



The Periodontal Health Awareness Level of Dental Students At Universitas Sumatera Utara – A Survey

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ARTICLE INFO

Article history:

Received 25 September 2024

Revised 20 March 2025

Accepted 30 March 2025

Available online 31 March 2025

E-ISSN: [2745-536X](https://doi.org/10.32734/ijma.v6i1.18316)

How to cite:

Amalia M, Hannum S, Nasution AH, Syahputra A. (2025). The Periodontal Health Awareness Level of Dental Students At Universitas Sumatera Utara – A Survey, Indonesian Journal of Medical Anthropology. 6(1), 01-11.

ABSTRACT

A crucial and integral component of overall health is oral health. In comparison to professionals who see the dentist more regularly (43%), students visit the dentist for routine dental cleanings just about one-third as often as professionals. Describe periodontal health awareness levels among the Universitas Sumatera Utara dental students. This study uses a descriptive method (survey) using an adapted questionnaire. The sample was taken two times: the first stage (pilot study) required to test the validity and reliability of the questionnaire, and the second stage research on the periodontal health awareness level with 169 respondents. The questionnaire questions were valid and reliable. The results showed that for students who had an awareness of periodontal health levels in maintaining periodontal health, dental and oral health, the good were 97 respondents (57.4%), fairly good were 69 respondents (40.83%), less good was 3 respondents (1.78%). Most respondents of dental students at Universitas Sumatera Utara had a level of awareness of maintaining periodontal health in the good.

Keyword: Awareness, Behavior, Dental Student, Knowledge, Periodontal Health

ABSTRAK

Salah satu komponen penting dan integral dari kesehatan secara keseluruhan adalah kesehatan mulut. Jika dibandingkan dengan yang lebih sering mengunjungi dokter gigi (43%), mahasiswa hanya mengunjungi dokter gigi untuk pembersihan gigi rutin sekitar sepertiga dari frekuensi para profesional. Penelitian ini menggambarkan tingkat kesadaran kesehatan periodontal di kalangan mahasiswa kedokteran gigi di Universitas Sumatera Utara. Studi ini menggunakan metode deskriptif (survei) dengan menggunakan kuesioner yang telah disesuaikan. Sampel diambil dua kali: tahap pertama (studi pendahuluan) diperlukan untuk menguji validitas dan reliabilitas kuesioner, dan tahap kedua adalah penelitian tentang tingkat kesadaran kesehatan periodontal dengan 169 responden. Pertanyaan dalam kuesioner tersebut valid dan dapat diandalkan. Hasil menunjukkan bahwa untuk siswa yang memiliki kesadaran tentang tingkat kesehatan periodontal dalam menjaga kesehatan periodontal, kesehatan gigi, dan kesehatan mulut, yang baik berjumlah 97 responden (57,4%), cukup baik berjumlah 69 responden (40,83%), dan kurang baik berjumlah 3 responden (1,78%). Sebagian besar responden mahasiswa kedokteran gigi di Universitas Sumatera Utara memiliki tingkat kesadaran yang baik dalam menjaga kesehatan periodontal.

Keyword: Kesadaran, Tingkah laku, Mahasiswa, Pengetahuan, Kesehatan periodontal.



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<http://doi.org/10.32734/ijma.v6i1.18316>

1. Introduction

An important and essential aspect of good health in general is oral health. (Dhulipalla et al., 2016). The Survey Kesehatan Rumah Tangga (SKRT) of the Ministry of Health of the Republic of Indonesia showed that toothache complaints were ranked 6th among disease complaints suffered by the Indonesian people, and 42.8% suffered from periodontal. Periodontal disease is the second major problem in Indonesian society. According to RISKESDAS 2018, periodontitis cases in Indonesia are still relatively high at 74.1% (Ministry of Health, 2018). Good oral hygiene is a key reason for maintaining functional, structural, aesthetic, physiological, and psychosocial well-being of individual general health and quality of life (Grönbeck I et al., 2017).

Two types of periodontal disease are commonly encountered, namely gingivitis and periodontitis (Sondang P, 2016). Mild periodontitis is characterized by gingival inflammation (gingivitis) and gingival pockets, which are formed due to the breakdown of the attachment of the gingiva to the tooth roots. In contrast, severe periodontitis is characterized by progressive periodontal ligament and alveolar bone destruction, causing loose teeth (Susilawati, 2015). If the condition persists, the teeth will eventually get loose and need to be extracted (Sondang P, 2016). As a prospective dental and oral health practitioner, habits and attitudes in maintaining oral hygiene do not only affect personal dental and oral health. Still, they can potentially affect the ability to motivate patients to take preventive steps (Astini et al., 2019). The essential factor in maintaining oral hygiene is awareness and behavior because the activities are carried out at home without anyone's supervision, depending on the individual's knowledge, understanding, awareness, and willingness to maintain oral hygiene (Sugiarti, 2017).

Dental students are a noteworthy demographic due to their anticipated possession of advanced knowledge in oral health and their demonstrated adherence to superior oral hygiene practices. Consequently, their influence on the environment, families, and society at large is projected to be substantial (Kalevski et al., 2021). Dentists are essential in diagnosing, preventing, and treating oral diseases and contribute significantly to reducing the burden of oral diseases in the community. A persistent challenge for dental colleges is to produce future dentists with thorough knowledge and skills at par with worldwide excellence and competence (Jouhar et al., 2021; Kassebaum et al., 2004). According to the research conducted by Gharib et al. on dentistry students enrolled at the University of Solomon, it was found that a mere 30% of the participants had prior experience of seeking dental care from a professional dentist (Gharib D S H. Rashed H J H, 2015). Furthermore, it is worth noting that approximately 68% of dentistry students enrolled at the University of Solomon exhibit a tendency to postpone dental visits, opting to seek professional dental care only while experiencing tooth pain.

Based on the aforementioned research, it can be inferred that a subset of students had an understanding of the significance associated with upholding one's health, particularly in relation to periodontal tissue. (Dayakar et al., 2016). The objective of this study was to provide a description of the levels of awareness regarding periodontal health among dentistry students at Universitas Sumatera Utara.

2. Method

The commencement of the research endeavor involves the initial steps of obtaining the necessary research permission and ethical clearance by the Ethics Committee of the Faculty of Medicine, Universitas Sumatera Utara No.739/KEP/USU/2021. This research is a type of descriptive research (survey) using a questionnaire that has been adapted.

The material is adapted from a questionnaire from Mundoor Manjunath (Dayakar et al., 2016). The developers of the survey have granted permission for its usage. The first phase of the current study was modifying the questionnaire to align with the language and culture of Indonesia. The initial stage of the adaption process involved the translation of the questionnaire into Indonesian. This task was carried out by two translators, one of whom was a dentist and the other was not. As a result, two Indonesian questionnaires were produced. The questionnaires were translated into Indonesian and subsequently reverse-translated into English. The reverse translation was carried out by a different individual who was proficient in English and had no prior exposure to the original questionnaire. (Simon Salim, 2015).

Participants were requested to complete the survey. Shortly thereafter, the participants had a conference to document their reflections on the topics posed and assess their responses in accordance with their respective circumstances. The responses obtained from the participants were classified into three categories: responses that were not representative of my true self, responses that somewhat

reflected my true self, and responses that strongly reflected my true self. The questions that failed to achieve a level of comprehension exceeding 85% among the subjects were modified. The research team conducted an audit and verification of the full translation process and reporting, concluding that the research had been conducted in accordance with the appropriate procedures (Berchtold, 2016).

Questions regarding the behavior of maintaining healthy teeth and periodontal tissues consist of 6 questions, while knowledge about periodontal health consists of 8 questions. Based on Notoadmodjo, the categories are divided into three: good > 80%, fairly good 60 - 79%, and less good < 60%. The knowledge about the periodontal health category is divided into 19 - 24 = good, 14 - 18 = fairly good, and 0 - 13 = less good. Then the behavior category for maintaining periodontal tissue health is divided into categories 14 - 18 = good, 10 - 13 = fairly good, and 0 - 9 = less good. The periodontal health awareness level is divided into 33 - 42 = good, 25 - 32 = fairly good, and 0 - 24 = less good, measured based on the behavioral and knowledge scores.

This study has highlighted specific limitations. The research was conducted during a pandemic. The initial phase of the study involved doing research directly on a sample of 10 participants who were affiliated with the Faculty of Dentistry at Universitas Sumatera Utara. The second stage was conducted online on 169 respondents using the Google form. The research sample was taken by purposive sampling according to the criteria: 1. USU dentistry students, 2. Students who were willing to fill out online questionnaires, and 3. Students who had not received lessons on periodontal tissue.

3. Result and Discussion

The findings from the conducted research on the adaption of the questionnaire form the basis of this analysis. The reliability assessment was conducted by administering questionnaires to identical respondents on two separate occasions.

3.1. *Validity and Reliability Test of Periodontal Health Awareness Level Questionnaire of Dental Student at Universitas Sumatera Utara*

During the process of adapting the questionnaire from a foreign language to Indonesian, it is necessary to conduct both a validity test and a reliability test. Validity is a metric that indicates the extent to which a measuring instrument accurately assesses the construct it intends to measure. Reliability is a metric that assesses the degree to which a measuring instrument can be deemed trustworthy or dependable.

Table 1. Reliability Testing on the Indonesian Periodontal Health Awareness Scale in Dental Student Universitas Sumatera Utara.

<i>Chronbach's alpha</i>	<i>N of instrument</i>
0,947	15

Table 2. Validity Testing the Indonesian Periodontal Health Awareness Level in Dental Student Universitas Sumatera Utara.

Instrument	Value of person correlation	Sig.
1.	A	A
2.	0,739	0,015
3.	0,887	0,001
4.	0,739	0,015
5.	0,859	0,001
6.	0,647	0,043
7.	0,681	0,03
8.	0,702	0,024
9.	0,857	0,002
10.	0,829	0,003

Instrument	Value of person correlation	Sig.
11.	0,675	0,032
12.	0,684	0,029
13.	0,725	0,018
14.	0,753	0,012
15.	0,679	0,031

3.2. *Periodontal Health Awareness Level of Dental Student at Universitas Sumatera Utara*

The participants of this study consist of dental students currently enrolled at Universitas Sumatera Utara, an institution that is currently operational. A total of 169 participants completed the questionnaire.

Table 3. Respondent characteristics

Variables	Frequency (n)	Percentage (%)
Age		
18 years	111	66%
19 years	50	30%
20 years	8	4%
Gender		
Male	31	18%
Female	138	82%

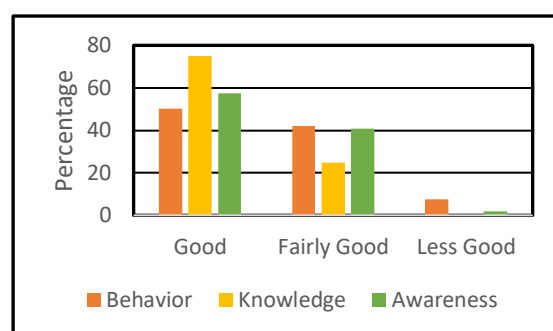


Figure 1. Distributing Behavior, Knowledge, and Level of Awareness of USU Dental Students.

In this study, respondents answered consistently, and it can be said that the questionnaire is reliable. Instrumental reliability tests can be conducted using Cronbach's Alpha for computerized reliability tests.

The questionnaire is reliable; if the Cronbach's Alpha value is more significant than the r table, it can be seen that all questions on the adapted questionnaire are reliable because the Cronbach's Alpha value is $0.947 > r$ table is 0.514 . In Table 1, it can be seen that all questions on the adapted questionnaire are reliable because of the value of Cronbach's Alpha ($0.947 > r$ table with $n = 15$ (0.514)).

The validity test was conducted on the adapted questionnaire, as indicated in Table 2, it shows that almost all questions can be said to be valid with the provisions of the correlation probability value $<$ significant level (0.05) and r count $>$ r table (0.514) except for item 1 which has correlation probability and value unknown significant level.

The test-retest method is a commonly employed evaluation approach for assessing the validity of equipment during the validation process. The test-retest reliability refers to the capacity of an instrument to yield consistent measurements when administered on two separate occasions to the same individual, hence producing comparable scores across distinct time points (Gharib D S H. Rashed H J H, 2015). The research findings indicate that the questionnaire test-retest score was 0.947 , suggesting a high level of dependability. Same with the Pitu study, which surveyed Indonesian Postmenopausal Women, the test-retest value using the interclass correlation coefficient for the questionnaire was 0.89 ,

indicating good reliability (Wulandari, 2018). The utilization of Cronbach α as a means of evaluating reliability in psychometric assessment offers numerous advantages. This approach is widely accepted and frequently employed in the field, thus enjoying a high level of credibility and acceptance (Santos et al., 2016).

Table 3 shows the 169 respondents who returned the filled-in questionnaires, 82% female and 18% male. The majority of participants fell within the age bracket of 18 years (66%). According to the findings of previous research, there is a higher proportion of female compared to male students exhibiting positive conduct and knowledge within the good category. The findings presented here align with the study conducted by Gholami on the adult population in Tehran, which reported that female participants exhibited higher levels of knowledge compared to their male counterparts. This condition is because women have more curiosity and want to find information related to dental and oral hygiene compared to men so they have a concern for improving oral health (Gholami M, 2014). However, it is inversely proportional to the level of awareness of periodontal health, this is due to the number of respondents. women who have bad behavior (9 people) are more than male respondents (4 people) and the number of female respondents is far more than male respondents, so the sum of the behavior and knowledge scores affects the total score of the level of awareness periodontal health.

Table 4. The questionnaire distribution describes the level of periodontal health behavior among dental students at the Universitas Sumatera Utara.

Questions	Respondents answer (n)	Percentage (%)
1. How often do you brush your teeth?		
a. Twice daily regularly	139	82.25
b. Once daily regularly	24	14.20
c. Once daily irregularly	3	1.78
d. Sometimes	3	1.78
2. How often do you replace your toothbrush?		
a. three months	104	61.54
b. six months	47	27.81
c. one year	5	2.96
d. Till bristle gets fray	13	7.69
3. Do you use dental floss?		
a. Yes, I use dental floss	20	11.84
b. Sometimes	77	45.56
c. No, I am not aware of it	72	42.60
4. How often do you use mouthwash?		
a. Never	44	26.03
b. Once a week	33	19.53
c. Once a day	55	32.54
d. As prescribed by the dentist	37	21.90
5. How frequently should you get the scaling of your teeth done in a year?		
a. Once every six months	97	57.40
b. Once every nine months	31	18.34
c. Once in a year	31	18.34
d. Never	10	5.920
6. Which brushing technique is better for good oral health?		
a. Roll stroke	127	75.15
b. Horizontal stroke	17	10.06
c. Vertical stroke	17	10.06
d. Not aware	8	4.730

Table 5. The questionnaire pertaining to the assessment of periodontal health knowledge among dentistry students at the Universitas Sumatera Utara was disseminated.

Questions	Respondents answer (n)	Percentage (%)
7. Has any family member lost more than six teeth at the young age of < 35 years?		
a. No	134	79.29
b. Maybe	16	9.47
c. Yes	18	10.65
d. Not aware	1	0.59
8. What is the most common cause of gum bleeding?		
a. Poor oral hygiene	77	45.56
b. Injury to the gums	54	31.95
c. Vitamin C deficiency	31	18.34
d. Not aware	4	2.37
9. What is the most common cause of bad breath?		
a. Poor oral hygiene	128	75.74
b. Smoking	21	12.43
c. Lung diseased	10	5.92
d. Onion/garlic food product	7	4.14
10. Do you think coffee/ tea causes staining of teeth?		
a. Yes		
b. Maybe	122	72.19
c. No	29	17.16
d. Not aware	12	7.1
	3	1.78
11. What is the most common cause of loose teeth?		
a. Poor oral hygiene	112	66.27
b. Old age	15	8.88
c. Diabetes	23	13.61
d. Accident/Injury	16	9.47
12. Can you treat sensitivity to hot or cold food?		
a. Yes	106	62.72
b. Maybe	49	28.99
c. No	7	4.14
d. Not aware	6	3.55
13. Do you think bad oral hygiene affects your general health?		
a. Yes	129	76.33
b. Maybe	28	16.57
c. No	6	3.55
d. Not aware	3	1.78
14. What is the most common cause of gingival recession?		
a. Improper tooth brushing	122	72.19
b. Diabetes	31	18.34
c. Injury	10	5.92
d. Nail biting habit	3	1.78

The survey revealed that a significant proportion of dentistry students at Universitas Sumatera Utara exhibited behavioral tendencies, accounting for 50.3% of the sample population. In relation to the subject of oral hygiene maintenance, it was observed that brushing was the predominant method employed for cleaning purposes. The study found that 82.25% of respondents reported cleaning their teeth twice daily, however only 61.54% reported changing their toothbrush every three months. The proportion of participants who consistently engaged in twice-daily tooth brushing was found to be lower, resembling the figure of 66% observed among medical students in the Dakshina Kannada District (Dayakar et al., 2016)

In a survey conducted by Al-Shammari, it was found that 62% of Kuwaiti adults had a certain characteristic or behavior (Al-Shammari et al., 2007). The proportion of participants who replaced their toothbrushes within a three-month period exhibited a higher rate compared to the dental student study conducted by Jouhar at King Faisal University, which reported a percentage of 48% (Jouhar et al., 2021). Research has shown that brushing teeth twice a day greatly reduces the occurrence of tooth decay, in comparison to cleaning merely once a day (Chesters RK et al., 1992). Brushing twice daily has also been shown to have similar positive impacts on gingival health (Kolawole KA et al., 2011).

Among the participants who were surveyed, a mere 11.84% of dentistry students demonstrated awareness of dental floss. This research is similar to the Dayakar study in which only 9% of medical students use dental floss (Dayakar et al., 2016). It may be because dental floss is so difficult to use that people still have a negative attitude and don't floss very often. Unfortunately, most people just brush their teeth once a day and never take the time to clean between their teeth (Christina Beatrice., 2023).

Toothbrushing reduces the formation of interdental plaque and stops its progression while improving adult gum health without losing interdental attachment. In addition to brushing, incorporating flossing into one's oral hygiene routine further amplifies the aforementioned advantages (Shamsoddin, 2022). The utilization of dental floss underscores the importance of public education and motivation, particularly with regards to effective oral healthcare practices. The percentage of people who use mouthwash mainly as prescribed by the dentist (21.9%) was aware of bad breath. This result is from the study by Mekhemar of preclinical and clinical dental students in Germany. The percentage of respondent's answer in Mekhemar's research who use mouthwash regularly was 35.71% (Mekhemar et al., 2020). A significant proportion of dental students (57.40%) adhere to a biannual dental visit schedule for teeth cleaning, as observed in previous investigations conducted by Behbehani and Shah (Behbehani & Shah, 2002) but was better than the study by Abied Almahrul (Obied Almahrul & Mohammed Aldakhil, 2018). The respondents brushed their teeth using the roll stroke method (75.15%), in contrast with Zhu's study, where 60% of the sample used the horizontal method (Zhu et al., 2005) and Yao's study, 38.4% of the sample used the vertical method (Yao et al., 2019).

The percentage of respondents aware of aggressive periodontitis (10.65%) slightly differs from Dayakar's study (2%) (Dayakar et al., 2016). A much larger proportion of individuals possess knowledge of the association between inadequate oral hygiene and the occurrence of halitosis (75.74%). Knowing more about dental health does not guarantee better health behavior, but people who are well-informed and have a sense of control over their dental health are more inclined to exercise self-care (Okoroafor C C et al., 2023)

Furthermore, a majority of these individuals demonstrate awareness of the impact of oral hygiene on overall health (76.33%), similar to Ali's (81%) study in Karachi (Ali et al., 2012). Most participants had good knowledge regarding the common cause of gum bleeding. This research is better for the study Gholami shows. Most participants had poor knowledge regarding the etiology of periodontal disease, including the role of dental plaque (Gholami et al., 2014). In contrast with Yao's study, 38.9% of dental students' known cause of bleeding gum is excessive internal heat. The notion of excessive internal heat is a fundamental idea within the framework of traditional Chinese medicine. Individuals who exhibit this condition are deemed to be at a heightened susceptibility to many manifestations, including but not limited to inflammation, sore throat, oral ulceration, and acne (Yao et al., 2019). Although there is an opinion that nutritional status affects the immunological response to bacterial antigens that help repair the periodontal tissue mechanism. The immunological response is, of course, closely related to adequate nutrition (Suryan et al., 2019)

Dental stains can be categorized based on their location as either extrinsic or intrinsic, with each classification corresponding to distinct causes. As the name suggests, extrinsic stains are found on the tooth's outer surface, while intrinsic stain is found within the tooth structure (Dr. R. Jayasrikrupaa, 2020; Sulieman, 2005). Tea, coffee, and other beverages cause brown to black staining (Jayasrikrupaa et al., 2020). Mostly, respondents who know that tea and coffee are one of the causes of staining teeth (72.9%) contrast with Dayakar's study, where only 39% of respondents know that tea and coffee are one of the causes of staining of teeth (Dayakar et al., 2016).

The percentage of participants who know the most common loose teeth is poor oral hygiene (66.27%). Several researchers suggest that there is a connection between poor oral health and tooth lose. This is because

oral health issues and cardiovascular diseases typically have similar risk factors, such as age, low socioeconomic position, and smoking. Therefore, the relationship between poor oral health and tooth loose is considered to be specious. This research is by Moaleem's study in Taiz Governorate, Yemen. The result of Moaleem's study, the causes of tooth loss. The results of this study, the cause of tooth loss were caries (43.1%) and periodontal disease (4.1%) in the age group of 18-24 years which indicated poor oral hygiene (Shaabi et al., 2019).

Most dental students know hypersensitive teeth can be treated (62.72%); this research is by Bhavya's research among dental students at Ramaiah University of Applied Science. Almost all respondents (86%) knew how to treat hypersensitive teeth (Bhavya B., 2018). Existing research has provided evidence suggesting a potential correlation between inadequate oral health and several medical issues, including but not limited to heart disease, stroke, diabetes, pneumonia, and respiratory illnesses (Tuominen R et al., 2003).

Furthermore, there is evidence suggesting a correlation between the occurrence of preterm deliveries and infants with low birth weight. High-risk pregnant women who didn't have periodontal disease had more inflammation of the gums than women whose pregnancies went normally. High-risk pregnant women were defined by obstetric factors like having twins or a history of preterm births (Kurse A B et al., 2017). In 2015, Reza et al. did a study with groups of Iranian women, most of whom did not smoke or drink alcohol. They found that babies born to first-time mothers who had periodontal disease were 2.3 times more likely to be underweight than babies born to mothers who had good periodontal health. However, six times more babies with low birth weight were born to women who had gum disease and had already had children than to women who did not have periodontal disease (Karimi et al., 2015).

Jaw-related issues frequently contribute to the onset of headaches, as well as discomfort in the ears and face (Yap, 2017). Most participants knew well about oral hygiene's effect on general health (76.33%), but Dayakar's study was better than this (80 - 94%). The majority of participants are aware that inadequate teeth brushing practices are the primary contributor to gingival recession, with a prevalence of 72.19%. This finding aligns closely with the outcome reported by Dayakar, who observed a similar prevalence of 72% (Dayakar et al., 2016).

Based on Eman's study on Dental Patients in Saudi Arabia, a considerable number of adult participants demonstrated knowledge regarding the manifestations of periodontal disease, including bleeding gums and gingival recession. Moreover, participants were aware that this condition can lead to persistent pain, remain undetected for an extended period, and ultimately result in tooth loss. The findings indicate a notable percentage of participants who lacked awareness regarding the etiology of periodontal disease, namely the role of plaque. This suggests a potential issue with the overall public knowledge pertaining to the initial stages of periodontitis (Allam E et al., 2020).

The majority of individuals lack knowledge on the correlation between dental hygiene and systemic disease. Therefore, the matter of dental hygiene continues to be predominantly disregarded and subconsciously overlooked within society. Therefore, possessing adequate understanding of preventative oral health and periodontal treatment behavior is crucial in order to sustain optimal dental well-being. As an aspiring professional in the domain of dentistry and oral health, one's conduct and understanding pertaining to oral hygiene possess the capacity to impact both personal dental and oral well-being, as well as the potential to inspire patients to adopt preventive measures.

Based on the findings of Maria K's survey, it can be concluded that an essential factor that significantly impacts social knowledge, attitudes, practices, and behaviors is the level of awareness regarding periodontal health. The study's findings highlight the significant impact of limited knowledge and awareness of oral hygiene among students in professional schools, including those pursuing medical, engineering, and business education (Maria K et al., 2018).

Several studies have shown that the severity of periodontal disease increases in people with diabetes compared to healthy individuals. Some researchers state that a decrease in the immune response affects the severity of periodontal disease in DM patients. In DM patients, increased blood glucose levels (hyperglycemia) cause microvascular complications characterized by increased Advanced Glycation End Products (AGE) in plasma and tissues. Cytokine secretion and synthesis, which is mediated by the presence of periodontal infection, amplifies the magnitude of the cytokine response mediated by AGEs or conversely (Martinon P et al., 2021). According to the survey in Universitas Airlangga, most public health students already have a wealth of knowledge, favorable attitudes, and commendable behaviors concerning DM prevention. The findings indicate that there is a positive association between the knowledge levels of public health students and their likelihood of implementing important DM preventive measures, with a relative risk of 1.114. Additionally, a

positive attitude among public health students is associated with a relative risk of 0.597 for implementing significant DM preventive measures (Nugraheni, N. R et al., 2022).

The behavior variables good, showed 85 respondents (50.3%), fairly good was 71 respondents (42.01%), and less good was 13 respondents (7.69%). Gum disease is often believed to have the potential to emerge despite the use of preventive strategies, such as oral hygiene maintenance and frequent check-ups (Chowdary Ponugubati et al., 2020).

Students with good knowledge in maintaining periodontal health have 127 respondents (75.15%), fairly good 42 respondents (24.85%), and no respondents have less good knowledge. From the sum of the two variables above, the results of dental students' periodontal health awareness levels in maintaining periodontal health are obtained. Students with awareness of periodontal health in maintaining dental and oral health the good are 97 respondents (57.4%), fairly good 69 respondents (40.83%), and 3 respondents (1.78%) can show less good in Figure 1.

The research conducted at King Khalid University examined the impact of oral health awareness on the status of periodontal disease among dental students. The findings revealed a significant association between the students' educational institution and their level of knowledge and awareness regarding periodontal disease. This correlation may be attributed to factors such as the students' personal experiences, attitudes, behaviors, and educational background. Students enrolled in the Engineering and Sciences faculty demonstrated a higher level of knowledge and awareness regarding periodontal disease compared to their counterparts in the Humanities department. Nevertheless, the study did not observe any noteworthy disparities in the educational attainment levels between the first and ultimate stages for all participants (Mohammed M.A et al., 2017).

The current study reveals that the percentage of individuals with awareness of periodontal health stands at 57.50%. This finding is in contrast to the Ponugubati study, which reported a relatively high level of general awareness regarding oral health among medical students. There exists a necessity to enhance the education of health professionals and medical students about oral and periodontal health in order to augment their understanding of these matters, given that they frequently serve as the primary point of contact for patients. The effective management of periodontal disease necessitates a comprehensive comprehension of the underlying causes, clinical manifestations, and therapeutic approaches associated with these pathological diseases. Medical professionals, including dentistry students, have the potential to play a crucial role in the early detection and identification of many disorders (Chowdary Ponugubati et al., 2020).

4. Conclusion

This study's questionnaire on periodontal health awareness levels is reliable and valid. Most dental students at Universitas Sumatera Utara have good periodontal health awareness levels. This research is expected to provide information regarding knowledge and attitude in dental students and can be an evaluation for professionals to improve the provision of health education.

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