SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA

QUALITY HEALTHCARE DELIVERY AND PATIENTS SATISFACTION AT AKUSE GOVERNMENT HOSPITAL IN THE EASTERN REGION OF GHANA

BY

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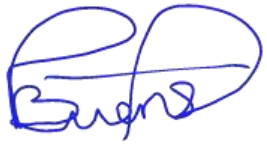
10876286

THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF PUBLIC HEALTH DEGREE

AUGUST 2024

DECLARATION

I, Yaa Buansi Peprah, hereby declare that apart from references to other people's works which have been duly acknowledged, this dissertation has been written independently by me and has not been submitted for the award of any degree in any institution.



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DEDICATION

This study is dedicated to Dr. Kissi K. Peprah, Irene Peprah, Eliza Asamoah, Emmanuel Yirenkyi Kissiedu, Kofi Kissiedu Yirenkyi, Rev Joshua Dei, Dromi Dede Dei and Maunor Kissiwah Dei for their moral support, I say God bless you all.

ACKNOWLEDGMENT

I thank the almighty God for his unfailing grace, guidance and protection upon my life throughout the course of study. Thank you Dr Paul Botwe for your invaluable guidance and support throughout my studies. I equally express my gratitude to all Faculty members of the School Public Health for their contributions to my academic life and to this work.

I would also like to express my sincere appreciation to all participants at Akuse Government Hospital for their voluntary participation in this study. I would like to thank my family for their financial support.

To my father Dr. Kissi Kwame Peprah, God bless you for proof-reading and all the guidance given. Your unwavering support and wisdom have been my greatest strength.

Priscilla Nkrumah, Rev and Mrs. Daubatey, Rev. and Mrs Ahuno , Dr. Mrs. Edna Asamoa-Agyare, Nana Asor Boateng and all my friends who provided encouragement and assistance in diverse ways to help me complete this programme. God Almighty richly bless you all.

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LIST OF ABBREVIATIONS

CI	-	Confidence interval
ERC	-	Ethical Review Committee
GHS	-	Ghana Health Service
MOH	-	Ministry of Health
OPD	-	Out Patients Department
WHO	-	World Health Organization

ABSTRACT

Background

Improving health-care delivery demands a deliberate focus on service quality, which entails providing effective, safe, and people-centered care that is timely, equitable, integrated, and efficient. The degree to which health services for individuals and populations increase the likelihood of desired health outcomes is referred to as quality of care. It is essential for achieving universal health coverage since it is based on evidence-based professional expertise.

Objectives

The general objective of this study was to assess factors influencing patients' satisfaction with the quality of health care delivery at Akuse Government Hospital.

Methods

A facility-based cross-sectional study design using a quantitative research method was adopted for the study. Cluster sampling and proportional stratified sampling was used to select 336 patients attending clinic at Akuse Government hospital in the Eastern Region. A structured questionnaire was used as the data collection tool. Stata software version 16 was used to analyze the data collected. Descriptive statistics such as frequencies, percentages, means, standard deviations, and 95% CI were computed for the various variables. Bivariate analysis using the Chi-square test was performed to test the associations between independent variables and patient satisfaction. Multiple logistic regression analysis was carried out on all related independent factors at the multivariate level. Crude Odds Ratio(cOR) and Adjusted Odds Ratio (AOR) were computed, and statistical significance was accepted at $p < 0.05$.

Results

The results of this study showed that the overall estimated proportion of patients with high satisfaction with Quality Healthcare Delivery at Akuse Government Hospital was 84.2%. The educational level (AOR=1.29;95%CI=1.644-5.594, p=0.038), insurance status (AOR = 0.56;95%

CI=0.279-0.739, p=0.019), employment status (AOR = 0.20; 95% CI=0.097-0.423, p=0.001), availability of equipment (AOR = 2.47; 95% CI=1.721-3.016, p=0.025), availability of drugs (AOR=2.26;95%CI=1.607-2.648,p=0.032),environmentalcleanliness (AOR=4.32;95%CI=2.178-8.606, p=0.001) were the factors found to be significantly associated with patients' satisfaction with Quality Healthcare Delivery at Akuse Government hospital.

Conclusion

The study revealed that the proportion of patients satisfied with Quality Healthcare Delivery at Akuse Government Hospital was high. Educational level, employment status, insurance status, availability of drugs, availability of equipment and environmental cleanliness were the factors found to be significantly associated with patients' satisfaction with quality health care delivery. The high level of patient's satisfaction recorded in this study could be attributed to the availability of drugs, availability of laboratory equipment and the use of National Health Insurance in the facility.

CHAPTER ONE

INTRODUCTION

1.1 Background

The provision of quality healthcare is an essential metric for assessing a country's developmental issues (World Health Organization, 2020). Patient satisfaction is essential and is often used to measure health care quality. It affects clinical outcomes, patient satisfaction, and the likelihood of medical malpractice lawsuits. Furthermore, it influences the timely, effective, and patient-centered delivery of high-quality health care (Prakash, B., 2010). Patients who visit diverse health-care facilities have varying opinions on the kind of care they receive (Ofosu-Kwarteng, Joseph, 2012). The healthcare system in Ghana has a blend of private and public providers (MOH, 2016). In the public sector, healthcare providers operate under the jurisdiction of the government. Patients are entitled to make informed choices regarding access to healthcare services from either system (Gong et al., 2014). Identifying the determinants influencing patients' selection of healthcare facilities is essential for enhancing public health outcomes (Otieno & Macharia, 2014). The demand for healthcare services in Ghana is substantial, exerting significant pressure on public health facilities (MOH, 2016). The healthcare system in Ghana, including Akuse Government Hospital, consistently encounters a substantial shortage of staff. A 2024 study regarding newly graduated nurses in Ghanaian hospitals, of which Akuse Government Hospital was a part, revealed that numerous participants characterized their workload as "heavy, tough, overwhelming, and stressful" owing to the insufficient number of nurses relative to patients (Kpatsi et al., 2024). A high workload in the healthcare sector is closely connected to lower patient satisfaction. It often leads to inadequate care, increased errors, and more patient complaints and negative outcomes (Carayon et al, 2008)

The implementation of Patient-Centered Care contributes to quality improvement in the healthcare system. It is critical to define and measure patient perceptions of health care quality and understand fully what drives those perceptions (Macharia, 2014). Quality of care is acknowledged as critical to achieving universal health coverage (UHC) and SDG 3.8 and is thus critical to improving population health outcomes. The provision of high-quality services to all persons in all contexts must be explored and pursued if UHC is to become a feasible goal (World Health Organization, 2020)

As governments aim to achieve universal health coverage by 2030, it is becoming evident that providing high-quality care would necessitate more than just ensuring the coexistence of infrastructure, medical supplies, and health-care providers. (Jan De et al, 2020)

Improving health-care delivery demands a deliberate focus on service quality, which entails providing effective, safe, and people-centered care that is timely, equitable, integrated, and efficient. The degree to which health services for individuals and populations increase the likelihood of desired health outcomes is referred to as quality of care. It is essential for achieving universal health coverage since it is based on evidence-based professional expertise. (WHO, 2018)

1.2 Problem Statement

Across global health-care delivery systems, patient satisfaction and service quality have emerged as critical priorities. Patients are seeking greater access to information and, when dissatisfied, readily consider alternative providers (Oyatoye et al., 2016). Despite numerous quality improvement programs implemented at the highest levels of the health sector hierarchy, some health institutions in Ghana continue to face persistent issues, including personnel shortages, poor logistics, and inadequate equipment. Over the years, the Akuse Government hospital management and personnel have implemented numerous initiatives and efforts to improve service delivery. The initiatives were based on prior studies that identified several issues, including patients not receiving drug instructions, inequities in treating different patient groups, inefficient service delivery, inefficient staff, and a hospital

environment that was becoming a health hazard. Again, it is essential to identify early any new challenges emerging from service delivery and resolve gaps such as delay in patient care or lack of essential medications that do not meet internationally accepted standards of health care delivery. Despite the implementation of various initiatives aimed at enhancing service delivery at Akuse Government Hospital, there remains a significant deficiency in comprehensive data regarding the actual levels of patient satisfaction within this facility. Furthermore, while some studies have explored patient satisfaction in broader contexts or other regions, there is limited research specifically examining the range of factors that influence patient satisfaction at Akuse Government Hospital.

Given these gaps in the existing body of research, an in-depth analysis of patient satisfaction and its underlying determinants at Akuse Government Hospital is both timely and necessary. By addressing specific aspects of healthcare delivery unique to this facility, the study seeks not only to enrich local understanding but also to inform broader strategies for improving service quality in similar health institutions. This focused approach will help illuminate critical factors that may affect patient experiences, allowing for evidence-based recommendations tailored to the needs of the Akuse community and beyond.

The interplay between socio-demographic variables, service quality dimensions, and patient perceptions within this hospital setting has not been sufficiently investigated. As such, the extent to which patients are satisfied with different aspects of their care, as well as the key determinants that shape their experiences, remains unclear and warrants further exploration.

1.3 Justification of Study

The utilization of health services depends on both the individual and the health facility. Research has shown that the decision to utilize healthcare services at a particular health facility is influenced by several factors (ATinga & Abeka-Nkrumah, 2011). High patient satisfaction with healthcare services is reportedly based on factors such as thorough clinical examinations, rapid dispensing of medications, a generally good reception, compassion and support provided by staff, and the presence of competent doctors (Umunna, 2013). Reasons cited for low patient satisfaction with healthcare services include the non-availability of essential drugs, high costs of services,

inadequacy of medical staff, poor community involvement, negative attitudes, and the absence of a medical doctor (Jonas et al., 2017). The factors responsible for low patient satisfaction in health care delivery are categorized into several factors. Lundegren et. al. (2013), in their study showed a positive association between socio-economic status, such as income and educational level, and patient satisfaction in Europe. Birgit et al. (2014) found marital status to be significantly correlated with patient satisfaction. However, it appears few studies have been conducted on patient satisfaction with regards to health care delivery in a public healthcare facility in Ghana, particularly the Akuse Government hospital, which provides a range of healthcare services including outpatient and inpatient care, maternity services, emergency services, pediatric care, and some specialized services. In addition, the hospital acts as a referral hub for neighborhood health centers and smaller clinics. This was the catalyst for carrying out this investigation.

Public health care facilities, such as the Akuse government hospital, have not been extensively studied regarding healthcare delivery and patient satisfaction. Therefore, this creates a theoretical gap in identification, which this study sought to address accordingly. Given the gaps in the existing literature, it was essential to investigate the variables that affect patient satisfaction. It was believed that by examining these variables, the study's findings would help stakeholders and policymakers develop targeted solutions to enhance patient satisfaction in other healthcare facilities and improve healthcare delivery, thereby alleviating pressure on the Akuse Government Hospital. Additionally, the findings of this study may inform policy decisions on how to equip other government health facilities.

1.4 Research Questions

1. What proportion of patients have a high level of satisfaction with quality healthcare delivery at Akuse District Hospital?
2. What are the factors influencing patients' satisfaction with the quality of healthcare rendered at the Akuse district hospital?

1.5 General Objectives

The study aimed to assess the perceived satisfaction of patients and the factors influencing patients' satisfaction with quality health care delivery at Akuse Government Hospital.

1.5.1 Specific objectives of the Study

The specific objectives of the study were to:

1. To determine the proportion of patients and their level of satisfaction with quality health care delivery at Akuse Government Hospital.

2. To identify factors influencing patients' satisfaction with quality health care delivery at Akuse Government Hospital.

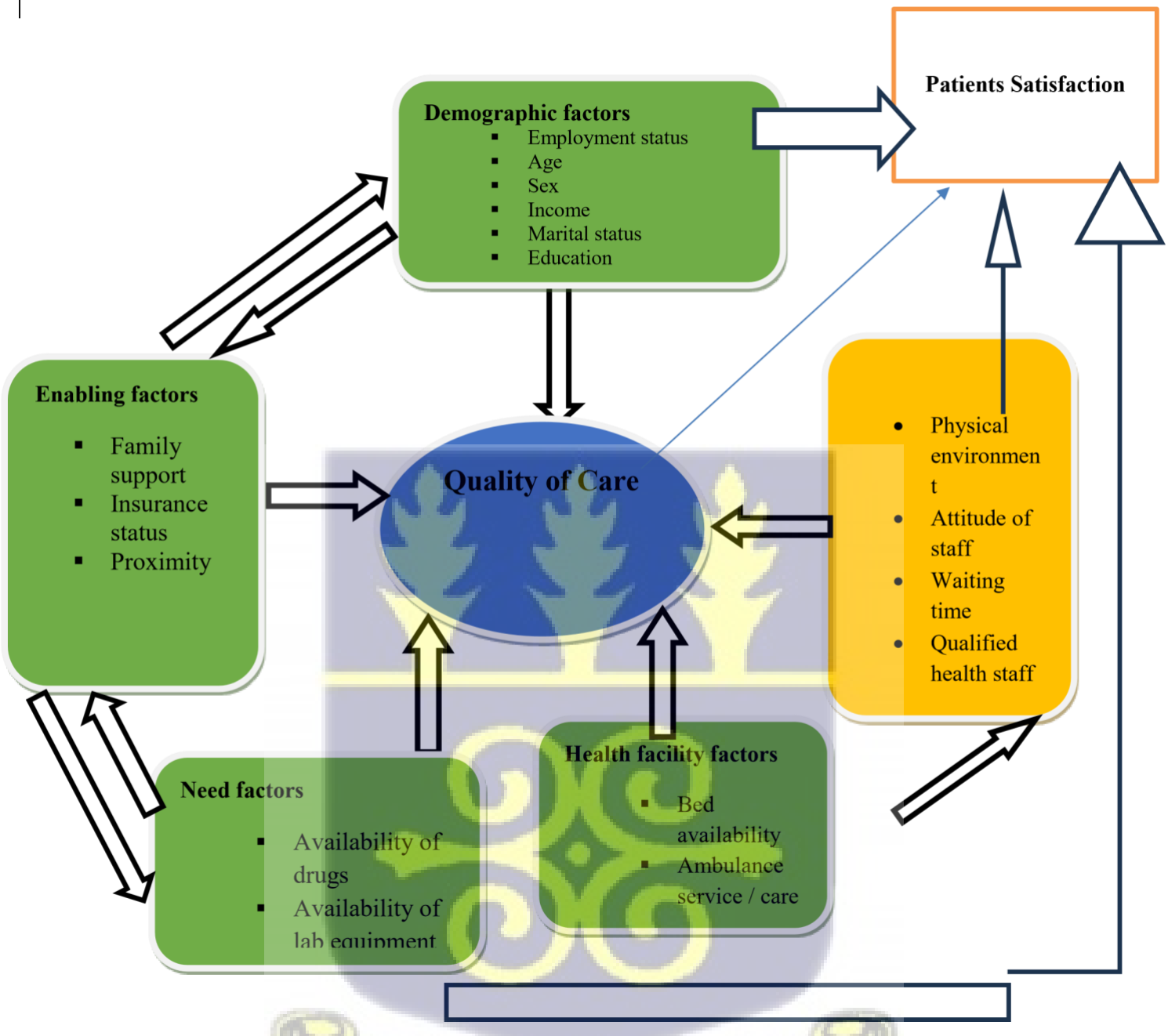

Figure 2.1: Conceptual framework of factors associated with patient satisfaction

Source: Author's Construct

1.6 Narrative of Conceptual Framework

Figure 2.1 illustrates the conceptual framework used in assessing patient satisfaction with quality health care delivery at the Akuse Government hospital. The Andersen & Arday model of utilization (Andersen & Arday, 2005) was used by the researcher as the framework to study the independent variables influencing the dependent variable (patient satisfaction) with quality health care delivery. The independent variables used are demographic characteristics, including age, marital status, sex, employment status, and education (Gong *et al*., 2014). Patient satisfaction has been found to be influenced by individual variables, including age, marital status, occupation, degree of education, and job position (Lundegren et al., 2013). Lundegren *et. al.* (2013) explain that good education gives the individual a better understanding of where and how to seek health care. Thus, individuals with higher levels of education are able to make better, informed choices when it comes to seeking health care in a health facility. Income of the individual may also influence the individual's utilization of health care services leading to patient satisfaction (Elwell-Sutton *et al*., 2013). Elwell-Sutton *et. al*. (2013) noted that the employment status of an individual significantly influences the choice of health care delivery and subsequently leads to patient satisfaction.

Factors such as the availability of drugs and the quality of the laboratory are significantly associated with patient satisfaction in quality healthcare delivery, as noted in several studies (Elwell-Sutton *et al*., 2013; Otieno & Macharia, 2014). Bed availability, Ambulance service /care, Attitude of staff have also been found to be significantly associated with patient satisfaction (Otieno & Macharia, 2014). Attitude of staff tends to influence the utilization of health services, which include staff conducting themselves well and professionally toward the welfare of patients (Otieno & Macharia, 2014

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presented a review of literature on Quality healthcare service, Quality Values in healthcare, Quality dimensions in Medical Care, Perception, Perceptual distortion, and an empirical review on Patient Satisfaction.

2.1 Definition of Quality Healthcare Service

The provision of care that is safe, effective, patient-centered, timely, efficient, and equitable, to achieve optimal health outcomes and improve the entire patient experience, is referred to as quality healthcare services (WHO,2018).

2.2 Core Concepts of Quality Healthcare

Determining the degree of patient satisfaction with services provided by selected Institute departments and making recommendations for changes to the quality management process in healthcare services were the objectives of the Pekacz et al. (2019) study. Patients at the Institute gave the highest ratings for kindness and civility to doctors and nurses (mean 4.77 and 4.73, respectively), as well as for the doctors' concern for the patients' welfare and the nurses' skill in performing medical procedures (4.63 and 4.72, respectively).

The food quality (mean 3.77) and the time it took to be admitted to the hospital on a planned day (mean 4.07) were the lowest-rated elements. The study discovered statistically significant differences in the evaluations given by male and female patients: males gave higher ratings for the size of meals supplied, while women gave lower ratings for preserving intimacy during medical procedures. The degree of enjoyment rose in every area of the study as participants aged.

Conversely, a higher degree of patient education was linked to lower satisfaction with the following: the ease of navigating the Institute, the cleanliness and accessibility of the restrooms and bathrooms, the ability to learn about the disease and treatment process, and the length of time it took to be admitted to the hospital on a given day.

Grndahl et al. (2018) discovered that patients' assessments of the quality of care can be influenced by the hospital environment as well as the actions of healthcare professionals. The purpose of the study was to define what is important to patients in the new high-tech hospital and to look at changes in patient perceptions of care quality (QPP) when hospital services are transferred from an old to a new high-tech hospital.

Patients' perceptions of care quality improved from the old to the new hospital in all four quality dimensions (the care environment's physical-technical conditions and sociocultural atmosphere, as well as the care personnel's medical-technical competence and identity-oriented approach) without a drop in their scores. This suggests that the quality of health care provided to patients at the new hospital has improved. Improved environmental circumstances were linked to an increase in care, but no substantial change in care quality was linked to health-care personnel. The findings show that being in a high-tech environment had no effect on patients' evaluations of the quality of treatment provided by health-care professionals. The findings provided useful information for improving clinical practice quality from the patients' perspective.

2.3 Perception

Perception is cardinal because it holds us linked to the world. Perception makes it easier to keep us alive. We can feel danger by a persistent key intermediary between stimulus and response. The knowledge gained from perception is equally as cardinal as any of the other senses, if not more important. Establishing an importance to perception on our everyday life might be easier than one might think, the way we view the world and the environment around us has a direct effect on our mindset, actions, and behavior. It helps us link things to one another, and be able to identify situations, objects, and patterns.

Patients' evaluations of care quality within and across settings are vital for the future development of palliative care, according to Sandsdalen et al (2016). The goal was to look into patients' opinions of palliative care quality within settings, including how they felt about the care they received and how important it was to them, as well as compare and contrast palliative care quality across settings. Patients' perception of care received in different settings revealed high ratings for variables and single items like honesty and atmosphere in all settings, but low scores for "exhaustion" in three out of four. Patients gave excellent ratings on relevance for medical care, honesty, respect, and empathy, as well as atmosphere, in all settings. In all cases, no aspect of care received a poor rating. Receiving knowledge was seen more important than receiving impressions of care. Patients' perceptions of treatment varied by setting, with the greatest scores for the dimensions in hospice inpatient care. In terms of subjective relevance, there were no variations across the settings.

Although subjective relevance did not change between settings, perceptions of care received for hospice inpatient care were greater in more care areas than in other settings. More research is

needed to back up these findings, to determine why people's views of care differ across settings, and to highlight what can be learned from high-scoring settings.

Patients may be the most reliable reporters of various aspects of the health-care process, according to another study by Hincapie et al. (2016); their viewpoints should be considered when pursuing improvements to improve patient safety. In a global sample, the authors looked at the link between patients' perceptions of health-care quality and self-reported medical, pharmaceutical, and laboratory errors. The Commonwealth Fund International Health Policy Survey, a transnational consumer survey performed in 11 countries, was used to conduct the analysis. A complex construct constructed using Rasch techniques was used to assess the quality of care. After controlling for potentially confounding variables, an increase in respondents' perceptions of care coordination reduced the likelihood of self-reported medical errors, pharmaceutical errors, and laboratory errors (P.001). As health-care stakeholders look for ways to improve patient experiences and outcomes, the findings of this study highlight the necessity of ensuring integrated care.

Pradhyuman and Amoah-Binfoh, 2018. The study looked at the impact of quality healthcare dimensions on patients' perceptions, as well as the gap between health professionals and patients on these dimensions. The study had a total sample size of 636 people, including 161 health professionals and 636 patients (475). Patients were recruited from a stratum of in-patients and outpatients, with health professionals ranging from 1 to 5 years of experience and 5 and above years of experience. Patients were happy with the attention and care they received, as well as the effective connection with families and the exceptional welcoming, payment, and discharge process. In order to avoid misdiagnosis, management should ensure that health professionals have proper training on how and when to use medical technology for diagnostics. To ensure patient

satisfaction, proper management policies must be implemented, such as adherence to the Affordable Care Act, health for all, and so on.

2.3.1 Perceptual distortion

Perception is a cognitive process whereby people select, arrange, explicate, recoup and react to information from their environment. The process of perception is gathered through five senses of hearing, sight, smell, taste, and touch (Schermerhorn et al, 2007)

Perceptual distortions are inadequate comprehension of interpreting perceptual experience. This situation occurs when a person's response to impulses varies from how it is typically perceived. Perceptual distortions can also relate to either sensory or psychological perception and can happen because of cognitive bias or psychological disorders (Schermerhorn et al, 2007).

Perceptual inaccuracies can result from cognitive prejudices or mindsets of deviations in particular judgmental situations. Common examples are the observer expectancy effect, known also as the experimenter effect, which tilts the interpretation of results to be in tune with a theory one supports, and causes them to unconsciously influence the participants of the experiment.

Perceptual inaccuracies contribute to problems and effectively enhance distortions in perception. Some of the forms of distortions are the Halo Effect, Perceptual Defense, Projection, Self-Fulfilling Prophecy, and Stereotyping (Mullins, 2007). Stereotyping can manufacture perceptual distortion by infusing a biased notion before the chance for objective, undiluted analysis of a person or situation. For example, the assumption that every tall person is handsome and beautiful while people of colour are stronger and energetic.

In most cases the biases in the individual, time of perception, unfavorable background, lack of clarity, confusion, conflict in mind is responsible for distortions in perception.

2.4 Patients Satisfaction

According to Baidoo (2016), patients' opinions on the caliber of medical care have a significant impact on their general health and well-being.

The purpose of this article was to assess patient satisfaction with the quality of healthcare provided at the University of Ghana hospital and to characterize patient perceptions of the hospital's healthcare.

Patients were disappointed with the hospitals' empathy and safety procedures, according to a study by Ampaw et al, 2020. However, real and perceived quality were found to have a considerable impact on patients' happiness. Their findings came from a few hospitals in Ghana's Koforidua. A total of 398 screened questionnaires were examined.

A prior study looked at how well Akuse Government Hospital followed the Ghana Health Service's quality assurance criteria and contributed to the delivery of high-quality treatment (Nelson Owusu Ansah, June 2012). The study included patients who visited the health center between January and June 2011. The research was conducted as part of the Ghana health service's ongoing attempts to improve healthcare quality by enforcing quality assurance requirements. To meet the study's aims, standardized questionnaires were administered to 80 outpatients and another twenty inpatients using the survey method. For ease of interpretation, the data was analyzed using Microsoft Excel. The study's findings revealed that the hospital has improved on several quality indicators over time, which reflected favourably on the professional indicators employed in the research. Infection prevention measures should be reinforced, and patient education on health-related issues should be increased, according to the recommendations.

Another study examined the quality of maternal health services at the Shai-Osudoku District Hospital (SODH) in the Greater Accra Region, a hospital renowned for its "zero tolerance for maternal mortality." It was titled Patients' Perceptions of the Quality of Maternal Health Care Services at the Shai Osudoku District Hospital Dodowa (Georgina Mensah, 2017). Techniques: 195 patients at the Shai-Osudoku District Hospital seeking maternity care were selected as a sample using a quantitative approach based on a cross-sectional survey design.

A sequential sampling technique was used to choose the patients, and the Statistical Package for Social Science (SPSS version 20) was used to analyze the data. In summary, the Shai-Osudoku District Hospital's expectations for the quality of maternal care were largely met, which greatly satisfied the patients. However, given these were the poorest spots in the patient satisfaction ratings, management needed to address issues with staff attitude and respect for patients, especially at the hospital's history-taking sites for maternal care.

Peprah (2014) used the SERVQUAL approach by Parasuraman et al (1998) to analyze patient satisfaction at Sunyani Regional Hospital in Ghana. To acquire the essential data, the SERVQUAL instrument was developed and modified. In total, 214 patients were included in the research. The data was analyzed using descriptive statistics in SPSS (version 16.0), and the service quality gap model was used to estimate patient satisfaction. The results showed that patients were generally satisfied with the hospital's service quality. The gap scores, on the other hand, revealed negative gaps for four of the six service quality characteristics utilized in the study, indicating that patients were dissatisfied with the service quality in those areas. As a result, management must take steps to improve service delivery in such areas. Reliability, Communication/Interpersonal Relationship, Assurance, and Responsiveness were the four dimensions. The qualities of tangibility and empathy, on the other hand, received positive scores, confirming the patients' positive impressions of the service.

Patients' perceptions of a hospital's healthcare quality can be tracked using models on a regular basis. This project used Donabedian's quality assessment approach, which defines patient satisfaction as "a patient-reported outcome measure, whereas patient-reported experiences can be used to measure the structures and processes of treatment." Quality of care, according to Donabedian, is defined as a trinity of structure, procedure, and outcome (SPO).

2.5 The Donabedian Model

In health care, the Avis Donabedian paradigm is frequently used to conceptualize and evaluate quality. According to the paradigm, structure, process, and outcomes are all intertwined and define the outcome.

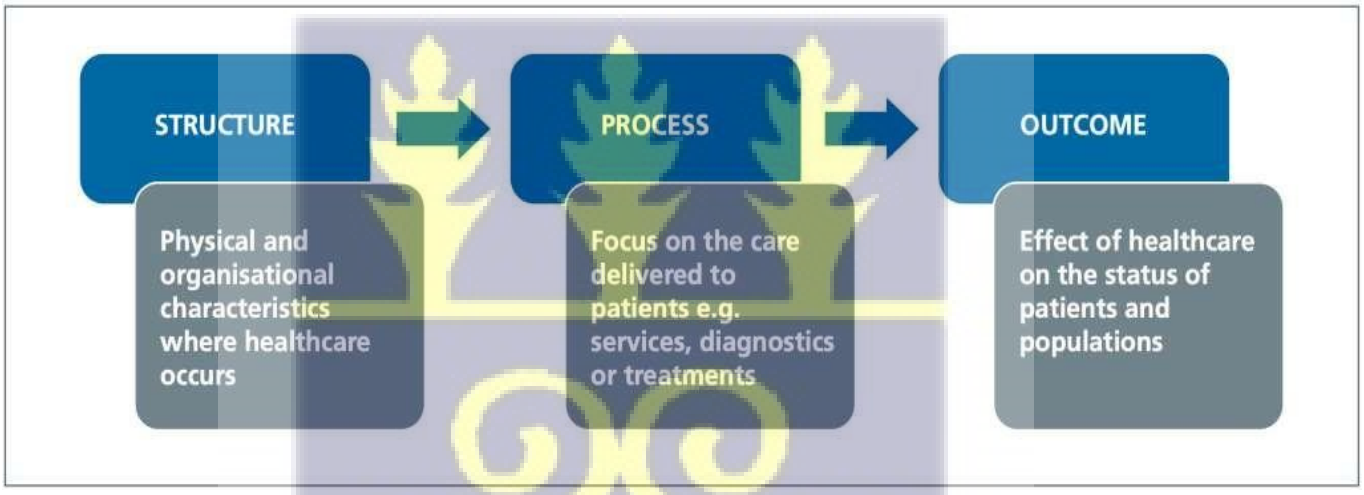

Figure 2.1: The Donabedian model for quality of care

Source (Donabedian, 2005)

Healthcare facilities, employees, equipment, and the money that supports medical care are all part of the "structure," which characterizes the physical and organizational framework in which healthcare is delivered. The acts that allow for the adequate delivery of healthcare are described by "process," which relies on "structure" to offer the mechanism for patient care. These services often involve diagnosis, treatment, patient education, and preventative maintenance care, all of which help patients achieve better health outcomes. The term "outcome" refers to the impact of healthcare on patient and population health (Donabedian, 1988; McDonald et al., 2007).

The Donabedian model health care quality evaluation compares expected and actual performance to identify gaps in the health-care system, which can then be used to launch quality-improvement efforts (Crow et al., 2002, WHO, 2004, WHO, 2006, Tandon et al., 2000). As a result, the current study was designed to offer baseline data on the degree of health service quality in the study area on an institutional basis using the Donabedian model. As a result, the goal of this study was to evaluate the quality of care in terms of the structural conditions, in which it was provided, as well as to measure the actual process of care and evaluate the results of care.

2.6 Empirical studies on Patient Satisfaction

Research has shown that using healthcare services can increase patient satisfaction. According to Mukhtar et al. (2013), patient satisfaction is closely tied to healthcare utilization. They identified several factors that can improve an individual's satisfaction with healthcare services in a healthcare facility, including aspects such as quality of care, communication, and accessibility.

Mukhtar et al. (2013) found that patients' decisions to seek care at a health facility are influenced by their perceptions of hospital staff as friendly, respectful, and fair. Moreover, patient satisfaction is a multifaceted concept that depends on individual patients' unique needs, expectations, and experiences with healthcare. This subjective evaluation serves as a crucial indicator of healthcare quality, encompassing patients' personal views, expectations from the health system, and their overall experience with healthcare services.

2.6.1 Physical environment

According to Jonas et al. (2017), patient satisfaction with healthcare is influenced by several key factors, including the physical environment, staff attitude, waiting time, and physician communication. Additionally, the hospital environment plays a crucial role in healthcare delivery, with aspects such as cleanliness, aesthetics, and basic facilities contributing to a positive

experience (Atinga & Abekah Nkrumah, 2011). A welcoming and well-maintained physical environment can enhance the overall quality of care and patient satisfaction.

2.6.2 Waiting time

Research has consistently shown that the time patients spend waiting to be attended to by healthcare professionals has a significant impact on their perceived satisfaction. For example, Abekah-Nkrumah et al. (2011) found that longer waiting times led to lower patient satisfaction. Similarly, Patro et al. (2008) discovered a strong link between shorter waiting times and higher utilization of healthcare services at outpatient departments (OPDs) in Ethiopia, suggesting that efficient time management is crucial for improving patient satisfaction and healthcare outcomes.

2.6.3. Attitude of staff

Negative attitudes among some healthcare workers in public facilities can deter patients from seeking care, according to McArthur (2008). Unfriendly behaviors and attitudes of healthcare providers can create barriers to accessing and utilizing healthcare services. Similarly, Jonas et al. (2017) found that patients are discouraged from seeking care when they encounter disrespect, privacy and confidentiality violations, and poor treatment by healthcare workers. This highlights the importance of addressing healthcare workers' attitudes and behaviors to promote a welcoming and supportive healthcare environment.

2.6.4 Physician-patient communication

Effective patient-provider communication in a supportive healthcare environment is crucial for promoting high utilization of health services, as found by Atinga & Abekah Nkrumah (2011). Similarly, Waddington & Enyimayew (2010) discovered that when patients experience good communication with their healthcare providers, they are more likely to return to the same health

facility for future care, highlighting the importance of strong patient-provider relationships in driving healthcare utilization and loyalty.

Numerous studies have investigated the factors influencing healthcare utilization (Waddington & Enyimayew, 2010; Gong et al., 2014; Bayo et al., 2015). In Ghana, research has identified several barriers to healthcare utilization, including cost of services, income level, service quality, distance to health facilities, and education (Waddington & Enyimayew, 2010). These factors can be categorized into three groups: predisposing factors (e.g., education), enabling factors (e.g., income, distance to facilities), and need factors (e.g., perceived need for care). Each of these factors is discussed in more detail below.

2.6.5 Educational status

Some studies conducted in various countries, including Uganda, Spain, India, Greece, Nigeria, and China, has consistently shown that education plays a crucial role in influencing healthcare utilization. Studies have found that good education about when to seek care is a pivotal factor in healthcare utilization (Kiwanuka et al., 2008; Bayo et al., 2015; Chauhan et al., 2015). In Nigeria, Odetola (2015) identified education as a key determinant of healthcare utilization. Similarly, Chauhan et al. (2008) found a positive link between education and primary healthcare utilization in rural Uganda. In China, Gong et al. (2014) reported a positive association between educational level and health service utilization. Huang et al. (2013), however, discovered a negative correlation between healthcare use and educational attainment, indicating that a higher education level may raise awareness of preventative healthcare behaviors and hence lower the need for healthcare services.

2.6.6 Marital status

Marital status is a significant factor in healthcare utilization. Yan-Ning et al. (2016) found that married individuals in rural China had 65% lower odds of using healthcare services compared to singles. In contrast, Gong et al. (2014) observed a positive association between marital status and healthcare utilization in China. Birgit et al. (2014) also found a significant link between marital status and healthcare utilization, suggesting that married couples may be more likely to seek healthcare due to spousal encouragement and guidance. Additionally, Hoebel et al. (2014) found that married women with smaller family sizes were more likely to be willing to use health services, indicating a potential correlation between family dynamics and healthcare utilization.

2.6.7 Age

Studies has consistently shown a positive correlation between age and healthcare utilization in various countries. In China, Gong et al. (2014) found a positive relationship between age and healthcare utilization, while Chao et al. (2016) discovered a decline in healthcare utilization among older age groups, with a 6% decrease among those aged 70-79 and a 15% decrease among those aged 80 and above. Similarly, Abdullah et al. (2014) found a positive association between age and primary healthcare utilization in Jordan. In Hong Kong, Chou & Chi (2015) established a significant connection between age and hospital use, including general and specialist outpatient department utilization. Additionally, Exavery (2010) found that healthcare utilization in Ghana was linked to age clusters and self-reported health status, highlighting the importance of age as a factor in healthcare utilization across different population.

2.6.8 Sex

Studies by Elwell-Sutton *et. al.* (2013) and Birgit *et. al*. (2014) showed that ladies had more health needs and cognizance than males and tend to utilize health care services more than their male counterparts. Gender parity is an important consideration in health service utilization. A study

revealed some variances in health seeking behaviour between males and females (Ahmed *et al*., 2010). Associations between sex and healthcare service utilization also showed reduced prospect of healthcare service use among males compared to females in a study conducted in China (Chao *et. al*., 2016). A Thai study also found that better health care services utilization among 504 adults was associated with older males compared to females (Villacorta, 2013).

2.6.9 Employment and income status

Individuals that are employed have been found to seek regular health care services and hence, higher utilization of health care services compared to the unemployed (Saeed *et al*., 2000). Income variations empower the individual to attain health services. More so, individuals with high levels of income tend to have high levels of utilization of health care compared to those with low income status (Kelarijani *et al*., 2014). When examining the variables that affect the use of health care services, income is a crucial element to take into account, according to several research conducted in both developed and developing nations (Hoebel et al., 2014). An individual's socio-economic status or class determines the ability to access health care services - an individual with a higher level of income or high social class is most likely to have informed choices and access health care services (Ahmed *et al*., 2010).

2.7 Chapter Summary

This study sought to probe factors influencing the utilization of health care services. The majority of researchers have clearly researched and reported in-depth on components including sociodemographic factors, health service factors, enabling factors, and patient/client satisfaction factors, according to the literature evaluation of previous studies. There is a conceptual gap and lack of knowledge in the literature as a result of the researcher's lack of research on the use of health services by civilian patients of military health facilities.

CHAPTER THREE

METHODOLOGY

3.1 Study Area

Akuse Government Hospital in the Eastern Region of Ghana. Even though the health facility is in the lower manya Krobo district of the Eastern Region, it serves many of my constituents such as Fodzoku, Torgorme, Juapong and its surrounding towns in North Tongu District of the Volta Region. Due to its proximity to the hospital, it also provides services to Asutsuare,

Osuwem, and the surrounding areas in the Shai-Osudoku District of the Greater Accra Region. Because of its breadth, using the hospital as the study area provided a wide view of clients' expectations, not just in one district. The hospital provides a range of healthcare services including outpatient and inpatient care, maternity services, emergency services, pediatric care, and some specialized services. Additionally, the hospital acts as a referral hub for neighborhood health centers and smaller clinics. However, there are number of things in the hospital that can compromise the quality of care including the Doctor-patient ratio, bed capacity, services rendered to the public (GDHS,2021)

3.2 Study Design

The study used a cross-sectional design based on facilities and a quantitative method of data collecting. The primary research instrument utilized to collect data for the study was the questionnaire.

3.3 Sample Size Estimation

The total patient population that visited the facility per year have been estimated to be 2,080. This was obtained from the records Department of the hospital and was used in calculating for the required sample size. The sample size was calculated using the Yamane sample size Formula for known population: $n= N/1+N(e)^2$

Where ： n= Required sample size N =

Total population e = allowable error (%) or degree of

error expected (0.05) n= $2081/1+2081(0.05)^2$

$2081/1+2081(0.0025)$

$2081/1+5.2025$

$2081/6.2025$ n

= 335.5

Consequently, the patients' sample size was determined to be 336.

The sample size per unit used this formular:

Number at unit/ total number of units per month x sample size calculated

Eg. ANC 251/ 2081 x 336

0.1206150889 x 336 = 40.5266698704

Therefore sample size at ANC = 41

Unit	**Total sample per unit**	**Estimated sample size**
Post-natal	86	14
ANC	251	41
Eye	136	22
ENT	30	5
Diabetic clinic	74	12
Maternity	130	21
Male ward	86	14
Female ward	117	19
OPD	1,164	188
Total	**2,080**	**336**

3.4 Sampling Method

The data was taken daily for a total period of seven (7) working days from Monday-Friday by using cluster sampling technique. This sampling method was suitable because the population was made up of several different clusters that can be grouped into several clusters. This includes; patients attending post-natal, ANC, Eye clinic, ENT clinic, Diabetic clinic, Maternity clinic, OPD etc. Proportional stratified sampling was used in selecting patients from each cluster. The total sample size for the study was 336 and data was collected over a period of 7 working days. Over the course of seven days, 48 patients in all were interviewed, resulting in a sample size of 336. Patients who decline to participate in the trial are replaced by the following potential participant.

3.41 Duration of data collection

Data collection process took two weeks to complete. Interviews at the hospital started at 6:00 am and end at 4:00 pm each day.

3.5 Study Population

Patients who visited the clinic at the government hospital in Akuse made up the study population. This comprised all OPD patients and in-patients who were above the age of eighteen, seeking medical attention at Akuse Government Hospital, and giving their consent to participate in the research.

3.5.1 Inclusion Criteria

Patients who were above 18 years who attended the health facility during the study period and were willing to participate in the study. Because patients under the age of eighteen would require parental consent, this age was being taken. The study comprised patients who were regular users of the facility.

3.5.2 Exclusion Criteria

Adults 18 years and above who were seriously ill and first time visitors to the facility were excluded.

3.6 Variables

This study's variables were divided into independent and dependent categories. Patient satisfaction was the dependent variable, and the independent variables included health service and enabling factors like staff attitude, drug and equipment availability, proper ambulance service, and clean environment, as well as demographic characteristics like age, sex, educational attainment, employment status, marital status, and insurance status.

3.6.1 Measurement of Patient Satisfaction

Regarding patients' satisfaction with the high-quality medical care provided at Akuse Government Hospital, twelve (12) questions were posed. In answer to questions, respondents were asked to select yes or no. Correct Yes responses received a score of 1, while incorrect No responses received a score of 0. With 12 questions, a median score of 6 was established. According to Ministry of Health, Ethiopia (2011), respondents who scored lower than the median mark (<6) were classed as having low patient satisfaction, while those who scored at least the median mark (>6) were classified as having high patient satisfaction.

3.7 Data Collection Tool

A structured Questionnaire was the main research tool used in gatering the data. The questionnaire was divided into two sections. Section A gathered data on demographic information. Section B: gathered data on patient satisfaction and Environmental assessment. The questionnaire was adopted and modified from the Hospital Quality Assurance Team.

3.8 Data Analysis

3.8.1 Analysis for Objective one

(To ascertain the percentage of patients and their degree of contentment with the provision of highquality healthcare at Akuse Government hospital).

Every completed questionnaire was thoroughly reviewed to make sure it was consistent and full. The information gathered with Stata software Version 16 (Stata Corp LP, College Station, TX. USA) was summarized using descriptive statistics such as mean, frequency, proportions, and 95% confidence interval.

3.8.2 Analysis for Objective two

(To determine the variables impacting patients' contentment with the high-quality medical care provided at the Akuse Government hospital).

In order to examine the relationships between the independent variables and the outcome variable (patient satisfaction), bivariate analysis was carried out using Chi-square test statistics ($\chi 2$). Fishers Exact test was employed when one of the cell frequencies exceeded five. Every relevant factor, whether significant or not, was subjected to multiple logistic regression at the bivariate level. For every independent variable, the crude odds ratio (cOR) and adjusted odds ratio (AOR) were calculated. At the 5% threshold of significance ($p < 0.05$), statistical significance was acknowledged.

3.9 Ethical Consideration

To make sure the study complied with ethical guidelines and safeguarded participants' interests, the School of Public Health at the University of Ghana requested ethical clearance from the Ghana Health Service Ethics Review Committee. Before any data for the study were collected, ethical

clearance was obtained. Additionally, the Akuse Government Hospital received an introduction letter from the School of Public Health informing them about the project and requesting their support. Research Assistants were given identity cards that were created.

Respondents received assurances of secrecy and privacy. Strict adherence was maintained to fundamental ethical principles, including providing respondents with complete information about the goals and advantages of the study, obtaining their voluntary agreement, and preserving their ability to withdraw. Names, phone numbers, and home numbers of the participants were not gathered in order to protect their privacy.

3.9.1 Informed consent

Informed consent was obtained from all respondents. They were required to sign or thumbprint the consent form. The purpose of the study was explained to them before their informed written and verbal consent was obtained.

3.9.2 Potential Risks

There were no risks to the study participants. Some of the respondents perceived the duration of the interview was time wasting. The estimated average time for the interview was 10minutes.

3.9.3 Benefits

There were no direct benefits for respondents for consenting to take part in the study.

3.9.4 Costs to participants

No cost was directly incurred by the participants.

3.9.5 Compensation

There were no payment of compensation to participants or their family members. However, messages of appreciation were extended to them and families.

3.9.6 Confidentiality

The data collected from the respondents were handled with utmost confidentiality. Names of respondents were not recorded on the questionnaire. The data was used strictly for academic purposes and not shared with any third party.

3.9.7 Sharing of participants Information/Data

For security and trust between the respondents and the research assistants, the data collected was not be shared with unauthorized any third party other than the School of Public Health and Akuse Government Hospital. The data was saved in an email and will be destroyed after five years if there are no further need for it. Findings from the study was presented to the management and key stakeholders of Akuse Government Hospital at the hospital performance review.

3.9.8 Provision of Information and Consent for participants

Information was provided to qualified participants who consented to be part of the study.

3.9.9 Declaration of conflict of interest

The researcher did not have any conflict of interest to declare in this study.

3.9.10 Voluntary Participation and withdrawal

Participation in this study was voluntary and participants were at liberty to withdraw from the study at any time and this did not affect them in anyway. During the interview, participants also had the right not to answer questions that they found discomforting.

3.9.11 Funding information

The lead investigator will be the exclusive source of funding for the study.

3.9.12 Quality control

Four Field Workers received two days of training on the purpose of the study, identification, respondent selection, questionnaire administration, and quality data collection to make sure that the questions are understandable to participants. The study area's setting, a hospital in Lower Manya-Krobo Municipality, provided a pretest for the questions where ambiguity was fixed. During the pre-testing phase, twenty questionnaires were sent, and the responses were personally examined. The questionnaire's items were quite clear and exact.

The information was provided to a colleague for proofreading and to the chief of Akuse Government Hospital's quality assurance division. During the pre-test, comments were solicited about the questionnaire's length, the language and expression clarity, the order of the parts and questions, and the method used to guarantee a high response rate. The researcher was better able to anticipate and prepare for the difficulties she would likely encounter in the field when completing the final administration of the questionnaire thanks to her experience from the pretesting study. After each daily collection, skilled field workers input the data. Every questionnaire has been coded to avoid duplicate entries and for quick access to corrections.

CHAPTER FOUR

RESULTS

4.1 Demographic Characteristics of Study Participants

The results revealed that majority (50.9%) were above the age of 30 years and above and 49.1 % were at most 30 years (Table 4.1). Most respondents were females representing 50.6% whilst 49.4% were males. Majority of respondents (75.9%) had Secondary/Technical education and above. More than half of respondents (53.3%) were employed. Majority of respondents (72.3%) were married. Most respondents (77.4%) were medically insured. Table 4.1 and 4.2 illustrates the demographic factors and health service factors respectively of study participants. **Table 4.1 : Socio-demographic Characteristics of Respondent's (N=336)**

Variable	Frequency	%
Age of respondents (Yrs.)		
≤30	165	49.1
>30	171	50.9
Sex Male		
	166	49.4
Female	170	50.6
Educational level		
Junior high school and below	81	24.1
Secondary/Technical and above	255	75.9
Employment status		
Employed	179	53.3
Unemployed	157	46.7
Marital status Single		
	93	27.7
Married	243	72.3
Insurance Status Insured		
	260	77.4
Non-insured	76	22.6

Table 4.2 Health service and enabling factors affecting patients satisfaction (N=336)

Variable	Frequency	%
Attitude of staff		
Bad	87	25.9
Good	249	74.1
Availability of drugs		
No	104	31.0
Yes	232	69.0
Availability of equipment No		
	110	32.7
Yes	226	67.3
Qualified health staff		
No	124	36.9
Yes	212	63.1
Proper ambulance service No		
	102	30.4
Yes	234	69.6
Environmental Condition Bad		
	54	16.1
Good	282	83.9

4.2 Patients' Satisfaction at Akuse Government Hospital

The investigation showed that the proportion of patients satisfied with Quality Healthcare Delivery at Akuse Government Hospital was 283/336 (84.2%) and those with non-satisfaction was 53/336 (15.8%).

4.3 Bivariate Analysis of Factors Associated with Patients Satisfaction

A bivariate analysis using 95% confidence interval was performed to examine whether there is any statistically significant association between demographic and health service factors and patients' satisfaction. The results showed that insurance status (p=0.012), educational level (*p*=0.004), employment status (p=0.001), availability of drugs (p=0.003), availability of equipment (p=0.029) and environmental conditions of the hospital (p=0.001) were the factors found to be significantly associated with patients' satisfaction with Quality Healthcare Delivery (Table 4.3)

Table 4.3 Association between Demographic Data and Patients Satisfaction

	Patients Satisfaction n (%)			Chi-square p- value
	High	Low	Total	
Age of respondents				0.994
≤30	139 (49.1)	26(49.0)	165(49.1)	
>30	144 (50.9)	27 (51.0)	171(50.9)	
Sex				0.121
Male	145(51.2)	21 (39.6)	166 (49.4)	
Female	138 (48.8)	32 (60.4)	170 (50.6)	
Educational level				0.004*
JSS and below	60 (21.2)	21 (39.6)	81 (24.1)	
SSS/Tech and below	223 (78.8)	32 (60.4)	255 (75.9)	
Employment status				0.001*
Employed	168 (59.4)	11(20.8)	179 (53.3)	
Unemployed	115 (40.6)	42(79.2)	157(46.7)	
Marital Status				0.220
Single	82 (28.9)	11 (20.8)	93 (27.7)	
Married	201(71.1)	42 (79.2)	243 (72.3)	
Insurance status				0.012*
Insured	226 (79.9)	34 (64.2)	260 (77.4)	
Non-insured	57 (20.1)	19 (35.8)	76 (22.6)	
Attitude of staff				0.144
Bad	69 (24.4)	18(33.9)	87 (25.9)	
Good	214(75.6)	35(66.1)	249 (74.1)	
Availability of drugs				0.003*

No	89 (31.4)	15(28.3)	104 (31.0)	
Yes	194 (68.6)	38(71.7)	232 (69.0)	
Availability of equipment				0.029*
No	95 (33.6)	15 (28.3)	110(32.7)	
Yes	188 (66.4)	38(71.7)	226 (67.3)	
Qualified health staff				0.891
No	104 (36.7)	20 (37.7)	124(36.9)	
Yes	179 (63.3)	33(62.3)	212 (63.1)	
Proper ambulance service				0.723
No	87(30.7)	15 (28.3)	102 (30.4)	
Yes	196 (69.3)	38 (71.7)	234 (69.6)	
Environmental Cleanliness				0.001*
Bad	35 (12.4)	19(35.8)	54 (16.1)	
Good	248 (87.6)	34 (64.2)	282 (83.9)	

***Significant at p<0.05**

4.4 Multiple Logistic Regression of Factors Associated with Patient Satisfaction

Every factor, whether statistically significant or not, was subjected to multiple logistic regression analysis at the bivariate level. At the 5% level of significance, it was discovered that six (6) of these characteristics were substantially correlated with patients' satisfaction (see Table 4.4). These include degree of education, work and insurance status, accessibility to medications, equipment accessibility, and cleanliness of the surroundings.

With regards to education, adjusting for all other factors, patients who had secondary school education and above had 29% increased odds of satisfaction with health care delivery compared to those with JSS education and below (AOR = 1.29; 95% CI=1.644-5.594, p=0.038). Adjusting for all other factors, patients who were not insured had 44 % reduced odds of being satisfied with health care delivery at Akuse Government hospital compared to patients who were insured (AOR

= 0.56;95% CI=0.279-0.739, p=0.019). Controlling for other factors, patients who were unemployed had 80% reduced odds of being satisfied with health care delivery at Akuse Government hospital compared to patients who were employed (AOR = 0.20; 95% CI=0.097-0.423, p=0.001). Availability of drugs was found to be significantly associated with patient satisfaction, Adjusting for all other factors, patients who said drugs were available were 2.3 times more likely be satisfied with health care delivery compared to those who said they were no drugs available (AOR = 2.26; 95% CI=1.607-2.648, p=0.032).

Patients who said laboratory equipment was available were 2.5 times more likely to be satisfied with health care delivery compared to those who said they had no laboratory equipment available (AOR = 2.47; 95% CI=1.721-3.016, p=0.025).

Patients who said the hospital's environmental cleanliness was good were 4.3 times more likely to be satisfied with health care delivery compared to those who said the hospital environment was bad (AOR = 4.32; 95% CI=2.178-8.606, p=0.001).

Table 4.4: Multiple Logistics Regression of Factors Associated with Patients Satisfaction Satisfaction

Variable	High	Low	cOR (95%CI)	AOR(95%CI)	p-value
Age (yrs)					
≤30	139 (49.1)	26(49.0)	1.0 *(ref)*	1.0 *(ref)*	
>30	144 (50.9)	27 (51.0)	0.99 (0.554-1.794)	1.67 (0.782-3.543)	0.185
Sex					
Male	145(51.2)	21 (39.6)	1.0 *(ref)*	1.0 *(ref)*	
Female	138 (48.8)	32 (60.4)	0.63 (0.343-1.135)	0.67 (0.349-1.284)	0.228
Educational level					
JSS and below	60 (21.2)	21 (39.6)	1.0 *(ref)*	1.0 *(ref)*	
SSS/Tech and below	223 (78.8)	32 (60.4)	2.43(1.132-4.533)	1.29 (1.644-5.594) 0.038*	

Employment status					
Employed	168 (59.4)	11(20.8)	1.0 *(ref)*	1.0 (ref)	
Unemployed	115 (40.6)	42(79.2)	0.18 (0.088-0.362)	0.20 (0.097-0.423) 0.001*	
Marital Status					
Single	82 (28.9)	11 (20.8)	1.0 *(ref)*	1.0 *(ref)*	
Married	201(71.1)	42 (79.2)	0.64 (0.315-1.308)	0.40 (0.162-0.994)	0.062
Insurance status					
Insured	226 (79.9)	34 (64.2)	1.0 *(ref)*	1.0 *(ref)*	
Non-insured	57 (20.1)	19 (35.8)	0.45 (0.239-0.849)	0.56 (0.279-0.739) 0.019*	
Attitude of staff					
Bad	69 (24.4)	18(33.9)	1.0 *(ref)*	1.0 *(ref)*	
Good	214(75.6)	35(66.1)	0.62 (0.333-1.177)	0.49 (0.242-1.014)	0.055
Availability of drugs					
No	89 (31.4)	15(28.3)	1.0 *(ref)*	1.0 *(ref)*	
Yes	194 (68.6)	38(71.7)	1.82 (1.107-5.222)	2.26 (1.607-2.648) 0.032*	
Availability of equipment					
No	95 (33.6)	15 (28.3)	1.0 *(ref)*	1.0 *(ref)*	
Yes	188 (66.4)	38 (71.7)	1.28 (1.172-4.825)	2.47 (1.721-3.016)	0.025*
Qualified health staff					
No	104 (36.7)	20 (37.7)	1.0 *(ref)*	1.0 *(ref)*	
Yes	179 (63.3)	33(62.3)	0.96 (0.523-1.756)	0.96 (0.507-1.842)	0.918
Proper ambulance service					
No	87(30.7)	15 (28.3)	1.0 *(ref)*	1.0 *(ref)*	
Yes	196 (69.3)	38 (71.7)	1.12 (0.587-2.151)	1.13 (0.568-2.253)	0.724
Environmental Condition					
Bad	35 (12.4)	19(35.8)	1.0 *(ref)*	1.0 *(ref)*	
Good	248 (87.6)	34 (64.2)	3.95 (2.039-7.689)	4.32 (2.178-8.606)	0.001*
Environmental Cleanliness					
Bad	35 (12.4)	19(35.8)	1.0 *(ref)*	1.0 *(ref)*	
Good	248 (87.6)	34 (64.2)	3.95 (2.039-7.689)	4.32 (2.178-8.606)	0.001*

Ref: Reference AOR: Adjusted Odds Ratio cOR: Crude Odds Ratio

CHAPTER FIVE

5.0 DISCUSSION

The study's results are examined in this chapter in light of pertinent scholarly works. The primary topics and sub-themes that arose from the study serve as the focal points for the conversations. The main topics of discussion were patient satisfaction with the quality of treatment received at Akuse Government Hospital and the factors that affect patients' happiness with the hospital's level of care.

5.1 Proportion of Patients and their Level of Satisfaction on Quality Health Care Delivery

Patient satisfaction is crucial when it comes to healthcare delivery. It is a patient's satisfaction that enables an individual to continuously patronize a service at a particular health facility and should also form a major component when assessing utilization of health care services. In this study, factors such as insurance status, availability of drugs, availability of equipment and environmental cleanliness were found to be significantly associated with patient satisfaction.

The overall proportion of respondents who were satisfied with quality health care delivery at Akuse Government hospital was high (84.2%). In comparison to a comparable study by Karaca & Durna, 2019, where 63.9% of patients reported being satisfied with healthcare service, the satisfaction level achieved in the current study was greater. The results align with a study carried out in Malaysia, wherein patients reported 82.7% satisfaction with the quality of healthcare they received (Tang et al., 2013). This study's percentage of patients who are satisfied with the quality of care they receive is also greater than that of a comparable study done in India, where 73% of participants expressed satisfaction with the quality of care they received (Sharma et al., 2014).

5.2 Factors Influencing Patients Satisfaction

Patient satisfaction is the state of pleasure or happiness that the patients experience while using a health service. Currently, the patients' opinions are considered as a key factor in the decision of treatment and delivering health care services. According to certain research, patients' satisfaction with the quality of their healthcare and certain demographic traits are significantly correlated (Gong et al., 2014; Lundegren et al., 2013). For example, Gong et al. (2014) discovered that patients' satisfaction with health care delivery in both developed and developing nations is significantly influenced by age, gender, family size, and marital status. Additionally, a study found that patient satisfaction with use in Europe was positively correlated with demographic factors such marital status and work position (Lundegren et al., 2013).

Waddington and Enyimayew (2010) found that patients' satisfaction with healthcare delivery in Ghana is influenced by age, gender, income level, and educational attainment. The criteria that were shown to be substantially associated with patient satisfaction in healthcare delivery at Akuse Government hospital included educational level, employment status, insurance status, drug availability, equipment availability, and cleanliness of the environment.

According to the results of this study, patient satisfaction with high-quality healthcare service was not significantly impacted by an individual's age. Consistent with the results of this investigation, a Chinese study by Gong et al. (2014) did not uncover any statistically significant correlation between patients' satisfaction with quality healthcare delivery and age. A study conducted in Hong Kong discovered that patients' satisfaction with general and specialized outpatient clinic treatments was not substantially correlated with their age (Chou, & Chi, 2015). The results of this study on age do not align with those of a study carried out in Ghana, which demonstrated that participants'

age group and self-reported health state were related to patient satisfaction in quality healthcare service (Exavery, 2010).

The current study observed that as the patient's age increases, the odds of patient's satisfaction in quality health care delivery also increases though not statistically significant. Patients who were 30 years and above were more likely to be satisfied with healthcare delivery at the Akuse Government Hospital compared to those less than 30 years, which was the younger group. This could be attributed to the fact that, as one ages, the likelihood of having complications that demand specialized care also increases. Diseases such as hypertension, diabetes, renal problems, and ocular or ophthalmology challenges though irrespective of age are comparatively more pronounced in older ages compared to those within the younger age group.

This finding is not consistent with a cross-sectional study, which examined factors associated with patient satisfaction in primary health care service among in the Irbid Governorate of Jordan and revealed a positive association between age and patient satisfaction in quality health care service delivery (Abdullah et al., 2014). The difference could have arisen as result the sample size. Whilst the (Abdullah et al., 2014 study used a sample size 520 patients, this current study used a sample size of 336 and this could have accounted for why age probably could not influence patients' satisfaction in health care delivery.

In this study, sex was not found to be significantly associated with patient satisfaction in quality health care delivery though the females were less likely to be satisfied compared to their male counterparts. This result is in sharp contrast with the results of studies, which had revealed that females had more health needs and awareness than males and tend to utilize health care services and end up being satisfied than their male counterparts (Birgit *et al*., 2014; Elwell-Sutton *et al*.,

2013). Gender equality is indeed an important subject in health service utilization. This is very important since a study showed that there were some differences in health seeking behaviour between males and females (Ahmed *et al*., 2010).

Associations between sex and patients' satisfaction in health care delivery also showed that sex influence patients' satisfaction and females were more likely to be satisfied than males in a study in China, which is contrary to the findings in this study (Chao *et al*., 2016). The differences could be attributed to the fact that, these studies used equal numbers with regards to sex of individuals with 49.4% being males and 50.6% being females (Ahmed *et al*., 2010; Birgit *et al*., 2014; ElwellSutton *et al*., 2013). This might have contributed to why sex was not statistically significant in influencing patients' satisfaction in health care delivery.

With regard to employment status, the basic analysis was that individuals who were employed had a higher tendency to seek regular health care services end up being satisfied compared to those that were employed in most studies (Saeed *et al*., 2000). This translates to the fact that an individual who earns a higher income or is employed is much empowered to utilize health care services compared to those who are unemployed (Kelarijani *et al*., 2014). For this current research, employment status of an individual significantly influenced patients' satisfaction in quality health care delivery at the Akuse Government Hospital. Controlling for other factors, patients who were unemployed had 80% reduced odds of being satisfied with health care delivery at Akuse Government hospital compared to patients who were employed. This might be attributed to the fact that those individuals may have family support or other friends' support that enables them to seek health care. This finding is consistent with a study in Nigeria, where patients who were employed were five times were more likely to utilize health care services and receive satisfaction compared to those that were unemployed (Latunji, & Akinyemi, 2018).

Consistent with the results of this study, patients in Pakistan who were employed had higher probabilities of being satisfied with their health treatment than those who are not. In addition, Ahmed et al. (2010) found that people who work and make a living are more likely to make educated decisions and use high-quality healthcare services than people who are jobless or have low incomes, particularly when it comes to specialist medical treatment.

Similar findings have also been reported in Kenya, where patients who were employed had an increased odds of patients' satisfaction in quality health care delivery compared to those who were unemployed. (Phiri *et al*., 2014). All these studies agree with the findings obtained in this current study with regard to employment status and patients' satisfaction in quality health care delivery. This might be attributed to the fact that the cost of health care might be relatively cheaper to afford in a government facility especially when one is employed, than when the patients is not employed.

Educational level in this current study was significantly associated with patient satisfaction both at the bivariate level and multiple logistic regression level. Adjusting for all other factors, patients who had secondary school education and above had 29% increased odds of satisfaction with health care delivery compared to those with JSS education and below. The attributes of an individual which have been found to be significantly associated with patient satisfaction in quality health care delivery include one's level of education and income (Lundegren *et al*., 2013). This phenomenon could be attributed to the fact that, an individual with a good education is well informed and has a better understanding taking sensitive decisions of where and how to seek health care at a health facility (Lundegren *et al*., 2013). Huang *et al*. (2013) argued that this was because higher education might lead to more knowledge of preventive health care and awareness of health services. More so, individuals with higher levels of education are able to make better and informed choices when

it comes to seeking health care in a health facility contrasted with those with lower level of education (Lundegren *et al*., 2013).

In this current study marital status was significantly associated with patient satisfaction in quality health care delivery. Though married people get counseling and guidance from their spouses promoting a doctor's visit compared to the unmarried, this research did not found any variation. Yan-Ning *et al*. (2016) found that married people had 65% odds of utilizing health care services compared to singles among rural residents in Guangxi, China and patients' satisfaction was higher among married than the unmarried which is inconsistent with the findings of this current study. A significant association had also been reported between marital status patients' satisfaction in quality health care delivery in a study conducted in China (Gong *et al*., 2014).

Research have found that healthcare system and provider factors such as attitude of staff, waiting time and availability of drugs were significantly associated with patients satisfaction in quality health care delivery (Jonas *et al*., 2017). This study demonstrated that patients' satisfaction with quality health care delivery at the Akuse Government hospital was highly influenced by their insurance status, the availability of drugs, the availability of equipment, and the cleanliness of their surroundings.

The finding is consistent with a study in Ghana, where, level of income, availability of drugs and availability of equipment were identified as factors that influenced the patients satisfaction in quality health care delivery (Waddington & Enyimayew, 2010).

In this study, Insurance status was found to be significantly associated with patients' satisfaction in quality health care delivery. It was observed in the study that patients who were not insured had

44 % reduced odds of being satisfied with health care delivery at Akuse Government hospital compared to patients who were insured. Because of NHIS, government health facilities in some nations, like Ghana, offer curative services for practically nothing or at extremely low user costs (Abekah-Nkrumah et al., 2011; Chou & Chi, 2015). The immediate user charges were deemed to be the primary cost of using health services (Ahmed et al., 2010).

Nonetheless, it has been recommended that a superior estimate of cost of utilizing health services ought to be the total sum of monies paid out for charges, drugs, and transport (Ahmed et. al., 2010). This finding is consistent with the findings of Abekah-Nkrumah *et al*., (2011) who reported a significant association between insurance status and patients' satisfaction in a study conducted in Ghana.

In this current study, patients who said the hospital's environmental cleanliness was good were 4.3 times more likely be satisfied with health care delivery compared to those who said the hospital environment was bad. Grndahl et al. (2018) discovered that patients' assessments of the quality of care might be influenced by the hospital setting as well as the actions of medical staff. According to Babatola et al. (2022), a critical indication in health care services is the state of the hospital's cleanliness, which is followed by the availability of sufficient hospital seats and an energy supply. The purpose of the study was to define what is important to patients in the new high-tech hospital and to look at changes in patient perceptions of care quality (QPP) when hospital services are transferred from an old to a new high-tech hospital.

This finding is consistent with the findings of the current study. The results of a study by Akinyinka, et al. (2019) among patients receiving care in particular hospitals in Lagos, Nigeria, are strongly related to this. The hospital they were treated at was assessed as clean by study

participants. Paul and Ugwu (2019), who conducted their study among patients in the South-South zone of Nigeria, further corroborate this. In addition, patients rank the hospital's location, the availability of an investigative laboratory, and the standard of the hospital's restroom and shower facilities as critical factors that influence their level of satisfaction and the standard of treatment they received from the facility.

In this study, availability of drugs was found to be significantly associated with patient satisfaction, and patients who said drugs were available were 2.3 times more likely be satisfied with health care delivery compared to those who said they were no drugs available. This finding is consistent with the study of Babatola et al. (2022) who posited that availability of laboratory equipment is one of the strong indicators of patients' satisfaction with quality health care delivery. In health care facilities where laboratory equipment is not readily available, patient satisfaction is lacking as medical diagnosis requires laboratory procedures before the health care professional can diagnose the patients.

Determinants of satisfaction with health care services may also be associated with the behaviour and attitude of the health care workers that attend to a patient's health care needs. In this current study, the attitude of staff was not found to be statistically significant. Supporting this assertion, Feysia, et al., (2015) posited that good attitude of a of competence of health workers influence patients' satisfaction with health care. This finding is inconsistent with the findings of Akinyinka, et al. (2019) in a study in Lagos, Nigeria that level attitude of staff influences patients satisfaction.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter describes the summary of the findings of the study where the overall findings are summarized based on the specific objectives. Conclusions are then made in line with the objectives and the necessary recommendations for each objective are addressed.

6.1 Conclusion

The study aimed to measure the perceived satisfaction of patients, the factors influencing patients' satisfaction on quality health care delivery at Akuse Government hospital. The findings of the study showed that the estimated proportion of patients satisfied with Quality Healthcare Delivery at Akuse Government Hospital was very high. Educational level, employment status, insurance status, availability of drugs, availability of equipment and environmental cleanliness were the factors found to be significantly associated with patients' satisfaction with quality health care delivery. The high level of patient's satisfaction recorded in this study could be attributed to the availability of drugs, availability of laboratory equipment and the use of National Health Insurance in the facility.

6.2 Recommendations

Based on the findings of the study, the following recommendations have been made for consideration by appropriate stakeholders in the health care environment.

1. The study found that, the level of patient satisfaction at the Akuse government hospital was very high. However, 24.4% of patients rated the attitude of staff as good. In order to address this, the management of the hospital should put in place appropriate mechanisms to

facilitate or initiate training programmes for the staff to enhance quality health care delivery.

2. Environmental cleanliness of the hospital was very significant in this study and Management of the hospital in collaboration with the Ghana Health service should upgrade the physical infrastructure so as to enhance quality health care delivery and subsequently enhance patients' satisfaction.
3. Future studies could also apply qualitative research methods which will help to get explanations to the quantitative findings.

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APPENDIX A: PARTICIPANT INFORMATION SHEET

Title of the Study: Quality Healthcare Delivery and Patients' Satisfaction at Akuse Government Hospital.

Introduction: I am Yaa Buansi Peprah, a MPH student at the School of Public Health, University of Ghana. I am undertaking this research in partial fulfillment for the award of a Master of Public Health. My contact details are, Tel: 0505728845 and Email: ybpeprah001@st.ug.edu.gh The GHS ERC Administrator, Nana Abena Apatu should be contacted on 0503539896 at ethics.research@ghsmail.org on ethical issues only.

Background and purpose of research: The provision of high-quality services to all persons in all contexts must be explored and pursued if Universal Health care is to become a feasible goal. (World Health Organization, 2020). Improving health-care delivery demands a deliberate focus on service quality, which entails providing effective, safe, and people-centered care that is timely, equitable, integrated, and efficient. The degree to which health services for individuals and populations increase the likelihood of desired health outcomes is referred to as quality of care. It is essential for achieving universal health coverage since it is based on evidence-based professional expertise. (WHO, 2018). In Ghana, despite various quality improvement initiatives at the top hierarchy of the health sector, many health facilities across the country have been questioned owing to a collection of challenges including staff shortages, inadequate logistics and equipment. Over the years, the Akuse Government hospital management and personnel have implemented numerous initiatives and efforts to improve service delivery. The initiatives were based on prior studies in which the following issues were reported, Patients not receiving drug instructions, inequities in treating different groups of patients, low efficiency in the service delivery system, inefficient staff, and the hospital environment becoming a health hazard. Again, it is important to

identify early any new challenges emerging from service delivery and resolve unacceptable gaps in quality to meet internationally accepted standards of health care delivery.

Nature of research: This study will follow the cross-sectional study design. Mixed method approach will be used for this study. Questionnaires and interviews will provide a good means for asking people to provide information about their experiences at the hospital to access Quality Healthcare Delivery and Patients' Satisfaction at Akuse Government Hospital. Four hundred and twenty-two eligible adults aged eighteen years and above will be interview.

Participant's involvement:

Duration/ what is involved: participants should be 18 years and above. Participants will answer questions on socio-demography (age, sex, level of education, NHIS status, etc); **Environmental assessment, health system service factors** such as staff attitude, distance to health facilities, perceived quality of care, source of health information, etc; The principal investigator will administer the questionnaire which is anticipated to be with 10-15minutes.

Potential risk: There will be no risks to the study participants. Possible long duration of the interview or perceived to be time wasting may be discomforting to respondents. The interview is estimated to last for at least 10minutes, which may be time wasting for some respondents. Aside having to spend about 10 minutes of your time answering a few questions, or feeling a bit uncomfortable answering some of the questions due to their personal nature, no direct risk is expected to you for participating in this study. You are however under no obligation to answer all questions, and you may skip answering questions you are uncomfortable with.

Benefits: there is no direct benefit for participants however, findings from this study will contribute to knowledge for policy makers to put in measures to improve the health delivery.

Costs: there will be no cost for participation in the research

Compensation: there is no compensation for participating in this study

Confidentiality: The data collected from the respondents will be handled with utmost confidentiality. Names of respondents will not be recorded on the questionnaire. The data being for academic purposes will not be shared with any third party. Voluntary Participation and withdrawal: your participation in this study is voluntary and you are at liberty to withdraw from the study at any time and this will not affect you in anyway. During the interview, you also have the right not to answer questions that are discomforting to you.

Outcome and feedback: Data collected will be used for this study only. No feedback will be given to the participants.

Feedback to participant: feedback will not be communicated to participants. However, the recommendations will be communicated with law makers to make essential interventions to help improve the health of the participants.

Declaration of conflict of interest : The researcher does not have any conflict of interest to declare in this study.

Funding information: This study will be self-financed by the principal investigator. Sharing of participant's information/Data: For security and trust between the respondents and the research assistants, the data collected will not be shared with unauthorized any third party other than the School of Public Health and Ghana Health Service. They will be saved in an email and will be destroyed after five years if there are no further need for it. Findings from the study will be presented to the GHS and the participants.

Provision of information and consent for participants: A copy of the information sheet will be given to you after it has been signed or thumb-printed to keep. Who to contact for further clarification/questions: for further questions or issues regarding this study, you may contact Yaa Buansi Peprah on 0505728845 or Dr .Paul Botwe University of Ghana. (Supervisor). You can also reach out to the Administrator of the Ghana Health Service Ethics Review Committee by contacting on Email:ethics.research@ghsmail.org on issues concerning ethics

APPENDIX B: CONSENT FORM

Title of study: Quality Healthcare Delivery and Patients' Satisfaction at Akuse Government Hospital

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose, contents of the Participants' Information Sheet read, and all questions satisfactorily explained to me in a language I understand (English, Twi, Krobo, Ewe and Hausa). 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 Participants……

Participants' signature……..…Or Thumb Print……

Date ……

INTERPRETERS' STATEMENT

I interpreted the purpose and contents of the Participants' Information Sheet to the Above named participant to the best of my ability in the (English, Twi, Krobo, Hausa, Ewe) 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 Interpreter……..OR Thumb Print…….

Date:……

Contact Details……

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 (English, Twi, Krobo,

Hausa, Ewe). 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:…….

APPENDIX C: QUESTIONNAIRE

Introduction: My name is Yaa Buansi Peprah a Masters of Public Health (MPH) student of the University of Ghana, Legon. My academic supervisor is Dr. Paul Botwe. The purpose of this study questionnaire is to gather primary data on the topic "**Quality healthcare delivery and patients' satisfaction at Akuse Government Hospital.**

Please, your participation in this study is key towards examining the quality of healthcare and patients satisfaction of the services provided at the hospital. Kindly note that information provided is only for academic purposes and will be treated with the outmost privacy ever needed.

Interview date:…/……/…….. Time of interview: Start…….

End…….

Client Satisfaction Survey 2022

This survey will help us assess the quality of service delivered at our clinic in the Eastern Region to enable the institutions improve their service quality. We shall be grateful if you volunteer to be part of this exercise by completing this questionnaire

No	**Item**	Score
	SECTION A: Demographic Characteristics of Respondents	
1.	Sex of client male = 1, female = 0	
2.	Age of client: young (below 30 years) = 1; old (above 30 years) = 0	
3.	Insurance status: Insured = 1; Non-Insured = 0	
4.	Employment status: employed = 1; Unemployed= 0	
5	Marital status: Married=1; Single=0	
6.	Time of arrival at hospital: morning (before 12:00 noon) = 1; others = 0	

7.	Educational level Secondary / Technical school and above = 1 Junior High School and below 0	
	OVERALL SATISFACTION OF SERVICE DELIVERED	
8.	Did you receive prompt attention on arrival: yes = 1; no = 0	
9.	Were you happy about the way the staff talked to you: yes = 1; no = 0 (if yes go to question 10)	
10.	If no, at what place or table did you experience the unfortunate incident: Records = 1, History table = 2, Consulting room = 3, Lab = 4, X-ray = 5, pharmacy = 6, Accounts = 7, ANC = 8	
11.	Were you happy about the services received at the hospital: yes = 1, no = 0 (if yes, go to question 13)	
12.	If no, what service areas/points were you not happy with their services (multiple response): Records = 1, History table = 2, Consulting room = 3, Lab = 4, X-ray = 5, pharmacy = 6, Accounts = 7, ANC = 8, all the sections = 9	
13.	What exactly did you not like about the services received at this particular service unit(s) (multiple responses): spent too much time = 1, favoritism = 2, staff chatting with other people = 3, received inadequate attention = 4, inadequate drugs dispensed = 5, extortion = 6, disrespect = 7, others ……..	
14.	Were you examine by the prescriber?: yes = 1, no = 0	

15.	Were you told of your diagnosis?: yes = 1, no = 0	

16.	Were you given instruction about your illness?: yes =	
17.	Did you have your privacy during your visit: Yes = 1, no = 0	
18.	Fees charged by the hospital are moderate Yes = 1, no = 0	
19.	The hospital does not discriminate against patients on NHIS Yes = 1, no = 0	
20.	How would you assess your satisfaction with the time spent throughout consultation in the hospital: very satisfied =2, satisfied = 1, not satisfied = 0	
21.	Will you recommend the hospital to another person: Yes =1, no =0	
22.	Were you satisfied with the following(For ANC clients only): • Palpation(Abdomen examined) Yes No • Education on pregnancy Yes No • Urine examination Yes No	
23.	Was your baby examine by the nurse?: yes = 1, no = 0 (Postnatal clients only)	
24.	Appearance of health Staff Good =1 Bad =2	
25.	How will you assess cleanliness of the hospital? Very good = 2 Good = 1 Bad = 0 Don't know = 88	
	ENABLING FACTORS	
26	Attitude of staff: Good=1; Bad=0	
27	Availability of drugs: Yes=1; No=0	
28	Availability of equipment: Yes=1; No=0	
29	Qualified health staff: Yes=1; No=0	
30	Proper Ambulance service: Yes=1; No=0	
31	Environmental condition: Good=1; Bad=0	
	Environmental assessment	

32.	In your opinion what is the state of the washrooms (toilet and urinal) in the hospital? Good = 1 Not good = 0 Don't know = 88	

33.	Were you able to make your way to other units using the directional signs? Yes = 1 No = 0	
34.	The hospital has disability friendly structures and facilities Yes = 1 No = 0	

APPENDIX D: ETHICAL CLEARANCE

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

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

Research & Development Division
Ghana Health Service
P. O. Box MB 199
Accra
Digital Address: GA-050-3383
Mob: +233-50-3539896
Tel: +233-302-681109
Email: ethics.research@ghs.gov.gh

My Ref: GHS/RDD/ERC/Admin/app/23/557
Your Ref. No.

18th September, 2023

Yaa Boansi Peprah
P.O. Box 3
Akuse

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

GHS-ERC Number	GHS-ERC: 052/07/23
Study Title	Quality Healthcare Delivery and Patients' Satisfaction at Akuse Government Hospital.
Approval Date	18th September, 2023
Expiry Date	17th September, 2024
GHS-ERC Decision	Approved

This approval requires the following from the Principal Investigator

- Submission of a 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 as discussed and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.

You are kindly advised to adhere to the national guidelines or protocols on the prevention of COVID -19

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.....
Mr. Kofi Wellington
(GHS ERC Chairperson)

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