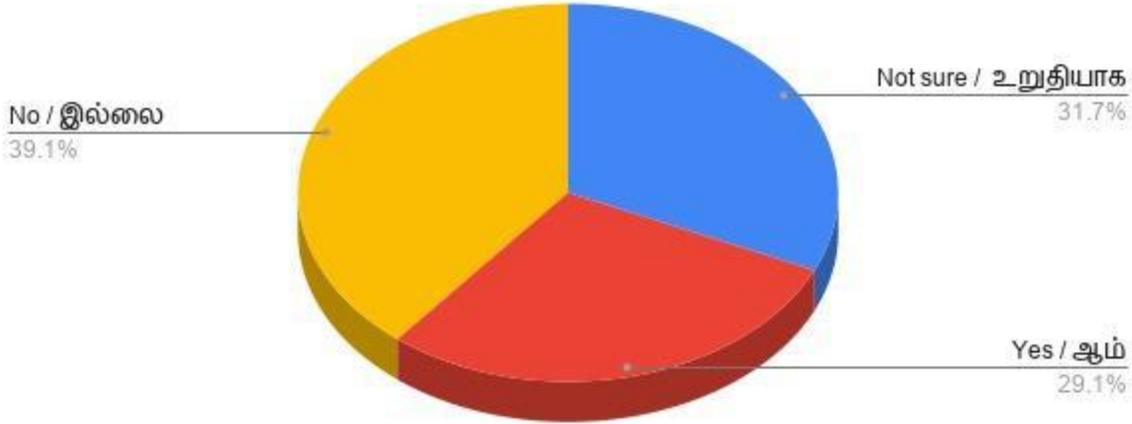
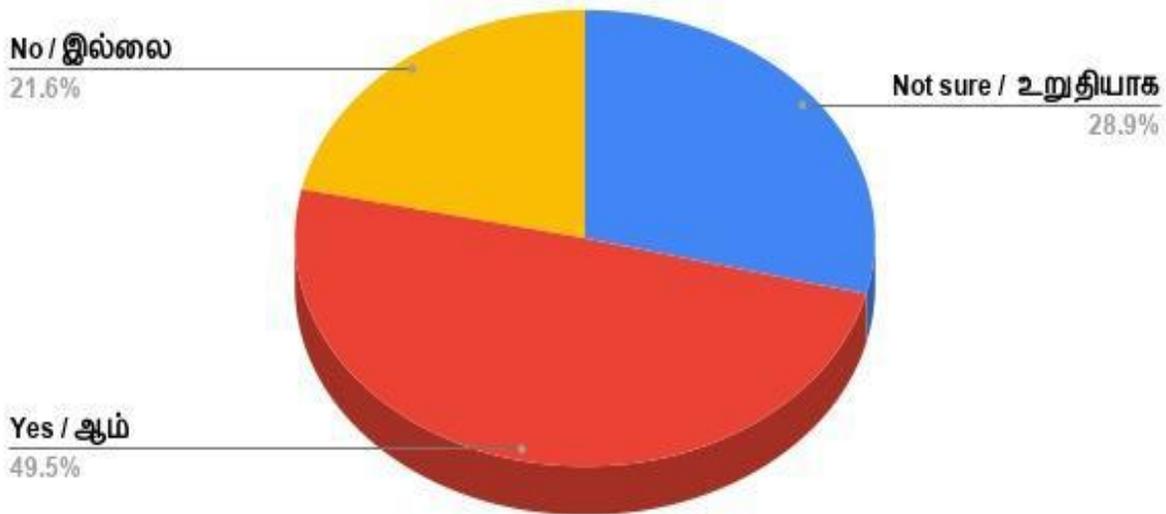


Figure 11: Awareness of the Relationship Between Gum Health and Systemic Disease  
Among the study participants, 49.5% reported yes, 21.6% reported no, and 28.9% reported that they were not sure regarding the influence of gum health on systemic disease ( $p < 0.001$ ).

Count of 11) Do you believe gum health can influence systemic disease? / ஈறு ஆரோக்கியம் உடலின் பிற உறுப்புகளுக்கும் தாக்கம்



## V.DISCUSSION

Oral health is an integral part of general health and quality of life despite this knowledge many have a lack of awareness about the importance of preventive dentistry. Oral health-related quality of life has a complex multifaceted structure and is influenced by Sociocultural, educational and behavioral factors which influence the perception of people toward the practice of oral health.<sup>1</sup> The lack of information on awareness of professional treatments provided by a dentist, especially for scaling in general public in India makes this study highly significant.<sup>2</sup>

The results of this study showed that, while most of the subjects knew about dental scaling, not everyone was fully aware of it. Some of the subjects were found to be unaware or unsure of the procedure, reflecting the superficial knowledge of the procedure and not necessarily correct knowledge about the subject. Similar results were also observed in other studies, as the level of general awareness on preventive behavior was generally only moderate.<sup>1</sup>

Dentists and family or friends/contacts in the community appeared to be the main sources of information for scaling. Although it is appreciated that dentists are often involved as the main source of information, the fact that nonprofessional sources are of similar importance is worrying and suggests that these sources are likely to provide false or minimal information. Similar findings have been published elsewhere which implicate that dental myths are perpetuated in this way.

One of the important findings of present study is inconsistency in the knowledge about the frequency of dental scaling. While some subjects correctly identified that scaling frequency varies depending upon the individual 's oral hygiene status, quite large number considered it as a single time procedure. This points to ignorance regarding the role of periodontal prophylaxis and is consistent with previously reported poor awareness about routine dental checkups and maintenance therapy. <sup>1</sup>Students' knowledge on tartar removal was found to be variable. Although the majority of students knew that tartar cannot be removed by brushing alone, a significant proportion of students were unsure or held misconceptions. This suggests a lack of knowledge regarding the pathogenesis of periodontal disease and the

requirement for professional removal as described by other authors.<sup>1</sup>

A positive finding was that most of the participants appreciated that bleeding gums whilst brushing was a sign of periodontal disease. It is slightly concerning that some still held incorrect beliefs as early signs of clinical periodontal disease may be missed or dismissed. This has implications for clinical practice. One of the striking findings of this investigation was the large number of patients who held misconceptions about the effects of scaling. Many were of the opinion that scaling would remove the structure of their teeth, loosen their teeth, lead to spaces developing between their teeth and permanently harm the gum tissue resulting in persistent shrinkage of tissue and hypersensitivity of teeth. These misconceptions have been extensively reported in the literature and normally arise from periodontal destruction pre-existing scaling becoming apparent due to removal of calculus deposits, rather than as a consequence of the procedure.<sup>1</sup> This belief may prevent patients from attending for professional care.

The study also uncovered a lack of knowledge about the link between periodontal health and systemic illnesses. Even though almost 50% of participants recognized this association, a substantial percentage either were unaware of or did not acknowledge it. This result parallels previous research that demonstrated poor knowledge of the systemic effects of periodontal disease.<sup>1</sup> Considering the well documented reciprocal relation between periodontal disease and systemic pathology such as diabetes and cardiovascular disease, this lack of knowledge is of obvious concern.

Statistically significant links between all variables highlight the influence of demographic or educational background on knowledge and perception. We have previously shown that education level, socioeconomic status, and access to health care information affect oral health awareness and behaviors.<sup>1</sup> This may emphasize the need for population-specific oral health behavior programs.

In general, the findings of this study support the literature that basic knowledge exists in terms of oral health, but this knowledge is often intermingled with misconceptions of dental health care and a lack of information concerning oral health care even for conditions that are preventable.<sup>12</sup> It is because of the prevalence of misconceptions that the implementation

of holistic dental health education strategies is necessary.

From the standpoint of public health, there is a definite requirement to enhance awareness campaigns on professional dental scaling and periodontal health. Dental knowledge can be improved by involving the dental professionals actively in treatment planning through patient education, community-based awareness programs and through the print and electronic media. Knowledge enhancement will definitely result in increased consumption of dental services, and ultimately, better oral and general health.

#### VI.CONCLUSION

The present study highlights that, although awareness of professional dental scaling seems moderate among the general population, there are still misconceptions and gaps in the knowledge. While the majority of the participants were aware of the term ‘scaling’ and agreed to some extent with certain local factors affecting the periodontal health, this was overshadowed by misconceptions on its side effects (e.g. cause damage, cause mobility, cause gum shrinkage, cause sensitivity)

The effectiveness of knowledge regarding the link between periodontal disease and systemic disease was again found to be poor and indicates an area that needs focus. The results also indicate that knowledge base is derived from both dental and non-dental sources that may lead to the dissemination of false information.

Certainly, in the context of oral health education, this study emphasizes the necessity for all encompassing oral health education initiatives in dispelling misconceptions as well as leading people towards well-grounded and research-based knowledge about preventive dental care. Along with providing education for the patients by dental practitioners, health education campaigns at community levels and through use of the mass media can be a cost effective and efficient way of improving knowledge. Improving awareness and correcting misconceptions are vital to encourage preventive practices and prompt utilization of dental services, resulting in better periodontal and general health.

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