

Oral Hygiene Practices and Its Determinants Among Undergraduate's Students of Abubakar Tafawa Balewa University, Bauchi-Nigeria

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ABSTRACT

Background: Oral diseases such as dental caries and periodontal disease remain among the most common chronic conditions worldwide. Good oral hygiene, particularly regular tooth brushing with fluoride toothpaste, is central to their prevention. Undergraduate students represent a population undergoing lifestyle transition, making them an important but under-studied group for oral hygiene research in Nigeria, where most existing evidence focuses on the southwest of the country or on other population groups such as school children and pregnant women.

Objective: This study assessed oral hygiene practice and its determinants among undergraduate students of Abubakar Tafawa Balewa University (ATBU), Bauchi State, Nigeria.

Methods: A descriptive cross-sectional study was conducted among 273 undergraduate students of ATBU. A multistage sampling technique and semi-structured, self-administered online questionnaire was used to collect data. Data were analysed using IBM SPSS version 24.0. The Chi-square test and Fisher's exact test were used to assess association between categorical variables, and logistic regression was used to identify independent predictors of practice. A p-value less than 0.05 was considered statistically significant.

Results: The respondents mean age of 23.6 (SD 3.19) years, and 58.2% were male. Overall, 67.0% of respondents had oral hygiene practice. Practice was significantly associated with faculty ($p=0.001$) and department ($p=0.009$). On logistic regression, none of the variable was statistically significance.

Conclusion: Undergraduate students of ATBU generally have good practice towards oral hygiene. There is need to strengthen oral health education for students in various faculties, and improved access to affordable dental services.

KEYWORDS

Oral hygiene, Practice, Undergraduate students, Bauchi.

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Introduction

Healthy habit and good oral hygiene, including twice daily tooth brushing, are critical in preventing gum diseases and maintaining good oral health [1]. Oral health is an important tool for achieving good general health. Oral diseases and disorder often result in physical discomfort, pain, and sometimes tooth loss. Additionally, they often make it difficult to speak, swallow, and can interfere with sleep and productivity. As a result, oral illness and disorders impact not only the lives of the victims but also social network, the community as a whole and the productivity of the populace at the federal level [2].

The important of maintaining proper oral hygiene has grown over time, and research shows that preventing the two most prevalent dental diseases, periodontal diseases and dental caries, requires plaque and bacteria from the mouth. More than 70% and as low as between 10% and 20% of adults Nigerians suffers from periodontal disease and dental caries respectively and that is closely associated with good oral hygiene. Therefore, to achieve and maintain good oral hygiene, and prevent dental caries and periodontal disease, regular tooth brushing using fluoride containing toothpaste at least twice daily is recommended [3]. The use of dental floss and other oral hygiene aids items for the cleaning of contact surfaces is also important for effective and good oral health [2,3].

Undergraduate students in tertiary institutions represent an important population for oral health research. They are typically young adults undergoing transition in lifestyles, independence and social networks. These transitions often bring changes in diet, sleep, stress level and daily routines, all of which influence oral hygiene behaviours. University campuses are also settings where health education, peer influence and access to services can shape a long-term habit.

Compared to high income countries (7.9% in Italy, 25% in the USA), the prevalence of university students brushing their teeth less than twice a day appears to be higher in low- and middle-income countries (e.g. 52.2% in India, 35% in Lebanon, 32% in Turkey, and 24% not regular in Yemen, 53.6% in Nigeria). In a similar vein, university students in developing nations appears to have a higher prevalence of than an annual dental check-up (84% in Kenya, 92.2% in Nigeria, 70% in Turkey, 2.7% in India and 4.2% in Iran) than in industrialized nations (41% in Finland and 40.1% in Italy) [1,4].

In Nigeria, there is little information on adult oral health service use and hygiene habits. Most research focuses on the southwest or on particular populations, such as schoolchildren and pregnant women. Poor oral hygiene is closely linked to periodontal disease, which affects more than 70% of adult Nigerians, according to research. Despite the low prevalence of dental caries (10%-20%), the majority of cases go untreated. Additionally, studies show irregular tooth brushing, a lack of awareness about oral health, and generally bad oral hygiene practices. Additionally, less than 20% of Nigeria see a dentist on a regular basis.¹ This is probably because

there aren't enough oral health care providers in the country, and their distribution isn't uniform, which restricts access to dental care [1,2].

Various factors have been found to be associated with suboptimal tooth brushing especially among undergraduate students, including socio-demographic like men and lower socioeconomic status, poor oral health attitude, risky addictive behaviours like smoking and using alcohol and cannabis, inactivity, dietary habits like consuming chocolate, candy, or chips frequently, and poor mental health or psychological distress [2]. Research has shown that being a male, having low socioeconomic status, being younger, having poor oral attitudes, engaging in health risk behaviours like smoking, brushing your teeth infrequently, and anticipating unpleasant treatment are all linked to less than annual or no dental visit behavior [1].

There are also differing reports on the possible impact of professional education on sugar consumption in Mongolian, the student's frequency of sugar consumptions remain unchanged despite their professional education. While in Finland, professional education did make a difference in the frequency of sugar consumption by dental students. In Nigeria, studies on the frequency of sugar consumption among senior dental studies was conducted and the finding is that >90% had good knowledge of caries prevention (important of fluoridated toothpaste and limiting sugar), >95 use fluoridated toothpaste, yet about 53.5% reported using sugary snacks between meals daily and only 47.5% brushed twice daily [5].

Oral health is an important aspect of our health yet good oral practices are often underrated and neglected in our society. Oral health has been confirmed to significantly impact the overall health and wellbeing of a person. Oral diseases are part of the list of highly prioritized non-communicable diseases by the world health organization, with a high prevalence rate of about 3.6 billion people being affected by oral health issues. Despite all this, oral health still remains suboptimal in many parts of the world, especially developing countries, Nigeria included. Therefore, it is important that this is taken as a serious public health issue [4].

Dental care, also known as oral hygiene practices, aims to keep the mouth and teeth clean, thereby preventing oral diseases [6]. Basic preventive measures include brushing teeth at least twice a day and flossing to be done daily; Regular visits to the dentist, eating a well-balanced diet, limiting mid-meal snacks; Use of fluoride containing dental products e.g. toothpaste and mouth wash; And at least rinsing the mouth after every meal [7]. Studies have shown that poor oral hygiene such as not brushing, not flossing, or even rinsing thoroughly can lead to tooth decay and gum diseases, thereby causing pain, discomfort, difficulty eating, with more serious systemic manifestations such as infective endocarditis, brain abscess, sepsis, among others. Persistent pain, tooth loss and mouth odour all have social and psychological implications, invariably reducing the quality of life [6].

Despite knowing all these, oral hygiene is yet to gain a stronghold even with young educated adults. Although undergraduate students are expected to be well educated. There's a huge gap between having the knowledge and implementing it. Many of them are used to suboptimal practices and poor health seeking behaviour, particularly those that underestimate its long-term effect. A study conducted showed that undergraduate students in Nigeria face a lot of challenges regarding their oral health due to high consumption of sugary foods and drinks, in addition to poor oral hygiene [6]. A high prevalence of undergraduates with halitosis was recorded, and it was concluded that more than 50% did not have good oral hygiene, which is quite alarming [9].

The determinants of good oral hygiene seem to be multifactorial. However, the core factor largely implicated is the lack of awareness and adequate knowledge of good oral practices. Others include socioeconomic background, cultural beliefs, among others [4]. Studies showed that little knowledge is known about oral health practices and attitudes in developing countries. And although the knowledge-attitude-practice (KAP) isn't sufficient enough to be used as evidence, it did reveal a strong association between oral hygiene and oral issues such as dental caries [7].

Another previously conducted study on national oral health also revealed the prevalence levels of dental caries and dental to be at 30% and >80%, showing a close correlation between oral health and inadequate knowledge/poor economic growth [4]. There's a lack of sound oral hygiene practices such as brushing twice daily, adequate brushing using the up-down and sideways brushing technique and also thorough rinsing of the mouth after each meal [8]. Integrated dental clinics are also not provided in most education institution, where screening and further awareness can be provided [9].

The most commonly used products for oral hygiene are toothpaste and toothbrush. Other oral hygiene products such as dental floss are seldom used except when recommended by a doctor. With toothbrush and toothpaste being widely used by the majority of the population, it is believed that the cost, brand, packaging and previous experiences were some factors that influenced their choices [4]. In rural areas, the use of toothbrushes is grossly limited, and tooth picking is the traditionally used method for dental cleaning. Regular brushing, especially after meals, is also not practiced [7]. Oral hygiene can as well be strongly influenced by people's beliefs, attitude and values. Ignorance regarding oral hygiene and oral disease has been a significant cause for high prevalence of oral issues [8].

Not so many studies have been carried out in Bauchi State regarding oral hygiene in undergraduate students. There's limited and hardly any recent information to highlight the status of oral health practices in this subgroup, making this come across as unimportant. Therefore, this study aims to assess the knowledge, practice and attitude towards oral health hygiene in this subgroup in order to provide adequate and sufficient baseline data on this particular topic.

When people have good oral health, they can eat, talk, smile, and interact with others without feeling uncomfortable, ashamed, or in pain. The ability of a person to adjust to physiological changes throughout their life and take care of their own mouth and teeth on their own is a sign of good oral health. In many low- and middle-income nations, the rising incidence of oral diseases is concerning because it presents wider social, economic, and business difficulties. These illnesses affect public health worldwide. Significant consequences of oral diseases include pain, sepsis, diminished quality of life, missed school days, family dissolution, lower labour productivity, and high dental treatment costs for patients, families, and health systems. Intangible costs (like pain and difficulties with biting, chewing, eating, tasting, speaking, and expressing emotions like smiling, all connected to social and family activities) and indirect costs (like productivity losses from missing work and school) make up their financial burden [10].

Understanding oral health is a necessary prerequisite for healthy behaviour, allowing people to take precautions to protect their overall health. The purpose of this study was to assess oral health knowledge and habits among undergraduates in tertiary institutions of Bauchi State. Oral health is fundamental to overall health and has an impact on everyone's wellbeing and quality of life. It impacts a person's oral functions and social interactions, and it is closely related to overall health and quality of life. Based on a number of primary research evaluating dental health, awareness, and knowledge behaviours among Nigerian schoolchildren, it was found that there is inadequate dental health awareness, practice, and knowledge among students' Nigerian children and teenagers. Considering that every student in this study commonly consumed sugar-rich foods, the pupils' absence of knowledge of the effects of dental cavities and how they are treated are really concerning [11].

Education about risk factors can help prevent many of these oral diseases. In order to maintain good oral health, which in turn affects general health and quality of life, oral hygiene is essential. The removal of dental plaque through routine, appropriate mechanical cleaning of the teeth is the most efficient way to prevent dental caries or periodontitis. This is an important part of maintaining oral health [11].

Numerous studies have demonstrated connections between improved oral hygiene, health-related behaviours, and greater awareness of oral health. From childhood to old age, oral health plays a critical role in general health, wellbeing, and life satisfaction. Unfortunately, it is often dismissed, which accounts for the startlingly high rates of dental illnesses. It is estimated that over 3.5 billion cases of oral illnesses occur globally, most of which can be avoided. At 45%, the combined prevalence of dental caries (tooth decay), periodontal disease, and tooth loss has stayed stable over the last three decades and is higher than the prevalence of any other non-communicable disease [12].

Based on number of primary research evaluating dental health, awareness, and knowledge behaviours among Nigerian school children, it was found that there is inadequate dental health

awareness, practice, and knowledge among students' children and teenagers. Considering that every student in this study commonly consumed sugar-rich foods, the students lack of knowledge about the effects of dental diseases and how they are treated is really concerning. Since Nigeria has not formally implemented school-based dental health promotions, it is evident that the students are not to blame for this. Conversely, in environments where school oral health promotion is formally implemented, higher proportions of students were aware of this cause-and-effect relationship [13].

The study is justified because it will provide institution-specific data on oral hygiene practices and their determinants among undergraduate students. The findings will assist health authorities, university clinics and policymakers in designing targeted oral health promotion programs tailored to the needs of young adults. Ultimately, improving oral hygiene among undergraduates has potential to reduce future oral disease burden, enhance quality of life, and promote long term preventive health behaviour

Methodology

Study area

This study was conducted in Abubakar Tafawa Balewa University, located in Bauchi State, Northeastern part of Nigeria. The state was created 15 years after independence on 3rd February 1976, with a population of about 4,653,066 after the creation of Gombe State in 1996. It has 17 local governments and shares a border with 7 different states, namely Jos, Taraba Gombe, Yobe, Jigawa, Kano and Kaduna. It is also inhabited by various indigenous tribes like Sayawa, Hausa, Fulani, Karai-Karai Jarawa, among others.

ATBU is a University of Technology and the first tertiary institution to be established in Bauchi state in 1980. It was named after the first prime minister of Nigeria, Sir Abubakar Tafawa Balewa. The university has 2 main campuses; yelwa campus and gubi campus. It has 7 core faculties in addition to a college of medical sciences, and has a diverse population of undergraduate students from across all 36 states, a population of approximately 20,000.

Other tertiary universities that were later created include Sa'adu Zungur University in Bauchi LGA, and Federal University of Health Sciences in Azare, Katagum LGA. The university is affiliated with Abubakar Tafawa Balewa University Teaching Hospital (ATBUTH), that has several departments, including a dental and maxillofacial department which serves as a primary referral point for oral health services for both the students and general public [14].

Study Population

This consists of all undergraduate students currently enrolled in ATBU, across various levels and faculties were included and those that are sick or on Industrial training during the period of data collection were excluded.

Study Design

A descriptive cross-sectional study design was used.

Sample Size

The sample size was determined using the Fisher's formula to estimate the sample size for the cross-sectional study, $n = \frac{z^2 pq}{d^2}$.

Where, n = minimum sample size

z= 1.96, at 95% confidence interval

p= Previous prevalence of a similar study was (33%)

q= 1 - p

d= margin of error i.e. 5% or 0.05

Substituting the values, So, $n = \frac{(1.96)^2 \times 0.33 \times 0.48}{(0.05)^2}$

n= 243.4

n≈ 244

To adjust for non-response,

- 10% of 244 ≈ 24.4

Expected non-response= 25

Final sample size = 269

Therefore, a total of 269 students participate in the study.

Sample Technique

Multistage sampling technique was used.

The stages are as follow:

- Stage 1: Selection of Faculties
3 Faculties i.e. 25% of the 10 Faculties in ATBU was selected using simple random sampling by balloting.
- Stage 2: Selection of Departments
25% of the departments was selected from each of the selected faculties using simple sampling by balloting
- Stage 3: Selection of levels
50% of the academic year was selected using simple random sampling by balloting
- Stage 4: Selection of respondents
Using systemic sampling technique

Study Tools

The primary tool used was a semi-structured, self-administered online questionnaire adopted from a similar study. It had the following sections: Section A: Socio-demographic data and Section B: Practice of oral hygiene among ATBU students

Data Collection Technique

Data was collected through an E-Questionnaire. The questionnaire link was sent to various levels class representatives for the participant's, informed consents were obtained digitally before participants can access the questions.

Data Management

The data was compiled and presented as quantitative and categorical variables. Categorical variables were summarized as frequencies and percentages and shown in tables and diagrams while quantitative variables were summarized using the mean, standard deviations, median, and range as needed.

Data Analysis

The data gathered from the questionnaires was entered into a Microsoft Excel Spread Sheet for cleaning. Analysis of the data was done using IBM Statistical Package for Social Sciences (SPSS) version 24.0. The Chi square test was employed to evaluate the association between categorical variables, while the student t test was utilized to test association at the bivariate level. A p value <0.05 was considered to be statistically significant.

Ethical Consideration

Bauchi State Health Research Ethics Committee granted approval (NHREC/TR/BAU-HREC/28/8/2023) for the study. Written informed consent was obtained from each participant before given access to the questionnaire. Also, no names were required in order to strictly maintain anonymity and confidentiality.

Limitations of the Study

The study is restricted to one tertiary institution and may not be true representation of oral hygiene practice of the entire undergraduate students in Bauchi State. There could also be social desirability bias among the respondents.

Results

The 273 questionnaires were administered to the respondents' with response rate of 100%.

Table 1: Socio-demographic Characteristics of the respondents.

Variables	Frequency (n=273)	Percentages (%)
Age Group		
≤18	6	2.2
19-25	212	77.7
26-30	49	17.9
>30	6	2.2
Mean Age (SD)	23.64 (3.19)	
Gender		
Male	159	58.2
Female	114	41.8
Marital Status		
Single	249	91.2
Married	23	8.4
Divorced	1	0.4
Tribe		
Hausa/Fulani	173	63.4
Igbo	10	3.7
Others	58	21.2
Yoruba	32	11.7
Religion		
Islam	203	74.4
Christianity	70	25.6
Faculty		
Environmental	82	30.0
Medical Sciences	95	34.8
Veterinary Medicine	96	35.2
Department		
Environmental management technology	38	13.9
Industrial Design	23	8.4

Variables	Frequency (n=273)	Percentages (%)
Quantity Survey	22	8.1
Med/Surg	28	10.3
Path/Pharm	42	15.4
Human Anatomy	25	9.2
Vet Anatomy	27	9.9
Vet Biochemistry	44	16.1
Vet Physiology	24	8.8
Level		
200	71	26.0
300	102	37.4
400	30	11.0
500	32	11.7
600	38	13.9

Majority of the respondents are within the age bracket of 19-25 (77.7) within a mean and standard deviation of 23.24±3.192) and only 1.5% are above 33years, most of the respondents are male (58.2) and more than half of the respondents were single (91.2). Majority of the respondents are Hausa/Fulani (63.4) and predominantly Muslims (74.4), Also most of the respondents were from Faculty of Veterinary Medicine (35.2) and slightly more respondents were from the department of Veterinary Biochemistry (16.1). Most of the respondents were from 300 level (37.4) and 200 level (26.0).

Levels of Oral Hygiene Practice among the respondents

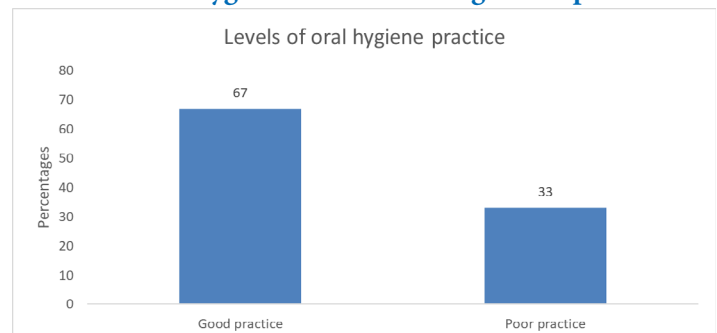


Figure 1: Levels of oral hygiene practice among the respondents.

It shows that 67.0% of the respondents had good oral hygiene practice and 33.0% had poor oral hygiene practice.

Based on the level of significance ($p < 0.005$), There was no statistically significant association between age group and oral hygiene practice ($\chi^2 = 4.394$, $p = 0.222$). Similarly, sex and marital status were not significantly associated with practice of oral hygiene ($\chi^2 = 0.76$, $p = 0.372$) and ($\chi^2 = 6.343$, $p = 0.042$) Tribe also showed no significant association with practice of oral hygiene ($\chi^2 = 0.906$, $p = 0.824$) and religion are not significantly associated with respondents' practice of oral hygiene ($\chi^2 = 1.445$, $p = 0.229$) and also level of studies was not significantly associated with practice of oral hygiene ($\chi^2 = 0.111$, $p = 0.739$). However, there was a statistically significant association between faculty and respondents' practice of oral hygiene ($\chi^2 = 14.506$, $p = 0.001$). Likewise, department was significantly associated with the level of practice oral hygiene ($\chi^2 = 20.289$, $p = 0.009$).

Table 2: Oral hygiene practice among the respondents.

Variable	Frequency	Percentages (%)
I spend at least 2 mins brushing my teeth		
Yes	225	82.1
No	48	17.5
I clean my teeth at least twice daily		
Yes	190	69.3
No	83	30.3
I use a toothbrush and fluoridated toothpaste		
Yes	245	89.4
No	28	10.2
I visit my dentist at least every 6 months for routine dental check-ups		
Yes	86	31.4
No	190	68.6
I always rinse my mouth after meals		
Yes	209	76.3
No	64	23.4
I avoid consuming sugary foods		
Yes	153	55.8
No	120	43.8
I brush my teeth both up and down, and horizontally		
Yes	222	81.0
No	51	18.6
I used a soft bristle toothbrush for cleaning my teeth		
Yes	219	79.9
No	54	19.7
I visit the dental clinic for professional cleaning (scaling and polishing)		
Yes	82	29.9
No	191	69.7
I change my toothbrush atleast every 6 months		
Yes	220	80.3
No	53	19.3

It shows that 67.0% of the respondents had good practices and 33.0% of the respondents had poor practice of oral hygiene.

Table 3: Socio-demographic factors associated with practice of oral hygiene among the respondents.

Variables	Good	Poor	Total	χ^2	p-value
Age-group				4.394	0.222
<18	5	1	6		
19-25	142	70	212		
26-30	31	18	49		
>30	5	1	6		
Sex				0.796	0.372
Female	73	41	114		
Male	110	49	159		
Marital Status				6.343	0.042
Married	11	12	23		
Single	172	77	249		
Divorced	0	1	1		
Tribe				0.906	0.824
Hausa/Fulani	114	59	173		

Variables	Good	Poor	Total	χ^2	p-value
Igbo	8	2	10		
Others	39	19	58		
Yoruba	22	10	32		
Religion				1.445	0.229
Christianity	51	19	70		
Islam	132	71	203		
Faculty				14.506	0.001
Environmental	66	16	82		
Medical Sciences	51	44	95		
Veterinary Medicine	66	30	96		
Department				20.289	0.009
Environmental management technology	28	10	38		
Industrial Design	21	2	23		
Med/Surg	14	14	28		
Path/pharm	25	17	42		
Pre-clinicals	12	13	25		
Quantity Survey	18	4	22		
Vet Anatomy	19	8	27		
Vet Biochemistry	27	17	44		
Vet Physiology	19	5	24		
Level				0.111	0.739
200	51	20	71		
300	71	31	102		
400	17	13	30		
500	25	7	32		
600	19	19	38		

Table 4: Logistic regression showing predictors of practice of oral hygiene.

Variables	Adjusted odd ratio 95% (CI)	p-value
Faculty	1.6 (0.84-28.3)	0.955
Environmental Sciences	1	
Medical Sciences		
Veterinary Medicine		
Departments	2.46 (0.17-52.2)	0.563
Environmental Management Technology	1	
Industrial design		
Med/Surg		
Path/Pharm		
Human Anatomy		
Quantity Survey		
Vet Anatomy		
Vet Biochemistry		
Vet Physiology		

None of variables subjected in the multivariable logistic regression model was statistically significant predictor of good practice ($p > 0.005$).

Discussion

This study set out to determine the oral hygiene practices and their determinants among undergraduate students of Abubakar Tafawa Balewa University (ATBU), Bauchi State, with specific focus on

the students' knowledge, attitude and practice of oral hygiene and the socio-demographic factors linked to these outcomes. The discussion below considers the findings in relation to the study objectives and compares them with a total of 273 undergraduates took part in the study. Most of the respondents were between 19 and 25 years of age, with a mean age of about 23.6 years, and there were slightly more male respondents 58.2% than female 41.8%. The majority were single, of Hausa/Fulani extraction, and practiced Islam, which broadly reflects the demographic composition of ATBU and of tertiary institutions within Bauchi State and the wider North-east region of Nigeria. Respondents were fairly well distributed across the Faculties of Environmental Sciences, Medical Sciences and Veterinary Medicine, which allowed for meaningful comparison of oral hygiene outcomes across different fields of study.

About 67.0% of the respondents were also recorded to have good oral hygiene practice, and only 33% having poor oral hygiene which is fair. Most of the participants were found to have desirable oral hygiene behaviour, such as brushing teeth for at least two minutes 82.1%, brushing with a fluoride-containing toothbrush 89.4%, regular replacement of toothbrushes 80.3%, and proper brushing method 81.0% [15]. Although they showed positive behaviours, 31.4% of the participants visited dental clinics only twice a year for a check-up while only 29.9% of the respondents had ever visited a dental clinic for professional scaling and polishing. These results are similar with the findings of another study in Rivers State, in that the majority of university students never visited a dentist and dental visits usually took place when they had painful symptoms. It can be seen that though oral hygiene habits could be satisfactory, the use of preventive dental care services was very poor. The lack of finances, fear of dental procedures, lack of necessity, and poor awareness of the importance of regular dental visits could be among the reasons for such behaviour. Thus, it can be concluded that preventive dental service use is very low among the participants including those who had good daily oral hygiene practice [16].

After bivariate analysis, only faculty and department were statistically significant among the independent variables. Adjustment for the potential confounders was done through multivariable logistic regression analysis and there was no statistically significant relationship between faculty and department with oral hygiene practice. What this means is that the statistically significant relationships found in the bivariate analysis were probably affected by other variables such as the level of knowledge and attitude towards oral hygiene practice of the respondents. In general, the results obtained in the current study reveal that the oral hygiene status of undergraduate students is satisfactory and favourable when compared to results found in other studies conducted in Ghana and South Africa [17]. Nevertheless, the consistently low utilization of preventive dental services suggests that oral health education programs need not only encourage daily oral hygiene habits but also preventive dental care.

Conclusion

This study shows that majority of the undergraduate student of ATBU have good oral hygiene practices. Faculty and department were found to be significantly associated with practice. However, following logistic regression analysis, none of the socio-demographic variables were found to be independent predictors of practice of oral hygiene. There is need to further strengthen oral hygiene education for the students across various faculties and also improve access to affordable dental service.

Recommendations

The following recommendations were made based on the findings from this study:

1. **Promotion of Oral Health Education**
Oral health education should be included in orientation and other programs at universities so, students can acquire correct and adequate practices.
2. **Provision of Affordable Services to Encourage Preventive Dental Care:**
Based on the results from the study, utilization of preventive oral care is quite low among our target population. Financial constraint has been a major reason why most of the student are discouraged accessing dental services. The university management should liaise with relevant stakeholders to make the services more affordable and accessible for the students.

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