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**FACTORS INFLUENCING PATIENT SATISFACTION AT THE OUT-PATIENT
DEPARTMENT OF PENTECOST HOSPITAL, GREATER ACCRA REGION**

By

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THE
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DECLARATION

I, Esther Essilfie-Bondzie, do hereby declare that apart from other people's

knowledge that I have acknowledged, this research is the result of my dedicated hard work under supervision. I take full responsibility for this work.

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LIST OF ABBREVIATION

MOH	Ministry of Health
OPD	Out Patient Department
PCA	Principal Component Analysis
WHO	World Health Organization

DEFINITION OF TERMS

Patient satisfaction: A relative phenomenon, which encompasses the patient's subjective view of needs, his expectations from the health system, and

experience of health care

Quality of health care: A measure of performance with regards to a defined standard of interventions known to be safe and have the capacity to improve health considering the resources available.

ABSTRACT

Background: Measuring patient satisfaction has become an integral part of health facility management globally. Patient satisfaction is an essential pointer of equitable quality of care. It is often complained that the communication between healthcare workers and patients at public hospitals is very poor. This mostly makes it look like patients are totally at the mercy of the healthcare workers at these hospitals.

Objective: This study sought to examine factors influencing patient satisfaction with services rendered at the outpatient department (OPD) of the Pentecost Hospital Greater Accra Region.

Methods: An analytical cross-sectional design using a quantitative approach was applied. A structured questionnaire was used to gather empirical data from 414 patients at the outpatient department (OPD) of the Pentecost Hospital. A systematic random sampling technique was used. Descriptive and analytical

analysis were done to determine patients' satisfaction level. The mean gap score was calculated as a measure for patients' level of satisfaction. Additionally, PCA was done using STATA to identify the subgroups of SERVQUAL items. This enabled the identification of individual components or provider-factors under the five SERVQUAL dimensions that are predictors of patient's satisfaction.

Results: The mean gap score to assess patients' satisfaction was $-1.67(\pm 0.1)$, demonstrating an overall dissatisfaction with quality of care. The level of dissatisfaction across the SERVQUAL dimensions were:

Empathy ranked first (mean gap score = -0.18); Reliability ranked second (the mean gap score was -0.33), Assurance ranked third (mean gap score was -0.34), Tangibles was ranked fourth (with a gap score of -0.35), and Responsiveness ranked fifth (with a mean gap score of -0.38).

Conclusion: The study found and concludes that respondents in this study were generally, dissatisfied with the health care accessed at the OPD at the Pentecost Hospital at Madina in Accra. Promptness of service delivery, disrespectfulness of staff, poor communication and lack of empathy towards very ill patients, poor adherence to confidentiality, inadequacy of staff at OPD, and lack of physical examination were the factors perceived to account for the dissatisfaction of the patients with service delivery at the OPD. The study found that respondents were satisfied with medication prescription (essential drugs) at the OPD. The management of the Pentecost Hospital should train staff on good customer relation through in-service training to enhance staff-patient relationship. Policy

makers at the Ministry of Health/Ghana Health Service need to advance a coordinated and focused national policy in support of patient-centred care to help health professionals develop and maintain skills that ensure that care rendered targets the needs of patients.

CHAPTER ONE

INTRODUCTION

1.0. Background to the Study

Measuring patient satisfaction has become an integral part of health facility management globally (Mukhtar, 2013). (Mukhtar, 2013), explains that patient satisfaction is a relative phenomenon, which encompasses the patient's subjective view of needs, his expectations from the health system, and experience of health care. Quality of health care is defined as a measure of performance with regards to a defined standard of interventions known to be safe and have the capacity to improve health considering the resources available (Murray & Frenk, 2000). Myburgh (2005), reports that patient satisfaction is a fundamental indicator of equitable quality of care.

The patient satisfaction perspective of hospital care has become very relevant. Studies have reported that when there is greater satisfaction with interpersonal interactions, such as staff-patient relationships (Olusina, Ohaeri, & Olatawura, 2002).

Patient satisfaction became an integral part of assessing health care delivery since the 1980s (Ekram & Rahman, 2006). Ekram & Rahman (2006) noted that it led to the replacement of the idea of 'quantity of life' by a more patient centered concept of 'quality of life'. In a study carried out at a referral hospital at a referral hospital in Tanzania on patients' satisfaction it was observed that level of satisfaction was high among respondents, basically in the view that health care

delivery system works hierarchically, whereby the referral health facility was at the top with super high skilled services (Muhondwa, Leshabari, Mwangu, Mbembeti, & Ezekiel, 2008). This finding suggests that patients' satisfaction or quality of healthcare was highest in higher level facilities. According to Quintana *et al.* (2006), some factors that influence patient satisfaction are lack of doctor-patient interpersonal communication, doctors and nursing staff behaviour, financial aspects, inadequately equipped facilities and unavailability of adequate services.

1.1. Problem Statement

Usually communication between healthcare workers and patients at public hospitals is very poor, this often create the impression that patients are totally at the mercy of the healthcare workers at these hospitals (Furrer *et al.*, 2000; Alrubaiee & Alkaa'ida 2011; Laroche *et al.*, 2004; Poon *et al.*, 2004).

Management of the Pentecost hospital have received several reported cases of patients being dissatisfied during their visit to the outpatient department or admission as inpatients through mails, telephone and personally coming to the office. Poor attitude of staff, poor communication, environment and the general conditions of facilities have been some of the factors reported as causing dissatisfaction among patients (Prakash, 2010).

Long waiting time (Anderson, 2007; Bleustein *et al.*, 2014) and inadequate information, are some of the most common sources of patient's dissatisfaction (WHO, 2008), leading to patients seeking alternate treatment and report to

hospital with complicated cases, which result in poor health outcomes. For these reasons, this study investigated factors influencing patients' satisfaction with services rendered to them at the outpatient department (OPD) of the Pentecost Hospital.

1.2. Justification of the Study

This study sought to provide evidence based research regarding the factors that influence patients' satisfaction with healthcare services at the Pentecost Hospital. This study will not only contribute to the existing body of knowledge of factors associated with patients' satisfaction in general, but may also provide new knowledge, specifically of patients' satisfaction with health care services rendered at the OPD of the Pentecost Hospitals. This would help fill the gaps in literature in this respect.

Customer service, especially in a primary health care facility, is crucial for the survival of the facility since dissatisfied clients may change their health service provider (Hasannuzzaman & Haque, 2016). This may lead to eventual drop in the number of clients and also cause financial loss to the hospital. This study would provide an opportunity for the hospital to ascertain the magnitude of the problems that have been reported from pockets of complaints with regards to patients' satisfaction. Since no study seemed to have examined how the application of customer service to the delivery of quality healthcare at the Pentecost Hospital, this study would help provide the platform for the management to consider this vital concept in the future.

It would also enable top level management to formulate targeted strategies to promote factors that have positive influence on patients' satisfaction as well as take immediate steps to curb factors that have negative influence on patients' satisfaction with health care services at the hospital. This study was meant to provide the basis for documenting some of the negative influences on patients' satisfaction so as to help the management of the Pentecost Hospital to see how best to couch effective and workable strategies to ameliorate them – this was currently lacking.

With regards to resource challenges, it will provide vital information on which areas to prioritize spending to improve overall clients' satisfaction with health care at the facility.

This study will adopt the Donabedian (1980), model to determine patients' level of satisfaction with quality of care at the study setting. There is some experimental information on the use of Donabedian (1980), model to measure patients' satisfaction with quality of care given at various health care facilities in Ghana (Peprah & Atarah, 2014; Fenny, Enemark, Asante & Hansen, 2014; Boateng, 2016).).However, this study appears to be the first to have applied this model to assess patients' satisfaction at the OPD of the Pentecost Hospital, Madina, Accra.

The Ghana National Healthcare Quality Strategy (2017-2021) had stakeholder views emerging around the Donabedian (1980) principle (MOH, 2016). The aim of this study to was to determine patients' level of satisfaction with health care in

an urban health care facility. That is, findings from this study will add to the literature by showing how the Donabedian (1980), model might help to explain patients' level of satisfaction with quality of care and give evidence for enhancement on quality of care at the Pentecost Hospital.

Findings from this study may help to inform health professionals on how clients perceive the services rendered to them. Potentially, recommendations from this study may also help to give an insight into how the authorities or health policy makers could put in place strategies to improve on quality of care, which will also enhance clients'/patients' satisfaction if it is found that patients are dissatisfied.

1.3. Objectives

The objectives of this study are divided into general and specific. These have been indicated below.

1.3.1. General Objective

The general objective of this study was to examine factors influencing patients' satisfaction with health care at the Pentecost Hospital, Madina in the Greater Accra.

1.3.2. Specific Objectives

The specific objectives of the study have been outlined as:

1. To assess the level of patients' expectation of the quality of care at the outpatients department of the Pentecost Hospital

2. To determine patients' perception of the service quality at the outpatient department of the Pentecost Hospital.
3. To assess patients' level of satisfaction with service quality at outpatients department of the Pentecost Hospital.
4. To examine patient-related factors influencing patients' satisfaction with health care at the Pentecost Hospital?
5. To determine provider-related factors influencing patients' satisfaction with health care at the Pentecost Hospital.

1.3.3. Research Questions

The specific objectives of the study were addressed by answering the following questions:

1. What is the level of patients' expectation of the quality of care at the outpatients department of the Pentecost Hospital?
2. What is patients' perception of the service quality at the outpatient department of the Pentecost Hospital?
3. What is patients' level of satisfaction with service quality at the outpatients department of the Pentecost Hospital?
4. What are patient-related factors influencing patients' satisfaction with health care at the Pentecost Hospital?

5. What are provider-related factors influencing patients' satisfaction with health care at the Pentecost Hospital?

1.4. Outline of the dissertation

The dissertation has been structured according to chapters to enable the reader follow the lines of arguments therein. In chapter one, the introduction to the study is presented where the background, problem statement, justification, objectives and research questions have been discussed. Chapter two presents the literature review of related studies on the topic under review. It also explains the key concepts underlying the study. Chapter three presents the methods applied to collect empirical data for analysis in the study. Chapter four provides information on the findings of this study. The chapter provides results of the descriptive statistics, ranking of service dimension to assess quality of care, overall patients' level of satisfaction, and results from multivariate analysis of service quality using the principal component analysis (pca). Chapter five presents the discussion of the findings of the study and how they relate to existing literature. In chapter six, summary, conclusion, contribution to knowledge, recommendations, limitations to the study and direction for future research are presented

CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.0. Introduction

This chapter presents analysis of existing literature related to the topic under consideration. It explains the key concepts underlying the study. It is divided into eight sections. Section one reviews existing literature of what Patients' Satisfaction is. Literature on Donabedian Model of Quality Care, Status, Access, Power, Stuff (SAPS) Model and SERVQUAL Model are reviewed in sections two, three and four respectively. Section five explains measurement of Patients' Satisfaction. The conceptual framework of the study is explained in section seven. Section eight summarizes the chapter and provides an introduction of what to expect in the next chapter.

2.1. Patients' Satisfaction

Aagja and Garg (2010), define healthcare service quality as the difference between patient's perceptions of services offered by a particular health centre and their expectations about the health centre offering such services. To further expatiate, Kucukarslan and Nadkarni (2008), asserted that, the expectations of patients depend on their perception of the best care standards mostly resulting from previous experiences in services consumed. This position clearly indicates that patients' satisfaction will always emanate from what the patient views as best practices.

2.2. The Donabedian Model of Quality of Care

This study adopted the Donabedian (1980), model of quality of care to measure how satisfied patients are with quality of care. As indicated by the Donabedian (1980), three key areas, in particular structure, process and result are interrelated with regards to quality of care. Donabedian, is of the view that a good framework improves the probability of good process, which builds the likelihood of good result, an example being, patients' satisfaction (Donabedian, 1980). The Donabedian model in figure 2.2 adopted in this study is because it has been validated with many empirical information to support its validity so that inferences can be made on quality of care (Donabedian, 1980;) – (Sardasht, Shourab, Jafarnejad, & Esmaily, 2013).

Donabedian's Quality Framework

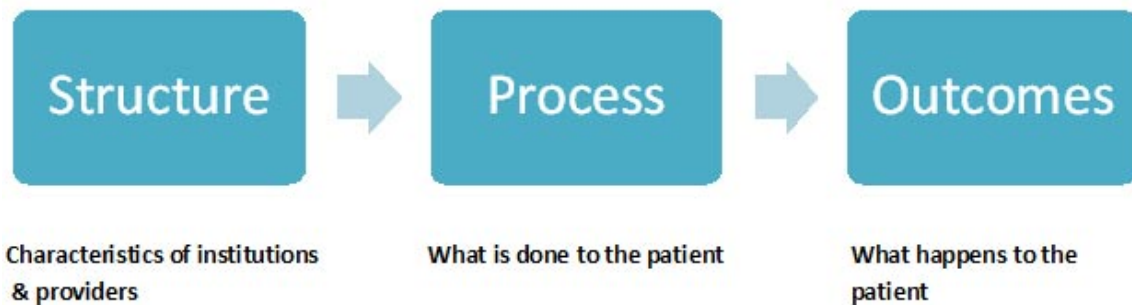


Figure 2.1: Donabedian (1980): Quality of Care Framework.

2.3. SAPS (Status, Access, Power, Stuff) Model

This model is proposed by Gabe Zichermann and has been used in clinical settings and its correlation with other highly valid instruments is high with a Cronbach alpha of 0.85 (Hawthorne, Sansoni, Hayes, Marosszky, & Sansoni, 2014). It can be used in different clinical settings successfully to measure patients' satisfaction. From its use, its simplicity has been demonstrated to maintain a high level of validity and reliability as far as patient satisfaction instruments go. 'Its internal properties exceed psychometric criteria and it discriminates as well as longer instruments' (Hawthorne, 2015). The SAPS model was adapted from four very well-known reliable and validated patient satisfaction models and based on Donabedian's patient satisfaction theory. The seven (7) recognized dimensions are Effectiveness, Information, Technical Skill, Participation, Relationship, Access and Facilities, and Satisfaction General

(Hawthorne, 2015).

2.4. SERVQUAL Model

This is the most widely used model to assess quality in the service industries such as health, hospitality, Banking and finance etc. The original domains/dimensions of the model developed by Parasuraman et al (1985), were: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer and tangibles. These were adapted from the fifth gap of the Gap Model, which comprised 5 main gaps- listening gap, service design and standards gap, service – performance gap, service delivery external communication gap and finally the fifth, expected service perceived service gap (Ayensu, 2015).

The 10 dimension were therefore scaled down to five 5 after further statistical testing by the proponents as follows (Arlen, 2008):

1. Tangibility
2. Reliability
3. Responsiveness
4. Assurance (communication, credibility, security, competence and courtesy)
5. Empathy (understanding the customer and accessibility)

This model has been modified and used in different ways and in different settings, according to the research being undertaken (Yousapronpaiboon &

Johnson, 2013) All five dimensions have been proven to be significantly related to the Quality of Service from its use in a wide range of clinical settings. It therefore has wide applicability (Yousapronpaiboon & Johnson, 2013). Its five 5 dimensions are described below:

1. Responsiveness-

How fast the provider will respond to the patients' needs either by way of giving information on the phone, replying electronic messages, emergency responsiveness etc, is critical to the patients' satisfaction with Quality of Care. It refers to the speed of delivery of services (Yousapronpaiboon & Johnson, 2013).

2. Assurance-

This is a dimension that quantifies the knowledge, skill and technical abilities of the service provider from the patients' view. It is a combination of the following components from the original SERVQUAL Model- communication, credibility, security, competence and courtesy (Daniel & Berinyuy, 2010). Physicians use the biomedical model mainly to assess the characteristics of diseases of patients, while the patients, using less of that, mainly rely on the social and behavioural factors to assess their illnesses. This result in a communication gap (Platt & Keating, 2007).

When doctor patient communication is effective, there is a high level of Quality of care and unhappy or dissatisfied patients are not produced (Yousapronpaiboon & Johnson, 2013). Effective communication has healing properties on the patient.

Patient information is at the core of medicine as eliciting patient information is the first step in the medical process (Ha & Longnecker, 2010). The ability of the physician to get information out of the patient that the patient considers adequate and representative of their health status, leads to higher levels of satisfaction and this is consistent with other health satisfaction literature (Xiao & Barber, 2008).

There is a general move from provider centered communication to client centered communication (Abdel-Tawab & Roter, 2002).

In effect, the client/ patient needs to see and appreciate the provider in order to be satisfied with the service received, after all, that is the aspect that drove the patient to the facility to address a need/ challenge. Staff attitude with the patient: their friendliness, politeness among others is also key here.

3. Empathy-

This is a function of the interactions between the patient and the staff. Most clients expect that the delivery of services is done not in a robotic manner which does not take into account the presence or feelings of the client. (Yousapronpaiboon & Johnson, 2013). Rather, the staff should relate to the client in an amiable manner with courtesy, serenity and calmness among others. The staff should be viewed by the patient as being caring, attentive and warm in the delivery of their services (Yousapronpaiboon & Johnson, 2013). A patient reportedly, left the services of a very good physician because she did not feel a

physical connection with the doctor. This happened despite the fact that this patient has accessed care for many years with the same doctor (Coulter & Ligas, 2000).

4. Tangibility-

This makes reference to how the physical environment of the hospital appears to the patient- the neatness, how it looks good and modern, accessibility, staff appearance and attire among others (Yousapronpaiboon & Johnson, 2013) .The physical atmosphere may have a psychological impact on the patient either positively or negatively. This is arguably the least important dimension for the client according to some literature from the use of the SERVQUAL model (Yousapronpaiboon & Johnson, 2013).

5. Reliability-

This is synonymous with dependability. It is the extent to which the service provider is able to deliver what has been promised. This borders on trust issues and has been found to be more important to clients than the tangibles. The provider ought's to do exactly as promised (Arlen, 2008; Yousapronpaiboon & Johnson, 2013).

2.5. Measurement of Patients' Satisfaction

The SERVQUAL model is applicable to the health care sector (Herstein & Gamliel, 2006). It has the following characteristics (Herstein & Gamliel, 2006):

1. Reliability: appointments kept on schedule, accurate diagnoses;
2. Responsiveness: accessible services, no waiting, willingness to listen;
3. Assurance: knowledge, skills, credentials, reputation;
4. Empathy: patient acknowledged as a person, awareness of previous problems, good listening, patience; and
5. Tangibles: waiting room, examination room, equipment, written materials.

The SERVQUAL questionnaire is designed to assess patients' satisfaction using two classifications: 1) expectation; and 2) perception (Khamis & Njau, 2014). When a patient's experience or their perception of service quality scores and is compared with their expectation scores, their satisfaction scores can be computed: Perception - Expectation = Satisfaction (Yousapronpaiboon & Johnson, 2013).

2.6. Factors Influencing Patients' Satisfaction

Literature on Factors influencing patients' satisfaction in this study was reviewed under two broad areas: patient-related (Socio-demographic characteristics) factors and health provider-related factors. The health provider-related factors are measured using the SERVQUAL five dimensions of tangibles, responsiveness, reliability, assurance and empathy; and in accordance with the Donabedian (1980), model, which views outcomes as a result of processes and structures. The patient-related (socio-demographic characteristics) related factors and health provider related factors have been explained in this section.

2.6.1. Patient-related (Socio-demographic characteristics) Factors Influencing Satisfaction

The Patient-related socio- demographic variables have been described as enabling/ predisposing as well as mediating factors discriminating between satisfaction analysis between one group and the next (Swanson *et al.*, 2007).

This is an intermediate variable that moderates and whose analysis will show how various groups of patients vary in their responses to various questions. According to a study, the socio-demographic characteristics of clients have an influence on their satisfaction with healthcare (Kelly, 2014). Persons who earn more and have fewer health challenges access private health facilities (Basu *et al.*, 2012). More women generally access healthcare either by themselves or when they accompany their relatives (Hojat *et al.*, 2011).

The possession of a valid health insurance, higher income and better education are associated with higher level of satisfaction among patients generally (Xiao & Barber, 2008). A patient having health insurance or not has implications for the outcome of their health depending on their medical conditions (Xiao & Barber, 2008). It has been found in literature to impact their satisfaction with the Quality of care directly (Xiao & Barber, 2008). In some societies, a patient's health plan will determine the outcome of their treatment (Kolstad & Chernew, 2009).

The mode of payment of a patient has been found to significantly impact how a patient views Quality of Care. It was noted that, those insured on National Health Insurance consistently gave low quality of care rates (Assefa *et al.*, 2011).

A number of studies have found some association between socio-demographic characteristic and patient's satisfaction while others have not (Jenkinson *et al.*, 2002; Nguyen *et al.*, 2002; Shou-Hisa *et al.*, 2003; Oyvind, Ingeborg, & Hilde, 2011). The individual socio-demographic characteristics examined in this study have been presented below.

Age

Age was found to be associated with patients' satisfaction (Shou-Hisa *et al.*, 2003). Meanwhile, a related study, found no association between age and patients' satisfaction (Oyvind *et al.*, 2011).

Sex

Shou-Hisa *et al.* (2003), found that there was an association between sex and patient's satisfaction. Males were found to have higher satisfaction as patients than females (Shou-Hisa *et al.*, 2003). Woods and Heidari (2003), however, reported that there was no difference in satisfaction between males and females.

Educational level

Education level of the patients was found to have an influence on patients satisfaction in a national survey conducted in different hospitals in Taiwan (Shou-Hisa *et al.*, 2003). In another study, a contrasting finding was that educational level was not significantly associated with overall patient satisfaction (Oyvind *et al.*, 2011).

Occupation

Occupation has been found to influence patients' satisfaction with service delivery. Saeed, Mohammed, Magzoub, & Al-doghaither (2000) Saeed et al. (2000), reported that unskilled labourers had a significantly higher mean satisfaction.

Marital Status

In a cross sectional survey at the Out Patients Department of Punjab Social Security Hospital (PESSI), Rawalpindi, Pakistan it was found that married patients were significantly more satisfied (Afzal *et al.*, 2014). However, in other studies, marital status did not have any significant association with patients satisfaction (Ibraheem, Ibraheem, & Bekibele, 2013; Wang, Xue, & Liu, 2016).

Income

Income level had a significant relationship with patient satisfaction level, in that patients with higher income showed significantly higher mean satisfaction (Saeed *et al.*, 2000; Kelarijani, Jamshidi, Heidarian & Khorshidi, 2014).

2.6.2. Health Provider-Related Factors Influencing Patients' Satisfaction

The following discussed health provider related factors have been found to influence patients' satisfaction with health care services (Atinga, & Abekah-Nkrumah, 2011).

Physician Communication

Communication is an essential tool used by health professionals to get best responses from patients as well as enable the health professionals to deliver a quality health care to the patient (Atinga, & Abekah-Nkrumah, 2011). Interpersonal communication skills of physicians were found to be significant drivers of patients' satisfaction (Nicholas, Julie, Kimberly, & Ron, 2005; Sung Soo, Stan, Mark, 2004; Andrabi, Hamid, Rohul & Anjum, 2012). Atinga and Abekah-Nkrumah (2011), noted that the quality of patient-provider communication offers a healing atmosphere where the patient will more likely maintain utilizing the services provided by the provider.

At the OPD, patients spend some time with doctors in the consulting rooms. Thus, it has been established that communication between the patient and the physician most often impacts on the patients' perception of the quality of care rendered (Mukhtar *et al.*, 2013). For instance, it was reported that statements such as 'how well the doctors kept you informed about your condition'; and 'understood the instructions and could easily follow them' were significantly associated with patients' satisfaction (Boudreaux, Boudreaux, Ary, & Mandry, 2017). Curry and Singlair (2002), used the SERVQUAL model and stated that there was improvement in patient satisfaction when communication between patients and providers was such that patients could get information about their conditions and treatment.

Environment

The hospital environment consists of the physical environment with regards to

cleanliness as well as aesthetics and basic facilities that enhance the delivery of care (Atinga & Abekah-Nkrumah, 2011). Mukhtar *et al.* (2003), in a descriptive cross sectional study in a tertiary care hospital, revealed that majority of respondents agreed that the hospital was clean and very well ventilated. In a related study, the environment was reported to have significantly influenced patients' satisfaction in Ghana (Atinga & Abekah-Nkrumah, 2011).

Attitude of Staff

Perceived friendliness, respectfulness and fairness on the part of hospital staff go a long way to inform patients' choice of a visit again or not (Mukhtar *et al.*, 2013). Mukhtar *et al.* (2013), reported that the hospital staff in the waiting area was found to be respectful and fair towards patients.

Waiting Time

The time spent by clients waiting for their turn to be attended to by a doctor or the nurses has been found in other studies to have influenced clients' perceived satisfaction (Abekah-Nkrumah *et al.*, 2011). Patro, Kumar, Goswami, Nongkynrih and Pandav (2008), found that waiting time for consultation was a factor that could influence service delivery at the OPD.

2.7. Conceptual framework of the Study

The conceptual framework shown in Figure 2.2 gives a snapshot of the factors assessed in the study. According to the Donabedian (1980), model, patients'

satisfaction as a health outcome is largely influenced by the structures and processes existing in the health facility. These structures and processes from the health care provider by way of their services influence the overall perception of the patients with regards to whether or not they are satisfied with the health care provided.

The health care provider-related factors, considered are physician communication, attitude of staff, the hospital environment (infrastructure and basic facilities), and waiting time. Patients' satisfaction with service delivery viewed under the five dimensions of the service quality (SERVQUAL) model are: tangibles, reliability, responsiveness, assurance and empathy (Peprah & Atarah, 2014).

However, perceived satisfaction of patients may vary across socio-demographic characteristics (age, sex, educational level, occupation, marital status, and income level) of patients who visit the facility (Shou-Hisa, Ming-Chin, & Tung-uang, 2003).

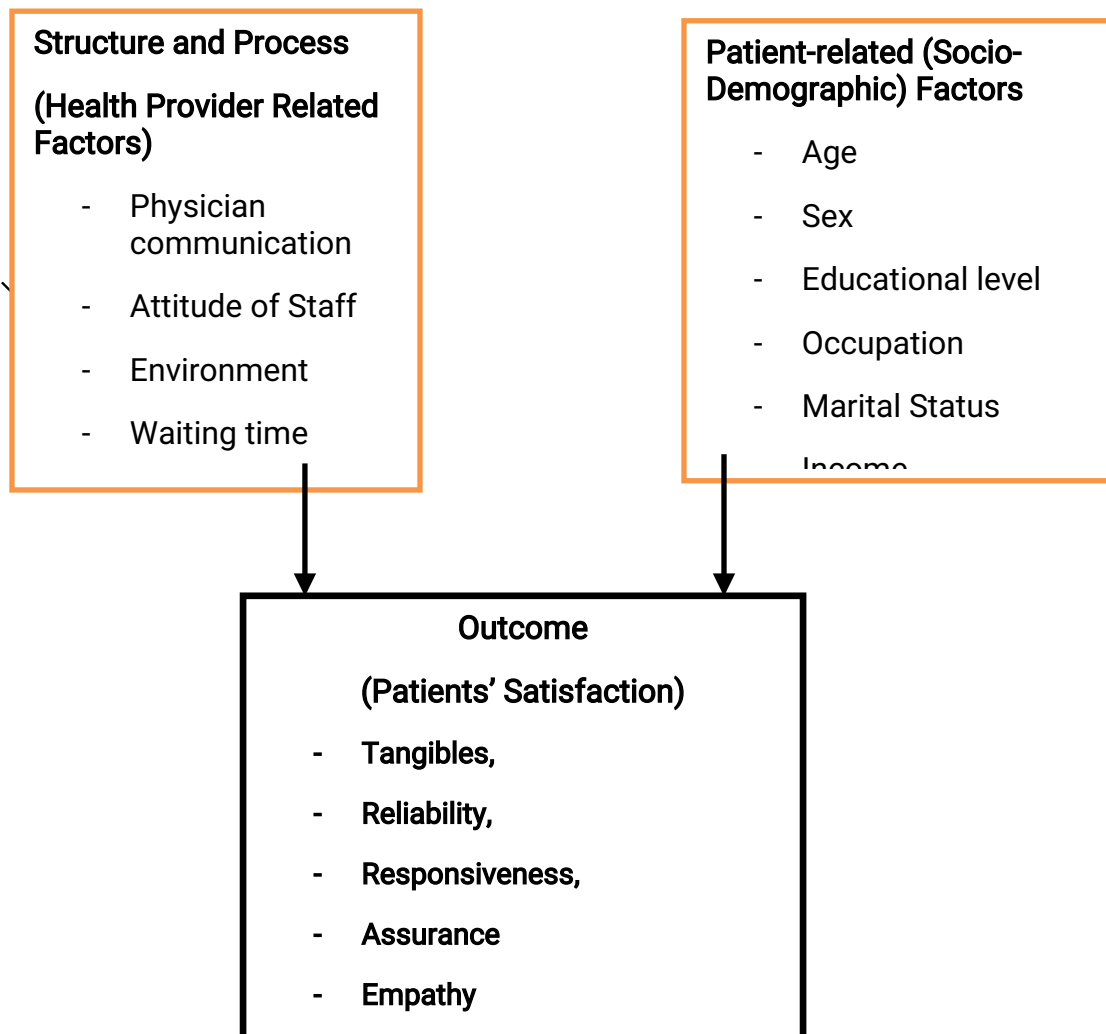


Figure 2.2: Conceptual Framework for Patient Satisfaction. Source: Adaptation of the Donabedian (1980) model.

2.8. Chapter summary

In summary there have been some documentations from other researchers on

the topic of patients' satisfaction. Factors influencing patients' satisfaction in this study was reviewed under two broad areas: patient-related Socio-demographic and health provider-related factors. A number of studies have found some association between socio-demographic characteristic and patient's satisfaction while others have not. Health provider related factors have been found to influence patients' satisfaction with health care services. Health care provider-related factors, such as physician communication, attitude of staff, the hospital environment (infrastructure and basic facilities), and waiting time influencing patient's satisfaction. The next chapter presents the methods employed for data collection and analysis.

CHAPTER THREE

METHODS

3.0. Introduction

This chapter presents the methods applied to collect empirical data for analysis in the study. The chapter consist of thirteen (13) sections. The Study Design, Study Areas and Study Population have been described in sections one two and three respectively. The rest of the sections provide information on methods employed in order of Sampling Technique, Study Variables Data Collection Methods and Instruments, Training of Research Assistants, pretesting , Data Analysis, and Ethical Consideration. The last section provides a chapter summary and an indication of what to expect in the next chapter.

3.1. Study Design

This study applied an analytical cross-sectional design using a quantitative approach to gather data to help determine factors influencing patients' satisfaction with outpatient department (OPD) services at the Pentecost hospital. The design elicited responses on dependent variable (patients' satisfaction) and the independent variables at the same time. The design did not only describe proportions. It also identified predictors of patients' satisfaction using principal component analysis.

3.2. Study Areas

The study was conducted at the Pentecost Hospital. It is a primary healthcare centre located at Madina Estates in the La Nkwantanang Municipality of the Greater Accra Region. The total area of the district is 70.887 square kilometers. According to the 2010 census, the population of the district is 111,926, with 54,271 males and 57,655 females. It has six sub-districts with forty three both public and private health facilities. It has six hospitals thus one government owned, the other a mission hospital and four private hospitals, two polyclinic, one health centre, twelve clinics, nineteen CHPS Zones and three maternity Homes. Between 15 years and older of the population are economically active forming about seventy percent while thirty percent are not economically active (Population & housing census, 2010).

Its scope of coverage is Nkwantanang, Social Welfare, Tatanaa, Danfa, Pantang, Madina and other surrounding areas (Municipal Health Directorate, 2015). The hospital was known formerly as Alpha Medical Centre. It was established by the Church of Pentecost. It was approved by the Government of Ghana and registered with the Christian Health Association of Ghana (CHAG) in 1999 (Municipal Health Directorate, 2015).

The hospital is accredited on the National Health Insurance Scheme, which allows people to access medical care regardless of socio-economic status (NHIA, 2016). It has both outpatient and inpatients departments with a bed capacity of 65. On average, the daily attendance is 252 and 91,819 yearly. There is an

equipped maternity department with a fully functional operating theatre. The emergency department, laboratory and pharmacy are also well equipped and adequately stocked. Specialist clinics, which include General Surgery, Pediatrics, Internal Medicine, Obstetrics and Gynecology, Dentistry, and Ophthalmology run on daily basis except on Saturdays and Sundays. The general OPD runs 24hrs a day and 7 days a week (Pentecost Hospital, 2016). The hospital has a staff strength of 294 with permanent staffs comprising of both clinical and non-clinical staffs

3.3. Study Population

The study population were all patients attending the OPD (general and specialist) during the time of the study. They were be both men and women.

3.3.1. Inclusion Criteria

Eligible patients for this study were OPD patients aged 18 years and above, willing to provide answers to the study instrument, and who had made at least one visit in the past one year.

3.3.2. Exclusion Criteria

Patients who could not speak or hear (deaf), were in serious condition, and had a mental health condition were excluded from the study.

3.4 Sampling Technique

Consecutive sampling was used to select study participants. As patients walked into the OPD, they told about the study to seek consent for participation. Once

they met the inclusion criteria, they were recruited into the study. The total sample size was divided by expected days (20) for data collection to achieve daily targets. Patients who were selected, were explained to, in detail, the study to be conducted and got their approval to become participants.

3.4.1. Sampling Size Determination

The sample size was determined using the Cochran's (1977), formula.

$$N_o = \frac{z^2 pq}{e^2}$$

N_o = minimum sample size

z = standard normal deviation (1.96)

p = 54.2% satisfaction level based on a study in Ethiopia (Sagaro *et al.*, 2015).

q = $1 - 0.542 = 0.458$

e = degree of precision, set at 5% = 0.05

$$\begin{aligned} \text{Substituting, } N &= \frac{(1.96)^2 \times 0.542 \times 0.458}{0.05 \times 0.05} \\ &= \frac{3.8416 \times 0.542 \times 0.458}{0.05 \times 0.05} \\ &= \mathbf{381} \end{aligned}$$

This number was increased to 418 to make up for possible 10% non-response rate. A sample size of 400 was drawn by other researchers (Rohini & Mahadevappa, 2006; Arasli *et al.* 2008; Yousapronpaiboon & Johnson, 2013).

3.7. Study Variables

The variables measured in the study were categorized into dependent and independent variables.

Dependent variable

The dependent variable measured in this research was Patients' Satisfaction. This was measured by asking patients their expectations as well perceptions in specific items based on the structure and process domain using questions with four plausible responses per question (Strongly disagree, Disagree, Agree, Strongly Agree).

Explanatory variables

Explanatory variables used to measure patients' satisfaction in this study include: tangibles, reliability, responsiveness, assurance, empathy.

Independent variables

The independent variables are:

1. Patient- related (Sociodemographic characteristics) factors (sex, age, educational level, marital status, occupation, income).
2. Health provider related factors: physician communication, attitude of staff, environment, waiting time, cost of investigative tests).

3.8. Data Collection Methods and Instruments

A structured questionnaire was designed using close-ended questions and administered to participants. The questionnaire was divided into two sections: the initial segment looked to discover patient-related factors (socio-demographic characteristics) of patients. The second part measured patients' satisfaction using the SERVQUAL model to elicit responses from outpatients' on the level to which they were satisfied with the structure and process (provider factors) within the hospital, using a four point-Likert Scale questions (rating points on the scale). on the dimension to which they were happy with the structure and process (provider factors) of the doctor's facility, utilizing a four point-Likert Scale questions (rating focuses on the scale). The key variable The key variables in the SERVQUAL model have been explained below.

Tangibles: Five items were assessed under the tangibles dimension. For instance one item of expectation question was: "I expect drugs for all diseases to be available at the OPD". Expected response is: 1 = strongly dis-agree; 4 = strongly agree. An example of perception question is: "I am satisfied that all drugs for all diseases are available at the OPD". Expected response was: 1 = strongly disagree; 4 = strongly agree.

Reliability: Four questions were utilized to assess the reliability variable. A sample of expectation question was: "I expect staff at the OPD to keep my appointments". Expected reaction was: 1 = strongly disagree; 4 = strongly agree.

A sample of perception question was: "I am satisfied that staff at OPD kept my appointment". Expected reaction was: 1 = strongly disagree; 4 = strongly agree.

Responsiveness: Seven items measured satisfaction under the responsiveness dimension. An sample of expectation question was: "I expect staff at OPD to always retrieve my records promptly whenever required". Expected reaction was: 1 = strongly disagree; 4 = strongly agree. A sample of perception question was: "I am satisfied that staff at OPD retrieved my records promptly whenever required". Expected reaction is: 1 = strongly disagree; 4 = strongly agree.

Assurance: The assurance dimension was also measured with five questions. A sample of expectation question were: "I expect laboratory results at the OPD was timely delivered". Expected reaction were: 1 = strongly disagree; 4 = strongly agree. A sample of perception question were: "I am satisfied that my laboratory results were timely delivered". Expected reaction were: 1 = strongly disagree; 4 = strongly agree.

Empathy: Five questions were utilized to assess the empathy variable. A sample of expectation question were: "I expect staff at the OPD to pay attention to my medical concerns". Expected reaction were: 1 = strongly disagree; 4 = strongly agree. An example of perception question is: "I am satisfied that staff a t OPD paid attention to my medical concerns". Expected response is: 1 = strongly disagree; 4 =strongly agree.

The questionnaires were administered to the patients at the OPD using interviewer-administered methods. Participants who could read answered the questionnaires using the interviewer-administered method. For participants who could not read, the research assistants interpreted the questions and helped them to fill the questionnaires using the interviewer-administered method. Each questionnaire was administered between 20 and 40 minutes.

3.9. Training of Research Assistants

Three research assistants were engaged in this study. They had a minimum qualification of West African Secondary School Certificate (WASSCE). They assisted in administration of the questionnaires and data entry. They were trained intensively for two days on the techniques of questionnaire administration for quantitative data collection, on the ethical guidelines, and data entry.

3.10. Pretesting

The developed questionnaire was pre-tested at the Madina Polyclinic using 20 conveniently sampled patients (10 males and 10 females) with similar characteristics. The aim was to test for validity and reliability of the instruments. Identified anomalies in the questionnaire were corrected before the final data collection.

3.11. Data Analysis

Pre-coded data were entered into Excel Spreadsheet, and cleaned. Analysis was done using STATA version 15.0. Descriptive and analytical approaches of data analysis were done to examine factors associated with patients' satisfaction. Frequencies and their respective percentages were recorded for the socio demographic characteristics. Overall difference in expectation and perception scores were taken. Simple and multiple linear regression were done to find out if any of the socio demographics could explain the difference in expectation and perception of patients (satisfaction). To calculate the mean gap score for patients' level of satisfaction, the following procedures were used. A total mean score was calculated for each dimension (e.g. Tangibles) for both expectation and perception questions. To ascertain the mean gap score for patients' satisfaction the following strategies were utilized. An aggregate mean score was determined by subtracting mean perception score from mean expectation score. A one-sample t-test was run to assess whether the two scores were statistically not the same as one another. The gap was considered as the level of patients' satisfaction with the quality of care. A Quality of care was regarded impressive or adequate when patient level of satisfaction is equivalent or greater than the expected level of service or vice versa (Senel & Senel, 2006)

Additionally, principal component analysis (PCA) was done using STATA to identify specific items in the dimensions that predicted Satisfaction.. Prior to the PCA, the data was assessed for suitability. Correlation coefficient cut off point

was set. The Kaiser-Meyer-Okin (Kaiser, 1970; Kaiser, 1974), value, which was used to assess sampling adequacy was set at a cut-off point, while the Bartlett's test of sphericity (Barlett, 1954) was done to indicate factorability of the correlation matrix.

Furthermore, a scree plot was conducted (Catell, 1966), and items with eigenvalue of over 1.0, were used to examine the plotting of each eigenvalue of the factors. All factors above the break in the plot and with eigenvalues of over 1.0 were kept for further analysis.

Lastly, further analysis was done using Varimax method, to try to reduce the variables with high loadings on each factor. This enabled the identification of which individual components of provider-factors under the five SERVQUAL dimensions that were predictor's of patient's satisfaction.

3.12 Ethical Consideration

Approval of the study was granted by Ghana Health Service Ethics Review Committee (GHS-ERC) with an approval reference number GHS-ERC 107/12/17

Approval from the study site

Following this, permission was sought from the authorities of the health facility before data was collected.

Description of subjects involved in the study

The subjects involved in the study were OPD patients aged 18 years and above, willing to provide answers to the study instrument, and who had made at least one visit within the last one year..

Participant's consent

Each participant was approached to give consent before to participation. Before participants were interviewed, each was given a consent form to read and sign. For individuals who could not read, the purpose of the study was explained to them and if they accepted to partake, their thumbprints was taken in the presence of witnesses..

Confidentiality

Participants were given the needed assurance that any information they provide will strictly be used solely for academic purposes and their confidentiality will therefore, be assured.

Risk and Benefits

Respondents were assured that the research did not come to them at any risk or

cost except their precious time that they would use to fill the questionnaire.

Compensation

Respondents were compensated with a face towel. The cost of one of these face towels was GH¢ 2.00.

Rights as a Participant

Respondents were made aware of their right to partake in the research at their own will. They were made to understand that they could have discontinued their participation at any time they wanted to and no one was going to be upset by their decision.

Data storage

The answered questionnaire were saved under lock and key with only the principal investigator having access to it. The soft copy was secured on a lap top with a password.

Protocol amendments

Participants were informed that if there was any change in the topic/study site or anything else, the Ghana Health Service Ethics Review Committee would be informed.

Conflict of interest

The researcher declared to the participants that that there was no conflict of

interest to be disclosed in the study.

Funding information

The cost of conducting the entire study was from the researcher. No one else supported the funding of this study.

3.13. Chapter summary

The methods above were followed to ensure that data collection was done and analysed. The next chapter provides the findings from data analysis.

CHAPTER FOUR

RESULTS

4.0. Introduction

This chapter seeks to provide information on the findings of this study. The chapter would provide descriptive statistics in section 4.1, 4.2, and 4.3. These sections would provide findings on socio-demographic characteristics of respondents, ranking of service dimension to assess quality of care, and overall patients' level of satisfaction respectively. Section 4.6 provides the results of the multivariate analysis of service quality using the Principal Component Analysis (PCA).

4.1. Patient-Related (Socio-demographic characteristics) factors of respondents

Table 4.1 below shows information on the socio-demographic characteristics of the respondents. Female respondents were in the majority, 73.5% (299/407). The mean age of respondents was 32.2 years, SD \pm 11.2. More than half of the respondents were married, 55.5% (226/407). Majority of the respondents had some level of education, 91.9% (374/407) as compared with those who had no formal education, and 8.1% (33/407). About 73% (297/407) of the respondents were employed. The median income was GH¢500.

Table 4.1: Socio-demographic characteristics of respondents (n = 407)

Variables	Frequency	Percent (%)
Sex		
Male	108	26.5
Female	299	73.5
Age (Mean ± SD) 32.2 years ± 11.2		
Marital Status		
Single	161	39.6
Married	226	55.5
Divorced	4	1.0
Widowed	16	3.9
Educational Level		
no formal education	33	8.1
primary level	53	13.0
Secondary	183	45.0
Tertiary	138	33.9
Occupation		
Unemployed	110	27.0
Trader	96	23.6
security personnel	8	2.0
daily labourer	10	2.5
Students	34	8.4
civil service	0	0.0
Other	149	36.5
Median	Income	
GH¢500		

4.2 Linear regression of patient-related (socio-demographic characteristics) factors and mean difference in perception scores and expectation scores

As shown in Table 4.2, there was no association between almost all socio-demographic characteristics and the overall difference in mean perception scores and mean expectation scores. Occupation was the only patient factor that predicted the mean difference in perception and expectation. Daily labourers had significant increase in their mean gap score by 2.24 as compared to those were unemployed (unadjusted Mean difference= 2.24, 95% CI 0.45, 3.99, $p < 0.01$). This difference was still significant after adjusting for all other patient factors (adjusted Mean difference= 2.48, 95% CI 0.68, 4.28, $p < 0.01$).

Table 4.2: Linear regression of socio-demographic factors and mean difference in perception scores and expectation scores

Variables	Frequency (n%)	Unadjusted		Adjusted	
		Mean difference (95% CI)	p-value	Mean difference (95% CI)	p-value
Sex					
male(ref)	108(26.5)	1			
Female	299(73.5)	-0.08 (-0.21, 0.06)	0.255	0.45 (-0.19, 1.08)	0.170
Age		-0.001 (-0.007, 0.003)	0.495	0.01 (-0.02, 0.04)	0.454
Marital Status					
single(ref)	161(39.6)	1			
Married	226(55.5)	-0.02 (-0.15, 1.03)	0.735	-0.34 (-0.95, 0.27)	0.280
Divorced	4(1.0)	0.17 (-0.45, 0.78)	0.596	-1.76 (-4.50, 0.98)	0.206

Widowed	16(3.9)	-0.11 (-0.43, 0.21)	0.496	-0.38 (-2.03, 1.26)	0.647
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Educational Level

no formal

education(ref)	33(8.1)	1			
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primary level	53(13.0)	-0.02 (-0.48, 0.05)	0.110	0.32 (-0.89, 1.53)	0.603
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Secondary	183(45.0)	0.03 (-0.19, 0.26)	0.785	-0.39 (-1.42, 0.63)	0.450
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Tertiary	138(33.9)	0.03 (-0.20, 0.26)	0.804	0.60 (-0.51, 1.72)	0.289
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Occupation

unemployed(ref)	110(27.0)	1			
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Trader	96(23.6)	-0.28 (-1.02, 0.46)	0.530	-0.02 (-0.83, 0.79)	0.964
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security					
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personnel	8(2.0)	-0.51 (-2.45, 1.43)	0.615	-0.30 (-2.28, 1.68)	0.764
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daily labourer	10(2.5)	2.24 (0.45, 3.99)	0.002	2.48 (0.68, 4.28)	0.007
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Students	34(8.4)	0.35 (-0.69, 1.39)	0.395	0.33 (-0.75, 1.42)	0.546
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Other	149(36.5)	-0.26 (-0.93, 0.40)	0.081	-0.09 (-0.86, 0.67)	0.808
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		0.00002 (-0.00003,		-0.0001 (-0.0004,	
Income		0.00008)	0.381	0.0002)	0.362

4.3. Ranking of service dimension to assess quality of care

There were five service dimensions used to assess quality of care. These are shown in Figure 4.1 and Tables' 4.3a, 4.3b, 4.3c, 4.3d and 4.3e below with a summary of the mean scores, including tangibles, reliability, responsiveness, assurance and empathy. As shown in table 4.2, of these service dimensions,

empathy ranked first with an expectation score of 3.20 and standard error (SE) 0.03, whilst the mean perception score was 3.02 and SE 0.03. The mean gap score was -0.18.

There were five items used to assess empathy. Respondents were most satisfied with how compassionate the outpatient department (OPD) staff were (-0.14; SE = 0.03) and how they listened to patients' adequately (-0.14; SE = 0.03). This was followed by how the OPD staff were cooperative and ready to offer medical assistance (-0.15; SE = 0.03). Patients were also satisfied with how the OPD staff were polite and comforting (-0.19; SE = 0.03) but were least satisfied with the attention paid by the staff to their individual medical concerns (-0.26; SE = 0.03). However, all these items were statistically significant ($p = 0.000$) (see Table 4.3a).

Table 4.3a: Empathy dimension to assess Patients' Satisfaction

	Mean			
	Mean perception score (SE)	Mean expectation score (SE)	Mean gap score (SE)	p-value
I EMPATHY (Process)				
1. "OPD staff pay attention to my individual medical concerns"	3.02(0.03)	3.28(0.03)	0.26(0.03)	0.000*
2. "OPD staff has built good cooperation with me and are ready to offer me medical assistance"	3.04(0.03)	3.19(0.03)	0.15(0.03)	0.000*
3. "OPD staff is polite, comforting and encouraging to me when faced with medical problems"	3.00(0.03)	3.19(0.03)	0.19(0.03)	0.000*
4. "OPD staffs were compassionate to me"	3.01(0.03)	3.15(0.03)	-	0.000*

			0.14(0.03)	
			-	
5. "OPD staff listened to me adequately"	3.04(0.03)	3.18(0.03)	0.14(0.03)	0.000*
Average Empathy SERVQUAL scores	3.02(0.03)	3.20(0.03)	-0.18	

*Statistically significant ($p \leq 0.05$)

Reliability

Reliability was ranked second in 5 dimensions. The mean expectation score was 3.35 and SE 0.03 and the mean perception score was 3.02 and SE 0.03. The mean gap score was -0.33. However, of all the four items used to rank reliability, patients were mostly impressed with how the OPD staff gave proper medications as prescribed (-0.30; SE = 0.03). This was followed by how the OPD staff fulfilled expectations by giving physical examinations (-0.32; SE = 0.03). Additionally, patients were impressed with the communication and information skills displayed by the OPD staff (-0.33; SE = 0.04). The patients were impressed with how the OPD staff kept appointments (-0.35; SE = 0.04). These four items used to rank reliability were statistically significant ($p = 0.000$).

Table 4.3b: Reliability dimension to assess Patients' Satisfaction

	Mean perception score (SE)	Mean expectation score (SE)	Mean gap score (SE)	p-value
II RELIABILITY				
1. "OPD staff will keep appointments given to me".	2.99(0.03)	3.34(0.03)	0.35(0.04)	0.000*

2. "OPD staff have good communication and information skills".	3.01(0.03)	3.34(0.03)	-	0.33(0.04)	0.000*
3. "OPD staff will fulfil my expectations by giving me thorough physical examinations"	3.02(0.03)	3.34(0.03)	-	0.32(0.03)	0.000*
4. " OPD staff give me proper medications as prescribed (essential drugs)"	3.05(0.03)	3.35(0.03)	-	0.30(0.03)	0.000*
Average Reliability SERVQUAL scores	3.02(0.03)	3.35(0.03)	-0.33		

*Statistically significant ($p \leq 0.05$)

Assurance

Assurance was ranked third among the five SERVQUAL dimensions. Expectation (E) score was 3.34 and SE 0.03 and mean perception (P) score was 3.00 with SE 0.03. The mean gap score was -0.34. The knowledge possessed by the OPD staff and the confidence to recommend this OPD services to other clients impressed patients the most (-0.29; SE = 0.03). The adherence of the OPD staff to the confidentiality of any information also impressed patients (-0.30; SE = 0.03). Patients were also impressed with the OPD staff available to take care of them (-0.37; SE = 0.03), but were least satisfied with the time taken for laboratory results to be availed (-0.45; SE = 0.04). All the five items used to rank assurance were significant ($p = 0.000$) as shown in Table 4.3c..

Table 4.3c: Assurance dimension to assess Patients' Satisfaction

III ASSURANCE (Structure)	Mean			
	Mean perception score (SE)	n	Mean expectatio score (SE)	Mean gap score (SE) p-value

1. "Laboratory results of this OPD are timely availed"	2.89(0.03)	3.34(0.03)	-	0.000*
2. "OPD staff adhere to the confidentiality of my Information"	3.06(0.03)	3.36(0.03)	-	0.000*
3. "OPD have adequate staffs to take care of its Clients"	2.99(0.03)	3.36(0.03)	-	0.000*
4. "OPD staff have enough knowledge to answer my questions"	3.04(0.03)	3.33(0.03)	-	0.000*
5. " I should be able to recommend this OPD services to other client"	3.02(0.03)	3.31(0.03)	-	0.000*
Average Assurance SERVQUAL scores	3.00(0.03)	3.34(0.03)	-0.34	

*Statistically significant ($p \leq 0.05$)

Tangibles

Tangibles was ranked fourth. The mean expectation score was 3.35 and SE 0.03. The mean perception score was 2.98 and SE 0.03 with a gap score of -0.35. Patients were least impressed with the reception area of the OPD (-0.50; SE = 0.04). They were less impressed with how to obtain drugs in the OPD (-0.40; SE = 0.04). However, the patients were mostly impressed with how the OPD provided drugs for all diseases (-0.25; SE = 0.04). This was followed by how the doctors prescribed good drugs (-0.27; SE = 0.04) and how clean the OPD appeared every day (-0.35; SE = 0.04). All these items were statistically significant ($p = 0.000$) as shown in Table 4.3d.

Table 4.3d: Tangibles dimension to assess Patients’ Satisfaction

SERVQUAL STATEMENTS	Mean perception score (SE)	Mean expectatio		Mean gap score (SE)	p-value
		n	score (SE)		
IV TANGIBLES					
1. “OPD will provide me with drugs of all Diseases”	2.95(0.03)		3.20(0.03)	0.25(0.04)	0.000*
2. “Doctors of this OPD will prescribe good Drugs”	3.06(0.03)		3.33(0.03)	0.27(0.04)	0.000*
3. “Drugs was obtained easily in this OPD”	2.92(0.03)		3.32(0.03)	0.40(0.04)	0.000*
4. “OPD will have good reception area that have sufficient seats and toilets”	2.92(0.03)		3.42(0.03)	0.50(0.04)	0.000*
5. “OPD appears clean every day”	3.02(0.03)		3.37(0.03)	0.35(0.04)	0.000*
Average Tangibles SERVQUAL scores	2.98(0.03)		3.33(0.03)	-0.35	

*Statistically significant ($p \leq 0.05$)

Responsiveness

Responsiveness dimension was ranked fifth. The mean expectation score was 3.33 and SE 0.03 and mean perception score was 2.95 and SE 0.03. The mean gap score was -0.38. The willingness of the OPD staff to help patients whenever medical help was needed greatly impressed them (-0.34; SE = 0.04). This was followed by how prompt records were retrieved (-0.35; SE = 0.04), identification

of very ill patients and assistance given when needed (-0.35; SE = 0.04), how respectful the OPD staff were (-0.37; SE = 0.04), time spent while attending to individual problems (-0.37; SE = 0.04), how prompt services were offered (-0.38; SE = 0.03) and time spent before getting services (-0.53; SE = 0.04). All the seven items used to rank responsiveness were significant ($p = 0.000$) as shown in Table 4.3e.

Table 4.3e: Responsiveness dimension to assess Patients' Satisfaction

V RESPONSIVENESS	Mean	Mean		p-value
	perception score (SE)	n	score	
1. "OPD staff retrieve my records promptly".	2.99(0.03)	3.34(0.03)	0.35(0.04)	0.000*
2. "OPD staff identify very ill patients and assist them whenever there is need".	3.01(0.03)	3.36(0.03)	0.35(0.04)	0.000*
3. "OPD staff was respectful to me".	2.99(0.03)	3.36(0.03)	0.37(0.04)	0.000*
4. "OPD staff offer prompt services".	2.98(0.03)	3.36(0.03)	0.38(0.03)	0.000*
5. "OPD staff is willing to help client whenever medical help is needed".	3.00(0.03)	3.34(0.03)	0.34(0.04)	0.000*
6. "I used a short period of time to wait (<30 min) before getting services"	2.75(0.04)	3.28(0.03)	0.53(0.04)	0.000*
7. " OPD staff spend enough time (at least 10 min) while attending to my problems".	2.89(0.03)	3.26(0.03)	0.37(0.04)	0.000*

Average Responsiveness SERVQUAL scores 2.95(0.03) 3.33(0.03) -0.38

*Statistically significant ($p \leq 0.05$)

4.4 Mean score of all 5 SERVQUAL dimensions to assess quality of care

Figure 4.1 below shows the mean scores (expectation and perception) of the 5 service dimensions. Of these service dimensions, empathy ranked first with an expectation score of 3.20, whilst the mean perception score was 3.02. The mean gap score was -0.18 meaning that patients were least dissatisfied with the Empathy dimension items.

Reliability was ranked second. The mean expectation score was 3.35 and the mean perception score was 3.02. The mean gap score was -0.33.

Assurance was ranked third. Expectation (E) score was 3.34 and mean perception (P) score was 3.00. The mean gap score was -0.34.

Tangibles was ranked fourth. The mean expectation score was 3.35. The mean perception score was 2.98 with a gap score of -0.35.

Responsiveness was ranked fifth. The mean expectation score was 3.33 and mean perception score was 2.95. The mean gap score was -0.38 making the responsiveness the dimension along which patients were most dissatisfied.

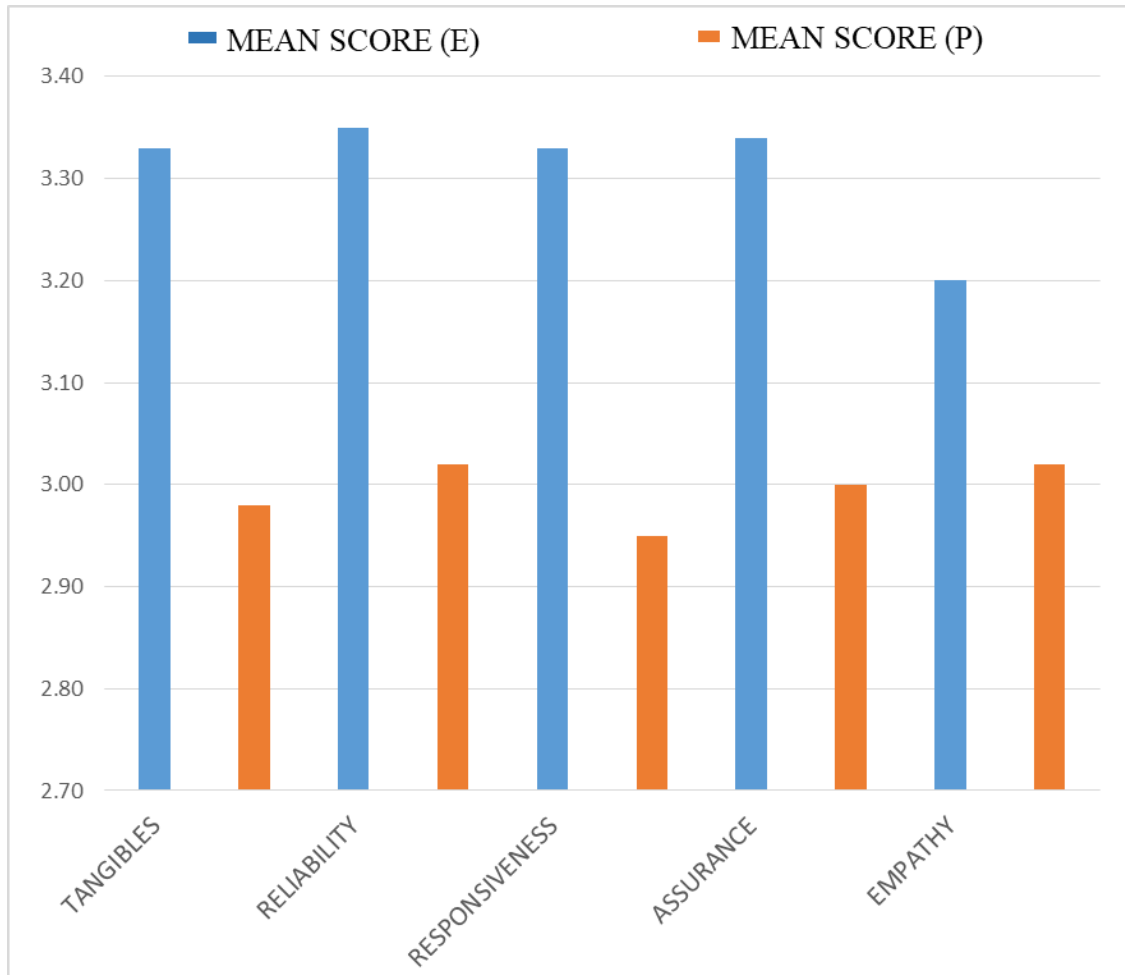


Figure 4.4: Mean score of all 5 SERVQUAL dimensions to assess quality of care

4.5. Overall patients' level of satisfaction

The overall patients' satisfaction was assessed. The results showed that the mean gap score to assess overall patients' satisfaction with services accessed at the OPD of the Pentecost Hospital was $-1.67(\pm 0.1)$. The mean expectation score was 17.2 while the mean perception score was 15.5. Hence, the mean gap score was -1.67 of all the five service dimensions assessed.

4.6. Multivariate Analysis of Service Quality (Principal Component Analysis)

All the items on the SERVQUAL scale were brought into PCA. After inspecting the correlation matrix, it was revealed that many of the co-efficients were greater than 0.3. The Kaiser-Meyer-Oklin value was 0.9 higher than the 0.6 cut-off. The Barlett's Test of Sphericity demonstrated statistically significant ($\chi^2 = 3724$; $p < 0.001$). The PCA analysis on the expectation scale showed that three components with eigenvalues were greater than 1, explaining 54.3%, 8.8%, and 4.7% of the variance. These three (3) components explained the 67.9% of the variance. PCA on the perception scale revealed that the three (3) components had eigenvalues greater than 1, explaining 58.9%, 5.4%, and 4.2% of the variance. The three (3) components on the perception scale explained the total of 68.5% of the variance.

Catell's scree test revealed one component above the breakpoint on the scree plot for both scale (perception and expectation) and was kept for more analysis . Seven factors were revealed to have strong loadings with both components. The two factor solution accounts for a total of 51.4% of the variance, with the first component contributing 25.6% and the second component 25.8% and had acceptable reliability with Cronbach's alpha coefficients of 0.94 and 0.92 for the expectation sub scale and perception sub scale respectively. The results are displayed in table 4.6.

Table 4.6: Principal component Analysis (Varimax Rotation of Two Factor Solution for SERVQUAL Items)

Items	Component	
	1 Expectation score	Component 2 Perception score
1. "OPD staff offer prompt services".	0.83	0.59
2. "OPD staff will be respectful to me".	0.82	0.66
3. "OPD staff identify very ill patients and assist them whenever there is need".	0.82	0.57
4. "OPD staff give me proper medications as prescribed (essential drugs)"	0.81	0.87
5. "OPD staff adhere to the confidentiality of my Information"	0.81	0.73
6. "OPD staff will fulfil my expectations by giving me thorough physical examinations"	0.73	0.55
7. " OPD have adequate staffs to take care of its clients"	0.8	0.65
% of variance explained	25.6%	25.8%
Cronbach's alpha coefficients	0.94	0.92

4.7. Chapter summary

This chapter presented findings of this research after data analysis in accordance with the study objectives. The results showed that most socio-demographic factors were not associated except occupation. The principal component analysis revealed promptness of service delivery, disrespectfulness of staff, poor communication and lack of empathy towards very ill patients, poor adherence to confidentiality, inadequacy of staff at the OPD and lack of physical examination were the factors that were perceived to account for the dissatisfaction of the patients with service delivery at the OPD.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0. Introduction

This chapter presents the discussion of the findings of the study and how they relate to existing literature. There are three sections therein. Section one presents the relationship between the findings of the patient-related (socio-demographic characteristics) factors and extant literature. Section two presents the relationship between the findings of provider-related factors and existing literature, showing agreements and disagreements. Section three presents the summary of the study where the general issues of this chapter as well as what the reader should expect in the subsequent chapter are presented.

5.1. Patient-related (Socio-demographic characteristics) factors influencing patients' satisfaction with health care

This section provides analysis of the findings relating to patient-related (socio-demographic) factors and existing literature. Thus, each of the key elements has been analysed with current literature as below.

Age

Age did not significantly predict the differences in perception and expectations of service delivery at the Pentecost Hospital. In a related study, no association existed between age and patients' satisfaction (Oyvind *et al.*, 2011). Shou-Hisa *et al.* (2003), on the other hand reported that age was associated with patients'

satisfaction.

Sex

The multiple linear regression on socio-demographic characteristics and satisfaction did not reveal sex to be significantly associated with gap in patients' expectations and perceptions. A previous study by Shou-Hisa *et al.* (2003), found that there was an association between sex and patients' satisfaction. Woods and Heidari (2003), also asserted that there was no difference in satisfaction between males and females.

Educational level

Educational Level of the patients, although not significant in the regression analysis, had been found to have an influence on patients' satisfaction in a national survey conducted in different hospitals in Taiwan (Shou-Hisa *et al.*, 2003). In another study, findings similarly reported no association between Educational level and patients satisfaction (Oyvind *et al.*, 2011).

Occupation

The only patient factor that significantly predicted satisfaction was occupation. Daily labourers had significant increase in their mean gap score as compared with those who were unemployed. This difference was still significant after adjusting for all other patient factors. A similar finding was documented in an earlier study (Saeed *et al.*, (2000).

Marital Status

Married patients have been documented to be significantly more satisfied with health service delivery (Afzal *et al.*, 2014). However, just as was found in this study, marital status did not have any significant association with patients satisfaction similar to an earlier finding (Ibraheem, Ibraheem, & Bekibele, 2013; Wang, Xue, & Liu, 2016).

Income

Income level had a significant relationship with patient satisfaction level, in that patients with higher income showed significantly higher mean satisfaction in previous studies (Saeed *et al.*, 2000; Kelarijani, Jamshidi, Heidarian & Khorshidi, 2014). Nonetheless, the same was not found in this study. The mean gap score (satisfaction) across the respondents was not explained by variations in income. Perhaps, information on mode of payment for hospital services would better explain why no association was found or because National Health Insurance caters for most of the OPD services at the Pentecost Hospital, income variations in the respondents could not predict any difference in satisfaction levels of richer or poorer people.

5.2. Provider-related factors influencing patients' satisfaction with health care

This section provides analysis of the findings relating to provider-related factors and existing literature. Thus, each of the key elements has been analysed with current literature as below.

Physician communication

The findings showed that in the reliability dimension, differences in patients' expectation and perception with regards to 'OPD staff keeping appointments to appointment', 'OPD staff having good communication and information skills', and 'OPD staff fulfilling patients' expectations by giving them thorough physical examinations' contributed most to patients' dissatisfaction with the quality of care at the hospital. Some researchers have indicated that good communication at the OPD by staff is a pre-requisite for staff to adequately respond to patients' needs as interpersonal communication skills of physicians were found to be significant drivers of patients' satisfaction (Nicholas, Julie, Kimberly, & Ron, 2005; Sung, Soo, Stan, & Mark, 2004; Andrabi, Hamid, Rohul & Anjum, 2012).

Atinga and Abekah-Nkrumah (2011), noted that the quality of patient-provider communication offers a healing atmosphere where the patient will more likely maintain utilising the services provided by the provider. At the OPD, patients spend some time with doctors in the consulting rooms. Thus, it has been established that communication between the patient and the physician most often impacts on the patients' perception of the quality care rendered as evidenced in earlier studies (Mukhtar *et al.*, 2013; Kagashe & Rwebangila, 2011; Assefa, Moses, & Johannes, 2010; Thompson, 2006).

Attitude of Staff

It was observed that respondents in this study were least or less satisfied with how compassionate the outpatient department (OPD) staff were and how they listened to patients adequately. Meanwhile, other researchers have suggested that perceived friendliness, respectfulness and fairness on the part of hospital staff go a long way to inform patients' choice of a visit again or not (Mukhtar *et al.*, 2013).

Environment

The study found that respondents were dissatisfied with the OPD reception area regarding 'sufficient seats and toilets, and overall cleanliness of OPD area'. Some researchers have explained that the hospital environment consists of the physical environment with regards to cleanliness as well as aesthetics and basic facilities that enhance the delivery of care (Atinga & Abekah-Nkrumah, 2011; Mukhtar *et al.*, 2003),

Waiting time

The study found that the participants were least satisfied with OPD staff's promptness to service delivery. The main items under responsiveness that contributed to patients' dissatisfaction were 'promptness of services at OPD by staff', 'long waiting time'. Other studies have documented waiting time as predictors of patients' satisfaction (Abekah-Nkrumah *et al.*, 2011; Patro *et al.*, 2008),

5.3. Patients' level of satisfaction with service quality

The findings of this study indicated that patients' satisfaction with the quality of care at the OPD at the Pentecost Hospital, Madina, Accra, Ghana was relatively low. Generally, patients' expectations with regards to service delivery across all five dimensions of the quality of care were not met. This agrees with other documentation of patients' satisfaction studies (Khamis, & Njau, 2014; Derua *et al.*, 2011; Ahmad *et al.*, 2001). Other studies have reported contrary findings (Leshabari, Muhondwa, Mwangu & Mbembati, 2008). A study conducted in Tanzania documented a high proportion of patients' satisfaction with the quality of care (Leshabari *et al.*, 2008).

As a matter of fact, generally, it is not proven that patients' satisfaction has a direct relation with quality (Leonard, 2008). Leonard (2008), in a study done in Tanzania demonstrated that, in the Tanzanian context, satisfaction was not directly related with the quality of care, but changes in the quality could lead to changes in satisfaction, as patients noticed improvements. This situation may not differ in the Ghanaian context in the sense that the more satisfied the patients were with the service delivery, the higher they would perceive of the service to be of quality.

Among all five dimensions of the quality of care used to assess patients' level of satisfaction, respondents were least dissatisfied with empathy dimension. The study found that empathy ranked first, recording the least difference in patients'

expectation and perception of the service delivered/accessed. This was followed by reliability, assurance, tangibles, and responsiveness. In another study conducted using the Donabedian (1980) model, all three domains of structure, process and outcome coordinated strongly with the context of quality of care (Khamis & Njau, 2014; Bjertnaes *et al.*, 2012; Andaleeb, 2001).

In this study, empathy measured the process domain of the quality of care model propounded by Donabedian (1980). The study revealed that respondents were most dissatisfied with attention paid to individual medical concerns. They were also dissatisfied with how polite, comforting and encouraging OPD staff were towards their medical concerns. However, other studies found that the attitude of health providers towards patients, such as politeness was a significant determinant of patient satisfaction (Khamis, & Njau, 2014; Leonard, 2008; Forster *et al.*, 2006).

This observation from this study was quite worrisome as it would influence patients who could pay for services to choose other health facilities where they would not need to use their health insurance cards but simply pay out of pocket to get the kind of services they desire as reported in earlier studies (Khor, Changizi, & Biuckians, 2012; Peltezer, 2009; Forster *et al.*, 2006; Andaleeb, 2001).

From findings of this study, it is important for the management of the Pentecost Hospital to encourage the health personnel to welcome the concept of staff-

patient relationship, where the patient is considered as a customer whose satisfaction is paramount in order to enhance the overall quality of care in this facility (Arranz *et al.*, 2005; Cowell, 2015). It was observed that respondents in this study were least or less satisfied with how compassionate the outpatient department (OPD) staff were and how they listened to patients' adequately. Meanwhile, other researchers have suggested that perceived friendliness, respectfulness and fairness on the part of hospital staff go a long way to inform patients' choice of a visit again or not (Mukhtar *et al.*, 2013).

In this study, reliability dimension came second from the ranking. Similarly, reliability was the second dimension after ranking just as reported by Khamis and Njau (2014). In accordance with the Donabedian (1980) model, the reliability dimension measured process. The findings showed that in the reliability dimension, differences in patients' expectation and perception with regards to 'OPD staff keeping appointments to appointment', 'OPD staff having good communication and information skills', and 'OPD staff fulfilling patients' expectations by giving them thorough physical examinations' contributed most to patients' dissatisfaction with the quality of care at the hospital.

On the contrary, the study conducted by Khamis and Njau (2014), observed that the dissatisfaction of respondents under the reliability dimension was on good prescription of drugs at the OPD and raised concern in relation to clinicians' capacity to make accurate diagnosis and treatment of familiar diseases. It would

be recalled that some researchers have indicated that good communication at the OPD by staff is a pre-requisite for staff to adequately respond to patients' needs as interpersonal communication skills of physicians were found to be significant drivers of patients' satisfaction (Nicholas, *et al.*, 2005; Sung *et al.*, 2004; Andrabi *et al.*, 2012).

Atinga and Abekah-Nkrumah (2011), note that the quality of patient-provider communication offers a healing atmosphere where the patient will more likely maintain utilising the services provided by the provider. At the OPD, patients spend some time with doctors in the consulting rooms. Thus, it has been established that communication between the patient and the physician most often impacts on the patients' perception of the quality care rendered (Mukhtar *et al.*, 2013; Kagashe & Rwebangila, 2011; Assefa *et al.*, 2010; Thompson, 2006).

For instance, it was reported that statements such as 'how well the doctors kept you informed about your condition'; and 'understood the instructions and could easily follow them' were significantly associated with patients' satisfaction (Boudreaux, Boudreaux, Ary, & Mandry, 2017). Therefore, when patients are dissatisfied with the communication skills of OPD staff, it suggests a fundamental problem, which may explain the dissatisfaction expressed even with perceived politeness of staff in the empathy dimension in this study.

The study revealed that the assurance dimension, which measured structure according to the Donabedian (1980) model, ranked third. However, Khamis and

Njau (2014), in their study of patients' satisfaction ranked assurance first as the dimension that resulted in the least or less satisfaction. The findings indicated that of all the items assessed under the assurance dimension, patients were most dissatisfied with the timeliness with which laboratory results were made available at the OPD of the Pentecost Hospital.

Moreover, it was observed that patients were least or less satisfied with staff of OPD in terms of keeping patient's information confidential. The perceived dissatisfaction of patients' with OPD staff's lack of regard to confidentiality of patients' information emphasises the need for the management of the Pentecost Hospital to build up adherence skills among staff at the OPD on confidentiality of patients' information. It is well reported that patients who perceived a lack of confidentiality with their medical information tended to seek for attention from elsewhere (Assefa *et al.*, 2010; Leonard, 2008; Thompson, 2006).

Furthermore, it was found that inadequacy of OPD staff contributed significantly to patients' dissatisfaction with the quality of care under the assurance dimension. Fewer staff may result in longer waiting time (Richardson & Mountain, 2009). The time spent by clients waiting for their turn to be attended to by a doctor or the nurses has been found to have influenced clients' perceived satisfaction in other studies (Abekah-Nkrumah *et al.*, 2011). Patro *et al.* (2008), found that waiting time for consultation was a factor that influenced service delivery at the OPD.

In addition, the study showed that the tangibles dimension, which assessed the structure domain in accordance with the Donabedian (1980) model ranked fourth. Respondents were not satisfied with the ability to obtain medications easily at the OPD. They were also dissatisfied with the OPD reception area regarding 'sufficient seats and toilets, and overall cleanliness of OPD area'. Some researchers have explained that the hospital environment consists of the physical environment with regards to cleanliness as well as aesthetics and basic facilities that enhance the delivery of care (Atinga & Abekah-Nkrumah, 2011). Mukhtar *et al.* (2003), in a descriptive cross sectional study in a tertiary care hospital, revealed that majority of the respondents agreed that the hospital was clean and very well ventilated. In a related study, the environment was reported to have significantly influenced patients' satisfaction in Ghana (Atinga & Abekah-Nkrumah, 2011).

Additionally, responsiveness also assessed the process domain in relation to the Donabedian (1980) model. The study found that the respondents were least satisfied with OPD staff's promptness to service delivery. The main items under responsiveness that contributed to patients' dissatisfaction were 'promptness of services at OPD by staff', 'long waiting time', and 'OPD staff not spending enough time (at least 10 min)'. This further substantiates the assurance item of inadequate staff, which may cause delays at the OPD. Khamis and Njau (2014), on the contrary, reported respect shown by staff as the item with least satisfaction under the responsiveness dimension.

The Principal Component Analysis (PCA) revealed seven items (3 responsiveness items, 2 assurance and 2 reliability items) that explained 51.4% of the patients' satisfaction scores on quality of care. These items were promptness of service delivery, disrespectfulness of staff, lack of empathy towards very ill patients, poor adherence to confidentiality, inadequacy of staff at OPD, and lack of physical examination. It is well reported that patients' perception of health care providers' conducts, such as respect, influences their impression of a quality care (Leshabari *et al.*, 2008; Leonard, 2008; Lantis, Green, & Stephanie, 2002).

However, the respondents in this study were satisfied with the prescription of medications (essential drugs) at the OPD. Accessibility of essential drugs is a principal predictor of patients' level of satisfaction as discovered in various studies in other settings (Khamis & Njau, 2014; Kagashe & Rwebangila, 2011; Assefa *et al.*, 2010; Leshabari *et al.*, 2008; Thompson, 2006).

5.4. Chapter Summary

In summary, the Donabedian model views all three domains (structure, process, and outcome) as interrelated arms that improve the quality of care and all domains must work at optimal level to accomplish a desired results, such as patients' satisfaction (Donabedian, 1980). Nonetheless, there are so many factors that influence patients' level of satisfaction and quality of care, therefore,

caution should be taken while making conclusions regarding the quality of care. The next chapter presents the summary, conclusion, contribution to knowledge, recommendations, limitations to the study and direction for future research.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.0. Introduction

This chapter presents the summary, conclusion, contribution to knowledge, recommendations, limitations to the study and direction for future research. There are six sections therein. Section one is where the summary of the study is presented. Section two presents the conclusions of the study. Section three is where the contribution of the study to knowledge is presented. Section four is where the recommendations based on the findings of the study are presented. Section five presents the limitations to the study. Section six is where the suggestions for future research are presented.

6.1. Summary of the Study

This section presents the summary of the study based on the general objective. The general objective of the study was to determine factors influencing patients' satisfaction with health care at the Pentecost Hospital, Madina in the Greater Accra Region of Ghana. A cross sectional design using quantitative methods was applied to collect primary data for analysis in this study. A structured questionnaire was administered to patients at the outpatients department of the hospital.

Generally, the study found that respondents' expectation of service delivery was significantly higher than what they perceived at the OPD of the Pentecost Hospital. That is, the study concludes that respondents in this study were generally dissatisfied with the health care rendered at the OPD. The study argues that patients' satisfaction level with the quality of care at the OPD at the Pentecost Hospital, Madina, Accra, Ghana was comparatively low. Indeed, patients' expectations with regards to service delivery across all five dimensions of the quality of care were not met.

6.2. Conclusions of the study

This section presents the conclusions of the study based on the specific objectives. These were: to determine how both patient-related factors and provider-related factors could influence patients' satisfaction with health care at the Pentecost Hospital. The details of the conclusions relating to these have

been presented below.

6.2.1 Level of patients' expectation of the quality of care among the outpatients of the Pentecost Hospital

Respondents' expectation of service delivery at the OPD of the Pentecost Hospital was significantly higher than what they perceived and experienced. Other studies have reported high expectation of quality among OPD patients (Leshabari *et al.*, 2008).

6.2.2 Patients' perception of the service quality at the outpatient department of the Pentecost Hospital

The study found and concluded that OPD patients' perception of the service quality were was generally below expectation. A similar conclusion has been made by Khamis and Njau (2014).

6.2.3 Patients' level of satisfaction of with service quality at the outpatient department of the Pentecost Hospital

Respondents in this study were generally dissatisfied with care rendered at the OPD at the Pentecost Hospital in Accra, Madina. Promptness of service delivery, disrespectfulness of staff, poor communication and lack of empathy towards very ill patients, poor adherence to confidentiality, inadequacy of staff at OPD, and lack physical examination were the factors that were perceived to account for the dissatisfaction of the patients to service delivery at the OPD. Respondents were satisfied with the prescription of drugs (essential drugs) at

the OPD.

6.2.4. Influence of patient-related (socio-demographic characteristics) factors on patients' satisfaction with health care

The study found and conclude that patient-related factors; age, sex, educational level, marital status, income did not predict satisfaction. Daily labourers had significant increase in their mean gap score as compared with those were unemployed. This conclusion is backed by findings from earlier studies (Saeed *et al.*, 2000).

6.2.5. Influence of provider-related factors on patients' satisfaction with health care

The study found and concludes that respondents in this study were generally dissatisfied with the health care rendered at the OPD of the Pentecost Hospital at Madina in Accra. Thus, the study argues that promptness of service delivery, disrespectfulness of staff, poor communication and lack of empathy towards very ill patients, poor adherence to confidentiality, inadequacy of staff at OPD, and lack of physical examination were the factors that were perceived to account for the dissatisfaction of the patients with service delivery at the OPD.

This conclusion sits with earlier evidence that patients who perceived that their confidentiality with their medical details is compromised tended access for care elsewhere (Assefa *et al.*, 2010; Leonard, 2008; Thompson, 2006). The study

concludes that the respondents were satisfied with the prescription of drugs (essential drugs) at the OPD.

6.3. Contribution to Knowledge

The study's contribution to knowledge in respect of policy, practice and management of healthcare institutions and research methodology has been presented in this section.

6.3.1. Contribution to policy, practice and management of healthcare institutions

It is obvious that the study makes a contribution to policy, practice and management of healthcare institutions in Ghana and elsewhere. Different policies have been made relating to how to improve on quality of care in healthcare institutions (MOH, 2016). Based on the findings from this study, patient-centred care is recommended for policy makers since evidence show that patient-centred care improves disease outcomes and quality of life, which are needed to improve quality care (Epstein *et al.*, 2010).

Policy makers need to advance a coordinated and focused national policy in support of patient-centred care. This policy would help professionals in health to develop and maintain skills that ensure that the care rendered targets the needs of patients. It is important that the management of the Pentecost Hospital take on board some of these policies in its management of patients and their concerns. For instance, based on the findings of this study, it is important for the

management of the Pentecost Hospital to encourage the health personnel to welcome the concept of staff-patient relationship, where the patient is considered as a client whose satisfaction is paramount in order to improve the overall quality of care at the facility (Arranz *et al.*, 2005; Cowell, 2015).

6.3.2. Contribution to research methodology

The study's contribution to research methodology cannot be overemphasised. Different research methods (either quantitative research or qualitative research alone or both) have been applied to examine patients' satisfaction with health care accessed at healthcare institutions (Khamis, & Njau, 2014; Derua *et al.*, 2011; Ahmad *et al.*, 2001). The study applied a quantitative research method instead of a qualitative research method. Thus, the use of the quantitative research method assisted the researcher to assess and statistically quantify the results of this study, which were based on the expectations and perceptions of the patients attending the OPD of the Pentecost Hospital. On the other hand, the application of a qualitative research method would not have helped to achieve this goal since qualitative research methods do not quantify respondents' perceptions and expectations (Rahman, 2017).

The study used the Donabedian (1980) model, which has been tried in various studies on patients' satisfaction and showed significant results (Khamis & Njau, 2014; Bjertnaes *et al.*, 2012; Andaleeb, 2001). Additionally, the questionnaire of the SERVIQUAL model, which is a standardized tool to measure service quality and used in various settings was used. These were considered as

methodological strengths of the study.

6.4. Recommendations of the study

This section presents the recommendations based on the findings of the study. These would assist policy makers, healthcare practitioners and management teams of healthcare institutions who would like to consider different ways of delivering a quality healthcare. That is to show that, the study's recommendations could be considered by health policy makers at the Ministry of Health/Ghana Health Service, management of healthcare institutions such as the Pentecost Hospital, which is a member of Christian Health Association of Ghana (CHAG) and its stakeholders, particularly, the Church of Pentecost.

1. The management of the Pentecost Hospital should train staff on good customer relation through in-service training to enhance staff-patient relationship.
2. Steps should be taken by hospital management to sensitize staff at the OPD to ensure promptness of service delivery to reduce waiting time.
3. The culture of improving communication and show of compassion towards the needs of patients on the part of health providers at the OPD must be championed by management and staff of the Pentecost Hospital.

4. The management and staff should put in measures at the OPD to ensure improved privacy and confidentiality of patients' information and records at the Pentecost Hospital.

5. Policy makers at the Ministry of Health/Ghana Health Service need to advance a coordinated and focused national policy in support of patient-centred care to help health professionals develop and maintain skills that would ensure that care rendered target the needs of patients.

6.5. Study limitations

This section presents some of the limitations encountered in the course of the conduct of the study. This will help future researchers to find ways of addressing them. That is, this study had several limitations. Firstly, because of the cross-sectional design of the study, the researcher was unable to identify the causal effects of the explanatory variables of the patients' satisfaction.

Secondly, the patients' satisfaction was measured with reliance on self-response of participants and did not assess their views to changes in the technical quality. Self-reporting is susceptible to response bias (Van de Mortel, 2008).

6.6. Future research

This section presents the directions for future research. In view of the limitations to the study, it is recommended that future studies should consider and include all other departments at the hospital, and also assess the effect of patient-doctor

or patient-nurse engagements and interactions to ascertain technical changes in the quality of care. This is needed to assess the overall quality of care. Further research could be done in the La Nkwantanang - Madina Municipality in between facilities with a larger sample sizes. These studies could go beyond OPD patients to include in-patients and patients in other departments. These studies could compare patients' satisfaction in both public health and private facilities.

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APPENDICES

**SCHOOL OF PUBLIC HEALTH
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Appendix A: INFORMED CONSENT FORM

Title: FACTORS INFLUENCING PATIENT SATISFACTION AT THE OUTPATIENT DEPARTMENT OF PENTECOST HOSPITAL

My name is Esther Essilfie-Bondzie. I am a graduate student from the University of Ghana, School of Public Health undertaking a research on Factors Influencing Patient Satisfaction at the Out-Patient Department of Pentecost Hospital. Some research assistants was assisting in the study. The study seeks to find out the various factors that influence your satisfaction to service delivery at the OPD of the Pentecost Hospital. Participants are required to share their satisfaction or displeasure with the Pentecost Hospital Service delivery by responding to questions.

Personal information that will make you identifiable will not be included in the questionnaire. Questionnaire clients will respond to was anonymous (will not bear names of participants) so you will not be identified. You are free to be part of the study and decide to leave at any point you want. No one was upset if you decide not to partake in the study. However, be assured that your privacy and confidentiality was respected. Be assured that the research come at no risk and

no cost except the precious time that they will use to fill the questionnaire. You can choose a place of convenience to answer the questions.

VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title "FACTORS INFLUENCING PATIENT SATISFACTION AT THE OUT-PATIENT DEPARTMENT OF PENTECOST HOSPITAL" has been explained to me.

I have read or have had someone read all of the above, asked questions, received answers regarding participation in this study, and am willing to give consent to participate in this study as a volunteer.

Date

Name and Signature or mark of volunteer

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the nature and purpose of this study were read to the volunteer. All questions asked were answered satisfactorily regarding participation in this study, and volunteer gave consent to participate in this study.

Date

Name and Signature or mark of witness

I certify that the nature and purpose in this research have been duly explained to the above individual.

Date

Name and Signature of Person Who Obtained

Consent

Name of Principal Investigator: ESTHER ESSILFIE-BONDZIE

Address:

Tel. No. 0243119639

Email address:

In case of any concern you can contact the Ethics Administrator, Ms. Hannah Frimpong, GHS/ERC on 024-599-7061.

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Appendix B: QUESTIONNAIRE

QUESTIONNAIRE ON FACTORS INFLUENCING PATIENT SATISFACTION AT THE OUT-PATIENT DEPARTMENT OF PENTECOST HOSPITAL.
<p>This is a research on FACTORS INFLUENCING PATIENT SATISFACTION AT THE OUT-PATIENT DEPARTMENT OF PENTECOST HOSPITAL. The study tries to find out the various factors that influence your satisfaction to service delivery at the OPD of the Pentecost Hospital. You are required to share your experience by responding to the following questions.</p>

	QUESTIONS	CODING CATEGORIES	SKIP TO	CODES
1. SOCIO-DEMOGRAPHIC FACTORS				
a	Sex	Male.....1 Female.....2		SEX
b	Age (State your last			AGE

.	birthday age)		
c	Marital status	Single1 Married.....2 Divorced3 Widowed4		MSTAT
d	Education level	No formal education1 Primary level2 Secondary.....3 Tertiary.....4		EDUC
e	Occupation	Unemployed0 Trader.....1 Security Personnel.....2 Daily laborer3 Students.....4 Civil service.....5 Other (state)..... 0		OCCP
f	Income	State your monthly income from the job you do. 		INCOME

For the next set of questions, TICK (✓) whether you;

1-Strongly disagree, 2- Disagree, 3- Agree, 4- Strongly Agree.

The first part has to do with your **EXPECTATIONS**. Indicate whether you strongly disagree, disagree, agree or strongly Agree with the expectation from the Hospital.

EXPECTATION OF QUALITY SERVICE	1	2	3	4	CODE
EXPECTED TANGIBLES (STRUCTURE)					ETT
1." I expect that OPD will provided me with drugs of all diseases"					ETT1
2." I expect that Doctors of this OPD will prescribed good drugs"					ETT2
3." I expect that that Drugs was obtained easily in this OPD"					ETT3
4." I expect that OPD will have good reception area with adequate seats and toilets"					ETT4
5"" .I expect that OPD appears clean every day"					ETT5
II EXPECTED RELIABILITY (PROCESS)					EREL
6." I expect that OPD staff will keep appointments given to me."					EREL1
7." I expect that OPD staff have good communication and information skills."					EREL2
8." I expect that OPD staff will fulfil My desire by giving me Complete physical examinations."					EREL3

9." I expect that OPD staff give me proper medications as prescribed (essential drugs)"					EREL4
III EXPECTED RESPONSIVENESS (PROCESS)					ERES
10." I expect that OPD staff retrieve my records promptly."					ERES1
11."I expect that staff of OPD recognize exceptionally ill patients and help them at whenever point there is required"					ERES2
12." I expect that OPD staff was respectful to me."					ERES3
13." I expect that OPD staff offer prompt services."					ERES4
14. "I expect that staff of OPD is willing to assist patients whatever point medical help is required"					ERES5
15. I expect that I utilized a short" timeframe to wait (<30 min) before getting attended to".					ERES6
16. "I expect that staff of OPD spend enough time (at least 10 min) while taking care of my problems"					ERES7

IV EXPECTED ASSURANCE (STRUCTURE)					EASS
17." I expect that results Laboratory of the OPD are availed on time"					EASS1
18." I expect that OPD staff cling to the confidentiality of my information"					EASS2
19. "I expect that OPD have enough staffs to take care of its patients"					EASS3
20".I expect that OPD staff have enough information to answer my questions"					EASS4
21. "I expect that I should be able to recommend this OPD services to other client"					EASS5
V EXPECTED EMPATHY (PROCESS)					EEMP
22." I expect that OPD staff pay attention to my individual medical concerns"					EEMP1
23. "I expected that OPD staff build good cooperation with me and are prepared to offer me medical help"					EEMP2
24. "I expect that OPD staff is polite, comforting and encouraging to me when faced with medical problems"					EEMP3
25. "I expect that OPD staffs were compassionate to me"					EEMP4

26. "I expect that OPD staff listened to me adequately"					EEMP5
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The Second part has to do with your **SATISFACTION**, Indicate whether you are satisfied by indicating whether you strongly disagree, disagree, agree or strongly Agree with satisfactions stated.

SATISFACTION WITH QUALITY OF CARE	1	2	3	4	CODE
I TANGIBLES (STRUCTURE)					TT
1. "I am satisfied that OPD has provided me with medications to all my conditions"					TT1
2. "I am satisfied that Doctors of this OPD has recommended good medications"					TT2
3. "I am satisfied that Drugs are obtained easily in this OPD"					TT3
4. "I am satisfied that OPD has great reception area with enough seats and toilets"					TT4
6. "I am satisfied that OPD appears clean every day"					TT5
II RELIABILITY (PROCESS)					REL
6. "I am satisfied that OPD staff keeps appointments given to me."					REL1

7. "I am satisfied that staff of the OPD has great communication and data skills."					REL2
8. "I am satisfied that OPD staff has fulfilled my desires by giving me thorough physical examinations."					REL3
9." I am satisfied that OPD staff has given me good drugs as prescribed (essential drugs)"					REL4
III RESPONSIVENESS (PROCESS)					RES
10. "I am satisfied that staff of OPD retrieves my records timely."					RES1
11. "I am satisfied that OPD staff identifies very ill patients and assist them whenever there is need".					RES2
12. "I am satisfied that OPD staff is respectful to me."					RES3
13. "I am satisfied that OPD staff offer prompt services."					RES4
14. "I am satisfied that OPD staff is willing to support patients whenever medical help was required"					RES5
15. "I am satisfied that I used a short					RES6

Time frame to wait (<30 min) before getting attended to.”					
16. “I am satisfied that staff of OPD spend sufficient time (at least 10 min) while attending to my needs”					RES7
IV ASSURANCE (STRUCTURE)					ASS
17. “I am satisfied that Laboratory results of this OPD are timely availed”					ASS1
18. “I am satisfied that OPD staff adhere to the confidentiality of my information”					ASS2
19. “I am satisfied that OPD has adequate staffs to take care of its clients”					ASS3
20. “I am satisfied that OPD staff has sufficient information to answer my questions”					ASS4
21. “I am satisfied that I can recommend this OPD services to other people”					ASS5
V EMPATHY (PROCESS)					EMP
22. “I am satisfied that OPD staff paid attention to my personal medical issues”					EMP1
23.” I am satisfied that OPD staff has built great cooperation with me and are					EMP2

prepared to offer me medical help”					
24. “I am satisfied that OPD staff is polite, comforting and encouraging to me when faced with medical problems”					EMP3
25. “I am satisfied that OPD staffs were compassionate to me”					EMP4
26. “I am satisfied that OPD staff listened to me adequately”					EMP5