

**UNIVERSITY OF GHANA, LEGON**  
**SCHOOL OF PUBLIC HEALTH**  
**COLLEGE OF HEALTH SCIENCES**

**ASSESSMENT OF PATIENT SATISFACTION AMONG INSURED AND NON-  
INSURED CLIENTS ATTENDING SUNYANI MUNICIPAL HOSPITAL**

**BY**

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LEGON IN PARTIAL FULFILMENT FOR THE REQUIREMENT FOR THE  
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**JULY 2018**

**DECLARATION**

I do hereby declare that apart from people's knowledge that I have acknowledged, this research proposal is the result of my dedication and hard work under supervision.

I take full responsibility for this work.

STUDENT

DATE:

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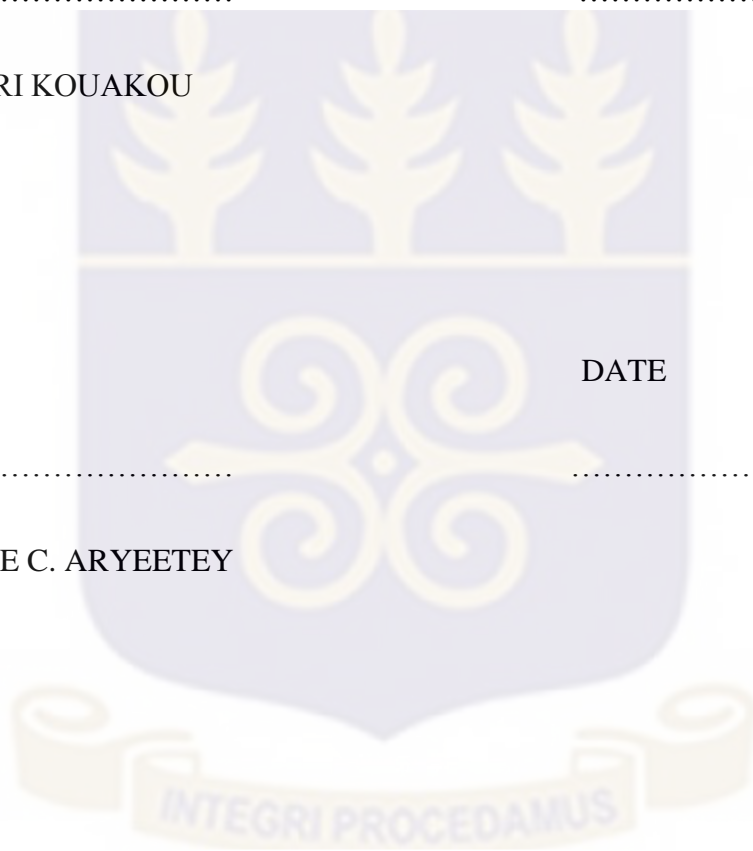
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DR GENEVIEVE C. ARYEETAY



## **DEDICATION**

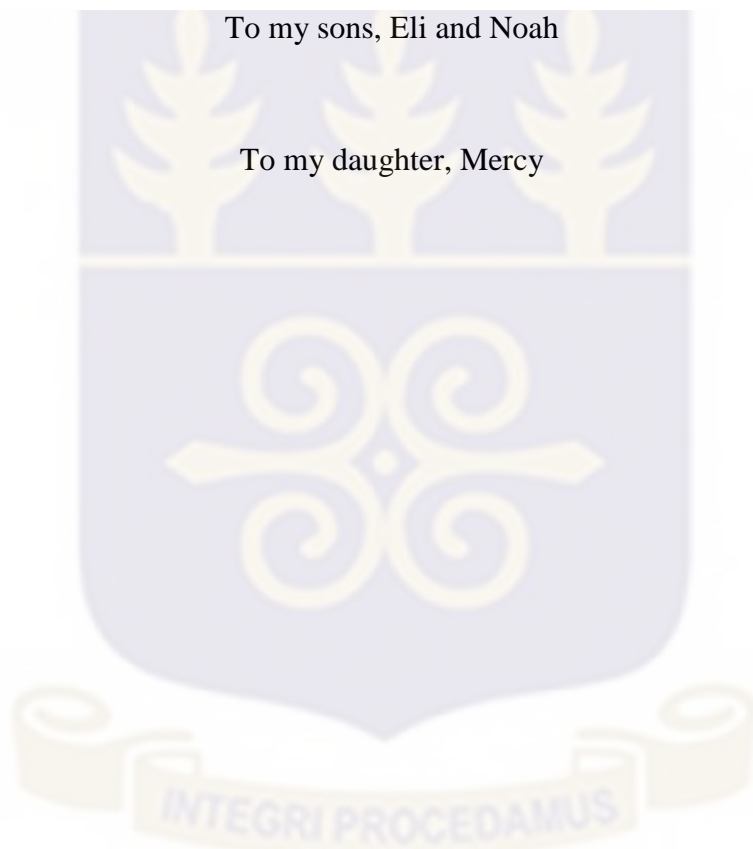
To Almighty God

To my late parents

To my lovely wife, Rose

To my sons, Eli and Noah

To my daughter, Mercy



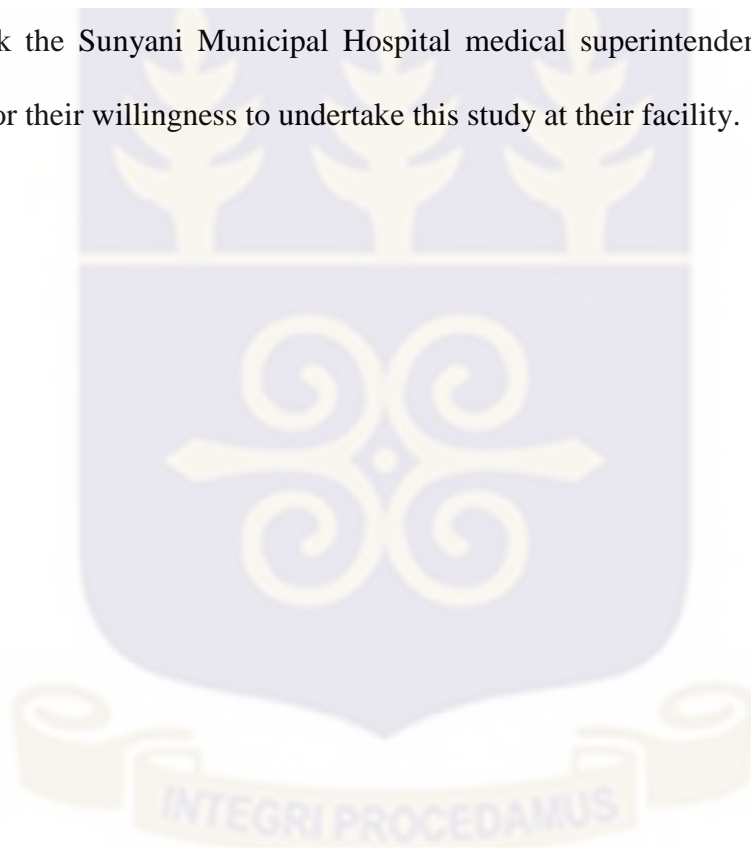
## **ACKNOWLEDGEMENT**

My profound gratitude goes to God Almighty for his favour and blessings,

Many thanks and appreciation is attributed to Dr Genevieve C. Aryeetey who patiently served as my supervisor throughout this project with her valid contributions towards my success.

I am also grateful to Dr Reuben Esena (Head of Department), Dr Augustine Adomah Afari and all the faculty members of the Health Policy Planning and Management Department of the School of Public Health.

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## ABSTRACT

**Background:** The vision of government of Ghana in instituting National Health Insurance Scheme (NHIS) in the country is to assure equitable and universal access for all residence of Ghana to an acceptable quality package of health care. Nevertheless, researchers notice an increasing number of drop out among NHIS members. Client satisfaction survey is an important tool employed to provide feedback on patients' experiences with health care services and help the health facility and the National Health Insurance Authority (NHIA) to initiate policies that can lead to improved healthcare delivery.

**Objective:** To assess patients' satisfaction among insured and uninsured clients at the Outpatient Department (OPD) of Sunyani Municipal Hospital.

**Methods:** The study employed a cross-sectional design. Structured questionnaires were used to interview 103 insured and 103 uninsured clients at the Outpatient Department (OPD) of the facility. Convenience sampling was used to obtain the required sample size. Data was analyzed using STATA 15.0 software. Chi-square test and logistic regression analysis were used to assess the relationship between the overall satisfaction and factors assessed, comparing insured and uninsured clients.

**Results:** The overall satisfaction with healthcare provision was 82.04% (82.52% for insured and 81.55 for the uninsured). There was no significant difference in client's satisfaction between insured and uninsured clients. The higher dissatisfaction rates were recorded with financial aspect, time spent with the doctor, accessibility and convenience dimensions of healthcare provision.

**Conclusion:** Both insured and uninsured gave favourable rating, denoting that overall, quality at Sunyani Municipal hospital is somewhat good. Patients are treated fairly, regardless of their insurance status.

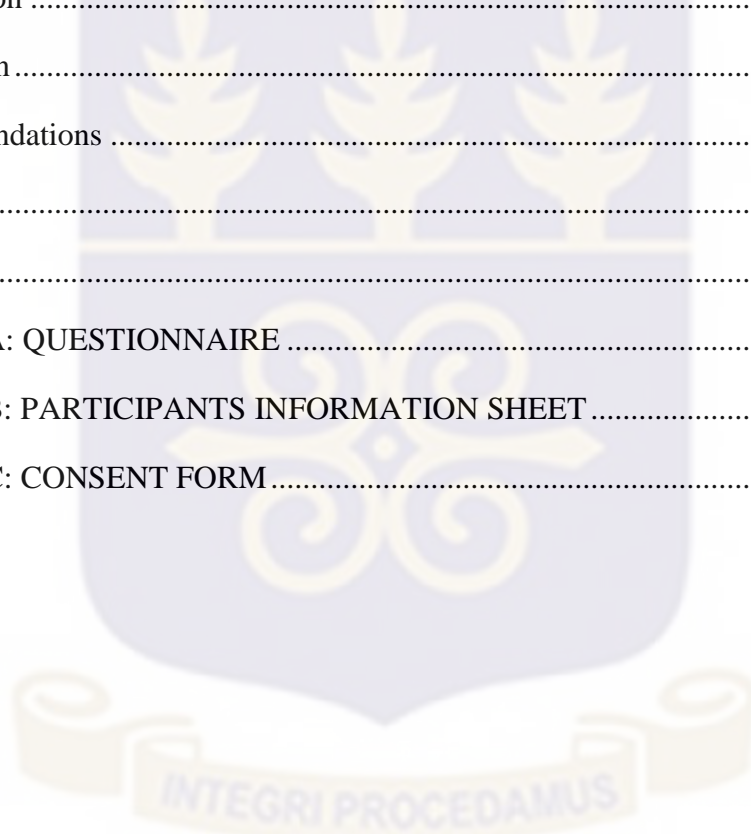
**Recommendation:** The facility should improve accessibility and convenience aspect of healthcare provision to make it more attractive.

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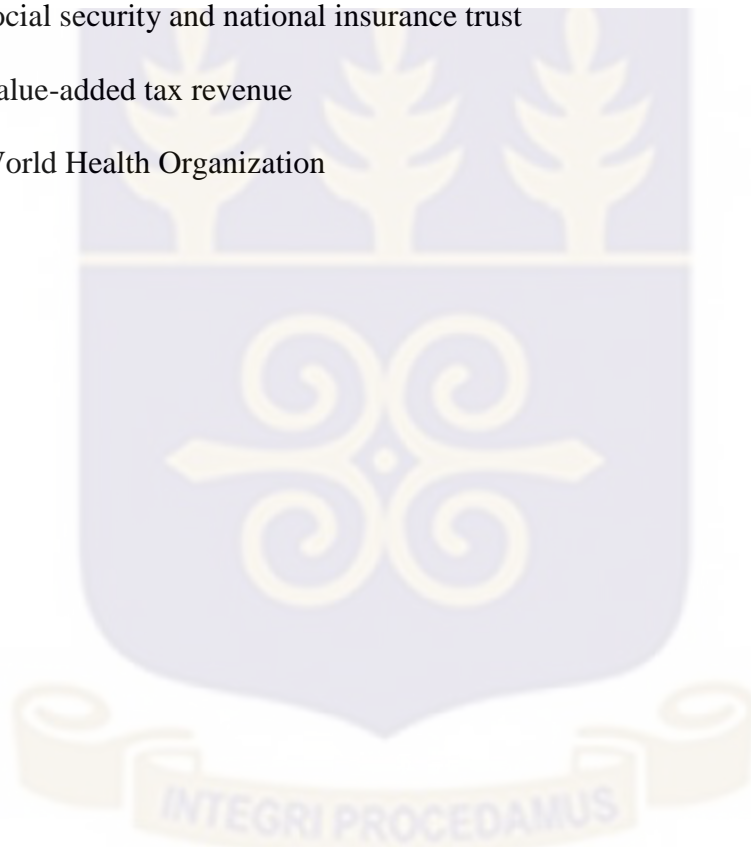
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Figure 1: Conceptual framework of factors influencing Client satisfaction with quality of healthcare received from facility. ....7



## LIST OF ACRONYMS

GDP	Gross Domestic Product
GHS	Ghana Health Service
NHIA	National Health Insurance Authority
NHIS	National Health Insurance Scheme
OPD	Out-Patient Department
PSQ	Patient Satisfaction Questionnaire
SSNIT	Social security and national insurance trust
VAT	Value-added tax revenue
WHO	World Health Organization



## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the study

In general, determining an appropriate method of financing health care is a major concern in many Lower and Middle Income countries (Gheorghe A., 2015). Classical models of health systems are designed as benchmarks describing the desired shape of the health system. Traditionally, there are three models of health systems: the model of National Health Service, also known as the Beveridge model; the social insurance system or Bismarck model and the system of non-regulated insurance market or residual model (Fincham, 2011).

The Beveridge model, in United Kingdom, is a comprehensive system based not on the insurance principle, but on the national provision of services available to everyone. In United states (residual model), the system is based on private health insurance in which access to benefits is conditioned on having a private insurance policy. The German system or Bismarck model is based on a compulsory social insurance system. The African countries built their health systems generally on the basis of these traditional models (Jaworzyńska, 2016).

In 2003, Ghana, a sub-Saharan African country located in the west part of the continent, established a pro-poor and equitable health financing policy-Ghana National Health Insurance Scheme (NHIS). Health Insurance can be defined as a system whereby a group of people contribute some amounts of money (premiums) into a common pool (fund) to take care of their future health needs (Ampofoh, 2011). The vision of the Ghanaian government in instituting health insurance scheme in the country was to assure equitable and universal access not only to

Ghanaians but for all residents of Ghana, to an acceptable quality package of healthcare services (Yeboah-mensah, 2015).

The NHIS is financed primarily by tax revenue, and claims make up the large share of its expenditures. Ghana is one of the few countries in the world to finance primarily its health insurance scheme through value-added tax revenue (VAT). This situation ensures that the Ghana National Health Insurance Scheme revenue is automatically related with economic growth, as is underscored by the stability of NHIS revenue as a share of total government spending (Wang, Otoo, & Dsane-Selby, 2017).

Active membership of the NHIS at the end of June 2016, stands at 11,164,673 representing 41% coverage. The scheme covers 95% of diagnosed conditions, and it has no cost-sharing requirements (Ababio, Osei Kufuor, & Ankrah, 2017) . The NHIS policy covers all outpatient, inpatient, and emergency care and medicines. The NHIS members pay no out-of-pocket costs for services or pharmaceuticals based on policy (Wang et al., 2017).

Assessment of the health insurance influence on patient satisfaction with health healthcare provision reveals two aspects: on one hand, studies indicate that health insurance status is positively associated with patients' perceived quality of healthcare. For example, a study conducted among federal civil servants in Abakaliki, Ebonyi State, Nigeria, showed significant difference in satisfaction with healthcare among Nigeria's insured and the uninsured clients. (Nwafo-Festus, 2016). Again a study in Ghana showed higher proportion of insured clients being satisfied with quality of care compared to the uninured (Fenny, Enemark, Asante, & Hansen, 2014). On the other hand, a cross sectional survey of 818 outpatients, conducted in 17 Ghanaian general hospital found no significant difference in perception of quality of healthcare

between insured and uninsured. Nonetheless, they observed a fairly favourable level of satisfaction, denoting that overall, quality in Ghanaian hospitals is somewhat good (Abuosi, Domfeh, Abor, & Nketiah-Amponsah, 2016).

## **1.2 Statement of the Problem**

There are limited opportunities for NHIS subscribers to provide feedback on their experiences. A call center was established as part of the Ghana National Health Insurance Project, but it does not seem to be playing a significant role in receiving feedback (Wang et al., 2017).

Available evidence indicates that there is a great deal of turnover among NHIS members (Boateng & Awunyor-Vitor, 2013). For instance, according to a World Bank study (Wang et al., 2017), out of all active members in January 2014, only 42 percent remained in the scheme in January 2015. In addition, the NHIS accreditation process focuses only on some qualities of facilities (i.e. human resources, supplies, equipment, and infrastructure), but it does take into account the quality of service as perceived by patients (Wang et al., 2017).

From that view, the patient satisfaction survey is an instrument in monitoring health care delivery of a hospital in relation to cost and services (Vadhana, 2012). Furthermore, a study conducted to assess the factors associated with patients' satisfaction at Sunyani regional hospital (Peprah, 2014) showed that, those factors were attitudes of nurses toward patients, the capacity to deliver prompt service without wasting time, ability to disseminate information to patients, the availability of up-to-date equipment, the hospital's ability to render 24 hour service, response to emergency cases, the patience of the doctor to clearly explain what was wrong with patients before giving treatment, providing patients with detail information about their medication, attractiveness and cleanliness of the hospital.

This study therefore, seeks to assess satisfaction among patients (insured and non-insured) attending Sunyani Municipal Hospital.

### **1.3 Justification of the study**

Client satisfaction survey is an important tool for assessing perceived healthcare quality. This study describes non-insured clients and NHIS clients' perception and satisfaction with healthcare as a mean in measuring quality of healthcare at Sunyani municipal hospital. In addition to evaluating client perception and satisfaction with services, it will provide NHIA, local and national health authorities, feedback on patients' experiences with health care services. It will also help in breaching the gap between clients' expectations and the actual service they receive. This gap may explain the increasing number of drop out among NHIS members. This study seeks, as well, to draw the attention of the NHIA on the need to consider the quality perceived by the customers during the accreditation of facilities. It will also help the health facility management to initiate policies and programmes that can lead to improved client-provider relationship which will result in increased utilization and revenue generation.

### **1.4 Objectives**

The objectives of the study are divided into general and specific as indicated below.

#### **1.4.1 General Objectives**

To assess the level of satisfaction with health services among NHIS insured and uninsured clients at the Outpatient Department (OPD) of Sunyani Municipal Hospital, Brong-Ahafo Region, Ghana

### **1.4.2 Specific Objectives**

The specific objectives of the study are:

1. To determine the level of satisfaction with health care services among insured and uninsured clients at the OPD of Sunyani Municipal Hospital
2. To determine the influence of health insurance status on client's satisfaction with healthcare at the OPD of Sunyani municipal Hospital
3. To determine the influence of socio-demographic characteristics on patients' satisfaction with healthcare at the OPD of Sunyani municipal Hospital
4. To determine the level of insured and uninsured client's satisfaction with regard to the seven dimensions of health care delivery at the OPD of Sunyani municipal Hospital

### **1.5 Research questions**

1. What is satisfaction level among NHIS clients and non-insured clients at the OPD of Sunyani municipal Hospital?
2. Does the Health Insurance status of patients influence their satisfaction with healthcare at the OPD of Sunyani municipal Hospital?
3. Do socio-demographic characteristics of patients influence their satisfaction with healthcare at the Sunyani municipal Hospital?
4. What is the satisfaction level among NHIS clients and non-insured with regard to the seven dimensions of health care delivery at the OPD of Sunyani municipal Hospital?

## 1.6 Research Hypotheses

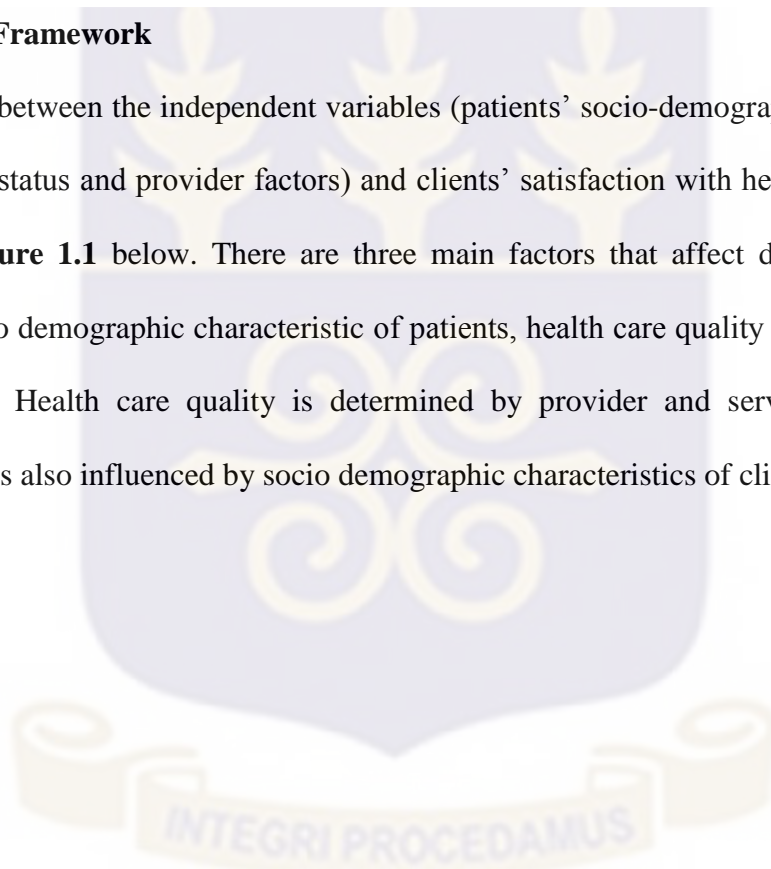
The research hypotheses of the study are that:

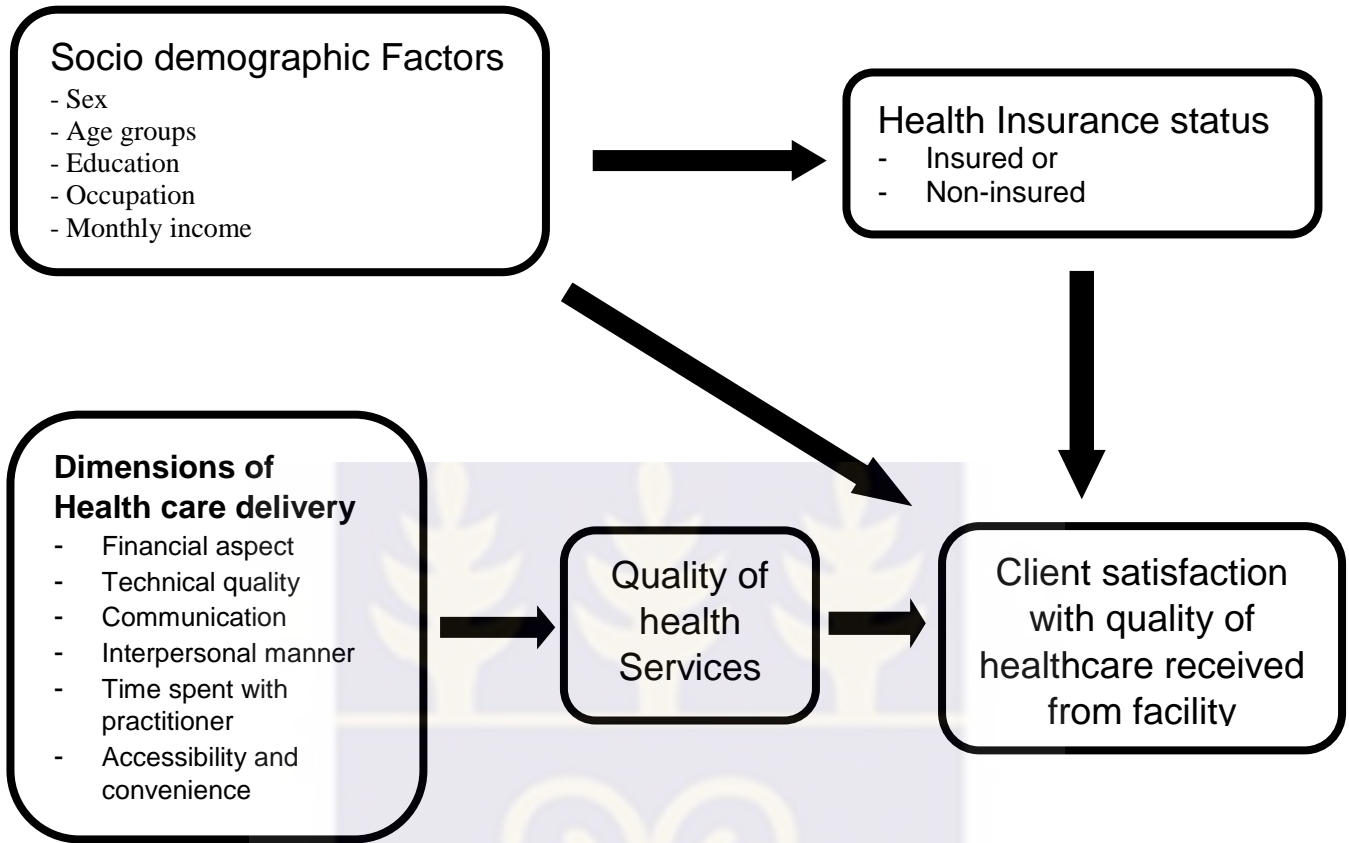
H<sub>1</sub>: There is an association between patients' insurance status (NHIS client or non- insured) and their satisfaction level with health care services.

H<sub>2</sub>: There is an association between patients' socio-demographic characteristics and their satisfaction level with health care services.

## 1.7 Conceptual Framework

The relationship between the independent variables (patients' socio-demographic characteristics, health insurance status and provider factors) and clients' satisfaction with health care services is presented in **Figure 1.1** below. There are three main factors that affect directly the level of satisfaction: socio demographic characteristic of patients, health care quality and patients' health insurance status. Health care quality is determined by provider and service characteristics. Insurance status is also influenced by socio demographic characteristics of clients.





*Source:* Andersen and Newman Framework of Health Services Utilization (Andersen's, 1995)

Figure 1: Conceptual framework of factors influencing Client satisfaction with quality of healthcare received from facility.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0. Introduction

This chapter presents literature of studies conducted in the area under review. It is divided into six sections: National Health Insurance, the NHIS challenges, Patient satisfaction, Dimension of satisfaction with medical healthcare, healthcare quality and Measurement of client satisfaction.

#### 2.1. National Health Insurance Scheme, Ghana

The National Health Insurance Authority was established under the National Health Insurance Act 2003, Act 650, as a body corporate, with perpetual succession, an Official Seal, that may sue and be sued in its own name. As a body corporate, the Authority in the performance of its functions may acquire and hold movable and immovable property and may enter into a contract or any other transaction (NHIA, 2018)

In order to address the administrative bottlenecks, make the scheme more effective in term of governance, bring transparency, reduce fraud and consolidate the NHIS, A new law, Act 852 has been voted to replace ACT 650 in October 2012 (National Health Insurance Scheme Act 852, 2012).

Different countries in the world have adopted various mechanisms to finance their health needs, including National Health Insurance to ensure universal access to quality basic health care. Ghana is one of the few countries in sub-Saharan Africa spending a relatively high percentage of its Gross Domestic Product (GDP) on health. Ghana's total expenditure on health as a percentage of its GDP was 5.91% in 2015 compared to Cote d'Ivoire (5.44%), Nigeria (3.56%) or 2.95% for Angola (The world Bank, 2016). The share of the national budget allocated to health was 10.6% of total country expenditure, getting closer to the Abuja target of 15% (WHO, 2015)

The NHIS sources of funding are the National Health Insurance Levy (approximately 70%), the Social security and national insurance trust (SSNIT) (17%), premiums payment (8%) and others sources (8%). Persons under 18 years who are part of exempt groups, represent 51.2% of the total NHIS active membership. Informal workers represent 35.5% and SSNIT contributors, 4.2% (Alhassan, Nketiah-Amponsah, & Arhinful, 2016).

The National Health Insurance Authority has an Office in each of the ten administrative regions of the country. The various regional directorates report to the Head Office. The Regional Offices supervise the operations of the district offices in the respective regions. The Authority has a total of 159 district offices & 5 registration centres. Registration of members and renewal of membership of the scheme are done at the district offices (NHIA, 2014).

## **2.2. The NHIS challenges**

Nsiah-Boateng et al., in their study at Ashiedu Keteke District, found an increased value of the NHIS benefit Package to the beneficiaries of the scheme ; but , the responsiveness of NHIS to the financial needs of healthcare providers is low and this situation can affect the quality of services provided (Nsiah-Boateng, Aikins, Asenso-Boadi, & Andoh-Adjei, 2016).

According to a World Bank study, researchers found a problem of turnover among NHIS members, a lot of NHIS members fail to renew their membership with the scheme. The subscribers have limited opportunities to make a feedback and finally the Ghana National Health Insurance Authority (NHIA) does not take into account client-perceived quality care before accrediting facilities (Wang et al., 2017).

A study conducted in Volta region on factors associated with non-renewal of insurance shown as causes, poor quality of service delivery (58%), lack of money (49%) and experience of other sources of healthcare (23%) (Boateng & Awunyor-Vitor, 2013).

On the other hand, affordability of registration fee and premium is constantly reported by non-insured to be the main obstacle of enrolment and retention into the scheme (Kotoh & Van der Geest, 2016). Nevertheless, a study conducted between January-April, 2011 within three districts of Ghana showed that 66% of uninsured households and 70% of partially insured households could afford full insurance for their members (Kusi, Enemark, Hansen, & Asante, 2015)

The enrolment into the scheme provides financial protection against catastrophic expenditure and diminish the impact of poverty by reducing out-of-pocket expenses (Aryeetey et al., 2016). Though a notable rise in the NHIS' enrolment among the general population, we notice that, the poor are less covered. A research conducted in fifteen communities in the eastern and central region of Ghana indicate that the poorest population have the lowest enrolment rate (Kotoh & Van der Geest, 2016).

### **2.3 Patient satisfaction**

Patient Satisfaction is an indicator to measure the quality of service provided by health facilities (Al-Abri & Al-Balushi, 2014). Patients receive different types of treatment from healthcare providers and they draw their conclusions based on the quality of the treatment they receive (Vadhana, 2012).

Patients' satisfaction is affected by various factors such as the ability of the staff to deliver service on time, the responsiveness in case of emergency, the way nurses behave towards clients, capability to effectively communicate with clients, the availability of up-to-date equipment, the

ability of the hospital to provide 24 hour service, the ability of doctor to clearly explain the condition to the client before providing medication, provision of detail information on clients' medication, attractiveness and cleanliness of the facility (Peprah, 2014).

Aside the providers' factors, individuals' characteristics can also influence patients' healthcare seeking behaviour and the satisfaction. A survey evaluating the effect of insurance on healthcare seeking behaviour in the metropolitan areas of Accra find that, women and elder individuals enrolled in the scheme are more likely to visit health facilities and seek formal healthcare when they are sick (Blanchet, Fink, & Osei-Akoto, 2012)

A household survey carried out within three districts in Ghana found a higher proportion of satisfaction with health services among NHIS clients compared to the uninsured clients (Fenny et al., 2014).

#### **2.4 Dimension of satisfaction with healthcare**

The process of assessing the level of satisfaction with healthcare provision among patients, and the knowledge of determinants influencing satisfaction are very helpful for healthcare providers as it impacts healthcare outcome and financial results of healthcare institutions (Raposo, Alves, & Duarte, 2013).

Marshall et al (1994) in their assessment of outpatient's satisfaction, have identified seven dimensions of satisfaction with medical care provision namely, general satisfaction, financial aspect, technical ability, interpersonal manner, accessibility and convenience, communication and time spent with the practitioner (Marshall & Hays, 1994). Those factors are essentially healthcare provider's factors.

### ***Financial aspect***

The financial aspect refers to the ability of the patient to pay hospital bills. The satisfaction with the financial aspect of healthcare provision has influence on the overall level of satisfaction. Patients who are satisfied with the financial dimension of care delivery are more likely to be satisfied in overall (Chakraborty, Bhattacharjee, & Rahaman, 2016). Health insurance provides financial protection to patients (Aryeetey et al., 2016). Then some researchers have demonstrated that patients enrolled in an insurance scheme have a higher overall level of satisfaction compared to those who are not insured (Nwafo-Festus, 2016)

#### ***a- Technical ability***

The technical dimension of healthcare provision refers to the availability of up-to-date equipment in the facility, the technical skill of care providers and their ability to provide care based on current scientific knowledge (Marshall & Hays, 1994). The nature and the performance of the equipment a facility has at its disposal play a decisive role in determining the satisfaction of patients attending this particular hospital. This aspect was identified to be one of the four core elements influencing patient level of satisfaction at Sunyani Regional Hospital (Peprah, 2014).

#### ***b- Interpersonal manner***

This dimension captures the behavioural aspect of patient- staff interaction. It measures how friendly or courteous are healthcare providers towards their patients (Marshall & Hays, 1994). Different studies in different settings have demonstrated that patients draw their satisfaction level mostly based on the health providers' behaviour. Fenny et al. (2014) in Ghana, Nunu and Munyewende (2017) in south Africa and Chakraborty et al. in India have found that staff behaviour has strong influence on patients 'satisfaction (Chakraborty et al., 2016; Fenny et al.,

2014; Nunu & Munyewende, 2017). Fenny et al. (2014) in a study conducted within 3 different districts in Ghana found that, patients who were satisfied with the courtesy and friendliness of the health workers were 3 time likely to report satisfaction with the overall healthcare compared to those who were not satisfied ( $p < 0.001$ ) (Fenny et al., 2014).

***c- Accessibility and convenience***

This dimension refers to the ability to get the needed medical care right away or have an appointment with a specialist (Marshall & Hays, 1994). Ziaei et al. (2011) found that the accessibility dimension has the strongest association with the overall level of satisfaction  $\beta = 9.2$ ;  $p < 0.001$ ). In general, patients have good rating as far as this dimension is concerned. Opong (2017) in Ghana and Dabaghian et al. (2016) in Iran found high proportion of participants satisfied with accessibility and convenience (Dabaghian, Khadem, & Ghods, 2016; Opong, 2017).

***d- Communication***

The communication between healthcare providers and clients refers to a set of information the health workers are supposed to provide patients with. Counselling, explanation of the condition, information on drugs adverse effects, explanation on the lab tests patients have to undergo and guidance on drug adherence are some of the aspects of provider-client communication (Roger Ayimbillah Atinga & Abekah-nkrumah, 2011) . Communication was found to have one of the strongest association with the overall satisfaction in a research conducted in Iran ( $\beta = 2.4$ ;  $p < 0.001$ ) (Ziaei et al., 2011)

*e- Time spent with the practitioner*

The total amount of time a patient spends at hospital comprises waiting time before getting access to the Doctor and the time spent with the practitioner. Generally patients are willing to spend less time in medical and administrative procedure and have more time interacting with the Doctor (Roger Ayimbillah Atinga & Abekah-nkrumah, 2011) . Fenny et al. (2014) found in their research carried in Ghana that waiting time was one of three influential components that determine the level of satisfaction. Patients who were dissatisfied with the waiting time are more likely to report low overall satisfaction (Fenny et al., 2014). A study conducted in an urban setting of India found that, across the various dimension of measurement of satisfaction, time spent with the Doctor was the lowest. And the shortness of time that Doctors spent with their patients was the main reason of dissatisfaction (Chakraborty et al., 2016)

**2.5 The healthcare quality**

There is often a difficulty in defining the Quality of healthcare. The healthcare provision itself is complex. This complexity is due to the involvement of various actors and their different levels of interest (Hill, Carolina, Sollecito, & Johnson, 2006).

Quality of healthcare has been defined by experts in various ways. Donabedian (1997), defines it as “the level at which health services for a group of people or an individual increase the possibility to meet the expected health outcome and are in line with current knowledge”. In his view, quality involves three different components: structure, process and outcomes. Structure is concerned to the amenities of the organization providing the care. Process relates to the professional activities associated with healthcare provision and outcome refers to health status improvements and patient satisfaction with care (Donabedian, 1997)

Within this large range falls different aspects of quality that makes service quality. To carry out and utilize quality measures for evaluating performance, one should choose those quality aspect to be utilized and then refer the aspects to specific features of the programme (Stern & Caro, 2004)

## **2.6 Measurement of patient satisfaction**

The measurement of quality of care is as difficult as its definition. The Bamako Initiative, the framework of quality of care designed by the World Health Organization (WHO) and a certain number of the more detailed approaches are examples of frameworks used to assess quality of care. (Donabedian, 1997; Evans, Edejer, Lauer, Frenk, & Murray, 2001)

Patient satisfaction is basically related to the result of their interaction with health care providers. Factors that influence patients satisfaction include: empathy, caring, dependability and responsiveness of providers (Tucker, 2002)

The two basic approaches for evaluating the level of satisfaction of patients are the quantitative and the qualitative approaches. The quantitative approach makes available accurate methodologies for measuring patient satisfaction. In conducting studies on patient satisfaction, standardized questionnaires interviewer-administrated, self-reported or by telephone have been the commonest tool of assessment. (Al-Abri & Al-Balushi, 2014)

There are quite a number of standardized measurement instruments like patient satisfaction questionnaires PSQ-18, which is more convenient for assessing outpatient and consumer assessment health plans (CAHPS). Instruments as such, have the benefit of good reliability and validity; even though they do provide limited domain of research questions (Marshall & Hays, 1994).

The divergences of the satisfaction measurements are indices that can justify the diversity in patient opinions of hospital care. The patient satisfaction surveys designed by the Picker Institute, which are appropriate for inpatients, emphasises on experience of healthcare and opt for a problem-oriented approach, which involves asking questions about the things that happened or not during the hospitalization in relation to the diverse aspects of care (Jenkinson, Coulter, & Bruster, 2002). The satisfaction with care is taken by other satisfaction surveys whereby the individual is asked to rate their appreciation of different aspects of healthcare during their hospitalization.(Finkelstein, Singh, Silvers, Neuhauser, & Rosenthal, 1998)

## **2.7 Conclusion**

The review of relevant literature related to our topic has underlined the functioning of the National Health Insurance Scheme, its core mandate and the challenges faced. The increasing number of dropped out among NHIS subscribers and the limited opportunities for the members to make feedback on their experience with healthcare providers constitute some of the obstacles for the sustainability of the scheme.

The patient satisfaction survey is an indicator to assess clients' opinion on the quality of care received. This opinion is drawn based on their own characteristics and the healthcare provider factors.

## CHAPTER THREE

### METHODS

#### 3.0. Introduction

This chapter presents the methods to be applied to collect data for analysis in this study. The chapter includes the study design, the study site, the study population, the sampling technique, the sample size, data collection technique and instruments, quality control, data processing and analysis and ethical considerations.

#### 3.1 Study Design

The study design is a cross-sectional study of insured and uninsured clients attending the Sunyani Municipal Hospital outpatient department. The choice of this design was made to collect data from clients using the PSQ 18 structured questionnaire developed by Marshall et al. (1994) that helped describe precisely their expected and perceived satisfactions with services at the Sunyani Municipal Hospital. The researcher informally discussed with some of the clients and healthcare providers to get in-depth understanding of their own personal experiences regarding some of the treatment they receive and render at the hospital, respectively.

#### 3.2 Study site

The study was conducted at the outpatient department of Sunyani Municipal hospital. The choice of this facility was guided by a study conducted in a nearby area. Amankwaa (2011), in his research carried out at Berekum district, found that perception of healthcare quality was one of the reasons for non-renewal of NHIS membership (Amankwaa, 2011). Sunyani Municipal Assembly covers a total land area of 506.7 Km<sup>2</sup>. It is the regional capital of Brong Ahafo Region

and limited on the north by Sunyani West District. It shares its west boundary with Dormaa East District, south with Asutifi District, the South and east with Tano North District. The municipality is made up of several communities with an estimated population of 123,224 (Ghana Statistical Service, 2014).

About 62.0 % of the populations aged 15 years and above are economically active meanwhile 38.1 % of them are not active. Out of this economically active population, employed represent 93.2 % and 6.8 % of them are unemployed.

Healthcare providers are distributed as followed across the municipality: 6 hospitals, 12 clinics, 7 CHIPS compounds, 3 maternity homes and 3 health centres provide healthcare services for a total district population of 123,224 (Ghana Statistical Service, 2014)

### **3.3 Variables**

The variables measured in the study have been grouped into dependent and independent as shown below.

#### **3.3.1 Dependent variable**

Clients' satisfaction with healthcare received from the facility. This variable was captured as self-perceived satisfaction of the patient. The satisfaction was measured using 5-point Likert scale and participants were finally categorized into two groups: satisfied and non-satisfied.

#### **3.3.2 Independent variables**

- Health Insurance status (Insured or Non-insured).
- Socio demographic Factors (Sex, Age, Educational backgrounds, Occupation, Monthly income)

### **3.4 Study population**

The Outpatient Department of Sunyani Municipal Hospital in Brong Ahafo Region was selected as site for our research. Targeted samples was drawn within the patients attending this facility whether they are NHIS clients or not.

#### ***1. Inclusion Criteria***

- The outpatients who are 18 years and above.
- The clients who are willing to give consent
- The clients who are able to listen and understand Twi or English language.
- Clients who have completed their care process as outpatients.

#### ***2. Exclusion Criteria***

- clients with other type of health insurance apart from NHIS
- Clients with psychiatric problems.
- Clients who need emergency attention.
- clients who have yet to complete their care process as outpatients
- All inpatients.

### **3.5 Sampling Method**

The study applied different sampling strategies to select and collect data for analysis in this study. For the selection of the study site, a purposive sampling strategy was applied. A purposive sampling is a sort of non-probability sampling method in which decisions concerning the participants to be included in the sample are taken by the researcher, based on a diversity of criteria (Jupp, 2006). Of all the one hundred and seventy-five (175) district, municipal and

metropolitan assemblies in Ghana, the Sunyani Municipal Hospital was selected due to factors such as proximity, culture, health facilities available and demography characteristics.

For the selection of the study participants, a multistage sampling method(s) was used to select both the insured and uninsured clients as research participants. A multistage sampling is the probability sampling technique wherein the sampling is carried out in several stages such that the sample size gets reduced at each stage (Business Jargons, 2018). This has been applied to get the required number of insured clients using a cluster sampling approach whereby the insured clients were grouped according to age and sex. Thus, the researcher approached the NHIS Secretariat in the municipality to collect data. In addition, the researcher has accessed the database from the hospital administration to get an idea of the uninsured patients who visit the hospital. Contrary to the general population in Ghana where 42% are enrolled in the scheme (Wang et al., 2017), the review of the monthly report of the facility showed that 87% of the patients attending the outpatient department and only 13% of them were not insured. People rather tend to attend the facility when insured (*Sunyani Municipal Hospital : First quarter report, 2018*).

Despite its disadvantages and biases (Kriska, Sass, & Fulcomer, 2013), a convenience sampling strategy was used to select both insured and uninsured clients who access healthcare at the facility mainly because of the scarcity of uninsured clients attending the facility. Some researchers explain that a convenience sample is a sample in which research participants are selected based on their ease of availability (Given, 2008). Given (2008), indicates that this essentially involves persons who are the most ready, willing, and able to be part of the study. In this study, the hospital exit interview strategy was applied where patients were approached after they have received healthcare during the period of data collection until the required sample size is achieved.

### 3.5.1 Sample Size

The formula for 2 proportions is used to calculate the sample size (n)

$$n = \frac{[z_{\alpha/2} \sqrt{2p^*q^*} + z_{\beta} \sqrt{(p_1q_1 + p_2q_2)}]^2}{\Delta^2}$$

Where n is the size for each group (insured and non-insured), p<sub>1</sub>= satisfaction in group1 (insured), p<sub>2</sub>= satisfaction in group 2 (non-insured); q<sub>1</sub>=1-p<sub>1</sub>; q<sub>2</sub>=1-p<sub>2</sub>;  $p^* = \frac{p_1 + p_2}{2}$ ; q\* = 1-p\*;  
 $\Delta = p_1 - p_2$ ; Z<sub>α/2</sub> is the z value for a two-sided test corresponding to the chosen α.

The determination of the sample size in this study was computed using the following figures:

$$Z_{\alpha/2} = 1.96,$$

$$p^* = 44\%$$

$$q^* = 56\%$$

$$P_1 = 54\%$$

$$P_2 = 34\%$$

$$q_1 = 46\%$$

$$q_2 = 66\%$$

$\Delta = 20\%$ , in line with a study conducted among Federal civil servants in Abaliki Ebonyi State, Nigeria, using a 5 points Likert scale questionnaire to evaluate patients 'satisfaction that shown a proportion of 54% of satisfaction among NHIS clients and 34% for non-insured (Nwafo-Festus, 2016) .

Sample size n= 93. Taking care of non-responses, 10% of the calculated, which is equal to 10, will be added to the calculated sample size. This gives a sample size of 103 for each groups (insured and non-insured). A total size of 206 for the study.

### **3.6 Data Collection Techniques**

A structured questionnaire was used to interview patients attending the outpatient department of the facility. The survey was conducted within a period of 14 days (4<sup>th</sup> to 18<sup>th</sup> June 2018) at Sunyani Municipal hospital. Both groups, NHIS Clients and non-insured clients were assessed with the same questionnaire.

The questionnaire is divided into two main sections:

- Client's background (Socio demographic characteristics and information about health insurance)
- A standard tool for measuring satisfaction: PSQ-18

The short version of the Patient Satisfaction Questionnaire (PSQ-18), was first designed by Marshall and Hays in 1994 (Marshall & Hays, 1994). This questionnaire comprises seven dimensions; General satisfaction (item 3, 17); Technical quality (item 2, 4, 6, 14), Communication (item 1, 13), Financial aspect (item 5, 7) Interpersonal manner (item 10, 11), Time spend with practitioner (item 12, 15), accessibility and convenience (item 9, 6, 16, 18). To control for acquiescence responding, this tool contains both positively-worded items and negatively-worded items (Marshall & Hays, 1994). This tool has previously been used successfully to assess patients satisfaction in the same facility (Oppong, 2017).

### **3.7 Quality control**

Two (2) field assistants, convenient with both English and Twi languages were trained within two days. The principal investigator closely monitored the assistants during the data collection to make sure the data collected from the clients. Administered questionnaires were checked daily for accuracy and completeness.

### 3.8 Data Processing and Analysis

Data cleaning was done manually to identify incomplete, incorrect and inaccurate parts of the data and modify or delete these parts. Data entry was done using an Excel sheet designed with validation to avoid entering erroneous values. Data were secondary exported into STATA 15. Data were analysed using descriptive analysis of frequencies and cross-tabulations.

In this study, questions were coded using a 5-point Likert scale, going from score one to five. (1 = strongly agree, 2 = agree, 3 = uncertain, 4=disagree, 5=strongly disagree). The Patient Satisfaction tool PSQ-18 is the sort-form version of the 50-item Patient Satisfaction survey III (PSQ-III). It contains 18 items assessing the seven dimensions of satisfaction with healthcare (Marshall & Hays, 1994).

The dependent variable, patient satisfaction, was measured using a composite variable. All the negatively-worded items were recorded in the positive way. So, for the overall satisfaction, the lowest score possible is 18 ( $1 \times 18$ ) and the highest score is 90 ( $5 \times 18$ ). The mid-point of this interval being 54  $[(90+18)/2]$ , all the participants with a total score falling between 18 and 54 were considered as unsatisfied and those with a score higher than 54 were satisfied. For the seven subscales of the questionnaire, the same principle was applied to determine the level of satisfaction based on the number of items each dimension is comprised. Then, for General Satisfaction (item 3, 17); Communication (item 1, 13), Financial aspect (item 5, 7) Interpersonal manner (item 10, 11) and the time spend with practitioner (item 12, 15), the lowest score is 2 ( $1 \times 2$ ) and the highest score is 10 ( $5 \times 2$ ). The mid-point of this interval being 6, the participants with scores less than 6 were consider as unsatisfied and those higher than 6, satisfied. The minimum score for accessibility and convenience (item 9, 6, 16, 18) and Technical quality (item 2, 4, 6, 14), is 4 ( $1 \times 4$ ). The maximum score for each participant is 20 ( $5 \times 4$ ). The mid-point of the

interval is 12. Participants with a score less than 12 were considered as unsatisfied and those with a score higher than 12, satisfied. This approach has been used to determine the proportion of participants satisfied with healthcare service in Iran using The PSQ 18 (Dabaghian et al., 2016)

Logistic regression was used to assess the level of significance and association between patients' satisfaction level and other independent variables such as health insurance status, Socio demographic Factors (Sex, Age, Educational backgrounds, Occupation, Monthly income), healthcare provider factors (Technical quality, Communication, Interpersonal manner, Time spent with practitioner, accessibility and convenience). The variables with p-value of <0.05 were considered significant. Pearson  $\chi^2$  test was used to assess whether the differences between the insured and uninsured were statistically significant.

### **3.9 Ethical Consideration/Issues**

Approval was obtained from the Ethical Review Committee of the Ghana Health Service (ERC/GHS) with the approval number 056/02/18 before commencement of the study. A copy of the Ethical Review Committee and a letter from the School of Public Health were sent to The Medical Superintendent through the Administration department, to be given the permission to conduct the study in the facility. The head of the Outpatient department was informed as well.

#### ***Participant consent***

Informed consent was obtained from all the clients either signed or thumb printed the consent form before interviews.

#### ***Data Safety***

Safety of the data was assured by keeping the questionnaires under key and lock.

### ***Confidentiality***

Confidentiality by not entering the names of the clients into the STATA 15 software. The data are strictly for this research.

### ***Risks and benefits***

This study doesn't pose any risk to the clients. It does not provide direct benefits to the clients. But it will help to improve the quality of healthcare within the municipality to the benefit of the residents of the entire region and beyond.

### **3.10 Research assistants training**

Two research assistants were selected and adequately trained for the data collection using the standardized questionnaire. The challenge of this training was to make sure that information contained in the tool were faithfully interpreted into the local language (Twi). Daily monitoring and supervision were done by the principal investigator to assure that the interviews were done properly.

### **3.11 Validity and reliability of the tool**

The PSQ 18 was used in this study to assess patients' satisfaction because of the benefit of having good reliability and validity .The validity and reliability of the tool used to assess patient's satisfaction have been approved by different studies. In a survey done by Dabaghian, a Cronbach's alpha of 0.72 was reported (Dabaghian et al., 2016) , and in another study by Ziaei, a Kappa's coefficient of 0.96 has found for the PSQ 18 (Ziaei et al., 2011).

## CHAPTER FOUR

### RESULTS

#### 4.0 Introduction

This section presents the findings of this study. It covers socio demographic characteristics, health insurance status, and satisfaction level of participants with the various satisfaction dimensions. It presents factors associated with respondents' level of satisfaction.

#### 4.1 Socio-demographic characteristics of participants

Table 1 shows information on the socio demographic characteristics of the participants. This study involved 103 insured clients and 103 uninsured clients. Out of the 206 questionnaires administrated, all of them were successfully retrieved giving a 100% respond rate. The respondents were averagely aged  $37.97 \pm 19.14$  and most of them were aged 18-27 (38.83%) and 28-37 (23.79%). More than half of the participants were female and mostly married (56.80%). The majority of the respondents had achieved secondary school education (42.23%) and were self-employed (35.92%). Christianity was the religion of most of them (75.73%), followed by Islam (21.95%). 32.04% of participants have no income and 30.10% earn 0-400 GHC per month.

**Table 1: Socio-demographic characteristics of participants**

Characteristics	Insurance status		
	Insured Frequency (%)	Uninsured Frequency (%)	Total Frequency (%)
<b>Age</b>			
18-27	44 (21.36)	36 (17.48)	80 (38.83)
28-37	26 (12.62)	23 (11.17)	49 (23.79)
38-47	07 (3.4)	20 (9.71)	27 (13.11)
48-57	6 (2.91)	9 (4.37)	15 (7.28)
58 and above	20 (9.71)	15 (7.28)	35(16.99)
<i>Total</i>	103 (50.00)	103 (50.00)	206 (100.00)
<b>Sex</b>			
Male	36 (17.48)	61 (29.61)	97 (47.09)
Female	67 (32.52)	42 (20.39)	109 (52.91)
<i>Total</i>	103 (50.00)	103 (50.00)	206 (100.00)
<b>Marital status</b>			
Single	34 (16.50)	38 (18.45)	72 (34.95)
Married	59 (28.64)	58 (28.16)	117 (56.80)
Widowed	4 (1.94)	4 (1.94)	8 (3.88)
Divorced	6 (2.91)	3 (1.46)	9 (4.37)
<i>Total</i>	103 (50.00)	103 (50.00)	206 (100.00)
<b>Education</b>			
No Education	14 (6.8)	15 (7.28)	29 (14.08)
Literate Primary	11 (5.34)	6 (2.91)	17 (8.25)
Secondary School	47 (22.82)	40 (19.42)	87 (42.23)
Higher Education	31 (15.05)	42 (20.39)	73 (35.44)
<i>Total</i>	103 (50.00)	103 (50.00)	206 (100.00)

**Occupation**

Private Sector	11 (5.34)	12 (5.83)	23 (11.17)
Self Employed	36 (17.48)	38 (18.45)	74 (35.92)
Unemployed	23 (11.17)	10 (4.85)	33 (16.02)
Student	14 (6.8)	23 (11.17)	37 (17.96)
Civil Servant	19 (9.22)	20 (9.71)	39 (18.93)
<i>Total</i>	103 (50.00)	103 (50.00)	206 (100)

**Religion**

Christian	83 (40.29)	73 (35.61)	156 (75.73)
Muslim	17 (8.29)	28 (13.66)	45 (21.95)
Traditional	2 (0.98)	2 (0.98)	4 (1.95)
Others	1 (0.49)	0 (0)	1 (0.49)
<i>Total</i>	103 (50.00)	103 (50.00)	206 (100.00)

**Monthly Income**

No income	35 (16.99)	31 (15.05)	66 (32.04)
0-400 GHC	33 (16.02)	29 (14.08)	62 (30.1)
401-800 GHC	22 (10.68)	22 (10.68)	44 (21.36)
801 GHC and above	13 (6.31)	21 (10.19)	21 (10.19)
<i>Total</i>	103 (50.00)	103 (50.00)	206 (100.00)

**4.2 Insurance status related characteristics**

Table 2 provides the distribution with regard to the health insurance status of the participants. Out of the 103 uninsured clients of this study, the majority (48.54%) dropped out of the scheme and 19.42% of them were not interested to join the scheme. Concerning the other 103 NHIS clients, most of them have spent four years and more in the scheme.

The large share of the insured clients (75%) find the premium fair while 19% find it high. The study reveals that 35% of NHIS clients were paying some fees for their medical care.

**Table 2: Insurance status related characteristic**

<b>Insurance status related characteristics</b>	<b>Frequency</b>	<b>Percent</b>
<i>Uninsured (n =103)</i>		
<b>Reason of non-insurance</b>		
Not interested	20	19.42
Not able to afford	12	11.65
Dropped out	50	48.54
Other reasons	21	20.39
Total	103	100
<i>Insured (n=103)</i>		
<b>Duration in the Scheme</b>		
One years	15	14.56
Two years	6	5.83
Three years	10	9.71
Four years and above	72	69.9
Total	103	100
<b>Opinion about the premium</b>		
Low	6	5.83
Fair	77	74.76
High	20	19.42
Total	103	100
<b>Extra fees paid</b>		
No	66	64.08
Yes	37	35.92
Total	103	100

#### **4.3 Level of satisfaction by respondents' characteristics**

The overall satisfaction with healthcare among the 206 participants of this study is 82.04%. The level of satisfaction was respectively 82.52% for insured and 81.55 for the uninsured. Participants aged 58 and above were the age group with the highest proportion of satisfied (94%) and the age group 18-27, the lowest satisfaction rate. Male participants were more satisfied (86.6%) compared to female (77.98%). Concerning respondents' marital status, all the widowed participants were satisfied and single participants have the lowest satisfaction rate (73.61%). Participants with a higher education were more satisfied (84.93) while those with a primary school education have the lowest satisfaction rate (70.59%). The unemployed participants have the highest rate of dissatisfaction (24.24%) and the civil servants, the lowest dissatisfaction rate (10.07%). Muslims were more satisfied (88.89%) compared to Christians (80.13%). Participants with no income were the most dissatisfied (22.73) of the income groups.

A Chi-square test was performed to identify the clients' factors associated to the overall satisfaction and find either these associations were statistically significant. The difference of satisfaction between NHIS clients (82.52%) and non-insured (81.55%) was not statistically significant. The monthly income level of participants ( $p < 0.038$ ) and either they pay fees being NHIS client ( $p < 0.014$ ) were significantly associated with their overall satisfaction. However, the other socio demographic variables have no influence on the overall satisfaction.

**Table 3: Level of satisfaction by respondent's characteristics**

Factors	Overall satisfaction		<i>P-value</i>
	Dissatisfied	Satisfied	
<b>Insurance status</b>			
Insured	18 (17.47)	85 (82.52)	0.856
Uninsured	19 (18.45)	84 (81.55)	
<b>Age</b>			
18-27	21 (26.25)	59 (73.75)	0.079
28-37	9 (18.37)	40 (81.63)	
38-47	3 (11.11)	24 (88.89)	
48-57	2 (13.33)	13 (86.67)	
58 and above	2 (5.71)	33 (94.29)	
<b>Sex</b>			
Male	13 (13.4)	84 (86.6)	0.108
Female	24 (22.02)	85 (77.98)	
<b>Marital status</b>			
Single	19 (26.39)	53 (73.61)	0.076
Married	16(13.68)	101 (86.32)	
Widowed	0 (0)	8 (100)	
Divorced	2 (22.22)	7 (77.78)	
<b>Education</b>			
No Education	6 (20.69)	23 (79.31)	0.551
Literate Primary	5 (29.41)	12 (70.59)	
Secondary School	15 (17.24)	72 (82.76)	
Higher Education	11 (15.07)	62 (84.93)	

**Occupation**

Private Sector	6 (26.09)	17 (73.91)	
Self Employed	11 (14.86)	63 (85.14)	
Unemployed	8 (24.24)	25 (75.76)	0.367
Student	8 (21.62)	29 (78.38)	
Civil Servant	4 (10.26)	35 (89.74)	

**Religion**

Christian	31 (19.87)	125 (80.13)	
Muslim	5 (11.11)	40 (88.89)	0.537
Traditional	1 (25)	3 (75)	
Others	0 (0)	1 (100)	

**Monthly Income**

No income	15 (22.73)	51 (77.27)	
0-400 GHC	15 (24.19)	47 (75.81)	0.038*
401-800 GHC	6 (13.64)	38 (86.36)	
801 GHC and above	1 (2.94)	33 (97.06)	

**Extra fees paid (NHIS clients)**

No	7 (10.61)	59 (89.39)	
Yes	11 (29.73)	26 (70.27)	0.014*

\*p<0.05

#### 4.4 Relationship between the various dimensions of satisfaction and insurance status

Table 4 shows the NHIS clients and non-insured clients level of satisfaction across the seven dimensions of patient satisfaction questionnaire. A chi square test was used to see whether the difference in satisfaction between the two groups (insured and uninsured) is statistically significant. The highest level of satisfaction was found with the interpersonal manner dimension (88.83%) and the lowest were found with financial (65.53%), time spent with the Doctor (64.56%) and accessibility dimensions (60.19%). For this last dimension, the difference found between insured (53.40%) and uninsured (69.99) was significant ( $p < 0.046$ ). However, the study found no significant difference between insured and uninsured respondents throughout the other dimensions.

**Table 4: Relationship between the various dimensions of satisfaction and insurance status**

Satisfaction domains	Insurance status		Chi-square <i>P-value</i>
	Uninsured Frequency (%)	Insured Frequency (%)	
<b>General satisfaction</b>			
Dissatisfied	10 (9.71)	16 (15.53)	0.208
Satisfied	93 (90.29)	87 (84.47)	
<b>Financial aspect</b>			
Dissatisfied	40 (38.83)	31 (30.1)	0.187
Satisfied	63 (61.17)	72 (69.9)	
<b>Provider factors</b>			
<b>Communication</b>			
Dissatisfied	14 (13.59)	15 (14.56)	0.841
Satisfied	89 (86.41)	88 (85.444)	

**Interpersonal manner**

Dissatisfied	10 (9.71)	13 (12.62)	0.507
Satisfied	93 (90.29)	90 (87.38)	

**Time spent with Doctor**

Dissatisfied	41 (39.81)	32 (31.07)	0.190
Satisfied	62 (60.19)	71 (68.93)	

**Technical ability**

Dissatisfied	23 (22.33)	21 (20.39)	0.734
Satisfied	80 (77.67)	82 (79.61)	

**Accessibility and convenience**

Dissatisfied	34 (33.01)	48 (46.60)	0.046*
Satisfied	69 (66.99)	55 (53.40)	

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**4.5 Logistic regression of factors associated with the overall satisfaction**

A simple logistic regression analysis was conducted to further investigate the strength of the associations at the chi-square analysis (table 5). The model found reduced odds of being satisfied with the service among NHIS clients paying extra fees (OR = 0.22;  $p < 0.019$ ) compared to NHIS clients who are not paying anything for their healthcare.

**Table 5: Logistic regression of factors associated with the overall satisfaction**

	Odds Ratio	Std. Err.	z	p-value	[95% CI]	
<b>Insurance status</b>						
Uninsured (Ref)						
Insured	1.068122	0.387857	0.18	0.856	0.5242421	2.176254
<b>Age</b>						
18-27 (Ref)						
28-37	1.889736	1.631515	0.74	0.461	0.3479454	10.2634
38-47	3.013681	4.187631	0.79	0.427	0.197842	45.90669
58 and above	2.655381	3.202785	0.81	0.418	0.2497187	28.23597
<b>Marital status</b>						
Single (Ref)						
Married	1.896727	1.478875	0.82	0.412	0.4114571	8.743497
Divorced	0.2207067	0.3251642	-1.03	0.305	0.0122957	3.961677
<b>Religion</b>						
Christian (Ref)						
Muslim	1.861866	1.817692	0.64	0.524	0.2747529	12.61696
<b>Education</b>						
No education (Ref)						
Literate Primary	1.213301	1.601017	0.15	0.884	0.0913613	16.11295
Secondary	2.347639	2.627357	0.76	0.446	0.2618245	21.05001
Higher Education	0.542673	0.6690363	-0.5	0.62	0.0484319	6.08058
<b>Monthly income</b>						
No income (Ref)						
0-400	0.8462344	0.7041515	-0.2	0.841	0.1656556	4.322901
401-800	2.396837	2.221831	0.94	0.346	0.3895721	14.7465
801 and above	2.231078	3.561229	0.5	0.615	0.0976862	50.95609
<b>Extra fees paid</b>						
No (Ref)						
Yes	0.2266201	0.1433801	-2.35	0.019*	0.0655771	0.7831493

## CHAPTER FIVE

### DISCUSSION

This chapter discusses the main findings of this study which assesses the satisfaction among NHIS clients and non-insured client attending the outpatient department of Sunyani Municipal Hospital and how these findings relate to results of studies conducted by other researchers.

#### **5.1 Socio-demographic characteristics of participants**

This study involved 206 participants equally divided into two groups: 103 insured participants and 103 uninsured participants. The socio-economic characteristic of respondents which were hypothesized to have an influence on their satisfaction were age group, sex, marital status, education, occupation, religion, monthly income and health insurance status.

This study revealed that respondents within the age group of 58 and above were more satisfied and those from 18 to 27 were less satisfied. Yamson (2017) also found in a study conducted at Legon hospital that, elder respondents had higher satisfaction level than the younger ones (Yamson, 2017). Elder persons are more likely to get sick, especially from chronic conditions that require a follow up. Those who are insured in this age group had the feeling of taking full advantage of the scheme package and increase their level of satisfaction with healthcare provision. On the other hand, young participants in a study conducted at Berekum, mostly argued that they enrol every year but they do not fall sick (Amankwaa, 2011). This situation lead to a low satisfaction within this age group.

Males were more satisfied with healthcare provision (86.6%) compared to females (77.98%). This result is consistent to the findings of study done by Yamson (2017) who found that males were more satisfied than females. All the widowed participants were satisfied with the healthcare

and Muslims were more satisfied compared to Christians. Several studies in Ghana and outside are not supporting this finding Yamson (2017) in Ghana, Nwafo-Festus (2016) in Nigeria and Chakraborty et al.(2016) in India found that Christians were more satisfied with healthcare compared to Muslims (Chakraborty et al., 2016; Nwafo-Festus, 2016; Yamson, 2017). Certainly because orthodox medicine is associated to western culture.

The study found a higher satisfaction rate within participants with high education background and high monthly income.

Again, all the socio demographic variables mentioned above were not significantly associated to the overall satisfaction of participants. The finding is consistent with different studies in Ghana. Fenny et al, (2014) found no association with participants sex, age, education and employment and their overall level of satisfaction in a study carried out in three districts of Ghana (Fenny et al., 2014). A study conducted at Eye clinic of sunyani Municipal Hospital found also no association between respondents' sex, age, marital status, educational level, religion and employment with their overall level of satisfaction (Oppong, 2017). Outside Ghana, a study carried out in India also showed no significant association between the patient satisfactions with socio demographic variables (Chakraborty et al., 2016).

## **5.2 Level of satisfaction among insured and uninsured clients**

The overall satisfaction with healthcare among the 206 participants of this study was 82.04%. The level of satisfaction was respectively 82.52% for insured and 81.55 for the uninsured. This slight difference between insured and non-insured patients were not statistically significant ( $p < 0.856$ ). In other words, the insurance status of clients in Sunyani Municipal hospital is not a predictor of perception of quality of healthcare. These results are consistent with several studies conducted in

Ghana. Fenny et al., in a study carried out in three districts of three ecological Ghanaian zones, found a satisfaction level of 91% within insured clients and 86% for the uninsured (Fenny et al., 2014). Another study conducted in two districts of Upper East region of Ghana showed 76% of the insured and 82% of the uninsured were satisfied with the health care provided them (Dalinjong & Laar, 2012). The difference of satisfaction between insured and uninsured observed in these two studies were not statistically significant. Abuosi et al.(2016) also, in a study carried out within seventeen general hospitals from three regions of Ghana, found that, there is no difference in satisfaction with healthcare provision between NHIS clients and uninsured patients (Abuosi et al., 2016). The result of our study suggests that patients at Sunyani Municipal Hospital are fairly treated regardless to their health insurance status.

In other settings, a study conducted by Nwafor-Festus found a significant difference in satisfaction with Healthcare services between the insured and the uninsured in Abakaliki Ebonyi State, Nigeria (Nwafo-Festus, 2016).

### **5.3 Insurance related characteristics of participants**

Out of 103 non-insured patients in this study, 48.54% were previously enrolled in the scheme but they failed to renew their membership with NHIS. Some even realized that their card has expired once get to the facility. The issue of turn-over among NHIS members has been raised by different authors in Ghana. Awudu (2016) reported a drop out rate of 37% among NHIS subscribers in East Gonja district (Awudu, 2016). In a study carried out in 22 slum areas in Accra Metropolitan Assembly, Atinga et al. (2015) observed a health insurance renewal rate (65%) and a drop-out rate of about 34% (Roger A Atinga, Abihiro, & Kuganab-lem, 2015).

The large share of NHIS clients (75%) in our study, found the price of premium fair meanwhile 19% of them estimated that this price was high. This result is quite higher than what Amankwaa (2011) found at Berekum where 65% of respondents found the price of the premium affordable (Amankwaa, 2011). However, our finding seems not to be supported by different studies conducted in Ghana. Boateng et al (2013), in their study on factors influencing policy renewal in the Volta region, found that only 47% of participants were convenient with the price of the premium while 51% found it very high. In their study, they found the price of premium was one of the main factors determining the demand for health insurance, decision to join the scheme was significantly influenced by perception about the premium package for the insurance and the registration fee (Boateng & Awunyor-Vitor, 2013). The opinion about the price of premium in our study may be underestimated because this question was only asked to the insured clients.

Our study also revealed that 35.92% of the NHIS clients were paying extra fees at the facility. Either because the drugs or their condition were not covered by the scheme. This situation was significantly and negatively associated with patients' satisfaction (OR= 0.19, p= 0.019). NHIS clients who paid extra fees are less likely to be satisfied with the healthcare they received compared to those who are not paying anything. Ampofoh (2011) in a study carried out in Atebubu-Amanten district, found that 18% of the NHIS subscribers were paying extra fees at the facility (Ampofoh, 2011).

#### **5.4 Participants satisfaction across the seven dimensions of healthcare provision**

Although the overall satisfaction with healthcare provision in this study was 82.04%, this pattern was different across the various dimensions of satisfaction with healthcare provision, namely, general satisfaction, financial aspect, communication, time spent with the practitioner, interpersonal manner, technical ability, accessibility and convenience. The highest level of satisfaction was found with the interpersonal manner aspect of healthcare provision (88.83%). This result suggest that both insured (87.38%) and uninsured (90.29%) were highly satisfied with the courteous manner and friendliness of the practitioner. The high satisfaction rate reported by both the insured and uninsured clients on interpersonal dimension was reported in a study conducted in Ghana (Abuosi et al., 2016). This is also similar to findings in a study carried out in Iran, where highest satisfaction level was related to interpersonal manner (Ziaei et al., 2011).

Financial aspect, time spent with Doctor, accessibility and convenience dimensions were rated to have the lowest satisfaction level among insured and uninsured clients. The difference in satisfaction between insured (53.40%) and uninsured (69.99%) with regard to accessibility and convenience dimension was statistically significant ( $p < 0.046$ ). The NHIS clients being less satisfied than uninsured patients. This dimension was accessing the ability to get an appointment for medical care right away with the specialists. People tend to enrol in the scheme when having a chronic condition. The growing number of chronic patients subscribing to NHIS and the difficulty to get an appointment with specialists right away may lead to more dissatisfaction among insured patients.

Even though the satisfaction level among insured patients (69.9%) was higher compared to uninsured (61.17%), the difference in satisfaction between insured and uninsured patients was not statistically significant with regard to financial aspect. This is inconsistent with a study

conducted in Ghana that has shown a significant difference between insured and uninsured clients with respect to financial aspect to healthcare (Abuosi et al., 2016).

The second lowest satisfaction level (64.56%) was found with the time spent with the Doctor. Generally, patients are willing to spend more time with the Doctor, especially those with chronic conditions. The growing number of chronic diseases and the insufficiency of specialists lead to more dissatisfaction among clients. This is consistent with a study conducted in India where time spent with Doctor had the lowest satisfaction rate (Chakraborty et al., 2016)

### **5.5 Strengths and limitations of the study**

The assessment of patients 'satisfaction is based on perceptions, and perceptions are largely subjective. The tool (PSQ-18) used to assess patients satisfaction was a 5-point ordinal scale where participants were asked to rate the degree in which they agree or not with a statement. In ordinal scale, responses can be ranked but we cannot measure the distance between responses. We only assume that the distance between responses ("strongly agree" and "agree" or "uncertain" and "disagree") is equidistant.

The questionnaire was designed in English language but most of the interviews were done in local language (Twi language). In the process of interpretation, the researchers may have lost some information. And in face to face interview, respondents are likely to give social desirable responses instead of their true opinions.

In addition, the staff of outpatient department were aware of an ongoing study being conducted on patients' satisfaction. And finally, it should also be mentioned that cross-sectional design is just a snap-shots of events within the time of research.

## CHAPTER SIX

### CONCLUSION AND RECOMMENDATIONS

#### 6.0 Introduction

This section presents the conclusions and recommendations derived from this study assessing patient's satisfaction among NHIS clients and non-insured clients at Outpatient department of Sunyani Municipal Hospital.

#### 6.1 Conclusion

The overall satisfaction with healthcare provision among the 206 participants of this study was 82.04%. The level of satisfaction was respectively 82.52% for insured and 81.55 for the uninsured. This study found that overall, there is no significant difference in satisfaction with healthcare between insured and uninsured clients. This result suggests that patients at Sunyani Municipal Hospital are fairly treated regardless to their health insurance status. None of the other socio demographic characteristics of participants were associated to the overall satisfaction.

Almost the half of non-insured participants in the study were previously enrolled in the scheme but they failed to renew their membership with NHIS. The third of NHIS clients were paying extra fees for their medical care because their condition or drugs were not covered by the scheme. This situation was negatively and significantly associated with the overall satisfaction.

Going by the disaggregated approach, the higher dissatisfaction rates were recorded with financial aspect, time spent with the Doctor, accessibility and convenience dimensions of healthcare provision. The difference in satisfaction between insured and uninsured with regard to accessibility and convenience dimension was statistically significant. The NHIS clients being less satisfied than uninsured patients.

## **6.2 Recommendations**

Based on the results of the study, the following recommendations are formulated at different levels of the health system.

### ***Recommendations to the Ministry of Health***

Ghana is experiencing an epidemiological transition. The shift from infectious diseases to non-communicable (chronic) diseases. The higher dissatisfaction rates were recorded with time spent with the doctor, accessibility and convenience dimensions of healthcare provision. Again, the accessibility dimension in our study was assessing the ability to get an appointment with a specialist right away. In order to address the issue of access to physician (specialist) and shortness of time spent with the physicians during consultation, the Ministry of health should:

- Encourage the specialization of physicians
- Appoint more specialists (cardiologist, ophthalmologist, diabetologist....) in district and municipal hospitals

### ***Recommendations to National Health Insurance Authority (NHIA)***

In order to address the issue of drop-out, extra fees paid by NHIS clients and improve the enrolment into the scheme, the NHIA should:

- Set up a reminder system using voice message (in local language) to remind the subscribers of the member card expiry date.
- Enlarge benefit packages by including more medical photography
- Make awareness on the benefits of the scheme

### ***Recommendations to the Hospital's management***

- Improve accessibility and convenience of service delivery
- Increase the amount of time spent with patients during consultation

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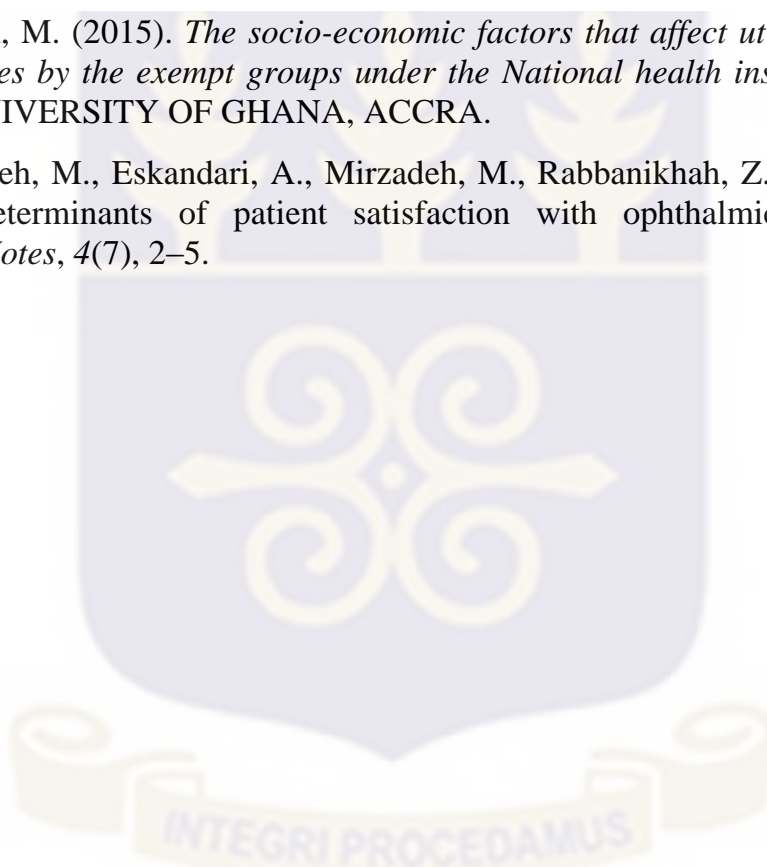
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## APPENDICES

### APPENDIX A: QUESTIONNAIRE

**School of Public Health  
University of Ghana, Legon Accra**

Dear Respondent,

I am Jacques N'dri Kouakou, a graduate student conducting a research on Clients' Satisfaction at the Sunyani Municipal Hospital. I wish to seek your honest opinion about the level of satisfaction you develop from assessing services delivery at the above mentioned hospital. This research is undertaken to serve as contribution towards improving care at the above health facilities for patients, and also to help inform policy makers and implementing health partners, including health workers to initiate measures to ensure quality service delivery at the health facility. Your response towards these questions is confidential. Thanks in advance for your cooperation.

#### **A- SECTION A : CLIENT BACKGROUND** (please tick (✓) where appropriate)

##### **a- SOCIO- DEMOGRAPHIC DATA**

##### **1. What is your gender?**

Male

Female

##### **2. What is your age? \_\_\_\_\_**

##### **3. What is your marital status?**

Single

Married

Widow

Divorced/Separated

##### **4. Level of highest education achieved?**

No Education

Literate Primary

Secondary

Higher Education

##### **5. What is your occupation?**

Private Sector

Self Employed

Unemployed

Student

Civil Servant

Others (please specify) \_\_\_\_\_



**SECTION B: SHORT-FORM PATIENT SATISFACTION QUESTIONNAIRE (PSQ 18)**

How strongly do you agree or disagree with each of the following statements below?

**KEY:** 1=strongly agree      2= Agree      3=Uncertain      4=Disagree      5=strongly disagree

QUESTION	SA	A	U	D	SD	SCORE
<b>PATIENT FACTORS AFFECTING SATISFACTION</b>						
<b>GENERAL SATISFACTION</b>						
1. The medical care I have been receiving is just about perfect(Q3)	1	2	3	4	5	
2. I am dissatisfied with some things about the medical care I receive(Q17)	1	2	3	4	5	
<b>FINANCIAL ASPECT</b>						
3. I feel confident that I can get the medical care I need without being set back financially(Q5)	1	2	3	4	5	
4. I have to pay for more of my medical care than I can afford(Q7)	1	2	3	4	5	
<b>PROVIDER FACTORS INFLUENCING SATISFACTION</b>						
5. Doctors are good about explaining the reason for medical test(Q1)	1	2	3	4	5	
6. Doctors sometimes ignore what I tell them(Q13)	1	2	3	4	5	
<b>INTERPERSONAL MANNER</b>						
7. Doctors act too businesslike and are impersonal towards me(Q10)	1	2	3	4	5	
8. My doctors treat me in a very friendly and courteous manner(Q11)	1	2	3	4	5	
<b>TIME SPENT WITH DOCTOR</b>						
9. Those who provide my medical care sometimes hurry too much when they treat me(Q12)	1	2	3	4	5	
10. Doctors usually spend plenty of time with me(Q15)	1	2	3	4	5	

TECHNICAL ABILITY						
11. I think my doctor's office has everything needed to provide complete medical. Care(Q2)	1	2	3	4	5	
12. When I go for medical care, they are careful to check everything when treating and examining me (Q)	1	2	3	4	5	
13. Sometimes doctors make me wonder if their diagnosis is correct(Q)	1	2	3	4	5	
14. I have some doubts about the ability of doctors who treat me(Q14)	1	2	3	4	5	
ACCESSIBILITY AND CONVENIENCE						
15. I have easy access to the medical specialist I need(Q8)	1	2	3	4	5	
16. I am able to get medical care whenever I need it (Q18)	1	2	3	4	5	
17. Where I get medical care, people have to wait too long for emergency treatment(Q9)	1	2	3	4	5	
18. I find it hard to get and appointment for medical care right away.	1	2	3	4	5	

## **APPENDIX B: PARTICIPANTS INFORMATION SHEET**

### **Project title:**

**ASSESSMENT OF PATIENT SATISFACTION AMONG NHIS CLIENTS AND NON-INSURED CLIENTS ATTENDING SUNYANI MUNICIPAL HOSPITAL**

### **Name and address of Principal investigator**

Jacques N'dri Kouakou, Department of Health Policy, Planning and Management, School of Public Health, University of Ghana, P.O. BOX 25 Accra, Ghana.

Mobile: +233 (0)55 018 7028 / +225 07 23 05 27

Email: [kouakoujacques@yahoo.fr](mailto:kouakoujacques@yahoo.fr)

### **Institution affiliated**

University of Ghana School of Public Health

### **Introduction**

I am a student of University of Ghana School of Public Health, Legon, conducting a research on the assessment of patient satisfaction among NHIS clients and non-insured clients attending Sunyani municipal hospital. Please find some few minutes of your time to fill this questionnaire. All information collected will be treated confidentially and no one will be able to trace any information back to you

### **Procedure**

You are required to fill out this questionnaire based on your current hospital experience after you have being chosen as part of the sample and have given your consent to participate.

### **Benefits**

This study does not promise to help you directly as an individual but the information we get will enable to evaluate the level of satisfaction among NHIS clients and non-insured patients attending this hospital and for recommendations to be made to the appropriate authorities.

### **Risks**

There are no physical risks in participating in this study but there may be some questions you may deem sensitive or private.

### **Confidentiality and privacy**

You are not required to identify yourself on the questionnaire. Unique identification numbers will be given known only to the researcher, and therefore you will remain anonymous.

### **Withdrawal from study**

You can opt out of the study at any moment without any consequences. Your participation in this study is purely voluntary. There will be no compensation for participating in this study but time spent is greatly appreciated.

**APPENDIX C: CONSENT FORM**

**PARTICIPANT**

I..... have been well informed on the methodology and relevant of this research which is being conducted by Jacques N’dri Kouakou. Without any form of duress and to the best of my understanding, I am doing this on condition that under no circumstance should any reference be made to my identity to anyone after provision of the requested information to the researcher. Having been assured of the above, I consent to participate in this study,

Respondent..... Signature..... Date.....

Researcher..... Signature..... Date.....

