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THE INFLUENCE OF PATIENT'S DEMOGRAPHIC CHARACTERISTICS ON SERVICE QUALITY IN THE OUTPATIENT DEPARTMENT AT KOMFO ANOKYE TEACHING HOSPITAL, GHANA

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Work Authorship Declaration

I declare that this work is my initiative and author, which is distinctive and unmatched. The author and work consulted are cited appropriately in the text and incorporated in the references.

Ernest Kwarteng

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GENERAL INDEX **page**

Index of Tables v

Index of Figures vi

ABSTRACT vii

Keywords viii

RESUMO ix

Chapter 1: INTRODUCTION1

1.0: Background of the study1

1.1: Problem Statement 2

1.2: Purpose of the study 3

1.3: Specific Objective 3

1.5: Significance of the study 4

1.6: Scope of the study4

1.7: Organisation of the study 5

Chapter 2: LITERATURE REVIEW

2.0: Introduction 6

2.1: Conceptual Definition 6

2.2: Service Quality6

2.3: Measurement of Service Quality7

2.4: Gap Analysis7

2.5: Theoretical Review 11

2.6: Empirical Review13

2.7: Relationship between Service Quality and Patient Demographic Characteristics13

2.8: Relationship between Service Quality and Patient Health Status14

2.9: Relationship between Patient-Experienced Quality and Health Status 15

CHAPTER 3: METHODOLOGY

3.0 Introduction 16

3.1: Research Design16

3.2: Quality Assessment16

3.3: Exclusion and Inclusion Criteria17

3.4: Research Evidence 17

3.5: Statistical Analysis17

3.6: Ethical Consideration 18

CHAPTER 4: RESULTS AND DISCUSSIONS

4.0: Introduction 19

4.1: Results 19

4.2: Impact of Respondents age on perceived service quality21

4.3: Impact of respondents' gender on perceived service quality26

4.4: Impacts of respondents' health status on perceived service quality27

4.5: Impacts of respondents' Educational Level on Perceived service quality29

4.6: Discussions33

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.0: Introduction38

5.1: Recommendations 38

TABLES INDEX

Table 4.1: Patient Demographic Characteristics20

Table 4.2: The Level of Respondents Perception of Service Quality- SEVQUAL Model21

Table 4.3: The Level of Respondents Expectations of Service Quality22

Table 4.4: Service Quality Dimension Gap Scores Analysis23

Table 4.5: The Impact of Gender on (1) the Level of Respondents expectation of service quality

(2). The Level of Respondents Perception of Service Quality24

Table 4.6: Cross-tabulation of Gender and Patient Perception25

Table 4.7: Cross-tabulation of Gender and Patient Expectation26

Table 4.8: Distribution of responses from patients about different parameters of their health status31

Table 4.9: Regression Analysis of Patients' Health Status32

Table 4.10: Descriptive statistics of service quality constructs and overall service quality34

FIGURES INDEX

FIGURE 2.1: The SERVQUAL Service Quality Model8

FIGURE 2.2: Dimensions of Service Quality11

FIGURE 4.3: Patient Health Status27

FIGURE 4.4: Patient Health Status and Age28

FIGURE 4.5: Patient Economic Status29

FIGURE 4.6: Patient Demographic Characteristics30

ABSTRACT

Patients' demographic characteristics as a paradigm for assessing service quality in hospitals have attracted considerable admiration in recent times. This report envisages the summary of the study that was drawn in the arena of patient influences on service quality delivery in a teaching hospital in Ghana.

The present study indicates the influence of patients' demographic characteristics on service quality in the outpatient department at Komfo Anokye Teaching Hospital, Kumasi. The study was cross-sectional with a sample of 120 outpatients, selected randomly at the department.

Data collection was made through questionnaires that consisted of 60 items. The questionnaires were subdivided into thematic headings as, Patients' Demographics, Levels of Service Quality, and Patients' Health Status. The only inclusion criteria for choosing the patients to answer the questionnaires were those who were willing to participate in the study. It was not compulsory to participate but the patients' desire and ability to participate based on their own free will. Patients aged 18 years and above who desired to participate were included in the procedure irrespective of their gender, race, or ethnic group. However, those that were unwilling to participate and those with severe illness, such as mentally retarded, stroke, and physical dysfunctions were excluded from participation.

Structured in-depth pretested interviews were conducted with the questionnaires. There were no right or wrong answers to the answers patients gave. All answers were considered correct.

The data was analyzed using IBM SPSS version 20 software, regression, and correlation, were carried out, and descriptive statistics results were in standard deviation, percentages, pie charts, tables, and figures. The SERVQUAL instrument was used for the testing of service quality at the department.

The findings of this research showed that, out of the total number of 120 outpatients, 58.3% were males and 41.7% were females with a mean age of 43 years and a standard deviation, of 16.7. There were 37.5% of patients from the rural areas and 62.5% from the urban areas.

There were income disparities where most of the patients received low-income levels. The correlation coefficient between income and educational status was calculated as -0.74. These variables tend to move in the opposite direction. It was observed that many of the respondents had no formal education and that matter, had a lower income level. Educational levels have a direct impact on income.

Patients with good health status were 8.3%, poor health status 66.7%, fair status 13.3%, and those with excellent health status were 11.7%. A regression analysis was conducted on the patients' health status and the results revealed a sum of squares 12.99 residual value of 83.04 showing the difference between the observed and predicted values. F statistic value of 1.69, and a significant value of 0.09 indicating a weak correlation among the variables.

Service quality dimensions gap analysis showed that there were gaps among Tangibility with a gap score of 5.0% Strongly Agree, 8.3% reliability in gap score, 6.5% gap for responsiveness strongly agreed,0.9% no gap for Assurance, and a 5.0%% gap for empathy in Agree option.

Gender in the determination of respondents' perceived service quality indicated that more males influenced the decision in almost all dimensions except in the Tangibility dimension which had an equal number of males to females. There was a significant impact of respondents' gender on perceived service quality, and male respondents dominated it.

Descriptive statistics of service quality construct with its overall service quality of patient's expectations was analyzed and results revealed that, in the Assurance dimension, courtesy and friendship to patients were ranked the least with a standard deviation of 1.13. In contrast, nurses' skills and expertise were highest with a standard deviation of 1.35. The efficiency of patients' requests and attendance in responsiveness was ranked first with a standard deviation of 1.37 whilst patients' feedback was the lowest with a standard deviation of 1.32. Regarding the tangible aspect of the hospital, the hospital has good facility status with modern equipment where the bathrooms and toilet facilities are clean, respondents ranked the environment the least as being not healthy. It can be attributed to the fact that the environment is exposed to a greater number of people.

The order of importance of service quality dimensions by respondents were, Tangibles (2.77±1.40), Reliability (2.76±1.32), Assurance (2.68±1.65), Responsiveness (2.63±1.32), and Empathy (2.59±1.27).

Keywords: Patient Perception, Service quality, Patient Demographic Characteristics, Outpatient Department, Patient Expectation.

Resumo: As características demográficas dos doentes como paradigma para a avaliação da qualidade do serviço hospitalar tem suscitado grande admiração nos últimos tempos.

Este relatório apresenta o resumo do estudo que foi realizado na área das influências demográficas dos doentes na prestação de serviços de qualidade num hospital universitário do Gana.

O presente estudo indica a influência das características demográficas dos pacientes dos doentes na qualidade do serviço prestado no serviço de consulta externa do Hospital Universitário Komfo Anokye, Kumasi O estudo foi transversal, com uma amostra de 120 doentes externos, seleciona dos aleatoriamente no departamento.

A recolha de dados foi efetuada através de questionário composto por 60 itens. Os únicos critérios de inclusão para a escolha dos pacientes para responder aos questionários foram aqueles que estavam dispostos a participar do exercício. A participação não era obrigatória, mas sim o desejo e a capacidade de participação dos pacientes com base no seu livre arbitro, os pacientes com idade igual ou superior a 18 anos que desejavam participar foram incluídos no procedimento, independentemente do sexo, raça, ou grupo étnico.

No entanto, aqueles que não estavam dispostos a participar e aqueles com doença, grave, como retardado mental, acidente vascular cerebral e disfunções físicas foram excluídos da participação. Foram realizadas estruturadas e pré- testadas em profundidade com os questionários. Não houve respostas certas ou erradas pare as respostas dadas pelos pacientes. Todas as respostas foram consideradas. Os questionários foram subdivididos em rubricas temáticas como, demografia dos doentes, níveis de qualidade do serviço e estado de saúde dos doentes.

A análise dos dados foi efetuada com recurso ao software IBM SPSS versão 20 tendo sido efetuada a regressão e correlação, estatística descritiva e os resultados foram apresentados em desvio padrão, percentagens, gráficos de pizza, tabelas e figuras.

O instrumento SERVQUAL foi utilizado para testar a qualidade do serviço no departamento.

Os resultados desta investigação mostraram que do número total de 120 doentes em ambulatório 58.3% eram do sexo masculino e 41.7% do sexo feminino, com uma idade média de 43 anos um desvio padrão de 16.7. Havia 37.5% de pacientes das áreas rurais e 62.5% das áreas urbanas.

Verificaram-se disparidades de rendimentos houve disparidades de rendimentos, com maioria does doentes a receberem baixos níveis de rendimento O coeficiente de correlação entre renda e escolaridade foi calculado como -0,74. Estas variáveis tendem a mover se na direção oposto. Observou se que muitos dos entrevistados não tinham escolaridade formal e, nesse, sentido, tinham menor nível de renda. O nível de educação tem um impacto direto na renda. Os doentes com bom estado de saúde 8.3%, com estado de saúde mau 66.7%, com estado de saúde razoável 13,3% o e com estado de saúde excelente 11,7%. Foi realizado uma análise de regressão do estado de saúde dos pacientes e os resultados revelaram uma soma de quadrados deb12,99 valores residuais de 83.04 mostrando a diferença entre os valores observados e previstos. Valor estatístico F de 1.69 e valor significativo de 0.09, indicando uma fraca correlação entre as variáveis.

No que respeita à análise das lacunas das dimensões da qualidade dos serviços, verificaram- se lacunas ao nível da tangibilidade, com uma lacuna de 5,0% para a confiabilidade ,6,5% para a capacidade de resposta 0,9% sem lacuna para a garantia, e finalmente uma lacuna de 5,0% para a empatia na opção concordo.

Os resultados da investigação provaram que a maioria dos pacientes não estava satisfeita com os serviços prestados no serviço, em resultado das lacunas associadas às dimensões, pelo que tiveram uma experiência negativa no serviço inadequado, com base na avaliação dos pacientes em causa.

O impacto da idade dos entrevistados na qualidade percebida do serviço revelou que os pacientes reduziram seus escores de expectativas nas dimensões de confiabilidade e responsabilidade com escores mais baixos para concordar totalmente. Um aumento na idade dos pacientes resulta em um aumento nos escores do valor Z. Valores Z mais elevados associados ao aumento de idade dão a suposição de uma baixa probabilidade de melhor qualidade do serviço no ambulatório. A medida que os pacientes aumentavam de idade, a qualidade do serviço era abismal no departamento. As expectativas dos pacientes diminuíram com o aumento da idade, que foram atribuídas aos escores na dimensão confiabilidade e responsabilidade, onde um número menor de entrevistados optou por concorda totalmente. Houve correlações insignificantes entre a idade dos entrevistados e o nível de concordância atribuído a dimensão. A empatia e a dimensão em que os pacientes atribuídos concordam fortemente e foi influenciada pela idade dos entrevistados. No entanto, a Responsabilidade também foi influenciada pela idade dos pacientes, na medida em que foi a única dimensão que atraiu um elevado percentual de escores de concordância.

Em termos de género na determinação da perceção da qualidade do serviço pelos inquiridos, mais homens influenciaram a decisão em quase todas as dimensões, exceto na dimensão tangibilidade que teve um número igual de homens para mulheres. Houve, um impacto significativo do género dos inquiridos na

perceção da qualidade de serviço e foi dominado pelos inquiridos do sexo masculino. A estatística descritiva do construto qualidade do serviço com a qualidade geral do serviço das expectativas dos pacientes foi analisada e os resultados que revelaram que dimensão Garantia, cortesia e amizade com os pacientes foi a menos classificada com um desvio padrão de 1,13 enquanto as habilidades e conhecimentos dos enfermeiros foram maiores com um desvio padrão de 1,35. A eficiência das solicitações e do atendimento dos pacientes na responsividade foi classificada em primeiro lugar com um desvio padro 1,37, enquanto o feedback dos pacientes foi o mais baixo, com um desvio padrão de 1,32.

Em relação ao aspeto tangível do hospital, o hospital tem bom status de instalações com equipamentos modernos onde os banheiros e instalações sanitários são limpos, os entrevistados classificados o ambiente menos como não sendo saudável. Pode atribuir se ao facto de o ambiente estar exposto a um maior desvio de 1,32. A ordem de importância das dimensões da qualidade do serviço pelos entrevistados foi: tangíveis (2,77±1,40), confiabilidade (2,76±1,32), Garantia (2o,68±1,65), capacidade de resposta (2,63±1,32) e empatia (2.59±1,27).

Palavras-chave: Perceção dos doentes, Qualidade do serviço, Características demográficas dos doentes, Departamento de ambulatório, Expectativa do doente.

CHAPTER ONE

INTRODUCTION

1.0 Background of the study

The influence of Patients' Demographic Characteristics on Service Quality in the Patient Department has been gaining considerable ground in recent times. This is a result of its significant role play in Healthcare Evaluation Systems. (Bateiler, Francois, Sellier, Vittoz, Seigneurinn and Labarere, 2014).

In previous years, service quality was centered on clinical aspects that ignored patients' attributes such as patients' perceptions and patients' demographic characteristics. Contemporarily, hospital service evaluation schemes lay much emphasis on Patients' Demographics, Perceptions, patients' ideas, views, and feedback that less relegates clinical aspects to the background - (Peer and Mpinganjira, 2012).

Service quality is the variation that exists between what the customer anticipates, observes, and acknowledges. This includes both the functional and technical aspects of the service. Functional quality deals with the intangible aspects of the service in terms of service delivery and creation. The technical aspect deals with what the customer receives in the course of service, - (Acharya, Ghimire, Shrestha, Yadav, and Bhandari, 2019).

High service quality is what every patient demands. As a result of this, many hospitals focus on better service quality for them to meet customers' needs and wants, - (Cook and Verma, 2002). Patients ensure that they receive quality healthcare commensurate with the amount of money they pay for health services (Acharya, Ghimire, and Bhandari, 2019). In this regard, Patients look for special qualities in the hospital personnel, ranging from reliability, empathy trust minimum delays, good conduct of professionalism (doctor-nurse-patient interrelationship), a serene environment, and better infrastructure with modern equipment, - (Acharya et al 2019).

All these parameters can be used to ensure patients' well-being and for careful consideration for quality performance improvement for many hospitals, - (Abbasi Zarei, Rafat Hosein, and Pouria 2019) emphasize the distinction and dichotomy between what the customer expects and their perception of service performance. For hospitals to be competitive, service quality must be improved as there are several clinics and hospitals available for patients to assess. A study done by (Al-Abri, and Al-Balushi, 2014) shows that

the number of patients that assess hospitals increased in number, therefore, hospital managers should improve their services to meet clients' demands.

(-Alkuwaiti, Maruthamuthu, and Akgun, 2018), consider that service quality is a critical variable for creating service reliability and awareness about the service and merits importance to both consumers themselves, stakeholders, and healthcare providers. It unveils the strengths and weaknesses of their service delivery for quality improvement soon.

The hospital outpatient department plays a special role as an ideal health system and an important source of supply to the inpatient department. It is the primary contact point between a patient and a hospital. The quality of services provided by the Outpatient department adds a significant contribution to the overall impression of services given by the hospital. Revenues of outpatient services exceed or break even with the inpatient department because the department has been increasing in number in recent times. The profitability of a hospital relies chiefly on the outpatient department; therefore, a high rate of service quality is predominant in the department to ensure its success, - (Pouragha and Ehsan 2016).

1.1 Problem Statement.

Service quality at the Outpatient Department in the Komfo Anokye Teaching Hospital has been decreasing significantly nowadays, whereas other departments of the hospital have realized improvement in service delivery, - (Kwateng Owusu, Lumor, and Acheampong Ofosuaa, 2017).

Although more efforts have been made to measure service quality at the inpatient department and other departments of healthcare facilities, little or no attention is given to service quality at the Outpatient Department in the Komfo Anokye Teaching Hospital. High service quality in the Outpatient Department is very important for several reasons including the following:

Hospital managers will be able to design quality improvement programs as well as varied problem-solving techniques in allocating their scarce resources.

Moreover, Patients' desires, needs, and aspirations that were not met will be communicated to hospital managers to be solved along with other areas that require quality improvement.

This will prompt hospital managers to use quality and diagnosis measurement instruments such as importance-performance analysis to plan service quality improvement and achieve their long-term goals and aspirations.

For the reasons stated above, it becomes a necessity to conduct this research to ensure that the outpatient department embraces quality of service. Therefore, this study seeks to assess the influence of patient demographic characteristics on service quality in the outpatient department.

Patients' demographics which are the independent variable can be of different types including poor, worse, or good, and tend to change the dependent variable service quality.

1.2. PURPOSE OF STUDY.

General Objective

The study aims to assess the influence of Patients' demographic characteristics on service quality in the outpatient department at Komfo Anokye Teaching Hospital / Kumasi Ashanti.

1.3 Specific Objective

- To determine the level of service quality
- To determine whether patients' demographic characteristics influence service quality.
- To determine how patients- experienced quality influences their health status.

1.4 Research Questions

- What are the patients' perceived service quality levels?
- Do patients' demographic characteristics influence service quality?
- How does patient-experienced quality affect their health status?

1.5 Significance of the study

The study seeks to assess the influence of patient's demographic characteristics on service quality in the outpatient department at Komfo Anokye Teaching Hospital. The results from the study will be an important tool for management committees in the health sector as well as public and private sector stakeholders in Ghana's health system.

The influence of patient's demographic characteristics on service quality in the outpatient department will be clearly stated. These influences are stated to communicate to the management board of the facility and other stakeholders to identify the need to ensure the quality of service in the outpatient department. The results will help hospital managers use quality and diagnostic measurement instruments such as importance-performance analysis to plan service quality improvement and achieve their long-term goals and aspirations.

Patients' problems will be directly communicated to management for redress to ensure quality for all patients in subsequent times. The study will again contribute to knowledge for researchers as a great source of reference material.

1.6 Scope of the study.

The study aims to assess the influence of patient's demographic characteristics on service quality in the outpatient department. Given this, the primary source of data was used for analysis. The primary data source was the use of quantitative data sources involving structured in-depth pretested interviews with hospital clients together with structured questionnaires. Face-to-face interviews were used to collect data from respondents who on the contrary could not complete the questionnaires themselves due to language barriers.

1.7 Organization of the Study

The study is categorized into five chapters. The first chapter elaborates on the background of the study, the problem statement, the objective of the research, the research questions, the significance of the study, the scope of the study, and lastly the organization of the study. Chapter two discusses the review of related

literature. Research related to the topic under consideration is reviewed in line with the study's specific objectives. Chapter three dwells on selected studies for review with their accompanied processes for analysis. Chapter four throws a lighter on presenting the results of the review and discusses the specific objectives. Chapter Five discusses the summary conclusion as well as recommendations for future research.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter clearly outlines and presents a review of relevant related literature to the research under consideration. The sources of information required for the completion of this chapter include journals, scientific articles, dissertations, theses from previous students, the internet, and conference proceedings. The information gathered from these sources is amalgamated into the summary for a clear understanding for readers and researchers.

2.1 Conceptual Definition

The conceptual definition emphasizes analyzing and observing already present information on a given topic. This definition is a working one that is specifically assigned to a concept, directed to efforts in the improvement of exact measures. Conceptual definitions help the purpose of readers understand conflicting terms or concepts and increase the reliability of the research findings through the interpolation of variables. These concepts include Service quality and the Outpatient department, - (Baalbaki, Ahmed, Pashtenko Makarem, (2008).

2.2 **Service Quality**

Service quality is an indisputable element that cannot be looked down upon in any healthcare sector since it leads to customer gratification as much as primary healthcare is concerned. There has been a dramatic change contemporarily from how hospitals were judged, from medical services offered to the quality of service rendered (Itumalla, 2012).

The term Service Quality is a combination of two separate words, Service and Quality. Service means an activity that is intangibly rendered to humanity whereas quality is a tool that is strategically designed by the service provider for the customer to receive better services to obtain excellent performance and operational efficiency, - (Ramya, Kowsalya, and Dharanipriya 2019).

The concept of service quality has been widely studied, proposed, and explained in some kinds of literature including Gronoos, - (Gronoos 2001) postulated that service quality is the variation that exists between what the customer anticipates observes, acknowledges, and/or receives.

(-Fatima, Humayun, Iqbal, and Shafiq, (2019) also expressed their views on service quality and they said that; service quality differences between customer expectation and hospital performance through the measurement of functional quality dimensions with its associated five components as tangibility, reliability, responsiveness, assurance, and empathy.

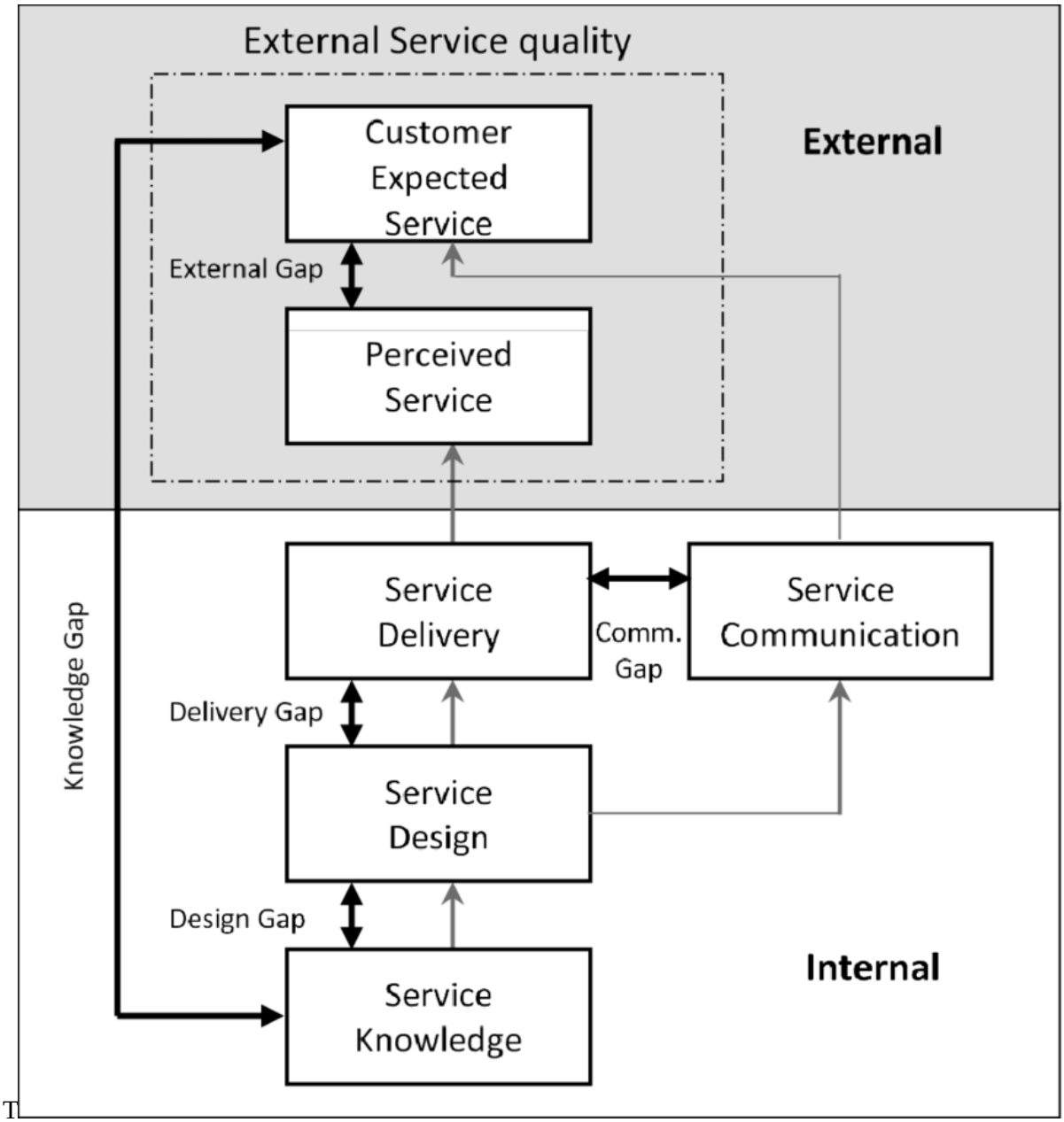
2.3 Measurement of service quality.

Ramya et al., (2019) proposed that there are two main methods to measure service quality. The methods include Gap Analysis Service and Performance Measures.

2.4 Gap analysis

The Gap Analysis model for measuring service quality was mainly propounded by Parasuraman in 1985. The model showed how customers perceived service quality as under the influence of certain unique gaps to meet their expectations.

Figure 2.1. The SERVQUAL Service Quality Model: Saleh and Ryan, (1991).



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Gap 1: The gap between the expectations of customers and Management perceptions.

This gap arises because of a lack of upward communication and inadequate market research. The gap can be reduced by strengthening the systems of communication among customers and service providers and adopting appropriate research strategies to know the needs of clients. SERVQUAL scale is the tool used to measure the scores by comparing the scores with management and customers.

Gap 2: This gap exists between the perception of Management and the specification of service quality. Service providers do not recognize the standard of service expected by customers. This happens because of the inadequate commitment of management to provide better services and a lack of proper leadership roles. It can be reduced to the barest minimum by strengthening the service delivery processes and getting better and more understandable organizational aims, aspirations, objectives, and goals.

Gap 3: This is the gap that exists between Service quality Specifications and delivery. The question that arises from this gap is what would be the specifications and delivery of the service? This gap comes from the differences in the original service delivery. Service providers do not give their optimum expected by management in terms of delivery. The factors that militate against this gap are ineffective recruitment processes, lack of intrinsic and extrinsic motivation as well and poor incentive packages. Adequate support systems for employees and choosing qualified human resource management are among the solutions to eliminate this gap.

Gap 4: This is the gap between communication in the external environment and Service delivery. The question that arises from this gap is, what would be the mode for the service delivery to the external environment? This comes about because of promises that are overemphasized to customers and inefficient communications to customers. Improving effective communications and fulfilling promises are the best ways to eliminate this gap.

Gap 5: This is the gap between quality that is perceived and expected quality. What are the expectations of customers with their perceived services? This is because of the differences and inequalities between customers' perceived services and Service expectations. This can be duly overcome by recognizing, determining as well and monitoring the perceptions and expectations of customers using appropriate tools.

Service performance measures.

Service Performance measures can be grouped into two main categories in measuring service quality. They are soft measures of service quality and hard measures of service quality, - (Ramya et al 2019).

The soft measure of service quality

These are measures that are not readily observable and are carried out by conversing with customers and employees through surveys.

Regarding customer surveys, individual customers may be asked to give their actual impressions of the service delivery through questionnaires or interviews.

For employee surveys, performance analysis can be done internally to determine the level of service quality rendered to customers. Retention levels of customers as well as Reports from Performance evaluations are key factors in monitoring the quality of services that are delivered, - (Ramya et al 2019).

The hard measure of service quality.

This includes activities that are monitored and measured through audit processes - for example, customers waiting time to see doctors, customer appointments, and review times.

Outpatient Department

The outpatient department can be defined as a part of the hospital with designated physical facilities doctors, and nurses as well as other staff workers with regularly allotted hours to provide care for patients not registered as inpatients. It also constitutes a hospital department where patients receive diagnosis and treatment but do not stay overnight in the hospital facility, - (Afridi 2019).

It is the primary contact between a patient and a hospital which adds a significant contribution to a hospital's revenue, - (Pouragha et al., 2016).

2.5 Theoretical Review

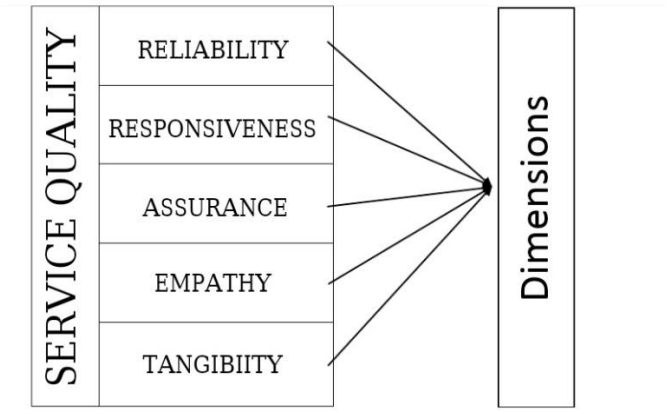
The theoretical review explains the theories considered in this research and it includes the Gap and SERVQUAL model.

The gap model and SERVQUAL instrument were developed by Parasuraman, Zeithaml, and Berry, (1985), - to identify and measure the gaps that exist between customer expectation and perceived service. The gap between customer expectations and perception of performance greatly determines the level of service quality from the perspective of the customer.

The SERVQUAL instrument is made up of 22 statements that assess consumer perceptions and expectations regarding service quality. Respondents rate their level of agreement or disagreement with the statement given. Consumer perceptions are based on the actual service they receive whereas their expectations chiefly rely on past experiences and information received.

The SERVQUAL instrument relies on the dimensions of service quality based on five aspects. These dimensions are Reliability, Tangibility, Responsiveness, Assurance, and Empathy.

Figure 2.2. Dimensions of Service Quality: Saleh et al., (1991)



Reliability

This is the ability of the firm to perform the promised service dependably and accurately. The firm delivers the promised service on every occasion. These promises are in terms of delivery, service provision, problem-solving as well as pricing. Companies that keep their promises attract more customers and are worth it, more especially, the companies' service outcomes and their core service attributes. Services not frequently performed as promised resulted in complete failure for customers, - (Amporfro et al 2021).

Tangibility

This refers to the physical facilities, equipment, the appearance of personnel communication materials, and technology. Customers must be pleased with the totality of the appearance of physical facilities and the general workers. In as much as these services are tangible, customers compare the tangibles associated with the services that are provided to derive their perception of service quality. Customers give answers to the questionnaires designed for tangibility based on the structure and physical layout, - (Sureshchabdar, Rajendran, and Kamalanabhan, 2001).

Responsiveness

It is the desire and willingness to assist customers by providing prompt services. It entails attentiveness and promptness in meeting customers' requests, complaints, questions, and problems. This dimension ensures that staff is maintained to service equipment in the shortest possible time. The lengths of time customers must wait for assistance, help, and an answer to problems communicate responsiveness to customers. The ability to customize the needs and flexibility of customers is a factor considered in responsiveness. This condition can be improved by constantly observing the process of service delivery and the attitude of employees toward customers' requests, - (Parasuraman,1985).

Assurance

This dimension is the knowledge and courtesy of employees and their ability to inspire trust and confidence in their customers. It plays a vital role in the knowledge of the job and skills, accuracy, courtesy of employees, and ensured security. This entails serving the customer efficiently and effectively, - (Mmutle, and Shonhe, 2017)

Empathy

This dimension deals with the caring, individualized attention that the firm provides to its customers. This dimension emphasizes that individual customers receive the needed services and are seen as special customers of the company. The company ensures that individual customers' needs, wants and preferences are adequately catered for, - (Taher, Walburg, and Shafei, 2019)

2.6 Empirical Review

Empirical review is based on observed and measured phenomena where knowledge is derived from actual experiences rather than from a theoretical basis. This analyses previous empirical studies to provide an answer to a specific research topic. Moreover, it serves as the greatest opportunity to test the validity of different assumptions in the form of hypotheses before arriving at the finding.

2.7 Relationship between service quality and Patients' demographic characteristics

Demographic characteristics of patients play unique roles in the measurement of service quality in healthcare sectors, - (Tinoco, Candido, and Feliciano, 2018) argue that patients' educational levels play a role in influencing the perceived quality of service. Other demographic factors of patients include civic status, employment history, residential status, gender, health status, and age. Their results suggest that patients' overall educational level has a strong negative influence on service quality. Notwithstanding these factors, Ahmed et al., 2017 postulate that there is little relationship between patients' demographic features and service quality.

According to Ivan and Dragan, (2017), certain socio-demographic factors tend to influence service quality. These factors include age, gender, and marital status. The influence of age and gender on service quality varies from person to person. Men are more content with the quality of service received than women and marital status does not correlate positively with service quality.

According to (-Lal, Vij, and Jain, (2014), age has a significant and negative influence on service quality, in that older people tend to have little considerable opinion on reliability, functional quality, personal interactions, outcome quality, and overall service quality. However, Ivan and his colleague write that

service quality is greatly affected by a well-being index to include patients with poor financial backgrounds and with little education getting better with hospital service than their opposite counterparts.

A study conducted by Ajavi and Oluwale (2015) suggests that some specific socio-demographic variables are directly connected with the service quality patients receive. These are the literacy level of patients and their income distributions.

Patient income disparities have a greater influence on service quality. There is therefore an undeviating inter-relationship between socio-demographic features and patients. High levels of service quality remarkably correlate with patients' standard of living. However, patients' age and occupational status contribute a little to service quality with nursing care quality. The preponderance prominent visible independent indicator with a direct interrelationship with patients is age. Older patients have a strong correlation with service quality.

Lower family income levels have a weak correlation with service quality. Patients' financial status determines the kind of hospital service to assess. (Ivan et al., 2017).

Among Patients' demographic variables, occupation is a significant contributor that affects customers' perceptions and their totality of service quality, (-Safakli (2007) indicates that the perception of service quality differentiates among customers of varied occupations. It has been shown that people patronize services that match their occupational requirements.

2.8 Relationship between service quality and patient's health status

The relationship between service quality and a patient's health status is an important factor to consider. Research work (-Rahmqvist (2001) postulates that patients with chronic diseases tend to appreciate a better service quality than healthier patients. Non-chronic patients with poor health status and pain do not experience a better quality of service but rather their conditions reduce the overall impact of service quality they experience.

Moreover, a study conducted by (-Kaldenberg, (2001) reveals that certain health status scales account for a significant relationship with service quality. These patients' health statuses are not limited but include vitality, bodily pains mental illness, and social functioning. The study observes reasons why many patients

are hospitalized by examining the relationship between service quality and health status under three broad groups.

Results reveal that the totality of patients' mental health among the treatment group is good. Patients in the cardiology department experience better service quality followed by surgical patients. A study conducted by (-Tateke, Woldie, and Ololo (2012), indicates a positive correlation between self-pronounced health status and quality of service. A significantly large number of patients who are discharged from the hospital are content with the services provided.

2.9 Relationship between patients experienced quality and health status.

Patients experienced quality as a major measure of quality continues to evolve and develop. Jason (2014) clearly defines patients' experiences as the sum of all interactions that are uniquely shaped by a company culture influencing the perceptions of patients across the uninterrupted succession of care.

Therefore, it relies on the organization to manage both the emotional and physical problems that patients experience whilst they undergo healthcare procedures. This entails improving patients' mental, social, and physical health needs. This can be maximized by shaping and capitalizing on the attitude of employees' relationships as well as the services they render. With this approach, a dynamic positive experience will be provided when there is a strong relationship between patients' and employees' empowerment.

The research significantly shows that positive patient experiences tend to have a well-balanced relationship with clinical quality. Patients who have better care experiences are often committed to treatment plans, acknowledge medical counsel, and are occupied in their care, (-Brown, Roseman, and Shaller 2010).

Patient experience quality has a value that is inherent within the parents themselves and their families, associated with both clinical proceedings and outcomes. Much research works to prove that patient experience positively correlates with the prevention of diseases and management, obliging medical counsel and treatment processes. If a patient will change or maintain a health provider, then it relies on their previous experiences. A good patient experience is in line with lower health risks (-Anhang Elliot, and Zaslavsky, (2014).

CHAPTER THREE.

METHODOLOGY

3.0 Introduction

This chapter provides specific procedures, techniques, and methods that were used to identify processes and select and analyze the data on the topic under discussion. The systematic framework that was used to solve the research problem was evaluated in line with the research aims, objectives, and questions.

3.1 Research design

The research design employs coherent and logical strategies adopted to answer research problems and questions using empirical data. The decisions about the overall research and approach are investigated.

A cross-sectional design was used to measure the differences between the varieties of patients. The cross-sectional design makes use of survey techniques to gather data, which makes the process inexpensive and takes less time to conduct, - (Paul and Lavrakas, 2008). The method made use of primary research data as well as stratified sampling criteria evaluated to select the participants for the study.

3.2 Quality Assessment

The study made use of the SERVQUAL model based on five dimensions, subdivided into 22 questions or items, and measured based on a scale called 5-point Likert where patients responded to the questions that ranged from strongly disagree to agree, - (Pouragha and Eshan, 2016) strongly. Patients' perceptions and expectations of service quality were determined based on the scores associated with the five dimensions and they are, Reliability, tangibility, responsiveness, assurance, and empathy.

Service quality was first declared by the respondents followed by their perceived performance levels on the items. Responses were scored on a scale of one to five, where one signifies completely disagree, two represents disagree, three shows uncertain four represents agree, and five strongly agree.

The overall service quality (SQ) = Performance (P) less Expectation (E). This formula evaluated service quality among the patients using the above-mentioned dimensions.

3.3 Inclusion and Exclusion Criteria

Patients who participated in the study did it out of their own free will and the only inclusion criterion was the willingness to participate and patients who are above 18 years irrespective of their gender or ethnic groups.

However, patients with severe physical dysfunctions, mentally retarded, and stroke, and those unwilling to participate in the study were excluded from the study.

3.4 Research evidence

The search for the literature review was conducted using targeted search engines. These academic databases and search engines are Science-Hub, ScienceDirect, Google Scholar, PubMed, Web of Science, Semantic Scholar, and Academic Search. For easier usage of these tools, the DOI of the journals or articles, and specific keywords such as patients' demographics, outpatient department, and service quality were used to search for related areas.

3.5 Statistical analysis

Structured in-depth pretested interviews of patients were conducted with pretested questionnaires. Data was collected based on the questionnaires at hand. The period of data collection was from April 2021 to October 2021 at the Komfo Anokye Teaching Hospital, Kumasi Ashanti, and lasted for 6 months.

To facilitate easy data collection, the questionnaires were divided into thematic headings such as patients' demographics, levels of service quality, and patient health status. The questionnaires were translated into the local language to aid respondents in answering the questions.

The data were analyzed using IBM SPSS version 20 software, correlation, and regression analysis as well as statistical tests carried out. For quality assessment, the SERVQUAL technique was employed. The data were analyzed by using descriptive statistics with the results presented in standard deviation, percentages, frequencies, and tabular forms.

3.6 Ethical consideration

The commencement of data collection for the research began by communicating with the management board of (-Komfo Anokye Teaching Hospital- KATH-) for their permission to carry out the research. A clearance letter was received from the Ethical Review Committee for the process of research to begin. Similar procedures were carried out at the Outpatient Department to seek their consent.

Patients were told that their direct involvement in such data collection was not compulsory, but out of their own free will. There are no right or wrong answers to the questions, so they should answer the questions as truthfully as possible.

The pre-tested questionnaires were developed based on international standards. Patients were interviewed in the outpatient department by experts. The interview was based on their demographic characteristics such as age, gender, educational background, economic status residential area, marital status, health status, and perceived quality as well as levels of service quality.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 Introduction

Chapter four is based on the results obtained from the data and is analyzed on thematic headings referenced to the objectives of the study. The chapter also discusses the results obtained from the research.

4.1 Results

The study is a cross-sectional one with a total of participants of 120 patients interviewed based on demographic characteristics, levels of service quality, and health status. The sample had 70- (58.3%) males and 50- (41.7%) females considered for the study.

The mean age among the patients was 43 years with a standard deviation of 16.7 that ranged from 18 to above 72 years. Among these patients, 37.5% were from rural areas and 62.5% were also from urban areas.

The study revealed a greater portion of the patients had no formal education representing 47.5%, those that had primary and secondary education 31.7%, and 20.8% of the patients had a university education.

The study revealed that the number of patients married was 20.8%, those that were single were 33.3% and the proportion of them were widowed representing 29.2% whilst those patients divorced were 16.7%. A greater number of the patients were unemployed 33.3% or were housewives 41.7% and 25.0% had employment. On the other hand, the portion of the patients that had poor health status was 66.7%, those with fair health status was 13.3%, and either good 8.3% or excellent 11.7%.

In this study, most of the patients had low-income levels between 500−1000 cedis representing 45.8%, those that had an average income were 28.3% received between 1000 – 2000 cedis, 27.5% of the patients' received salaries between 1500 – 3000 cedis were classified as good and only 2.5% had excellent status receiving above 3000 cedis.

NB. 500−1000: 45−89 euros, 1000−2000: 89 – 177 euros, 1500 – 3000: 132 – 265 euro

Table 4.1 Patient Demographic Characteristics

Variables	Frequency	Percent	Z value	SD	Mean
Age of Patients					
Mean ±SD	43.0 ±16.7				
18 – 22 years	10	8.3	0.09	1.4	20
23 – 27 years	15	12.5	0.14	1.5	25
28 – 32 years	5	4.2	0.22	1.6	30
33 – 37 years	25	20.8	0.31	1.58	35
38 – 42 years	14	11.6	0.43	1.58	40
43 – 47 years	6	5.0	0.54	1.58	45
48 – 52 years	5	4.2	0.65	1.58	50
53- 57 years	12	10.0	0.75	1.60	55
58- 62 years	8	6.7	0.84	1.60	60
63 – 67 years	11	9.2	0.90	1.60	65
68 – 72 years	9	7.5	0.94	1.60	70
Gender				14.14	
Male	70	58.3	0.31		60
Female	50	41.7	0.14		
Residential Area				21.21	60
Urban	75	62.5	0.31		
Rural	45	37.5	0.12		
Education				16.09	40
No Schooling	57	47.5	0.20		
Primary & Secondary	38	31.7	0.07		
University	25	20.8	0.03		
Marital Status				9.12	30
Married	25	20.8	0.03		
Single	40	33.3	0.43		
Widowed	35	29.2	0.45		
Divorced	20	16.7	0.02		
Economic Status				21.40	30
Excellent	3	2.5	0.01		
Good	28	23.3	0.04		
Average	34	28.3	0.06		
Low	55	45.8	0.18		
Health Status				33.42	30
Excellent	14	11.7	0.01		
Good	10	8.3	0.01		
Fair	16	13.3	0.02		
Poor	80	66.7	0.43		
Employment				10	40
Housewife	50	41.7	0.14		
Unemployed	40	33.3	0.43		
Employed	30	25.0	0.05		

Demographic characteristics Concerning the ages of patients, the mean age of 43 years was observed with a standard deviation of 16.7. One Standard deviation either above or below the mean age is from the range of 26.3 to 59.7. This implies that 68% of the patients will be aged between 26.3 and 59.7 years.

95% of the patients were 43.0 plus or minus 33.4 years. That is two standard deviations away from the mean. Again 99.7% of the patients were 43.0 plus or minus 50.1 years, three standard deviations from the

mean. The standard deviation for the patients' age is high, implying that the data points were dispersed from the mean. The Z score of 0.09 for patients with an age range of 18 to 22 years corresponds to 0.53 on the Z table. This means that patients within this age range are 53% above the mean age and are also 47% below the mean age of the distribution.

Conversely, patients from 68 to 72 years obtained a z score of 0.94 with its corresponding value of 0.82. This implies these patients are 82% above the mean and 18% below the mean. Lastly, the age of 63 to 67 years was 81% above the mean and 19.0% below the mean.

4.2 The impact of respondents' age on perceived service quality

With an increase in age, patients lowered their expectations that were assigned to the scores in the Reliability and responsiveness dimension where a lower number of respondents opted for strongly agree. There were insignificant correlations between respondents' age and the level of agreement attributed to the dimension. Empathy is the dimension where patients assigned strongly agree and was influenced by the age of respondents. However, Responsiveness also was influenced by the age of patients, in that, it was the only dimension that attracted a high percentage of scores for agreement.

Table 4.2 The level of respondents' Perception of service quality (SERVQUAL Model)

Dimension	Completely Disagree	Disagree	Uncertain	Agree	Strongly Agree
Tangible	26-(21.6)	28-(23.3)	26-(21.6)	22-(18.3)	18-(15.0)
Reliability	33-(27.5)	28-(23.3)	30-(25.0)	20-(16.6)	9-(7.5)
Responsiveness	30-(25.0)	25-(20.8)	29-(24.1)	30-(25.0)	10-(8.3)
Assurance	32-(26.6)	35-(29.1)	22-(18.3)	20-(16.6)	11-(9.2)
Empathy	32-(26.6)	22-(18.3)	24-(20.0)	23-(19.1)	19-(15.8)

Table 4.2 above shows the level of respondents' perception of service quality. In terms of physical facilities, equipment, and appearance of personnel (tangibles), 21.6% of the respondents completely disagreed, 23.3% disagreed, 21.6% were uncertain about their decisions, 18.3% agreed and 15% opted strongly agreed. In the performance of promised services dependably and in accuracy, 27.5% completely disagree, 23.3% disagree, 25.0% uncertain, 16.6% agree and 7.5% strongly agree.

Responsiveness is the willingness and ability to assist customers and provide prompt services, 25.0% completely disagree, 20.8% disagree, 24.1% are uncertain, 25.0% agree and 8.3% strongly agree.

On the other hand, the courtesy and knowledge of employees coupled with their ability to inspire trust and confidence, 26.6% completely disagree, 29.1% disagree, 18.3% are uncertain, 16.6% agree and 9.2% strongly agree. Regarding caring and providing individualized attention by the firm, 26.6 completely disagree, 18.3% disagree, 20.0% are uncertain, 19.1 agree and 15.8% strongly agree.

The totality of respondents' Perceptions of service quality were extremely low after the evaluation of the services the hospital firm provides because many respondents completely disagreed or disagreed in terms hospital's overall performance. Similarly, many respondents were uncertain about their choices of decisions about the hospital in that they were residing in rural areas or had not assessed the services of the hospital before.

Table 4.3 The level of respondents' Expectations of service quality

Dimension	Completely Disagree	Disagree	Uncertain	Agree	Strongly Agree
Tangible	10- (8.3)	24-(20.0)	3- (25.0)	32-(26.6)	24-(20.0)
Reliability	10- (8.3)	31-(25.8)	27-(22.5)	33-(27.5)	19-(15.8)
Responsiveness	8- (6.6)	30-(25.0)	2- (24.1)	35-(29.1)	18-(15.0)
Assurance	17 -(14.1)	32-(26.6)	3- (17.5)	31-(25.8)	10-(8.3)
Empathy	12- (10.0)	27-(22.5)	36-(30.0)	29-(24.1)	16-(13.3)

Table 4.3 clearly illustrates the respondents' expectations of service quality. A greater proportion of the respondents had the mindset that service quality at the outpatient department is good. A greater number of the respondents agree or strongly agree that hospital performance is best beforehand. Respondents already had the feeling that the hospital provides better needs for its consumers.

Table 4.4 Service Quality Dimensions Gap Scores Analysis

	Perception					Expectation					Gap				
Quality dimension	CD	D	U	A	SA	CD	D	U	A	SA	CD	D	U	A	SA
Tangible	21.6	23.3	21.6	18.3	15	8.3	20	25	26.6	20.0	13.3	3.3	-3.4	-8.3	-5
Reliability	27.5	23.3	25	16.6	7.5	8.3	25.8	22.	27.5	15.8	19.2	-2.5	2.5	-10.9	-8.3
Responsiveness	25	20.8	24.1	25	8.3	6.6	25	24.1	29.1	15	18.4	-4.2	0.0	4.1	-6.5
Assurance	26.6	29.1	18.3	16.6	9.2	14.1	26.6	17.5	25.8	8.3	12.5	2.5	0.8	-9.2	0.9
Empathy	26.6	18.3	20	19.1	15.8	10	22.5	30	24.1	13.3	16.6	-4.2	-10	-5.0	2.5

NB: CD completely Disagree D- Disagree, U- Uncertain A- Agree SA- Strongly Agree

Table 4.4 shows the mean gap scores in patients' perceptions and expectations. In general terms, patients' expectations statistically are more than their perceptions except in the empathy and assurance dimension where patients' perceptions exceed their expectations. This implies that patients strongly agree with the individual attention given to them by the hospital as well as the knowledge, courtesy, and the workers' ability to inspire trust and confidence.

A gap existed in reliability and tangibility dimensions. This implies patients were not contemptuous of the service delivery. In the case of the responsiveness dimension, there was no gap in the agreed sections, and this implies that respondents were content with the service.

The negative scores associated with reliability and tangible imply a gap and hospital managers should with immediate effect invest in equipment as well as technology in the hospital and enforce employee disciplines. This is because most hospital clients assess the hospital service based on the tangibles and the price they are charged, - (Purcarea, Gheorghe, and Petrescu, 2013).

Table 4.5 The impact of gender on (1) the level of respondents' expectation of service quality and (2) the level of respondents' perceptions of service quality. SERVQUAL Model.

Dimension	Gender			P- Value	Mean	Standard deviation
	Respondents Perception					
	Median	IQR	range			
Tangibility	24	7	10	0.15	26	4.0
Reliability	28	17	24	0.18	28	9.7
Responsiveness	29	12.5	20	0.20	29	8.5
Assurance	22	18	24	0.10	22	9.6
Empathy	23	7.5	13	0.12	23	4.8
	Respondents Expectation					
	Median	IQR	range			
Tangibility	24	14	22	0.13	24	8.6
Reliability	27	17.5	23	0.17	27	9.4
Responsiveness	29	19.5	17	0.20	29	10.9
Assurance	30	18	22	0.17	30	9.9
Empathy	27	18.5	24	0.17	27	9.8

Table 4.5 shows respondents' Perceptions and Expectations of service quality. The least p values obtained in respondents' perception were observed in the Assurance and Empathy dimensions with values of 0.10 and 0.20 respectively with their corresponding standard deviations of 9.6 and 4.8. These values do not make the dimensions statistically significant. However, respondents' Expectations showed that the tangibility dimension had the lowest p-value score which is equally not significant.

Table 4.6 Cross-tabulation of Gender and Patients' Perceptions. SERVQUAL model

Dimension Gender	Completely Disagree	Disagree	Uncertain	Agree	Strongly Agree
Assurance-male	5	17	17	12	19
female	2	12	11	11	14
Total	**7**	29	28	**23**	**33**
Reliability -male	5	10	18	21	16
female	3	12	10	10	15
Total	**8**	22	28	31	**31**
Tangible- male	3	20	18	17	12
female	5	10	10	12	13
Total	**8**	**30**	**28**	**29**	**25**
Empathy- male	4	16	15	20	15
female	5	10	11	15	9
Total	**9**	**26**	**26**	**35**	**24**
Responsiveness					
male	4	14	15	17	20
female	4	15	14	7	10
Total	8	29	29	24	30
Overall Total	**40**	**136**	**139**	**142**	**143**

Based on gender in determining the performance of the hospital, 2.7% of respondents completely disagree on the assurance, reliability, tangible empathy, and responsiveness on the part of the hospital. 13.3% disagreed, 24.7 were uncertain, 33.5% agreed and 25.8% strongly agreed. Given these percentages, 33.5% proportion of the respondents perceived and agreed that the performance of the hospital is good.

On the contrary, the value that the clients received based on their expectations levels in Table 6 indicates that service quality is abysmal, and they were not content with the hospital's performance. This percentage is 36.6% representing respondents who agreed to the performance based on the dimensions stated.

Moreover, 27.2% opted to strongly agree with their expectation levels as compared to 25.8% of respondents in perception levels. It is therefore obvious that the value of services received by the respondents does not exceed their expectations; hence the perception is not better than expectations.

Table 4.7 Cross-tabulation of Gender and Patient Expectations, SERVQUAL Model

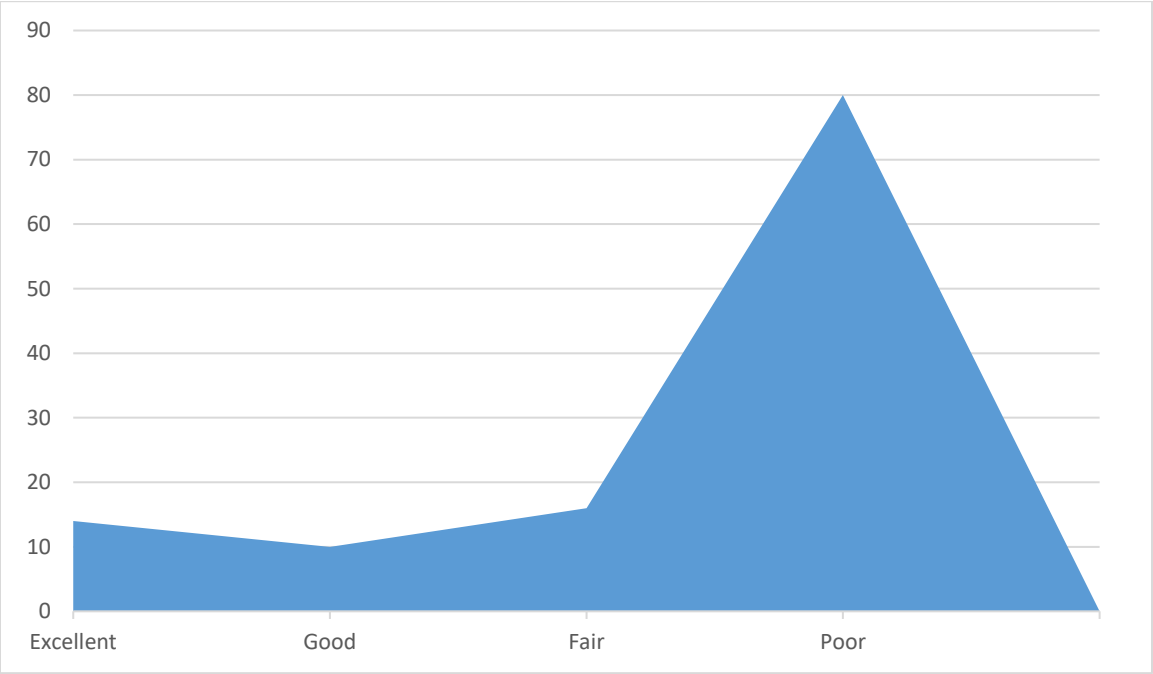
Dimension Gender	Completely Disagree	Disagree	Uncertain	Agree	Strongly Agree
Assurance- male	8	8	10	27	17
female	10	8	7	10	15
Total	**18**	**16**	**17**	**37**	**32**
Reliability -male	2	9	20	14	25
female	1	8	17	10	14
Total	**3**	**17**	**37**	**24**	**39**
Tangible-male	3	9	8	21	29
female	7	10	9	14	10
Total	**10**	**19**	**17**	**35**	**39**
Empathy- male	2	11	10	22	25
female	3	9	12	10	16
Total	**5**	**20**	**22**	**32**	**41**
Responsiveness-male	6	8	10	28	18
female	3	10	13	14	10
Total	**9**	**18**	**23**	**42**	**28**
Overall Total	**45**	**90**	**116**	**170**	**179**

Table 4.7 above indicates cross-tabulation of gender and Patient Expectations. It is observed that 7.5% of respondents completely disagreed with their expectations of the hospital, 15% Disagreed, 19.5% of respondents were uncertain about their expectations of the hospital, 28.5% agreed and 29.8% strongly agreed with the expectations of the hospital. Respondents' expectation levels were high.

4.3 The impact of respondents' gender on perceived service quality.

There were 120 respondents sampled population for the study. There were 70 males representing 58.3% and 50 females representing 41.7%. In terms of gender in the determination of respondents' perceived service quality, more males influenced the decision in almost all dimensions except in the Tangibility dimension which had an equal number of males to females. There was a significant impact of respondents' gender on perceived service quality, and it was dominated by male respondents.

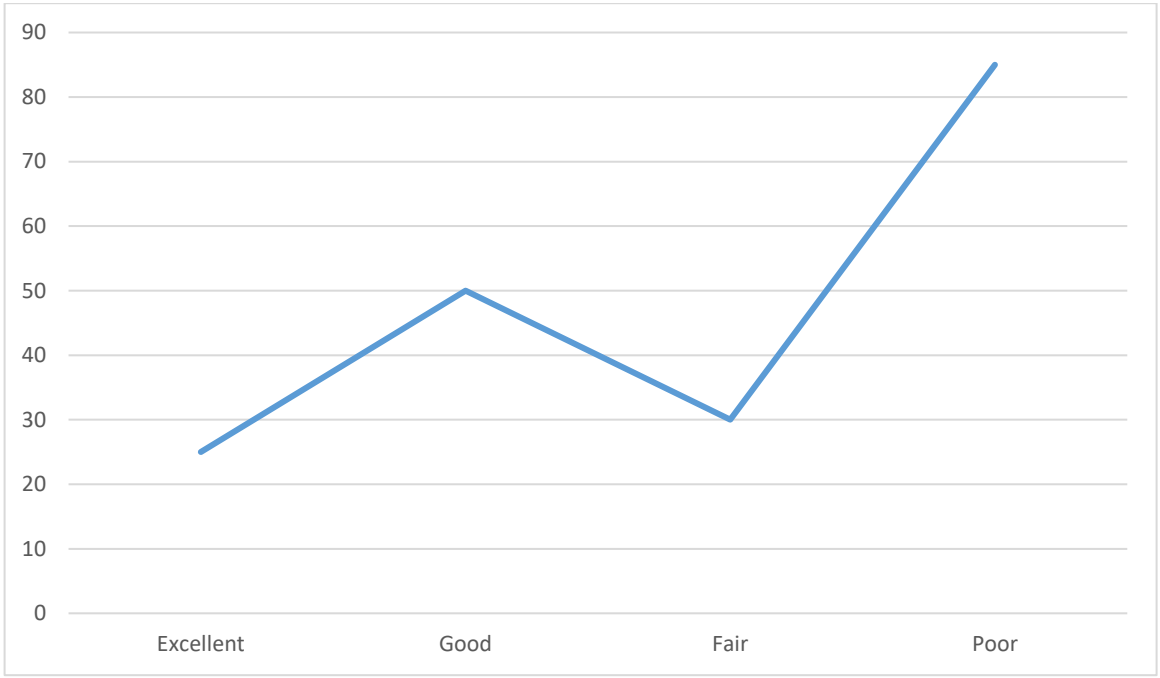
Figure 4.3. Patients Health Status



The chart shows Patients' health status which ranges from poor, fair, good, and excellent. Patients with poor health status constitute 66.7% of the respondents. Patients whose health status was fair represented 13.3%. Those who had good health status were 8.3% and patients with excellent status had only 11.7%.

It indicates that patients with good health status had a major percentage followed by patients with poor health status and they were patients of advanced ages. Those who had excellent health status were those from excellent economic status. Patients with fair health status are those from average economic status and patients with poor health status are from low economic areas.

Figure 4.4. Patient's Health Status and Age



4.4 The Impact of Respondents' health status on perceived service quality

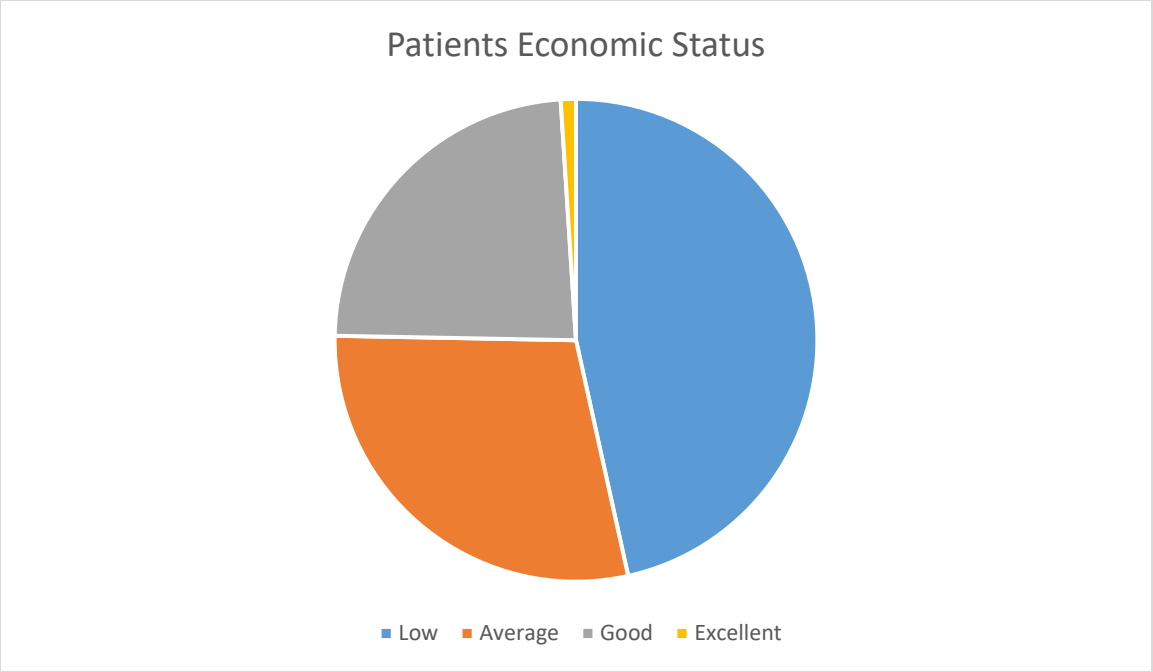
The graph of patients' health status and their ages. The health status ranged from excellent, good, fair, and poor. Patients with an age range of 18 to 27 years had excellent health status which represents 11.7%.

Those who had good health status were the patients from 25 to 50 years and they represented 8.3%. Patients with fair health status are those in their 30s and occupy 13.3%

Patients with poor health status are those who are above 50 years representing 66.7%.

As patients increase in age, their health status declines. This is obvious in the graph above that, patients who are above 50 years had poor health status. There was no significant impact on respondents' health status and perceived service quality in the case of the questionnaires administered.

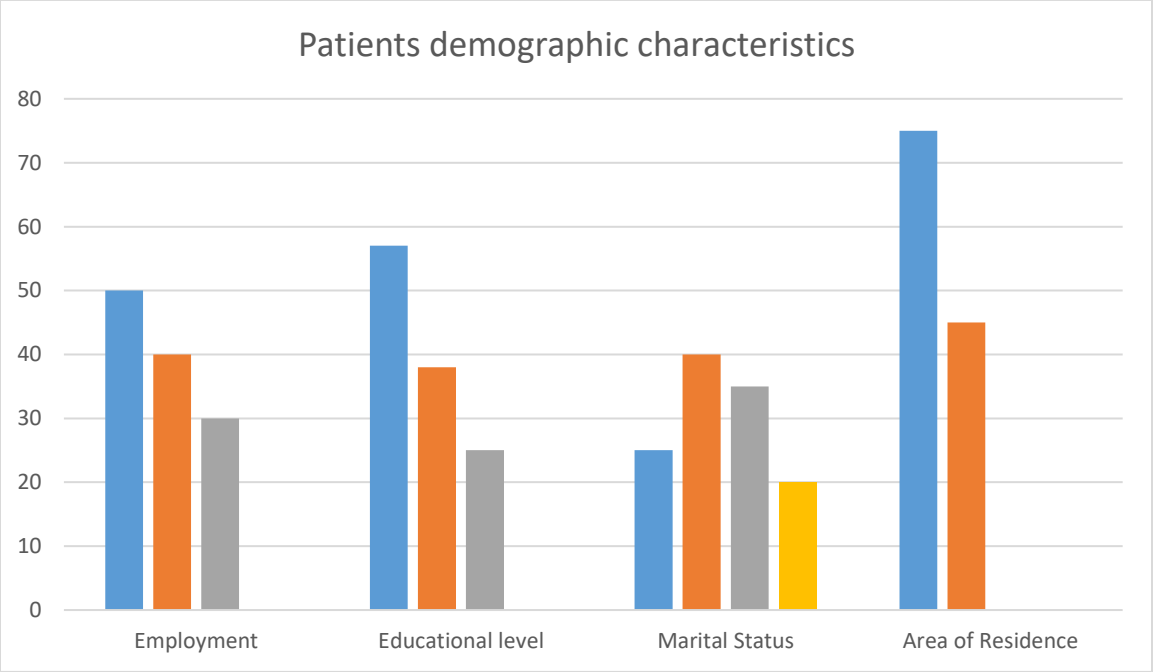
Figure 4.5. Patients' economic status



The figure above shows patients' economic status which ranges from excellent, good, average, and low. Patients with excellent economic status are only three patients representing 2.5%.

Patients with good economic status are 23.3% and they constitute 28 patients, those with average status are 28.3% with 34 patients and finally, those with low economic status are 45.8% comprising 55 patients.

Figure 4.6. **Patients' demographic characteristics**



NB.

Employment levels: From left to right: Housewife, Unemployed, and Employed

Marital Status: Married, single, widowed, and divorced.

Educational Levels: No schooling, Primary, and Secondary and University

Area of residence: Urban and Rural

4.5 The impact of educational level on Perceived service quality.

Concerning the graph above, many respondents had no formal education which constituted 48.0% of the entire population, those that had primary and secondary education were 36.5% and universities were 15.5%. Advancement in education constituted higher expectations of service quality. This can be seen in the responsiveness dimension where 19.5% opted to agree and in Empathy levels 14.5% strongly agree.

The level of respondents' education did not have a significant impact on the overall service quality, because most respondents were uneducated, and completely disagreed with reliability 34.0% and responsiveness

34.0% respectively. Respondents' level of education did not pose a significant impact on their scores for perception in the questionnaires and in the dimensions.

Table 4.8 Distribution of responses from patients about different parameters of their health status

S. No	Questions regarding health status	Correlation	Mean	SD	Lower C. I	Upper C. I
1	How healthy do you see yourself	0.22	2.01	0.89	0.04	0.38
2	Do you have any chronic diseases	0.24	1.61	0.65	0.40	0.70
3	Do you have any hereditary disease	0.20	1.54	0.50	0.02	0.37
4	How often have you felt down or depressed over the past two weeks	0.01	1.83	1.21	-0.16	0.19
5	Have you been put on regular medication	0.28	1.65	0.65	0.11	0.44
6	How often do you get check-ups	0.18	1.67	0.76	0.06	0.35
7	Do you take your prescribed medications	0.18	1.62	0.72	0.01	0.34
8	What is the general attitude of the doctor-nurse relationship toward you	-0.06	1.38	0.48	-1.86	0.19
9	Do you have difficulties taking your medications	-0.72	1.55	0.53	-2.48	0.10
10	Has the hospital solved your health problems	-0.02	1.54	0.53	-0.18	0.17
11	Has any of your family members died after the diagnosis of a disease	-0.12	1.49	0.66	-0.29	0.05
12	Has the care rendered solved or worsened your problems	0.20	1.65	0.75	0.28	0.37

A confidence interval of 95.0% was considered.

Table 4. 8 shows the responses from respondents regarding their health status. Correlation coefficients, mean, standard deviation and upper and lower confidence intervals were calculated from their responses. There was a weak positive correlation between respondents' illness and health status. More so, there was a negative correlation between patients' health status and illness. An increase in respondents' illness resulted in a decrease in patients' health status.

Table 4.9 Regression Analysis of Patients' health status

Model	Sum of squares	df	Mean squares	F	Sig
Regression	12.922	10	1.29	1.69	0.09
Residual	83.04	109	0.76		
Total	95.97	119			

	Unstandardized Coefficients			Standardized Coefficients		
	B	Std. Error		Beta	t	Sig
Constant	1.82	0.68			2.66	0.09
Do you have any hereditary disease	-0.33	0.17		-0.18	-1.94	0.05
Have you been put on regular medication	0.06	0.14		0.04	0.42	0.67
Do you have difficulties taking medication	0.21	0.16		0.12	1.27	0.20
Has the care given solved or worsened your condition	0.39	0.13		0.32	2.96	0.004
Has the provider solved your problems	0.14	0.17		0.08	0.85	0.39
How long do you wait beyond the appointment time	0.13	0.07		0.18	1.87	0.06
How often do you get a check-up	-0.03	0.11		-0.02	-0.27	0.78
Do you take your prescribed medications	-0.03	0.12		-0.02	-0.24	0.20
Has any family member died upon diagnosis of an illness	-0.23	0.14		-0.17	-1.62	0.1
What is the general attitude of the doctor toward you	0.28	0.17		0.15	1.63	0.001

NB. Predictors (constant) questionnaires about respondents' health status

Table 4.9 shows a regression analysis of the patient's health status. The constant predictors questionnaires as the independent variable were tested against patient health status as the dependent variable. To obtain the relationship between dependent and independent variables, the p-value which in other words is known as the significant value should be a value below 0.01 that is ($p < 0.01$). The findings showed that there was

no positive relationship between the constant predictors and patient health status where a p-value of 0.09 was obtained greater than 0.01.

Table 4.10. Descriptive Statistics of Service Quality Constructs and Overall Service Quality of Patients Expectations

Service quality Variables	Mean	S. D	Rank
ASSURANCE			
1.1 The patients trust doctors' expertise and skills	2.63	1.24	3
1.2 Patients trust the skills and expertise of nurses	2.85	1.35	1
1.3 Patients feel secure in using hospital services	2.76	2.88	2
1.4 hospital staff are courteous and friendly to patients	2.50	1.13	4
RESPONSIVENESS			
2.1 Patients' needs are met promptly by the hospital staff	2.69	1.29	3
2.2 Patients are attended to according to appointment schedules	2.70	1.31	2
2.3 Patient requests are attended to by doctors and nurses efficiently	2.71	1.37	1
2.4 Patients receive feedback promptly	2.45	1.32	4
RELIABILITY			
3.1 Hospital services are performed correctly from the first day	2.96	1.31	1
3.2 Patients problems and queries are catered for by the hospital	2.93	1.37	2
3.3 Patients are confident in receiving treatment at the hospital	2.63	1.29	4
3.4 Documents are submitted without error by the hospital	2.69	1.29	3
3.5 Services are provided within the time	2.62	1.35	5
TANGIBLE			
4.1The hospital has modern equipment	2.77	1.38	2
4.2 Facilities of the hospital have a good status for patients	2.85	1.65	1
4.3 The hospital has a healthy environment	2.70	1.31	4
4.4 The hospital has clean toilet and bathroom facilities	2.75	1.29	3
EMPATHY			
5.1The hospital gives individual attention	2.77	1.32	1
5.2 The hospital operates at a time convenient to patients	2.62	1.29	3
5.3 Traditions prevailing in society are taken into consideration	2.46	1.33	5
5.4 The interests of patients are prioritized by the hospital	2.47	1.23	4
5.5 The medical staff responds to patients' complaints promptly	2.66	1.22	2
OVERALL SERVICE QUALITY			
1. The totality of the hospital treatment is the best	1.40	0.49	3
2. The hospital's overall medical care is best	1.66	0.47	1
3. The overall nurses' patient relationship is the best	1.43	0.97	4
4. The totality of the hospital management practices is best	1.58	1.32	2
5. Doctor-patient relationship was the best	1.43	0.49	2

Table 4.10 shows the descriptive statistics of service quality and the overall service quality of patient expectations. Mean, Standard deviations, and ranking order of the service quality variables were obtained. The ranking order of the service quality variables was based on the means obtained in each variable.

4.6. **DISCUSSIONS**

Patients' demographics are contemporarily used to measure the quality of service in the outpatient department.

A lot of studies critically examined service quality in various dimensions and contexts while ignoring some essential factors such as patient demographic variables. (Jerome and Ard, 2016).

The objective of this study was to determine the influence of patient's demographic characteristics on service quality in the outpatient department. Patients' demographic features that were covered in this study include gender, age, educational background, marital status, economic status, area of residence, employment levels, and health status. (Afzal, Rizvi, Azad, Rajput, and Tariq 2014), said that service quality means may be affected by gender, and gender differences in mean stages will be mixed. Women are more content and critical than men in terms of the medical care they receive.

This current study revealed that patient gender did not have a significant effect on service quality in the outpatient department even though, male patients were more than females. Patients' gender on perceived service quality was predominantly dominated by males but was not statistically significant.

It was observed in a few instances in empathy and responsiveness where there was an equal number of males to females. The P value 0.20 of respondents' Perceptions and Expectations in the responsiveness dimension tends to be equal but not statistically significant since this value is greater than 0.05 in Table 5. More so, respondents' perception showed low p values for Assurance and Empathy dimensions of 0.10 and 0.12 respectively but not statistically significant. In Respondent Expectations, Tangibility dimensions missed slightly the significance level with a value of 0.13, a mean value of 24, and a standard deviation of 8.6. However, a study conducted by (Fraihi, and Latif 2016) showed a significant association between gender and mean scores gap in tangibility and reliability dimensions. The expectations of females were higher than males. Age has both significant and negative effects on service quality. Consumers who are advanced in age hold a less favorable ideology concerning the reliability of a service in terms of functional

quality, outcome quality, and the totality of service quality as compared to younger consumers. (Jerome et al 2016).

The results of this study clearly showed that patient age had a significant relationship with service quality.

An increase in patients' age results in an increase in the z-value scores. This presupposed that patients were more dispersed from the mean as they increased in age. Higher Z values associated with an increased age give the assumption of a low probability of better service quality in the outpatient department. An increase in values increased in P value. As the patients increased in age, they realized that service quality was not better in the department.

As respondents increased in age, they lowered their expectations that were assigned to the scores in the reliability and responsiveness dimension where a lower number of respondents opted for strongly agree. There were insignificant correlations between respondents' age and the level of agreement attributed to the dimension. Empathy is the dimension where patients assigned strongly agree and was influenced by the age of respondents. However, Responsiveness also was influenced by the age of patients, in that, it was the only dimension that attracted a high percentage of scores for agreement.

There was also a high impact of respondents' age on their health status. As patients increase in age their health status also declines. An increase in age results in poor health conditions in patients.

It is statistically proven that a person's income has a strong effect on the choice of decisions made. Higher-income earners achieve a higher level of education and are more often engaged in finding out information before embarking on a decision. (Jerome et al 2016).

Research conducted by (Afzal et al 2014), revealed that patients who were less educated or illiterate were more content with the quality of service they received than those who were more educated or literate. The study reveals that many respondents were uneducated, and their choice of decisions on overall service quality was not compromised.

Those who were educated influenced their decisions in responsiveness and empathy dimensions. The level of respondents' education did not have a significant impact on the overall service quality, because most respondents were uneducated, and completely disagreed with reliability 34.0% and responsiveness 34.0%

respectively. Respondents' level of education did not pose a significant impact on their scores for perception in the questionnaires and in the dimensions.

Patients who receive less income expect to receive fewer expectations from their healthcare providers. Again, patients whose monthly income is low showed significantly higher levels of service quality as compared to patients with higher monthly income levels, - (Afzal et al 2014).

In this study, most of the patients had low-income levels between 45 to 89 euros representing 54%, those that had an average income of 17% received between 89 to 177 euros, 27.5% of the patients' received salaries between 132 to 265 euros and only 1.5% had excellent status receiving above 265 euros.

Fewer expectations were observed in the Assurance and empathy dimensions, with 6.5 and 8.5 percent respectively. This was attributed to the fact that respondents receive low- and average-income levels.

On the grounds of patients' residential areas, (-Manulik, Karniej, and Rosinczuk, (2018) in their study postulated that perceived service quality scores in the tangibility dimension significantly decreased in densely populated areas. In more populated areas competition is higher in cities among healthcare providers. In line with this study, many patients were from the urban areas, and thus because of competition patients chose to assess the hospital due to infrastructure design, hardware resources, their design, hospital personnel, and the fact that it is a teaching hospital. Meanwhile, it is observed that previous studies have not evaluated the impact of patients' places of residence on service quality delivery.

The study showed that the place of residence of respondents had an impact on scores related to expectation with 17.5% in the tangibility dimension. The study indicates that the more patients advance in age, the more their health issues decline. Younger patients had better health than older patients. There was no observed literature to support the assumption that patients' perceived health status was a major indicator of service quality delivery.

From Table 4.5 above, it is observed that 25% of the respondents in the dataset fall below 31.7, and 75% of the respondents from the dataset fall below 54.3. The spread of the data, which is the median 50% of the dataset is represented by 22.6. There was a strong correlation between respondents in the residential area and gender, in that the correlation coefficient between gender and residential area was one, suggesting a strong correlation. However, income and educational status have a negative correlation.

The correlation coefficient between income and educational status was calculated as -0.74. These variables tend to move in the opposite direction. It was observed that many of the respondents had no formal education and that matter, had a lower income level. Educational levels have a direct impact on income.

More so, respondents' education and employment status were correlated and there was a strong correlation between these two variables. The correlation coefficient was calculated as 0.99. The more respondents are educated the better employment opportunities they have. In the service quality constructs, the patients trust the skills and expertise of nurses with a mean of 2.85 followed by being secure in using the hospital services with 2.76. Meanwhile, the patients did not consider the nurses courteous, polite, and friendly but also trusted the doctor's skills and expertise as less important to the nurses.

On the part of responsiveness, even though patients' needs are attended to by the nurses and doctors within a specific time frame, results or feedback are delayed and not received promptly. This is because results and feedback were ranked the least. It can be observed that, although the patients truly rely on the services of the hospital, their working time can be changing, as patients can wait longer before they consult a doctor.

This is in line with research work by (-Lee, Kim, Choi, and Sunhee, (2009) where patients spend more time with non-physicians before a doctor consultation. This makes the patients spend more time with nurses, receptionists, and other personnel of the hospital.

Services are performed correctly by the hospital where patients' problems and queries are attended to through proper documentation with the needed trust and confidence from patients. It is observed that although these services are well and carefully performed by the hospital, patient waiting times are a major concern for the hospital.

Regarding the tangible aspect of the hospital, the hospital has good facility status with modern equipment where the bathrooms and toilet facilities are clean, respondents ranked the environment the least as being not healthy. It can be attributed to the fact that the environment is exposed to a greater number of people. This is in line with research conducted by (-Ramesh Neupane and Manju Devkota (2017), which indicated an arithmetic mean score of 4.06 attributed to tangible service quality and was the least important among the dimensions. The hospital gives patients personal attention to their interests at heart at convenient times and appropriately. However, traditions that prevail in the community were not taken into consideration by the hospital. The mean score of the empathy dimension was 2.59 with a standard deviation of 1.27.

Research conducted by (Mesut Akdere, Mehmet Top, and Sabahattin Tekingunduz (2018) posed that the empathy dimension had a mean score of 3.83 and a standard deviation of 1.04. This dimension was ranked fourth among all service quality dimensions.

The overall service quality observed by respondents indicated that the overall medical care is best followed by the hospital management practices. The type of treatment the hospital gives to the patients was ranked third and the relationship between the patients and nurses was ranked the least by respondents.

The order of importance of service quality dimensions by respondents were, Tangibles (2.77±1.40), Reliability (2.76±1.32), Assurance (2.68±1.65), Responsiveness (2.63±1.32), and Empathy (2.59±1.27)

Table 4.9 elaborates on the regression analysis of patient health status and constant predictors that explain the beta value. The results of the beta value defined comparative influences on patient health status. The researcher can examine the types of independent variables that had the most impact on the dependent variables. The findings from the study showed the general attitude of doctors toward patients had the most impact on patients' health status ($b = 0.32$, $t = 1.63$, $p < 0.01$). The second influence independent variable on patients' health status is the care given by the hospital which has these values ($b = 0.32$, $t = 2.96$ $p < 0.01$). According to (Emy Noor, 2016), the beta value should be between zero and one. Patient waiting time had a beta value of 0.18, $t = 1.87$, p-value more than 0.01, the beta value for easiness in taking medication was 0.12, $t = 1.27$, and p-value more than 0.01. Solutions to patients' problems recorded a beta value of 0.08, $t = 0.85$, and p-value of more than 0.01. Also, regular medication was recorded ($beta = 0.04$, $t = 0.42$, $p < 0.01$).

The findings indicated that doctors' general attitude toward patients and the care that the hospital gives had the most influence on the health status of patients. Results of this study showed a positive significant association between doctors' general attitude to patient health and the general care patients received.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.0 **CONCLUSION**

The research investigated the influence of patients' demographic characteristics on service quality in the outpatient department at Komfo Anokye Teaching Hospital in Ghana. This research again evaluated both the perceptions and Expectations of patients about service quality in a teaching hospital.

Primary data was collected from the patients whose numbers were 70 male patients and 50 female patients. Even though women were more content and critical than men in medical services received, perceived service quality was predominantly dominated by male patients but was not statistically significant in all dimensions. An increase in respondents' age lowered their expectations in the reliability and responsiveness dimension. The empathy and responsiveness dimensions were influenced by the respondents' age with a greater number of patients assigned with high scores.

The study revealed that many respondents were not educated, which caused their decisions on overall service quality not conciliated. The educated respondents compromised their decisions on service quality in responsiveness and empathy dimensions.

Low and average-income earners experienced fewer expectations in the Assurance and Empathy dimensions with many patients from the urban areas that assessed the hospital.

The regression analysis of patient health status showed that an improvement in these constant predictors – hereditary diseases, number of times for checkups, taking prescribed medication, death upon diagnosis of an illness, and general doctor attitudes- resulted in a negative impact on the patient's health status. However, an increase in these predictors: regular medication, easy access to taking medication, waiting - times, medical care, and solutions to patients' problems showed a positive impact on patients' health status. The results from the regression analysis on constant predictors were statistically significant.

Descriptive statistics of service quality constructs and overall service quality of patients' expectations indicated that; the skills and expertise of nurses were ranked first while nurses' courtesy and friendliness were least in the assurance dimension. Efficient response to patients' requests was ranked first whereas patients' feedback was least in the responsiveness dimension. Again, in the reliability dimension, service

performance was ranked first but with services not performed within time. The tangibility dimension proved good facilities with an unhealthy environment. The empathy dimension showed that individual patient attention was given without taking into consideration the prevailing traditions in society. The overall service quality proved that medical care is considered the best priority, but management practices need to be improved.

5.1 **RECOMMENDATIONS**

The study did not capture other strategies for measuring service quality such as the SERVPERF Model. Because of this, there could be extensive study in this area by future researchers.

It is also recommended to investigate why patients assess the hospital so much even though some of their services are not up to expectations.

Future researchers can carry on research in another department such as the inpatients department and the Emergency Care Unit on Service Quality.

Management should adopt a routine customer evaluation system to determine patients' experiences and the activities of the outpatient department as an effective strategy for increasing the perceptions of patients.

More so, the hospital management should enforce the use of a regular patient capacity assessment as well as random audits on patients' data returns and hospital performance that focus on Service quality.

Bibliographic References

Abbasi, M.A., Zarei, E., Bagherzadeh, R., Hossein, D., and Pouria F. (2019): Evaluation of service quality from the patient viewpoint. International Journal of Health Service Research (170), pp. 1-7.

Acharya, S., Ghimire, C., Shrestha, A., Yadav, K. A., and Bhandari, S. (2019): Patient satisfaction with nursing care in five major departments in Tertiary Care Centre. Journal of the Nepal Medical Association, (57), pp. 367-370

Afridi, S.A (2019): Impact of service quality on customer Advocacy: Mediating role of customer Loyalty, a case of the selected private hospital of Peshawar. Sarhad Journal of Management Science, (51) pp.157-174.

Afzal, M., Rizvi, F., Azad, A.H., Majid, H., Rajput, A.K., and Tariq, N. (2014): Effect of demographic characteristics on patients' satisfaction with a health care facility. Journal of Postgraduate Medical Institute. 28(2): pp. 154-160

Al-Abri, R., and Al-Balushi, A., (2014): Patient Satisfaction Survey as a Tool Towards Quality Improvement. Oman Medical Journal 29(1), pp.3-7

Alkuwaiti, A., Maruthamuthu, T., Akgun, S. (2018): Factors associated with the quality of outpatient service. The application of factor analysis, a case study. International Journal of Healthcare Management (131) pp. 88- 93

Amporfro, D.A., Boah, M., Yinqqi, S., Wabo, T.M.C (2021): Patients satisfaction with healthcare delivery in Ghana. BMC health services research 21(1), PP. 1 – 13

Anhang, R.P., Elliot, M.N., Zaslavsky, A.M, Hays, R.D., Lehrman, W.G., Rybowski, L., Levitan, E.S and Cleary, P.D: Examining the role of patients experience surveys in measuring health care quality. Medical Research and Review 71(5). Pp. 522-554

Ajavi, A.D.O., and Oluwale, E. (2015): The Influence of socio-demographic variables on patients' satisfaction with qualifying nursing care in teaching hospital in northern Nigeria. International Journal Medical and Health Research 13 pp.18- 24

Bailey, C., Field, D., and Froggatt KA., Krishnasamy M (2010): Qualitative research in palliative care 1990- 1999: a descriptive review. International journal of palliative Nursing, 9(3) pp.98-104

Baalbaki, I., Ahmed, U.Z., Pasgtenko, V.H., Makarem, S., (2008): Patient satisfaction with healthcare delivery systems. International Journal of Pharmaceutical and Healthcare Marketing 2(1) pp.47-62

Browne. K, Roseman, D., Shaller, D. (2010). Strategies for improving primary care. Health Affairs 29(5), pp.921-925

Cook, LS, and Verma, R. (2002): Exploring the linkages between quality system, service quality, and performance excellence: service providers' perspectives. Quality Management Journal 9(2) PP. 44-56

Fatima, I., Humayun, A., Iqbal, U., and Shafiq, M. (2019): Dimensions of service quality in healthcare: a systematic review of the literature. International Journal for Quality in Health Care. 31(1) pp. 11-29.

Fraihi J.A.K. Latif A.S. (2016): Evaluation of outpatient service quality in Eastern Saudi Arabia: Patients expectations and Perceptions. Saudi medical journal 37(4) pp.420

Gronoos, C., (2001): The perceived service quality concept- a mistake? Managing service quality: An International Journal, 11(3) pp. 150 -152

Itumalla, R., (2012): A study on service quality in healthcare. International Journal of Management Research and Reviews 2(2) pp.308-315

Ivan, V., and Dragan, B., (2017). The Impact of religiosity on quality of life and psychological symptoms in chronic mental patients. Psychiatric Danuban vol.29 suppl. 2 pp.118-123.

Jason, W., (2014). Defining Patient Experience. Patient experience Journal 1(1) pp. 7-19

Jerome, C., and Ard, A. (2016). The influence of demographic characteristics on service quality perceptions. Journal of Marketing Management 4(2) pp. 56-62

Kaldenberg, D.O. (2001). Patient satisfaction and health status. Health Marketing Quarterly 18(3-4) pp. 81-101.

Kwateng, O.K., Lumor, R., and Acheampong, F.O. (2017). Service quality in public and private hospitals: A comparative study on patient satisfaction. International Journal of Healthcare Management, Volume 12 issue 4 pp. 251-258

Lal, L., Vij, M., and Jain, S., (2014). Do demographics influence customer service quality perceptions? A comparative study of Indian and foreign banks. Journal of services research 14(2) pp. 75

Lee, H. Kim, C., Choi, K.S., Sunhee, L. (2009). The service quality dimensions and patients' satisfaction relationships in South Korea: Comparisons across gender, age, and types of service. Journal of Marketing

19(3). Pp.140-149

Manulik, S., Karniej, P., and Rosinczuk, J., (2018). The influence of socio-demographic characteristics on respondent's perceptions of healthcare service quality. Journal of Education, Health and Sports. Vol.8 NO. 12 pp. 708- 724

Mesut, A., Top, M., and Tekingunduz., (2018). Examining patient perceptions of service quality in Turkish hospitals: The SSERVPERF model. Total Quality Management and Business Excellence 31(1) pp. 1- 11

Mmutle, T., and Shonhe, L. (2017): Customers perception of Service Quality and its impact on reputation in the Hospitality Industry. African Journal of Hospitality, Tourism and Leisure vol.6(3).

Parasuraman, A., Zeithaml, V.A and Berry, L.L. (1985) A conceptual model of service quality and its implications for future research. Journal of Marketing 49(4) pp. 41-50

Paul, J.L. (2008). Using the SERVQUAL MODEL to assess service quality and customer satisfaction. Journal of Marketing 1(1) pp120-130

Peer, M., and Mpinganjira, M. (2012). A gap analysis of service expectations and perceptions in private general practice. African Journal of Business Management 6(1). Pp. 297 – 305.

Pouragha, B., and Ehsan, Z., (2014): The effects of outpatient service quality on patients' satisfaction in teaching hospitals in Iran. Global Journal of Health Science 28(1) pp. 21-25

Purcarea, L.V., Gheorghe, I.R, I.R. and Petrescu, C.M. (2013). The assessment of perceived service quality of public health care services in Romania using the SERVQUAL scale. Procedia Economy and Finance 6 pp.573 – 585

Rahmqvist M., (2001). Patient satisfaction in re about age, health status and other background factors: a model for comparison of care units. International Journal for Quality in Health Care 13 (5) pp.385- 390

Ramesh, N., and Devkota, M. (2017): Evaluation of the impacts of service quality dimensions on patient/Customer satisfaction: A study of private hospitals in Nepal. International Journal of Social Sciences and Management 4(3). pp.165-176

Ramya, N., Kowsalya, A., and Dharanipriya, K. (2019): Service quality and its dimensions. International Journal of Research and Development 4(2) pp. 38-41

Safakli, O.V (2007): An empirical investigation of service quality and customer satisfaction in professional accounting firms: Evidence from North Cyprus. Problems and Perspectives in Management. Pp. 84-98

Saleh, F., and Ryan, C., (1991): Analysing service quality in the hospitality industry using the servqual model. The Service Industry Journal, 11(3), pp.324-345

Sureshchabdar, G.S, G.S, G.S, G.S. Rajendran, C, C., and Kamalanabhan, TJ. (2001): Customer perceptions of service quality: A critique. Total quality management 12(1) pp.111-124

Taher, A., Walburg, J., and Shafei, I. (2019): Verifying alternative measures of healthcare service quality. International Journal of health care quality assurance 32(2) pp.516-533

Tateke, Woldie, M., and Ololo, S. (2012): Determinants of patient satisfaction with outpatient health services at public and private hospitals in Addis Ababa, Ethiopia. African Journal of Primary Health Care and Family Medicine 4(1) pp.1-11

Tinoco, P.C.R., Candido, JF. Feliciano, I.M.P.L. (2018): The importance of evaluating perceived quality in radiology and the impact of sociodemographic factors in a Portuguese public hospital. Portuguese Journal of Public Health 35(3) pp.202-213

APPENDIX A

QUESTIONNAIRES FOR DATA COLLECTION FOR SERVICE QUALITY IN THE OUTPATIENT DEPARTMENT AT KOMFO ANOKYE TEACHING HOSPITAL- KATH.

Please tick where appropriate

A. PATIENTS' DEMOGRAPHICS

1. What is your gender?

I. Male ii. Female

2. What is your marital status?

I. married ii. Single iii. Divorced iv. Separated

3. What is your educational level?

I. No Education ii. Primary iii. High School iv. Diploma v. bachelor's degree vi master's degree vii. PhD

4. Are you employed?

I. Yes ii. No

5. If you answered yes to the above question, what is your work?

I. Teacher ii. Farmer iii. Nurse iv. Technician v. Carpentry vi. Police vii other

6. If you answered No to question 4, why are you not employed?

I. Housewife ii. Student iii. Searching for job iv. Student v. Disable

7. What is the nature of your job?

i. Contract ii. Part-time

8. How much do you earn at the end of the month?

i. 200-500 ii.500-1000 iii. 1000-1500 iv. 1500-2000 vi.2000-3000 vii. Above 3000

9. What is your age category?

i. 18-25 ii. 25-32 iii. 33-45 iv. 46- 55 v. 56-65 vii. Above 66

B. ***LEVELS OF SERVICE QUALITY***

Based on your experience as a patient, kindly elaborate on the extent to which you think such a hospital would possess the features described by each of the statements. If you feel a feature is not all that important for an excellent hospital, then circle number 1, if you feel a feature is essential for an excellent hospital, circle number 7. If your feelings are less strong, then circle one of the numbers in the middle. There are no right or wrong answers, the most important underlying factor is the number that truly reflects your feelings regarding the excellent service quality delivered by the hospital.

NB.

1. ***Not important for an excellent hospital***
2. ***Circle number 7 if you Strongly Agree with the statement.***
3. ***Circle one of the Middle Numbers (3 or 4) if you strongly Disagree*****.**

SCORES FOR EXPECTATION

NB: This is your opinion of the hospital. Please show the extent to which you think the hospital should possess the following features. The ideal service you would like to get from the hospital is what is our concern**.**

	Strongly (SD Disagree						Strongly (SA) Agree
Tangibles Quality							
1. The hospital has modern equipment.	1	2	3	4	5	6	7
2. The physical facilities at excellent the hospital will be visually appealing.	1	2	3	4	5	6	7
3. Employees are well-dressed and neat.	1	2	3	4	5	6	7
4. Physical facilities are used for the purposes for which. they were made.	1	2	3	4	5	6	7
Reliability Quality							
5. The hospital works in in accordance with time scheduled.	1	2	3	4	5	6	7
6. When a patient has a problem excellent The hospital will show a sincere interest In solving the problem	1	2	3	4	5	6	7
7. The hospital is dependable in service deliveries	1	2	3	4	5	6	7
8. Services are provided at the time they Promised	1	2	3	4	5	6	7
9. Accurate records are kept by the hospital	1	2	3	4	5	6	7
RESPONSIVENESS QUALITY							
10. The hospital informs customers Exactly when do services begin?	1	2	3	4	5	6	7
11. The hospital is not realistic for customers To expect prompt service	1	2	3	4	5	6	7
12. Employees are not willing to help customers	1	2	3	4	5	6	7
13. Management is OK if they are too busy responding to requests promptly.	1	2	3	4	5	6	7
ASSURANCE QUALITY							
14. Customers should be able to trust Employees	1	2	3	4	5	6	7

15. Customers feel safe in their transactions With these employees 1 2 3 4 5 6 7
16. The employees are polite 1 2 3 4 5 6 7
17. Employees should get adequate to do Their jobs well. 1 2 3 4 5 6 7

EMPATHY QUALITY

18. The hospital should not be expected to Give customers individual attention. 1 2 3 4 5 6 7
19. Employees cannot be expected to give Customers personal attention 1 2 3 4 5 6 7
20. It is unrealistic for the hospital to expect employees to know what the needs of their customers are. 1 2 3 4 5 6 7
21. It is unrealistic for them to have customers The best interest at heart 1 2 3 4 5 6 7
22. The hospital should not be expected to have operating hours convenient to all customers. 1 2 3 4 5 6 7

SCORES FOR PERCEPTIONS

NB. These deal with your perceptions of the services that you experience with the hospital. Kindly show the extent to which the statements reflect your experience of service in the hospital.

Strongly (SD Disagree **Strongly (SA) Agree**

Tangibles Quality

23. The hospital has modern equipment. 1 2 3 4 5 6 7
24. The physical facilities at excellent the hospital will be visually appealing. 1 2 3 4 5 6 7
25. Employees are well-dressed and neat. 1 2 3 4 5 6 7
26. Physical facilities are used for the purposes for which they were made. 1 2 3 4 5 6 7

Reliability Quality

27. The hospital works in in accordance with the time scheduled.	1 2 3 4 5 6 7
28. When a patient has a problem excellent hospital will show a sincere interest In solving the problem	1 2 3 4 5 6 7
29. The hospital is dependable in service deliveries	1 2 3 4 5 6 7
30. Services are provided at the time they Promised	1 2 3 4 5 6 7
31. Accurate records are kept by the hospital	1 2 3 4 5 6 7

RESPONSIVENESS QUALITY

32. The hospital informs customers Exactly when do services begin?	1 2 3 4 5 6 7
33. The hospital is not realistic for customers To expect prompt service	1 2 3 4 5 6 7
34. Employees are not willing to help customers	1 2 3 4 5 6 7
35. Management is OK if they are too busy responding to requests promptly.	1 2 3 4 5 6 7

ASSURANCE QUALITY

36. Customers should be able to trust Employees	1 2 3 4 5 6 7
37. Customers feel safe in their transactions With these employees	1 2 3 4 5 6 7
38. The employees are polite	1 2 3 4 5 6 7
39. Employees should get adequate to do Their jobs well.	1 2 3 4 5 6 7

EMPATHY QUALITY

40. The hospital should not be expected to Give customers individual attention.	1 2 3 4 5 6 7
41. Employees cannot be expected to give Customers personal attention	1 2 3 4 5 6 7

42. It is unrealistic for the hospital to expect employees to know what the needs of their customers are. 1 2 3 4 5 6 7
43. It is unrealistic for them to have customers The best interest at heart 1 2 3 4 5 6 7
44. The hospital should not be expected to have operating hours convenient to all customers. 1 2 3 4 5 6 7

PATIENT'S HEALTH STATUS

1. How healthy do you consider yourself?
   a. Excellent b. very good c. good d. Average e. Poor
2. Do you have any chronic diseases?
   a. Yes b. No
3. Do you have any hereditary diseases?
   a. High blood pressure b. Diabetes c. Hemophilia d. Thalassemia e. Others (please specify)
4. Over the past two weeks, how often have you felt down, depressed, or hopeless?
   a. Not at all b. Several days c. Nearly every day
5. Have you been put on regular medication?
   a. Yes b. No
6. How often do you have trouble taking medicines the way you have been told to take them?
   a. I do not have to take medicine b. I always take them as described c. Sometimes as prescribed d. I seldom take them.
7. Has the care given by the hospital solved or worsened your health status?
   a. Yes b. No
8. How well do you feel the healthcare provider has answered your questions regarding your health conditions?
   a. Excellent b. good c. Average d. Poor
9. How long do you wait beyond your appointment time to be seen by a physician?
   a. More than one hour b. less than one hour c. No waiting time d. I consulted before the appointment time.
10. How often do you get a health checkup?
    a. Once in 3 months b. Once in 6 months c. Once in a year d. Only when needed e. Never
11. In the last 24 hours, how did you take your medicine?
    a. With help b. without help c. completely unable to take d. Other
12. Have any of your family members been dropped out of coverage after diagnosis of any illness?
    a. Yes b. No

Appendix B: PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

INFORMATION SHEET

Title of Research
The Influence of Patients' Demographics Characteristics on Service Quality in Outpatient Department at Komfo Anokye Teaching Hospital.

Name(s) and affiliation(s) of researcher(s):
This study is being conducted by Ernest Kwarteng of the Faculty of Economics, University of Algarve.

Background:
The study is about how Patients' demographic characteristics influence service quality in outpatient departments since service quality is determined by a lot of factors.

Purpose(s) of research:
The purpose of this research is to determine the influence of patient demographic characteristics on service quality in the outpatient department at the Komfo Anokye Teaching Hospital -KATH Kumasi.

Selection of participants:
The participants involved in the study are patients accessing the outpatient department at Komfo Anokye Teaching Hospital-(KATH) Kumasi.

The procedure of the research, what shall be required of each participant, and the approximate total number of participants that would be involved in the research:
Participants will be required to answer a set of questionnaires and the research will involve 200 participants.
Risk(s):
The study involves no risks.

Benefit(s):
The goal of this research study is to determine how patients' demographics influence service quality.

Confidentiality:
All information gathered from the participants will be strictly confidential.

Voluntariness:
Participants in this study willingly volunteered.

Alternatives to participation:
Failure to partake in this research study won't attract any ill-treatment or sanctions from the hospital/institution.

Withdrawal from the research:
Withdrawal from the research study can be done by participants without explaining themselves and participants may choose not to answer personal questions.

Consequence of Withdrawal:
Participants won't face any consequences whatsoever if they choose to withdraw from the research study.

Costs/Compensation:
Each participant will be compensated with GH¢5.00.

Contacts:
Dr. Peter Yamoah
Internal Supervisor
0246344950

Further, if you have any concerns about the conduct of this study, your welfare, or your rights as a research participant, you may contact:
The Office of the Chairman,
Komfo Anokye Teaching Hospital Institutional Review Board (KATH_IRB), Research and Development Unit, Kumasi.
Tel:+233322000617
Email: kathirb@kathhsp.org or kathirb25@gmail.com

CONSENT FORM

Statement of the person obtaining informed consent:

I have fully explained this research to Ernest Kwarteng and have given sufficient. information about the study, including the procedures, risks, and benefits, to

make an informed decision.

DATE: 28th APRIL 2021 SIGNATURE: _____

NAME: ERNEST KWARTENG

Statement of the person giving consent:

I have read the information on this study/research or have had it translated into a language I understand. I have also talked it over with the interviewer to my satisfaction.

I have read the description of the research or have had it translated into the language I understand. I have also talked it over with the interviewer to my satisfaction. I understand that participation is voluntary. I know enough about the purpose, methods, risks, and benefits of the research study to decide that I want to take part in it. I understand that I may freely stop being part of this study at any time. I have received a copy of this consent form and an additional information sheet to keep for myself.

DATE: _____ SIGNATURE/THUMBPRINT: _____

WITNESS' SIGNATURE (if applicable): _____
WITNESS' NAME (if applicable): _____

PARENT/GUARDIAN'S SIGNATURE/THUMBPRINT: _____
(maintain if the participant is under 18 years old)
PARENT/GUARDIAN'S NAME: _____

(note: Participants between the ages of 6 and 18 years will require a separate Assent Form)