SCHOOL OF PUBLIC HEALTH
COLLEGE OF HEALTH SCIENCES
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CAREGIVERS' PERCEPTION OF QUALITY OF CARE AT THE OUT-PATIENT DEPARTMENT OF PRINCESS MARIE LOUISE HOSPITAL, ACCRA

BY

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

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DECLARATION

I, Jessica Attoh Dedei Agbelie declare that with the exception of the references to other people's work, which are acknowledged, this work is the result of my own work, which was carried out at the Department of Health Policy and Planning, School of Public Health, College of Health Sciences, University of Ghana under supervision. It has neither in part nor in whole been presented elsewhere for another degree.

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(SUPERVISOR)

DEDICATION

I wish to dedicate this work to God Almighty who has given me strength to go through this course successfully.

Secondly to my family for their support.

ACKNOWLEDGEMENT

I give thanks to the Almighty God for his mercy and abundant grace to complete this programme successfully.

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I express my appreciation to the entire staff and lectures of the public health school for their support throughout the period of studies.

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LIST OF ABBREVIATIONS

FP	Family Planning
GDP	Gross domestic product
GHS	Ghana Health Service
IOM	Institute of Medicine
MOH	Ministry of Health
NHIS	National Health Insurance Scheme
OPD	Out-Patient Department
PML	Princes Marie Louise Hospital
RCH	Reproductive and Child Health
SOP's	Standard of Operating Procedures

DEFINITION OF TERMS

Caregiver: A person who provides direct care to a client.

Expectation: The health service client is looking forward to happen.

Health care: The effort made to maintain or restore health by a trained professionals.

Perception: The recognition or appreciation of the service received from the health provider.

Service Quality: What the client expects to receive and the actual care received.

ABSTRACT

Background: Over the last couple of years, Ghana's Ministry of Health has continuously strived at improving health care quality and make healthcare delivery in Ghana patient centered. However, challenges remain. This study sought to assess caregivers' perceptions of quality of care at the Out Patient department of the Princess Marie Louise Hospital in Accra.

Objectives: The general objective this study was to assess caregivers' perception on quality of health care at the outpatient department of princess Marie Louis Children's Hospital.

Methods: The study employed descriptive cross sectional design using a questionnaire as the data collection tool. Two hundred and thirty (230) participants were surveyed using the systematic sampling technique. A validated questionnaire (servqual) with five domains was used to obtain information from caregivers. Bivariate analysis of categorical predictors associated with quality of care was assessed with chi-square test. Multivariable analysis of factors associated with the outcome variable was assessed using ordinal logistic regression analysis.

Results: The study showed that overall service quality expectations were higher than the perceived care in all the five domains of service quality (tangible, reliability, responsiveness, assurance and empathy). This led to a service quality gap score which was significant ($p=0.001$) leading to caregivers dissatisfaction of health care. Caregivers perceived willingness of health personnel to help and the ability of health facility to provide the required service as very important factor when assessing health care.

Conclusion: The study revealed that overall expectations of service quality of caregivers at the study site were higher than their perceived care. Caregivers' expectations were not

adequately met. The five domains of service quality in the study was also not adequately met as perceptions fell short of caregivers' expectations leading to moderate quality of care. The ability of the health personnel to help and the facility to perform its intended function was very important to caregivers. There should be policies to continuously evaluate and monitor quality of care at health facilities tailored to caregivers' expectations.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

In both the advanced and developing countries, health experts and practitioners make conscious efforts not only to guarantee customer satisfaction with the health delivery systems but also to improve upon these systems (Adogu *et al*., 2012). Better and improved quality healthcare are crucial if developing nations are to achieve the tenets of the Sustainable Development Goals (SDGs). Quality is a multifaceted concept and client satisfaction remains one of the crucial elements as it provides a good depiction of the true nature of quality of health care delivery (Ezzatabadi, 2012; Punnakitikashem *et al*, 2012; Sodani, 2012).

Health care service is now a competition among hospitals and cost value is growing. For this reason, some managers consider increasing the number of customers and keep the existing ones. In order to be outstanding and prosper, it's crucial to offer to client services that eclipse their expectations implying a high level of service quality (Bobocea, Gheorghe, Spiridon, Gheorghe and Purcanea 2016). They further explained that the "rule of thumb" can be employed to the health care services also.

The measurement of health interventions is not only to guarantee that its intended goals are achieved but form the main crux of the monitoring and evaluation of these interventions to ensure continuous improvement of quality (Blumenfeld, 1993). Quality standards with respect to health care delivery, was mainly undertaken by the medical profession until lately. In view of that, the term quality referred to the technical aspects of care by medical

professionals (Bara *et al*., 2012). The main focus of these health delivery assessments was on the attainment of client satisfaction if health delivery outcomes were to be deemed as desirable (Andaleeb, 1998). However, clients of health care institutions have difficulties in evaluating the technical aspects of the services they encounter, they tend to evaluate the functional aspects because it is easy to do so. Thus, patients' satisfaction as to the services they encounter is based on their evaluations of the interpersonal and environmental factors (Bakar *et al*, 2008).

Gamble (2012), reported that, globally, 66% of patients are satisfied with quality of health care received. About 72% of patients in developed countries are satisfied with health care quality while that figure is 60% for patients in the developing world. In China and Brazil, 58 % and 57% of patients rated the service as good.

In Nigeria, 24% of caregivers rated record staff at hospitals as having poor client relationship while a sizeable proportion reported waiting times of 3 hours. About 82% of respondents rated the child healthcare services as satisfactory (Campbell and Chukwudi, 2014). In Ghana, all the service quality dimensions were rated negatively by respondents though 73% of patients rated healthcare as good (Peprah, 2014).

The health service delivery industry in Ghana is characterized by intense competition between the private and public entities thus, the issue of service quality of high prominence. Currently Ghana has about 2,262 health facilities split almost equally between the private and public sectors. The implication is that, the public sector has about forty nine percent of the country's health facilities under its ambit and currently employs about one thirds of the nation's health professionals (GHS, 2007). Under these circumstances, public health

delivery entities are under constant pressure to deliver quality health care to its numerous clients.

Laroche et al. (2004), argued that, cheap services do not necessarily increase the client base of hospitals but better customer services does. In view of the above, patients' interest should always be the overarching guiding principle for hospitals (Alrubaiee & Alkaa'ida, 2011). The above implies that, quality of service principle shall be a key driver for healthcare delivery services in hospitals including children's hospitals. Despite this, healthcare professionals deemed the submissions and opinions of patients as overly subjective in ascertaining the quality of healthcare (Coulter, 2002).

In Ghana, the rights of patients are spelt out in the Ghana Health Service Patient Charter which is highly patient centered (GHS, 2002). The charter spells out, patients, health workers and the society at large must always work in tandem. Although, the Ghana Health Service portrays a patient centric health delivery system, de facto, that has not been the case, systems and structures have been somewhat unresponsive to the forces that have caused changes to several standards applicable to the corporate environment (Nwankwo *et al.*, 2010).

1.2 Statement of the problem

In the assessments of the quality of healthcare, some studies have emphasized the technical and functional aspects of quality (Babakus and Mangold, 1992; Hansen et al., 2008) while other studies emphasized the technical aspects, process related aspects of quality and the amenities of care (Weitzman, 1995; Ziethaml and Bitner, 2000).

In Ghana, research on the quality of health delivery or interventions have focused mainly on quality awards aspects (GHS, 2003; Osei *et al*., 2009; MOH, 2007; Atinga *et al*, 2011). Over the years, studies on client or patient satisfaction in Ghana's hospitals has provided consistent evidence as to poor quality of healthcare delivery as reported by both patients and healthcare officials (GHS, 2008; MOH, 2007). These studies have concluded that, the poor quality of health services in Ghana's hospitals have led to reported levels of dissatisfaction among patients, which are characterized by overly long waiting times (which result in lost man hours), unprofessional attitudes by health service officials, industrial strike actions, inadequate medical equipments including the frequent shortage of basic drugs among others (Turkson, 2009; Atinga *et al*, 2011). There have also been instances of poor communication between patients and health officials at hospitals and all these create the impression that, patients are the mercy of hospital workers (Poon *et al*., 2004; Laroche *et al*., 2004; Furrer *et al*., 2000; Alrubaiee and Alkaa'ida 2011).

One priority for the Ghana Health Service (GHS) is to improve on pediatric care. However, progress in that regard has been slow though, numerous interventions have been implemented. Pediatric care in Ghana has been plagued by inadequate support (like hostel facilities, washing area) for caregivers, monitoring of nutritional status of sick children were also left to caregivers, poor communication, lack of confidentiality, poor monitoring of the progress of sick children and significant gaps in case management as well as the absence of case management protocols (MOH, 2011). Some of the hospital OPDs close at 17:00pm and children with emergencies are admitted straight to the ward without proper assessment.

Furthermore, most of the studies on client satisfaction regarding health service delivery in Ghana have overly focused on general hospitals example, District, Teaching, Missionary

and University Hospitals (Owusu-Frimpong, 2010; Atinga , 2011; Esiam, 2013; Peprah, 2013; Peprah, 2014) while there is extant literature on specialist (e.g. children's) hospitals. Despite the numerous studies on quality of healthcare, the assessment of quality health care from the perspective of caregivers has been limited (Nwosu and Campbell, 2015; From *et al*, 2015). This study, therefore, is to investigate caregivers' level of satisfaction regarding health care service received by their wards.

1.3 General objective

The general objective of this study was to assess caregivers' perception on quality of health care at the outpatient department of Princess Marie Louis Children's Hospital.

1.3.1 Specific objectives

The specific objectives of the study were to:

1. Determine the level of expectation of caregivers on service quality provided by health facility.
2. Determine caregivers' perception on quality of services received.
3. Determine the difference in quality between expectation and perception of service quality among caregivers.
4. Identify perceived important features of health facilities among caregivers.

1.4 Research questions

1. What is the level of expectation of caregivers on service quality provided by health facility?

1. What is the perception of caregivers on quality of services received at the health facility?

2. What is the difference in quality between expectation and perception of service quality among caregivers?

3. What are the perceived important features of health facilities among caregivers?

1.5 Justification of the study

Though pediatric care constitutes a very critical component of healthcare globally and Ghana in particular, few studies have focused on quality of health care at children's hospitals. Moreover, client satisfaction studies in Ghana have overly focused on patients thus, the quality of healthcare service in Ghana as measured from the perspectives of caregivers require investigation. Furthermore, the hospital has recently attracted administrative and clinical attention from health authorities due to concerns raised by client and health providers throughout the country to identify key issues for improving the quality of health care service in Ghana. Thus, it is imperative that, the satisfaction of clients in general and caregiver's' is sought, which would serve as feedback mechanism to the hospital's authorities and also inform them as to the best strategies to adopt. The main purpose of the study is to specifically contribute towards this gap in literature and healthcare satisfaction studies in general.

1.6 Conceptual framework

The conceptual framework (figure 1) which guides this study explains what basically underlines service quality and satisfaction. The SERVQUAL model measures both the expectations and perceptions or experiences of caregivers. Perceptions provide a good measure of patient satisfaction with respect to quality of care experienced (Pakdil & Harwood, 2005; Naidu, 2009). Patients evaluate the quality of a service by comparing their

expectations to how the service is actually delivered or performed. When the nature of service delivery exceeds expectations then quality is adjudged to be good, and vice versa.

This study was guided by the SERVQUAL model, which uses 22 items categorized into five domains (tangibles, responsiveness, reliability, empathy, assurance), asking customers what they expect from an organization in terms of service quality. A four/five-point Likert scale is used to record expectations and perceptions.

The five dimensions to be examined by the proposed study are:

Tangibles: The dimension measures the physical appearance and environment of the hospital in pertaining to the Out - Patient Department. Tangibles also refer to the adequacy of facilities, the appearance of hospital staff and how neat they are. All of these together with appearance of the physical building have an impression on the client and it consequences for service quality.

Responsiveness: this dimension measures how prompt healthcare service is delivered as well as how caring and supportive healthcare staffs are. This dimension also measures the nature in which general enquiries are handled as well as how appointment times are met. For instance, it is known that, long waiting times lead to customer dissatisfaction.

Reliability: this dimension measures the ability for healthcare delivery to be relied upon for consistency, honesty and accuracy. It measures how patients perceive the competence and abilities of staffs. It also measures how patients' records are handled. It involves trust in the services, in terms of performing services according to the Standard of Operating Procedures (SOP's) and consistency in care delivery. For instance, a patient that is given the wrong prescription would question the competence of staffs and would deem service quality as below par.

Empathy: this dimension measures the extent to which patients believe they receive individualized care. It measures the extent to which patients are listened to and believe that service delivery is tailored to their needs. For instance, patients believe that, consulting and operating hours must be convenient.

Assurance: this measures the extent to which patients believe the conduct of staffs inspires them to have confidence in the system. This dimension measures the extent to which patients believe that staffs are knowledgeable, well trained and trustworthy that the can tell them their problem and it will be attended to without criticisms.

The conceptual framework that guides the study is presented in figure 1.0.

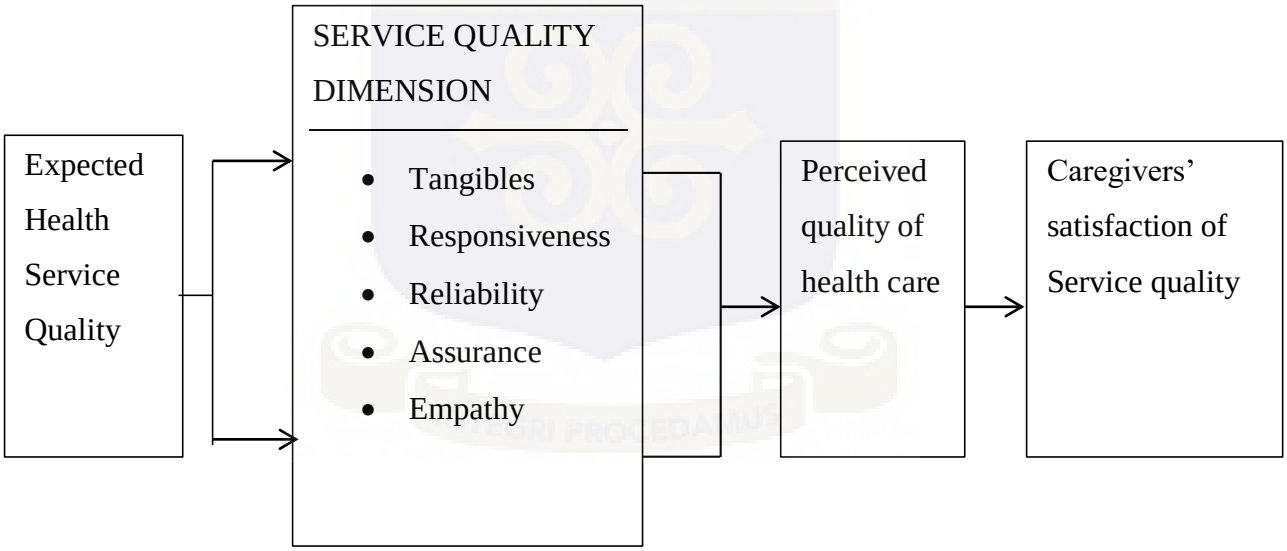

Figure 1: Conceptual framework for measuring quality health care.

Adapted from the SERVQUAL Model (Parasuraman *et al*, 1988).

The SERVQUAL scale was initially widely applied by both managers and academics primarily in the services sector (Aga, & Safakli, 2007) but is currently applied to many sectors including healthcare (Poon *et al.*, 2004; Laroche *et al.*, 2004). Many studies on

quality and patient satisfaction of health care in Ghana have applied modified versions of the SERVQUAL model (Nwankwo *et al*., 2010; Owusu-Frimpong, 2010; Atinga, 2011; Esiam, 2013; Peprah, 2014).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section discusses the empirical literature concerning the issues under investigation. It also contains the relevant theories / models as well as the conceptual framework that guides the research study.

2.2 Service quality

Zeithmar et al. (2000), define service quality as the "difference between what a customer expects to receive and the actual care receive. Delivering high level of service quality to client is a most important factor that leads to satisfaction Reichheld, (1996). Client perception and satisfaction are closely channel together, meaning, if the perceived service is close to expectations it leads to satisfaction. Client satisfaction is determined by the customers' perception and expectations of quality of goods and service. In most instant, client perception is subjective, but it gives advantageous acumen for company to build on their marketing strategies. When clients are satisfied, they bring about good suggestions, keep their allegiance towards the company and are ready to pay for the services at any price.

Service quality is considered to be one of the essential factors to determine a company's performance, as quality is crucial to keep the organization in competition, and client satisfaction, (Gill, 2009). Nilssona *et al.* (2001, cited in Gill, 2009) found out that, companies who received recognition for high quality performance, had a better equity ratio or market share value as compare to other firms. It is challenging when defining service quality as an accepted approach, since it could be real and unreal as human nature cannot determine because of our abstract perceptions Yoo & Park, (2007). In the health care unit

service quality cannot be determine by single factor since it is constituted by various people (clients and health personnel) who have diverse views about quality Zabada, Rivers & Munchus, (1998). Delivering service quality is essential in the health care system because they deal with human lives and poor quality of service has higher consequences. Berwick et al. (1990, cited in Natarajan, 2006).

Quality is the ideal feature customers look up to when they purchase a service or a product (Solomon, 2009). In marketing and management literature, quality connotes the extent to which the perceptions of customers or recipients of a service exceed or is at par with what is experienced (Baron *et al,* 2009).Defining quality of care and measuring it is difficult (Atinga, 2011). The nature of the healthcare system with its varying degree of players with diverse areas of interest further adds to this complexity (McLaughlin & Kaluzny, 2006; Ladhari, 2008). It has been established in principle that, when patients receive the services they require and are beneficial to them then, quality of care is provided.

According to Mosadeghrad (2014,p.78) quality of healthcare is *"*consistently delighting the patient by providing efficacious, effective and efficient healthcare services according to the latest clinical guidelines and standards, which meet the patients' needs and satisfies providers". The Institute of Medicine defines quality of care as "the degree to which health services for populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" Institute of Medicine (IOM), (2001).

In the healthcare literature, the debate still lingers on as to whether quality of healthcare should be measured from the perspectives of the recipients or those of service providers (Yildiz & Demirors, 2012). However, Collins and Joyce (2008), argued that, quality of

healthcare should be measured from the perspective of the recipients in that, once the recipients of the health service are satisfied, then quality has been attained.

2.3 Measures of Service Quality and Service Quality Dimensions

The main goal of service delivery is quality thus, making it imperative for its measurement. As the definition of quality of care is difficult, so is its measurement. Various approaches have been propounded in a bid to measure quality of care. Furthermore, these different approaches have concentrated on different dimensions of service quality.

2.3.1 Health Care Service Quality

Bakar *et al.* (2008) argued that, healthcare quality has two major components namely: clinical quality and service quality. Clinical quality refers to those aspects of the actual healthcare procedures and process such as surgical skills and competences as well as the accuracy of the diagnosis that have a direct effect on outcomes. Clinical quality captures all the system and non-human elements. Service quality on the other hand refers to everything the patient experiences during health care delivery such as convenience. Service quality is said to have three dimensions, interpersonal characteristics which involves courteousness, respect, psychological support among others. The second-dimension deals with access to locations, operating hours, service delays, appointment times and waiting times. The third dimension refers to amenities such as the physical environment, food and furnishing. Patients can easily evaluate service quality relative to clinical quality.

2.3.2 Technical and Functional Model

Gronroos (1984) put forth that, health service quality has two broad dimensions which are the technical quality and functional quality. Functional quality according to this model is

the final outcome of the health service while the technical quality describes the manner in which the service is delivered. The technical quality is the actual service the received due to the recipient's dealings with the provider. In its application to quality of healthcare, the accuracy of the medical practice becomes the technical dimension while factors such as waiting time, becomes the functional dimension. Thus, functional quality influences the manner in which the technical quality is delivered to the recipient of the service. Atinga *et al.* (2011) opined that, due to a general lack of technical knowledge of the health practice, patients are likely to make poor evaluations of the technical quality dimension.

2.3.3 Gap Model

The model of service quality was propounded by Parasuraman, Berry and Zeithaml (1985). The model holds that, in their evaluations of service quality, customers use their expectations of the service against their perceived performance of the actual service received. The difference between expectations and performances results in service gaps. According to the model there are five gaps. The first gap is known as the knowledge gap where managers do not know what customers' expectations are. Thus, there is a difference between customers' expectations and management's perceptions of those expectations resulting in a gap. Managers must strive to ascertain what their customers want in respect to both tangibles (physical appearance of the buildings) and intangibles (waiting times, payment options).The second gap is referred to as design gap. The gap arises because there is a difference between how managers perceive of customers' expectations and service quality specifications. Managers might perceive accurately what customers expect but might not have the resources to that or might not set up a performance parameter. The third gap is the performance gap. This gap arises because, there is a difference between the service quality specifications and how the service is actually delivered. This gap is a product of

many elements especially where there is human intervention. The competence of individuals, degree of training and role conflict inter alia all combine to create this gap.

The fourth gap is referred to as communication gap. This is the difference between what is explicitly or implicitly communicated to customers and what happens de facto. This gap may arise due to service delays and failed promises among others. The fifth gap is the difference between the expected service and the experienced or perceived service. The fifth and final gap is a reflection of the aforementioned four gaps. The size of this gap depends largely on the previous four. Service quality is thus dependent on the expectations and perceptions customers.

2.3.4 Service Performance (SERVPERF) Model

Cronin and Taylor (1992) developed this model after criticizing the reliability and validity particularly construct validity of the SERVQUAL model. The authors argued that, the SERVQUAL model failed to measure either customer satisfaction or service quality but appears to be an operationalization of one the diverse forms of expectancy – disconfirmation. This model is a direct form of measurement that utilizes an attitudinal rather than a disconfirmation paradigm Cronin and Taylor (1992). Although, the model retains the service quality dimensions of the SERVQUAL model, the approach requires the customer to rate only the service provider's performance in a particular service encounter.

2.3.5 Donabedian Model

Donabedian (1980; 1988), proposed that, the assessment of quality of care involves three elements namely: structure, process and outcome. According the model structure refers to characteristics of the settings within which the interaction takes place. Structure is made up three components – material resources (facilities, equipment and money), human resources

(the number of qualified personnel) and organizational structure (promotion, pay among others). Process refers to how the service is actually carried out. It includes the patient's activities in receiving care and health practitioner's processes and methods while delivering service. Outcome refers to the impact of healthcare on the health status of the recipient. The model holds that, structure influences process and process has consequences for outcomes.

2.3.6 Service Quality (SERVQUAL) Model

Parasuraman *et al.* (1988) developed on the gaps model and came up with the Service Quality (SERVQUAL) Model. This model is based on the premise that; customers' assessments of service quality is of great paramountcy. The model holds that; customers' assessments of service quality emanates from their comparison of their expectations and their perceived performance of service delivery quality. The model posits that, the degree of quality service perceived hinges on the gap between expectations and perceptions. The model posits that, service quality has five dimensions namely: assurance, tangibles, empathy, responsiveness and reliability.

Tangibles is known as the tangible condition and facilities in higher learning institutions. It involves the presence of equipment and facilities like well-equipped laboratories and adequate beds etcetera. Responsiveness: It is the level of services provided and able to help customer promptly. It involves the willingness to provide prompt or favorable services. Reliability: It is the level of the knowledge and information learnt that are accurate. Assurance: the level of the service delivered to customers that is believable and can be trusted (Parasuraman *et al.*, 1988). Empathy: It is the ability of the organization to provide personal attention and care to customers. The empathy dimension of service quality is defined as showing care and provides individualized attention.

The SERVQUAL model has been applied extensively in the assessment of health care quality in both developed and developing countries. (Taner & Anthony, 2006; 2009; Owusu – Frimpong & Dason, 2010; Peprah, 2013; Gonclaves, 2014). The SERVQUAL model was applied by these studies to measure client satisfaction of service quality and ascertain, which aspects of service quality are health care institutions deficient in carrying their mandates as measured from the perceptions of recipients of such health services.

In the conduct of this study, the SERVQUAL model was adopted and modified and applied in determining caregivers' level of health care service satisfaction.

2.4 Concept of patient satisfaction

Attempts at conceptualizing patients satisfaction begun in the 1970s and was influenced greatly by the patients' rights movement. Hulka *et al.* (1970), made the earlier attempts at conceptualizing patient satisfaction. These Authors defined patient satisfaction as the patient's "attitudes toward physicians and medical care." (Hulka *et al.*, 1970, p.430). However, Ross *et al*. (1987), argued that, restricting client satisfaction to only quality was problematic because there was evidence of health patients who were unhappy. These Authors suggested that, other dimensions such waiting time and costs among others be factored into the concept of patient satisfaction. Singh (1989), also put forth that, earlier conceptualizations had focused on "what is patient satisfaction" instead of "what is the patient satisfied with" (Singh, 1989, p.178).

Prakash (2010), and Ghosh (2014), concluded that, it would be difficult achieving a conclusive definition of the concept because evidence from extant literature is inconclusive.

In spite of the above, Gill and White (2009), concluded that, patient satisfaction is now a core and crucial component and that, the concept of patient satisfaction in healthcare embodies three issues – the clinical results, economic measures and the health related quality of life.

2.5 Quality of health care and patients' satisfaction

Patient satisfaction is both an outcome and an indicator and may provide first hand insights into the quality of health care delivered. Numerous studies have employed the Service Quality model in determining the quality of care from the perspectives of the recipients of the service (Boyer *et al.*, 2006; Sodani, 2010; Atinga, 2011).

In their study of clients' satisfaction with maternal and child services in India, Khanam *et al.* (2012), reported that, clients satisfaction is clearly related to not only the kind of services provided but also, how the services were delivered and clients perceptions of the care's providers.

A research conducted in Poland, revealed that, respondent expectation of utilizing a service was high in all the dimensions using the SERVQUAL model but rated assurance higher than all the dimensions Manulik *et al.*, (2016). This was similar to the work of (Lin1, Sheu, Pai, Bair, Hung, Yeh and Chou 2009), that client had high expectations in assessment of health care at the private clinic.

Yesilada and Direktor (2010), in employing the SERVQUAL model, reported that patients were highly dissatisfied with healthcare services received in Cyprus and further put forth that, reliability of service, empathy shown to them and the physical appearance and

cleanliness of health delivery institutions (tangibles) are crucial aspects of service held in high esteem by patients. Ramez (2012), also concluded that, the reliability, empathy and tangibles dimensions were the highest predictors on service quality in Bahrain. Irfan and Ijaz (2011), also made similar assertions when they reported that, patients of private hospitals were more satisfied than those of public hospitals and advised hospital management to improve upon those aspects their health systems were deficient in .Aghamolaei *et al.*, (2014), applied the SERVQUAL model in a hospital in Iran where all participants responded to a SERVQUAL questionnaire. Results were indicative of the fact that, the Bandar Abbas Shadid Mohammadi hospital was deficient in all five service dimensions measured. More than of half of the respondents rated service quality as average. In Ghana, a number of studies have applied the SERVQUAL model to different health institutions (Turkson, 2009; Owusu – Frimpong & Dason, 2010; Atinga, 2011). Turkson (2009), concluded that, though the overall health service quality was perceived to be high in rural Ghana participants bemoaned some aspects of service quality was poor. Findings reported that, there were long waiting times, poor attitude of staffs coupled with inadequate facilities such as an ambulance.

Another study on the Sunyani Regional Hospital by Peprah (2014), yielded similar results to that of Turkson (2009). The study recommended that, hospital managers improve upon the responsiveness and assurances dimensions of health quality though respondents reported that, overall service quality was good.

Another important dimension of service quality that greatly impacts on client satisfaction was provider – patient relationship while communication was reported not to be a good predictor of client satisfaction (Baku, 2007).

2.6 Factors that influence quality of health care

Quality of health care is a function of many elements contributed by patient, the provider and healthcare system in general.

Salah (2012, cited in Elarabi & Johari 2014) reported that, medical and other health staffs that have low job satisfaction are more likely to deliver poor quality of health care to patients. Quality of care is also greatly affected, when these officials with low job satisfaction have higher rates of turnover. The author recommended that, officials be provided with moral and material incentives in addition ongoing training programs as means of boosting morale. Employee satisfaction is a better guarantor of patient satisfaction than job satisfaction (Ott & Dijk, 2005).

Ozcan and Hornby (2005) added that, the absence of an incentive system resulted in poor healthcare delivery in Malaysia's public health institutions. Zheng (2009) reported that, health reforms usually focus on changing organizational structures, cost containment and customer choice with little attention given to employee performance and the attraction of competent personnel. A corollary of this course of action is the poor performance of health delivery.

Furthermore, the quality of healthcare hinges largely on the competence of health officials. Knowledge, skills and abilities of health providers is a very crucial aspect of health delivery. Provider competence encapsulates knowledge, decision making skills and communication among others that are necessary in the performance of a defined task at some level of proficiency (Thompson et al., 2015).

Inadequate training also influences the quality of healthcare. Currency of knowledge among medical staff is very crucial as it directly affects the quality of care delivered. Mosedeghrad (2014), reported that, Medical staff in Iran still prescribed nifedipine in trying to reduce blood pressure though current knowledge held that, the drug led to cerebrovascular accident (CVA) thus not to be prescribed. It was reported that, medical staff had received no training.

Another element that influences the quality of care is inadequate resources. Inadequate resources such as equipment, consumable supplies and essential drugs inter alia, undermine the efficient and effective operation of health facilities. In Ghana, for instance, some essential drugs are not covered by the National Health Insurance Scheme thus forcing patients to choose inexpensive and less potent drugs.

Mosadeghrad (2014), put forth that, healthcare quality is influenced by a number of factors. These factors include patient cooperation, type of patient illness, providers' socio-demographic variables, providers' competence (knowledge and skills), provider motivation and satisfaction and the healthcare system. Furtherance to the above, health care quality is also affected by behavior of Staff, the physical environment, cleanliness, the diagnostic services as well as food (Ross & Venkatesh, 2015).

Health or medical insurance has also been reported to influence the quality of care (Fu et al, 2016). The authors argued that, medical insurance in China positively affected patients' adherence to warfarin and discharge instructions but also inversely affected patients' aldosterone receptor antagonist.

Several authors have established that, ethical values espoused by healthcare professionals have consequences for the quality of healthcare delivered (Watley and May, 2004; Carney,

2007). The ethical direction in health institutions are determined by healthcare professionals within them and not the organization per say thus, it is imperative that, these institutions have established ethical code of practice (Watley and May, 2004). When all healthcare professionals exhibit the same degree of moral commitments towards, they do engender co-operative moral decisions in the quality of care delivery process Carney (2007) added that, though health professionals have moral codes instilled in them as part of their training, refinements of the values in the workplace is still required so as to translate into safe environments for patients.

Carney (2011) added that, strategic involvement by healthcare professionals is an important factor in quality of healthcare delivery. Strategic involvement is attained when junior healthcare staff have unrestrained access to senior management and there is better collaboration and involvement in strategic decision making. Where health officials are involved in the delivery of strategy, there are stronger commitment towards the attainment of organizational goals. This understanding and acceptance of organizational strategy and goals would translate in efficient and effective delivery of healthcare which invariably has consequences for the quality of healthcare.

2.7 Conclusion

The purpose of the review was to help understand the different aspects of quality of healthcare. There have been quite a number of studies on healthcare quality that have focused on the service quality dimensions as spelt out by the SERVQUAL model. A lot of these studies have reported that, generally patients have reported satisfied with the quality of care delivered though in some dimensions of service quality such as assurance, responsiveness and reliability, service quality has not been good enough. These studies

especially those on the Ghanaian context have focused on regional, district and Government hospital. Furthermore, the research subjects are either patients or health officials. Studies on children's hospitals are very limited while also, the perceptions of caregivers are also limited.

CHAPTER THREE

METHODS

3.1 Introduction

This section contains the methodology that was employed by the research study. It discusses the study design, study area, population, sample size, sample and sampling technique, Data collection techniques /methods and tools, and data analysis have been discussed. The chapter ends, by detailing all ethical considerations that was applied for the research study.

3.2 Study design

The study employed the descriptive cross-sectional study using quantitative approach to collect the data from caregivers on their perception of quality health care.

3.3 Study area

The area for the study was at Princess Marie Louise Children's Hospital in Accra. It is a Ghana Health Service hospital located in the Ashiedu Keteke Sub Metro of Greater Accra region. The hospital provides medical care services, disease control, family planning (FP), Reproductive and Child Health (RCH), and nutrition services. The medical services of PML consist of 74 beds, Laboratory unit, blood bank, Emergency Unit, and Reproductive and Child Health (RCH) Unit, Out-Patient Department (OPD) and the main Administration Block. Within the last decade, attendance to the PML Out-patient have almost doubled from 45,000 in 1996 to nearly 73, 000 per year. The PML is known for managing children from birth to 18 years. The hospital is a secondary institution and receives cases referred from all over the country especially the southern part and neighboring counties as well. They also

attend to walk in patient who do not have referrals. The hospital is an NHIS accredited health provider, which enables the insured to access healthcare services at the facility.

The OPD, records department is the first point of call for all clients/patients who visit the hospital. New patients are given cards/folders and their background information's are taking there before attended to by a physician. Patients' folders/records are stored or filed for easy retrieval in the records library room. However, data generated, are tallied daily, compiled and analyzed for dissemination. The half year OPD attendance for 2016 between January – June is twenty eight thousand, six hundred and sixty-seven (28,669) with children under 5years forming 5,049 (18%) and above 5 years forming 2,3620 (82%). The hospital has recently attracted administrative and clinical attention from health authorities. Thus, it is imperative that, the satisfaction of clients in general and caregiver's' are sought which would serve as feedback mechanism to the hospital's authorities and also inform them as to the best strategies to adopt.

3.4 Study population

The study population included caregivers of children utilizing child health services at Princess Marine Louise Hospitals.

3.4.1 Inclusion criteria

All primary caregivers whose children were receiving care at the OPD of the hospital within the study period.

3.4.2 Exclusion criteria

All other adults who do not offer any direct care to wards were excluded.

3.5 Study variables

Both dependent and independent variables were measured in the study.

3.5.1 Dependent variable

The quality of health care received

3.5.2 Independent variables

The following constituted the independent variables for the study.

Socio-demographic characteristics: Age of caregiver, sex, marital status, educational background, occupation, health insurance status and type of visit.

Caregivers' expectation and perception in relation to the:

Quality of care: The quality gap score between perception and expected for each domain and total expectation and perception

Table 1: Study Variables

Variable	Description	Measurement
Dependent		
Quality of health care	Client expectation and performance perception by health providers.	The gap between the performance perception and client expectations.
Independent		
Tangibles	The appearance of the hospital	Extent of caregivers' agreement and disagreement.
Reliability	The ability to perform the promised services accurately	Extent of caregivers' agreement and disagreement.
Responsiveness	The willingness to help client and provide prompt services	Extent of caregivers' agreement and disagreement.
Assurance	The courtesy of workers and ability to inspire trust and confident.	Extent of caregivers' agreement and disagreement.
Empathy	To provide caring and independent care.	Extent of caregivers' agreement and disagreement.

3.6 Sample size and sampling Procedure

Systematic random sampling was employed for the proposed study in selecting the study participants. This sampling technique involves the selection of research participants based on an initial random number and systematic interval rate. This was based on the number of patient expected to visit the clinic during the data collection period of the study. Secondly, caregivers willingness and ability to provide the needed information for the study.

The sampling frame (sf) was calculated.

$$sf = \frac{N}{n}$$

N = The expected population at the OPD within the data collection period of ten days (1000).

n = the sample size (258)

$$sf = \frac{1000}{246}$$

$$sf = 4.06$$

$$sf \approx 4$$

Based on this the randomization was within the first 4 numbers. This gives every caregiver the opportunity to be sampled. Hence the number picked (n) will be the starting point and every (n^{th}) person will be chosen to form the sample size for the research study is exhausted.

3.6.1 Sample size

Statistics from the hospital's Out Patient Department points to the fact that, on average there are 100 clients visits per day for seven days. Based on this sample size of 120 was computed using the following formula:

$$n_1 = \frac{z^2 \times p(1-p)}{e^2}$$

Where:

n_1 = the estimated sample size calculation

z^2 = the standard normal deviation at 95% confident interval (1.96)

P = Proportion of clients considered to be satisfied from literature review (75%)

e^2 = margin of error (.05) 95%

(1-P) thus 1- 0.75 = 0.25

$$n_1 = \frac{0.7203}{0.0025}$$

$$n_1 = 288$$

The minimum sample size:

$$n = \frac{n_1}{1+\left(\frac{n_1 - 1}{N}\right)}$$

$n =$ The minimum sample size

$n_1 =$ From the above calculation

$N =$ The estimated population of client that report at the OPD within the period of the data collection data. The research will use ten days for collection of data, the estimated daily attendance is 100.

N = 100 x 10 =1000

$$n = \frac{288}{1+\left(\frac{288 - 1}{1000}\right)}$$

$$n = \frac{288}{1.287}$$

$$n = 223.7$$

$n \approx 224$ The minimum sample size required for caregivers in the study

Non-response margin: It was also assumed that, the study might encounter a non-response rate of 10%

10% of 224 is 22.4 run it up to 22 **Thus** 224+22 **= 246**

3.7 Data collection tool and techniques

The study used interviewer- administered questionnaires for data collection. This approach offered the opportunity to clarified concepts and dealt with illiterates who could not read and write. The data were collected by the principal investigator with one research assistant recruiting at least 25 study participants' daily. The questionnaire was administered at the out-patient department of the hospital every day including the weekend for ten days.

The questionnaires were structured in line with the SERVQUAL model as developed by Parasuraman et al (1988). The structured questionnaire was designed with close ended questions to collect data on the perceived and expected health care service quality indicators. The questionnaire used Likert scale type of questions and responses. The response consisted of; 1 = strongly disagree to 5= strongly agree, and these applied to both the expected and the perceived or experienced health care. The questionnaire was divided into three sections. Section A was on socio-demographic characteristics; age of caregiver, sex, marital status, educational background, occupation and relationship to the child. Section B was on both the expected health care and perceived health care dimensions; Tangibles, Reliability, Responsiveness, Assurance, Empathy. Section C was on the five dimensions according to their perceived importance. In total 246 questionnaires were administered.

3.7.1 Quality control

A pretest of the questionnaire was carried out at the Korle-Bu Teaching Hospital Children Department which had similar characteristics with the Princess Marie Louise Hospital. This helped the researcher to review the questionnaire in order to ensure consistency and relevance of the questions for all the caregivers included in the study. Any inconsistency

was corrected before administering the questionnaire in the main research. One research assistance with research background was trained for a day in data collection.

3.8 Data analysis

A five-point Likert scale was used, ranging from strongly disagree (1) to strongly agree (5) to assess the level of caregivers expectation and perception of service quality. The measurement of quality health care per SERVQUAL model is the gap difference between the Perceived dimension score and the Expected score.

The data were coded, processed and analyzed using the Microsoft excel and STATA Version 14.0 Since, the proposed study was within the quantitative paradigm, the analysis was in the form of descriptive statistics, frequencies, and percentages. Continuous variables such as age, was summarized as means and standard deviations and discrete variables such as marital status was summarized as frequencies and percentages.

Secondly using the SERVQUAL questionnaire the score for each of the 22 expectation statements as well as each of the 22 perception statements was obtained from each respondent. The Gap Score for each of the statements would be calculated where the Gap Score = Perception – Expectation. An average Gap Score [Mean for Dimension] for each dimension of service quality was computed by assessing the Gap Scores for each of the statements that constitute the dimension and dividing the sum by the number of statements making up the dimension. The calculated average for each of the five dimension was summed and the result divided by 5 or 4 (total number of dimensions) to obtain an average SERVQUAL score. This core represents the unweighted SERVQUAL score of service quality for caregivers. The respondents were asked to allocate 100 points among the five

service quality dimensions. This gave an indication of the relative important weights of each of the five dimensions making up the SERVQUAL scale. The weighted average SERVQUAL score for each of the five dimensions of service quality was calculated by multiplying the averages calculated in step above by the weighted scores calculated. The calculated weighted average SERVQUAL score for each of the five dimensions was summed and the result divided by 5 (total number of dimensions) to obtain a weighted average SERVQUAL score. This core represents the weighted SERVQUAL score of service quality for caregivers.

Predictors associated with quality of care was assessed with ordinal logistic regression analysis where appropriate. The dependent t-test and Wilcoxon rank sum test (where normality cannot be assumed) was used to assess continuous outcome variables and how they are associated with some of the predictors.

3.9 Ethical consideration

Ethical clearance was obtained from Ghana Health Service Ethical Review Board. Second, consent was sought from the Ministry of Health (Regional Directorate), then the hospital authorities where an introductory letter was sent form Regional to the hospital. Next, informed consent was sought from Caregivers who were obliged to sign a consent form in agreement to take part.

3.9.1 Seeking access

An introductory letter stating the purpose and duration of the study from the Public Health School, College of Health Sciences, University of Ghana was sent to PML to seek permission to collect data from the study sample.

3.9.2 Potential risk and benefits of the study

The research study posed no foreseeable risks or harm to the research participants. The study did not cause any harm to participants either physically or psychologically. Study participants were not threatened to take part or not. The research study when complete shall have positive consequences for healthcare delivery in Ghana and the facility. Hospital managers and policy makers shall be expected to improve upon the service quality gaps if any, to be identified.

3.9.3 Data storage and usage

The data for this study was saved on storage devices such as pen drives and CD's and was secured with security codes. Hard copy and electronic data was stored in locked file cabinet and access will be limited to the researcher, the trained researcher and the supervisor of the study. The data will be kept for not less than four years.

3.9.4 Confidentiality and anonymity

Throughout the research study, all research participants remained anonymous and all information provided remained confidential. The data would be analyzed in such a manner that anonymizes all respondents.

3.9.5 Voluntary withdrawal

All research participants had the right to decline participation in the study and also withdrew from the study anytime they so wished. These lines of actions from participants were in no way affected healthcare delivered to them at the facilities nor had any future consequences.

3.9.6 Compensation

All research participants were in no way compensated for their participation in the study.

3.9.7 Conflict of interest

The researcher had no conflict of interest in the study. It was purely for academic purpose.

3.9.8 Research and funding

The study did not receive any external funding. It was for the award of a Master's degree in Public Health from the School of College of Health Sciences, University of Ghana. Therefore, all cost was funded by the researcher.

3.9.9 Participant consent form

A participant consent form clearly define modality of the study was designed for use in the study. Respondents were assured of strict confidentiality and privacy. All information about the participants remained anonymous and confidential. Each respondent upon explanation was made to sign a consent form after they agreed to participate.

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter present the findings of the study in relation to the stated objectives and the research questions. The study was to seek care givers perception on the quality of care they are provided (their award received). The analysis took into account the expected quality level in the SERVQUAL questionnaire dimension and the quality of services actually provided in the dimension. Based on this the discrepancy between the respondent's expectations as to quality in the individual dimension was determine.

4.2 Socio-demographic characteristics

The study surveyed 230 respondents, implying response rate of 100%. Respondents had a mean age of 32.7±7.8 years and a minimum and maximum age of 17 and 67 years respectively. About 49.1% (113) of the respondents were in age group 25-34 years, about 30.4% (70) were in age group 35-44 years while the least were 1.7% (4) 55 and above years. Most of the respondents 96.5% (222) were females. In terms of relationship with the children, about 90.9% (n=209) were mothers and 3.5% (8) were fathers. About 80.4% (185) were married. About 38.3% (88) had JHS/middle level education, 26.5% (61) had SHS/secondary level education and 17.0% (39) had tertiary level education. About 64.8% (149) were employed while 12.6% (29) were unemployed. Most respondents 73.5% (169) were at the health facility for a follow-up. These are presented in Table 2.

Table 2: Respondents' socio-demographic characteristics

Characteristics	Number	Percentage (%)
Age group (years)		
15-24	34	14.8
25-34	113	49.1
35-44	70	30.4
45-54	9	3.9
55 and above	4	1.7
Sex		
Male	8	3.5
Female	222	96.5
Relationship		
Mother	209	90.9
Father	8	3.5
Siblings	2	0.9
Grandparents	7	3.0
Others	4	1.7
Marital status		
Married	185	80.4
Single	45	19.6
Level of education		
No formal education	19	8.3
Primary	14	6.1
JHS/Middle	88	38.3
SHS/Vocation/Technical	70	30.4
Tertiary	39	17.0
Employment status		
Public sector	52	22.6
Self employed	149	64.8
Unemployed	29	12.6
Health insurance		
Insured	180	78.3
Uninsured	50	21.7
Type of visit		
Initial visit	61	26.5
Follow-up	169	73.5
Total	**230**	**100%**

Source: Survey Data, 2017

4.3 Caregivers expected service quality before seeking health care

About 99.0% (228) of the respondents expected high service quality at the health facility before receipt of the service. None of the respondent was expecting poor quality of care to be delivered. This is presented in table 2.

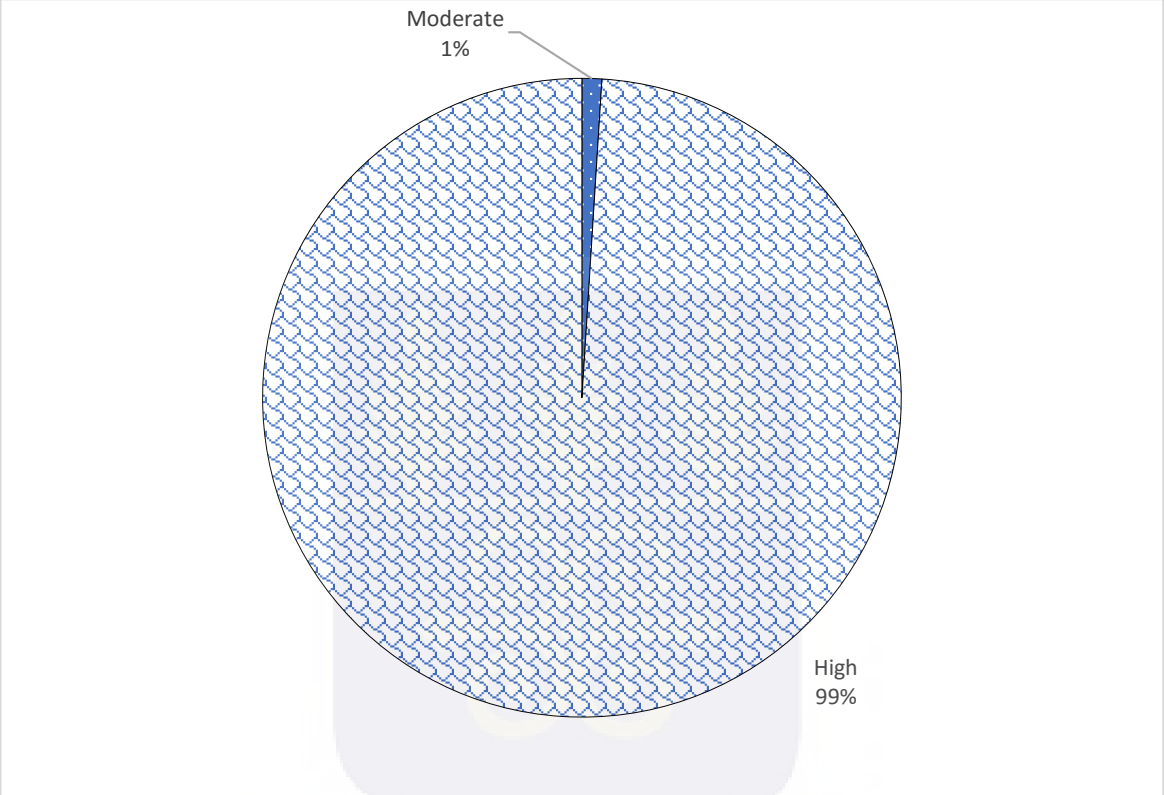

Figure 2: Expected level of service quality among caregivers
Source: Survey Data, 2017.

4.4 Caregivers perceived service quality after seeking health care

About 36% (83) of the caregivers perceived service quality at the health facility as high while 9% perceived it as low. Most of the respondent about 55% (127) perceived the service quality delivered to their wards as moderate.

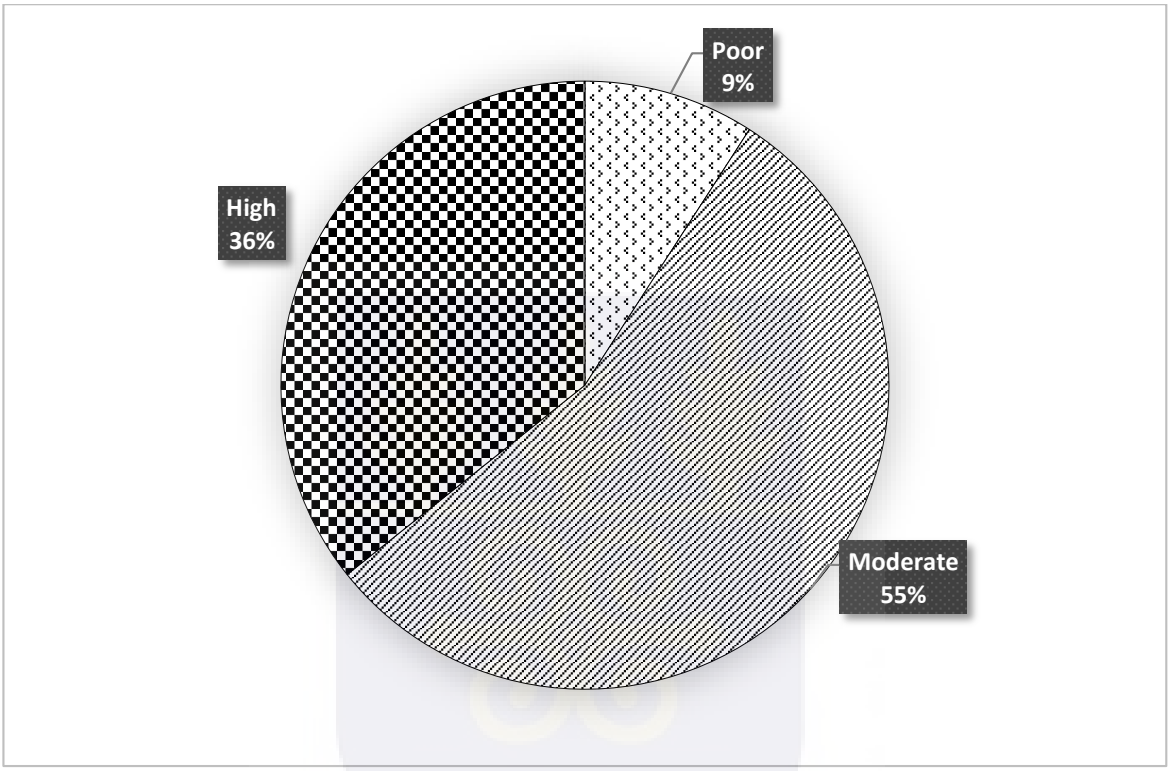

Figure 3: Perceived level of service quality among caregivers
Source: Survey Data, 2017.

4.5 Level of expectation and perception domains among caregivers

Figure 4 presents caregivers' expectations and perceptions among the five domains of service quality at the health facility. About 97.8% (225) had high level of expectations for tangibles but only 21.3% (49) perceived high level of quality service delivered and most of the caregivers 52.6% (121) reported it as moderate. Almost all caregivers 99.1% (228) expected high level of reliability, however only 47% (108) of caregivers perceived service quality of reliability at the health facility as high. Some of the caregivers 39.9% (91) reported service quality of reliability as moderate. In terms of responsiveness, 97.4% (224) of

caregivers had high expectations of service quality but only 32.12% (74) of the caregivers' perceived it as high and majority reported as moderate High level of assurance was expected among 99.1% (228) of the caregivers, however, 81.3% (187) was perceived. Almost all the respondents 99.1% (228) expected high service quality of empathy at the health facility, however 63.9% (147) perceived it high and 27.4% (63) reported as moderate quality.

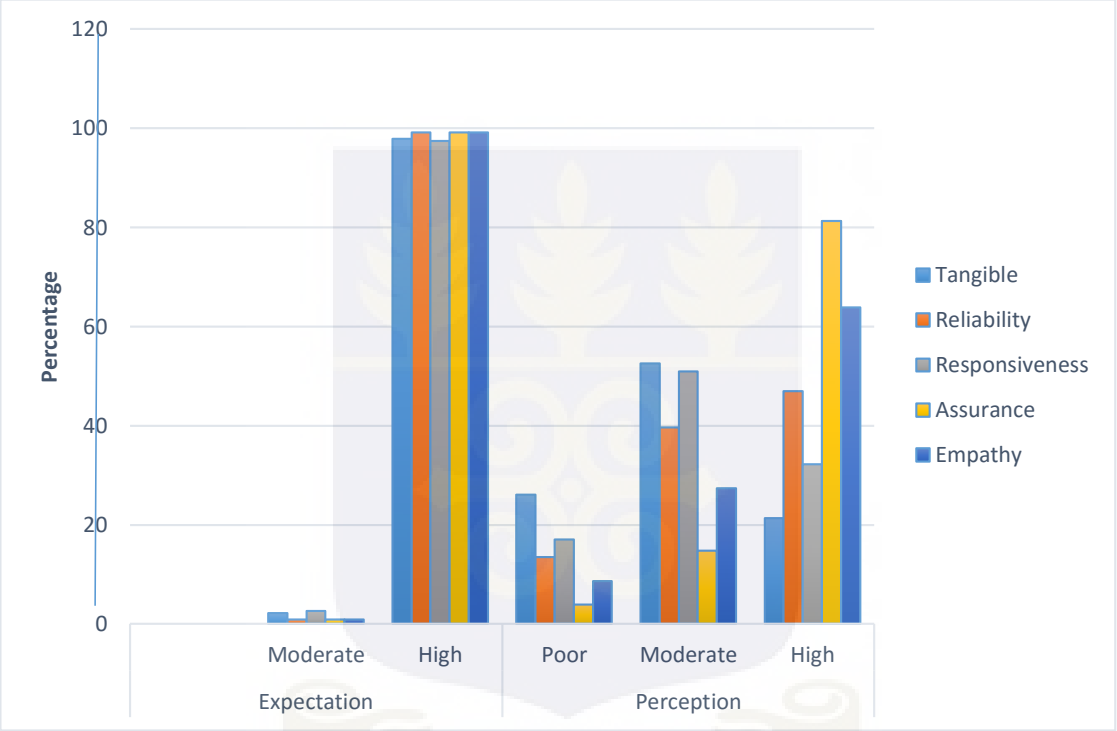

Figure 4: Expectation and perception domains among caregivers
Source: Survey Data, 2017

4.6 Level of service quality among caregivers

The study shows that all domains were not met as gap scores for tangibles (p=0.001), reliability, (p=0.001), responsiveness (p=0.001), assurance (p=0.001), and empathy (p=0.001), were significantly negative. The gap scores showed that tangibles (1.70) and responsiveness (1.40) were worse perceived in terms of service quality while the least was assurance (0.50). These gaps were significantly different (p<0.05). Overall service quality was also not met as total mean expectation was (4.87) and observed mean perception was (3.65) giving a mean gap of service quality of (-1.22). This different as statistically significant (p=0.001). These are shown in table 3.0.

Table 3: Service quality among caregivers using all domains

Dimension	Expectation mean Score	Perception mean Score	Gap mean Score	p-value*	95% C.I.
Tangibles	4.83	3.13	-1.70	0.001	1.5-1.9
Reliability	4.90	3.56	-1.34	0.001	1.2-1.5
Responsiveness	4.88	3.40	-1.48	0.001	1.3-1.6
Assurance	4.85	4.35	-0.50	0.001	0.4-0.7
Empathy	4.90	3.82	-1.08	0.001	0.9-1.2
Service quality	**4.87**	**3.65**	**-1.22**	**0.001**	**1.0-1.5**

***Significant at 0.05 Source: Survey Data, 2017.**

4.7 Level of service quality among caregivers in the individual dimensions

The mean score of expectations of all the individual indicators of the five domains were highest at 4.9 and the least at 4.7, and perceived scores were lower between (4.5-2.1), leaving all dimension unmet at a gap scores being negative. The differences were significantly at (p<0.05).The worse perceived indicators of service quality were tangible 4 (Materials associated with the service such as pamphlets are visually appealing) and reliability 1 (The hospitals provide health care services on schedule without any delays).

Table 4: Service quality among caregivers in the individual dimension

Dimension	Statement	Mean Expectation Score	Mean Perception Score	Mean quality Gap Score	p-value*	95% C.I.
Tangible						
T1	1	4.9	3.3	-1.6	0.001	1.4-1.7
T2	2	4.8	3.5	-1.3	0.001	1.1-1.5
T3	3	4.9	3.6	-1.3	0.001	1.2-1.5
T4	4	4.7	2.1	-2.6	0.001	2.5-2.8
Reliability						
R1	5	4.9	2.3	-2.6	0.001	2.4-2.9
R2	6	4.9	3.9	-1.0	0.001	0.8-1.2
R3	7	4.9	4.0	-0.9	0.001	0.8-1.1
R4	8	4.9	4.2	-0.7	0.001	0.6-0.9
R5	9	4.9	3.4	-1.5	0.001	1.3-1.7
Responsiveness						
RP1	10	4.8	3.6	-1.2	0.001	1.0-1.5
RP2	11	4.9	2.7	-2.2	0.001	2.0-2.4
RP3	12	4.9	3.2	-1.7	0.001	1.5-1.9
RP4	13	4.9	4.1	-0.8	0.001	0.7-1.0
Assurance						
A1	14	4.9	4.5	-0.4	0.001	0.3-0.6
A2	15	4.8	4.5	-0.3	0.001	0.3-0.6
A3	16	4.9	4.5	-0.4	0.001	0.3-0.6
A4	17	4.8	3.9	- 0.9	0.001	0.7-1.1
Empathy						
E1	18	4.9	4.5	-0.4	0.001	0.3-0.5
E2	19	4.9	3.1	-1.8	0.001	1.6-1.9
E3	20	4.9	4.3	-0.6	0.001	0.5-0.8
E4	21	4.9	4.0	- 0.9	0.001	0.7-1.1
E5	22	4.9	3.2	- 1.7	0.001	1.6-1.9

***Significant at 0.05** **Source: Survey Data, 2017**

4.8 Caregivers perceived most important health feature

Most care givers 44% (102) perceived the willingness of health facility to provide service promptly as their most important feature and 30% (69) perceived ability of the health facility to perform the promised service. About 13% (30) perceived the caring and attention given

to their ward by the health care personnel was also important and only 7% (16) perceived knowledge and courtesy as their important feature.

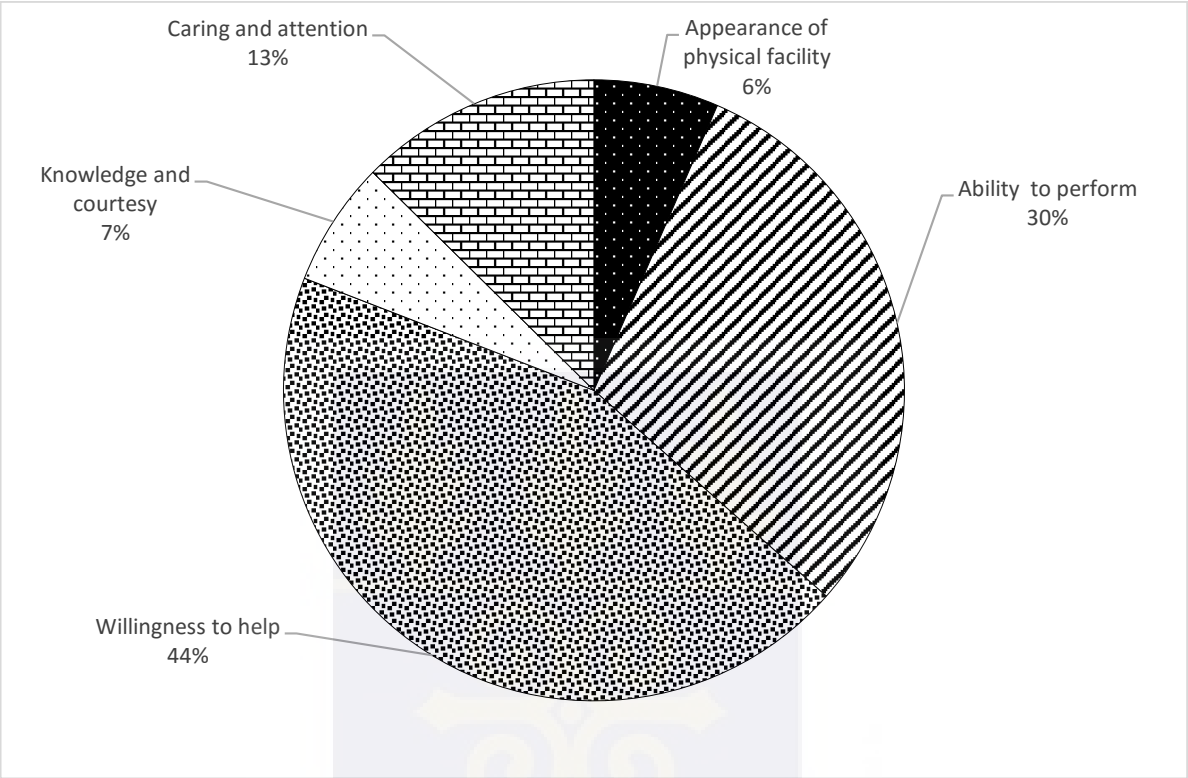

Figure 5: Perceived most important feature of caregivers
Source: Survey Data, 2017.

4.8.1 Caregivers perceived least important health feature

Caregivers reported knowledge of the health personnel and ability to convey trust as the least feature as reported by 34% (78). About 30% (69) of the caregivers reported that, the physical appearance of the health facility and personnel was their second least perceived important feature. This is shown in the figure below.

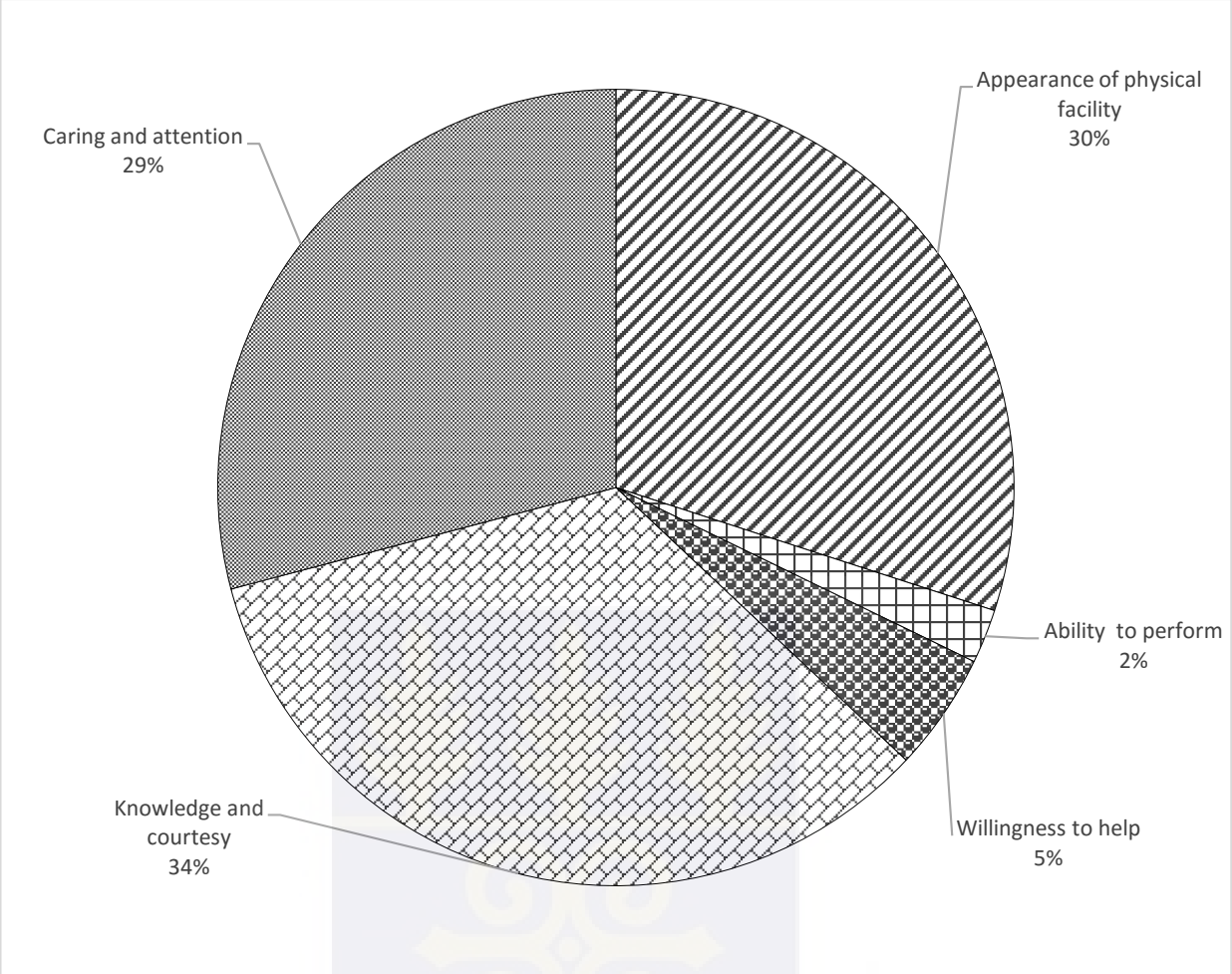

Figure 6: Perceived least important feature of caregivers
Source: Survey Data, 2017.

4.9 Association between demographic characteristics and perceived quality of health service

The study found significant association between sex of parents and perceived quality of health service at the health facility. Male parents/guardians negatively influenced perceived quality of health service at the health facility (p=0.001). Age group, relationship with child, educational level, marital status, employment status and health insurance did not influence perceived quality of health service.

Table 5: Demographic characteristics and perceived quality of health service

	Estimate	Std. Error	p-value*	95% Confidence Interval	
Age group					
15-24	2.926	1.815	0.107	-0.630	6.483
25-34	3.288	1.786	0.066	-0.213	6.790
35-44	2.886	1.798	0.108	-0.638	6.410
45-54	2.065	1.648	0.210	-1.165	5.295
55 and above	Reference	.	.	.	.
Sex					
Male	-0.808	0.353	0.022	-1.499	-0.116
Female	Reference	.	.	.	.
Relationship					
Mother	-0.031	1.085	0.977	-2.157	2.095
Father	0.566	1.301	0.664	-1.984	3.116
Siblings	1.556	1.768	0.379	-1.910	5.022
Grand parents	1.712	1.814	0.345	-1.842	5.267
Others	Reference	.	.	.	.
Marital status					
Married	0.277	0.359	0.441	-0.428	0.981
Single	Reference	.	.	.	.
Level of education					
No formal education	0.852	0.596	0.153	-0.317	2.021
Primary	0.644	0.652	0.323	-0.633	1.921
JHS/Middle	0.269	0.443	0.544	-0.600	1.138
SHS/Vocational/technical	0.397	0.473	0.401	-0.529	1.324
Tertiary	Reference	.	.	.	.
Employment status					
Public sector	-0.149	0.469	0.751	-1.068	0.770
Self employed	0.556	0.419	0.184	-0.264	1.377
Unemployed	Reference	.	.	.	.
Health insurance					
Insured	0.342	0.324	0.291	-0.293	0.977
Uninsured	Reference	.	.	.	.

***Significant at 0.05** **Source: Survey Data, 2017.**

CHAPTER FIVE

RESULT

5.1 Introduction

This section discusses the findings of the study in relation to reviewed published literature. This study sought to determine the level of service quality satisfaction among caregivers attending PML Hospital. The following objectives were targeted; to determine the level of expectation of caregivers on service quality provided by health facility; to determine caregivers' perception on quality of services received; to determine the difference in quality between expectation and perception of service quality among caregivers: to identify perceived important features of health facilities among caregivers. In view of this, the discussion is structured to answer the above objectives.

5.2 Socio-demographic characteristics

This study comprised of two hundred and thirty (230) caregivers attending the PML Hospital with their children. The average age of caregivers was 32.7±7.8 years with the youngest being 17 years and the oldest being 67 years. About half of the respondents were in age group 25-34 years while a third were in age group 35-44 years. This age group distribution is expected as most caregivers in the study were mothers with one or two children. There were some who were grandmothers and this could account for the older age group observed in this study. Parents sometimes ask their mothers or in-laws to bring their sick children to hospital due busy schedules. Majority of the caregivers were females as well as mothers. This may be attributed to the cultural nature of the Ghanaian community which encourages women to be responsible for the health and educational needs of their children while the men work to provide income for such duties. Most women in and around the study site are self-employed and have adequate time to spend at the health facility. This may also

account for the large proportion of women in the study. Educational level among caregivers were moderate as about 38% had JHS/middle level and 26.5% had SHS/secondary level education while only 12.6% had tertiary level education. Women in general have lower educational level compared with men in Ghana and this is supported by the GDHS (2012) data. More than half of the caregivers were employed while 12.6% were unemployed. The age distribution suggests that some of the caregivers were retired and this may partly account for the unemployed proportion observed in this study. Most caregivers were coming for follow-up visits. This may influence their expectation and perception as they may have experienced some level of service quality at their previous visits.

5.3 Caregivers' expectation and perception of service quality.

The study revealed that almost all caregivers had high expectations in terms of level of quality of health service provided at the health facility. None of the caregivers expected low or poor health service quality. This is to be expected as patients expect the highest form of health care provision with best practices, modern and efficient equipment as well as well-trained health personnel. They also want to spend less time and be treated with respect. This was shown in all the five domains of the Servqual model used in this study. In terms of perceived quality, more than half 55.0% of the caregivers reported moderate level of service quality at the health facility with an overall 9% poor service quality reported among caregivers. This suggest gap in the overall expectations of caregivers in comparison to their perception. When this occurs, it results in dissatisfaction among caregivers. This could also mean and over rated expectation of caregivers as they may seek perfection of the health system. Studies conducted in this area have reported different findings. While some reported higher perceived health service quality, others reported lower perceived health service quality. Like the findings of this study, Yesilada and Direktor (2010), reported that patients

were highly dissatisfied with healthcare services received in Cyprus. Contrary to the findings of this study, Irfan and Ijaz (2011) also made similar assertions when they reported that, patients of private hospitals were more satisfied than those of public hospitals. Studies in Ghana using servqual model to different health institutions (Turkson, 2009; Owusu – Frimpong & Dason, 2010; Atinga, 2011). Turkson (2009) concluded that, though the overall health service quality was perceived to be high in rural Ghana participants bemoaned some aspects of service quality was poor. Findings reported that, there were long waiting times, poor attitude of staffs coupled with inadequate facilities such as an ambulance. Peprah (2014) yielded similar results to that of Turkson (2009). The study recommended that, hospital managers improve upon dimensions of health quality though respondents reported that, overall service quality was good.

There have also been suggestions on the veracity of the expectations of patients which many think is subjective. Despite these, many important lessons have been learnt form the viewpoint of patients in improving health service quality. These disagreement is even evident among researchers as reported by Zabada *et al*., (1998), the lack of one common definition of health care quality in the healthcare could be explained by an existence of various patients and healthcare employees with their own perceptions of quality. Other studies such as Ross et al. (1987) argued that, restricting client satisfaction to only quality was problematic because there was evidence of health patients who were unhappy. These Authors suggested that, other dimensions such waiting time and costs among others be factored into the concept of patient satisfaction.

5.4 Caregivers' expectation and perception on all the domains of health service quality

The study also revealed high expectation of caregivers in terms tangibles, responsiveness, reliability, assurance and empathy. This was expressed among all the caregivers in the study which correspond with other studies Manulik *et al.*, (2016), and Lin *et al*., (2009). This was also shown in all the individual items of the five domains. The most expected domains in this study were reliability and empathy. This is not surprising as caregivers want health personnel to show empathy towards their children as well as have access to reliability information on laboratory, radiography and other investigations. When such tests and investigations are not available and they have to turn to other hospitals, this leads to unmet expectations resulting in dissatisfaction. Less than half of the respondent perceived the quality of tangible as high. Expectation and perception and high gap score for tangibles shows that less attention is paid to the physical environment of the hospital, responsiveness and assurance was also highly expected among caregivers. Less than half of the caregivers perceived the quality of tangibles, reliability, responsiveness and assurance as high. While more than half of the caregivers 64.0% reported perceived empathy as high. This is expected as PML Hospital is a specialized children's hospital and health personnel there pay attention to this domain. Supporting the findings of this study, Aghamolaei et al., (2014), applied the SERVQUAL model in a hospital in Iran and indicative that, the Bandar Abbas Shadid Mohammadi hospital was deficient in all five service dimensions measured. More than of half of the respondents rated service quality as average.

Contrary to the findings of this study, Peprah (2014) yielded similar results to that of Turkson (2009). The study recommended that, hospital managers improve upon the responsiveness and assurances dimensions of health quality. In this study, sex of parent or

guardian was significantly associated with perceived quality of health service at the health facility. However, having health insurance, age group, marital status, educational level, employment did not influence perceived quality of health. Most studies similar to this did not look at demographic characteristics influence on service quality. However, Zabada et al., (1998) reported influence of age, educational level and employment on both expectation and perception.

5.5 Perceived important features of health facilities among caregivers

In this study, the most important feature of health facilities to caregivers was willingness of the health facility to provide service promptly and the ability of the health facility to provide what it is required to do. Due to pressures from workplace, most caregivers do not want to spend too much time accessing what they have paid even it is available. There are times that equipment for important tests and investigation may not be working and this may require them to go to other hospitals and get them done and come back at a different time. This increases the overall time and cost of health care on caregivers. Like this finding, Thompson et al., (2015) reported that quality of healthcare hinges largely on the competence of health officials. Knowledge, skills and abilities of health providers is a very crucial aspect of health delivery. Provider competence encapsulates knowledge, decision making skills and communication among others that are necessary in the performance of a defined task at some level of proficiency.

According to McLaughlin & Kaluzny, (2006) and Ladhari (2009) it has established in principle that, when patients receive the services they require and are beneficial to them then, quality of care is provided. Mosadeghrad (2014) also reported that quality of healthcare is "consistently delighting the patient by providing efficacious, effective and

efficient healthcare services according to the latest clinical guidelines and standards, which meet the patients' needs and satisfies providers". Ross et al. (1987) argued that, restricting client satisfaction to only quality was problematic because there was evidence of health patients who were unhappy. These Authors suggested that, other dimensions such waiting time and costs among others are primary to patient satisfaction.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1 Introduction

The study was set out to determine Caregivers' perception on quality of care at the outpatient department of the Princess Marie Louis Children Hospital. This was achieved by assessing caregivers' perception on the quality of health care using quantitative research methods to collect data, by administering questionnaires to caregivers' who were assessing health care. The data was analyzed using appropriate techniques. This study makes an important contribution to the growing body of health delivery quality and client satisfaction in assessing health care, thereby helping the institutions to maintain and enhance delivering of health care, enhance productivity and facilitate progress through strategic goals. The study concludes and support that perceptions and judgement of quality are individual tailored and dynamic.

6.2 Summary of the results

This section present the summary on client expectation on quality of service provided. The study identified that all the caregivers were expecting high level of service quality at all the five domains ($p<0.001$) of the Servqual model which is similar to the findings from Manulik et al., (2016). This was also shown in all the individual items of the five domains.

The study also revealed that, more than half of respondent reported moderate level of service quality ($p<0.001$), while 36% perceived the quality as high and 9% reported as poor quality of health care delivered, Aghamolaei et al., (2014) also reported similar findings. Conclusion from the findings reported that although the quality was moderate there were

long waiting times, poor attitude of staffs coupled with inadequate facilities of modern equipment.

The study concludes that, there was a gap score in the overall expectation and perceived quality of health care quality received at the hospital which led to unmet expectation resulting in dissatisfaction. Yesilada and Direktor, (2010), reported that patients were highly dissatisfied with health care services received.

Caregivers perceived willingness of the heath facility to provide service promptly, staffs possessing a wide spectrum of knowledge to answer their questions and the ability to provide what they promised as most important feature to them/ expecting from a health facility. Thus this support literature that knowledge, skills and abilities of health providers is a very crucial aspect of health delivering (Thompson et al 2015).

6.3 conclusions of the study

Although majority of caregivers' were moderately satisfied with the quality of care they received, some areas were reported as problem that needed improvement some of these issues were; long hours of waiting to receive care for their children and the delay in offering service to them. The health care workers do not have enough time to explain the condition of their children and procedures to them. Caregivers' expressed dissatisfaction at the quality of care especially with the issue of staff attitude which does not instill confident in them.

This was a small descriptive cross- sectional study of a specific group and a selected health facility. However the findings offer some insight into complex issues on the quality of care; caregivers' perception of the care provided and received. Nevertheless, the findings of the

study would awaken policy makers both internationally and locally on the need to pay attention to pediatric care in the health facilities in order to enhance quality of care.

6.4 Recommendations

The findings of the study make provision for the following recommendations for the attention of management and policy makers.

1. One startling revelation of the study is that, services receive/ provided by the health personnel were below clients' expectation thus client were dissatisfied with the quality of health care. The following has been suggested for consideration by health policy makers in their effort at improving the quality of health care and client satisfaction. There should be continuous evaluation and monitoring of quality of care at health facilities tailored to caregivers' expectations, together with a standard protocol to guide staff.
2. The study suggested that knowledge, skills, and abilities of health personnel are important features therefore, periodic capacity building workshops to update health personnel on new trends, quality assurance and costumer care can help improve quality of health care provision.
3. Results from the study revealed that, client were expecting very high quality of health care provision and expected perfection from the health workers, thus information can be used by health educators and promoters to educate caregivers on what to expect when they patronize health facilities.

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APPENDICES

APPENDIX A

Participant's Consent Form

School of public Health

College of Health Sciences

University of Ghana, Legon

Project Title: Caregivers Perception of Quality of Health Care at the Out-Patient Department of Princess Marie Louise Hospital

Background

My name is Jessica Agbelie, a student from the School of Public Health, University of Ghana, Legon. I am conducting a study concerning the quality of health care experienced by Caregivers at the Princess Maries Louise Hospital.

Procedures

The study will involve answering questions from a closed ended questionnaire about the quality of healthcare experienced by Caregivers. No coercion will be used to obtain response from participants. It will be appreciated if you could participate in this study. This is purely academic research which forms part of my work for the award of a Master's Degree in Public Health.

Confidentiality and Anonymity

This study is anonymous. We will not be collecting or retaining any information about your identity. The records of this study will be kept strictly confidential. We will not include any information in any report we may publish that would make it possible to identify you.

Risks and Benefits

The study inures benefits to both study participants and Ghana healthcare system in general. The study when completed would inform hospital managers and health policy makers about the gaps in healthcare delivery in Ghana thus the study would act as a feedback mechanism to health authorities. The information generated by the study is expected to invoke a response from authorities towards the improvement of healthcare in Ghana. There are no risks associated with this study.

Right to Refuse

Participation in this study is voluntary and you can choose not to answer any individual question or all questions. You are at liberty to withdraw from the study at any time with no negative consequence to you. But it would be appreciated if you fully complete it..

Before taking consent

Do you have any questions you wish to ask about the study? Yes/No

If yes, please, indicate the questions below……

……

……

Voluntary Consent

I have read the information given above, or the information above has been read to me and I understand. I have been given a chance to ask questions concerning this study; questions have been answered to my satisfaction. I now voluntarily agree to participate in this study knowing that I have the right to withdraw from this study at any time without affecting future health care services.

……. ……. ……..…… …….

Name of Caregiver / Respondent Date Thumbprint Signature

Thank you for your cooperation

Interviewer's Statement

I, the undersigned, have explained this consent form to the participant in simple language that she/he understands, the purpose of the study, procedures to be followed, as well as the risks and benefits of the study.

The participant has fully agreed to participate in the study.

Signature of Interviewer ……

Date ……

If you have any questions later please, contact

Researcher: Jessica Agbelie (0244256355).

APPENDIX B

Questionnaire

SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA

Participant ID: |___|___|___|		
QUESTION No.	**QUESTIONS**	**RESPONSE**
Section A.	**Socio – Demographic Characteristics**	
1	What is your sex? 1. Male 2. Female	|___|
2	What is your age?	|___|
3	What is your relationship to child? 1. Mother 2. Father 3. Sibling 4. Grandparent 5. Others (specify)	|___|
4	What is your Marital status? 1. Married 2. Single	|___|
5	What is your highest level of education? 1. No formal education 2. Primary 3. JHS/ Middle school 4. SHS/ Vocational/ Technical 5. Tertiary	|___|
6	What is your employment status? 1. Public servant 2. Self Employed 3. Unemployed	|___|
7	Do you have health insurance? 1. Insured 2. Uninsured	|___|

8	Is your visit an initial visit or follow up? 1. Initial visit 2. Follow up visit	|___|
Section B.	**Service Quality Dimensions and Measurement**	

This section deals with your opinions of Children's hospitals, please think about the kind of hospital that would deliver excellent quality of service. Please show the extent to which you think these hospitals should possess the following features. What we are interested in here is a number that best shows your expectations about the hospitals offering healthcare services to your ward(s). If you think a feature is absolutely important for excellent hospital/clinic write 5. If your feelings are less strong write one of the number in the middle.

TANGIBLES **1. Strongly Disagree; 2. Disagree; 3. Not Sure; 4. Agree; 5. Strongly Agree**		
9	Excellent hospitals will have modern equipment.	|___|
10	The physical facility at excellent hospital will be visually appealing.	|___|
11	Excellent hospitals will have very clean buildings, facility & surroundings.	|___|
12	Materials associated with the service such as pamphlets will be visually appealing in an excellent hospital	|___|
RELIABILITY **1. Strongly Disagree; 2. Disagree; 3. Not Sure; 4. Agree; 5. Strongly Agree**		
13	Excellent hospitals will provide healthcare services on schedule without any delays.	|___|
14	Excellent hospitals will keep accurate and up to date records of patients.	|___|
15	Excellent hospitals medical procedures will be performed accurately and on time.	|___|
16	In the excellent hospitals, medical staff will show sincere interest to solve patients' problems.	|___|
17	Excellent hospital will provide their service at the appointed time	
RESPONSIVE **1. Strongly Disagree; 2. Disagree; 3. Not Sure; 4. Agree; 5. Strongly Agree**		
18	In excellent hospitals, Caregivers will be inform of when services will be performed by the personnel.	|___|
19	Personnel in excellent hospitals will give prompt services to patient.	|___|
20	In excellent hospitals, staffs will never be too busy to respond requests from Caregivers.	|___|
21	In excellent hospitals, staffs will always be willing to help patient.	|___|
ASSURANCE **1. Strongly Disagree; 2. Disagree; 3. Not Sure; 4. Agree; 5. Strongly Agree**		

22	In excellent hospitals, caregivers will feel safe in interacting with the staffs.	|___|
23	In excellent hospitals, Staffs will conduct themselves that instill confidence in Caregivers.	|___|
24	In excellent hospitals, Staffs will be very courteous with caregivers.	|___|
25	In excellent hospitals, Staffs will possess a wide spectrum of knowledge to answer patient questions.	|___|
	EMPATHY	
26	In excellent hospitals, Staffs will care and understand individual specific needs.	|___|
26	Excellent hospital will have consultation and operating hours convenient to all caregivers.	|___|
27	In excellent hospital, staffs explain what is wrong with patient	|___|
28	In excellent hospitals, wards will be given individual attention by the staffs	|___|
29	In excellent hospitals, feedback from Caregivers will be valued and acknowledged in order to improve services.	|___|

The following statements relate to your feelings about the particular hospital where your ward have receives healthcare. Please show the extent to which you believe the hospital has the feature described in the statement. Here, we are interested in a number that shows your perceptions about the hospital which has treated you. Once again write 1 means you strongly disagree that the hospital you have attended has this feature and write a 5 means that you strongly agree there are no right and wrong.

	TANGIBLES **1. Strongly Disagree; 2. Disagree; 3. Not Sure; 4. Agree; 5. Strongly Agree**	
30	The hospitals has modern equipment.	|___|
31	The physical facilities in the hospital are visually appealing.	|___|
32	The hospital has very clean buildings, facility & surroundings.	|___|
33	Materials associated with the service such as pamphlets are visually appealing.	|___|
	RELIABILITY **1. Strongly Disagree; 2. Disagree; 3. Not Sure; 4. Agree; 5. Strongly Agree**	
34	The hospitals provide healthcare services on schedule without any delays.	|___|
35	The hospital keeps accurate and up to date records of patients.	|___|
36	The hospital's medical procedures are performed accurately and on time.	|___|

37	The hospital's medical staffs show sincere interest to solve patients' problems.	|___|
38	The hospital provide their service at the appointed time.	
RESPONSIVE **1. Strongly Disagree; 2. Disagree; 3. Not Sure; 4. Agree; 5. Strongly Agree**		
39	Caregivers are informed of when services are performed by the hospital personnel.	|___|
40	Personnel in the hospital give prompt services to you.	|___|
41	In excellent hospitals, staffs are never too busy to respond requests from Caregivers.	|___|
42	The hospital's staffs are always willing to help you	|___|
ASSURANCE **1. Strongly Disagree; 2. Disagree; 3. Not Sure; 4. Agree; 5. Strongly Agree**		
43	Caregivers feel safe in interacting with the staffs.	|___|
44	Staffs conduct themselves that instill confidence in you.	|___|
45	The hospital's staffs are very courteous with caregivers.	|___|
46	The hospital's Staffs possess a wide spectrum of knowledge to answer patients questions.	|___|
EMPATHY **1. Strongly Disagree; 2. Disagree; 3. Not Sure; 4. Agree; 5. Strongly Agree**		
47	The hospital's Staffs care and understand individual specific needs.	|___|
48	The hospital has consultation and operating hours convenient to all caregivers.	|___|
49	The staffs have the best interest of you wards at heart	|___|
50	Your ward was given special individual attention by the staffs	|___|
51	Feedback from Caregivers are valued and acknowledged in order to improve services.	|___|

Section C

Listed below are five features pertaining to hospitals/clinic and the service they offer. We would like to know how important each of these features is to *you* when you evaluate the service offered by a hospital or clinic. Please allocate a total of 100 points among the five features according to how important each feature is to you – the more important a feature is to you, the more the points you should allocate to it. Please ensure that the points you allocate to the five features add up to 100.

1. The appearance of the hospital/clinic's physical facilities, equipment, personnel and communication materials. _____ points

2. The hospitals/clinic's ability to perform the promised service dependably and accurately. _____ points

3. The hospital/clinic's willingness to help patients and provide prompt service. _____ points

4. The knowledge and courtesy of the hospital/clinic personnel and their ability to convey trust and confidence. _____ points

5. The caring, individualized attention the hospital/clinic provides its patients. _____ points

TOTAL points allocated 100 points

Which one feature of the above is most important to you? _____
(Please enter the feature's number)

Which feature is second most important to you? _____

Which feature is leat important to you? _____

THANK YOU.

APPENDIX C

MEMO

GHANA HEALTH SERVICE

Your Health · Our Concern

PRINCESS MARIE LOUISE CHILDREN HOSPITAL

TO: HEAD OF CLINICAL SERVICES

Cc: ALL UNITS HEADS CONCERNED

FROM: MEDICAL SUPERINTENDENT

DATE: MARCH 3, 2017

SUBJECT: INTRODUCTION: *MS. JESSICA ATTOH DEDEI AGBELIE*

The above-named student from **University of Ghana, Legon** has been granted permission to undertake research at this Hospital.

She is researching into a topic: "**CAREGIVERS PERCEPTION ON QUALITY OF HEALTH CARE AT THE OUT-PATIENT DEPARTMENT**"

Please offer her the needed assistance to enable her complete this research successfully.

Thank you.

APPENDIX D

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

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

Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra
Tel: +233-302-681109
Fax + 233-302-685424
Email: ghserc@gmail.com

MyRef. GHS/RDD/ERC/Admin/App/489
Your Ref. No.

Agbelie Jessica Attoh Dedei
University of Ghana
School of Public Health
Legon, Accra

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

GHS-ERC Number	**GHS-ERC: 71/02/17**
Project Title	Caregiver's Perception of Quality of Health Care at the Out-Patient Department of Princess Marie Louise Hospital
Approval Date	15th May, 2017
Expiry Date	14th May, 2018
GHS-ERC Decision	**Approved**

This approval requires the following from the Principal Investigator

- Submission of yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report **after completion** of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.

Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

SIGNED.....
DR. CYNTHIA BANNERMAN
(GHS-ERC CHAIRPERSON)

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