

SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA



**ASSESSMENT OF ORAL HEALTHCARE SEEKING BEHAVIOR AMONG
ADULTS IN THE SUNYANI WEST MUNICIPALITY OF GHANA**

BY

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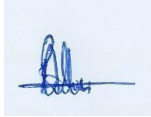
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AWARD OF MASTER OF PUBLIC HEALTH (MPH) DEGREE**

JUNE, 2022

DECLARATION

I, Emmanuel Appiah-Kubi, confirm that this thesis is my original work and has not been presented for examination in any other institution. Where references have been used, these have been cited accordingly.



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Date: 30/01/2023

(SUPERVISOR)



DEDICATION

This dissertation is dedicated to my family; Brigadier General M Appiah-Kubi, Constance Gyapomaa, Dr Esther Appiah-Kubi and my Dear wife, Gifty Osei Akoto. It is also dedicated to the whole community dentistry department and to all my loved ones.



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ABSTRACT

Background: Quality healthcare plays an integral role in the overall health of society and its importance cannot be overemphasized. However, in most developing countries, there are many shortfalls which hinders comprehensive healthcare delivery and impacts healthcare seeking behaviors of adults. Thus, this study sought to examine the factors that affect oral healthcare seeking behavior of adults between the ages of 18 and 75 in the Sunyani West Municipality, the challenges they face and their general knowledge about oral healthcare.

Methods: The study employed a descriptive cross-sectional study design involving both qualitative and quantitative data collection methods. A total of ten (10) communities that have primary healthcare facilities were selected through purposive sampling technique. The study further used a purposive sample of selected community members from the ten communities for individual in-depth interviews.

Results: The study suggests that several factors influence the oral health care seeking behaviour of adults in the Sunyani Municipality. These include the cost of treatment, the proximity from the communities to the health facilities, religious affiliation, level of knowledge as adults who are educated tends to have a better understanding of oral health care more than those who were not. The study also highlighted the systematic challenges hindering access to oral healthcare, including longer waiting hours, inadequate staff and knowledge on oral health.

Conclusion: Individual and health system factors such as level of education, religious affiliations, proximity to health facility and lack of information on oral diseases influenced the oral health care seeking behaviour of adults. There is the need for the Ghana Health Service and other stakeholders in the health sector to intensify oral health education at the community level and address the barriers to access to oral health care.

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LIST OF ABBREVIATIONS

Acronyms

Meaning

AHUBM	Andersen Health Utilization Behavioral Model Development
DMFT	Decayed, Missing, and Filled Teeth
ED	Emergency Department
GOHS	Global Oral Health Strategy
HIV	Human Immune Virus
NHEA	National Health Expenditure Accounts
OECD	Organization for Economic Cooperation and
OPD	Out Patient Department
QDAS	Qualitative Data Analysis Software

UHC	Universal Health Coverage
WHO	World Health Organization

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CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter sought to situate the current work within the context of existing knowledge about oral healthcare seeking behavior especially among adults in other global populations. It included identifying key concepts of what constitutes oral healthcare and reported factors that influence oral health care seeking behavior elsewhere. It further presents the problem statement, the research objectives and the justification for the study.

1.1 Background

The quest for quality healthcare has received considerable attention in recent times, and researchers have observed that several factors such as race, sex, religion, age, the type and nature of the illness, and the rate of accessibility of a healthcare facility all contribute to the healthcare seeking behavior of individuals. One of the essential things that bring meaning to human existence is good health. It empowers human beings to live up to their full potentials. Health contributes to both social and economic prosperity and it has extensive implications on the overall wellbeing of people (Jaafar *et al.*, 2017). Several scholars from different disciplines such as economics, epistemology, anthropology among others have sought to investigate the factors that necessitates the healthcare seeking behavior of people. Chandrika (1991)

Haritha et al (2020) cited a report from World Health Organization (WHO) where they observed that an estimated 60-90 per cent of children and nearly 100 percent of adults, of which about 30 percent are aged 65-70 years, had lost their natural teeth to periodontal diseases. To this effect, they further indicated that the prevalence of caries accounted for 15-20 percent which was the

major cause of premature tooth loss, especially in the permanent dentition. According to Khanna (2012), factors such as low socio-economic status, inaccessibility to oral healthcare services and low level of oral health education among people inform the healthcare seeking behavior towards dental care.

Khanna (2012) further remarked that poor oral health also results in preterm labor and spread of bacteria from mother to child. He observed that there are other negative effects of oral health diseases which undermine the quality of life during childhood through to old age and can have an impact on self-esteem, ability to eat, nutrition, and health. They are associated with considerable pain, anxiety, and impaired social functioning (Shieham, 2020).

According to Andersen and Newman's (1973) framework of health care services utilization, the use of health care depends on three components which are predisposing, enabling, and illness level. Predisposing component tries to explain the inclination of an individual towards use of health services prior to beginning of an illness episode. It consists of demographic, social structure and belief variables. The enabling factors are mainly related to the economic factors that have to do with the available resources needed to facilitate healthcare accessibility. With reference to the illness level, many visit the clinics only when they have failed with any kind of treatment carried out by themselves or anyone outside the healthcare setting. Thus, illnesses which could have been cured at the onset become difficult to deal with.

Petersen *et al.* (2008), stated that health behavior entails human activities which protect, promote or maintain health or prevent disease. Also, risk behavior consists of behaviors that have negative impacts on the health of individuals.

There are diverse facilitators and barriers that affect the oral health care seeking behavior Guay (2004). Studies indicate that choices that are made about oral health care seeking behavior are based on a range of demand and supply factors. The factors of demand depend on the willingness of patients to use oral health services, and supply factors depend on the accessibility of oral health services. Utilization of services can only be absolute if services are sufficiently available, and communities are ready and or able to utilize them.

According to Mlungisi (2011), various scholars describe different factors that influence oral health seeking behavior. Nevertheless, they are broadly associated with social, cultural, psychological and economic experiences of the individuals. Heaton *et al.* (2004) in a study conducted in three areas in Kentucky, America found that access to care, affordability, attitudes towards dental care and fear influenced utilization of oral health services.

Smith (2010) conducted a study in New Zealand and found that the environment, finance, lack of awareness and the absence of policy for adults residing in residential homes were factors that influenced access to health services. Shaikh (2008) defines health seeking behaviors as the initiatives which are undertaken by individuals to find suitable solutions in response to illness or health problems. Again, it has been defined as the cycle of activities which individuals go through to correct a perceived health related issue (Begashaw *et al.*, 2016).

In recent years, the notion of health seeking behavior has transformed into one of the main tools used to understand how and why people employ health care system in their localities. Shaikh (2008) asserts that the concept has been broadened enough to include socio-economic determinants of health and not just health care in isolation. The decision to seek healthcare at any point in time for an ailment is influenced by factors such as financial predicament, time constraints, accessibility to healthcare facilities, people's advice and previous experience with a particular illness and its treatment (Afolabi et al, 2013).

1.2 Problem Statement

Subait *et al.* (2015) have stated that most available literature suggest that there are strong evidence-based studies correlating poor knowledge on dental healthcare to poor oral health. However, there is limited literature on the dental health knowledge seeking behavior in Ghana. Harris et al. (2011) have noted that access dimensions within all health delivery systems are acceptability, affordability and availability. There are however major challenges in the healthcare system of Ghana where only few facilities are accessible and many of these facilities lack dental care departments.

Again, though some studies have been conducted on oral healthcare and factors that influences oral healthcare, Bayu and Tesfaye (2016) and Danso-Appiah *et al.* (2010) only few of the studies have focused on examining the factor(s) that influence the healthcare seeking behavior of adults especially in the Sunyani West Municipality and hence making it imperative to conduct this study.

Furthermore, the available studies have not focused on examining some of the challenges the healthcare service providers and the patients face in accessing oral health care. They only focused on examining the factors that influence healthcare behavior.

1.3 Research questions

1. What is the level of knowledge of oral healthcare among adults in the Sunyani West Municipality?
2. What are the main factors that influence the oral health seeking behavior of adults in the Sunyani West Municipality?
3. What are the challenges in oral healthcare service delivery?

1.4 Objectives of the study

1.4.1. General Objective

The main objective of the study was to examine the main factor(s) influencing oral healthcare seeking behavior among adults in the Sunyani West Municipal.

1.4.2. Specific objectives

The study sought to address the following specific objectives:

1. To determine the types of oral diseases among adults in the Sunyani West Municipality
2. To assess the level of knowledge of oral healthcare among adults in the Sunyani West Municipality
3. To assess the factors influencing oral health seeking behaviour among adults in the Sunyani West Municipality

4. To explore the views of dental health professionals on the health systems challenges in the provision of oral healthcare.

1.5 Justification of the study

According to Jayapalan (2015), getting to understand the dynamics and interactions that make a person decide where, when and why to seek care is very vital. The effectiveness of oral health prevention, intervention and treatment programs of a population is dependent on ample comprehension about their healthcare seeking behavior (Veldhuijzen *et al.*, 2013). This study sought to examine the basis for oral healthcare seeking behaviors of patients who presented at the Kwatri Hospital.

African populations are said to be undergoing an epidemiological transition whereby noncommunicable diseases are becoming more common as compared to infectious disease. In Ghana, cardiometabolic diseases are becoming more prevalent, particularly among adults (Boakye *et al.*, 2017; Stuart *et al.*, 2018). Notably among these are diabetes, which is often undiagnosed and could be discovered due to secondary effects such as periodontitis. Besides, in Ghana the use of alternative herbal medicines for a broad range of health conditions, including dental hygiene is integral part of the health delivery system (Danso-Appiah *et al.* (2010). However, there is paucity of data on oral healthcare seeking behaviour and how this may impact early diagnosis of oral diseases in Ghana and the Sunyani Municipality in particular. Thus, the results of this study will generate data that could be used by stakeholders such as the Ministry of Health and Ghana Health Service to develop community-based strategies that will encourage community members to seek prompt oral health care to improve oral health and related diseases.

The study will also contribute to the available literature on dental diseases and oral healthcare seeking behaviour in a specific population in Ghana and future studies could potentially expand this knowledge base in other Ghanaian populations. In particular, the knowledge of what informs adults in seeking for oral health care services and the challenges associated with the service delivery.



CHAPTER TWO

LITERATURE REVIEW

2.0. Introduction

This chapter presents a review of relevant literature to situate the general objectives of this study in the broader context of existing knowledge around the subject. It also includes the theoretical and conceptual frameworks of the study.

2.1. Definition of Oral Health and Oral Diseases

Oral diseases are among the most common non-communicable diseases (NCDs) and may disturb people throughout their lifetime, causing pain, disfigurement and even death. In the WHO African region where 80% of the population have low socio-economic status, these diseases affect the health and well-being of millions of people. They also have an adverse economic impact on the population.

Several definitions have been provided to explain what really constitute oral health. According to the World Health Organization, oral health is

‘A state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects such as cleft lip and palate, periodontal (gum) disease, tooth decay and tooth loss, and other diseases and disorders that affect the oral cavity’.

Poor oral hygiene is a leading cause of dental caries, according to research published by Reddy et al. (2014). A person's awareness and mentality can make a huge difference in their oral health. Attitudes that people exhibit naturally originate from their own experiences, cultural perceptions, family beliefs, and other life situations, as stated by Bashiru and Omotola (2016), which have a significant impact on oral health behavior.

Diseases of the mouth have a far-reaching effect on overall health, especially in patients with preexisting conditions like diabetes. An increase in the risk of serious adverse health outcomes has been linked to a failure to prevent or control the progression of oral disease. Maintaining good oral health is crucial because it protects against systemic diseases like infective endocarditis, according to studies cited by Wilson et al., (2007).

For example, numerous Indian researchers have lamented the far-reaching consequences of ignoring oral healthcare (Dagli et al, 2008). In a study of students aged 11 to 12 from a government aided missionary school in Bangalore, it was found that the students' oral health knowledge, attitude, and practices (KAP) were generally low and could stand to be enhanced. In order to raise children's knowledge, attitudes, and practices (KAP) about oral health, there is the need for community-based oral health promotion programs (Harikiran, 2008).

The National Health Expenditure Accounts (NHEA) (2013) report for the United States of America and other studies have confirmed the high price tag associated with dental care. Restorative care for oral disease that could have been prevented or treated with lower-cost, lower-risk interventions accounted for a large portion of the \$111 billion spent on dental services in 2013. Utilization and source of care patterns include an increase in the use of the emergency department (ED) for acute oral health conditions that are not life-threatening, as reported by Wall (2013).

In 2010, between \$867 million and \$2.1 billion was spent on treating dental conditions that sent 2.1 million Americans to emergency rooms. Hospitalization due to abscessed teeth complications cost the U.S. healthcare system \$858.9 million between 2000 and 2008. (Shah et al, 2013). From what has been stated above, it follows that maintaining good oral health is crucial to overall health. Due to the

potential impact on both patients and the healthcare system as a whole, this issue warrants close scrutiny.

Dental caries (tooth decay), periodontal diseases, oral cancers, oral manifestations of HIV, orodental trauma, cleft lip and palate, and noma are the most common oral health conditions, according to the WHO (severe gangrenous disease starting in the mouth mostly affecting children). In most cases, oral health problems can be avoided or at least alleviated if caught early.

2.3. Overview of Dental Health Policies

Several national and international agencies tasked with improving public health have drafted comprehensive oral health policies. As part of the WHO Global Oral Health Strategy, the World Health Organization promotes the safe and effective use of fluoride to prevent and treat dental caries in the twenty-first century (Petersen and Lennon, 2004). Recent systematic reviews have consistently found that population-wide automatic fluoridation measures are the most effective (Petersen and Lennon, 2004; WHO, 1994). (MRC, 2002; McDonagh et al., 2000).

In addition, it is recommended that the general population use fluoride toothpastes more frequently, and fluoride mouth rinses may be useful for certain groups of people at risk of tooth decay (Petersen and Lennon, 2004). (Marinho et al., 2004).

In 2019, oral health was added to the Political Declaration on Universal Health Coverage, a move that came eight years after the UN High-Level meeting on Non-communicable Diseases acknowledged that oral diseases pose a major health burden for many countries. Together with the

World Health Organization, states in Africa, the Eastern Mediterranean, South-East Asia, and the Western Pacific developed and endorsed robust regional strategies and calls to action in support of oral health during this time period. The World Health Organization (WHO) is dedicated to eliminating financial barriers to providing quality oral health care to all people in need across the globe.

2.4. Global burden of oral diseases

According to the WHO (2012), there is a decline in oral health in rural areas and almost all developing countries. As a result, this presents a significant barrier to the advancement of public health initiatives and the oral health care infrastructure. From the report of WHO (2012), a study from forty-seven (47) African countries showed that there is a disproportionate amount of oral disease and risk factors in all the countries that WHO has presence.

Disease and risk factor prevalence patterns in Africa is believed to differ from those in the rest of the world, and several conditions of particular importance to Africa were left out of the Global burden study altogether, hence it has become difficult to get a detail statistical references on oral health diseases for Africa.

According to the World Health Organization, dental caries is a serious issue all over the world with one of the highest prevalent rates among the other oral diseases (WHO, 2012). Thus, Peterson *et al.* (2005), found that, dental carries seem to be more acute and prevalent among economically disadvantaged people in both developing and developed nations. Peterson *et al.* (2005), further indicated that, statistically about 60%-90% of school-aged children and almost 100% of adults are affected with dental carries.

Wang *et al.* (2002) conducted a second national survey of oral health in China and found that 77% of children aged 5 are affected by dental caries, with a mean dental caries experience index (dmft) of 4.5. They also noted that adults aged 35–44 have a mean caries experience index (DMFT) score of 2.1, while those aged 65–74 have a score of 12.4 (Wang *et al.*, 2002). Similarly, dental caries was found to have a prevalence of 55.1% among 18-year-olds and a prevalence of 74.4 % among 34-year-olds in Africa (Siddiqui *et al.*, 2013).

In India (George and Mulamoottil, 2015) and the Republic of Lithuania (36.7%), children from lower socio-economic backgrounds had the highest prevalence of dental caries. Children of mothers with positive attitudes and information about oral health are more likely to practice those attitudes themselves (Saied-Moallemi *et al.*, 2008).

In order to describe and analyze the long-term effects of caries on people's oral health, the World Health Organization suggests conducting epidemiological studies on those between the ages of 35 and 44 (Olabisi *et al.*, 2015). In the 1980s, most developed countries demonstrated strong DMFT performance. Up until recently, this was largely attributable to people eating too much sugar. However, thanks to public health campaigns and people's generally healthier diets, this trend has been steadily reversing itself (Peterson *et al.*, 2005).

Children in the Americas, for example, have a DMFT score of 3, which is more than double the threshold set by the World Health Organization (DMFT = 3) for children of the same age. The DMFT scores of Baghdad, Iraq, 12-year-olds, however, were 1.7 points lower than predicted (Ahmed *et al.*, 2007). The average DMFT value in Russian adults aged 35-44 was 13.93, and 99.0% of them had dental caries (Kuzmina, 2010). When comparing this age group to the same in Brazil,

where caries prevalence was 68.5% and the mean DMFT was 16.6 ± 6.973 , there was little to no difference (Costa et al., 2012).

The DMFT was found to be as low as 1.7 in a few African nations (Petersen et al., 2005). The mean DMFT score for 12-year-olds in Burkina Faso was 0.7, significantly lower than the average across all of Africa (Varenne *et al*, 2004). School-aged children in Ghana had a prevalence of caries of 17.4% between the ages of 9 and 15, with a mean DMFT score of 1.138 ± 0.476 . This was higher in females (19.3%) than in males (15.1%) (Ndanu *et al*, 2014). This is a significant increase from the data collected in Burkina Faso.

The 2013 Annual General Report for Korle-bu Teaching Hospital in Ghana found that caries prevalence was 46.1% and was among the top 10 causes of dental O.P.D attendance. Aside the dental carries, a study by WHO (2012), found that severe periodontitis and untreated caries in deciduous teeth ("milk" or "baby" teeth) were the sixth and tenth most prevalent conditions, which affects almost 1 out of every 10 people globally.

2.5. Factors influencing dental health seeking behavior

Dental caries and periodontal infections are common oral diseases worldwide (Vered and Sgan – Cohen, 2003), and some studies have shown that treatment of oral diseases is expensive and may be extremely inadequate in low- and middle-income countries (Petersen, 2004). According to Mlungisi (2011), a significant economic barrier to oral health services exists in the form of inadequate funding, which in turn prevents the provision of even the most fundamental outreach programs dedicated to educating the public about the importance of maintaining good oral hygiene.

Activities by humans that safeguard, improve, and keep people healthy are called "health behavior," while those that put people at risk and have unfavorable effects on their health are called "risk behaviors" (Petersen et al, 2008). According to Mlungisi (2011), a number of distinct factors affect people's decisions to seek out dental care. Studies that have been conducted thus far have shown that various demand and supply factors influence individuals' decisions when it comes to selecting dental health services, or their propensity to seek out oral health care. Guay (2004) argues that patient motivation to seek out oral health care services drives demand, while access to care drives supply.

Researchers have found that for service utilization to be optimal, both service availability and community willingness and/or capability must be high. Authors' descriptions of what influences people to seek dental care vary, but they all have something to do with the social, cultural, psychological, and economic circumstances of communities and individuals. According to research by Heaton, Smith, and Raybould (2004) conducted in three areas of Kentucky, America, access to care, affordability, attitudes towards dental care, and fear influenced utilization of oral health services. Smith's (2010) research in New Zealand found that the environment, finances, lack of awareness, and the absence of policy all played a role in determining whether or not adults living in residential homes had access to health care.

In addition, previous research has shown that in some developing nations, growth rates are on the rise. This can be attributed to a lack of oral health education on preventative measures and to the fact that dental services are concentrated in urban centers' regional and central hospitals (Peterson *et al.*, 2005). It's also possible that there just aren't enough dentists to go around. With only one

dentist for every 150,000 people, Africa has a dire dental care crisis (Peterson *et al.*, 2005). A similar situation is shown in India from a recent study by the WHO that reports a dentist to population ratio at 1:2500000 (WHO, 2016). An indication of the scarcity of dentists despite the number of years between these two studies.

Access to primary oral health services is often limited due to the uneven distribution of oral health professionals and a lack of appropriate health facilities in most countries (Hosseinpoor *et al.* 2012). From 35% in low-income countries, 60% in lower-middle-income countries, 75% in upper-middle-income countries, and 82% in high-income countries, adults with a need for oral health services have access.

Dental care accounts for about 5% of total health expenditure and 20% of out-of-pocket health expenditure in high-income settings, according to a 2017 report by the Organization for Economic Cooperation and Development (OECD). In many countries, the cost of dental care is prohibitive for the average person, but efforts to promote universal health coverage (UHC) can shape the conversation about how to improve primary oral health services and reduce the high cost of dental care for individuals.

2.6 Challenges to Providing Affordable Dental Care

Access to dental care has been identified as a major problem, particularly for those living in rural areas, according to studies (Talluri *et al.*, 2017). Although some traditional practices can be beneficial to oral health, increased vulnerability to oral disease can be attributed to locally specific dietary patterns and social habits. Dental chipping and the deliberate removal of healthy teeth or

tooth germs are two examples of outdated dental practices that can have devastating consequences (Barbieri et al, 2013). Also, people who chew substances like khat are more likely to develop oral cancer and gum disease (Al-Kholani, 2010).

Poor service utilization and limited access to dental care were cited by Bommireddy (2016) as obstacles to dental health care for the general population. According to Clackson et al. (2010), people's lack of oral health literacy also presents a challenge and influences their motivation to seek oral health care. They claim that "oral health literacy" is a relatively new concept that refers to people's ability to access, analyze, and apply fundamental health concepts in order to make wise decisions about their oral health. Oral health literacy, which in turn affects people's propensity to seek dental care, is influenced by healthcare providers' knowledge of and ability to communicate about oral health issues, as shown by Clackson et al. (2010).

Researchers have also identified the communication gap between patients and medical staff as a barrier to patients gaining access to oral health care. According to Kwan and Williams (1999)'s suggestions, knowing the beliefs and practices of the intended audience is crucial when developing and disseminating oral health education for adults. If the dental professionals' messages and advice contradict the elders' cultural health beliefs and practices, the dental professionals risk losing the elders' trust and cooperation.

The World Health Organization (2016) states that most people have inadequate or no access to oral health care services because of an inadequate distribution of oral health professionals and a lack of appropriate and functional facilities within the primary health care system. This puts a strain on

primary health care systems in the region because of the high prevalence of untreated oral diseases and the high demand for these services.

The World Health Organization (2016) added that this region also has poor oral health due to a lack of access to even the most fundamental dental care. There are many easily treatable conditions that go unnoticed because primary care providers are either too busy, too inexperienced, or both to recognize them in their early stages when simple interventions are most effective. As a result, serious cases go unreferred. Too few funds are set aside for either preventative or restorative dental care (WHO, 2016).

2.7 Theoretical Framework

Andersen's Health Utilization Behavioral Model (AHUBM), is a theoretical framework from 1995. This model was created to help explain the variables that determine how often and how much health services are used, as well as to define and quantify equitable access and provide guidance for crafting policies that advance this goal. This model proposes that the characteristics of the population being studied, as well as the context in which the behavior takes place, are the primary determinants of health-related behavior (Andersen, 1995). Andersen (1995) argues that the external environment and characteristics of the population are predisposing, enabling, and need factors in the health system.

The propensity to use allopathic oral health services is influenced by socioeconomic factors like education and occupation, gender, ethnicity, and health beliefs; enabling factors are resources available to an individual or community that allow them to access health services; and need factors

are either perceived by an individual or community or evaluated on their behalf by experts (Andersen and Newman, 2005). People's health habits, outside of using medical care, are also affected by demographic factors (Baker, 2009). By using Andersen's model, researchers can better understand the factors that influence health-seeking behavior in a given setting and devise targeted interventions.

2.8. Conceptual framework

Healthcare utilization among urban and rural households in Esera District was also studied by Bayu and Tesfaye (2016), whose conceptual framework is adopted here.

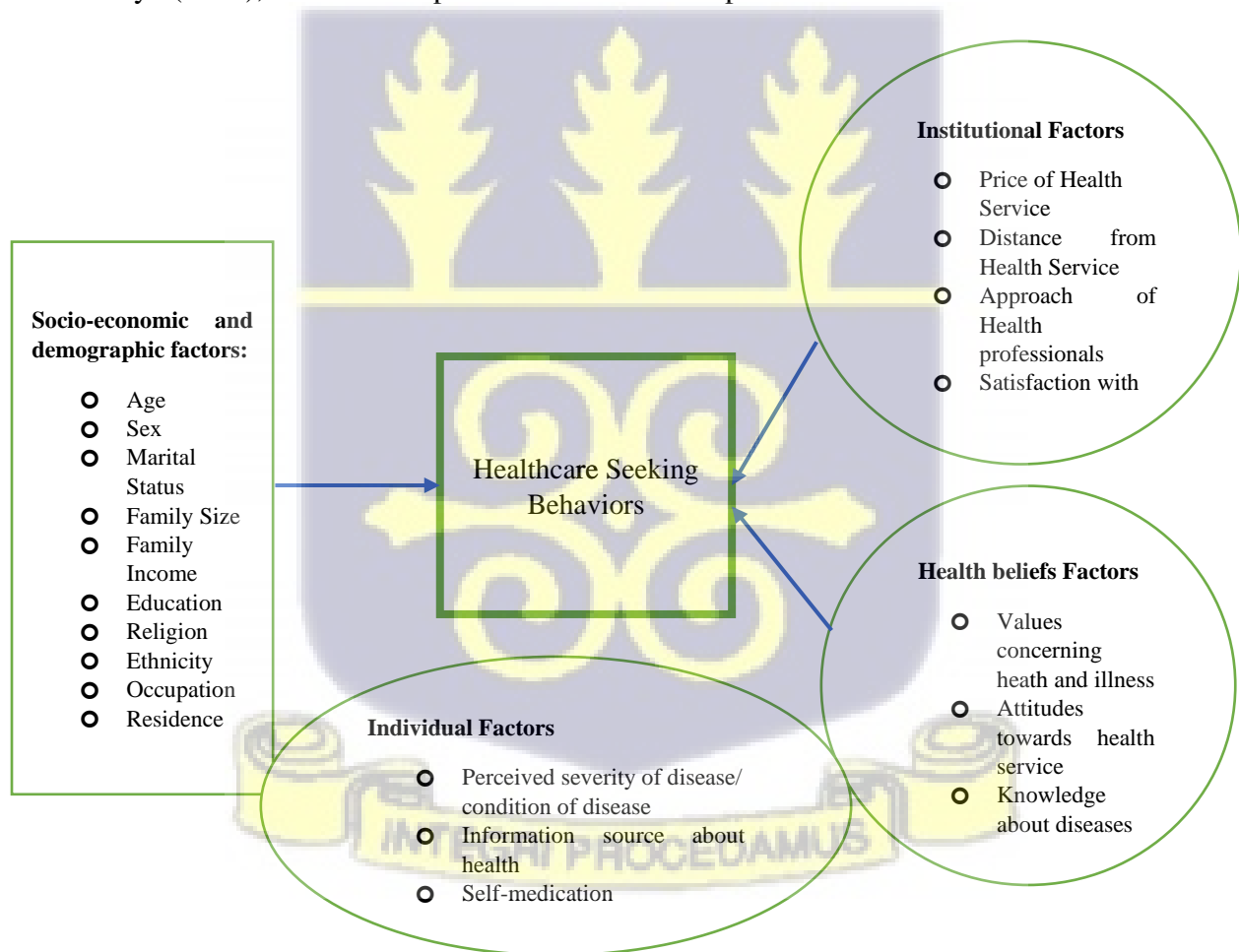
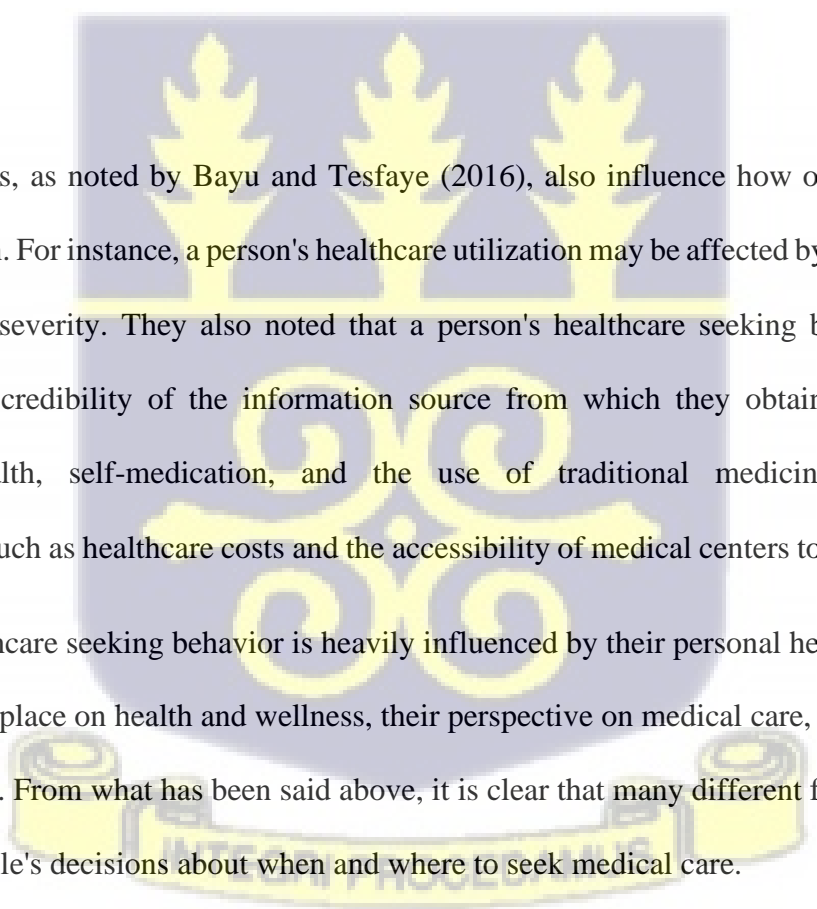


Figure 1 A conceptual framework for examining Health seeking behaviour. (Adopted from Bayu and Tesfaye (2016),

2.9. Narrative of Conceptual framework

Figure 1 presents a conceptual framework developed by Bayu and Tesfaye (2016), who conducted a similar analysis of healthcare utilization in Esera district's urban and rural households. Their model suggests that a number of factors influence patients' decisions to seek medical attention. They claim that people's decisions about when and where to seek medical attention are heavily influenced by socioeconomic and demographic characteristics such as age, sex, marital status, family size, family income, education, religion, ethnicity, occupation, and place of residence. People with more education, for instance, are more likely to prioritize their health and to seek medical care sooner than those with less education.

The logo of the University of Ghana is a large, semi-transparent watermark in the center of the page. It features a shield with three golden flames at the top, a central golden emblem with a crown-like top and two circular motifs below, and a golden banner at the bottom with the motto 'PATRIAM PROCEDEMUS'.

Individual factors, as noted by Bayu and Tesfaye (2016), also influence how often people seek medical attention. For instance, a person's healthcare utilization may be affected by their perception of the disease's severity. They also noted that a person's healthcare seeking behavior may be affected by the credibility of the information source from which they obtain data about the individual's health, self-medication, and the use of traditional medicines. Institutional considerations, such as healthcare costs and the accessibility of medical centers to patients' homes. A person's healthcare seeking behavior is heavily influenced by their personal health beliefs. The importance they place on health and wellness, their perspective on medical care, and the diseases they are familiar with. From what has been said above, it is clear that many different factors interact to affect these people's decisions about when and where to seek medical care.

2.9. Summary of Knowledge Gaps

It is clear from the discussions in the various literatures that many factors influence the decision to seek medical care. However, these studies have not been able to determine which of these factors is the most important. In particular, how people in Sunyani Municipal seek out dental care.

Yet again, the available studies have not analyzed the obstacles that medical professionals and patients face when trying to get oral health care. Specifically, they looked into what factors play a role in people's decisions about healthcare.



CHAPTER THREE

METHODOLOGY

3.1 Introduction

According to Schwardt (2007), research methodology refers to the proper way to conduct an investigation. It entails assessing hypotheses, philosophies, and methodologies in a specific way with regard to an investigation. This chapter describes the approach that was employed for the study and provides justification for choosing one method over another.

3.2 Study Design

This study employed a descriptive cross-sectional study design and involved both quantitative and qualitative methods. This method was chosen in order to precisely and methodically characterize a population, circumstance, or phenomena. It can respond to inquiries about what, where, when, and how, but not why (Shields, 2013).

3.3. Study Area

The study was conducted in Ghana's Bono Region at the Sunyani West Municipality. The regional setting in which this research was carried out is described in this section. This section emphasizes the geographic position, area of the land, population, distribution of the population, vegetation, climate, local economy, people's culture, level of education, and health of the residents.

One of the 12 administrative districts in the Bono region of the Republic of Ghana is Sunyani West Municipality (SWM). The Legislative Instrument (LI) 1881 was used to establish it on November 1st, 2007, and Odomase served as the administrative capital until it was officially inaugurated on February 29th, 2008. Sunyani, the capital of the Bono region, lies 5 km away from Odomase. The district has two significant towns; Odomase and Fiapre have united to form Sunyani, the capital of the region. The Assembly is divided into seven (7) subdistrict entities, each of which is charged with carrying out specific tasks on the Assembly's behalf. There are several of them, including the Chiraa Urban Council, the Nsoatre Urban Council, the Fiapre Town Council, the Awua-Domase Area Council, the Odomase No. 1 Area Council, the Koduakrom Area Council, and the Dumasua Area Council.

Geographically, the municipality shares borders with Tain District to the north, Wenchi Municipal to the north-east, Offinso North to the east, Sunyani Municipal to the south, and Berekum Municipal to the west. It is located between latitudes 7° 19'N and 7° 35'N and longitudes 2° 08'W and 2° 31'W. Additionally, it is bordered on the South-West and South-East by the districts of Tano North and Dormaa East, respectively. 1,059.33 Square Kilometers, or 4.2 percent of the Bono region's total land area, make up the entire land area (GSS, 2012).

Residents of the district are also given access to health services from a variety of governmental and private health institutions. The facilities include maternity homes, clinics, hospitals, and Community Based Health Planning and Services Compounds (CHPS). Following is a breakdown of where medical facilities are located: Five (5) health centers, two (2) private clinics, one (1) municipal hospital. Additionally, there is easy access to portable water, and 92 percent of residents drink from drinkable sources.

3.4. Study Population

All patients who visited the Kwatri hospital in Sunyani West Municipality were included in the study population. Five hundred and two (502) people are thought to visit the facility each month, according to hospital data, thus that number was utilized as the study population. For settlements including Odomase, Adantia, Kwatri, Eserreso, Tumiammayenko, and Aprakukrom among others, this institution acts as their first point of call. However, the dentistry unit staff at the Kwatri government hospital made up the study population for the healthcare professionals.

3.5. Inclusion and Exclusion Criteria

3.5.1. Inclusion criteria

- Adults 18 years of age and older who reside in the Sunyani West Municipality
- Adults who utilize the medical facility at the Kwatri hospital
- Willingness to give informed consent to participate in the study.
- Only employees of the dentistry unit were included in this study's pool of healthcare professionals.

3.5.2. Exclusion criteria

- Adults above the age of 18 who are unwell
- Adults who are unable to give informed permission.
- Respondents who do not use the Kwatri hospital.

3.6.1. Sample Size Calculation for Quantitative Survey

The population's prevalence of dental caries is estimated to be 50%. utilizing the projected prevalence from Sunyani Municipal as provided to the Kwatri hospital by the dentistry unit's head.

$$N = \frac{z^2 p (1-p)}{d^2}$$

$$d^2$$

Where N= sample size, z= statistic for a level of confidence, p= expected proportion, d= precision

Where $z = 1.96$, $p = 0.5$, $q = (1-p) = (1-0.5) = 0.5$ Therefore,

$$q = 0.5, d \text{ (precision)} = 8\% (0.08).$$

$$N = 1.962 \times 0.5 \times 0.5$$

$$0.082$$

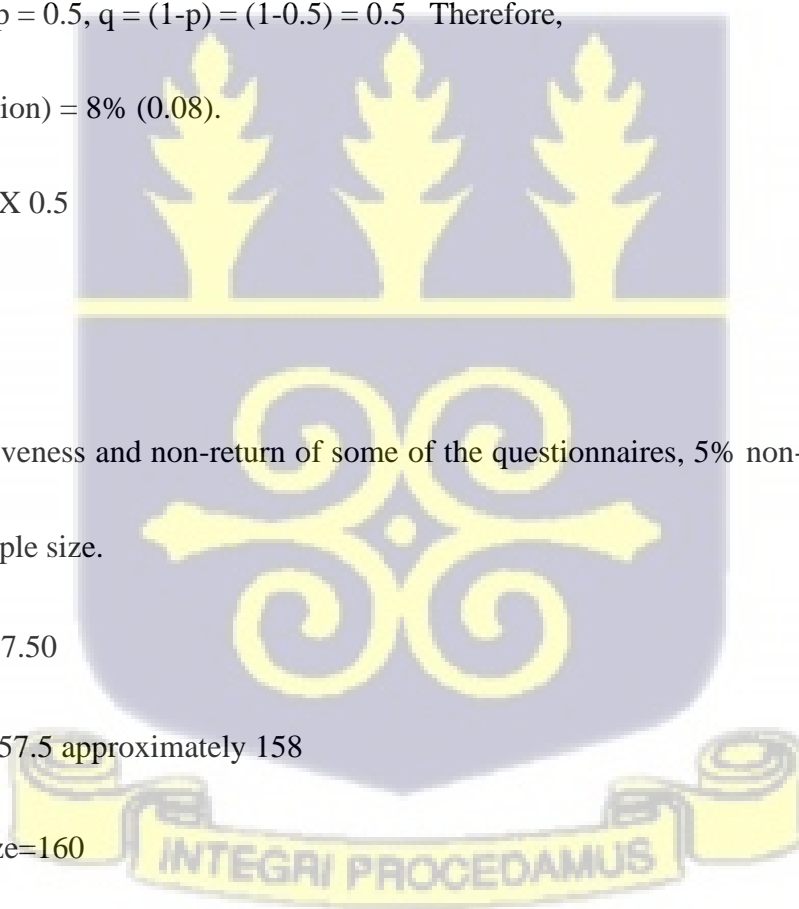
$$N = 150.06$$

For non-responsiveness and non-return of some of the questionnaires, 5% non-response rate was added to the sample size.

- 5% of 150.06= 7.50

- Sample size= 157.5 approximately 158

- New sample size=160



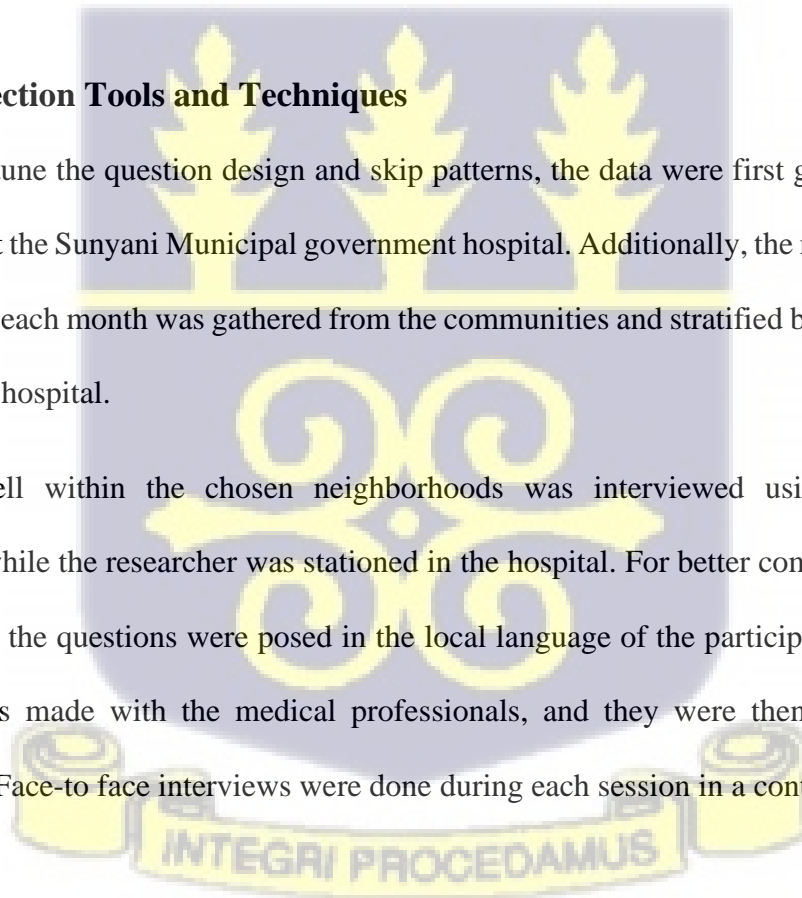
3.6.2. Sample Selection for Qualitative Interviews

To choose the respondents for the qualitative arm of the study, the purposive sampling method and simple random sample method were both used. Two (2) communities were chosen for the qualitative interviews using the purposive sampling technique. The Kwatri hospital is used by each of the chosen communities in a similar manner. Five (5) people from each of the 2 selected communities were also chosen using a simple random sample procedure. Again, ten (10) employees of the dentistry unit were chosen from the hospital, bringing the total number of respondents for the qualitative study to twenty (20).

3.7. Data Collection Tools and Techniques

In order to fine-tune the question design and skip patterns, the data were first gathered through a pre-test survey at the Sunyani Municipal government hospital. Additionally, the number of patients the hospital sees each month was gathered from the communities and stratified based on how close they lived to the hospital.

Anyone who fell within the chosen neighborhoods was interviewed using the improved questionnaires while the researcher was stationed in the hospital. For better comprehension of the questions posed, the questions were posed in the local language of the participants. However, an appointment was made with the medical professionals, and they were then contacted at the appointed time. Face-to face interviews were done during each session in a controlled setting.



3.7.1. Quantitative Survey

Both primary and secondary data were used in the investigation. Secondary data were records obtained directly from the hospital on the types of oral diseases reported at the hospital over the past three years (2019-2020). For the primary data, participants who agreed to take part in the study were given self-administered semi-structured questionnaires to complete.

3.7.2. Qualitative Interviews

Qualitative research interviews are "attempts to unravel the significance of peoples' experiences, to uncover their lived reality prior to scientific explanations," Kvale (1996). The informal conversational interview, the interview guide approach, and the standardized open-ended interview are the three fundamental styles of qualitative interviewing, according to Patton (1990). In this study an interview guide was developed to facilitate face to face in-depth interviews with purposively selected health professionals at the dental unit of the Sunyani Hospital. The interviews were conducted to explore the views of health workers on challenges in providing dental health services to patients presenting at the hospital. The interviews were all conducted in English at the hospital and at the participant's convenient time. Each interview lasted for approximately 30 minutes and were audio recorded with the consent and permission of the participants.

3.8. Conducting Research Under COVID-19.

The research implemented a number of safety measures to protect the respondents and the research team due to the Covid-19 pandemic epidemic and the catastrophic health effects it was associated with. All of the respondents received the researcher's disposable nose mask. Additionally, hand

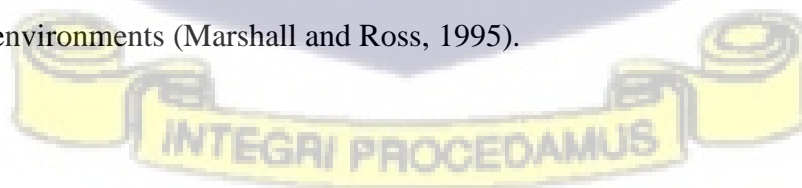
sanitizers were given to each respondent, and the protocol for social distance was followed while collecting the data.

3.8.1. Quantitative Data Analysis

The completed questionnaires were cleaned and checked for consistency and then the data were exported into Microsoft Excel format, and then imported into STATA 15 for data management and analysis. Descriptive statistics like frequencies and percentages are presented in tables and graphs in chapter 4 of the thesis.

3.8.2. Qualitative Data Analysis

The qualitative data collected were analyzed by first transcribing the recorded audio into text. This was then shared with the respondents to review and verify if the transcription was accurate. This was done to validate and check the quality of the data. The data was then analysed manually by reading through each transcript and the data was then grouped by examining those with similar kinds of information in categories; relating different ideas and themes to one another. This approach has been recommended by Rubin and Rubin (1995), as it enabled the researcher further find overarching themes, recurrent concepts or language, and patterns of thought that connect individuals and environments (Marshall and Ross, 1995).



3.7.1. Ethical clearance

Before data collection, the proposal and supporting documents were sent to the Ghana Health Service Ethics Review Committee for ethical approval. The approval letter is attached as an appendix on page 70.

3.7.2. Consent Process

Prior to the data collection, informed consent forms which contained information about the study, purpose, recruitment procedure, potential risks and benefits and assurance of privacy and confidentiality were administered to each potential research participant. Those who agreed to participate in the study either signed or thumb printed the form. As an appendix, a sample consent form is provided.

3.7.3 Potential risk

Participants in the study were not exposed to any physical or psychological risks or injuries. The only burden to participants was the 15 to 25 minutes of their time to complete the study. It was made clear to participants that they were free to withdraw participation if they felt uncomfortable answering any of the questions.

3.7.4. Benefits of the study

Participants did not receive any direct profit from their participation in the study. However, study results will help improve our knowledge of the factors influencing oral health seeking behavior, which will guide health policy and practice.

3.7.5. Cost of participation

Participation in this minimal risk study only cost the participants' time. Participants were not paid any money to be part of the study.

3.7.6. Source of funding

The study was funded by the Principal Investigator.

3.7.7. Compensation

Participants were appreciated by word of gratitude for spending their time to participate in the study.

3.7.8. Privacy and confidentiality

Participants could speak freely and in privacy during interviews because of the calm setting at the back of the hospital's pharmacy waiting area. To maintain confidentiality, names were not used.

Data are only accessible to the lead investigator and his academic advisor.

3.7.9 Data Storage and Security

Data were encoded before being collected, kept secretly afterward, and only utilized for academic purposes. For the goal of facilitating the creation of manuscripts and presentations for dissemination, the data collected would be retained for a period of three years.

3.7.10. Voluntary Consent

It was made clear to participants that their participation in the study was completely optional. In other words, if a person decided not to participate, it had no bearing on the hospital care services provided to him or her. Participants were also made aware that they could skip any questions they did not feel comfortable answering or withdraw from the study at any time after being first accepted.

3.7.11. Conflict of Interest

There was no conflict of interest at any point during the entire study-conducting procedure.

3.7.12 Dissemination of Results

The candidate's thesis, which is required for consideration for a Master's in Public Health degree, summarized the study's findings and results. The University of Ghana School of Public Health library will have copies of the thesis available in addition to being online. In addition to being presented at national and international conferences, manuscripts on the study's key findings will be submitted for peer review and publication.



CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter details the presentation of the results which were obtained from the data analyzed. A total of one hundred and sixty (160) respondents were interviewed and qualitative data analyzed using STATA 16, while thematic content analysis was conducted for the qualitative arm of the study.

4.1 Socio-demographic Characteristics of Respondents

Table 1 shows the socio-demographic characteristics of respondents. Majority of the respondents were females representing 61% of the total respondents. The age distribution of respondents is shown in Figure 1. Majority (34%, 54/160) of the respondents were above 40 years of age, followed by 19% (31/160) of respondents aged between 31-35 years.

According to results from the data, majority of the respondents 74% have no education with 13% of them stating that they have certificates with the remaining 9% having degrees. None of the respondents interviewed however had either Masters or a PhD. The respondents were further asked to indicate their religious affiliations and according to the results obtained from the data analyzed, majority of the respondents 81% of the respondents stated they were Christians and 13% of them identified themselves with Islam and the remaining 9% stated they are not affiliated with any religious group. None of the respondents stated however that they belong to African Traditional Religion (ATR).

The study showed that majority of them 75% were farmers while 6% of them were engaged in various trading activities with 7% of them working in various professional sectors with the remaining 10% stating they are not engaged in any economic activities. The table below is the summary of the results obtained from the data analyzed on the background data of the respondents:

Table 1 Socio-demographic characteristics of Respondents

Variable	Frequency	Percentages (%)
Gender		
• Males	62	39
• Females	98	61
Level of Education		
• None	119	74
• Certificate	21	13
• Degree	19	9
• Masters	-	-
• PhD	-	-
Religious Affiliation		
• Christianity	135	81
• Islam	21	13
• ATR	-	- 9
• Other	14	
Occupation		
• Farming	121	75
• Trading	11	6
• None	16	10
• Professional worker	12	7

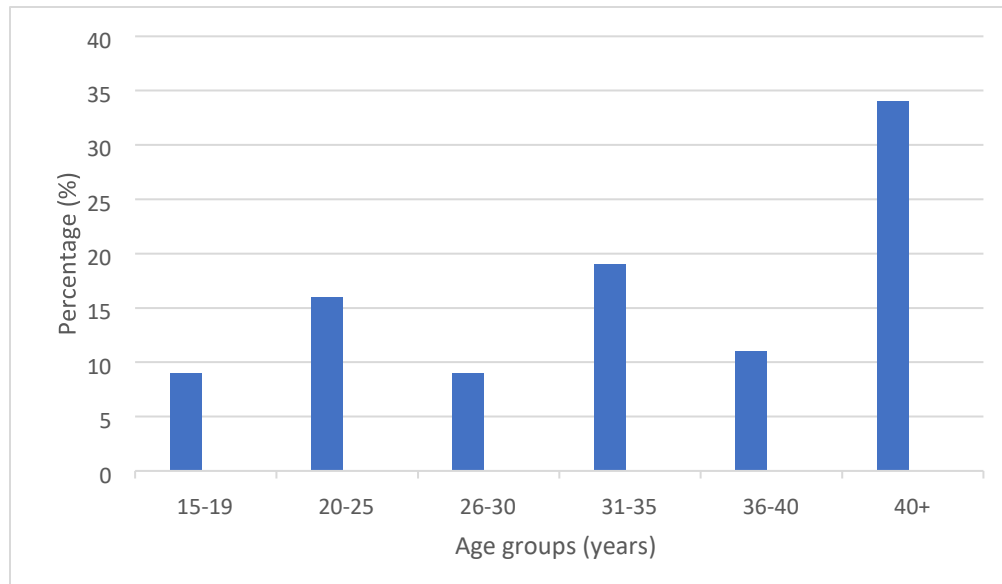


Figure 1 Age Distribution of Study Participants

4.2 Factor(s) Influencing Oral Healthcare Seeking Behavior Among Adults

Majority of the respondents 58% (92/160) stated financial burden and cost of healthcare as the main factor that influenced their oral healthcare seeking behavior. Furthermore, 14% (22/160) of respondents stated that proximity of their communities to the health care center was also an important factor; majority of the respondents stated that they travel a distance of 25km to the facility. Another 11% stated the availability of dental facilities also influence their oral healthcare seeking behavior (Table 3). The results further showed that 8% of them indicated their religious affiliation has the tendency to influence their oral health seeking behaviour. Further details may be reviewed on Table 3 below:

Table 2. Factors Influencing Health Seeking Behavior

Variable	Frequency	Percentages (%)
Financial burden and Cost of treatment	92	58
Proximity to Health Facility	22	14
Religious Affiliation	13	8
Level Education	9	6
Age	5	3
Availability of Dental Facilities	19	11
Total	160	100

4.3 Common Oral Disease among Adults between Ages 18 and 75

Secondary data were obtained from hospital records on the type of oral diseases recorded in the last two years (2020-2021). Within this two-year period, one hundred and eighteen (118) patients sought for oral health care. The records showed that, the hospital recorded 77 (65%) cases of Dental Caries, with 22 (19%) patients diagnosed with teeth sensitivity. It further showed that, 12 (10%) Cracked teeth were also recorded and the remaining 6 (5%) were Gingivitis.

4.4 Knowledge of oral diseases among adults

The study also sought to examine knowledge of oral diseases among the adults in the Sunyani West Municipal. Table 4 shows the proportion of respondents who indicated which disease they thought was most common.

The researcher provided some oral diseases such as dental carries, teeth sensitivity, gingivitis among others and asked the respondents to identify the common oral diseases they were aware. Based on the descriptions, 40% (31/77) of the respondents identified dental Caries was the most

common oral disease, followed by Teeth sensitivity representing 23% (18/77). In addition, 15% (12/77) showed Cracked Teeth/ tooth was prevalent in the communities. Again, 14% (11/77) of the frequency indicated Gingivitis; whilst 6% (5/77) of the frequency showed Periodontitis as most prevalent.

Table 3. Oral Disease Prevalent distribution

	Frequency	Percentages (%)
Dental Caries	31	40
Crack Teeth	12	16
Teeth Sensitivity	18	23
Gingivitis	11	14
Periodontitis	5	7
Total	77	100

4.5 Challenges in Accessing Oral Healthcare

One of the specific objectives of the study was to explore some of the challenges the adults face in accessing oral health care. Majority of the respondents, 56% (88/160), stated that high cost of treatment is the main challenge they face in seeking for oral health care. The results showed 18% (29/160) of the respondents stated inadequate logistics which included lack of dental staff resulting in longer waiting time at facilities. Again, 15% (24/160) reported that inadequate dental facilities in the municipality was also a major challenge with the remaining 11% (19/160) stating inadequate knowledge on dental diseases was also a major challenge.

During the in-depth interview, one of the respondents stated that:

All I knew while growing up was that tooth decay could be removed with salt. Nothing compelled me to visit the dental facility. Besides, I am a farmer and I cannot spend the entire day just to let someone look at my teeth. It was recently when my gum was swollen and I was told how serious dental diseases could be. Notwithstanding, the cost is too high for me, so I will resort to local medications.

Table 4. Challenges Respondents face in seeking oral health

	Frequency	Percentages (%)
Longer Waiting Period	29	18
High Cost of Treatment	88	56
Inadequate Dental Facilities	24	15
Inadequate Knowledge on oral diseases	19	11
Total	160	100

4. 6 Views of dental health professionals on the health systems challenges in the provision of oral healthcare

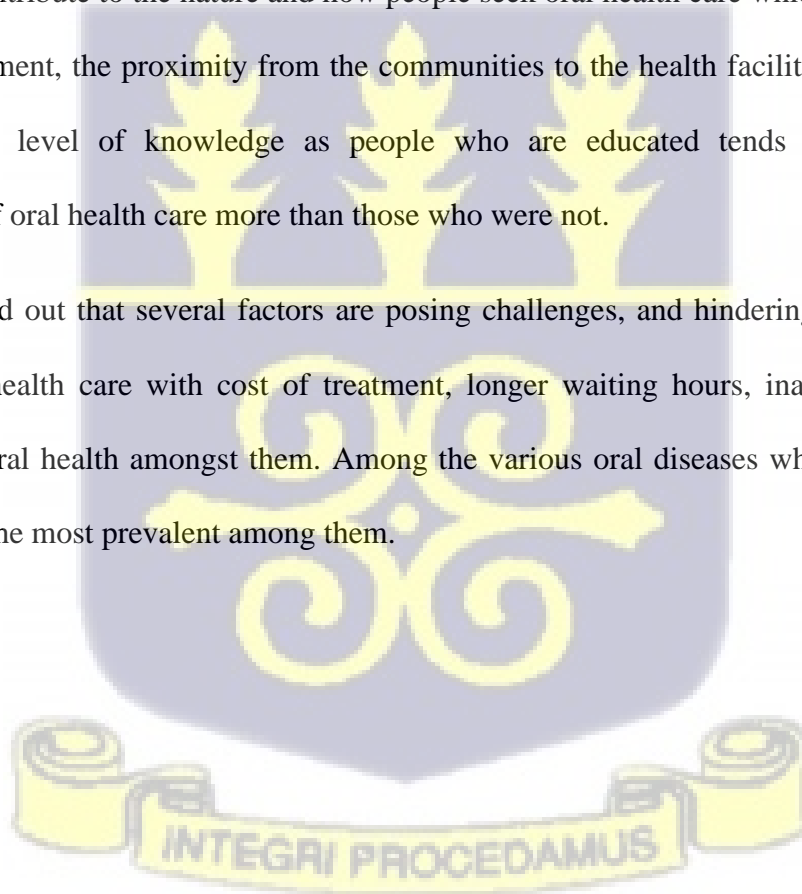
A total of ten (10) health workers were interviewed to examine some challenges the respondents are facing in their quest to access dental health care. Most of the respondents (8/10) stated lack of logistics, inadequate dental units and staff, high cost of treatment and little knowledge of the majority of the people on oral health as the main challenge facing the accessibility of oral health. The remaining 20% said they were not sure of any challenge associated with the health system. One of the respondents remarked that:

When the patients complain about longer hours of waiting time, we cannot be held responsible as only few people are delivering the services. We do our best to ensure that everyone is attended to but due to the limited staff, there is nothing we can do. Again, the cost of treatment is expensive because of the tools and medications which some are not covered by the National Health Insurance Scheme (NHIS), hence the reluctance of the people to attend the facility; many people come when their cases have advanced.

4.7 Chapter Summary

This chapter focused on discussing the results of the study. From the results, it was evident that many factors contribute to the nature and how people seek oral health care which notably include the cost of treatment, the proximity from the communities to the health facilities, their religious affiliation, their level of knowledge as people who are educated tends to have a better understanding of oral health care more than those who were not.

It was also found out that several factors are posing challenges, and hindering the people from accessing oral health care with cost of treatment, longer waiting hours, inadequate staff and knowledge on oral health amongst them. Among the various oral diseases which affect people, dental caries is the most prevalent among them.



CHAPTER FIVE

DISCUSSION

5.1 Introduction

This chapter discusses the results which were obtained from the analyzed data. They have been grouped thematically to reflect the research objectives and for easy references. Furthermore, the discussions have been linked to some of the literatures which were reviewed in chapter two.

5.2 Background of Respondents

A number of factors, namely the respondents' gender, educational background, and occupation, were looked at to provide some background information. These assessments were crucial to the study since they served as the foundation for various analyses on the respondents' general health seeking behavior. The socioeconomic background of the respondents has the propensity to affect how people seek medical care, as Bayu and Tesfaye (2016) highlighted in their conceptual framework. According to Kwan and Williams (1999), it is important to comprehend the attitudes and practices of the target population while developing and providing oral health education for adults.

Similar findings were reached by Andersen and Newman (2005), who also noted that socioeconomic characteristics like education, occupation, gender, ethnicity, and health views influence the propensity to use allopathic oral health care (Andersen and Newman, 2005).

Most of the respondents in this study were farmers who had knowledge of orthodox medicine, which they felt was more useful for treating specific conditions affecting oral health. While it is

true that financial limitations play a significant role in deciding the kind, quality, and nature of healthcare, the fact that many of them lamented their lack of employment and their educational background also had a significant impact on their health-seeking behavior.

However, there was little evidence that the respondents' religious background had a significant impact on how they sought health care. Even though some people acknowledged that their religious preferences affected the type of treatment they sought, it was not the primary deciding factor. According to the health professionals interviewed, many people had to be coerced by community health volunteers to visit hospitals because they were afraid of their religion, which in some cases forbids obtaining medical attention. Even if they were only able to provide a generic experience rather than a specific example related to oral healthcare, it is nevertheless important to note.

The statistics on the proportions of men and women who participated in the study revealed significant differences between them; female respondents outnumbered men. Other interdependent factors may contribute to the finding that women visit health facilities more frequently than men. Males are less likely to seek medical attention, and they typically think that their problems will go away on their own with time, so females visit medical facilities more frequently than males do. This, however, is completely false because more men than women are affected by various illnesses or diseases that are in their late or fatal phases. This claim therefore supports Guay's (2004) claim that there is a significant gap between the number of men and women seeking healthcare.

5.3 Factor(s) Influencing Oral Healthcare Seeking Behavior Among Adults

The main objective of the study was to examine some of the main factor(s) influencing oral healthcare seeking behavior among adults in the Sunyani West Municipal. Respondents were asked to indicate some of the factor (s) which influence their oral healthcare seeking behavior. From the results, one can clearly see that the socio-economic background of the people are the main factors that influence the health care seeking behavior of majority of the people.

The findings point to interrelated factors that influence how people get healthcare. Thus, none of the respondents' oral healthcare is specifically influenced by any one particular aspect. Education is a major socioeconomic factor that affects how well-informed people are about issues linked to oral healthcare, including the forms and risks of oral diseases and treatment options. According to the findings, more persons who are knowledgeable about a certain ailment have a favorable attitude regarding getting medical attention than those who are not.

The proximity to the hospital was another important factor that affected the respondents' health seeking behavior because many people would be reluctant to travel a longer distance with poor road infrastructure just to visit a dentist. The researcher noticed during the data collection that many of the respondents lived very far away from the hospital. A common toothache that might have been addressed simply leads to abscesses, and Ludwig's Angina, which has claimed many lives owing to obstruction of the airway, is one of them. This proximity issue has been responsible for a number of avoidable deaths in this area.

Once more, they are influenced by the behavior and interactions of those in charge of providing the services. This is demonstrated by some individuals who claim that, despite having dental problems, they will not return to the clinic because of the appalling way they were treated or spoken to there. This causes therapy delays and could have negative outcomes. Andersen and Newman's findings, which claimed that socioeconomic characteristics including education and occupation, gender, ethnicity, and health views have an impact on the propensity to use allopathic oral health care, are consistent with the findings and observation made (Andersen and Newman, 2005).

Patients are discouraged from getting help when they need it since dental care and supplies are typically expensive. Simple extractions are significantly more expensive than a farmer makes in a week. He would rather use that money to feed his family than to take care of his teeth when he considers the mouths he has to feed. When hearing the cost of therapy, some patients who are able to visit the clinic exclaim and leave, indicating they would prefer to use that money for a different cause. Because the cost of repairing a tooth may buy a farmland, no one in a community like Kwatiri even brings up dental replacement for missing teeth.

As a result, many have turned to charlatans who offer to help them solve their difficulties but have a tendency to complicate straightforward situations. Additionally, the dental clinic's personnel are understaffed relative to the size of the population, which makes it difficult for them to provide adequate care and advice on cases mostly due to fatigue. The findings support the claim made in a report by the Organization for Economic Co-operation and Development (OECD) in 2017 that people are less likely to seek dental care in high-income settings because it is expensive, accounting

for an average of 5% of overall health spending and 20% of out-of-pocket spending. It also confirms the claims made by Hosseinpoor *et al.* (2012) that access to primary oral health services is limited due to an uneven distribution of oral health specialists and a lack of suitable healthcare facilities in the majority of countries.

5.4 Most Prevalent Oral Disease Among Adults Between Ages 18 And 75

The most common oral disease among the respondents was another goal of the study. This was done by comparing the primary data collected from the field with the secondary data which was obtained from the hospital. The results from both the primary data and secondary data showed similar pattern as most of the oral disorders recorded by the facilities were also recorded by the researcher from within the communities. Comparing both data, the study found out that dental caries was the most prevalent oral disorder among the respondents. Thus because, dental caries recorded the highest frequency in both the primary and secondary data. Therefore, it is clear from the study's findings that dental caries is the most common oral condition which can be found among the communities. While there are several factors that could explain this, one of the key ones might be their ignorance of other oral disorders that they might not be able to recognize.

The researcher noticed that although they had other common oral ailments, they were unable to distinguish between them and collectively referred to them as dental caries. The findings are consistent with a similar finding from the World Health Organization (WHO, 2012), which noted that dental caries is one of the main oral health issues in the world. In addition, Siddiqui *et al.* (2013) discovered that in Africa, dental caries prevalence ranged from 55.1 percent in 18-yearolds

to 74.4 percent in 34-year-olds. The data are consistent with those from Ghana, where the 2013 Annual General Report for Korle-bu Teaching Hospital revealed a 46.1 percent prevalence of caries and identified it as one of the top 10 reasons for dental OPD attendance.

According to Wang *et al.* (2002), the mean dental caries experience index (dmft) value for 5-year-old children in China is 4.5, and the prevalence of dental caries is 77%. They added that the mean caries experience index (DMFT) scores for those aged 35 to 44 and older individuals (65 to 74 years) were 2.1 and 12.4 respectively. People who live in rural areas have worse oral health.

This suggests that the situation of oral health in rural areas may result in a decrease in labor productivity, which will have a detrimental impact on the entire nation. Dental caries shouldn't be a problem that you can't handle, but your next step will depend on your environment. Given these figures and the conclusions drawn from the data analysis, it is crucial that dental education and care receive careful consideration. To ensure that community members are more forceful toward the various oral disorders, education on other oral diseases should be strengthened. This will facilitate quick and straightforward diagnostics in order to mitigate the consequences of various oral disorders.

5.5 Knowledge of Oral Health-care Among Adults

In order to achieve this objective, a number of criteria were evaluated, and respondents were asked to rate their familiarity with the following oral diseases: Dental Caries, Oral Ulcers, Cracked Teeth/Teeth Sensitivity, Gingivitis, Periodontitis, Dental Caries This was requested to help the

researcher build a solid basis on which to explore the main research topic. It is clear from the data that most of the respondents have no formal understanding of these oral disorders.

Oral diseases were unknown, despite the respondents' seemingly vast knowledge of other diseases including HIV, high blood pressure, and malaria. As a result, there isn't much instruction or even visual representation of oral disorders at the hospital. It's interesting to note that some healthcare professionals were also found to be lacking in understanding on dental health. As a result, it may be concluded from the findings that persons with oral disorders have very little general knowledge, and additional education involving health professionals is required. The findings and conclusions back up Clackson et al. (2010)'s claim that oral health literacy is a relatively new concept that involves people's capacity to acquire, process, and comprehend fundamental health information in order to make informed oral health decisions.

The results again suggest that many people can experience severe effects from various oral diseases without even being aware of them, and in order to reduce this risk, efforts should be made to improve oral disease communication. This finding supports those of Peterson et al. (2005) who found that whereas oral disorders are common in poor populations in both developing and developed countries, relatively few people are aware of them.

According to Clackson *et al.* (2010), oral health literacy is influenced by the understanding of oral health subjects and communication abilities of healthcare professionals, which in turn affects how people seek out oral health care. Health workers in Primary Health Care (PHC) are overworked,

unsure of what to look for, or untrained in the fundamental procedures that could assist treat a number of disorders that are fairly manageable in their early stages. As a result, these conditions go undiagnosed. Therefore, we can say that spreading awareness of oral diseases and teaching people about specific preventive methods can significantly lessen the load on them.

5.6 The Views of Adults on the Challenges they Face in Accessing Oral Healthcare

In rural locations like Kwatiri, many people travel great distances to access medical care. Some of the respondents claimed that they had to travel merely to get medical attention, and that once they were at the institution, the professionals informed them that they lacked the essential logistics to operate, rendering their exhausting journey pointless. Some people who may have had the resources or money to seek assistance have been discouraged by this.

Access to oral health care is a serious issue, especially for rural poor people, according to research (Talluri et al., 2017). Many difficulties have been faced by Ghana's general healthcare system, which has had an impact on the provision of high-quality healthcare. Many of the respondents lamented some of the obstacles people face while trying to get dental care. The Ministry of Health's (MoH) systematic and structural issues can be largely divided into two categories: those that come from the socio-economic dynamics of the population and those that are from administrative duties of Ministry of Health.

Notably, they identified the high cost of care, extended wait times, subpar facilities, and logistics as some of the key reasons influencing their behavior in search of oral healthcare. As a result, many

of them preferred to self-treat rather than seek out medical attention. The general healthcare system, which many have deemed to be dreadfully deficient in terms of its operations, may be responsible for these difficulties. The WHO (2012) noted that there are not enough resources available for dental treatment that is either preventative or restorative. The treatment of oral disorders is expensive and may be incredibly inadequate in low- and middle-income nations, according to Petersen (2004), who also made this observation.

The World Health Organization (2012) also noted that the majority of people only have limited or no access to appropriate oral health care services because of the uneven distribution of oral health professionals and the lack of appropriate and functional facilities within the primary health care system. Due to the large percentage of oral disorders that go untreated as well as the significant needs and demands for vital oral health care services, the primary healthcare systems in the area face difficulties.

WHO (2016) also noted that the lack of basic dental treatments in the country's current healthcare systems contributes to poor oral health in many African nations. Because PHC level health workers are overworked, unsure of what to look for, or untrained in the fundamental therapies that could assist deal with these disorders, many conditions that are fairly manageable in their early stages are neglected.

The study's findings are consistent with research and a report by the National Health Expenditure Accounts (NHEA) (2013), in the United States of America, which found that the high expense of

oral healthcare in 2013 deterred people from seeking treatment. According to Hosseinpoor et al. (2012), access to primary oral health services is frequently insufficient due to an uneven distribution of oral health specialists and a lack of suitable medical facilities in the majority of nations.

5.7 Views of dental health professionals in the provision of oral healthcare

Additionally, the study aimed to learn more about how health professionals view the delivery of oral healthcare, particularly to learn about some of the biggest obstacles they face. The majority of respondents agreed with the preceding comments made by the respondents regarding some of the obstacles people encounter while trying to receive dental healthcare.

The lack of dental equipment logistics, inadequate dental units and staff, high treatment costs, and low oral health literacy among the general population are some of the key obstacles to oral health accessibility, according to health professionals. It should be mentioned that numerous researchers have emphasized that these specific difficulties are the main factor impairing the provision of high-quality oral health care.

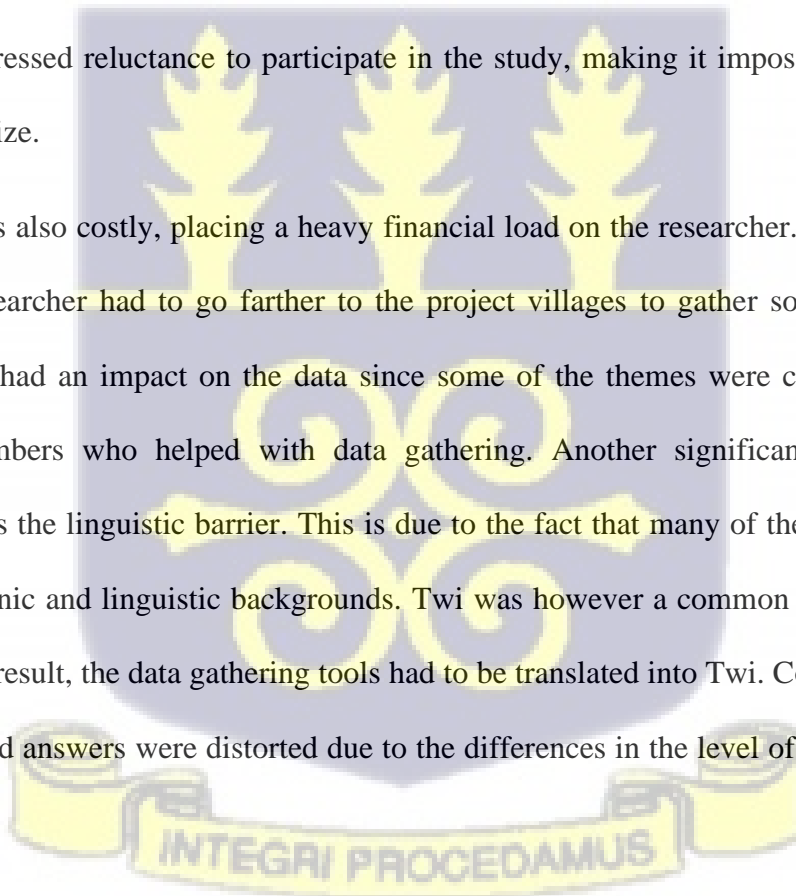
The health professionals claim that these difficulties have had a negative impact on service delivery because they are unable to execute some treatments because there aren't enough machines. The employees and the few resources at their disposal have again been under a great deal of stress as a result of this. It is crucial to emphasize that all of these difficulties are primarily administrative problems and cannot be solved at their level.

According to Petersen (2004), various research has shown that treating oral disorders in low- and middle-income nations can be extremely expensive and ineffective. The claims made by the medical professionals are all in line with some of the literatures that have previously been reviewed above, including those of WHO (2012), which said that the lack of facilities and high cost of treatment are important obstacles to providing oral health care.

5.8. Study limitations

The following restrictions or difficulties were encountered in conducting this study: several of the respondents expressed reluctance to participate in the study, making it impossible to obtain the desired sample size.

The research was also costly, placing a heavy financial load on the researcher. This is due to the fact that the researcher had to go farther to the project villages to gather some volunteers for assistance. This had an impact on the data since some of the themes were challenging for the community members who helped with data gathering. Another significant obstacle to the investigation was the linguistic barrier. This is due to the fact that many of the responders come from diverse ethnic and linguistic backgrounds. Twi was however a common language amongst natives and as a result, the data gathering tools had to be translated into Twi. Consequently, some of the queries and answers were distorted due to the differences in the level of understanding the twi language.



5.9 Chapter Summary

The goal of this chapter was to analyze and discuss the study's findings. Thus, it has been examined how the respondents' backgrounds affected the way they seek out medical care. Again, this chapter has explored the challenges some respondents experience in their search to get oral health treatment.



CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6.0 Introduction

This chapter presents the summary, conclusion and recommendations. The recommendations are categorized under recommendations to stakeholders, church members and the future research.

6.1 Summary

Quality healthcare plays an integral role in many societies and its importance cannot be overemphasized. However, in most developing countries there are many shortfalls which hinders the progressive healthcare delivery and seeking behaviors of the people. The main aim of the study was to examine some of the factors influencing the oral health seeking behavior of adults in the Sunyani Municipality. Specifically, the study sought to examine general knowledge on oral healthcare, to examine the individual and systemic challenges in accessing oral healthcare and to explore the views of the health professionals on the challenges associated with health seeking behavior of the respondents.

The study was conducted at Kwatri government hospital in the Sunyani West Municipality. Primary data was used to conduct this study and the quantitative data were analyzed with the use of STATA. The study employed a descriptive cross-sectional study design involving both qualitative and quantitative data collection methods. A total of one hundred and sixty (160) respondents were interviewed with the use of questionnaires.

6.2 Conclusion

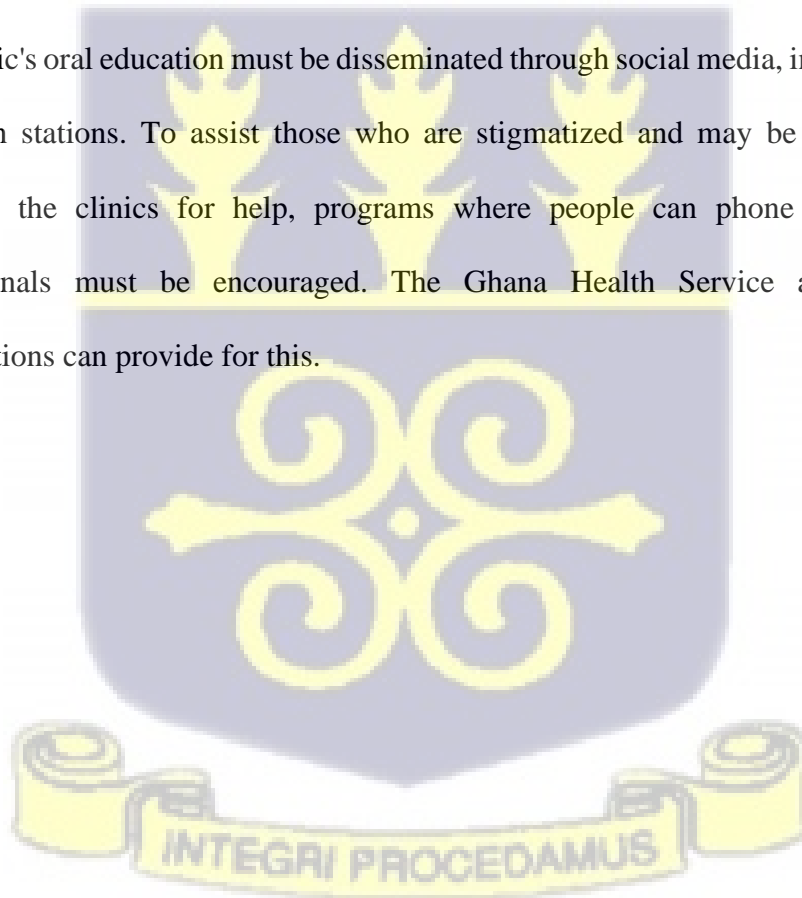
Individual and health system factors such as level of education, religious affiliations, proximity to health facility and lack of information on oral diseases influenced the oral health care seeking behaviour of adults in the Sunyani West Municipality in Ghana. There is the need for the Ghana Health Service and other stakeholders in the health sector to intensify oral health education at the community level and address the barriers to access to oral health care.

6.3 Recommendations

The stakeholders are provided with the following recommendations based on the findings and discussions.

- The Ghana Medical and Dental Council (MDC), Ghana Health Service (GHS), and Ministry of Health (MoH) should step up their efforts to educate residents about oral health, as well as the employees at the various CHIP sites and community health centers. The facilities' in-service trainings will go a long way toward updating or refreshing the already held knowledge and preventing them from using outdated practices.
- In order to improve information dissemination, access, and invariably relieve pressure on the already existing staff, the Ghana Health Service should step up efforts to post personnel, including dentists and registered dental assistants among others who form part of the oral health team, to these areas. Also, the Ministry of Health should work with district assemblies to create buildings that meet the requirements of a modern dental clinic to give patients access to care and prevent them from having to travel far to get it.

- To make sure that the clinics are up to date on the logistics and equipment required to run them, the Dental Association of Ghana should routinely dispatch representatives to visit the dental facilities in the rural areas. This would significantly help the medical staff in giving the patients the finest care possible. Community oral health screening could be carried out by the staff of GHS to reduce the distance people travel to seek oral health care.
- The Ministry of Health (MoH) should collaborate with the National Health Insurance Scheme (NHIS) to expand the services rendered to oral patients to help curtail the issue of high cost of treatment, which is a factor in influencing health care seeking behavior of the people.
- The public's oral education must be disseminated through social media, including radio and television stations. To assist those who are stigmatized and may be afraid to directly approach the clinics for help, programs where people can phone in and speak to professionals must be encouraged. The Ghana Health Service and its affiliated organizations can provide for this.



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Appendix I: Participant Information Sheet

Title of the study- Assessment of Oral Healthcare Seeking Behavior among adults in the Sunyani West Municipal of Ghana

Introduction

Background and Purpose of Research

Quality Healthcare plays an integral role in many societies and its importance cannot be over emphasized. However, in most developing countries there are many short falls which hinders the progressive healthcare delivery and seeking behaviors of the people. Thus, this proposal seeks to examine the oral healthcare seeking behavior of the adults between the ages of 18 and 75 in the Sunyani West municipal assembly. You have been selected to take part in this research to contribute to generating knowledge

Purpose of research

Nature of research:

The study will take place at the Kwatri Government Hospital in the Sunyani West Municipal. Through the purposive sampling technique, ten (10) communities will be selected for this study. All the communities that will be selected have similar characteristics of utilizing the Kwatri hospital. Simple random sampling technique will further be used to select fifteen (15) persons from each of the communities. Again, ten (10) persons working in the dental unit (if any) or nurse will be selected each from the hospital and hence a total of one hundred and sixty (160) respondents will be selected for this study.

Participants involvement:

- You will be expected to respond to both open ended and closed ended questions. On the average, you will spend less than 10 minutes to respond to the questions. Participants who can read and write will be given the questions to respond but it will be translated for those who cannot read and write.

- **Potential Risks:**

There will be no risk associated with participating in this study

Benefits of the study

You will not be paid any money for their participation. However, the results from this study may be used to improve oral healthcare services, i.e.- incorporating more of the medicines used in the management of oral health.

The results of the study will also enable stakeholders such as the ministry of health to develop community-based strategies that will encourage community members to seek for oral health care to prevent treatable infections that escalates because of lack of early treatment.

Costs:

Compensation: You will not be paid for participating in the study

Privacy and Confidentiality: Interviews will be conducted in a serene environment at the back of the hospital's pharmacy waiting area, which will allow you to give information freely and privately.

Your name and other personal details will not be shared and will only be used for the purpose of this research. It will not be part of the final report when it is published. Only the principal investigator and his academic supervisor will have access to data.

Voluntary Participation/Withdrawal: Your participation in this research is entirely voluntary and you are

Voluntary participation/withdrawal

Your participation in this study is completely voluntary. You have the right to withdraw from the study at anytime. You can also skip any question that you do not want to answer. If during the interview, there is something that you do not understand, you should talk to the principal investigator or a member of the research team.

Outcome and Feedback

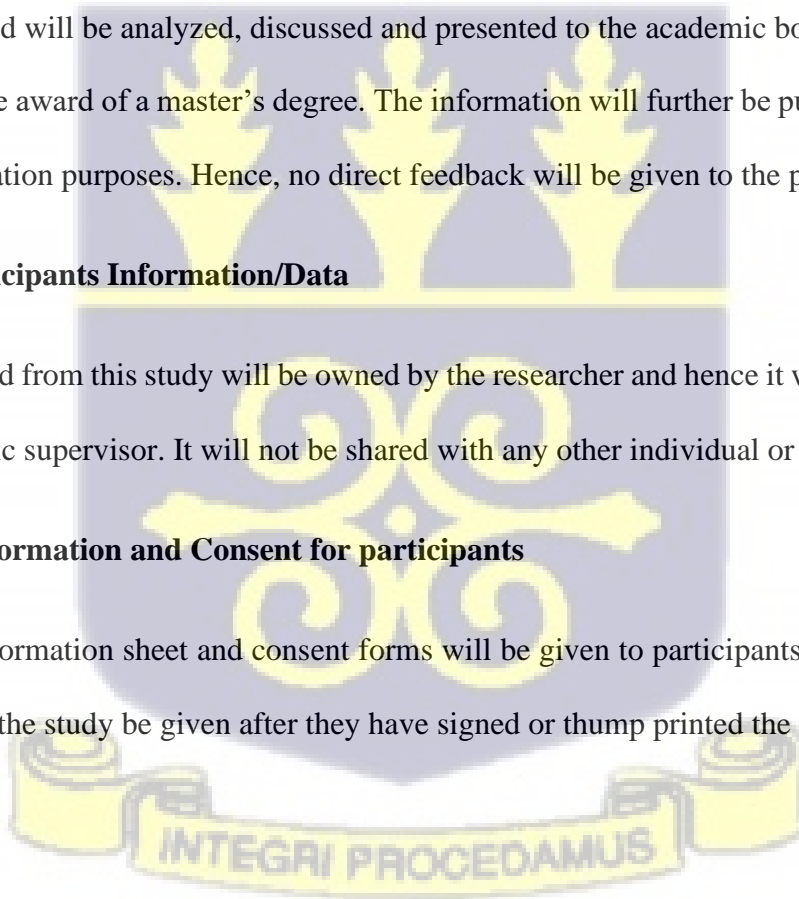
The data collected will be analyzed, discussed and presented to the academic board of the University for the award of a master's degree. The information will further be published in journal articles for education purposes. Hence, no direct feedback will be given to the participants.

Sharing of participants Information/Data

The data collected from this study will be owned by the researcher and hence it will only be shared with the academic supervisor. It will not be shared with any other individual or organization

Provision of Information and Consent for participants

Copies of the information sheet and consent forms will be given to participants know the content and objective of the study be given after they have signed or thump printed the consent forms.



Appendix II:

CONSENT FORM

STUDY TITLE: Assessment of Oral Healthcare Seeking Behavior among adults in the Sunyani West Municipal of Ghana

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the Participants' Information Sheet read and all questions satisfactorily explained to me in a language I understand (Twi and Bono). I fully understand the contents and any potential implications as well as my right to change my mind (i.e. withdraw from the research) even after I have signed this form.

I voluntarily agree to be part of this research.

Name of Participant.....

Participants' SignatureOR Thumb Print.....

Date:.....

INTERPRETERS' STATEMENT

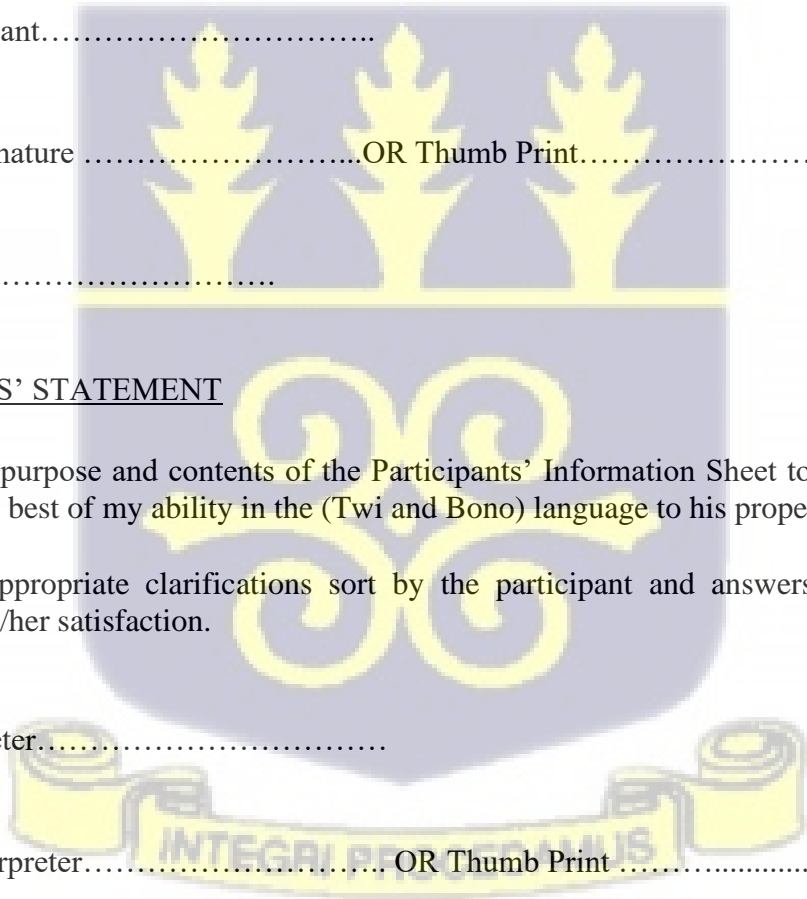
I interpreted the purpose and contents of the Participants' Information Sheet to the afore named participant to the best of my ability in the (Twi and Bono) language to his proper understanding.

All questions, appropriate clarifications sort by the participant and answers were also duly interpreted to his/her satisfaction.

Name of Interpreter.....

Signature of InterpreterOR Thumb Print

Date:.....



STATEMENT OF WITNESS

I was present when the purpose and contents of the Participant Information Sheet was read and explained satisfactorily to the participant in the language he/she understood (Twi and Bono)

I confirm that he/she was given the opportunity to ask questions/seek clarifications and same were duly answered to his/her satisfaction before voluntarily agreeing to be part of the research.

Name:.....

Signature..... OR Thumb Print

Date:.....

INVESTIGATOR STATEMENT AND SIGNATURE

I certify that the participant has been given ample time to read and learn about the study. All questions and clarifications raised by the participant have been addressed.)

Researcher's name: Emmanuel Appiah-Kubi

Signature :

Date.....



Appendix III: Questionnaires

This questionnaire is for academic purpose only and information provided will be treated anonymously and your confidentiality is assured. The aim of this study is to examine the main factor(s) influencing oral healthcare seeking behaviour among adults in the Sunyani west municipal.

Background data of respondents

1. Gender A. Male [] b. Female []
2. Age A. between 15-19 [] b. 20-25 [] c. 26-30 [] d. 31-35 [] e. 36-40 [] e. 41 above []
3. Religious status A. Christian [] b. Muslim [] c. African Traditional religion [] e.
Other.....
4. Education level A. None [] b. Certificate [] c. Degree [] d. Masters [] E. PhD []
5. Occupation A. Farmer [] b. Teacher [] c. Student [] d. other
(Specify).....

Knowledge of Oral disease

6. How will you rate your knowledge of oral diseases below using a Likert scale of 0-6 with corresponding variables such as poor, very poor, fair, good, very good and excellent.

S/N	Diseases	Rating				
		0 poor	1 Very poor	2 Fair	3 Good	4 Very good

1							
2							
3							
4							
5							
6							

7. Which of the above disease (s) is more prevalent in your community? Please state

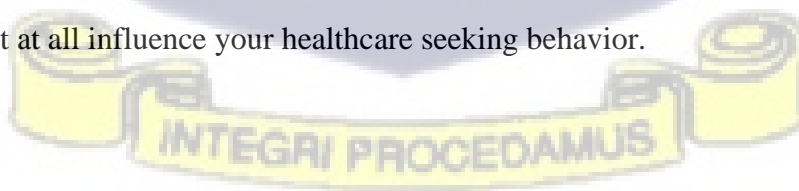
- a.....
- b.....
- c.....

healthcare seeking behavior of the adults

8. what factor (s) influence your oral healthcare seeking behaviour?

- a.....
- b.....
- c.....
- d.....

9. Using the Likert scale of 0-6 with corresponding variables such as high, higher, highest, somehow and not at all influence your healthcare seeking behavior.



S/N	Diseases	Rating					
		0 high	1 higher	2 Highest	3 Somehow	4 Not at all	5 I am not sure
1	Cost of oral healthcare						
2	Proximity to health facility						
3	Attitude of service providers						
4	Religious background						
5	Educational level						
6	Age and Sex						

Challenges faced in seeking oral healthcare

10. Do you face any challenge while seeking Oral healthcare? A. Yes [] B. No [] 11.

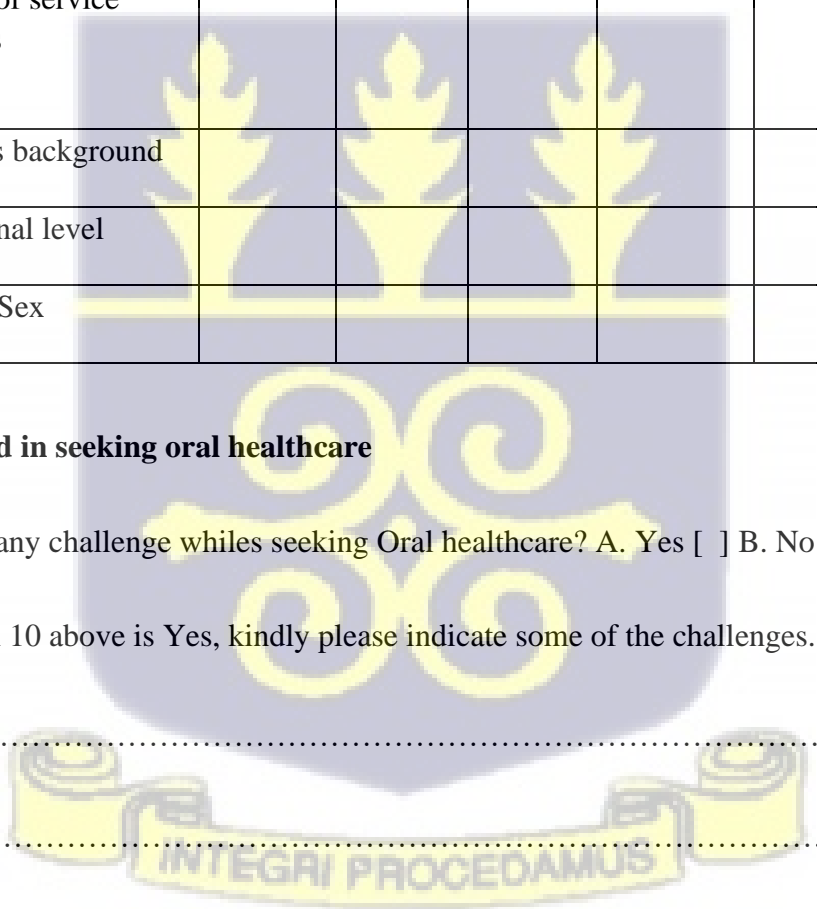
if your answer in 10 above is Yes, kindly please indicate some of the challenges.

a.....

b.....

c.....

d.....



12. How does the challenges influence your oral healthcare seeking behavior? Please explain

- a. positively [] b. Negatively [] c. Indifferent [] d. I am not sure []

For health workers only

13. How will you describe the Oral healthcare facility? A. poor [] b. good [] c. Normal [] d. I prefer not to say [] e. excellent []

14. kindly indicate some of the disease (s) that has high reporting incidence to your facility.

a.....

b.....

c.....

d.....

15. In your opinion, what are some of the factors that oral healthcare seeking behavior of the adults

a.....

b.....

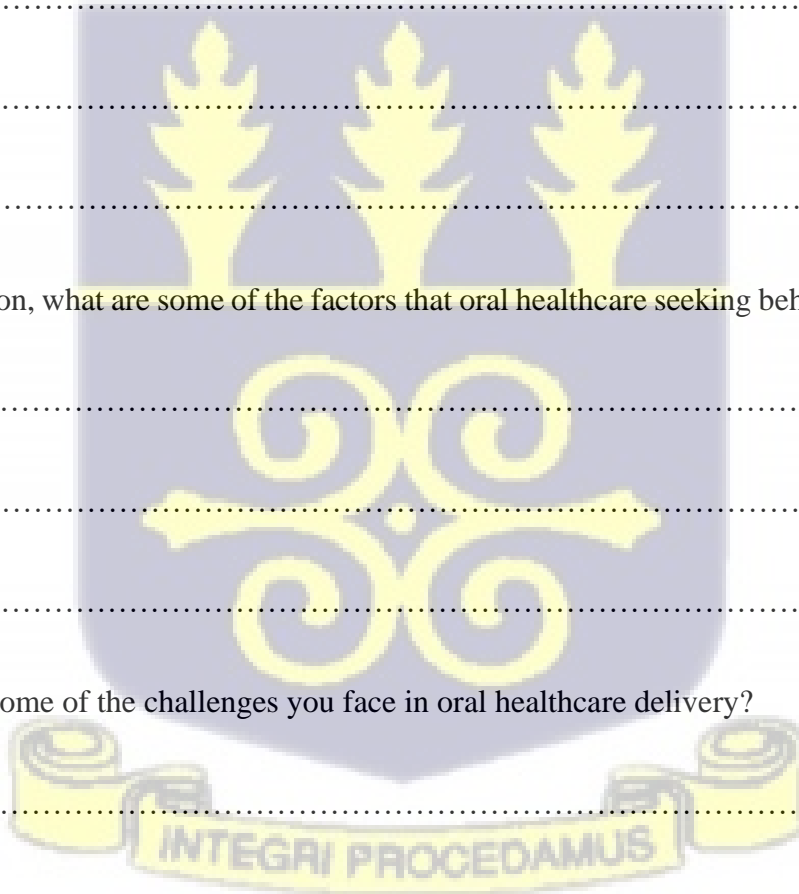
c.....

16. Please state some of the challenges you face in oral healthcare delivery?

a.....

b.....

c.....



Interview Guide (Draft)

Project Title: An Assessment of Oral Healthcare Seeking Behavior among adults in the Sunyani West

Municipal of Ghana

Target group-**Health Practitioners**

Introduction

- Welcome the participant and briefly describe objectives of the project
- Review Study Info Sheet & provide copy of Consent Form for signature
- Outline the format of interview

Background of interviewee

- Could you please tell me a bit about yourself? i.e. your background and training?
- How long have you been working as a health worker in this institution?
- What specific training have you received to provide dental services?
- What is your starting and current position?

Experiences with dental healthcare delivery

- How long have you been working as a dentist or providing dental services?
- Tell me about your general perception about oral healthcare delivery.
- What are some of the main factors that necessitate the oral health seeking behaviors of the patients who come to your facility?
- What are some of the prevalent oral diseases you record in your facility?

Challenges health workers face in oral health care delivery

- In your view, what are some of the main challenges you face in oral healthcare delivery?
- How to do mitigate the challenges you have outlined?
- What could be done to improve oral healthcare seeking behaviors of the people?

Closing Remarks

- Based on our discussions, what recommendations would you give for addressing the key challenges related to genomic studies?
- Is there anything that we haven't covered that you'd like to mention?

Thank you very much for your insightful inputs to this project




Appendix IV

ETHICAL CLEARANCE

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

In case of reply the number and date of this Letter should be quoted.


Your Health. Our Concern.

My Ref: GHS/RDD/ERC/Admin/App | 22 | 103
Your Ref. No.

Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra
Digital Address: GA-050-3303
Mob: +233-50-3539896
Tel: +233-302-681109
Email: ethics.research@ghsmail.org

17th March, 2022

Emmanuel Appiah-Kubi
P.O. Box CT 3566, Cantonments-Accra


The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

GHS-ERC Number	GHS-ERC 052/11/21
Project Title	An Assessment of Oral Healthcare Seeking Behavior Among Adults in the Sunyani West Municipal of Ghana
Approval Date	17 th March, 2022
Expiry Date	16 th March, 2023
GHS-ERC Decision	Approved

This approval requires the following from the Principal Investigator

- Submission of yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report after completion of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.
- Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation. Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

SIGNED.....
Dr. James Akazili
(Head, Ethics & Research Management Department)

Cc: The Director, Research & Development Division, Ghana Health Service, Accra

