

**KNOWLEDGE AND PRACTICES OF ORAL HYGIENE AMONG  
UNDERGRADUATES IN THE UNIVERSITY OF BENIN**

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**FEBRUARY, 2025**

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**A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF  
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## CERTIFICATION

We, the undersign certified that this project work was carried out by **OSAYOGIE, Ehimwenma** with matriculation number EDU2102617 as partial fulfillment of the requirement of the award of Bachelor of Science BSc Ed Health Education University of Benin.

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**DATE**

## **DEDICATION**

I dedicate this work to God almighty who has been my source of strength and wisdom through whose grace and favour I have been able to run my course and scale through the hurdles of my academic pursuit. I also dedicate this work to my entire family for the love, support and care they have shown to me.

## ACKNOWLEDGEMENT

My most profound gratitude is to the Almighty God for seeing me through the time it took to complete this work, without whom it wouldn't have been possible. I would also like to express my deepest gratitude to everyone who has supported me throughout this journey. To my parents, Mr. Osasere Osayogie and Mrs. Esther Osayogie, who have never failed to support me financially, morally, and spiritually: I love you both, and I'm forever grateful to have you as my parents. To my siblings, I'm grateful for your love, support, encouragement, and prayers. I love you all.

To my project supervisor, Mrs. T.A Egbon, I sincerely appreciate her immense guidance, supervision, patience, and professional advice throughout this study. I wish to also acknowledge the HOD, Dr. O. H. Obasuyi, and all the lecturers of the Department of Health Safety and Environmental Education, Faculty of Education, University of Benin, for providing an enabling and peaceful environment that encouraged me to reach the final stage of my undergraduate study. I also wish to appreciate my friends Osato, Adesuwa, Isabella, Rona, Favour who all contributed to making my degree a success. Lastly, to my wonderful colleagues, I'm glad to have shared my experience as an undergraduate with you all, and I wish you all the best in life. Thank you once again to everyone mentioned and God bless you all.

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## ABSTRACT

*This study was embarked upon to to examine the knowledge and practice of oral hygiene among undergraduates in the University of Benin. Four research questions were raised to guide this study.*

*The descriptive research design was used for this study and the population consisted of 47,468 students as of the 2023/2024 academic session (Student Affairs Division, 2024). A total of two hundred and ninety-nine (299) undergraduate students were selected. The instrument used for data collection was a well-structured questionnaire. The questionnaire was validated by the project supervisor and two other lecturers in the Department of Health, Safety and Environmental Education. The test-retest reliability was used to establish the reliability of the questionnaire. A total of two hundred and ninety-nine (299) questionnaires were administered to the sample respondents and data collected was analyzed using frequency count and percentage.*

*Based on the data collected and analyzed, it was discovered that the respondents have a high of knowledge about oral hygiene, also the respondents have a high level of knowledge about the importance of oral hygiene. However, the respondents have bad attitudes towards oral hygiene and the respondents have poor oral hygiene practices. It was concluded that undergraduates' oral hygiene practices are greatly influenced by their knowledge and that ongoing efforts in education, awareness campaigns, and dental service accessibility are necessary to ensure that students not only maintain optimal oral health throughout their academic careers but also form lifelong habits that enhance their overall quality of life. It was recommended that the University should collaborate with health organizations and dental professionals to organize regular oral health seminars, workshops, and campaigns to improve students' knowledge of proper oral hygiene practices, oral health education can be incorporated into general health courses for undergraduates to provide them with foundational knowledge on the importance of oral hygiene and preventive care, focused health education initiatives to close the knowledge-practice gap and encourage students to adopt healthier oral hygiene practices should be provided, the University Health Center should offer affordable and accessible dental care services, including routine check-ups, professional cleaning, and consultations to encourage students to seek preventive care regularly and campaigns using posters, flyers, social media platforms, and other communication channels should be conducted to inform students about the long-term consequences of neglecting oral health, such as gum disease, tooth decay, and systemic health issues.*

# CHAPTER ONE

## INTRODUCTION

### **Background to the Study**

Hygiene is an important component of daily living, that is essential for preserving health, preventing disease, and fostering general well-being. It includes a variety of behaviors and practices intended to maintain cleanliness in the body and surroundings, thereby limiting the spread of dangerous bacteria, viruses, and other pathogens. Maintaining good hygiene prevents the spread of infectious diseases, which benefits community health in addition to individual health. Personal hygiene, at its most fundamental, is the practice of regular grooming, oral care, handwashing, and bathing. By removing sweat, dirt, and germs from the body, these practices not only help people stay healthy but also foster social acceptance by keeping one's appearance tidy and minimizing offensive odors. For instance, washing your hands with soap and water eliminates germs that are frequently spread by touch, making it one of the best ways to stop the spread of illness.

Hygiene is a science concerned with the investigations of environmental factors that affect human health (Jacob, 2017). It studies how the human body responds to them. Oral hygiene is the science and practice of the recognition, treatment, and prevention of oral diseases. Good oral hygiene is the foundation for a healthy mouth and prevents 80% of all dental problems. Oral health (OH) is an important component of overall human health and is inextricably linked with physical, social and mental health, and quality of life. In children, poor oral hygiene and untreated oral disease have a devastating impact on individual growth and development. When it comes to preventing periodontal diseases and dental caries,

following the guidelines for good oral hygiene is crucial. Sadly, very little in our society is done to practice good oral hygiene.

According to the World Health Organization (WHO 2019), poor oral health can have a negative effect on the well-being of individuals as well as their day to day living. This is because, oral health problems reduce people's ability to smile, eat, and talk, and have a detrimental effect upon their social and mental health. Because of the rising rates of tobacco use, unhealthy eating habits, and poor oral hygiene maintenance, it is crucial to educate people about dental diseases, their effects on overall health, and the need to protect oral health and hygiene. Oral health is defined as a state of being free from chronic oral-facial pain, oral and throat cancers, oral infections, periodontal (gum) disease, tooth decay, and tooth loss (World Health Organization, 2007). This emphasizes the importance of being free from diseases and conditions affecting the oral cavity and the ability to enjoy good oral hygiene as a part of overall health. According to Glick (2012), oral health is not just the absence of disease, but includes functional and aesthetic aspects of oral structures. Also, Mishra (2015) posits oral health as a fundamental aspect of overall health and well-being, impacting quality of life and psychosocial functioning.

Neglecting oral health can result in pain and suffering, which can lower a student's quality of life and reduce their academic productivity. Despite notable advancements in oral health metrics among populations, the World Health Organization (WHO, 2018) reports that oral health issues remain poorly managed worldwide. For instance, it is estimated that over 480 million people in Africa suffer from oral illnesses like dental caries, periodontal disease, and tooth loss, even though the majority of these conditions are preventable. The rapid onset of oral diseases after lifestyle modifications, such as eating a diet high in sugar, not fluoridating the water,

and other socio-environmental factors, may be connected to this state of oral health. Due to the high incidence and prevalence of oral diseases worldwide, oral health is a serious public health concern, necessitating education, awareness, and appropriate practice. For example, the expense of treating oral diseases places a significant financial strain on families and healthcare systems; of particular concern is their increasing prevalence in many low- and middle-income countries (LMICs), which is linked to broader changes in the commercial, social, and economic spheres. Global efforts to enhance people's health are still largely ignored as a top priority (Soni et al., 2014). Even though the connection between oral health and general health is becoming more widely acknowledged, the prevalence and societal impact of oral disorders continue to be a public health concern (Aggnur et al., 2014).

Oral tissues are prone to disease due to continuous exposure to external factors, including mechanical, chemical, and bacterial interactions (Singh et al., 2012). Oral health educators strive to give helpful information about enhancing people's oral health because "knowledge is the precursor to action and behavior change" (Udoye & Aguwa, 2009). In order to raise students' awareness, comprehension, and practice of proper oral hygiene, the World Health Organization (WHO) advises promoting oral health in schools starting in early childhood (Petersen, 2013). Only by altering one's negative habits can dental caries and periodontal disorders be avoided (Selwitz et al., 2017). Early intervention during childhood is crucial because lifestyle choices made during childhood have a significant impact on adult health (Cohen-Carneiro et al., 2010). Increased oral health literacy affects positive attitudes and is linked to improved oral hygiene practices (Ab Murat & Watt, 2018). Brushing and flossing are important self-care practices that help prevent dental caries and periodontal disease (Ab Murat & Watt, 2016). Therefore, it is recommended that people brush their teeth

at least twice a day to keep their gums and teeth healthy (Leo, 2019). Taking care of one's teeth is an example of health activity that contributes to overall wellness (Steptoe et al., 2018).

The "Global Goals for Oral Health 2020" document, published in 2003 by the World Dental Federation (FDI), the International Association for Dental Research, and WHO, included recommendations for new, more intricately detailed goals, objectives, and targets for the state of oral health worldwide. The previously mentioned proposal aimed to give local and national health care planners a tool to establish reasonable standards and goals for oral health. Part of this requires a shift in dentistry from a treatment-oriented approach to more preventive oral healthcare. As such, establishing a baseline of detailed information regarding oral health knowledge and healthy oral hygiene habits is a necessity as it enables policymakers set attainable goals and track changes (Eze, 2016). Good oral health can be achieved in a variety of ways. Numerous methods have been demonstrated to improve oral hygiene. Among the most important is brushing your teeth. The American Dental Association (ADA, 2017) states that the proper technique is to hold the toothbrush at a 45° angle against the gums and move it back and forth using short strokes. Brushing of the tongue can also be done to help remove the bacteria and also to freshen the breath. Using a mouth rinse or mouthwash, together with daily brushing and flossing, increases oral hygiene. Antimicrobial mouthwash helps to reduce bacteria and plaque activity, which can lead to gingivitis and gum disease. Fluoride mouth rinses can also help by preventing the decaying of the teeth. Another step that can help in oral hygiene is the reduction in the number of sweetened drinks consumed. Students come across a great number of people of different age groups from different backgrounds in their day to day course of

study hence with proper knowledge and oral health behavior they can act as role models for their family and community at large.

### **Statement of the Problem**

Oral disease is linked to an individual's behaviour and poor oral hygiene. Therefore, an improvement in oral hygiene and decreased sugar intake has been shown to reduce the prevalence of dental caries and periodontal diseases (Kyle, 2018). Despite being connected to all facets of our lives, oral hygiene is frequently disregarded. Our mouths serve as a window into the state of our bodies. Nutritional deficiencies or a general infection may be manifested by lack of proper oral hygiene. Dental hygiene is crucial for everyone, whether they are 9 years old or 90 years old. Everyone, especially university students, needs to practice good oral hygiene. Being a busy student shouldn't be an excuse for ignoring how important dental hygiene is. Oral hygiene is closely linked to dental knowledge and practice. Adequate oral hygiene practices stem from understanding one's oral health status. However, even with knowledge, oral hygiene might not be sufficient if students in the university of Benin do not adopt the right mindset and habits. It is important for all students to be aware of the consequences of poor oral hygiene practices. As a student, they will eventually interact with numerous individuals from various backgrounds, age ranges, and cultures in the field. They can serve as role models for their family and the community at large by practicing good oral hygiene, being knowledgeable about the subject, and maintaining a positive outlook.

Students' prior knowledge about oral health has a significant influence on their behavior related to practicing proper oral hygiene. Despite having the knowledge which serves as a determinant that makes these practices and behaviors easier for them to adopt, it does not fully ensure that they engage in oral health-promoting

behaviors that will improve their overall health. Dental caries can be prevented by following certain key behaviors, such as brushing your teeth twice a day with fluoride toothpaste and consuming fewer sugary foods and beverages.

Consequently, the prevention of dental caries primarily depends on compliance with important behavioral messages, such as brushing teeth twice a day starting using fluoride toothpaste and consuming fewer sugar-filled foods and beverages. Nonetheless, it is becoming more widely acknowledged that people rarely change their behavior in a lasting way just by learning about these messages. Basic dental hygiene practices are embedded in more intricate daily routines that are influenced by a wide range of psychological, socioeconomic, and environmental variables.

Furthermore while some previous studies have looked at some aspects of the knowledge, attitude and behaviours regarding oral health and hygiene, the need for ongoing research is crucial. For instance, studies conducted by Antonija Tadin on Oral Hygiene Practices and Oral Health Knowledge among Students, Dental Health Knowledge Attitude and Practice Among University of Calabar Students by Jane Nwafor, and the knowledge and practices of oral hygiene among students of Ignatius Ajuru University of Education, Port Harcourt. Rivers State, Nigeria by Etale Bright do not provide context specific insights this is because factors such as cultural practices, dietary habits, access to healthcare, socio-economic conditions can vary significantly between regions. This observable fact necessitates the need to examine the knowledge and practice of oral hygiene among undergraduates in the University of Benin.

## **Research Questions**

The following research questions were raised to guide the study;

1. What is the level of knowledge of oral hygiene among undergraduates in the University of Benin?
2. What is the level of knowledge regarding the importance of oral hygiene among undergraduates in the University of Benin?
3. What are the attitudes towards oral hygiene among undergraduates in the University of Benin?
4. What are the oral hygiene practices among undergraduates in the University of Benin?

## **Purpose of the Study**

The main purpose of the study is to examine the knowledge and practice of oral hygiene among undergraduates in the University of Benin. Specifically, the study seeks to:

1. Examine the level of knowledge of oral hygiene among undergraduates in the University of Benin.
2. Examine the level of knowledge regarding the importance of oral hygiene among undergraduates in the University of Benin.
3. Assess the attitudes towards oral hygiene among undergraduates in the University of Benin.
4. Identify the oral hygiene practices among undergraduates in the University of Benin.

## **Significance of the Study**

This study is undertaken to examine the knowledge and practice of oral hygiene among undergraduates in the university of Benin. The findings of this study

would be of significant importance to health educators, government and non-governmental agencies, policy makers, parents and teachers as findings from this study will enhance oral hygiene among students especially the students who have a bad hygiene regarding their oral as well as improving the oral hygiene of the students who have proper hygiene already. Specifically, this study will give more valuable information to policy makers, in order to improve the knowledge, attitude and practices of the students concerning their oral health.

Oral disease is an existing public health concern with health, which can also affect students' interaction and their self-esteem as well as making other people who might get in contact with them uncomfortable due to bad breath. Therefore, it is hoped that this study adds to the body of knowledge available on oral hygiene and the findings of this study could form the background for providing oral hygiene knowledge and improving the attitudes and practices of oral health thereby improving the health and well-being of students. Significantly, the study's conclusions will also serve as a foundation for subsequent research as well as an empirical and analytical support for researchers conducting related work.

### **Scope and Delimitation of the Study**

The study is focused on examining the knowledge and practice of oral hygiene among undergraduates. Therefore, this study is delimited to undergraduates in the University of Benin.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

This chapter will be discussed under the following subheadings:

- Theoretical Framework
- Concept of Oral Hygiene
- Oral Hygiene in Nigeria
- Knowledge of Oral Hygiene Among Undergraduates
- Knowledge Regarding the Importance of Oral Hygiene Among Undergraduates
- Attitude Towards Oral Hygiene Among Undergraduates
- Oral Hygiene Practices Among Undergraduates
- Summary of Related Literature

#### **Theoretical Framework**

##### Theory of Planned Behaviour (TPB)

The theory of planned behavior (TPB), which has been used in oral hygiene settings in the past, offers a useful framework for comprehending health education. A health education program can be theoretically based on the theory of planned behavior alone, or it can be combined with other learning theories and approaches. There are drawbacks to employing Theory of Planned Behavior (TPB), such as a discrepancy between participants' intentions and actions, even though prior meta-analyses have shown TPB to be the most reliable theory for forecasting, characterizing, and comprehending oral hygiene behavior. The theory of planned behavior is a social cognition model of decision-making that bases its assumptions on the idea that social behavior is deliberate and takes the consequences of that behavior into consideration.

Perceived behavioral control (PBC), or the awareness of one's controllability and ability to carry out a specific behavior, subjective norms (the degree to which performance of the behavior is assessed as positive), and attitude toward the behavior (the degree to which performance of the behavior is assessed as positive) all have an impact on intention. While poor oral hygiene not only affects the oral cavity but also increases the risk of the onset of many systemic diseases, good oral hygiene is a sign of overall good health. The existence of dental plaque is a sign of inadequate oral hygiene, and if left untreated, it can develop into dental calculus, which will make matters worse. The environment, which includes things like culture, socioeconomic status, way of life, and food habits, has a big impact on oral hygiene. While there are many methods available these days for assessing oral hygiene, a thorough oral examination combined with the use of a standard questionnaire is a very helpful approach. To assess oral hygiene, a number of indices are frequently used, including the Decayed, Filled, and Missing Tooth Surfaces (DMFS), Gingival Index (GI), Community Periodontal Index (CPI), and the Gingivitis-Periodontitis-Missing/Teeth Index (GPM/T).

One of the most useful tools for removing dental plaque is brushing the teeth. A number of variables, including how often an individual brushes, how they brush, what kind of brush they use, and which toothpaste they use, are all crucial. Dentifrices' action will be further enhanced by the addition of particular ingredients, such as essential oils. Fluoride addition to dentifrices will intensify their action, and multiple studies indicate that in addition to using a conventional manufactured toothbrush, using specially designed techniques to brush the teeth is also advised for improved oral hygiene. In addition to health care providers, professionals from other

fields, such as teachers, can participate in regional and national dental education programs with the appropriate training.

### **Concept of Oral Hygiene**

The state of our teeth, gums, and entire oral-facial system which enables us to chew, speak and smile is referred to as oral hygiene. Oral cancer, gum disease, and cavities are some of the most prevalent conditions that affect our oral health. Although oral conditions are often seen as distinct from other chronic conditions, there is actually a relationship between them (Julia, 2003). Diabetes and heart disease are two chronic conditions that are linked to poor oral hygiene. Additionally, risky behaviors like tobacco use and consumption of sugary foods and beverages are linked to oral disease (Iwueze, 2007). Public health initiatives that have been shown to reduce dental decay and save costs include school sealant programs and community water fluoridation (Iwueze, 2007). Cavities arise from the erosion of tooth enamel due to the acids generated by bacteria found in plaque that builds up on teeth, particularly in the spaces between teeth's chewing surfaces and gum line. Consuming foods and beverages high in carbohydrates stimulates this bacteria to produce acids that can degrade the tooth's enamel or demineralize the root surface.

Cavities are one of the most prevalent chronic diseases across the lifetime, despite the fact that they are mainly preventable. Untreated tooth decay can result in an abscess under the gums, a serious infection that can spread to other parts of the body and cause serious, occasionally fatal consequences. Infections and inflammation of the gums and bone that support and surround the teeth are the primary causes of gum disease. Periodontal disease is exacerbated by a number of long-term health conditions, such as diabetes, immune system weakness, poor oral hygiene, and genetics (Kelvin, 2016). Another significant risk factor for gum disease is tobacco use.

The gums may become infected and the bone supporting the teeth may disappear if early stages of periodontal diseases are left untreated. Insufficiently supported teeth can become loose and may require extraction in the future.

Oral hygiene includes psychosocial aspects like self-confidence, well-being, and the capacity to socialize and work without pain, discomfort, or embarrassment. It is the condition of the mouth, teeth, and orofacial structures that permits people to carry out basic functions like eating, breathing, and speaking (John, 2015). From infancy to old age, oral health varies throughout life, is essential to overall health, and helps people reach their full potential and engage in society. Dental caries, periodontal (gum) disease, tooth loss, oral cancer, oro-dental trauma, noma, and birth defects like cleft lip and palate are among the many illnesses and conditions that fall under the umbrella of oral diseases. With an estimated 3.5 billion cases worldwide, oral diseases rank among the most prevalent noncommunicable diseases (Greg, 2014). The overall burden of oral health conditions on services is expected to continue rising due to population growth and aging, even though the burden of oral health conditions is growing globally, especially in low- and middle-income countries. Oral diseases disproportionately impact the most marginalized and at-risk groups. Oral diseases are more common in people with low socioeconomic status, and this relationship holds true for all stages of life from early childhood to old age regardless of the nation's overall income level. Even though they are usually preventable, oral diseases are a significant health burden in many nations and can cause pain, discomfort, disfigurement, and even death in certain cases. According to the National Demographic and Health Survey (NDHS) (2008), there are an estimated 3.5 billion people who are affected by oral diseases.

According to the Global Burden of Disease (2019), untreated dental caries, or tooth decay, in permanent teeth is the most prevalent medical condition. Oral health conditions are expensive to treat and typically aren't covered by universal health coverage (UHC). The majority of low and middle-income nations lack adequate resources for the diagnosis, treatment, and prevention of oral health issues. A variety of modifiable risk factors, such as sugar consumption, tobacco use, alcohol use, and poor hygiene, as well as the underlying social and commercial determinants of these conditions, are linked to many noncommunicable diseases (NCDs) and cause oral diseases (Ugonna, 2018).

The majority of oral health issues are primarily treatable when caught early and can be prevented. Dental caries, or tooth decay, periodontal diseases, tooth loss, and oral cancers account for the majority of cases. Orofacial clefts, noma (a severe gangrenous disease that starts in the mouth and primarily affects children), and oro-dental trauma are additional oral conditions that are important for public health. The majority of oral health issues are primarily treatable when caught early and can be prevented. Dental caries, or tooth decay, periodontal diseases, tooth loss, and oral cancers account for the majority of cases. Orofacial clefts, noma (a severe gangrenous disease that starts in the mouth and primarily affects children), and oro-dental trauma are additional oral conditions that are important for public health.

According to the WHO Global Oral Health Status Report (2022), there are approximately 3.5 billion cases of oral diseases worldwide, with the majority of affected individuals, three out of every four living in middle-income nations. An estimated 2 billion people worldwide have permanent tooth caries, and 514 million children have primary tooth caries. The prevalence of the major oral diseases is rising worldwide due to changes in living conditions and increased urbanization. The

availability and affordability of foods high in sugar, inadequate exposure to fluoride (found in toothpaste and water supplies), and limited access to oral health care services in the community are the main causes of this. The promotion of sugar-filled foods and drinks, tobacco products, and alcohol has resulted in an increase in the use of goods that aggravate oral health issues and other noncommunicable diseases.

### **Oral Hygiene in Nigeria**

Oral health is a vital aspect of general well-being, yet it remains an under-researched area in Nigeria, where a significant portion of the population lacks adequate access to oral healthcare services. Numerous studies have highlighted the challenges and trends in oral health care, focusing on issues like dental caries, periodontal diseases, and oral hygiene practices among Nigerians. The adoption of western dietary habits has led to an increase in prevalence of dental caries which is largely untreated (Akpata, 2014). Worldwide variations can also be found in the prevalence of oral disease and oral hygiene practices. The treatment of oral health is often overlooked in developing nations. It has been reported that Nigeria has an exceptionally low restorative index and that many people with caries remain untreated (Akpata, 2014, Soroye, 2016). In Nigeria, there are very few dental health care facilities, and those that are there are mostly found in large cities. There is only one dentist in Nigeria for every 40,000+ people, which is an extremely low dentist to population ratio (Akpata 2014; Soroye, 2016). Unfortunately, more of these dentists live in the country's cities, which exacerbates the health disparity between rural and urban areas already present in the nation and found in the majority of other developing nations (Jamieson & Thomas, 2016).

In both developing and developed nations, oral diseases are more common in impoverished and disadvantaged populations; dental caries and periodontal diseases

are the most frequently reported conditions. Oral cancer, noma, cleft lips and palates, and oro-dental trauma are a few more. Poverty, ignorance/low awareness, poor oral hygiene, unhealthy lifestyles and behaviors (such as tobacco use and excessive alcohol consumption), and these are the most common risk factors for oral diseases. Approximately 15-20% of middle-aged adults suffer from periodontal disease, also referred to as gum disease, which increases the risk of tooth loss. According to a study by Akpata (2014), 15–58% of Nigerians aged 15 and above had gum disease with deep pocketing. In undernourished populations, this condition is spreading more quickly. Despite the fact that oral health disorders are less common in Nigeria than in some other western nations, the majority of those who are afflicted do not receive treatment. This could be explained by a number of factors, including a lack of awareness, the high cost of dental care, and the glaring shortage of dental professionals in comparison to the population's massive dental care needs. These variables may lead to patients turning to untrained individuals for their oral health requirements and only seeing a professional once the issue has gotten worse.

A seminal study conducted in 2014 by Sofola et al. on dental caries in children in Lagos found that the prevalence of dental caries was high and that socioeconomic status significantly influenced access to preventive services and dental care. Additionally, their research indicated that the increased frequency of dental problems was partly caused by a lack of public knowledge about proper oral hygiene practices. Due to the government's primary focus on curative services, preventive dental care is also lacking in the country, as indicated by Sofola et al. (2014). Also, Ayanbadejo et al. (2016) investigated periodontal diseases in adult Nigerians in another study. They discovered that more than 80% of Nigerians have periodontal disease to varied degrees, primarily as a result of bad oral hygiene habits, low use of professional

dental care, and cultural perceptions of oral health. According to Ayanbadejo's research, a significant number of Nigerians continue to use oral hygiene practices that are outdated and, while somewhat effective, do not have the same advantages as contemporary dental care. One such practice is chewing sticks.

Denloye (2013) looked at oral health awareness and education in Nigerian rural communities. It demonstrated that, in comparison to their urban counterparts, rural populations have less access to dental health care services. Denloye drew attention to the striking disparities in oral health literacy, noting that people living in rural areas were more likely to have preconceived notions about dental health and to rely on conventional wisdom rather than medical advice. Delays in visiting dental clinics result from this lack of knowledge about oral health, frequently at a point when conditions have already gotten worse. Moreover, a study by Folayan et al. (2015) on oral hygiene practices among adolescents in Nigeria found a worrying trend in the consumption of sugary foods, inadequate brushing techniques, and infrequent dental examinations. The long-term detrimental effects of these behaviors, including the early onset of gum disease and cavities, were stressed by the researchers. To address these issues early on, they suggested that oral health education be included in school curricula.

### **Knowledge of Oral Hygiene Among Undergraduates**

Recent research has focused a great deal of attention on the oral hygiene knowledge of Nigerian undergraduates, pointing out both areas of strength and weakness in practices and awareness. Because it is so important to general health, oral hygiene is impacted by a number of variables, including socioeconomic status, education, and availability to healthcare resources. Research on undergraduates from Nigeria has illuminated their oral health practices, beliefs, and awareness levels.

Umezudike et al. (2016) conducted a seminal study in which they evaluated University of Lagos undergraduates' oral hygiene knowledge and practices. The study discovered that although the majority of students showed a fundamental comprehension of the ideas behind oral hygiene, their actual behaviors varied. For instance, while more than 70% of the students were aware that brushing twice a day is advised, only roughly 40% actually followed through on this habit. The study revealed that although oral health awareness was relatively high, poor practices were caused by hectic academic schedules and a lack of prioritizing oral health. The study also discovered that there were gaps in knowledge in more specialized fields, such as the prevention of periodontal diseases and the effect of diet on oral health. Another significant investigation on undergraduates' oral hygiene practices, attitudes, and knowledge across several Nigerian universities was carried out by Sofola et al. (2015). Their results demonstrated a discrepancy between knowledge and practice, which was consistent with earlier research. Less than half of the students regularly used mouthwash or flossed, despite the fact that the majority of them roughly 85% recognized the significance of good oral hygiene. Although students are exposed to basic oral hygiene information, the researchers hypothesized that university-based health programs or health campaigns do not provide enough reinforcement.

Additionally, Adebayo et al. (2017) investigated how undergraduate students in Southwestern Nigeria perceived the importance of oral hygiene and the impact of peers and the media. According to their research, rather than receiving advice from a dentist, the majority of students learned about oral health through peers and social media. Sometimes, this dependence on non-expert sources resulted in inaccurate information. Students who followed lifestyle and beauty blogs, for instance, frequently concentrated more on the aesthetic aspects of dental care (whitening) than

they did on the significance of preventive measures like flossing and routine dental checkups. In order to guarantee more accurate information dissemination, the study advised universities to incorporate oral health education into campaigns for general health awareness.

In 2013, Adegbembo et al. carried out an extensive study on the oral hygiene habits of Obafemi Awolowo University students in Ile-Ife. The results of the study demonstrated that although the majority of students understood the advantages of brushing and flossing on a regular basis, their habits were frequently uneven. According to the survey, only 20% of students regularly used dental floss, compared to 60% of students who brushed their teeth once a day. A common excuse given by students for not maintaining regular dental care practices was the expense of oral hygiene products. Adegbembo's study also made clear that secondary school oral health education in Nigeria is typically restricted to basic hygiene instruction, with little continuation or improvement occurring at the postsecondary level. In order to promote better hygiene habits early in adulthood, the researchers suggested that Nigerian universities implement structured oral health programs, particularly for first-year students.

Bamise et al. (2014) investigated the effects of oral hygiene customs and cultural beliefs on undergraduate students at Ekiti State University in a different study. According to the study, many students especially those in rural areas still had conventional views about dental care. Chewing sticks, using herbal remedies, and rinsing with saltwater were common practices that were frequently handed down through the generations. Although these approaches weren't totally ineffectual, Bamise et al. observed that students who exclusively depended on conventional methods were less likely to visit a dentist, which increased the likelihood of untreated

dental issues. The researchers emphasized the importance of integrating modern dental health education with respect for cultural practices, to ensure a more holistic approach to oral hygiene. At the University of Nigeria, Nsukka, Onigbogi et al. (2016) conducted research on the disparities between genders in undergraduates' awareness of and behavior related to oral hygiene. In comparison to their male peers, female students were found to have a general higher level of knowledge regarding dental hygiene practices. Social pressure on women to maintain better physical appearance and health was blamed for this trend. The survey also showed that women were more likely than men to have regular dental checkups and to be concerned about things like bad breath and gum health. On the other hand, male students frequently disregarded the preventive components of dental care, such as routine brushing and flossing, and instead focused more on instantaneous oral hygiene fixes, like using mouthwash.

### **Knowledge Regarding the Importance of Oral Hygiene Among Undergraduates**

Understanding the significance of good oral hygiene is essential since it affects both general and oral health. The practice of maintaining a clean and healthy mouth, teeth, and gums in order to ward off illnesses and other dental problems is known as oral hygiene. Maintaining good oral hygiene is important for overall health as well as the health of teeth and gums. This is because poor oral hygiene has been related to systemic illnesses like respiratory infections, diabetes, and cardiovascular diseases. The prevention of dental conditions like periodontitis, gingivitis, and tooth decay (dental caries) is one of the main reasons good oral hygiene is crucial. Plaque, a sticky film of bacteria, accumulates on teeth and releases acids that erode enamel, causing tooth decay. Regular brushing and flossing are good oral hygiene habits that help remove plaque and prevent cavities. With good oral hygiene, it is also possible to

prevent periodontitis, a more serious infection, and gingivitis, a mild form of gum disease.

Expanding upon previous research, additional investigations have emphasized the necessity of adopting a thorough strategy to address oral hygiene awareness among Nigerian undergraduate students. While undergraduates may show some awareness of oral health, there is frequently a gap between their theoretical understanding and practical application, according to researchers like Ehizele et al. (2011). The importance of oral hygiene among undergraduates cannot be overstated, as oral health is a key component of overall well-being. Proper oral hygiene helps prevent dental issues such as tooth decay, gum diseases, and bad breath, all of which can affect a student's health, academic performance, and social life. However, studies suggest that many undergraduates in Nigeria have limited knowledge regarding oral hygiene and its long-term impact on health. Numerous studies show that Nigerian undergraduates lack sufficient understanding of the importance of practicing good oral hygiene. Sofola et al. (2010) state that although students may understand the general idea of brushing their teeth to avoid dental diseases, the frequency and techniques used are frequently insufficient. Many students do not know how to brush their teeth properly, how important it is to use fluoride toothpaste, or how important it is to floss in order to get rid of food particles that get stuck between teeth.

Furthermore, a study by Amodu et al. (2018) revealed that knowledge regarding the prevention of oral diseases, such as gingivitis and periodontitis, was relatively low among Nigerian undergraduates. Although students knew that poor oral hygiene could lead to bad breath or tooth loss, there was little understanding of the link between oral health and systemic diseases like cardiovascular problems or diabetes. This gap in knowledge indicates a need for better educational programs that

stress the role of oral hygiene in preventing serious health conditions. Moreover, research by Ehizele et al. (2011) highlighted that many students did not understand the importance of regular dental visits for preventive care. Most students only sought dental care when they experienced pain or discomfort, rather than for routine check-ups. This reactive approach to oral health reflects a lack of knowledge about preventive oral hygiene measures, which could mitigate the risk of developing severe dental problems. Furthermore, Okeigbemen (2004) noted that undergraduates frequently overlook oral hygiene routines that are crucial for maintaining overall health, such as flossing and using mouthwash. It appears that students may not fully comprehend the significance of a holistic approach to oral care given their lack of knowledge regarding the full range of oral hygiene practices. Braimoh and Ilochonwu (2014) emphasized that oral hygiene education should be reinforced through accessible information and preventive programs in universities. They argued that campaigns focusing on the importance of regular brushing, flossing, and dental visits could significantly improve oral health outcomes among undergraduates. Furthermore, they stressed that proper knowledge of oral hygiene from a young age could shape better health behaviors in adulthood.

### **Attitude Towards Oral Hygiene Among Undergraduates**

How people maintain their oral health is greatly influenced by their attitude toward oral hygiene. Attitude is a reflection of people's values, beliefs, and perceptions about the significance of dental care, all of which have an impact on the practices and behaviors they engage in when it comes to maintaining dental hygiene. Regular dental checkups, flossing, and brushing are examples of consistent oral hygiene practices that are typically linked to a positive attitude toward oral hygiene. On the other hand, a bad attitude or lack of concern for oral hygiene can result in

dental problems like gum disease and tooth decay, among other complications. Individuals who are aware of the negative effects of inadequate dental hygiene and the advantages of preserving dental health typically view dental care more favorably. Those who are aware of the connection between good oral hygiene and overall health, including the prevention of systemic diseases like heart disease, may be more inclined to practice better oral hygiene.

Social norms and values influence attitudes toward dental hygiene in many different cultures. Because of ingrained beliefs or a lack of emphasis on oral health education, some people may consider dental care to be less important than other health-related practices. Conversely, societies that prioritize consistent dental care and maintaining hygienic oral environments typically foster a proactive approach to oral hygiene. Access to dental care services and socioeconomic factors are important determinants of attitudes. People who have easy access to reasonably priced dental care are more likely to continue to view routine examinations and preventive care favorably (Kenneth, 2014). On the other hand, those who encounter obstacles to receiving dental care such as exorbitant costs or a dearth of available services may grow apathetic or unfavorable and come to regard oral health as a secondary concern. Social networks, which include friends and peer groups, as well as the information found on social media, can have an impact on attitudes regarding dental hygiene. Adopting similar behaviors can be encouraged when people receive positive reinforcement from peers who maintain good oral hygiene. Similar to this, oral health-related social media campaigns and influencers have the power to change people's opinions, especially among young adults.

Although a positive attitude towards oral hygiene is essential, it does not always translate into consistent oral health behaviors. According to Pascal (2016)

individuals may recognize the importance of oral hygiene yet fail to practice regular brushing, flossing, or dental visits. This gap between attitude and behavior can stem from various factors, including:

**Perceived Barriers:** Individuals may face obstacles such as time constraints, lack of motivation, or financial limitations, which prevent them from acting on their positive attitude toward oral hygiene.

**Fear of Dental Procedures:** Even with a positive attitude, anxiety or fear related to dental visits can discourage individuals from seeking preventive care.

**Misconceptions:** Some individuals may believe that brushing once a day or using mouthwash alone is sufficient, despite understanding the importance of oral hygiene.

Attitudes regarding dental hygiene can be improved by raising awareness through media outreach, school programs, and public health campaigns. The advantages of preventive care, the dangers of ignoring oral health, and the link between good oral hygiene and general wellbeing should all be emphasized in education. Initiatives that emphasize behavior modification, like making flossing and brushing reminders or offering rewards for routine dental checkups, can assist in closing the gap between behavior and attitude. Those who struggle with consistent oral hygiene habits but have positive attitudes can benefit most from behavioral interventions. Improved attitudes can result from adjusting oral health education and interventions to cultural beliefs and values, particularly in communities where oral hygiene is not traditionally prioritized. Methods that are considerate of cultural differences can assist in dispelling certain myths or obstacles. Access to reasonably priced dental care can greatly enhance attitudes regarding dental hygiene. Individuals

are more likely to value and prioritize oral health when they can access dental care without facing financial hardships or logistical obstacles.

The dental health practices and general well-being of Nigerian undergraduate students are significantly influenced by their attitudes toward oral hygiene. Numerous investigations into the attitudes and practices of oral hygiene among Nigerian undergraduate students have produced conflicting results in terms of awareness, misconceptions, and regularity of dental care. Many students display behaviors that do not fully align with recommended dental practices, even though they are generally aware of how important it is to practice good oral hygiene. According to a study by Sofola et al. (2010), most undergraduate students understood the value of maintaining oral health, but many were not committed to routine dental care. The study also looked at the attitudes and practices of undergraduates toward oral hygiene. The study found that while most students knew how important it was to brush their teeth every day, they frequently neglected other oral hygiene habits like flossing, using mouthwash, and getting regular checkups. It appears from this knowledge gap that many undergraduates are not fully aware of the long-term effects of poor oral hygiene.

In a similar vein, Ehizele et al. (2011) study brought to light Nigerian students' unwillingness to seek out preventive dental care. According to the study, a sizable portion of students avoided going to the dentist for regular checkups and instead only went when they were in pain or had an urgent dental problem. This reactive approach to dental care was ascribed to a number of things, such as financial limitations, dental procedure anxiety, and a general ignorance of the advantages of preventive care. Although students acknowledged the value of maintaining good oral health, they showed a lackluster attitude toward routine dental checkups.

Okeigbemen (2004) investigated the social and cultural factors influencing Nigerian undergraduates' perceptions of oral hygiene. According to the study, some students' behavior was still influenced by conventional wisdom and false beliefs regarding oral health. For instance, a few students thought that some conventional methods or at-home cures could take the place of contemporary oral hygiene techniques. This is a reflection of a larger problem where cultural norms and false information can cause people to put off getting the proper dental care. According to the study, culturally aware oral health campaigns could aid in dispelling these myths and enhancing attitudes regarding dental hygiene.

Amodu et al. (2018) conducted additional research to examine the socio-economic determinants influencing students' attitudes regarding oral hygiene. The study discovered that because they had less access to dental care and were less aware of the dangers of poor oral health, students from lower socioeconomic backgrounds were more likely to disregard oral hygiene practices. The need for more accessible and reasonably priced dental care services for students, as well as focused educational initiatives that stress the value of oral health regardless of financial situation, is highlighted by the socioeconomic gap in attitudes toward oral hygiene.

Braimoh and Ilochonwu (2014) emphasized that among Nigerian undergraduates, attitudes toward oral hygiene varied by gender. According to the study, female students generally demonstrated better oral hygiene practices than their male counterparts, with a higher percentage of female students using mouthwash and brushing twice a day. Nonetheless, both sexes' attitudes toward preventive dental care were largely unchanged; many students believed that dental visits weren't necessary unless they caused them severe pain or discomfort. Universities should implement oral health awareness programs, the researchers advised, in order to encourage better

attitudes and behaviors, particularly among male students who seemed to be less interested in practicing good oral hygiene.

### **Oral Hygiene Practices Among Undergraduates**

Undergraduates in Nigeria exhibit a range of oral hygiene practices that are indicative of their awareness, habits, and challenges related to dental health in general. Many Nigerian undergraduates show gaps in their oral hygiene routines, despite the knowledge that maintaining good oral hygiene is crucial for preventing dental problems and promoting general health. Research identifies important areas for improvement as well as best practices. An essential part of good oral hygiene is using fluoride toothpaste to brush the teeth at least twice a day. The majority of Nigerian undergraduates brush their teeth every day, but the quality of their brushing varies, according to research by Sofola et al. (2010). According to the study, a large number of students either brush for shorter than the advised two minutes or with incorrect technique. These brushing errors can reduce the effectiveness of brushing, resulting in insufficient plaque removal and a higher chance of dental problems.

Furthermore, flossing is an essential part of a thorough oral hygiene regimen because it helps get rid of food particles and plaque from in between teeth and under the gum line. However, a study conducted in 2014 by Braimoh and Ilochonwu found that Nigerian undergraduates hardly ever floss. Many students either don't know how important it is or don't include it in their daily schedules. The same study also showed a low prevalence of mouthwash use, which is frequently ascribed to a lack of knowledge about its advantages or the belief that good brushing suffices to eliminate the need for it. For preventive care to be effective, including cleanings by professionals and early detection of dental issues, routine dental visits are necessary.

Ehizele et al. (2011) found, however, that Nigerian undergraduates frequently put off visiting the dentist until they are in pain or uncomfortable. Financial limitations, dental procedure anxiety, and a general undervaluation of the value of preventive care are some of the factors contributing to this reactive approach to dental care. The efficacy of oral hygiene practices is undermined and the risk of more serious dental conditions is increased when people are reluctant to get regular check-ups. Furthermore, diet plays a major role in oral health; tooth decay is exacerbated by sugary foods and drinks. According to Okeigbemen's (2017) research, Nigerian undergraduates frequently consume sugary snacks and beverages, frequently without thinking about the potential effects on their oral health. Due to the increased risk of cavities and other dental problems associated with a high sugar intake, this dietary habit is a significant contributor to students' poor oral hygiene.

Cultural and socioeconomic variables also influence oral hygiene habits. Students from lower socioeconomic backgrounds are more likely to disregard oral hygiene because they have less access to dental care and fewer resources for high-quality oral hygiene products, according to Amodu et al. (2018). Furthermore, Umezudike and Iwuala (2017) emphasized how cultural preconceptions and beliefs can affect oral hygiene habits. Some students choose to forgo preventive care in favor of conventional treatments or think that dental care is only required in extreme cases of discomfort.

### **Summary of Related Literature**

Oral hygiene in Nigeria raises a number of issues, including low levels of oral health awareness, socioeconomic barriers, and subpar dental hygiene practices and healthcare services. To address these concerns, more public health education is

needed to promote better oral hygiene practices and encourage the use of professional dental services, in addition to better dental care services. Undergraduate students in Nigeria typically understand the fundamentals of dental hygiene, but there are notable gaps in their practices, and myths regarding dental health endure. Studies show that inconsistent oral hygiene practices are caused by busy lifestyles, financial concerns, and the influence of unprofessional sources. To close these gaps and encourage students to practice better oral hygiene, universities clearly need to launch more focused educational initiatives. While many undergraduates in Nigeria are aware of the basic principles of oral hygiene, there remains a significant knowledge gap concerning its broader implications for health. The lack of understanding about preventive measures, the benefits of regular dental visits, and the role of a complete oral hygiene routine underlines the need for targeted education and awareness campaigns within university settings. By improving knowledge among undergraduates, universities can help foster better oral health practices, thereby contributing to the overall well-being of their students.

Although most Nigerian undergraduates are aware of the significance of dental hygiene, multiple studies show that this awareness is frequently superficial and leaves large gaps in its actual application. In order to guarantee that undergraduates not only comprehend the significance of oral hygiene but also consistently practice it, it is imperative that more focused educational interventions, expanded access to dental services, and culturally sensitive approaches to oral health promotion be implemented. According to research, incorporating oral health education into more comprehensive university health programs may be a long-term way to help Nigerian students' oral health outcomes. Nigerian undergraduates' oral hygiene habits show a complex interaction between knowledge, customs, and sociocultural influences. While many

students practice basic oral hygiene, such as brushing, there are notable gaps in their use of mouthwash, flossing, and routine dental checkups. Enhancing oral hygiene practices and improving dental health outcomes among Nigerian undergraduates can be accomplished through the implementation of focused educational programs, expanding access to dental care, encouraging healthier food choices, and addressing cultural beliefs.

## **CHAPTER THREE**

### **METHOD OF THE STUDY**

This chapter presents method and procedures that was used in conducting the study. It is organized under the following sub-headings:

- Research Design
- Population of the Study
- Sample and Sampling Technique
- Research Instrument
- Validity of the Instrument
- Reliability of the Instrument
- Method of Data Administration
- Method of Data Analysis

#### **Research Design**

This study employed the descriptive survey research design. According to Omorogiuwa (2019), a descriptive survey research design aims at collecting data on a population of study and using such data to explain the characteristic features and facts about the population. This design is considered most suitable for this study as it allows the researcher to collect data from the respondents on their opinions concerning the phenomenon under study s it is in their natural setting.

#### **Population of the Study**

The population of the study consisted of all the students in the University of Benin. The University of Benin has a total of fifteen (15) faculties with an estimated

population of 47,468 students as of the 2023/2024 academic session (Student Affairs Division, 2024).

### **Sample and Sampling Technique**

The sample for this study was two hundred and ninety-nine (299). In selecting the respondents for the study, a multistage sampling technique was employed. Firstly, 5 faculties from among the 15 faculties at the University of Benin were chosen using the basic random sampling technique. The proportionate sampling was then utilized to choose the participants for the study by taking a 5% of the population of the selected faculties to determine a sample size for each of them.

<b>S/N</b>	<b>Faculty</b>	<b>Population</b>	<b>Sample Size</b>
1	Agriculture	1635	82
2	Environmental Sciences	1052	53
3	Law	1064	53
4	Medicine	927	46
5	Pharmacy	1295	65
<b>TOTAL</b>	<b>5</b>	<b>5973</b>	<b>299</b>

### **Research Instrument**

A self structured questionnaire was used for the study. The questionnaire was divided into two sections, section a and b. Section A contained questions soliciting information relating to the respondent's demographic data, while section B contained questions drawn from the research questions to solicit information relating to the knowledge and practice of oral hygiene among undergraduates in the University of Benin.

### **Validity of the Instrument**

The face and content validity of the instrument was established by giving draft copies of the instrument to the project supervisor and two other experts in the Department of Health, Safety and Environmental Education. Their corrections and suggestions were used to prepare the final copy of the instrument.

### **Reliability of the Instrument**

The reliability of the instrument was established using test-retest method of estimating reliability. This involved giving copies of the instrument to 20 persons outside the population of the study. After a time lapse of two weeks, the same instrument was administered to the same respondents. Data generated from the two administrations were subjected to Pearson Product Moment Correlation.

### **Method of Data Administration**

The instrument was administered directly to the respondents by the researcher with the help of two trained research assistants. The researcher and the research assistants administered the instruments to the undergraduates, who were willing and ready to participate in the study. Direct administration of the instrument also allowed the researcher be on ground to explain any grey areas to the respondents.

### **Method of Data Analysis**

The data collected was analyzed using descriptive statistics involving frequency counts, percentages, mean and standard deviation.

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

This chapters deals with the presentation, analysis and interpretation of findings based on the data collected from respondents in relation to the research questions guiding the study. Four research questions were raised to guide the study. Out of these research questions, twenty items were generated and presented in a questionnaire form and it was administered to 299 respondents. The results of the respondents are carefully analyzed and presented in the following tables below.

**Question 1:** What is the level of knowledge of oral hygiene among undergraduates in the University of Benin?

It is imperative to know that the respondents in the knowledge tables who scored between ; 0-2 are interpreted as low knowledge, while 3-5 are interpreted as having high knowledge on prostate cancer screening.

**Table 1: Level of knowledge of oral hygiene among undergraduates in the University of Benin**

S/N	Level of knowledge	Frequency	Percentage
1.	Low knowledge	74	24.7%
2.	High Knowledge	225	75.3%

*Source: Field survey, 2025*

From table 1 above, 24.7% of the total respondents possess low knowledge on oral hygiene while 75.3% of the total respondents possess high knowledge on oral. Therefore, it can be inferred that level of knowledge of oral hygiene among undergraduates in the University of Benin is high.

**Question 2:** What is the level of knowledge regarding the importance of oral hygiene among undergraduates in the University of Benin?

**Table 2: Level of knowledge regarding the importance of oral hygiene among undergraduates in the University of Benin**

S/N	Level of knowledge	Frequency	Percentage
1.	Low knowledge	196	65.6%
2.	High Knowledge	103	34.4%

*Source: Field survey, 2025*

From table 2 above, 65.6% of the total respondents possess low knowledge regarding the importance of oral hygiene while 34.4% of the total respondents possess high knowledge regarding the importance of oral hygiene. Therefore, it can be inferred that level of knowledge regarding the importance of oral hygiene among undergraduates in the University of Benin is low.

**Question 3:** What are the attitudes towards oral hygiene among undergraduates in the University of Benin?

**Table 3: Attitudes towards oral hygiene among undergraduates in the University of Benin**

S/N	Item	SA	A	D	SD	Total
15.	Oral hygiene is important to overall health	156 (52.2%)	96 (32.1%)	35 (11.7%)	12 (4.0%)	299 (100%)
16.	I am very conscious regarding my monthly routine dental check ups	23 (7.7%)	46 (15.4%)	89 (29.8%)	141 (47.1%)	299 (100%)
17.	I believe that oral hygiene directly affects self-esteem and confidence	38 (12.7%)	85 (28.4%)	123 (41.1%)	53 (17.7%)	299 (100%)

18.	I would seek dental care if I experience oral health issues, such as tooth pain or gum bleeding	89 (29.8%)	93 (31.1%)	56 (18.7%)	61 (20.4%)	299 (100%)
19.	Oral hygiene practices (e.g., brushing, flossing) are time-consuming and inconvenient	76 (25.4%)	83 (27.8%)	66 (22.1%)	74 (24.7%)	299 (100%)

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**Source:** *Field survey, 2025*

Table 3, depicts the attitudes towards oral hygiene among the respondents. In item 15, majority of the respondents, 252 (84.2%) agreed that oral hygiene is important to overall health. In item 16, majority of the respondents 230 (76.9%) disagreed to being very conscious regarding my monthly routine dental check ups. In item 17, majority of the respondents 146 (58.9%) disagreed to believing that oral hygiene affects self-esteem and confidence. Majority of the respondents in item 18, 182 (60.9%) agreed that they would seek dental care if they experience oral health issues such as tooth pain or gum bleeding. Lastly in item 19, majority of the respondents 159 (53.2%) agreed to the statement “Oral hygiene practices (e.g., brushing, flossing) are time-consuming and inconvenient”.

Therefore, from table 3 above, it can be categorically inferred that the respondents attitude towards oral hygiene is poor. This can be seen in their responses on the items under the premise of the research questions on their attitudes towards oral hygiene.

**Question 4:** What are the oral hygiene practices among undergraduates in the University of Benin?

**Table 4: Oral hygiene practices among undergraduates in the University of Benin**

S/N	ITEM	ALWAYS (%)	SOMETIMES (%)	NEVER (%)	TOTAL (%)
20	I spend at least 2 minutes when brushing daily	85 (28.4%)	63 (21.1%)	151 (50.5%)	299 (100%)
21	I make use of mouthwash and floss as much as possible	23 (7.7%)	49 (16.4%)	227 (75.9%)	299 (100%)
22	I engage in preventive dental practices for my oral health	169 (56.5%)	85 (28.4%)	45 (15.1%)	299 (100%)
23	I consume sugary products excessively	78 (26.1%)	140 (46.8%)	81 (27.1%)	299 (100%)
24	I do forget to brush my teeth daily	13 (4.3%)	40 (13.4%)	246 (82.3%)	299 (100%)

*Source: Field survey, 2025*

Table 4 depicts the oral hygiene practices among undergraduates in the University of Benin. In item 20, majority of the respondents 151 (50.5%) never spend at least 2 minutes when brushing daily. In item 21, 227 (75.9%) representing majority of the respondents never make use of mouthwash and floss as much as possible. Majority of the respondents 169 (56.6%) responded always to engaging in preventive dental practices for their oral health in item 22. In item 23, majority of the

respondents 218 (472.9%) always consumed sugar products excessively. In item 24, majority of the respondents 246 (82.3%) never forgot to brush their teeth daily.

Therefore, from table 4 above, it can be categorically inferred that the respondents do not have good oral hygiene practices.

### **Discussion of Findings**

On the level of knowledge, of oral hygiene, majority of the respondents had high knowledge (75.3%) of oral hygiene. This study was corroborated by Umeizuiduke (2016) which revealed that the majority of the respondents showed a fundamental comprehension of the ideas behind oral hygiene. The findings showed that majority of the students had knowledge about what oral hygiene and their oral health awareness was relatively high. Another study carried out by Onigbogi (2016) revealed that the respondents had high knowledge regarding oral hygiene, however in comparison to their male peers, female students were found to have a general higher level of knowledge regarding oral hygiene. These studies were contrasted by Sofola et. Al (2017) study whose study revealed that the respondents had low knowledge about oral hygiene.

On the level of knowledge regarding the importance of oral hygiene, majority of the respondents had low knowledge 196 (65.6%). This study was supported by Amodu et al. (2018) whose study revealed that that knowledge regarding the the importance of oral hygiene such as prevention of oral diseases, such as gingivitis and periodontitis, was relatively low among Nigerian undergraduates. The findings showed that although students knew that poor oral hygiene could lead to bad breath or tooth loss, there was little understanding of the link between oral health and systemic diseases like cardiovascular problems or diabetes. This study was also supported by Ehizele et. al. (2011) whose study revealed that majority of the respondents had low

knowledge regarding the importance of oral hygiene especially as many students did not understand the importance of regular dental visits for preventive care.

On the premise of the third research question, regarding the attitudes towards oral hygiene, majority of the respondents had poor attitudes regarding oral hygiene. This study was supported by Sofola (2019), who revealed that although majority of the respondents understood the value of maintaining oral hygiene, many were not committed to routine dental care. The study found that while most students knew how important it was to brush their teeth every day, they frequently neglected other oral hygiene habits like flossing, using mouthwash, and getting regular checkups. Another study which corroborated this study was carried out by Ehizele (2011) whose study revealed that majority of the respondents were unwilling to seek out preventive dental care. According to the study, a sizable portion of students avoided going to the dentist for regular checkups and instead only went when they were in pain or had an urgent dental problem.

On the premise of the last research question on the oral hygiene practices of the respondents, only a minority of them had good oral hygiene practices. This study was corroborated by Sofola et al. (2010) whose findings revealed that the majority of the respondents did not have good practices regarding oral hygiene. The study showed that while majority of the respondents brush their teeth every day, the quality of their brushing varies, as a large number of students either brush for shorter than the advised two minutes or with incorrect technique. Also this study was supported by Braimoh and Ilochonwu (2014) whose study revealed that the respondents oral hygiene practices were inadequate. In their study it was revealed that the respondents hardly ever floss. Another study which supported the findings of this study was Okeigbemen's (2017) study, whose study revealed that majority of the respondents

frequently consumed sugary snacks and beverages, frequently without thinking about the potential effects on their oral health.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

This chapter has to do with the summary, conclusion and recommendations based on the findings.

#### **Summary**

This study was conducted to examine the knowledge and practice of oral hygiene among undergraduates in the University of Benin. To achieve the purpose of the study, four (4) research questions were raised and literatures related to the study was reviewed accordingly. The descriptive research design was used for this study and the population consisted of 47,468 students as of the 2023/2024 academic session (Student Affairs Division, 2024). A total of two hundred and ninety-nine (299) undergraduate students were selected. The instrument used for data collection was a well-structured questionnaire. The questionnaire was validated by the project supervisor and two other lecturers in the Department of Health, Safety and Environmental Education. The test-retest reliability was used to establish the reliability of the questionnaire. A total of two hundred and ninety-nine (299) questionnaires were administered to the sample respondents and data collected was analyzed using frequency count and percentage.

#### **Findings**

The findings of the study revealed that:

- Respondents have a high of knowledge about oral hygiene.
- Respondents have a high level of knowledge about the importance of oral hygiene.
- Respondents have bad attitudes towards oral hygiene.
- Respondents have poor oral hygiene practices.

## **Conclusion**

This study examined the knowledge and practice of oral hygiene among undergraduates in the University of Benin, shedding light on their knowledge, attitudes, and practices related to maintaining oral health. The findings revealed that respondents have high knowledge about oral hygiene and also a high level of knowledge about the importance of oral hygiene, respondents have bad attitudes towards oral hygiene as well as poor oral hygiene practices. Although a sizable percentage of students grasp the fundamentals of oral hygiene, they still lack a thorough awareness of recommended practices and the consequences of poor oral health. The study also showed that while many students clean their teeth and exercise other basic oral hygiene habits, there is still a low level of adherence to recommended measures, such as routine dental checkups.

This study therefore emphasizes the value of focused health education initiatives to close the knowledge-practice gap and encourage students to adopt healthier oral hygiene practices. Institutions like the University of Benin can promote a culture of preventive oral healthcare, lowering the risk of dental diseases and improving general well-being, by increasing awareness of and accessibility to dental care services.

This study concludes that undergraduates' oral hygiene practices are greatly influenced by their knowledge and that ongoing efforts in education, awareness campaigns, and dental service accessibility are necessary to ensure that students not only maintain optimal oral health throughout their academic careers but also form lifelong habits that enhance their overall quality of life.

## **Recommendations**

Based on the findings of the study, the following recommendations were made:

- The University should collaborate with health organizations and dental professionals to organize regular oral health seminars, workshops, and campaigns to improve students' knowledge of proper oral hygiene practices.
- Oral health education can be incorporated into general health courses for undergraduates to provide them with foundational knowledge on the importance of oral hygiene and preventive care.
- Focused health education initiatives to close the knowledge-practice gap and encourage students to adopt healthier oral hygiene practices should be provided.
- The University Health Center should offer affordable and accessible dental care services, including routine check-ups, professional cleaning, and consultations to encourage students to seek preventive care regularly.
- Campaigns using posters, flyers, social media platforms, and other communication channels should be conducted to inform students about the long-term consequences of neglecting oral health, such as gum disease, tooth decay, and systemic health issues.

### **Suggestion for Further Studies**

1. Impact of Oral Hygiene Knowledge on Long-Term Dental Health
2. Prevalence of Dental Issues and Treatment-Seeking Behavior Among Undergraduates
3. Knowledge and Practice of Oral Hygiene Among Hostel Residents

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**APPENDIX**  
**DEPARTMENT OF HEALTH, SAFETY AND ENVIRONMENTAL**  
**EDUCATION,**  
**FACULTY OF EDUCATION,**  
**UNIVERSITY OF BENIN, BENIN CITY**

**Questionnaire On**  
**The Knowledge And Practices Of Oral Hygiene Among Undergraduates In The**  
**University Of Benin.**

Dear respondent,

I am an undergraduate in the department of Health Safety and Environmental Education in the aforementioned university. Presently, I am carrying out a study on the topic; **Knowledge and practices of oral hygiene among undergraduates in the University of Benin.** This questionnaire is designed to seek your opinion on the above topic. Please note that this exercise is meant for research purpose only. You are kindly requested to supply all necessary information as sincerely as possible. All information supplied will be treated with utmost confidentiality.

Thank you

**SECTION A: Personal Information**

Kindly indicate your answer by ticking (✓) the correct option.

1. Age: 16-18 years  19-21 years  22-24 years  25-27 years
2. Sex: Male  Female
3. Level: 100  200  300  400  500  600

4. Religion: Christianity [ ] Islam [ ]

**SECTION B:**

Kindly indicate your answer by circling the correct option.

**What is the level of knowledge of oral hygiene among undergraduates in the University of Benin?**

5. What is the recommended duration for brushing the teeth ? a) 30 seconds b) 1 minute c) 2 minutes d) 5 minutes

6. Which of the following is the main purpose for using a toothpaste

- (a) To remove food particles (b) To strengthen teeth and gums (c) To freshen breath (d) All of the above

7. Teeth should be cleaned at least

- (a) Once a day (b) Twice a day (c) After each meal (d) Once a week

8. What should be used in cleaning your teeth?

- (a) Toothbrush only (b) Toothbrush, toothpaste and water (c) Chewing stick (d) Water and toothpaste only (e) none of the above

9. How frequently should you replace your toothbrush? a) Every month b) Every 3 months c) Every 6 months d) Only when the bristles wear out

**What is the level of knowledge regarding the importance of oral hygiene among undergraduates in the University of Benin?**

10. Why is flossing important for oral hygiene?

- (a) It removes plaque and food particles between teeth (b) It helps to make teeth look white (c) It prevents bad breath only

11. Maintaining good oral hygiene is important for overall health

(a) True (b) False (c) No idea

12. Proper oral hygiene helps prevents the following except -----

(a) Tooth decay (b) Mouth odour (C) Stress

13. Diabetes can be linked with poor oral hygiene

(a) Yes (b) No (C) No idea

14. Brushing of the the teeth alone is enough for good oral hygiene

(a) Yes (b) No (c) No idea

**What are the attitudes towards oral hygiene among undergraduates in the University of Benin?**

**Keys**

**SA = STRONGLY AGREE**

**A = AGREE**

**D = DISAGREE**

**SD = STRONGLY DISAGREE**

S/N	ITEM	SA	A	D	SD
15	Oral hygiene is important to overall health				
16	I am very conscious regarding my monthly routine dental check ups				
17	I believe that oral hygiene directly affects self-esteem and confidence				
18	I would seek dental care if I experience oral health issues, such as tooth pain or gum bleeding				
19	Oral hygiene practices (e.g., brushing, flossing) are time-consuming and inconvenient				

**What are the oral hygiene practices among undergraduates in the University of Benin?**

**Keys**

<b>S/N</b>	<b>ITEM</b>	<b>ALWAYS</b>	<b>SOMETIMES</b>	<b>NEVER</b>
20	I spend at least 2 minutes when brushing daily			
21	I make use of mouthwash and floss as much as possible			
22	I engage in preventive dental practices for my oral health			
23	I consume sugary products excessively			
24	I do forget to brush my teeth daily			