

# SERVICE DELIVERY IN THE CHAL HOSPITAL TEBELLONG IN LESOTHO

By

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This dissertation is submitted in partial fulfillment of the requirements for the degree of

Master of Commerce in Management

College of Law and Management Studies

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Date

2018

# Declaration

I, NTULELA ALICE KHIBA declare that;

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(ii) This dissertation has not been submitted for any degree or examination at any other university.

(iii) This dissertation does not contain other person's data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.

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Signed: -----

# Acknowledgements

In my pursuit for Masters of Commerce in Management, and in the process of conducting research and writing this dissertation, I solicited assistance from various quarters. I am therefore greatly indebted to all those without whose assistance, the completion of this project would not have been a success.

Firstly, I would like to thank Tebellong hospital employees and patients for sacrificing their time to participate in this study.

Secondly, I would like to thank my supervisor, Dr. Trishana Ramluckan , whom, with great dedication, guidance and encouragement, supervised me in the writing of this project.

Also, I would like to express my heart-felt appreciation to my parents, Mrs Mamoshe Khiba and Mr Pati Khiba (may his beautiful soul rest in eternal peace), and my sweetest husband, Theko Qhobela who have been there for me through difficult times, giving me courage and support I needed to carry on, for strongly believing in me and being a constant source of inspiration. I love you guys!

A special note of thanks goes to my siblings, with a mention of my youngest sister Mponeng Khiba and my lovely son, Emmanuel Qhobela who have been understanding and supportive while I could neither spend time with them, nor give them the love they deserve.

I would not have done myself justice if I do not give special thanks to my friends and colleagues at work, especially Dr Luaba Michel and Mr Taoana Makhabane, who acted as great source of support, inspiration and always gave me a shoulder to lean on.

Finally, I humble myself before God Almighty, and give very special gratitude to Him for giving me wisdom and strength to persevere, and mostly for His unfailing love and amazing grace.

### Abstract

The healthcare service industry has never been so competitive than it is today (Goddard, 2015). In order to survive, health care facilities must focus on delivering quality to their patients and meeting their expectations. The global concern is to make health care freely accessible and affordable to all people.

The purpose of this study was therefore designed to assess the experiences and expectations of both the healthcare workers and patients of Tebellong hospital. The SERVQUAL/RATER model was used as a basis for this in terms of the delivery of quality services. As part of the data collection for the study, a field survey was conducted. Based on the data collected from 66 healthcare workers and patients in the hospital, the results indicate that there is quality service delivery gap. This means that the expectations of both the healthcare workers and patients in regard to the provision of quality services are higher than what was initially perceived.

The biggest gap that was discovered is for the construct of tangibles, with which there is an urgent need to improve the 'visible' aspects of the service at the hospital to make them more appealing to the eyes of the community. The results further indicate that the expectations of patients are substantially higher than that of the healthcare workers, which indicates that it is not about how managers and healthcare workers define quality in healthcare but it is about how the patients, the receivers of the services view it. As a result of the findings of the study, it has become evident that Hospitals in general should ensure that patients are always at the heart of what they do. The patient experience should be improved at Tebellong hospital, giving priority number one to the tangibles as per findings.

Keywords: Service Quality, Rater Model (SERVQUAL), Experiences and Expectations.

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# **CHAPTER 1**

# **INTRODUCTION AND BACKGROUND**

#### 1.1 Introduction

This study was conducted at Christian Health Association of Lesotho (CHAL), Tebellong Hospital Qacha's Nek. Literature articulates that many developing countries are facing difficulties in providing quality healthcare services due to variety of reasons (World Health Organisation & Global Forum for Health Research, 2004). The country of Lesotho is not an exception. There are weaknesses of the health care system in the health institutions in Lesotho. The country accounts for high numbers of maternal and child deaths, prevalence of HIV/AIDS and many other diseases. The provision of quality healthcare services is seriously challenged in Lesotho. The Basotho people especially those living in the rural areas are suffering from the declining quality health care services (Jansson, 2011).

The healthcare sector in Lesotho is shared among government, CHAL and private health institutions. CHAL is a voluntary association of Christian Churches in Lesotho. CHAL currently provides about 40% of health care in Lesotho and is a key partner of the Government of Lesotho (GOL) in the health sector. Most of CHAL's facilities are located in the rural part of the country. This brings a challenge in the provision of service quality due to the inaccessibility of health facilities, hard to reach areas, inadequate resources among other factors. However, CHAL in partnership with the government is taking some efforts to awake the healthcare workers or providers to pay attention to quality services. There is a need to put more efforts to fill the gaps between what is actually being done and what is supposed to be done by the healthcare workers.

The provision of quality service has become the prominent issue at CHAL since CHAL operates mostly in the rural areas where facilities are either isolated or forgotten. Lesotho's financial situation affects negatively on the quality service delivery. The main source of income for CHAL is the government of Lesotho (Jansson, 2011). Therefore, financial challenge to the government is also the financial challenge to CHAL. The main reason why the study is focusing on CHAL hospital is that, CHAL exists to provide (not-for-profit) equitable, quality and sustainable health care services to Basotho, especially those living in the rural and semi-urban areas, in the spirit of mutual trust and cooperation through the members' health facilities as a tangible expression of Christ's vision of love thy neighbour as thy self.

CHAL aspires to be an organization of excellence in all its operations and services in supporting member churches and their institutions and through its collaborative efforts with various stakeholders (government, civil society, NGOs, the private sector and local communities). CHAL coordinates and provides healthcare services through 75 health centres and eight hospitals. Among all these health institutions, the study has been conducted at Tebellong hospital because it is the most rural hospital, not only under CHAL but in the entire Lesotho. There is no proof that the study related to this one being done has been conducted at Tebellong Hospital.

The study was conducted to find out how the people of Tebellong hospital perceive quality of service delivery, and their expectations of service delivery and identify gaps between experiences and expectations. The research questions are linked to this purpose of the study so as to gain the direct answers regarding the services at Tebellong Hospital and this will be an attempt in improving the health care services that improve the health of the community of the facility (Fatima, et al., 2017).

This chapter discusses the background to service quality, research problem, the objectives of the study, study purpose, significance of the study, research questions, research methodology, theoretical framework and limitations to the study.

# **1.2 Background to Service Quality**

"Service quality is a relatively new academic discipline, emerging in the USA in the 1980s" (Wisniewski & Wisniewski, 2005). Research on healthcare quality and the pursuit to improve service performance has led to a lot of studies in the past two decades (Andaleeb & Kara, 2014). This sector is pressurized to provide continuing performance and quality improvement while being customer-focused (Ramseook-Munhurrun, Lukea-Bhiwajee, & Naidoo, 2010). One of the critical issues facing healthcare providers is healthcare quality (Buyukozkana, Cifci, & Guleryuz, 2011). The industry of healthcare is competitive, the attitudes and behaviours of patients are alarming to the service provider (Wu, 2011) and that is the reason why service quality evaluation is one of the crucial issues today.

Healthcare is a government priority in every country in order to have a healthy nation. The largest service in the world is healthcare. Studies however articulate that many developing countries are facing difficulties in providing quality healthcare services due to a variety of reasons (Sharma, Kong, & Kingshott, 2016). Service quality is a problem in the healthcare industry. Poor service quality in healthcare may lead to wrong diagnosis and wrong treatment

of patients, loss of trust by patients, low employee morale, over-or-underutilization of resources and bad public image. Exploring this issue will help and improve managers and employees' understanding of what makes a quality service.

Service quality in healthcare is defined by Wu (2011) as a gap between the experiences and expectations of the patients. Service quality in healthcare is not easily defined and measured than in other sectors (Mosadeghrad, 2014). Mosadeghrad (2014) indicated that it is hard to define healthcare service quality. However, it is determined by service provider, service process and customer. From the literature of marketing, service quality is defined in terms of what service recipients get in their involvement with the providers of service. According to Gronroos (1984) and Keyser and Lariviere (2014), service quality comprises of two components - technical and functional. Technical involves what the customer is actually receiving from the service, and functional quality is about the manner in which the service is delivered.

The reason for selecting this topic is that the researcher had previously undertaken training titled "Quality Assurance in Healthcare" and it is within this training where quality concepts were articulated and since then my interest lies in the heart of service quality delivery. Quality Assurance in Healthcare relates to the level to which healthcare delivered to individuals and patient populations improve desired outcomes (Gupta & Rokade, 2016). They, Gupta and Rokade (2016) suggest that care should be based on the strongest clinical evidence, provided in a technically and culturally competent manner with good communication and shared decision making. Quick changes and improvements in the healthcare setting require that healthcare providers or workers deliver services in a technically and culturally proficient manner by means of ensuring service quality.

### 1.3 Research Problem

Service quality in healthcare is gaining increasing attention over the past years. Health care is about the lives of the people, diagnosis, treatment and prevention of the ailments (Porter & Lee, 2013). The previous researchers have indicated that the quality refinement is of great challenge to be achieved in the service sector (Buyukozkana *et al.*, 2011). Service quality delivery has declined at Tebellong Hospital; for example, there has been high turnover of staff, the community has been concerned about untimely services, inadequate resources for providers to provide health services.

Tebellong hospital experienced repetitive illnesses, medical errors, unnecessary new infections which sometimes may have resulted in death, poor healthy-living habits, bad public image, employees job dissatisfaction which further lead to low morale, generally unconducive working environment for the employees. Complaints from patients come in large numbers. Therefore, the declining quality of healthcare services at the hospital is a problem at hand.

### **1.4** The objectives of the study

The objectives of the study were:

- i) To determine employee and patients and healthcare workers' perceptions of quality services delivered at Tebellong hospital.
- ii) To ascertain employees and patients and healthcare workers' expectations of service quality.
- iii) To determine gaps between employees and patients 'perceptions and expectations, using the RATER instrument.

#### **1.5 Purpose of the Study**

The study focuses on Tebellong hospital because the hospital seeks to provide quality and affordable health services to every Mosotho, guided by the key principles of universal coverage, equity and social justice. So the study wants to find whether there is quality provision of healthcare services at Tebellong hospital. This study aims to explore and describe the perceptions and the views of the healthcare workers about service quality at CHAL hospital Tebellong in Lesotho. In addition, the study wanted to find out whether the patients and healthcare workers appreciate the concept and management of service quality. The problem definition concerning this study is how healthcare providers and patients perceive service quality in their domain (Lacle, 2013). This entails knowledge, attitude, appearance, and communication of healthcare workers when providing services.

Lacle (2013) expresses that an early assumption could be that the outcomes would signpost negative implications towards employees' actual understanding and insights of service quality, but this can be confirmed later in this study.

# **1.6** Significance of the study

The significance of the study was to highlight the importance and the benefit of service quality to the health institution, the healthcare providers, the patient, and the entire community. The recommendations of the study may serve as a motivation to the health institution under study, and to those that were not actively involved in ensuring service quality.

This study is paramount at the CHAL hospitals especially at Tebellong hospital. The study through the findings and recommendations may be of help in enhancing the provision of healthcare services at CHAL hospital. The identified gap between the experiences and expectations may be addressed. Having filled the identified gap, both healthcare workers and patients may have confidence in the provision of healthcare services at Tebellong hospital.

With great influence of service quality on variety of factors such as the reduced costs, performance of the facility, profitability and customer's satisfaction (Rahman, Khan & Haque, 2012), together with the rising rivalry between types of hospitals (Mosadeghrad, 2014), there is urgent call to health care providers to possess thorough knowledge and understanding of patients' expectations (Mosadeghrad, 2014). Knowing patients perceptions and expectations will assist in coming up with fitting strategies (Mosadeghrad, 2014). If this study is not conducted, it is obvious that there will be no understanding of the gap between patients and health workers' perceptions and expectations of service quality, as a result Tebellong hospital is likely to continue to provide health service quality that is not satisfying to both health workers and patients.

# **1.7** Research questions

The study was focused on answering the following research questions:

- i) What are employees' and patients' perceptions of service quality provided at Tebellong hospital?
- ii) What are employees' and patients' expectations of service quality?
- iii) What are the gaps between employees and patients 'perceptions and expectations, using the RATER instrument?

# 1.8 Research methodology

**Research design:** The research design for the study at hand is descriptive. A descriptive research design carefully generates a detailed description of the phenomenon, event and behavior. This type of research design tells a story of the phenomenon as it answers the; who, what, when, where, and how questions.

**Methodology:** This study uses quantitative method. In the recent years of healthcare researches, there has been an increasing interest of using quantitative method (Hammarberg, Kirkman, & deLacey, 2016).

**Research setting:** The research is based at CHAL hospital, Tebellong in Lesotho. CHAL is the acronym for Christian Health Association of Lesotho.

# **1.9** Theoretical Framework

This study used the Parasuraman Model of Rater to assess patients and healthcare workers' perceptions and expectations of service quality and identify gaps that need to be filled. The Rater model was developed by Zeithaml, Parasuraman and Berry which they published it in their 1990 book titled "Delivering Quality Service" (Larson & Steinman, 2009). It is a simplified version of SERVQUAL whereby a larger number of service quality dimensions that were originally identified in SERVQUAL were grouped into main five factors of service quality, using acronym RATER- **R**eliability, **A**ssurance, **T**angibles, **E**mpathy and **R**esponsiveness.

### 1.10 Limitations to the Study

Just like any other studies, there were limitations. This study focuses at Tebellong Hospital in the district of Qacha's Nek. For this health facility, no exact number of healthcare workers and patients has been set that will participate in this study, but a presumption was be made that at least forty healthcare workers and forty patients would be the participants provided that they were not too busy in the daily work and are willing to take part. In addition, the respondents from patients' side was be made up of only outpatients thus views of inpatients was not captured during the study which may affect the result to some extent.

Furthermore, the time allocated for the collection of data is very limited and the geographical area of the place of study is hard to reach, accessibility is very low and this may limit the flow of outpatients coming to the hospital. The data of this study reflect the opinions of healthcare workers and patients from one CHAL hospital only and may not be generalised to other government and private hospitals since policies, development, accessibility, and availability of resources may be different.

#### **1.11** Dissertation structure

# **CHAPTER 1**

#### **INTRODUCTION AND BACKGROUND**

The chapter consists of introduction, background, research problem, research questions, objectives and the significance to the study.

### **CHAPTER 2**

#### LITERATURE REVIEW

The section revolves around theoretical aspects gathered from various materials regarding the concept of quality, service quality, quality management, employee perceptions and expectations reviews from literature, and key concepts are described.

### **CHAPTER 3**

#### **RESEARCH METHODS**

This chapter outlines the methods that were used in conducting the research, which was based entirely on primary data. Self-administered questionnaires, consisting of three sections were used to obtain information from the respondents.

#### **CHAPTER 4**

### **DATA PRESENTATION**

This chapter is the presentation of the findings of this research study. It represents the results of the study on the basis of three sections of the questionnaire as follows: Part A, demographic information; Part B, employees and patients' perceptions, and Part C, employees and patients' expectations. It also measures the gap that exists between the patients and healthcare workers "perceptions and expectations of Service Quality. Results are represented in tables and figures to make them more presentable and easily understood.

#### **CHAPTER 5**

### DATA ANALYSIS AND INTERPRETATION

The chapter talks about the results gained from the statistical analysis. The overall meaning of the research is described. It is about a discussion of the findings and provides an analysis and in-depth interpretation of the outcomes.

# **CHAPTER 6**

# CONCLUSION AND RECOMMENDATIONS

Recommendations are brought by the findings gathered from the study. The summary, future recommendations and conclusion are included.

# 1.12 Summary

The management team of Tebellong hospital has been struggling for better quality services in the recent years. However, providing quality and service is a challenge. Although there are gaps, there are improvements that the community of Tebellong hospital is happy with the healthcare services provided. This chapter provided an overview of the study. It presented the background of service quality, the significance and focus of the study. It detailed the problem and associated research questions, the objectives of the study, and the limitations of this study. The following chapter will explore the existing literature on service quality, healthcare service quality, as well as employee perceptions and expectations.

# **CHAPTER 2**

# LITERATURE REVIEW

#### 2.1 Introduction

The current chapter is the foundation of this project. It examined literature on several concepts and theories used in the study. The chapter incorporated views from different scholars on service quality that will be of help to improve service provision at Tebellong hospital. The chapter reveals literature in service quality, historical background, service quality in healthcare, dimensions of service quality, factors affecting service quality, conceptual and theoretical framework regarding service quality and perceptions as well as service quality and expectations, gaps between service quality perception and expectation, customer satisfaction, service provision, coping strategies in quality service delivery, the model underpinning the study, application of the servqual model to the study and conclusion.

#### 2.2 Healthcare Services

Healthcare has turned into a critical global issue together with the agitation for patient safety, high repeated illnesses, and medical errors and under and over utilization of resources. Panda & Das (2014) stated that service quality is considered as the most significant issue among service management. Service quality can be assessed by clients from both the technicality and functionality of a service by recognizing the significance of the operational place of the service and by variance among the difference in the perception and expectation of service quality (Panda & Das, 2014). Service quality is driven by new technology support, international standards, facilities' state and employees' performance nonetheless the service quality stagnantly improves.

For this study, the simplified version of the SERVQUAL Model which is the RATER Model (RATER- Reliability, Assurance, Tangibles, Empathy and Responsiveness) was used to assess perceptions, expectations and to identify gaps in services delivery to improve service quality from the employee's point of view. This model directs organization attention to excellent customer service. Reliability assesses dependability and accuracy of service provision; Assurance assesses the expertise, understanding know-how, courtesy of healthcare workers; Tangible dimension assesses how the resources state is. This is includes state of personnel, materials and communication tools.

The right tools for the right procedure leads to the satisfaction of clients (Larson & Steinman, 2009); Empathy refers to the extent that personalized care to each customer, perceived caring

to the needs of a patient, good relationship that employees have with the customers can be measured and Responsiveness evaluates employees' enthusiasm to assist patients and offer patient care (Larson & Steinman, 2009).

The right way of utilizing this model is to conduct a gap analysis using the five dimensions so that it informs the organization of its current state of service provision; alternatives of next action plan and the prediction of future state of the organization (Pena, Santos da Silva, Tronchin, & Melleiro, 2013).

The perception regarding the service quality of healthcare is that "Higher quality of service leads to a higher level of customer satisfaction through the care and/or treatment activities of health-care providers" (Lee et al., 2012). Luhende, (2012) suggested that to achieve customer satisfaction, employees must be equipped with resources to facilitate their competencies, training and education, communications, and compensation to improved service quality.

Consequently, this equipment triggers employee's satisfaction leading to efficiency and effectiveness in service delivery. Most importantly, good knowledge concerning service quality perceptions possessed by providers of health care shape healthcare delivery system (Lee, Lee, & Kang, 2012). The stakeholders involved in healthcare must use different techniques, tools and methods in improving quality services at affordable costs including employee's satisfaction especially in the low and middle income countries (Lee et al., 2012: Mills, 2014).

Researchers have highlighted that an assurance to providing high-quality safe healthcare has been a policy goal of governments globally for more than a decade (WHO,2015) but progress in delivering on these aspirations is slow because patients universally remain to suffer avoidable harm and compromised care (Dixon-Woods, *et al.*, 2014). They and Li Ying (2016) indicated that one of the obligations that health managers have is to improve overall system effectiveness in order to increase customer satisfaction. The improved quality of services leads to improved healthcare results as well the accountability of institutions (Raposo, Alves, & Duarte, 2008). Provision of improved healthcare services is an important matter in the literature of today (Nketiah-Amponsah & Heimenz, 2009).

Gupta & Rokade (2016) are of the view that making a satisfied customer is very important as it will help in judging whether the service provided to the client was of quality. If the patient is

found to be unsatisfied after service delivery, then the providers will know that they need to improve the provision of quality services. Positive feedback from the customer leads to the goodwill of service providers in the market, which indirectly expands their business, whereas negative feedback makes it shrink (Gupta & Rokade, 2016).

In an attempt to align with global standards in healthcare, Ghana's health system has gone through numerous reforms in the past with the main aim of bringing noteworthy enhancements in healthcare distribution (Escribano-Ferrer, Cluzeau, Cutler, Akufo, & Chalkidou, 2016) and (Saleh, 2013). One such reform was the execution of the medium-term health strategy (1997-2001) by the Ministry of Health (MoH) which emphasized the importance of improving quality of services and access to basic health (Abuosi & Atinga, 2013).

# 2.3 Historical Background

The healthcare industry of Lesotho has been challenged severely by provision of quality services due to high economic downturns, poverty, prevalence of HIV/AIDS among other factors. Although other countries have experienced poor service quality provision especially developing countries, Lesotho has been affected worse because of the reasons mentioned above.

In 2013, the government of Lesotho sensitized the healthcare facilities across the country on Quality Assurance and Quality Improvements in the health care facilities. Despite all the initiatives taken, healthcare facilities in Lesotho continue to suffer in delivering quality health care services. However, CHAL is among those who tirelessly put much effort towards strengthening and enhancing health systems.

# 2.4 The nature of service delivery

In the world of today that is customer-centered, researchers are of the view that the value of the services will be determined by quality (Frei, 2008). The clients are more aware of their rights today as compared to years ago, patients know what type of healthcare services to receive, they demand and expect quality health care services (Ramanujam, 2011).

"The word "quality" is derived from the Latin word "qualis", meaning "what kind of" (Mosadeghrad, 2012). According to the Merriam-Webster dictionary (2010) quality is defined

as "The degree of excellence; superiority of kind; and a distinguishing attribute". Quality has intangible elements, as a result is not easily defined (Rajicic & Ciric, 2008). They and Agarwal & Kumar (2016) further indicate that service quality is influenced by the gap existing between provided and required quality elements. Mosadeghrad (2012) point out that "Definitions vary depending on whose perspective is taken and within which context it is considered". In an attempt to define quality, it has been defined as "value" (Feigenbaum, 1951); "excellence" Peters & Waterman (1982); "conformance to specifications (Gilmore, 1974); "conformance to requirements" (Mar, 2013); "fitness for use" (Cohn, 2014); and "meeting and/or exceeding customers' expectations" (Mosadeghrad, 2012).

Parasuraman *et al.*, (1988) defined the quality of service as "conformance to customer specifications", meaning, definition of service quality by customers is what is most important, not that definition of management of the company.

Parasuraman *et al.*, (1988) further stated that clients can easily assess product quality than service quality. Service quality is the result of comparison between the expected service and experienced performance of service (Ojo, 2010). Parasuraman *et al.*, (1988) are of the point that perceived service quality is the result of comparison between expected and perceived service.

According to Schuster, McGlynn, & Brook (1988), "good healthcare quality means providing patients with appropriate services in a technically competent manner, with good communication, shared decision making and cultural sensitivity". The provided health care services must adhere to national and international professional standards (Suther & Mallinson, 2015). In the contradictory point of view, Schuster *et al*,. (1988) believe that "poor quality means too much care (e.g. providing unnecessary tests and medications with associated risks and side effects, too little care (e.g. not providing an indicated diagnostic test or a lifesaving surgical procedure), or the wrong care (e.g. prescribing medicines that should not be given together)" (Mosadeghrad, 2013).

"Quality has become an increasingly predominant part of our lives. People are constantly looking for quality products and services. The existence of this desire for quality has caused firms and organizations throughout the world to consider it as an essential component of any service and production process. Quality is a strategic differentiator tool for sustaining competitive advantage. Improving quality through improving structures and processes leads to a reduction of waste, rework, and delays, lower costs, higher market share, and a positive company image" (Mosadeghrad, 2014).

Mosadeghrad (2014) expressed that quality cannot be easily defined since its subjective and immaterial features. "Definitions vary depending on whose perspective is taken and within which context it is considered. No single universally accepted definition exists. Quality, therefore, has been defined as 'value', 'excellence'; 'conformance to specifications' ; 'conformance to requirements'; 'fitness for use' ; 'meeting and/or exceeding customers' expectations', and 'consistently delighting the customer by providing products and services according to the latest functional specifications which meet and exceed the customer's explicit and implicit needs and satisfy producer/provider" (Feigenbaum, 1951) and (Gilmore, 1974).

Quality in healthcare service becomes more difficult to define as compared to other sectors (Akhade, Dr. Jaju, & Dr. Lakhe, 2016). "Distinct healthcare industry characteristics such as intangibility, heterogeneity and simultaneity make it difficult to define and measure quality" (Mosadeghrad,2014). Healthcare service is an intangible product and cannot physically be touched, felt, viewed, counted, or measured like manufactured goods (KwabenaAsare & Ibrahim, 2017). Manufacturing tangible goods permits quantitative measures of quality, since they can be sampled and tested for quality throughout the production process and in later use (Mosadeghrad, 2014). Conversely, (Chang, Chen, & Lan, 2013) indicate that healthcare service quality depends on service process and customer and service provider interactions.

"Some healthcare quality traits such as timeliness, consistency, and accuracy are hard to measure beyond a subjective valuation by the client" (Mosadeghrad, 2014). Collaboration between the healthcare provider and patient in the caring environment produces quality. Mosadeghrad (2014) highlights that healthcare service quality is more related to personal aspects of the healthcare service provider and factors pertaining to the healthcare facility and broader environment. Koinis et al (2015) state that the health care workers play critical role in service quality as they interact with patients before they come to the facility, during the provision of care and treatment at the facility and after the patients leave the healthcare facility. According to Janicijevic et al (2013), the job fulfillment of the healthcare worker has a great influence on quality, effectiveness, and commitment to work and at the same time on healthcare costs.

In many cases, healthcare workers get involved in dealing with patients' dissatisfaction than in actual service delivery (Janicijevic, Seke, Djokovic, & Filipovic1, 2013). Hospital management need to highly focus on the delivery of healthcare services and avoid the unnecessary costs of poor quality and what generates poor services, leading to healthcare workers and patient's dissatisfaction.

# 2.5 Dimensions of Service Quality

Other scholars like Gronroos (1984) deliberate that quality has two dimensions: functional and technical quality. According to Gronroos (1984), Rajicic and Ciric (2008), technical quality addresses what a consumer receives. For example, if a consumer invests in a financial institution, a consumer gets returns on investment; if consumer goes to school, a consumer gets education; if a patient goes to the healthcare facility, a patient receives health care services.

Functional quality deals with the manner in which service is delivered. Rajicic and Ciric (2008) describe it as the way consumers get the service. For example, in a financial institution case it is the matter of workers' kindness, willingness to assist and physical appearance; in the case of the school it is the manner of facilities in the school, supportive environment to learn, teacher's politeness; in the case of health care facility, are the healthcare providers respectful and polite, their friendliness, clean consultation rooms and bathrooms, knowledgeable staff that can be trusted, availability of modern and functional equipment as well as other significant attributes of service. That is to say, technical quality focuses at what is delivered and functional quality focuses at how it is delivered (Fiala, 2012).

The two dimensions are dependent on each other. Yarimoglu (2014) designates that technical and functional dimensions joined result in good service perception which encourages service quality.

SERVQUAL model views service quality as the gap between the desired level of service and clients' experiences of service. It permits service providers to offer greater value and increase customer's satisfaction. SERVQUAL recognized five elements of service quality:

- 1. Reliability;
- 2. Assurance;
- 3. Tangibles;
- 4. Empathy; and

#### 5. Responsiveness.

Theoretically, these concepts talk about the appearance of the physical facilities, performance outputs, staff' politeness and respect, knowledge and ability of staff, as well as the willingness of staff to assist the clients on time. It is undeniable that SERVQUAL has been broadly used in evaluating services quality, however it has also been criticized in several respects such as the "difference score" that is using and its applicability (Kang, 2006).

### 2.6 Factors affecting service quality

"Quality in healthcare is a production of cooperation between the patient and the healthcare provider in a supportive environment. Personal factors of the provider and the patient, and factors pertaining to the healthcare organization, healthcare system, and the broader environment affect healthcare service quality" (Mosadeghrad, 2014). From Mosadeghrad (2014) some of the factors affecting service quality in healthcare include the following:

1. Provider socio-demographic variables; the character and personality of healthcare providers affect the quality of healthcare services. Personality characteristics such as respect, helpfulness, reliability, intelligence, and confidence play a role. Providers' personal and family problems also influence their behavior and the quality of services provided to patients.

2. Provider competence (Knowledge and skills); the quality of healthcare services mainly depends on practitioners' knowledge and technical skills, important factors that influence the quality of work are knowledge, expertise, commitment.

3. Provider motivation and satisfaction; providers' job satisfaction is very important in delivering high quality services to patients, organizational factors that influence motivation and consequently job satisfaction include working environment, managerial leadership, organizational policies, co-workers, recognition, job security, job identity, and chances for promotion.

4. Resources and facilities: availability of resources affects the quality of healthcare services, tools and equipment's availability, need for an information system for a record of patient history; high-quality outputs (services) require high-quality inputs.

5. Leadership and management; everything in the hospital is affected by the management. People have good ideas for quality improvement, but if there is no good management, those ideas would be useless.

6. Collaboration and partnership development: For practitioners having good support services is important, medical doctors expect their colleagues or co-workers to be more

responsible and be empowered enough to perform the job well, cooperation and teamwork among healthcare providers is an important component of high-quality healthcare services, ability to effectively communicate and collaborate with other health professionals or institution was also considered essential to the delivery of high-quality healthcare services.

Factors affecting service quality provision continue to include; scarcity of appropriate skilled professionals, poor financial incentives especially in hard to reach areas, insufficient resources, poor working conditions, inaccessibility to services, and heavy workloads due to staff shortages (Mills, 2014).

# 2.7 Conceptual and theoretical framework

# 2.7.1 Service Quality and Perceptions

When the patient see the employee of the hospital they see the reflection of the hospital which consequently shape the sentiments of the patients about the hospital (Berghout, Exel, Leensvaart, & Cramm, 2015). It has become significant to appreciate the basic role played by the employees in the service quality concept. The perceptions of hospital staff in regard to the services provided to the patients should be given close attention (Reena & Singh, 2013). Employees know better of the factors that affect and lessen provision of quality services in their company.

Personnel are in the service delivery system on a daily basis and they understand what is going on more than the consumers, they are aware of the weaknesses and strengths of the system (Daniel & Alamelumangai, 2013). The findings of the staff expose why service hitches occur, and possible solutions that can be taken; Lai (2006) further indicate that staff' investigation helps in cautioning about the system at early stage; employees have more contact and experience to the service delivery system. Therefore, it is imperative to apprehend and manage workers' perceptions of service quality efficiently and effectively.

Lai (2006) agrees that assessing the perceptions of the customers of service quality has gained increased momentum from scholars. The feedback from the users and recipients of service delivery in regard to what makes them happy and their understanding of what issues inspire their satisfaction are precisely vital for service managers in enhancing service delivery that will produce desired outcomes (Raposo, Alves, & Duarte, 2008).

"Medical service quality perception is a judgment of whether the service performed for a patient was the most appropriate to produce the best result that could be reasonably expected by the patient, and whether those services were delivered with due attention to the doctor/patient relationship" (Zarei, Daneshkohan, Pouragha, Marzban, & Arab, 2015).

Gronroos (2001) and Donabedian, (1988) are of the opinion that the manner in which the service is delivered, that is; politeness of the providers and physical environment where the service was actually delivered; and what is delivered in terms of service quality perceptions. The clients perceive what has been done and the manner in which that was done.

Employee perceptions have the potential to impact on customer satisfaction (Cronin, Brandy, & Hult, 2000). Employees who feel to be in the conducive working environment that cares for them and the needs of the customers are likely to perform well and to their best level in serving the customers with the best service than the employees who do not feel the same (Sturman & Ford, 2011). A happy and satisfied employee usually influences the experience of the customer and as a result the organization will have an advantage of positive customer' perceptions of service quality (Tzafrir & Gur , 2007).

# 2.7.2 Service Quality and Expectations

Service quality can be generally defined as meeting customer expectations or providing perfect service (Mosadeghrad,2013). Furthermore, it is defined as "the ability of an institution to meet or surpass customer expectations" (Smith, 2018). The assessment of what the consumer has been waiting for or expecting is critical (Asghar & Dr. Babu, 2017) as it is likely to affect consumer's satisfaction and loyalty to the organization. Service managers and providers cannot ignore the importance of customers' expectations and perceptions (Abuosi & Atinga, 2013).

# 2.8 Gaps between Service Quality Perception and Expectation

Perceptions are defined as the customer's feedback of service (Abuosi & Atinga, 2013) while expectations are the desired level of services. Service quality is therefore, the differences or gaps between the perception and expectation of the customer (Abuosi & Atinga, 2013). This gap between customer's expectations and perceptions can either boost or damage the organizational reputation (Customer, 2017). It is the perception of the patient that influences his or her decision to go to a certain health care facility and or recommend it to other people (Mosadeghrad, 2012). If the health care service providers are not aware of the expectations of

the patients, chances are high that the experiences of the patients will be below what they initially expected hence a negative gap.

According to Mosadeghrad (2012), it is only when healthcare services are well-defined and measured that they can be enhanced. Healthcare delivery is centered around many stakeholders such as providers, suppliers and politicians; and the priorities and viewpoints of these various stakeholders must be well-thought-out in order to meet the satisfactory healthcare outcomes (Mosadeghrad, 2012). Healthcare sector just like any other sectors, has an intense interaction among the service providers and the patient whereby it is a fundamental portion of service that needs to be taken care of (Tzafrir & Gur, 2007). Health care service providers interact with patients in a direct way, thus they are dependable sources of information concerning the patients' needs and expectations (Ciotti, 2018). Management of those expectations against perceptions (gap) plays a critical role.

# 2.9 Customer satisfaction

In today's world of strong competition, the key to remaining successful in the market lies in proving the quality healthcare services that will in turn result in satisfied customers. According to Ghizlane (2012) service quality is customer-centred, it focuses on the customer from the beginning till the end. The most important aspect of providing great customer service is a thoroughly comfortable, friendly and ambience. As MacDonald (2017) mentioned, customer satisfaction has gained an increasing attention of organisations as well as researchers.

Nketiah-Amponsah & Heimenz (2009), suggest that monitoring and evaluating the satisfaction of the customers in regard to the health care services they received, and this is taken as a step in improving the quality of the services. Some researchers feel that customer satisfaction and service quality have almost everything in common except for the fact that service quality focuses exactly on the dimensions of service while customer satisfaction is a wider theory touching everything (Gnoufougo, Nakpakper, & Bigou-lar, 2014). On the other hand, some experts believe it is not easy to assess satisfaction of the customer up until the product and or service has been consumed hence the concept of customer satisfaction has to do with the after-purchase products or services (Nketiah-Amponsah & Heimenz, 2009).

The concept of satisfaction is deliberated as a comprehensive result of a customer's perception of the value received in relation to a product or service provided; it is an experience of "what" Page | 18 and "how" was provided (Jahanshahi, Gashti, Mirdamadi, Nawaser, & Khaksar, 2011). Nketiah-Amponsah & Heimenz (2009) agree that most experts are of the same view that customer satisfaction can be referred to an assessment of the various dimensions of quality products and services.

Customer satisfaction leads to customer loyalty which is considered as the most competitive edge in today's business world; even though the fierce competition keeps increasing but the purchasing power of the customer with loyalty also increases against the face of competition (Minh & Huu, 2016). Satisfaction of the customer originates from service experience and from customer contact with the service. Therefore, working hard to keep the customer satisfied is not outdated but an urgent matter to be applied by the service providers.

Some researchers including Raposo et al., (2008) indicate that patient satisfaction is the consequence of the gap between expected and perceived service dimension (Mohebifar, Hasani, Barikani, & Rafiei, 2016). For Woodside, Frey, & Daly (1989) patient's satisfaction is a superior way of appreciation; that is to say, it is a sensation of after-purchase which expresses the level to which a patient enjoyed or detested the service experience (Raposo *et al.*, 2008).

Paying attention to customer service is one of the key drivers in keeping the organization running successfully (Felix, 2015). Agreeing with Miller (2017), consumers know more of their rights today than they knew before; they are aware of what is happening in the business environment; they know what steps to follow if they are not happy with the service or the products provided to them, and they are likely to switch to the better service provider. According to Daniel & Alamelumangai (2013) customers are informed that voicing their complaints about services received will yield positive results.

### 2.10 Service provision

"Healthcare service is an intangible product and cannot physically be touched, felt, viewed, counted or measured like manufactured goods" (Marina, 2017). Akareem and Hossain (2016) expressed that manufactured tangible products can easily be measured quantitatively as they can be sampled and confirmed for quality during the whole process of manufacturing.

Nonetheless, Mosadeghrad (2013) indicated that in the healthcare sector, service quality rests on interactions between the service provider, process and the consumer of the services. Marina (2017) articulated that health care services are concurrently manufactured and consumed and cannot be kept for later use and consumption. This was found by (Coldren, 2006) to make the control of quality problematic since the patient cannot assess "quality" before buying and consuming the service. But for the produced products, the possibility is high to check a final quality (Mosadeghrad, 2012).

# 2.11 Coping strategies in quality service delivery

According to Mosadeghrad (2014), supportive leadership with a vision can improve provision of quality services in healthcare through strategic planning and budgeting, better accessibility of resources, trained and knowledgeable healthcare workers, collaboration among service providers, and efficient utilization of resources.

Hunter and Fineberg (2015) advice organizations to have a long-term strategies, considering the challenges brought by the past and previous decisions; "Build consensus at the societal level; Allow flexibility and autonomy in decision-making, and learn from experience, feeding back into the policy cycle; Receive support from the broader governance and socioeconomic context and are in harmony with the culture and population preferences; Achieve synergies among sectors and actors; Demonstrate openness to dialogue and collaboration between public and private sectors, with effective government oversight" (Mills, 2014).

Hunter and Fineberg (2015) further express that "the strengthening of a health care system needs an emphasis, not only on specific strategies, such as those considered above, but also on the formation of an environment that supports innovation. Health care strengthening must thus be seen as a long-term process that involves complex systems and requires carefully orchestrated action on a number of fronts. The global community can help by supporting country-led processes of reform and by helping to create a stronger evidence base that contributes to cross-country learning" (Mills, 2014).

# 2.12 The Model underpinning the Study

This study used the Parasuraman Model of RATER to assess patients and employee's and perceptions and expectations of quality service delivery and identify gaps that need to be filled.

The Rater model was developed by Zeithaml, Parasuraman and Berry, which they published in their 1990 book titled "Delivering Quality Service" (Seth , Deshmukh, & Vrat, 2005). The RATER model is an ideal assessment tool for healthcare services (Cooling, 2013).

According to Parasuraman, Zeithaml and Berry (1985), quality of services is governed by the difference between the consumer's expectations and perceptions. The tool that is used to assess quality service provision is SERVQUAL which was Parasuraman et al in 1985; the model assesses the perceptions together with expectations of patients in five different ways, that is; it makes use of five dimensions of service quality (Nadi, et al., 2016). These dimensions are; reliability-being able to give the promised service to the customer; assurance-knowledge and abilities of the service providers; tangibles-appearance of physical facilities; empathy-caring and individualised attention given to the patients; and responsiveness-willingness to assist customers.

RATER is a simplified version of SERVQUAL whereby a larger number of service quality dimensions that were originally identified in SERVQUAL were grouped into main five factors of service quality, using acronym RATER- Reliability, Assurance, Tangibles, Empathy and Responsiveness.

**Reliability** explicates staff' capability of delivering the assured services to the recipients in the timely, correctly and constantly manner. It looks at whether processes are reliable, and whether the service delivery consistent and timely. It is regarded as the most fundamental dimension (Larson & Steinman, 2009). An educated employee for a particular job is also taught a good way greeting customers, assisting clients, and addressing any concerns (Larson & Steinman, 2009).

Assurance assesses staff' technical skills and their ability to stimulate the spirit of trust in their customers as well as confidence in those consumers of services Parasuraman *et al.*, 1988). The dimension assesses whether the provision of service is safe and secure and if staff appear equipped to perform their duties (Larson & Steinman, 2009).

**Tangibles** explain how facilities and resources that are actually used to produce and deliver a service. It looks at the appearance and functionality of organizational physical facilities such as staff, equipment, inside and outside surroundings. "Suitable product and service implementation are significant for client satisfaction" (Larson & Steinman, 2009),

human elements and facilities should be plotted in an appealing way to the senses of the customer (Larson & Steinman, 2009).

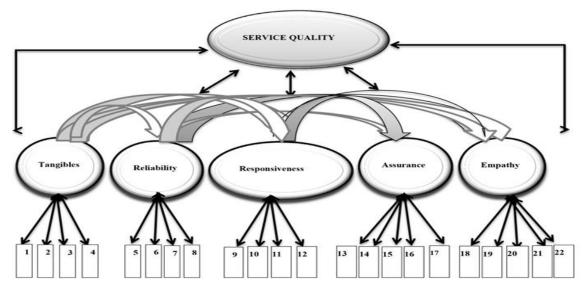
**Empathy** refers to the capacity of employees to build caring relationship with the patients. This service quality dimension assesses the individualized attention to each patient, the perceived caring to the needs of a patient, good relationship that employees have with the patients. Employee's empathetic qualities result into high levels of patients' satisfaction.

**Responsiveness** is concerned with capacity or ability of the employees to offer a speedy and high service quality to the patients. It assesses the employees' interest to assist clients, offering services. Thus imperative for the employees to have it that they must attend to customers' queries in reasonable time and they must show interest to assist (Larson and Steinman, 2009).

# Rater model diagram

Diagram 2.11 below is the summary of the model engaged by this study. The model has five constructs as it is highlighted in the paragraphs below. There are specific questions or statements under each construct which are used to evaluate service quality. The numbers represent the questions to be asked the healthcare workers and patients under each construct.

# Diagram 2.11: RATER Model



(Source : Parasuraman et al, 1988)

#### 2.13 Application of the SERVQUAL Model to the Study

These five constructs or dimensions are found to be useful by many organizations in different industries. There are differences and preferences here and there, from department to department, organization to organization, and industry to industry. The purpose of the model is to assess customers' perceptions against expectations to enhance and improve the effectiveness of the organization. In the current study, the tool will be utilized to assess Tebellong hospital' capability to provide patients with quality services.

A gap analysis will be carried-out with the use of these five constructs. Tebellong hospital will develop a patient-oriented policy in order to close the found discrepancies between expectations and perceptions, hence improving provision of quality services.

**Reliability** will be used to assess the ability of Tebellong hospital's healthcare workers to fulfill their promises to patients accurately and consistently, whether the patient is diagnosed right the first time and the construct will tell if levels of treatment and care are consistently good.

Assurance will be used to determine the knowledge and competency of the (Mashhadiabdol, Sajadi, & Talebi, 2014) healthcare workers in providing the patients the desired state of assurance and conviction. This will assess the know-how, competencies and integrity of healthcare workers as well as the talent to utilise that expertise to gain trust from patients. The research will explore whether Tebellong hospital staff show politeness and respect towards their patients, and whether they convey trust and confidence. Every member of the hospital should always be willing to serve patients in a respectful manner.

**Tangibles** will be used to assess the physical aspect of the service being provided at Tebellong Hospital which include hospital buildings, surroundings, equipment, toilets, bathrooms, beds. The construct gives patients an opportunity to evaluate service quality by looking if the hospital has the necessary up-to-date and functional equipment, technology and check the cleanness of the bathrooms and surroundings as well as available beds for occupancy.

**Empathy** will be used to measure the close bond of healthcare workers with patients and whether staff give individualized focus to the patients and make effort to appreciate their patients together with their needs.

This construct will ascertain whether the healthcare workers of Tebellong hospital are easily accessible and communicate effectively with their patients in a language that they can understand, do the staff show respect and politeness to every patient.

**Responsiveness** will be used to assess whether healthcare workers of Tebellong hospital manage complaints and feedback appropriately, are they able to assist patients and their relatives, do they respond on reason able time to patients' concerns? Patients will evaluate the willingness of the healthcare workers to help the clients (Kalaja, Myshketa, & Scalera, 2016).

# 2.14 Summary

The chapter discussed literatures of several researchers and scholars about the concept of the quality of services. The chapter shows the importance of service quality delivery in any organization especially in health care setting. Perceptions and expectations of employees and consumers were discussed. The study employed the model of SERVQUAL to assess the expectations and perceptions of service quality using five dimensions of service and identify the service gap. The next chapter outlines the methods that were used in conducting the study.

# **CHAPTER 3**

# **RESEARCH METHODOLOGY**

#### 3.1 Introduction

In chapter two, various key concepts have been explored such as service, quality, service quality in health care, together with the RATER system as an assessing tool that was engaged by the study. The current chapter deliberates the methodology of research which includes but is not limited to; research design, research methodology, study site, target population, sampling strategies, collection methods of data, quantitative instruments, data analysis, quality control, ethical considerations and summary.

### 3.2 Research Design

The study has been steered at Tebellong Hospital, CHAL. The researcher made use of a descriptive and explanatory design. Ivankova, Creswell and Stick (2006) expressed that this design with the researcher's overall idea for attaining responses to the research questions guided the project. A descriptive research design carefully generates a detailed description of the phenomenon, event and behaviour. Through the research design, there is an assurance that the proof gathered from the collection of data might help in addressing some queries. The research design for the study at hand was therefore descriptive and explanatory.

A descriptive research design cautiously breeds an exhaustive description of the phenomenon, event and behavior. This research is explained by structure, precise rules and procedures, and the problem is well understood and structured with clearly stated research questions (Nor, Daud, & Jamaludin, 2011). Cooper and Schindler (2013) further indicated that descriptive research gives the researcher the descriptions of a phenomena or characteristics associated with a subject population (who, what, when, where and how of a topic).

An explanatory research design explains the phenomenon. It will discover the opinions and feelings of the participants. It answers the questions what, where and when. The two research designs will enable the study to describe the reasons behind those health worker and patient perceptions and expectations of health service quality at CHAL hospital.

### 3.3 Research Methodology

The study has used quantitative method research for data collection. Cooper and Schindler (2013) is of the view that quantitative method attempts to answer the questions related to how much, how often, how many, when, and who. The researcher adopted quantitative method for the reason that it is able to make the researcher understands the opinions, attitudes and descriptions of the healthcare workers and patients.

Furthermore, the quantitative research method was found to be proper for this study because of the following reasons;

- The study sought healthcare workers and patients' opinions with regard to the extent to which service quality is practiced at Tebellong hospital hence quantitative method is an effective tool to get the views of both the health care workers and patients in this matter
- Due to the huge number of participants in the study quantitative method was ideal for the study because data can be collected and analyzed quickly
- It is useful for sensitive issues in studies such as these as anonymity of the respondents is maintained
- Since this method is concerned with the question of how many, how often, when, how and who, it was appropriate for this study because it enables the researcher to categorize the health care workers " responses in terms of their employment category, gender, race, age and income, and to determine the percentage of those who have either positive or negative perceptions regarding the practice of service quality at Tebellong hospital, and their expectations about implementation of service quality in the facility.

However, Study.com (2019) argues that one of the disadvantages of quantitative method is it cannot be used to explain social phenomena, which makes it less useful in some fields. Quantitative method can tell the researcher what is happening, but it cannot give any insight into why. For this kind of insight, the researcher needs the observation-based qualitative research.

# 3.4 Study Site

The study was conducted at CHAL hospital- Tebellong, Qacha's Nek district in Lesotho. Lesotho is a small mountainous country land-locked by the Republic of South Africa. The country covers a total surface area of about 30,335 Km<sup>2</sup>, 25% of which is lowlands, and 75% highland. It's a high altitude country, with the lowest elevation being 1388m above sea level.

Lesotho had a population of about 2,051,545 people, about 77.4% of the population lives in rural areas and only 22.6% is categorized as urban (Mothae, 2015)

Tebellong Hospital is a 50 bed capacity, local-level, and MOH (Ministry of Health) accredited hospital located in the South Eastern part of the landlocked country of Lesotho, District of Qacha's Nek. It is 32 kilometers from Qacha's Nek town and about 400 kilometers from the capital city, Maseru. The Hospital is the property of the Lesotho Evangelical Church in Southern Africa (LECSA) established in 1964.

Because of its location, which is remote and isolated, Tebellong Hospital is accessible by a row boat across the Senqu River, by foot and horseback with an unreliable transport by vans provided by the Hospital and locals, paid for by anyone who needs it. From the river to the Hospital it is about 5 kilometers uphill. The Hospital is managed by a Management Team and its main aim is to orchestrate the Hospital processes to fulfill the mission.

Among all eight CHAL hospitals, the study focuses on Tebellong hospital because of its remoteness, whereby there are pressing challenges against the provision of service quality. Studies show that poor Basotho in rural areas have been the hardest hit by the decline in affordable quality health services (IrinReport, 2011). Health workers are reluctant to work in rural areas, let alone workers with specialized skills. It is in the mission of Tebellong hospital to "provide quality and affordable health services to every Mosotho especially in hard to reach areas, guided by the key principles of universal coverage, equity and social justice". This is the main reason why the study focuses on Tebellong Hospital.

# 3.5 Target Population

The target population for this research was 200 healthcare workers of Tebellong Hospital. The researcher approached the hospital management, heads of all departments in the hospital and engaged both staff and patients respectively on their willingness to participate in the study. Those around Tebellong Hospital Community who were keen to partake in the project were approached through management meetings, departmental meetings, staff meetings and morning prayers.

Employees accessed the questionnaire during tea break and lunch time, while patients accessed questionnaires during their waiting period at the Out Patient Department. After the completion

of sampling, the questionnaires were provided to heads of the department to distribute to both healthcare workers and patients. Once the questionnaires were completed, those who participated were told to give the questionnaires to the departmental heads.

### **3.6** Sampling Strategies

The study used convenience sampling to choose units from the classification of Tebellong hospital healthcare workers and patients. The units were selected from the category hospital department's staff, managers/supervisors and patients using the convenience sampling method. With this method, subjects are selected due to their obtainability and or stress-free accessibility and the benefit of using this sampling method is to collect data quicker than other methods (Kumar, 2011).

### **3.7** Size of the sample

80 staff and patients of Tebellong hospital were nominated as a sample. The sample size for the study was arrived at using Krejcie and Morgan's tables, which were adapted by researchers such as Bartlett, Kotrlik, & Higgins (2001). There were 69 healthcare workers and patients from Tebellong Hospital. Taking the idea from Krejcie and Morgan (1970) tables, for a population of about 200 healthcare workers at the hospital, the sample size drawn was 80.

### **3.8** Data collection technique

The RATER questionnaire, encompassing three parts; biographical data, perceptions and expectations, was disseminated to the healthcare workers and patients at the Tebellong Hospital. The quantitative research approach was used for this study. Agreeing to Remler and Van Ryzin (2011). Quantitative research offers algebraic approximations, incidence, tendencies, occurrence and fractions.

### **3.9** Quantitative Instruments

The questionnaire designed using SERVQUAL, which contains three sections that include biographical data and replicates the objectives of the study, was dispersed to staff in all the departments, as well as patients of Tebellong hospital. The study utilized questionnaire that was both closed and open-ended. This is supported by Curry et al. (2009) who mention that quantitative questions "improve methods for recruitment, retention, and measurement". SERVQUAL/ RATER model has the following dimensions:

Reliability: Questions 1-5

The dimension was used to assess whether Tebellong hospital is capable of providing quality services that the patients believed they were guaranteed.

#### Assurance: Questions 1-4

Using the dimension, the research discovered whether; Tebellong hospital's health care workers possess the right skills and knowledge in order to provide quality services, staff are able to use hospital technology skillfully and patients trust healthcare workers at Tebellong hospital.

### Tangibles: Questions 1-7

This dimension was engaged to evaluate patients' perceptions in regard to the attractive appearance of the assets of the hospital that can be touched such as medical equipment, cleanness of the surroundings, availability of beds and neatness of the staff.

# **Empathy:** Questions 1-5

The dimension was utilized to check whether; the healthcare workers offer individualized care to patients and treat them according to their different needs, the hospital fee is consistent with what patients can afford, staff are polite and show respect and staff are able to clearly explain to patients the various options of treatment and care available.

#### **Responsiveness:** Questions 1-5

The concept was engaged to investigate the willingness of the healthcare providers to assist patients, attend to their concerns and worries, and address any difficulty satisfactorily.

# 3.10 Analysis of Data

This is a platform where data are clustered and assigned into variables (Simpson, 2015). It is a way of presenting information relating to individual subjects (Bryman & Cramer, 2005). The software called SPPS was used to analyse data. Data analysis is defined as the science of examining raw data with the aim of depicting conclusions about that information (Rubin,2008). Questionnaires were used to collect data and the descriptive and inferential data analysis techniques were engaged to analyze data. Descriptive analysis is beneficial in analyzing frequency distributions, measures of central tendency (mean, median, and mode), and graphs like pie charts and bar charts that describe the data (Boslaugh, 2018). Maindonald and Braun (2010) maintain that graphs are found to be the best mode of signifying and understanding data.

SPSS is a research tool that fashions a firm foundation for data analysis and graphs with human knowledge being able to make patterns (Maindonald & Braun, 2010).

Analysis utilized the following tests:

• Descriptive statistics including means and standard deviations, where applicable. Frequencies are represented in tables or graphs.

• One sample t-test: Tests whether a mean score is significantly different from a scalar value.

• Independent samples t-test: A test that compares two independent groups of cases.

#### 3.11 Quality control of data

According to Clark (2017), inadequacy of quality may have a detrimental effect on the research results. Therefore, it is sufficing to say quality assurance is vital for the study. In order to ensure data control, reliability and validity were therefore counted in. Reliability has to do with the stability of findings while validity signifies the truthfulness of findings (Mohajan, 2017). A pre-test was conducted on ten (10) respondents to check the reliability of the tool. This was important to increase transparency and demand sequence appropriateness.

Kimberlin and Winterstein (2008) explain validity as the degree to which a measuring tool measures what it was intended to measure. To confirm validity of data, a pilot study was originally steered among patients and healthcare workers. The research tool was then established grounded on the outcomes of the pilot study. In order to assess the findings, triangulation test for improving reliability and validity of research was engaged (Leung, 2015).

# 3.12 Ethical considerations

The Research and Ethics Committee of the University granted the researcher ethical clearance before conducting this study. Several stakeholders at Tebellong hospital provided permission to carry out the study. The Medical Superintendent at Tebellong hospital granted the Gatekeeper's letter. Stages through the survey were evidently defined to the respondents.

The researcher safeguarded that respondents are unidentified, so this made the respondents to feel relaxed when replying to the survey questions. The researcher made sure that the survey was short; 30 minutes' time was allocated, and the respondents were told in advance how long

the survey would last. The benefits that the hospital will derive from the study were defined clearly. There were no leading questions.

# 3.13 Summary

The chapter discussed the research strategies that were used to collect data. Data collection was made through a set of questionnaires. It outlined the research design and methodology, research instruments, sampling and sampling techniques used. The usage of these is reflected in the next chapter when presenting and discussing research results.

# **CHAPTER FOUR**

# **DATA PRESENTATION**

### 4.1 Introduction

Chapter four displays the results found by engaging descriptive statistics as revealed in the previous chapter three. Descriptive statistics was suitable in analyzing frequency distributions, measures of central tendency (mean, median, and mode), and graphs like pie charts and bar charts that describe the data (Frost, 2018). Patients and Staff perceptions and expectations relating to services at Tebellong hospital were analyzed in this chapter. Conclusions were made based on the results attained from data analyzed.

### 4.2 Analysis of data and Interpretation

Data were analyzed using descriptive statistics, including means and standard deviations, where relevant. Frequencies are denoted by means of tables and graphs where statistical data were tabulated and percentages were shown.

Tests used in the analysis:

• **Descriptive statistics** including means and standard deviations, where appropriate. Frequencies are denoted in tables or graphs. According to Ramsey (2010) descriptive statistics is the data that is described with numbers that summarize some features about a set of data. With numerical data, more features can be drawn. The common way to summarize numerical data is the use of mean and standard deviation.

*Mean* measures the centre of a data set. The mean is the same as average of a data set. *Standard deviation* of a data set symbolizes the typical distance from any point in the data set to the middle. It measures variability. Frost (2018) reveals that a standard deviation close to 0 designates that the data points tend to be very close to the mean of the set while a high standard deviation shows that the data points are spread out over a wider range of values, the variation is large.

• **One sample t-test:** It tests whether a mean score is significantly different from a scalar value (Mohajan, 2017).

• **Independent samples t-test**: This matches two independent groups of cases. Pallant (2010) is of the view that, this test will indicate to the researcher whether there is a statistically significant difference in the mean scores for the two groups, in statistical terms testing the probability that the two sets of scores came from the same population.

# 4.3 Demographics

# Healthcare worker / Patient

Table 4.3.1

|       | _                 | Frequency | Percent |       | Cumulative<br>Percent |
|-------|-------------------|-----------|---------|-------|-----------------------|
| Valid | Patient           | 37        | 56.1    | 56.1  | 56.1                  |
|       | Healthcare worker | 29        | 43.9    | 43.9  | 100.0                 |
|       | Total             | 66        | 100.0   | 100.0 |                       |

Table 4.3.1 shows that the sample size is 66 with fifty-two point 56.1% (n=37) of the patients' respondents and 43.9% (n=29) healthcare workers' respondents. The report designates that a higher percentage of the respondents is represented by patients as opposed to healthcare workers.

# Gender, Race and Age

Table 4.3.2a

|       |        | Frequency | Percent | Valid Percent | Cumulative<br>Percent |
|-------|--------|-----------|---------|---------------|-----------------------|
| Valid | Male   | 25        | 37.9    | 37.9          | 37.9                  |
|       | Female | 41        | 62.1    | 62.1          | 100.0                 |
|       | Total  | 66        | 100.0   | 100.0         |                       |

# Race Table 4.3.2b

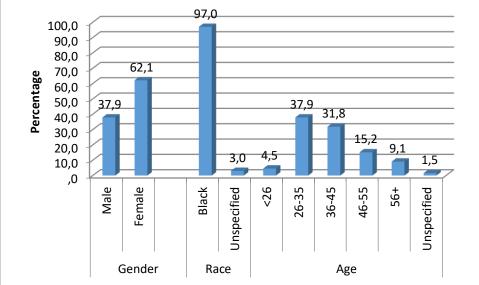
|         | -      | Frequency | Percent | Valid Percent | Cumulative<br>Percent |
|---------|--------|-----------|---------|---------------|-----------------------|
| Valid   | Black  | 64        | 97.0    | 100.0         | 100.0                 |
| Missing | System | 2         | 3.0     |               |                       |
| Total   |        | 66        | 100.0   |               |                       |

# Age

Table 4.3.2c

|         |        | Frequency | Percent | Valid Percent | Cumulative<br>Percent |
|---------|--------|-----------|---------|---------------|-----------------------|
| Valid   | <26    | 3         | 4.5     | 4.6           | 4.6                   |
|         | 26-35  | 25        | 37.9    | 38.5          | 43.1                  |
|         | 36-45  | 21        | 31.8    | 32.3          | 75.4                  |
|         | 46-55  | 10        | 15.2    | 15.4          | 90.8                  |
|         | 56+    | 6         | 9.1     | 9.2           | 100.0                 |
|         | Total  | 65        | 98.5    | 100.0         |                       |
| Missing | System | 1         | 1.5     |               |                       |
| Total   |        | 66        | 100.0   |               |                       |

# Figure 4.3.2



# Gender

Figure 4.3.2 indicates that out of the sample size of 66, 37.9% were male respondents while 62.1% were female respondents. On that note, the report shows that a higher percentage of the respondents is denoted by females as opposed to males.

### Race

Figure 4.3.2 shows that the respondents who gave black as their race are the highest with 97.0%. 3 % of the respondents did not specify their race.

# Age

Figure 4.3.2 indicates that the respondents who fall in the age group of 26-35 are the highest with 37.9%. It should also be noted that most of the patients who come to the facility fall into this category of 26-35 years as well as most employees of the hospital. The respondents who fall in the age group of 36-45 are 31.8%, followed by 15.2% respondents of age group 46-55. The respondents who fall in the age group of 56+ are 9.1% and lastly 1.5% of respondents did not specify their age group.

#### Income

#### Income

Table 4.3.3

|         | -   | Frequency | Percent | Valid Percent | Cumulative<br>Percent |
|---------|---|-----------|---------|---------------|-----------------------|
| Valid   | <m5000< th=""><th>12</th><th>18.2</th><th>32.4</th><th>32.4</th></m5000<>               | 12        | 18.2    | 32.4          | 32.4                  |
|         | <m5000 -="" m10000<="" td=""><td>14</td><td>21.2</td><td>37.8</td><td>70.3</td></m5000> | 14        | 21.2    | 37.8          | 70.3                  |
|         | M10001 - M20000   | 5         | 7.6     | 13.5          | 83.8                  |
|         | M20001+   | 6         | 9.1     | 16.2          | 100.0                 |
|         | Total   | 37        | 56.1    | 100.0         |                       |
| Missing | System  | 29        | 43.9    |               |                       |
| Total   |   | 66        | 100.0   |               |                       |

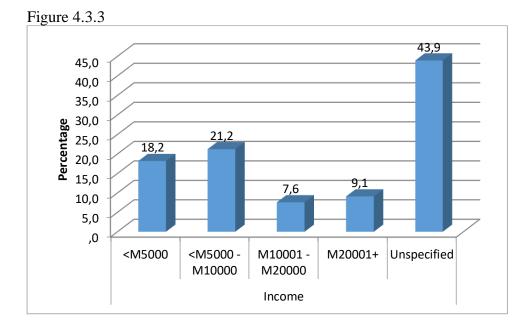


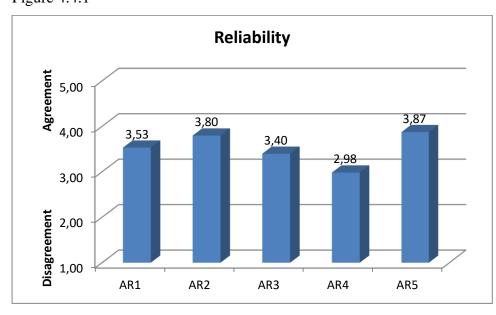
Figure 4.3.3 shows that the respondents who did not specify their income are the highest with 43.9%. The reason for this is that a huge number of the respondents were the patients, of whom most are not in formal employment. These people mostly live through means of farming and agriculture. The next highest percentage of respondents is those who earn income of M5000-10000 per month with 21.2%. These are mostly the professional staff of the hospital such as qualified nurses, pharmacists, laboratory technicians, technical officers and accountants. These were followed by those who earn an income of M5000 and less with 18.2%. These are mostly non-professional staff and support staff such as cleaners, ward aids and drivers.

The highest income earners among the respondents are 9.1% who are the medical doctors of the hospital. The last category of respondents is 7.6%, those who earn M10000-M20000, these individuals being mostly the managers of the hospital.

# 4.4 Experience

Frequency analysis has been done for all types of experience. Statements and tests will demonstrate whether there is noteworthy agreement/disagreement concerning each of the statements. Experience about services at CHAL, Tebellong hospital, Qacha 's nek are being measured using the RATER/SERVEQUAL questionnaire. There are five constructs of servqual or rater model.

**Reliability**: Ability to perform promised service dependably and accurately. Figure 4.4.1



There is significant agreement that: when staff of the hospital promise to do something by a certain time, they do it (M=3.53, SD = 1.181), t (63) = 3.597, p=.001); the hospital provides every patient individual attention (M=3.80, SD = 1.101), t (63) = 5.791, p<.0005; hospital records are accurate and error-free (M=3.40 SD = 1.212 ), t (63)=2.599, p=.012; and levels of treatment and care are consistently good (M=3.87 SD=1.070), t(63)=6.476, p<.0005. These variables AR1, AR2, AR3 and AR5 above show that the average agreement score is considerably different from a neutral score '3'. There is one significant disagreement that the patient is diagnosed right for the first time.

Assurance: Possession of required skill and knowledge to perform service

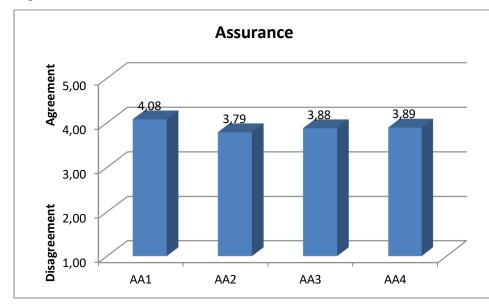


Figure 4.4.2

There is significant agreement that: nurses and doctors are knowledgeable in their field of medicine (M=4.08, SD = 1.035), t (65) = 8.385, p<.0005); staff are able to use hospital technology skillfully and quickly (M=3.79, SD = 1.103), t (66) = 5.805, p<.0005; nurses and doctors possess the necessary skills to perform their duties (M=3.88, SD = 1.083), t (65)= 6.530, p<.0005; and patients trust nurses and doctors at this hospital (M=3.89, SD=1.134), t(65)=6.346, p<.0005.

Tangibles: Appearance and functionality of physical facilities, equipment and personnel

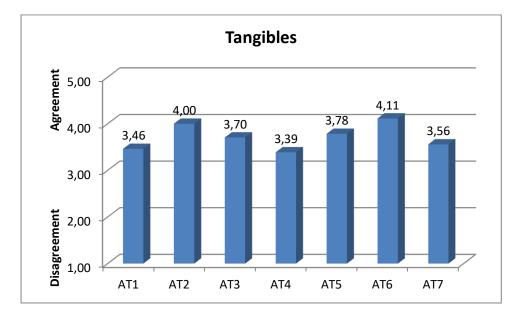
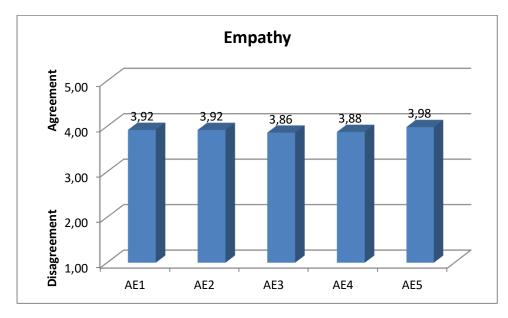


Figure 4.4.3

All the scores are above the neutral score of 3. There is significant agreement that: the hospital has up to date equipment and technology (M=3.46, SD = 1.242), t (63) = 2.942, p=.005); the hospital has the necessary equipment in order to provide proper care to all patients (M=4.00, SD = 1.125), t (61) = 6.940, p<.0005; necessary medical equipment e. g x-ray machine is in good working order (M=3.70, SD = 1.085 ), t (61)= 5.072, p<.0005; bathrooms are very (M=3.39, SD=1.285), t(62)=2.372, p=.021); there are sufficient clean beds for all patients (M=3.78, SD=1.091), t(60)=5.563, p<.0005; staff are neat and presentable(M=4.11, SD=1.132), t(62)=7.739, p<.0005; and surroundings are clean(M=3.56, SD=1.336), t(61)=3.259, p=.002.

# **Empathy**: Making effort to know patients and their needs

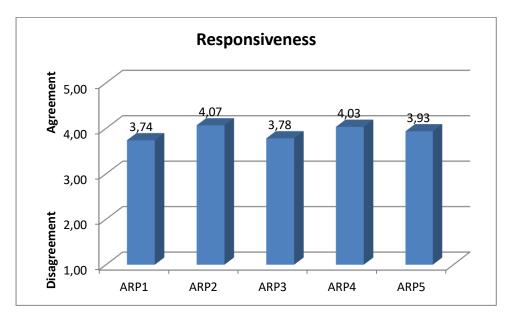




There is significant agreement that: staff know and understand patients' needs(M=3.96, SD = 1.059), t (64) = 6.966, p<.0005); staff pay personal attention to each person(M=3.92, SD = 1.036), t (63) = 7.050, p<.0005; the hospital fee is consistent with what patients can afford(M=3.86, SD = 1.197), t (65)= 5.801, p<.0005; staff are polite and show respect(M=3.88, SD=1.111), t(65)=6.363, p<.0005); and staff are able to clearly explain to patients the various options of treatment and care available(M=3.98, SD=1.053), t(65)=7.538, p<.0005.

# Responsiveness





There is significant agreement that: when there is a problem staff respond quickly(M=3.74, SD = 1.047), t (61) = 5.502, p<.0005); staff are willing to answer patients' questions(M=4.07, SD = .946), t (61) = 8.794, p<.0005; it is easy for patients to talk to knowledgeable staff when they have a problem or need(M=3.78, SD = 1.084), t (59)= 5.525, p<.0005; employees of the hospital are always willing to help patients(M=4.03, SD=1.016), t(61)=7.939, p<.0005); and treatment is explained to the patient very clearly(M=3.93, SD=1.014), t(61)=7.195, p<.0005.

# 4.5 Expectations

Expectations as defined by Baker and Crompton (2000) as the thoughts established by an individual. Frequency analysis has been done for all expectations' statements and tests will indicate whether there is significant agreement/disagreement on each of the statements. Patients and health care workers' expectations about services at CHAL, Tebellong hospital are being measured using the RATER/ SERVEQUAL questionnaire.

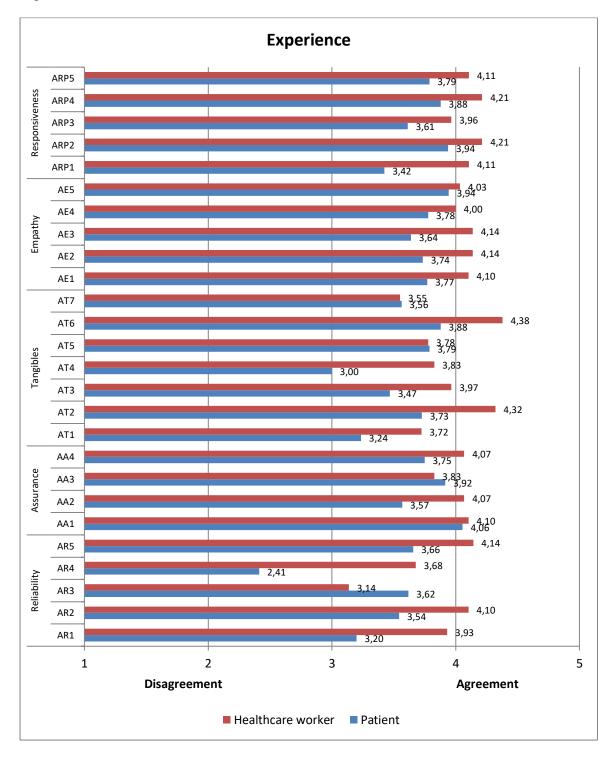
Tests reveal that there is significant agreement on all the expectations items whereby in each case p<.0005. Ramsey (2010) indicates that a small p-value (typically<0.05) shows strong evidence of statistical data, it helps the researcher to determine the significance of the results.

# 4.6 Comparison between workers and patients

# Experiences

Figure 4.6.1 represents the differences in agreement between patients and workers across all service quality dimensions using an independent samples t-test to test for significant differences in the average scores per item. The numbers are for average mean scores across the two groups. The 3 mean score is neutral, below is disagreement and above is agreement.

Figure 4.6.1



Healthcare workers (M=3.93, SD = .458) agree significantly more than patients (M=3.20, SD = 1.471) that when staff promise to do something by a certain time, they do it, t (41.710) = - 2.782, p=.008). They, healthcare workers (M=4.10, SD= .489) also agree significantly more than patients (M=3.54, SD=1.379) that the hospital provides every patient individual attention, t (43.864) =-2.241, p=.030). Healthcare workers (M=3.68, SD=.983) agree significantly more Page | 43

than patients (M=2.41, SD=1.373) that the patient is diagnosed correctly the first time, t (58.953) = -4.223, p<.0005). Again, healthcare workers (M=4.07, SD=.593) agree significantly more than patients (M=3.57, SD=1.345) that staff are able to use hospital technology skilfully and quickly, t (51.992) = -2.030, p=.047.

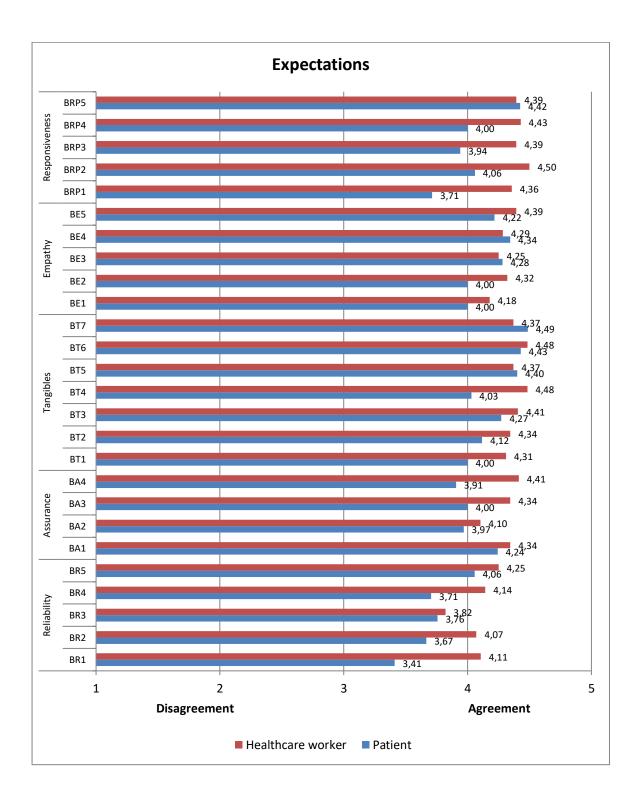
In addition, healthcare workers (M=4.32, SD=.612) agree significantly more than patients (M=3.73, SD=1.376) that the hospital has the necessary equipment in order to provide proper care to all patients, t (45.717) =-2.234, p=.030). Healthcare workers (M=3.83, SD=.711) also agree significantly more than patients (M=3.00, SD=1.541) that bathrooms are very hygienic, t (46.262) =-2.768, p=.008) and finally, healthcare workers (M=4.11, SD=.629) agree significantly more than patients (M=3.42, SD=1.226) that when there is a problem staff respond quickly, t (49.315) =-2.796, p=.007.

In summary, all groups agree that there is service quality delivery at Tebellong hospital but health care workers do agree significantly more than patients that they provide quality services to the patients in most of the service quality variables. The patient experience is lower than of the healthcare workers.

### Expectation

Figure 4.6.2 represents the differences in agreement between patients and workers across all service quality dimensions using an independent samples t-test to test for significant differences in the average scores per item. The numbers are for average mean scores across the two groups in regard to how they expect service quality delivery at Tebellong hospital.

Figure 4.6.2



Healthcare workers (M=4.11, SD = .685) agree significantly more than patients (M=3.41, SD = 1.373) that they expect that when staff of the hospital promise to do something by a certain time, they should do it, t (50.346) = -2.587, p=.013). They, healthcare workers (M=4.41,

SD=.501) agree significantly more than patients (3.91, SD=1.228) that they expect that nurses and doctors should be trusted by patients at this hospital, t (41.885)=-2.149, p=.037 and healthcare workers (M=4.36, SD=.559) also agree significantly more than patients (M=3.71, SD=1.319) that they expect that staff should respond quickly when there is a problem, t (47.928)=-2.606, p = .012. For the dimension of tangibles, patients (M=4.49, SD=1.173) agree more than healthcare workers (M=4.37, SD=.742) that they expect surroundings of the hospital to be clean.

# 4.7 Gap analysis on individual items

Gap = expectations – experiences is calculated for each item and analysis is done on each using a one sample t- test to test if the average gap is significantly different from zero.

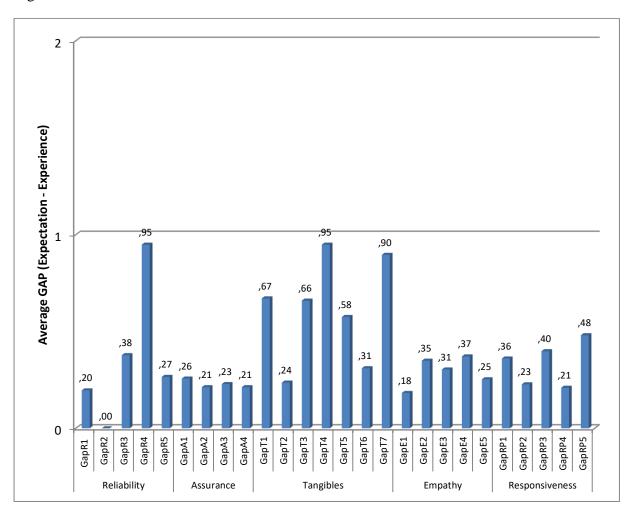


Figure 4.7

The average experience regarding the accuracy and freedom from error of hospital records is significantly lower than expectation, t (57) = 2.278, p=.026. On the statement that the patient

is diagnosed right the first time, the average experience is significantly lower than expectation, t (58) = 5.051, p<.0005.

On the dimension of tangibles; the hospital has up to date equipment and technology, the average experience is significantly lower than expectation, t (60) =4.207, p<.0005; the average experience regarding the good working order of necessary medical equipment such as x-ray machine is significantly lower than expectation, t (55) = 4.495, p<.0005; the average experience regarding the very hygienic bathrooms is significantly lower than expectation, t (58) =5.322, p<.0005; the average experience in regard to availability of clean beds for all patients is significantly lower than expectation, t (58) =3.962, p<.0005; the average experience concerning the neatness and presentability of staff is significantly lower than expectation, t (60) =2.175, p=.034; and the average experience regarding the cleanness of the surroundings of the hospital is significantly lower than expectation, t (57) = 5.022, p<.0005.

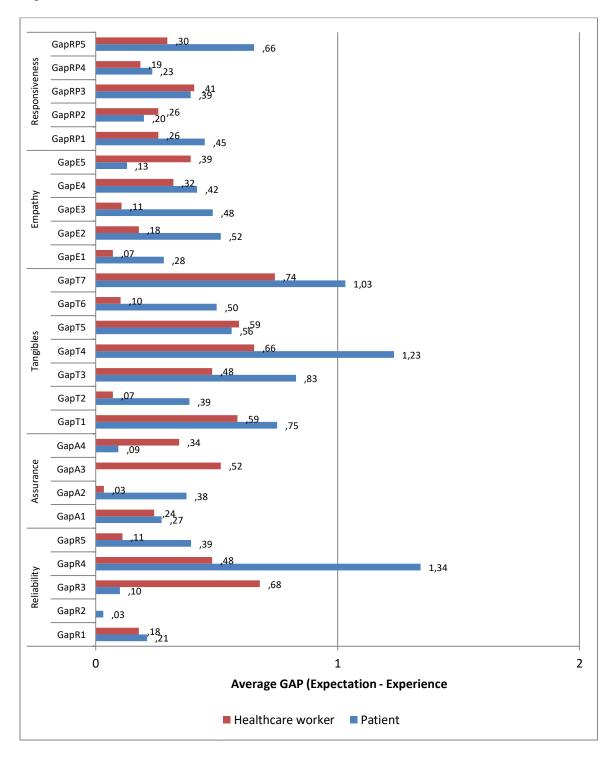
On the dimension of empathy; the average experience regarding the staff knowledge and understanding of patients' needs is significantly lower than expectation, t (56) =2.539, p=.014; the average experience concerning the staff who are polite and show respect is significantly lower than expectation, t (58) =3.223, p = .002;

On the dimension of responsiveness; the average experience regarding the ability of staff to respond quickly when there is a problem is significantly lower than expectation, t (57) = 2.178, p = .034; again the average experience in regard to being easy for patients to talk to knowledgeable staff when they have a problem or need is significantly lower than expectation, t (54) = 2.700, p=.009; and the average experience regarding to staff explaining treatment very clearly to patients is significantly lower than expectation, t (55) = 3.294, p = .002. Most of the variables show a significant difference between expectations and experiences where the gap is greater than zero, so the experiences do not meet expectations.

#### 4.8 Comparison across groups

Figure 4.8 represents the difference in gaps between groups, patients and healthcare workers.





Patients (M=1.34, SD = 1.494) perceive the gap between experience and expectations of the correct diagnosis of their illness to be significantly greater than of healthcare workers (M=.48, SD = 1.252), t (57) = 2.376, p=.021. The only significant difference in gaps between groups is GapR4. Perceived gap by the patients is far greater than zero, meaning they expect higher than

workers. This denotes a critical finding that the management and employees of Tebellong hospital should look into. They should work hard in bridging the gap.

Misdiagnosis can cost lives of the patients, leading to loss of trust and confidence in the health care workers (Desmon & Jones, 2013). Doctors and nurses should work hard in not missing a condition of a patient. However, Graham and Brookey (2008) argue that this may be caused by the fact that patients do not understand, they do not tell their whole story and they do not ask questions. They articulate that communication obstacles habitually go hidden in health care settings and can have serious effects on the health and safety of patients whereby limited literacy skills are one of the greatest causes of poor health outcomes for patients. Clayton, Syed, Rashid and Fayyaz (2012) are of the view that healthcare providers should understand the socio-cultural factors affecting the patients within their service and design better ways of communicating necessary information to their patients such as using pictures and symbols rather than words.

### 4.9 Cronbach's Alpha

#### Grouping of items into five constructs

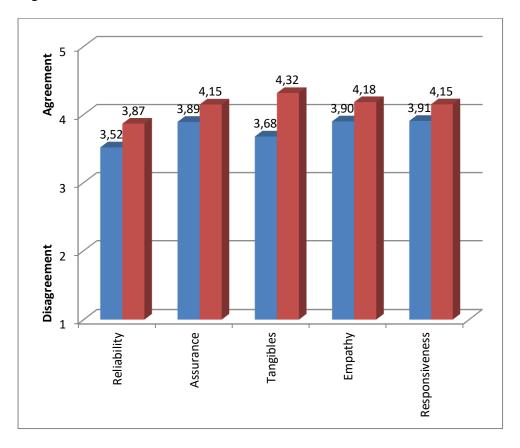
Under each construct there are questions that are grouped and responses are averaged in order to give a measure for each of the five constructs. These groupings are checked using Cronbach's Alpha to ensure that the measures are consistent; that is, the questions in a construct are consistent with each other. According to Tavakol and Dennick (2011) "Cronbach Alpha was developed by Lee Cronbach in 1951 to provide a measure of the internal consistency of a test or scale; it is expressed as a number between 0 and 1". The results follow:

| Section      | Construct      | questions | Alpha |
|--------------|----------------|-----------|-------|
| EXPERIENCE   | Reliability    | AR1–AR5   | .701  |
|              | Assurance      | AA1-AA4   | .787  |
|              | Tangibles      | AT1-AT7   | .866  |
|              | Empathy        | AE1-AE5   | .847  |
|              | Responsiveness | ARP1-ARP5 | .863  |
| EXPECTATIONS | Reliability    | BR1-BR5   | .848  |
|              | Assurance      | BA1-BA4   | .780  |

| Tangibles      | BT1-BT7   | .920 |
|----------------|-----------|------|
| Empathy        | BE1-BE5   | .909 |
| Responsiveness | BRP1-BRP5 | .909 |

These values of alpha are all >.7 thus indicating reliability of single construct measures.

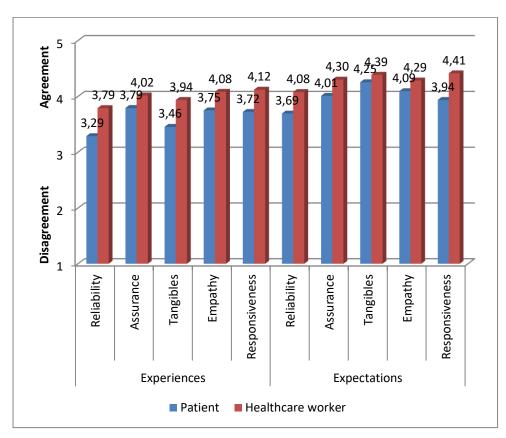
Figure 4.9.1



Both patients and healthcare workers significantly agree that; staff are able to perform promised service dependably and accurately (reliability); staff possess required skill and knowledge to perform service (assurance); appearance and functionality of physical facilities, equipment and personnel is good (tangibles); staff are making effort to know patients and their needs (empathy); and staff are willing to help patients and to provide prompt service (responsiveness).

# **Comparing across groups**





Under reliability experience; More agreement regarding experience of reliability was shown by health care workers (M=3.79, SD = .496) than by patients (M=3.289, SD = .917), t (54.086) = -2.786, p=.007. On all other experiences and expectations, more agreement was shown by healthcare workers.

#### 4.10 Gap analysis

The gap between patients' and healthcare worker's experience and expectations is measured.

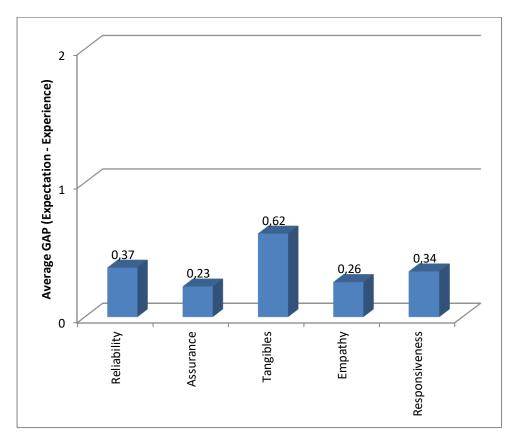


Figure 4.10

There is a significant gap in expectations and experience in all constructs. The marks show that there is the largest gap between perceptions and expectations with respect to Tangibles 0.62.

#### 4.11 Summary

This chapter went through data presentation. Statistical data presentation and analysis was shown in the form of tables, graphs and mathematical calculations. Quantitative research approach was used. A total sample of 66 Tebellong hospital patients and staff was arrived at using Krejcie and Morgan's table. This chapter presents the results obtained from the completed questionnaires administered to 66 healthcare workers and patients of Tebellong hospital. It shows the respondents' profile in terms of gender, race, age and income. It also provides an analysis of the relationship between the respondents' demographics and their perceptions and expectations about Service quality. Furthermore, the gap that exists between

the healthcare workers and patients' perceptions and expectations is also calculated and presented.

The next chapter discusses the results of this study as presented in this chapter.

# **CHAPTER FIVE**

# DATA ANALYSIS AND INTERPRETATION

#### 5.1 Introduction

The chapter discussed the data that was gathered and analyzed in the previous chapter. The information from all presented chapters paved the way for the researcher to draw conclusions in order to come up with recommendations. The aim of the study was to determine the experience and expectations of healthcare workers and patients on how they perceive service quality provision at Tebellong hospital. It is very important to understand employees and patients' views in service quality implementation as (Alrashdi & Qasmi, 2012) infer that the employees and patients' own opinions are absolutely important in preventing poor quality services and ensuring optimal service quality. The study engaged a service quality tool SERVQUAL/RATER to measure and analyses service quality gap at Tebellong hospital.

The five constructs of RATER/SERVQUAL were utilized to measure the score between different variables. The deliberation will be based on the research objectives, which are as follows:

• To understand employee and patients' perceptions of service quality provided at Tebellong hospital

• To ascertain employees and patients' expectations of service quality

• To determine gaps between employees and patients 'perceptions and expectations, using the RATER instrument

# 5.2 Objective 1

The aim of the objective was to understand employees and patients' perceptions of service quality provided at Tebellong hospital. When measuring employees and patients' perceptions Tebellong hospital services, the following results were revealed:

# **Primary data**

The results from primary data highlight that:

a) Studies established that females are more likely than males to report to health care facilities and this is a concern to the healthcare professionals (Ashley , 2010) and (Schopen,

2017) agree that males are less mindful of health glitches than women, less familiar to symptoms and they don't visit the doctor as often as women. From the current study, there is evidence that females are aware of the importance of attending to their health care needs at the healthcare facilities. Women were more willing to participate in the study than were men as women participation was 62.1% while men participation was 37.9%.

b) 56.1% of the patients recorded a high score than healthcare workers (43.9%). This shows that the patient ratio at Tebellong hospital is greater than that of healthcare workers.

c) There is an indication that a high percentage of respondents i.e. 43.9% did not specify their income group. This happened because most of the respondents were patients, of which mostly are not working or earning a standard income. They live through subsistence economy.

d) The test shows that healthcare workers agree significantly more than patients that when staffs promise to do something by a certain time, they do it.

e) According to many healthcare workers than patients, the hospital provides every patient individual attention.

f) Test indicates that healthcare workers agree significantly more than patients that the patient is diagnosed right the first time.

g) It is also noted that perceptions scored less than expectations.

h) There is an indication that more agreement regarding experiences of reliability was shown by healthcare workers than by patients.

i) The tests highlight that there is a significant agreement among all the perception items.

j) The tests disclosed a significant difference between reliability, assurance, tangibles, empathy and responsiveness. Among each of them, the highlights are that existing conditions do not meet with expectations.

#### Perceptions and group

According to (Fatima et al., 2017) it is the demand of all stakeholders (i.e., patients, health care providers) to bring excellence in hospitals. Perceptions of these two groups are important in improving quality of services. Andalee (2001) agreed that in the olden days' quality was referred to technical delivery of care by clinicians but the modern literature, however, emphasizes the significance of considering how the patients perceive the quality of services.

In this study there is a difference between how Tebellong hospital healthcare workers and patients perceive the quality of service delivery. The higher score of perceived quality services was obtained from the healthcare workers and the lowest from the patients. This finding is Page | 55

being supported by (Rosen, 2017) who is of the view that patients cannot really be considered good judges of quality. Petersen (1988) contests this opinion by signifying that it is not vital whether the patient is right or wrong, what is vital is how the patient felt even though the healthcare worker's might be different.

Patients of Tebellong hospital were willing to participate in the study than the healthcare workers. This might be due to the fact that healthcare workers were busy with their daily duties and they found the exercise of filling the questionnaire time consuming while the patients are less busy, they were able to fill the questionnaires in the time they were waiting to see the doctor or be attended by a health professional.

# **Perceptions and Gender**

Tebellong hospital females perceive services differently from the males. On the dimension of assurance, the higher score was obtained from males and the lowest score from females. Elliott et al (2012) study revealed that female patients are more likely to express dissatisfaction with health care services as compared to men.

# **Perceptions and Age**

The respondents from the age group of 26- 30 participated in the study more than all other age groups. The test shows that there is no significance difference across age groups in regard to the dimensions.

# **Perceptions and Income**

Although more respondents (43.9%) did not specify their income, there is no significance difference across income groups towards how services are provided at Tebellong hospital.

# **Perceptions and Reliability**

Patients want to trust on their service providers, they see reliability to be magnificent, therefore, it is very important to be reliable than have a world class equipment or attractive uniform (Arlen, 2008). The results indicate that there is significance in the way in which Tebellong hospital healthcare workers are able to perform promised service dependably and accurately. This is good.

# **Perceptions and Assurance**

The respondents agree significantly on all assurance statements that the staff of Tebellong hospital possess required skills and knowledge to perform services. Both staff and patients perceive that patients trust nurses and doctors at Tebellong hospital. According to (Berwick, 2003) quality and trust are the sides of the same coin, they go together because a doctor who cures the sick earns the patient's trust.

### **Perceptions and Tangibles**

According to Panda (2014) the appearance of the tangibles and physical environment where the service is being provided is very crucial and tangibles have been acknowledged as a key component of service quality. Both patients and healthcare workers who participated in this study significantly perceive that, the appearance and functionality of physical facilities, equipment and personnel is good. They agree that hospital equipment is in good working order, there is cleanness and personnel are well presentable. This dimension is among the significant ones because the cleanliness of the hospital, outside and inside is critical, such environment sends a message of safety and comfort to the patient. Tebellong hospital has to do more than it is doing.

### **Perceptions and Empathy**

For the good quality services, patients want to feel that health care providers care about them during service delivery (Arlen, 2008). In this area, both staff and patients perceive that; staff know and understand patient's needs, staff pay personal attention to each person, and staff are polite and show respect. Courtesy and respect are very critical attributes required of healthcare professionals. Services provided in a polite and caring manner instill satisfaction in patients.

# **Perceptions and Responsiveness**

Mirzoev & Kane, (2017) are of the view that reactive health systems are seen as good contributing factors to improved health outcomes. Responsiveness in healthcare tells about the actual experience of patient's interaction with the health care workers. The results indicate that both the healthcare workers and patients significantly perceive that there is responsiveness in the service delivery by Tebellong hospital. In times of problems and needs the staff respond quickly, staff are willing to help patients and instructions are clearly outlined to patients. For

this measure, Tebellong hospital should get credit only when a patient answers "always" to these questions concerning how responsive the hospital staff is.

# 5.3 Objective 2

The aim was to ascertain employees and patients' expectations of service quality. According to Lateef (2011), expectation in healthcare delivery is defined as the keenness or the belief about what is to be met in a consultation or across the healthcare system. Expectations relate to what is existing in the mind of the patients about the processes in the health care system (Lateef, 2011). Boodhoo (2015) is of the view that unmet expectations can cause patient resentments and Papanikolaou & Zygiaris (2014) suggested that understanding people's expectations is a key element in quality assessment. When measuring employees and patients' expectations of Tebellong hospital services, the following results were found:

# **Primary data**

The results from primary data highlight that:

• Both healthcare workers and patients have high expectations concerning the services at Tebellong hospital, and

• There is suggestion from the statistics that most of the participants in the study powerfully agree that healthcare facility shall operate efficiently and effectively on daily basis.

# **Expectations and Reliability**

Expectations concerning the dimension of reliability were high. Both the patients and healthcare workers of Tebellong hospital expect that services must be provided on promised time, the hospital should provide individual attention to patients, hospital records should be accurate, patients should be diagnosed right the first time and most importantly, they expect that the levels of treatment and care should be consistently good. It is important for every organization that provides services to be consistently honest as this makes the customers to rely on them. This is supported by (DeVore, 2010) who is of the view that providing great customer service is about keeping the promises.

### **Expectations and Assurance**

The aspect of assurance in quality is vital part of any service profession and the healthcare sector is no different (Clark, 2017). Expectations concerning the assurance dimension were

also high, higher than the dimension of reliability. It is the expectation of both the patients and healthcare workers that nurses and doctors should be knowledgeable in their field of medicine and they should be competent in performing their duties. This aspect is imperative to all parties, patients as well as healthcare workers as there is confidence in those providing services and those receiving services that the service delivery is of quality.

# **Expectations and Tangibles**

According to Panda (2014), external satisfaction of the patients can be improved by the tangibles which are the visible aspects of the service provision. Also (Huismanet al., 2012) suggested that the physical environment plays an important role on the healing process of the patient, their relatives and to the entire staff.

Expectations concerning tangibles of Tebellong hospital were the highest among all other expectations. The hospital should have; up to date equipment and technology, necessary equipment in good working order so as to provide quality services, and accessible equipment at all times. Both the patients and healthcare workers significantly expect that there should be cleanliness in the entire hospital; bathrooms should be hygienic, there should be sufficient clean beds for all patients, staff should be neat and presentable and surroundings should be clean. The results indicate that population of Tebellong hospital demand excellent level of appearance and functionality of; physical facilities, equipment and personnel at the institution.

This dimension is critical especially for the patients because environment should be healing in their eyes, once they enter the gates and doors of the health facility they should have hope that they came to the right place. This makes the work of healthcare professionals easy as they attend to patients who are hopeful.

# **Expectations and Empathy**

Killam (2014) state that being empathetic for patients is worth-doing as it boosts trust, which is likely to increase the satisfaction of patients. Expectations regarding empathy at Tebellong Hospital were also high. Although the healthcare workers of the studied hospital have attempted to provide individual attention to the patients, they were not fully satisfied, they expect more as there saying goes that there is always a room for improvement.

Patients and healthcare workers highly expect doctors and nurses to be empathetic, this will result in appreciating what is going with the patients, understanding and managing their patients better. A service provided with politeness and respect makes the recipient feel important and cared for and ultimately happy. Institutions with staff of this caliber are likely to do better than institutions without them.

#### **Expectations and Responsiveness**

Assessing how the health care system addresses the expectations of the users helps the health care managers, policy and decision makers to know the strengths and weaknesses of the system and find corrective measures to employ as early as possible (Mohammed et al.,2013). On this dimension, the expectations of the patients and healthcare workers were high. They significantly expect that there should be quick response from the hospital whenever there is a problem or need, staff should be willing to assist patients. The core function of health care facilities is to provide services that will enhance the quality of the lives of the clientele. Consequently, paying attention to the concerns of the patients in a timely manner is indispensable. Help should always be readily available in times of need.

# 5.4 Objective 3

The aim was to determine gaps between employees and patients 'perceptions and expectations, using the RATER instrument. Mashhadiabdol et al (2014) state that "customers" perceptions are based on the actual interaction and interpretation of the quality of services they receive while their expectations are based on past experiences and the information received". Zeithaml et al (2009) assert that the service quality gap occurs between the expectations that they bring into the service experience, and the perceptions of the actual service experience.

The results from primary data highlight that both healthcare workers and patients' expectations at Tebellong hospital were unmet. According to Mashhadiabdol et al (2014), expectations are usually more than perceptions and the nature of service quality gap in each component will be negative. Negative sign shows that the hospital cannot meet the patients' expectations in that component. The more the service quality gap is, the harder the hospital should try to meet the patient's expectations.

In determining the gap that exists between health care workers and patients' perceptions on service quality at Tebellong hospital and their expectations on service quality delivery, the following were revealed:

### **Gap between Perceptions and Expectations**

Qadri (2015) state that gap score is referred to the difference between perception score and expectation score whereby a negative gap designates that the service provided is less than what was anticipated and the gap is a highlighted area for improvement. According to Ramin et al. (2017) service quality is the most critical factor in the success of healthcare institutions. They further state that any negative quality gap in the provision of services needs attention because even very small errors if not addressed can be followed by great and irreparable harm and damage.

Nadi *et al.*, (2016) contest that the difference between patients and staff' expectations and perceptions of service offered is called the service quality gap. The negative gap in all constructs of quality illustrates that quality improvement is obligatory in all dimensions (Abuosi & Atinga, 2013).

In determining the gap that exists between employee and patients' perceptions on Service Quality at Tebellong hospital and their expectations on Service Quality, the following were revealed:

#### **Gap and Reliability**

Yarimoglu (2014) some studies consider reliability as the most important dimension of service quality. He further suggests that delivering the promises made to the clients is of great importance. Customers value reliability, they want to count on their providers (Arlen, 2008). A gap exists in relation to the dimension of reliability, the biggest being on the accuracy and freedom from error of hospital records. The overall perception of both parties is lower than the expectation. The patients and healthcare workers of Tebellong hospital perceive reliability in general differently. The patients perceive the gap between experience and expectations of the correct diagnosis of their illness to be significantly greater than do healthcare workers. This indicates that Tebellong hospital staff should work on this one, ensuring that the patient is diagnosed right the first time.

### **Gap and Assurance**

It is the expectation of the patients that service providers should be experts of the services they are providing and it is critical to communicate this expertise to patients (Arlen, 2008). In this study, the expectations of both the patients and healthcare workers that nurses and doctors should be knowledgeable in their field of medicine and that they should be competent in performing their duties are higher than their perceptions. This area needs improvement so that the health care worker's knowledge and manner of interaction with the patients inspire trust in the organization.

# **Gap and Tangibles**

Tangibles are utilized to send message to the patients about the type of service that should be anticipated (Yarimoglu, 2014) and the appearance of the physical environment has effect on the wellbeing as well as recovery of the patient (Huisman et al., 2012).

There is a difference in which the patients and healthcare workers perceive the tangibles of Tebellong hospital. Patients perceive the gap between experiences and expectations regarding the tangibles to be greater than do healthcare workers. Both parties perceive the tangibles less than they expect. This is the dimension where they expect more compare to other dimensions. This statement is supported by literature that paying attention to the effects of physical environment on the healing process and well-being of patients and staff has become increasingly essential in the health care sector (Huisman et al., 2012).

This means that the physical facilities including consulting rooms, wards, and medical equipment used by the healthcare care professionals at Tebellong Hospital did not have sufficient attractiveness; the expectation is more than their current condition. The management and staff of Tebellong hospital should address this gap.

#### **Gap and Empathy**

With empathy the patient is approached and manage in such a way that they feel as if they are the only patients to the organization, and that their needs are essential to the health care institution (Yarimoglu, 2014). There is a gap on how the patients and healthcare workers of Tebellong hospital perceive empathy shown by the workers of the hospital. The patients perceive the gap between experience and expectations of the empathy to be greater than do healthcare workers. This means that patients and healthcare workers expect the services to be rendered in an empathetic manner than healthcare workers do expect. This says the healthcare workers should apply more effort to know patients and their needs and understanding theirs individual needs.

### **Gap and Responsiveness**

This dimension of service quality is defined as the readiness and willingness of the service provider to assist and respond to the client at all times (Yarimoglu, 2014) ;and to the patients responsiveness is of great service quality assessment (Arlen, 2008). There is a gap relating to how patients and healthcare workers perceive staff to help patients and respond quickly when there is a problem. The patients perceive the gap between experience and expectations of the clear explanation to the patient regarding the treatment to be greater than do healthcare workers.

### 5.5 Summary

The research results for Christian Health Association of Lesotho, Tebellong hospital service quality were reported in this chapter. The results revealed that Tebellong hospital patients and healthcare workers have high expectations regarding the service delivery. This means that quality of the delivered healthcare services at the hospital was lower than what both the healthcare workers and patients expected.

With the negative gap between healthcare workers and patients' expectations and experiences for most areas of health care services discussed in this chapter, the hospital still has a long way to go in improving quality of the services. The lowest mean gap of quality was derived for assurance followed by empathy, responsiveness, and reliability, and the greatest gap goes to the tangibles. This means that the physical facilities including bathrooms, beds, surroundings and equipment used by the doctors and nurses did not have sufficient attractiveness.

It is very critical for both the parties to develop the plans or strategies to bridge the gap. The mission of Tebellong hospital is to provide quality and affordable health services to every Mosotho, guided by the key principles of universal coverage, equity and social justice. Therefore, the hospital through the management and the entire workforce should put more effort in ensuring that the mission is accomplished. The results of the study will assist the team

of Tebellong hospital to fill the gap. The next Chapter will present the findings, implications followed by recommendations and conclusion of the study.

## **CHAPTER SIX**

## **CONCLUSIONS AND RECOMMENDATIONS**

#### 6.1 Introduction

The involvement of healthcare workers in quality improvement initiatives is the most crucial aspect in determining service quality and ensuring quality management within an organization (Hughes, 2008). This chapter attempts to draw conclusions from the results of the study as presented and discussed in the previous chapters. It also offers recommendations and suggestions for resolving the identified problems and ensuring quality improvement in the hospital, in which this study was conducted. The chapter includes scope for further research as well as the summary.

### 6.2 Findings from literature

Service quality is an important practice for organizations to stay competitive in the world of today (Al-Ibrahim, 2014). Some researchers view service quality as the key to customer satisfaction (Angelova & Zekiri, 2011). Hill (2010) assert that the healthcare providers, who are able to offer and manage clientele's healthcare needs by knowledgeable and skillful application, polite and respectful manner in the resources- limited environment, are nothing but agents of good quality.

Attention to patients' needs and expectations, addressing their concerns and understanding them lead to the success of the organization (Lateef, 2011). According to Mayo Clinic Staff (2018), poor quality services includes not only giving poor services but also under provision of essential clinical services, overuse of some care such as unnecessary injections and unneeded service antibiotics for viral infections. It is a must for modern organizations to adopt a strategy of good service quality as this enhance the organizational success and sustainability.

Some studies revealed that in evaluating the quality of health care services using newly developed SERVQUAL with the five dimensions, the patients' expectation are mostly higher than the perceptions (Vafaee-Najar, et al., 2014). The poor attitude of staff towards provision of quality services is mostly connected to those hospitals which do not pay attention on understanding and meeting patients' needs and expectations. The service organization should be in their customers' boat and place their own policies on the heart of their views. In the absence of direct relationship with patients, their expectations are likely not to be met. As a result, there would be dissatisfaction of patients concerning the service quality provided.

This study as well as other studies piloted in hospitals and other health care facilities sight that patients' expectations are not met in most of the features leaving them dissatisfied (Berhane & Enquselassie, 2016). The expectations that are higher than perceptions in all the constructs of service quality revealed that improvement is essential at Tebellong hospital, paying more attention to tangibles and treat that aspect as first priority.

The idea of service quality is to satisfy or meet the needs and expectations of its receivers. It is the quality of services that will determine the feeling and satisfaction of the receiver of services. An organization that provides high quality service receives customers' loyalty (Ward, 2018). A negative gap was detected between the healthcare workers and patients' expectations and perceptions of the quality of healthcare services provided at Tebellong hospital. That is to say the provision of quality services to patients was below their expectations, the largest gap going to the tangibles.

Managers of Tebellong hospital need to benchmark and compare their facility to detect areas that need improvement and then apply best practices in the healthcare sector to enhance those areas. The high expectations noted in the current study, which surpass perceptions, indicate that Tebellong Hospital community perceives the quality of services negatively. All the endorsed measures have run short in expectations. A negative service quality gap has been found in this study in all the components. This negative sign points out that the hospital failed to deliver the expectations of the patients and the higher quality gap shows that the hospital should put more effort in meeting what the patients expect.

## 6.3 Findings from primary study

#### **Experiences**

Concerning the experiences across the two groups, differences in agreement between patients and workers are that healthcare workers agree significantly more than patients that the hospital provides quality services in most of the dimensions. The example will include healthcare workers (M=3.93, SD = .458) agree significantly more than patients (M=3.20, SD = 1.471) that when staff promise to do something by a certain time, they do it, t (41.710) = -2.782, p=.008. This finding is normal as mostly the service providers will score themselves high than patients although that should be confirmed by the responses of the patients.

On average both healthcare workers and patients agree that in their experience there is quality service delivery at Tebellong hospital. Patient experience is what matters most. Hospital

executives should not focus on what they feel is important drivers of the patient experience, instead focus to what patients perceive important. In the current study, the lowest experience of patients was on reliability dimension that the patient is diagnosed right the first time. This implies that the patient experience is not at desirable level.

It is in the hospital's power and commitment to improve on this element. Although this can be associated to the number of factors, including; poor communication between the health care provider and patient and illiteracy level of the patient, health care leadership must improve the patient experience on this aspect through possession and utilization of right examination skills by the nurses and doctors, making an effort in making the patients know and understand their rights so that they will be able to ask questions and demand clarifications on their health status before leaving the health facility. "The right examination skills remain at the very core of clinical practice" (Henderson, 2014).

The hospital should also look at the patient across the continuum of care; pay attention to what affects the patients before coming to the facility, during the health care provision and after delivery of services. Looking at the accessibility and location of the hospital, there are lot of issues that affect the patients which should catch attention of the service providers such as transport, weather, money and many others.

The effort to enhance patient care experience goes together with the effort to enhance the whole quality of care received by a patient, focusing mainly on the patient (Luxford, Safran, & Delbanco, 2011). They further express that attaining patient-centered care at the organizational level requires involvement and commitment of the senior management with a tactical vision plainly and continuously talked to every member of the organization; participation of patients and relatives in making their health care better, a conducive, caring and friendly environment of work for all workers, performance management and feedback, and supportive information technology (Luxford, Safran, & Delbanco, 2011).

## Expectations

"Expectations, with reference to healthcare, refer to the anticipation or the belief about what is to be encountered in a consultation or in the healthcare system" (Lateef, 2011). It is the state of the health care system in the minds of the people. Unmet expectations of either the healthcare workers or patients can move from dissatisfaction to irritation. This suggests how important it is to know the expectations of the patients as it is likely to aid in avoiding unwanted behaviors, and at the same time it may boost their healthcare experience, and diminish unnecessary costs (Lateef, 2011). As for expectations across the two groups, differences in agreement between patients and healthcare workers focus mostly on three items being the first statement of reliability, the fourth statement of assurance and the first statement of responsiveness. That is; Healthcare workers (M=4.11, SD = .685) agree significantly more than patients (M=3.41, SD = 1.373) that they expect that when staff of the hospital promise to do something by a certain time, they should do it, t (50.346) = -2.587, p=.013).

They, healthcare workers (M=4.41, SD=.501) agree significantly more than patients (3.91, SD=1.228) that they expect that nurses and doctors should be trusted by patients at this hospital, t (41.885)=-2.149, p=.037 and healthcare workers (M=4.36, SD=.559) also agree significantly more than patients (M=3.71, SD=1.319) that they expect that staff should respond quickly when there is a problem, t (47.928)=-2.606, p = .012.

This explains that the healthcare workers of Tebellong hospital understand the element of reliability well. They know and understand how important it is to deliver promised services at the right time, this agrees with the statement that they should work towards gaining trust of their patients. Both the health care workers and patients scored above 3 on all aspects of Service quality at Tebellong hospital meaning all expectations are higher than experiences. Exploring health care workers and patients' expectations is vital for making sure that delivery of healthcare services is at its best. Patients' expectations remain increasing (Lateef, 2011). For that reason, health care facilities should make it their priority to accomplish the expectations of the patients.

#### Quality gap

The average experience regarding the tangibles, reliability and responsiveness are significantly lower than expectations. Most of the expectations of the patients are not met. The healthcare workers admitted that patients' expectations were not accomplished, meaning their current level of quality of service provision is below what the patients anticipated. That is to say, the health care workers are aware that the quality of the services they deliver is below the patients' expectations.

This acceptance by the healthcare workers that they are not meeting the patients' needs will help the employees and the entire hospital in working to their best level in improving the quality of services at Tebellong hospital, hence fill the gap. In general, the following matters are the reasons for the existence of the gap: • Poor infrastructure, shortage of resources and commitment of staff need urgent attention to enhance the quality of services such as improving the neatness and attractiveness of the physical facilities of the hospital. The study revealed that the service quality dimension of tangibles has the greatest gap compared to all other dimensions. Improving on the cleanliness of the surroundings of the hospital, neatness of the bathrooms will impact positively on the satisfaction of patients. In this study, the importance of the cleanliness of the hospital was confirmed.

Tangibles affect patients' fulfilment. Referring to Panda & Das (2014) tangibles are understood as features of a service that can be 'felt' without essentially buying the service. The features of service that can be used to enhance the satisfaction of external customers are tangibles. The current study has revealed that the overall expectations concerning all items of tangible construct were relatively high with the highest expectations for the cleanliness of the hospital.

• Lack of training and refresher courses to staff. This is derived from the findings that the average gap on responsiveness dimension which is about the healthcare preparedness to assist patients and to provide prompt service is low. Lee, Lee and Kang (2012) are of the view that hospitals generally deliver healthcare services to patients in an environment of high interaction. As a result, patients expect good interpersonal relationship with healthcare workers. Accordingly, customer care is a critical factor for the satisfaction of patients. Therefore, training in the form of either refresher courses, coaching and mentoring can improve employees' customer care for the good healthcare outcome. Tebellong hospital should take serious the issue of maintaining, ensuring and supporting staff to have good interpersonal relations with the patients.

In the study it was found that all patients demand admirable levels of response, of which Tebellong hospital did not meet, causing dissatisfaction to the patients. These findings are consistent and in support of previous studies.

## 6.4 Conclusions

This research study attempted to establish healthcare workers and patients' perceptions, expectations of service quality at Tebellong hospital and determining the service quality gap using the RATER instrument. The motive for this study transpired from the workshop the researcher attended in 2013 where she learned that service quality is the backbone of the desired

health outcomes in a health care facility. The focus of this study is on the fundamental principles of service quality. It addresses the following objectives:

To determine employee and patients and healthcare workers' perceptions of quality services delivered at Tebellong hospital

To ascertain employees and patients and healthcare workers' expectations of service quality

To determine gaps between employees and patients 'perceptions and expectations, using the RATER instrument.

The following trends were derived from the findings of this study:

Firstly, Tebellong hospital healthcare workers and patients have relatively low perceptions about service quality at this hospital. Among all five components of service quality, patients portrayed poor perceptions than healthcare workers.

Secondly, this study showed that both Tebellong hospital employees and patients have incredibly high expectations regarding service quality in the hospital. Expectations of the healthcare workers seemed to be extremely higher than of patients on the dimensions of reliability, assurance and responsiveness.

Thirdly, the findings of this study revealed enormous gaps between employees" perceptions and expectations in most of the fundamental principles of Service quality. This suggests, therefore that healthcare workers and patients' expectations regarding service quality exceed the perceptions they hold about service at Tebellong hospital.

Lastly, attention is needed in all the areas that constitute service quality as all the individual statements attained negative gap scores. The top five statements that revealed the highest gap scores, in descending order, were the statements regarding diagnosis of the patient, up to date equipment and technology, working conditions of necessary medical equipment, hygienic bathrooms and availability of clean beds.

Thus, it is inferred that there is a serious quality problem mostly on the dimension of tangibles at Tebellong hospital. However, whilst employees' perceptions are not very low, their expectations concerning service quality practices at the hospital are tremendously high. Moreover, although all the principles of service quality attained negative scores, it is evident that a huge gap exists in the areas of tangibles and reliability, which implies that lack of focus on these areas, is the major contributing factor to the low level of service quality at Tebellong hospital. It is, therefore, concluded that although attention is needed in all aspects that comprise Service Quality but more attention should be given to tangibles in order to bridge the existing gap and ensuring a complete service quality at Tebellong hospital.

### 6.5 **Recommendations**

These are drawn to make sure that Tebellong Hospital accomplishes its goals and to encourage the management of the hospital to ensure that the demands of both the healthcare workers and patients are satisfied. Tebellong hospital management and healthcare workers should accept the recommendations and ensure that these are properly executed. Sharma, Kong, & Kingshott (2016) found managers to be key drivers of good performance of the company. Management represents the interests of the owners of any organization hence should act accordingly. The clear objectives of the hospital should be outlined by the managers and the resources within the hospital should be organized, allocated and utilized efficiently.

The recommendations towards improving quality of healthcare services at Tebellong hospital are as follows:

As a way to reduce the gap identified in all five constructs of quality found in this study and deliver looked-for quality, it is suggested that hospital management through their planning need to focus on patient's needs. This compels managers of Tebellong hospital to take serious the expectations of patients and find ways to satisfy them.

Effective Leadership and management were mentioned as a significant matter of quality from the viewpoint of healthcare workers, managers, policy- makers and users (Mosadeghrad, 2014). Good management is the key driver of hospital's success. If Tebellong hospital stakeholders have good ideas for quality improvement, but there is poor management, nothing will be achieved and all will be good for nothing. The desire for change and satisfying patients' needs and expectations should come from the hospital management with consideration of local factors. Managers are key decision makers, holding power and authority to make things happen. Health care providers must have a type of leadership that will focus the organization's attention on improving quality, as this is essential to attaining improved health outcomes while escaping redundant costs (McClellan, 2013).

As a way of managing quality in an organization, it is recommended that the relationship between the management and the workforce is taken serious, it has to be good. This says that the management of the organization must keep the employees motivated and involved in the hospital affairs which will in turn make the employees know the importance of their contribution to the quality services. In the healthcare industry today, patients anticipate not only a superior quality clinical experience, but also politely offered, reliable, fast, neat, convenient, and high quality service.

Employee involvement in decision-making is an important component of Service Quality. Hence, it is recommended that employees be given an opportunity to actively participate in decision-making.

According to Mosadeghrad (2014), healthcare education has a direct impact on patient care. That is to say, patients' knowledge of healthcare matters as well as their privileges stimuluses their expectations of quality services. Tebellong hospital is a rural hospital serving mostly the rural population with disadvantaged socio-demographic variables such as high illiteracy level, low level of understanding, strong sense of culture, many poverty cases and the list goes on. Therefore, it is highly recommended that healthcare education is provided to the entire community.

This means the hospital should take more effort to provide healthcare education in the communities and at the hospital in order to make the patients who know and understand their rights to healthcare, what they should expect from the healthcare providers and how they should behave towards healthcare givers. This will aid in balancing the perceptions of patients and expectations and give the quality picture of assessment of services provision.

Collaboration and teamwork among healthcare providers is an imperative component of highquality healthcare services (Babiker, et al., 2014). The study reveals that patients perceive the gap of the correct diagnosis of their illness to be significantly than do healthcare workers. This might be the result of poor communication and collaboration among employees about the patient and to the patient. It is recommended that all the healthcare workers should possess an ability to effectively communicate and collaborate among themselves and with their patients Page | 72 with a common goal of making healthcare better and improving the health outcomes of patients. This can really help especially in this case where mostly of rural hospitals' employees are burdened with limited resources, poor working and living conditions, poor remunerations and high workloads. Good working relationship is healthy to both the being of the employee and patient.

It is recommended that Tebellong hospital maintains satisfied employees. Ahmed and Amir (2011) assert that employees are the drivers of service quality provision. They understand the internal processes, they know when there are problems and how they can be solved. Studies show that a satisfied employee is likely to be productive, efficient and stay in the organization (Addady, 2015). This will enhance external service value, resulting in customer satisfaction and loyalty. Service employees represent the image of the organization in the eyes of the customers, when they see the workers they see the company.

It makes sense that the relationship between the employees and customers is very critical for the success of the organization. Healthcare workers are an important element of quality service provision. It is recommended that customer relationship is considered as a priority. A role of employee in the service delivery is quite critical and managers should always appreciate good service and this in turn will result in satisfied and dedicated employees who respect and appreciate their clients.

Necessary efforts must be made to enhance the appearance of tangibles and their functionality healthcare service quality. Hospital management should endeavor to create a conducive and admiring work environment through provision of resources, equipment in good conditions, as well as training that is needed to equip employees with the skills they need to carry out their daily activities and use available equipment within the hospital.

### 6.6 Scope for further research

This study assesses the perspectives of patients from out-patient department only. It is suggested that a future research study be done that includes in-patient department to establish the extent to which all patients that visit the hospital are satisfied with the comprehensive services provided at the hospital

The current study utilizes a quantitative research method. It is proposed that a qualitative study be performed in the hospital as it would allow respondents to give more in-depth responses indicating comments and reasons for their answers to the given statements

According to the study, the results showed that the hospital should focus more on the tangibles aspect of service quality. It is suggested that a relevant research study be made on the tangibles of the hospital and the role they play in enhancing quality of health care services

It is suggested that a comparative study of both the rural and semi-urban hospital be carried out to establish insight with regards to how these hospitals rate against each other in terms of quality of service provided.

### 6.7 Summary

This chapter drew conclusion from the research findings obtained from this study. It shows that there is a significant quality gap at Tebellong hospital, as healthcare workers and patients have relatively low perceptions about Service Quality principles. The results from the study revealed that the perceived service quality does not match with the expected level of service quality by the healthcare workers and patients. The expectations of the patients are further than their understanding of the existing situation and not any of the aspects of the service is met in their expectations.

In the five dimensions of quality of healthcare services, there was a negative gap between the healthcare workers and patients' expectations and perceptions from the offered healthcare services at the hospital. Therefore, hospital authorities should pursue strategies to eradicate the gap between the healthcare workers and patients' expectations and perceptions.

Quality care is getting a bigger attention globally, it does not matter whether the health care organization is a small and rural-based. All health care organizations must enhance the quality of the delivery of health care services and Tebellong hospital is not an exception. With the limited funding and resources, the hospital has that may have affected the unmet expectations of the healthcare workers and patients, the management should be strategically efficient and effective in improving the quality provision of health care services. The expectations being higher on tangibles of the hospital, efforts should be seriously taken in refining the appearance of physical facilities and all other tangibles.

In order to ensure that Service Quality is improved at Tebellong hospital, it is recommended that hospital objectives, standards, procedures and processes be well and clearly established. Also, they should be communicated to all healthcare workers to ensure that they all know and understand them so that their performance would be in line with the set standards. It is highly recommended that the needs of both healthcare workers and patients be in the fore-front.

Lastly, this chapter provides some suggestions for future research on the areas of service quality, with the focus on all patients within the hospital, comparisons between the rural and urban hospitals regarding how they rate each other regarding service quality.

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## **APPENDICES**

### **APPENDIX A**

### INFORMED CONSENT AND DECLARATION LETTER

School of Management, IT and Governance, Law and Management Studies, University of KwaZulu-Natal, Westville Campus

Dear Participant,

My name is <u>Ntulela Alice Khiba (214581186).</u> I am a Master of Commerce in Management candidate studying at the University of KwaZulu-Natal, Westville Campus, South Africa. Service quality delivery in the CHAL Hospitals Lesotho. I am researching from Tebellong Hospital. Your community is one of my research studies. To gather the information, I am interested in asking you some questions.

Please note that:

- Your confidentiality is guaranteed, as your inputs will not be attributed to you in person, but reported only as a population member opinion.
- The questionnaire may last for about 45 minutes and may be split depending on your preference.
- Any information given by you cannot be used against you, and the collected data will be used for purposes of this research only.
- Data will be stored in secure storage and destroyed after 5 years.
- You have a choice to participate, not participate or stop participating in the research. You will not be penalized for taking such an action.
- The research aims at knowing the challenges of your community relating to resource scarcity, peoples' movement, and effects on peace.
- Your involvement is purely for academic purposes only, and there are no financial benefits involved.

I can be contacted at: Email: ntulelakhiba@gmail.com Cell: +27 79 216 8793. My supervisor is Dr. Trishana Ramluckan who is located at the School of Management, IT and Governance at Westville Campus of the University of KwaZulu-Natal. Contact details: email: RamluckanT@ukzn.ac.za, Phone number: +27312608854.

You may also contact the Research Office through: P. Mohun HSSREC Research Office, Tel: 031 260 4557 E-mail: <u>mohunp@ukzn.ac.za</u>

Thank you for your contribution to this research.

## DECLARATION

I..... (Full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

If you are willing to be interviewed, please indicate (by ticking as applicable) whether or not you are willing to allow the interview to be recorded by the following equipment:

|                        | willing | Not willing |
|------------------------|---------|-------------|
| Audio equipment        |         |             |
| Photographic equipment |         |             |
| Video equipment        |         |             |
|                        |         |             |
|                        |         |             |
|                        |         |             |

## SIGNATURE OF PARTICIPANT

DATE

.....

## **APPENDIX B**

## QUESTIONNAIRE

## **RESEARCH TOPIC**

## SERVICE DELIVERY IN THE CHAL HOSPITAL IN LESOTHO

The RATER (SERVQUAL) service quality framework asks patients about their expectations and experiences across the five RATER dimensions of quality. The measure of quality is the gap between expectation and experience.

Please complete your responses with specific regard to the concepts of enquiry by placing a TICK in the appropriate box.

### **RESPONDENTS MAY WITHDRAW THEIR PARTICIPATION AT ANY TIME,** SHOULD THEY SO WISH

## PARTS OF QUESTIONNAIRE

Part One: Demographic information Part Two: Concepts of inquiry: Client EXPERIENCE of the service quality Part Three: Concepts of inquiry: Client EXPECTATIONS of the service quality

| PART ONE: DEMOGRAPHIC INFORMATION         |        |  |       |                |  |      |              |   |                 |
|---|--------|--|-------|----------------|--|------|--------------|---|-----------------|
| Please tick the most appropriate response |        |  |       |                |  |      |              |   |                 |
| 1   | Gender | Male Female  |       |                |  |      | ale          |   |                 |
| 2   | Race   | Black  | Color | oured Indian   |  | Wh   | nite         | C | other (specify) |
| 3   | Age    | under 26   |       | 26-35 36       |  | 6-45 | 45 46-55     |   | 56+             |
| 4   | Income | <m5000< th=""><th colspan="2">0 M5000-M10000</th><th></th><th>M100<br/>M200</th><th></th><th>M20001+</th></m5000<> |       | 0 M5000-M10000 |  |      | M100<br>M200 |   | M20001+         |

# PART TWO: PATIENT EXPERIENCE OF THE SERVICE QUALITY

# Indicate your agreement with the following statements regarding your EXPERIENCE with service delivery at this hospital

#### SECTION 1: RELIABILITY- Ability to perform promised service dependably and accurately Strongly Strongly Neutral **IN MY EXPERIENCE...** Disagree Agree Disagree Agree When staff of the hospital promise to do 1 something by a certain time, they should do it The hospital provides every patient individual 2 attention 3 Hospital records are accurate and error-free 4 The patient is diagnosed right the first time Levels of treatment and care are consistently 5 good

#### SECTION 2: ASSURANCE - Possession of required skill and knowledge to perform service

|   | IN MY EXPERIENCE  | Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>Agree |
|---|---|----------------------|----------|---------|-------|-------------------|
| 1 | Nurses and doctors are knowledgeable in their field of medicine         |                      |          |         |       |                   |
| 2 | Staff are able to use hospital technology skilfully and quickly         |                      |          |         |       |                   |
| 3 | Nurses and doctors possess the necessary skills to perform their duties |                      |          |         |       |                   |
| 4 | Patients trust nurses and doctors at this hospital                      |                      |          |         |       |                   |

|   | IN MY EXPERIENCE   | Strongly<br>Disagree | Disagree     | Neutral      | Agree | Strongly<br>Agree |
|---|--|----------------------|--------------|--------------|-------|-------------------|
| 1 | The hospital has up to date equipment and technology                                     |                      |              |              |       |                   |
| 2 | The hospital has the necessary equipment in order to provide proper care to all patients |                      |              |              |       |                   |
| 3 | Necessary medical equipment e. g x-ray machine is in good working order                  |                      |              |              |       |                   |
| 4 | Bathrooms are very hygienic  |                      |              |              |       |                   |
| 5 | There are sufficient clean beds for all patients   |                      |              |              |       |                   |
| 6 | Staff are neat and presentable   |                      |              |              |       |                   |
| 7 | Surroundings are clean   |                      |              |              |       |                   |
|   | SECTION 4: EMPATHY - Maki  | ng effort to l       | know patient | ts and their | needs |                   |
|   | IN MY EXPERIENCE   | Strongly<br>Disagree | Disagree     | Neutral      | Agree | Strongly<br>Agree |
|   | Staff language and any department of a stimute? a sector                                 |                      |              | <u></u>      |       |                   |

|   | IN MY EXPERIENCE  | Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>Agree |
|---|---|----------------------|----------|---------|-------|-------------------|
| 1 | Staff know and understand patients' needs   |                      |          |         |       |                   |
| 2 | Staff pay personal attention to each<br>Patient   |                      |          |         |       |                   |
| 3 | The hospital fee is consistent with what patients can afford                                      |                      |          |         |       |                   |
| 4 | Staff are polite and show respect   |                      |          |         |       |                   |
| 5 | Staff are able to clearly explain to patients the various options of treatment and care available |                      |          |         |       |                   |

#### SECTION 5: RESPONSIVENESS - Willingness to help patients and to provide prompt service Strongly Strongly **IN MY EXPERIENCE...** Disagree Neutral Agree Disagree Agree When there is a problem staff respond quickly 1 Staff are willing to answer patients' questions 2 It is easy for patients to talk to knowledgeable 3 staff when they have a problem or need Employees of the hospital are always willing 4 to help their patients Treatment is explained to the patient very 5 clearly

# PART THREE: PATIENT EXPECTATION OF THE SERVICE QUALITY

# Indicate your agreement with the following statements regarding your EXPECTATIONS of service delivery at this hospital

## SECTION 1: RELIABILITY - Ability to perform promised service dependably and accurately

|   |   | i                    |          | i       |       |                   |
|---|---|----------------------|----------|---------|-------|-------------------|
|   | EXPECTATIONS  | Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>Agree |
| 1 | When staff of the hospital promise to do something by a certain time, they should do it |                      |          |         |       |                   |
| 2 | The hospital should provide individual attention to every patient                       |                      |          |         |       |                   |
| 3 | Hospital records should be accurate and error-<br>free                                  |                      |          |         |       |                   |
| 4 | The patient should be diagnosed right the first time                                    |                      |          |         |       |                   |
| 5 | The levels of treatment and care should be consistently good                            |                      |          |         |       |                   |

## SECTION 2: ASSURANCE - - Possession of required skill and knowledge to perform service

|   |  | •                    |          |         | 1     |                   |
|---|--|----------------------|----------|---------|-------|-------------------|
|   | EXPECTATIONS   | Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>Agree |
| 1 | Nurses and doctors should be knowledgeable<br>in their field of medicine       |                      |          |         |       |                   |
| 2 | Staff should be able to use hospital technology skilfully and quickly          |                      |          |         |       |                   |
| 3 | Nurses and doctors should possess the necessary skills to perform their duties |                      |          |         |       |                   |
| 4 | Nurses and doctors should be trusted by patients at this hospital              |                      |          |         |       |                   |

## SECTION 3: TANGIBLES - Appearance of physical facilities, equipment and personnel

|   | EXPECTATIONS   | Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>Agree |
|---|--|----------------------|----------|---------|-------|-------------------|
| 1 | The hospital should have up to date equipment and technology   |                      |          |         |       |                   |
| 2 | The hospital should have the necessary<br>equipment in order to provide proper care to<br>all patients |                      |          |         |       |                   |
| 3 | Necessary medical equipment, e.g. x-ray machine, should be in good working order                       |                      |          |         |       |                   |
| 4 | Bathrooms should be very hygienic  |                      |          |         |       |                   |
| 5 | There should be sufficient clean beds for all patients   |                      |          |         |       |                   |
| 6 | Staff should be neat and presentable   |                      |          |         |       |                   |
| 7 | Surroundings should be clean   |                      |          |         |       |                   |

|   | SECTION 4: EMPATHY - Making effort to know patients and their needs                                     |                      |          |         |       |                   |  |  |
|---|---|----------------------|----------|---------|-------|-------------------|--|--|
|   | EXPECTATIONS  | Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>Agree |  |  |
| 1 | Staff should know and understand patients' needs  |                      |          |         |       |                   |  |  |
| 2 | Staff should pay personal attention to each patient   |                      |          |         |       |                   |  |  |
| 3 | The hospital fee should be consistent with what patients can afford                                     |                      |          |         |       |                   |  |  |
| 4 | Staff should be polite and show respect   |                      |          |         |       |                   |  |  |
| 5 | Staff should be able to clearly explain to patients the various options of treatment and care available |                      |          |         |       |                   |  |  |

# SECTION 5: RESPONSIVINESS - Willingness to help patients to provide prompt service

|   | EXPECTATIONS   | Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>Agree |
|---|--|----------------------|----------|---------|-------|-------------------|
| 1 | Staff should respond quickly when there is a problem   |                      |          |         |       |                   |
| 2 | Staff should be willing to answer patients' questions  |                      |          |         |       |                   |
| 3 | It should be easy for patients to talk to<br>knowledgeable staff when they have a<br>problem or need |                      |          |         |       |                   |
| 4 | Employees of the hospital should always be willing to help their patients                            |                      |          |         |       |                   |
| 5 | Treatment should be explained to the patient very clearly  |                      |          |         |       |                   |

# Thank You

## **APPENDIX C**

# ETHICAL CLEARANCE



01 July 2016

Ms Ntulela Khiba (214581186) School of Management, IT & Governance Westville Campus

Dear Ms Khiba,

Protocol reference number: HSS/0817/016M Project title: Service Quality delivery in the CHAL Hospitals Lesotho

Full Approval – Expedited Application

With regards to your application received on 03 June 2016. The documents submitted have been accepted by the Humanities & Social Sciences Research Ethics Committee and FULL APPROVAL for the protocol has been granted.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

Please note: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Dr Shenuka Singh (Chair)

/ms

Cc Supervisor: Dr Given Mutinta Cc Academic Leader Research: Professor Brian McArthur Cc School Administrator: Ms Angela Pearce

Humanities & Social Sciences Research Ethics Committee Dr Shenuka Singh (Chair) Westville Campus, Govan Mbeki Building Postal Address: Private Bag X54001, Durban 4000 Telephone: +27 (0) 31 280 3587/8350/4557 Facsimile: +27 (0) 31 280 4609 Email: <u>ximbap@ukzn.ac.za</u> / <u>snymanm@ukzn.ac.za</u> / <u>mohunp@ukzn.ac.za</u> Website: <u>www.ukzn.ac.za</u>



#### **APPENDIX D**

#### **EXPERIENCES**

## Differences in agreement between patients and workers are present in the below tables, significant differences are shown in red.

# Differences in agreement between patients and workers are present in the below tables, significant differences are shown in red.

|   | Group Statistics |      |                |                 |
|---|------------------|------|----------------|-----------------|
| Healthworker/Patien   | nt N             | Mean | Std. Deviation | Std. Error Mean |
| AR1 When staff of the hospital Patient  | 35               | 3.20 | 1.471          | .249            |
| promise to do something by a Healthcare worker certain time, they do it               | 29               | 3.93 | .458           | .085            |
| AR2 The hospital provides every Patient   | 35               | 3.54 | 1.379          | .233            |
| patient individual attention Healthcare worker  | 29               | 4.10 | .489           | .091            |
| AR3 Hospital records are Patient  | 34               | 3.62 | 1.326          | .227            |
| accurate and error-free Healthcare worker   | 29               | 3.14 | 1.026          | .190            |
| AR4 The patient is diagnosed Patient  | 34               | 2.41 | 1.373          | .236            |
| right the first time Healthcare worker  | 28               | 3.68 | .983           | .186            |
| AR5 Levels of treatment and care Patient  | 35               | 3.66 | 1.305          | .221            |
| are consistently good Healthcare worker   | 28               | 4.14 | .591           | .112            |
| AA1 Nurses and doctors are Patient  | 36               | 4.06 | 1.218          | .203            |
| knowledgeable in their field of Healthcare worker medicine                            | 29               | 4.10 | .772           | .143            |
| AA2 Staff are able to use Patient   | 37               | 3.57 | 1.345          | .221            |
| hospital technology skilfully and Healthcare worker quickly                           | 29               | 4.07 | .593           | .110            |
| AA3 Nurses and doctors possess Patient  | 36               | 3.92 | 1.296          | .216            |
| the necessary skills to perform Healthcare worker their duties                        | 29               | 3.83 | .759           | .141            |
| AA4 Patients trust nurses and Patient   | 36               | 3.75 | 1.422          | .237            |
| doctors at this hospital Healthcare worker  | 29               | 4.07 | .593           | .110            |
| AT1 The hospital has up to date Patient   | 34               | 3.24 | 1.437          | .246            |
| equipment and technology Healthcare worker  | 29               | 3.72 | .922           | .171            |
| AT2 The hospital has the Patient  | 33               | 3.73 | 1.376          | .239            |
| necessary equipment in order to Healthcare worker provide proper care to all patients | 28               | 4.32 | .612           | .116            |
| AT3 Necessary medical Patient   | 32               | 3.47 | 1.391          | .246            |
| equipment e. g x-ray machine is Healthcare worker in good working order               | 29               | 3.97 | .499           | .093            |
| AT4 Bathrooms are very Patient  | 33               | 3.00 | 1.541          | .268            |
| hygienic Healthcare worker  | 29               | 3.83 | .711           | .132            |
| Patient   | 33               | 3.79 | 1.386          | .241            |

**Group Statistics** 

| AT5 There are sufficient clean            | Healthcare worker | 27 | 3.78 | .577  | .111 |
|---|-------------------|----|------|-------|------|
| beds for all patients                     |                   |    |      |       |      |
| AT6 Staff are neat and                    | Patient           | 33 | 3.88 | 1.453 | .253 |
| presentable                               | Healthcare worker | 29 | 4.38 | .494  | .092 |
| AT7 Surroundings are clean                | Patient           | 32 | 3.56 | 1.703 | .301 |
|   | Healthcare worker | 29 | 3.55 | .783  | .145 |
| AE1 Staff know and understand             | Patient           | 35 | 3.77 | 1.308 | .221 |
| patients' needs                           | Healthcare worker | 29 | 4.10 | .618  | .115 |
| AE2 Staff pay personal attention          | Patient           | 34 | 3.74 | 1.286 | .221 |
| to each person                            | Healthcare worker | 29 | 4.14 | .581  | .108 |
| AE3 The hospital fee is                   | Patient           | 36 | 3.64 | 1.477 | .246 |
| consistent with what patients can afford  | Healthcare worker | 29 | 4.14 | .639  | .119 |
| AE4 Staff are polite and show             | Patient           | 36 | 3.78 | 1.376 | .229 |
| respect                                   | Healthcare worker | 29 | 4.00 | .655  | .122 |
| AE5 Staff are able to clearly             | Patient           | 36 | 3.94 | 1.372 | .229 |
| explain to patients the various           | Healthcare worker | 29 | 4.03 | .421  | .078 |
| options of treatment and care available   |                   |    |      |       |      |
| ARP1 When there is a problem              | Patient           | 33 | 3.42 | 1.226 | .213 |
| staff respond quickly                     | Healthcare worker | 28 | 4.11 | .629  | .119 |
| ARP2 Staff are willing to answer          | Patient           | 33 | 3.94 | 1.197 | .208 |
| patients' questions                       | Healthcare worker | 28 | 4.21 | .499  | .094 |
| ARP3 It is easy for patients to           | Patient           | 31 | 3.61 | 1.358 | .244 |
|   | Healthcare worker | 28 | 3.96 | .637  | .120 |
| when they have a problem or need          |                   |    |      |       |      |
| ARP4 Employees of the hospital            | Patient           | 33 | 3.88 | 1.244 | .217 |
| are always willing to help their patients | Healthcare worker | 28 | 4.21 | .630  | .119 |
| ARP5 Treatment is explained to            | Patient           | 33 | 3.79 | 1.219 | .212 |
| the patient very clearly                  | Healthcare worker | 28 | 4.11 | .685  | .130 |

| Independent Samples Test  |  |       |        |        |                     |                    |                          |                             |          |  |  |
|---|--|-------|--------|--------|---------------------|--------------------|--------------------------|-----------------------------|----------|--|--|
|   | Levene's <sup>7</sup><br>Equalit<br>Variar | ty of |        |        | t-test              | for Equality       | of Means                 |                             |          |  |  |
|   |  |       |        |        |                     |                    |                          | 95% Con<br>Interva<br>Diffe | l of the |  |  |
|   | F  | Sig.  | Т      | df     | Sig. (2-<br>tailed) | Mean<br>Difference | Std. Error<br>Difference | Lower                       | Upper    |  |  |
| AR1 When staff Equal variances  | 54.884                                     | .000  | -2.572 | 62     | .013                | 731                | .284                     | -1.299                      | 163      |  |  |
| of the hospital assumed<br>promise to do Equal variances<br>something by a not assumed<br>certain time,<br>they do it |  |       | -2.782 | 41.710 | .008                | 731                | .263                     | -1.262                      | 201      |  |  |
| AR2 The Equal variances<br>hospital assumed<br>provides every Equal variances   |  | .000  |        | 62     | .042                | 561                | .269                     | -1.099                      | 022      |  |  |
| provides <sup>every</sup> Equal variances<br>patient not assumed<br>individual<br>attention                           |  |       | -2.241 | 43.864 | .030                | 561                | .250                     | -1.065                      | 056      |  |  |
| AR3 Hospital Equal variances<br>records are assumed   | 4.508                                      | .038  | 1.585  | 61     | .118                | .480               | .303                     | 126                         | 1.085    |  |  |
| accurate and Equal variances<br>error-free not assumed  |  |       | 1.617  | 60.466 | .111                | .480               | .297                     | 114                         | 1.073    |  |  |
| AR4 The patient Equal variances<br>is diagnosed assumed   | 7.420                                      | .008  | -4.091 | 60     | .000                | -1.267             | .310                     | -1.886                      | 647      |  |  |
| right the first Equal variances<br>time not assumed   |  |       | -4.223 | 58.953 | .000                | -1.267             | .300                     | -1.867                      | 666      |  |  |
| AR5 Levels of Equal variances treatment and assumed   | 14.739                                     | .000  | -1.824 | 61     | .073                | 486                | .266                     | -1.018                      | .047     |  |  |
| care <sup>are</sup> Equal variances<br>consistently not assumed<br>good   |  |       | -1.965 | 49.566 | .055                | 486                | .247                     | 982                         | .011     |  |  |
| AA1 Nurses and Equal variances<br>doctors are assumed   |  | .031  | 184    | 63     | .855                | 048                | .260                     | 568                         | .472     |  |  |
| knowledgeable Equal variances<br>in their field of <sub>not</sub> assumed<br>medicine                                 |  |       | 193    | 59.979 | .848                | 048                | .248                     | 545                         | .449     |  |  |

#### Independent Samples Test

| AA2 Staff are Equal variances able to use assumed  | 21.664 | .000 | -1.868 | 64     | .066 | 501  | .268 | -1.038 | .035 |
|--|--------|------|--------|--------|------|------|------|--------|------|
| hospital Equal variances<br>technology not assumed<br>skilfully and  |        |      | -2.030 | 51.992 | .047 | 501  | .247 | 997    | 006  |
| quickly  |        |      |        |        |      |      |      |        |      |
| AA3 Nurses and Equal variances doctors possess assumed   | 7.548  | .008 | .327   | 63     | .744 | .089 | .272 | 455    | .633 |
| the necessary Equal variances<br>skills to perform not assumed<br>their duties                             |        |      | .345   | 58.019 | .731 | .089 | .258 | 427    | .605 |
| AA4 Patients Equal variances<br>trust nurses and assumed   | 25.279 | .000 | -1.130 | 63     | .263 | 319  | .282 | 883    | .245 |
| doctors at this Equal variances<br>hospital not assumed  |        |      | -1.221 | 48.918 | .228 | 319  | .261 | 844    | .206 |
| AT1 The Equal variances<br>hospital has up assumed   | 7.247  | .009 | -1.576 | 61     | .120 | 489  | .310 | -1.109 | .132 |
| to date Equal variances<br>equipment and <sub>not assumed</sub><br>technology                              |        |      | -1.629 | 56.916 | .109 | 489  | .300 | -1.090 | .112 |
| AT2 The Equal variances hospital has the assumed   | 13.264 | .001 | -2.113 | 59     | .039 | 594  | .281 | -1.157 | 032  |
| necessary Equal variances<br>equipment in <sub>not assumed</sub><br>order to provide<br>proper care to all |        |      | -2.234 | 45.717 | .030 | 594  | .266 | -1.129 | 059  |
| patients<br>AT3 Necessary Equal variances<br>medical assumed   | 32.170 | .000 | -1.819 | 59     | .074 | 497  | .273 | -1.043 | .050 |
| equipment e. g Equal variances<br>x-ray machine not assumed<br>is in good<br>working order                 |        |      | -1.891 | 39.541 | .066 | 497  | .263 | -1.028 | .034 |
| AT4 Bathrooms Equal variances<br>are very assumed  | 27.192 | .000 | -2.653 | 60     | .010 | 828  | .312 | -1.452 | 204  |
| hygienic Equal variances<br>not assumed  |        |      | -2.768 | 46.262 | .008 | 828  | .299 | -1.429 | 226  |
| AT5 There are Equal variances sufficient clean assumed   | 17.429 | .000 | .035   | 58     | .972 | .010 | .285 | 561    | .581 |

| •                                |                                |        |      |        |        |      |      |      |        | _    |
|----------------------------------|--------------------------------|--------|------|--------|--------|------|------|------|--------|------|
| beds for all patients            | Equal variances not assumed    |        |      | .038   | 44.539 | .970 | .010 | .266 | 525    | .545 |
|                                  | Equal variances assumed        | 17.179 | .000 | -1.767 | 60     | .082 | 501  | .283 | -1.067 | .066 |
| presentable                      | Equal variances not assumed    |        |      | -1.861 | 40.176 | .070 | 501  | .269 | -1.044 | .043 |
| AT7<br>Surroundings              | Equal variances assumed        | 31.232 | .000 | .031   | 59     | .975 | .011 | .345 | 680    | .702 |
| are clean                        | Equal variances not assumed    |        |      | .032   | 44.478 | .974 | .011 | .334 | 663    | .684 |
| AE1 Staff know and understand    | Equal variances assumed        | 13.939 | .000 | -1.255 | 62     | .214 | 332  | .265 | 861    | .197 |
| patients' needs                  | Equal variances not assumed    |        |      | -1.333 | 50.345 | .189 | 332  | .249 | 832    | .168 |
| AE2 Staff pay<br>personal        | Equal variances assumed        | 13.416 | .001 | -1.554 | 61     | .125 | 403  | .259 | 921    | .115 |
| attention to each<br>person      | Equal variances not assumed    |        |      | -1.639 | 47.465 | .108 | 403  | .246 | 897    | .091 |
| AE3 The hospital fee is          | Equal variances assumed        | 25.776 | .000 | -1.695 | 63     | .095 | 499  | .294 | -1.088 | .089 |
|                                  | Equal variances<br>not assumed |        |      | -1.826 | 49.818 | .074 | 499  | .273 | -1.048 | .050 |
| AE4 Staff are polite and show    | Equal variances assumed        | 14.880 | .000 | 799    | 63     | .427 | 222  | .278 | 778    | .333 |
| respect                          | Equal variances not assumed    |        |      | 856    | 52.283 | .396 | 222  | .259 | 743    | .298 |
| AE5 Staff are<br>able to clearly | Equal variances assumed        | 21.906 | .000 | 340    | 63     | .735 | 090  | .265 | 619    | .439 |
|                                  |                                |        |      | 373    | 42.931 | .711 | 090  | .242 | 577    | .397 |
| ARP1 When                        | Equal variances assumed        | 16.370 | .000 | -2.664 | 59     | .010 | 683  | .256 | -1.196 | 170  |
|                                  | Equal variances                |        |      | -2.796 | 49.315 | .007 | 683  | .244 | -1.174 | 192  |

| ARP2 Staff are Equal variances  | 9.318  | .003 | -1.133 | 59     | .262 | 275 | .243 | 760 | .211 |
|---|--------|------|--------|--------|------|-----|------|-----|------|
| willing to assumed<br>answer patients' Equal variances<br>questions not assumed |        |      | -1.202 | 44.230 | .236 | 275 | .229 | 736 | .186 |
| ARP3 It is easy Equal variances   | 20.789 | .000 | -1.249 | 57     | .217 | 351 | .281 | 915 | .212 |
| for patients to assumed   |        |      |        |        |      |     |      |     |      |
| talk to Equal variances   |        |      | -1.291 | 43.529 | .203 | 351 | .272 | 900 | .197 |
| knowledgeable not assumed   |        |      |        |        |      |     |      |     |      |
| staff when they   |        |      |        |        |      |     |      |     |      |
| have a problem  |        |      |        |        |      |     |      |     |      |
| or need   |        |      |        |        |      |     |      |     |      |
| ARP4 Equal variances  | 13.454 | .001 | -1.292 | 59     | .201 | 335 | .260 | 855 | .184 |
| Employees of assumed  |        |      |        |        |      |     |      |     |      |
| the hospital are Equal variances  |        |      | -1.358 | 48.966 | .181 | 335 | .247 | 832 | .161 |
| always willing not assumed  |        |      |        |        |      |     |      |     |      |
| to help their   |        |      |        |        |      |     |      |     |      |
| patients  |        |      |        |        |      |     |      |     |      |
| ARP5 Equal variances  | 9.097  | .004 | -1.230 | 59     | .224 | 319 | .260 | 839 | .200 |
| Treatment is assumed  |        |      |        |        |      |     |      |     |      |
| explained to the Equal variances  |        |      | -1.285 | 51.775 | .205 | 319 | .249 | 818 | .179 |
| patient very not assumed  |        |      |        |        |      |     |      |     |      |
| clearly   |        |      |        |        |      |     |      |     |      |

## **APPENDIX E**

#### **EXPECTATIONS**

Differences in agreement between patients and workers are present in the below tables, significant differences are shown in red.

| Gr  | oup Statistics |      |                |                 |
|---|----------------|------|----------------|-----------------|
| Healthworker/Patient  | Ν              | Mean | Std. Deviation | Std. Error Mean |
| BR1 When staff of the hospital Patient  | 34             | 3.41 | 1.373          | .236            |
| promise to do something by a Healthcare worker certain time, they should do it        | 28             | 4.11 | .685           | .130            |
| BR2 The hospital should provide Patient   | 33             | 3.67 | 1.362          | .237            |
| individual attention to every Healthcare worker patient                               | 28             | 4.07 | .716           | .135            |
| BR3 Hospital records should be Patient  | 33             | 3.76 | 1.173          | .204            |
| accurate and error-free Healthcare worker   | 28             | 3.82 | .612           | .116            |
| BR4 The patient should be Patient   | 34             | 3.71 | 1.338          | .229            |
| diagnosed right the first time Healthcare worker                                      | 28             | 4.14 | .591           | .112            |
| BR5 The levels of treatment and Patient   | 35             | 4.06 | 1.305          | .221            |
| care should be consistently good Healthcare worker                                    | 28             | 4.25 | .518           | .098            |
| BA1 Nurses and doctors should Patient   | 33             | 4.24 | 1.200          | .209            |
| be knowledgeable in their field of Healthcare worker medicine                         | 29             | 4.34 | .614           | .114            |
| BA2 Staff should be able to use Patient   | 32             | 3.97 | 1.257          | .222            |
| hospital technology skilfully and Healthcare worker quickly                           | 29             | 4.10 | .557           | .103            |
| BA3 Nurses and doctors should Patient   | 33             | 4.00 | 1.250          | .218            |
| possess the necessary skills to Healthcare worker perform their duties                | 29             | 4.34 | .553           | .103            |
| BA4 Nurses and doctors should Patient   | 32             | 3.91 | 1.228          | .217            |
| be trusted by patients at this Healthcare worker hospital                             | 29             | 4.41 | .501           | .093            |
| BT1 The hospital should have up Patient   | 34             | 4.00 | 1.255          | .215            |
| to date equipment and Healthcare worker technology                                    | 29             | 4.31 | .712           | .132            |
| BT2 The hospital should have the Patient  | 34             | 4.12 | 1.250          | .214            |
| necessary equipment in order to Healthcare worker provide proper care to all patients | 29             | 4.34 | .670           | .124            |
| BT3 Necessary medical Patient   | 33             | 4.27 | 1.232          | .214            |
| equipment, e.g. x-ray machine, Healthcare worker should be in good working order      | 27             | 4.41 | .694           | .134            |
| BT4 Bathrooms should be very Patient  | 33             | 4.03 | 1.510          | .263            |
| hygienic Healthcare worker  | 29             | 4.48 | .509           | .094            |
| Patient   | 35             | 4.40 | 1.063          | .180            |

| BT5 There should be sufficient Healthcare worker clean beds for all patients       | 27 | 4.37 | .688  | .132 |
|--|----|------|-------|------|
| BT6 Staff should be neat and Patient   | 35 | 4.43 | 1.037 | .175 |
| presentable Healthcare worker  | 29 | 4.48 | .509  | .094 |
| BT7 Surroundings should be Patient   | 35 | 4.49 | 1.173 | .198 |
| clean Healthcare worker  | 27 | 4.37 | .742  | .143 |
| BE1 Staff should know and Patient  | 33 | 4.00 | 1.173 | .204 |
| understand patients' needs Healthcare worker                                       | 28 | 4.18 | .548  | .104 |
| BE2 Staff should pay personal Patient  | 31 | 4.00 | 1.155 | .207 |
| attention to each patient Healthcare worker  | 28 | 4.32 | .548  | .104 |
| BE3 The hospital fee should be Patient   | 32 | 4.28 | 1.198 | .212 |
| consistent with what patients can Healthcare worker afford                         | 28 | 4.25 | .518  | .098 |
| BE4 Staff should be polite and Patient   | 32 | 4.34 | 1.035 | .183 |
| show respect Healthcare worker   | 28 | 4.29 | .535  | .101 |
| BE5 Staff should be able to Patient  | 32 | 4.22 | 1.211 | .214 |
| clearly explain to patients the Healthcare worker various options of treatment and | 28 | 4.39 | .497  | .094 |
| care available   |    |      |       |      |
| BRP1 Staff should respond Patient  | 35 | 3.71 | 1.319 | .223 |
| quickly when there is a problem Healthcare worker                                  | 28 | 4.36 | .559  | .106 |
| BRP2 Staff should be willing to Patient  | 34 | 4.06 | 1.347 | .231 |
| answer patients' questions Healthcare worker                                       | 28 | 4.50 | .509  | .096 |
| BRP3 It should be easy for Patient   | 34 | 3.94 | 1.254 | .215 |
| patients to talk to knowledgeable Healthcare worker                                | 28 | 4.39 | .567  | .107 |
| staff when they have a problem or need   |    |      |       |      |
| BRP4 Employees of the hospital Patient   | 34 | 4.00 | 1.303 | .223 |
| should always be willing to help Healthcare worker                                 | 28 | 4.43 | .504  | .095 |
| their patients   |    |      |       |      |
| BRP5 Treatment should be Patient   | 33 | 4.42 | 1.032 | .180 |
| explained to the patient very Healthcare worker clearly                            | 28 | 4.39 | .629  | .119 |

| Independent Samples Test  |                                |       |        |        |                     |                    |                          |                            |          |  |  |
|---|--------------------------------|-------|--------|--------|---------------------|--------------------|--------------------------|----------------------------|----------|--|--|
|   | Levene's '<br>Equali<br>Variai | ty of |        |        | t-test              | for Equality       | of Means                 |                            |          |  |  |
|   |                                |       |        |        |                     |                    |                          | 95% Co<br>Interva<br>Diffe | l of the |  |  |
|   | F                              | Sig.  | t      | df     | Sig. (2-<br>tailed) | Mean<br>Difference | Std. Error<br>Difference | Lower                      | Upper    |  |  |
| BR1 When staff Equal variances of the hospital assumed  | 17.821                         | .000  | -2.439 | 60     | .018                | 695                | .285                     | -1.266                     | 125      |  |  |
| promise to do <sub>Equal</sub> variances<br>something by a <sub>not</sub> assumed<br>certain time,<br>they should do it |                                |       | -2.587 | 50.346 | .013                | 695                | .269                     | -1.235                     | 156      |  |  |
| BR2 The Equal variances<br>hospital should assumed  | 15.957                         | .000  | -1.414 | 59     | .163                | 405                | .286                     | 977                        | .168     |  |  |
| provide Equal variances<br>individual not assumed<br>attention to<br>every patient                                      |                                |       | -1.483 | 49.980 | .144                | 405                | .273                     | 953                        | .144     |  |  |
| BR3 Hospital Equal variances records should assumed   | 13.783                         | .000  | 259    | 59     | .796                | 064                | .246                     | 556                        | .429     |  |  |
| be accurate and Equal variances<br>error-free not assumed   |                                |       | 272    | 49.740 | .787                | 064                | .235                     | 535                        | .408     |  |  |
| BR4 The patient Equal variances should be assumed   | 19.164                         | .000  | -1.603 | 60     | .114                | 437                | .273                     | 982                        | .108     |  |  |
| diagnosed right Equal variances<br>the first time not assumed   |                                |       | -1.713 | 47.248 | .093                | 437                | .255                     | 950                        | .076     |  |  |
| BR5 The levels Equal variances of treatment and assumed   | 7.357                          | .009  | 736    | 61     | .464                | 193                | .262                     | 717                        | .331     |  |  |
| care should be Equal variances<br>consistently not assumed<br>good  |                                |       | 799    | 46.454 | .428                | 193                | .241                     | 678                        | .293     |  |  |
| BA1 Nurses and Equal variances doctors should assumed   | 4.394                          | .040  | 414    | 60     | .680                | 102                | .247                     | 597                        | .392     |  |  |
| be Equal variances<br>knowledgeable not assumed<br>in their field of<br>medicine  |                                |       | 430    | 48.943 | .669                | 102                | .238                     | 581                        | .376     |  |  |

#### Independent Samples Test

|  |                                |        |      |        |        |      |     | -    |        |      |
|--|--------------------------------|--------|------|--------|--------|------|-----|------|--------|------|
| BA2 Staff E<br>should be able to a   | Equal variances<br>assumed     | 10.290 | .002 | 531    | 59     | .597 | 135 | .253 | 642    | .372 |
| use hospital <sub>E</sub>  | Equal variances<br>not assumed |        |      | 550    | 43.628 | .585 | 135 | .245 | 629    | .359 |
| BA3 Nurses and E<br>doctors should a   | -                              | 6.521  | .013 | -1.371 | 60     | .175 | 345 | .251 | 848    | .158 |
| possess the <sub>E</sub><br>necessary skills <sub>r</sub><br>to perform their<br>duties              | Equal variances<br>not assumed |        |      | -1.433 | 45.260 | .159 | 345 | .241 | 829    | .140 |
| BA4 Nurses and E<br>doctors should a   | -                              | 6.850  | .011 | -2.074 | 59     | .042 | 508 | .245 | 997    | 018  |
| be trusted by <sub>E</sub><br>patients at this <sub>r</sub><br>hospital                              | Equal variances<br>not assumed |        |      | -2.149 | 41.885 | .037 | 508 | .236 | 984    | 031  |
| BT1 The E<br>hospital should a   | Equal variances<br>assumed     | 3.980  | .051 | -1.178 | 61     | .243 | 310 | .263 | 837    | .216 |
| have up to date <sub>H</sub><br>equipment and <sub>r</sub><br>technology                             | Equal variances<br>10t assumed |        |      | -1.228 | 53.614 | .225 | 310 | .253 | 817    | .196 |
| BT2 The E<br>hospital should a   | Equal variances<br>assumed     | 7.226  | .009 | 877    | 61     | .384 | 227 | .259 | 745    | .291 |
| nacconn  | Equal variances<br>not assumed |        |      | 917    | 52.009 | .363 | 227 | .248 | 724    | .270 |
| BT3 Necessary E<br>medical a   | Equal variances<br>assumed     | 3.689  | .060 | 506    | 58     | .615 | 135 | .266 | 668    | .398 |
| equipment, e.g. <sub>H</sub><br>x-ray machine, <sub>r</sub><br>should be in<br>good working<br>order | Equal variances<br>not assumed |        |      | 533    | 52.009 | .596 | 135 | .253 | 642    | .372 |
| BT4 Bathrooms F<br>should be very a  | -                              | 22.012 | .000 | -1.537 | 60     | .129 | 452 | .294 | -1.041 | .136 |
|  | Equal variances<br>not assumed |        |      | -1.620 | 40.031 | .113 | 452 | .279 | -1.017 | .112 |

| 1.598 | .211   | .126  | 60   | .900  | .030  | .235  | 441   | .501  |
|-------|--|---|--|---|---|---|---|---|
|       |  | .133  | 58.420   | .895  | .030  | .223  | 417   | .476  |
| 3.697 | .059   | 257   | 62   | .798  | 054   | .211  | 476   | .368  |
|       |  | 272   | 51.345   | .787  | 054   | .199  | 454   | .346  |
| 1.102 | .298   | .446  | 60   | .657  | .115  | .258  | 401   | .632  |
|       |  | .472  | 58.005   | .638  | .115  | .244  | 374   | .604  |
| 2.992 | .089   | 740   | 59   | .463  | 179   | .241  | 662   | .305  |
|       |  | 780   | 46.909   | .439  | 179   | .229  | 639   | .282  |
| 1.638 | .206   | -1.342  | 57   | .185  | 321   | .240  | 801   | .158  |
|       |  | -1.387  | 43.799   | .173  | 321   | .232  | 789   | .146  |
| 6.723 | .012   | .128  | 58   | .899  | .031  | .244  | 458   | .520  |
|       |  | .134  | 43.402   | .894  | .031  | .233  | 439   | .502  |
| 3.836 | .055   | .267  | 58   | .790  | .058  | .217  | 377   | .493  |
|       |  | .278  | 47.687   | .782  | .058  | .209  | 362   | .478  |
| 6.643 | .013   | 710   | 58   | .481  | 174   | .245  | 665   | .317  |
|       |  | 745   | 42.297   | .461  | 174   | .234  | 646   | .298  |
|       | 3.697<br>1.102<br>2.992<br>1.638<br>6.723<br>3.836 | 3.697       .059         3.697       .059         1.102       .298         2.992       .089         1.638       .206         6.723       .012         3.836       .055         6.643       .013 | .133         3.697       .059      257         1.102       .298       .446         .102       .298       .446         .103       .298       .446         .102       .298       .446         .103       .208      740         1.638       .206       -1.342         1.638       .206       -1.342         6.723       .012       .128         3.836       .055       .267         3.836       .055       .267         6.643       .013      710 | .13358.4203.697.0592576227251.34527251.3451.102.298.44660.47258.005.47258.0052.992.089740591.638.206-1.342571.638.206-1.342576.723.012.128583.836.055.267583.836.013710586.643.01371058 | 133       58.420      895         3.697       .059      257       62      798         1.102       .298      446       60      657         1.102       .298      472       58.005      638         2.992       .089      740       59      463         1.638       .206       -1.342       57       .185         1.638       .206       -1.342       57       .185         6.723       .012       .128       58       .899         3.836       .055       .267       58       .899         3.836       .055       .267       58       .790         3.836       .013      710       58       .790         6.643       .013      710       58       .481 | 1.133       58.420      895      030         3.697       .059      257       62       .798      054         1.102       .298       .446       60       .657       .115         1.102       .298       .446       60       .657       .115         2.992       .089      740       58.005       .638       .115         1.638       .206       -1.342       57       .185      179         1.638       .206       -1.342       57       .185      321         1.638       .206       -1.342       57       .185      321         6.723       .012       .128       58       .899       .031         3.836       .055       .267       58       .790       .058         3.836       .055       .267       58       .790       .058         6.643       .013      710       58       .481       .174 | 1.133         58.420        895        030        223           3.697         0.059        257         62         7.78        054         2.211           1.102         2.98        446         60        657         1.115        258           1.102         2.98        446         60        657         1.115        258           2.992         0.89        740         59        463        179        244           2.992         0.89        740         59        463        179        244           1.638        206         -1.342         577        185        321        240           1.638        206         -1.342         577        185        321        240           1.638        206         -1.342         577        185        321        240           1.638        012        128         58        899        031        244           1.334         43.402        894        031        244           3.836        055        267         .58        790        058        217 | 1.133         58.420        895        030        223        417           3.697         0.059        257         62        798        054        211        476           1.102        298        446         60        657        115        258        401           1.102        298        446         60        657        115        244        374           2.992        089        740         58.005        638        115        244        374           1.638        206        374         65.09        463        179        241        662           1.638        206        374         65.09        463        179        241        662           1.638        206        342        57        185        321        243        801           1.638        206        134         43.79        133        321        244        438           6.723        012        134         43.402        894        031        243        439           3.836        055 |

| BRP1 Staff Equal variances  | 13.967 | .000 | -2.409 | 61     | .019 | 643  | .267 | -1.176 | 109  |
|---|--------|------|--------|--------|------|------|------|--------|------|
| should respond assumed<br>quickly when Equal variances<br>there is a <sub>not</sub> assumed<br>problem    |        |      | -2.606 | 47.928 | .012 | 643  | .247 | -1.139 | 147  |
| BRP2 Staff Equal variances should be assumed  | 8.697  | .005 | -1.637 | 60     | .107 | 441  | .269 | 980    | .098 |
| willing <sup>to</sup> Equal variances<br>answer patients' not assumed<br>questions                        |        |      | -1.763 | 43.831 | .085 | 441  | .250 | 946    | .063 |
| BRP3 It should Equal variances<br>be easy for assumed   | 5.785  | .019 | -1.762 | 60     | .083 | 452  | .256 | 965    | .061 |
| patients to talk Equal variances<br>to not assumed<br>knowledgeable<br>staff when they                    |        |      | -1.880 | 47.817 | .066 | 452  | .240 | 935    | .031 |
| have a problem<br>or need   |        |      |        |        |      |      |      |        |      |
| BRP4 Equal variances<br>Employees of assumed  | 7.213  | .009 | -1.641 | 60     | .106 | 429  | .261 | 951    | .094 |
| the hospital Equal variances<br>should always not assumed<br>be willing to<br>help their<br>patients      |        |      | -1.765 | 44.296 | .085 | 429  | .243 | 918    | .061 |
| BRP5 Equal variances<br>Treatment assumed   | 1.409  | .240 | .140   | 59     | .889 | .031 | .224 | 416    | .479 |
| freatment assumed<br>should be Equal variances<br>explained to the not assumed<br>patient very<br>clearly |        |      | .146   | 53.911 | .885 | .031 | .215 | 400    | .463 |

## **APPENDIX F**

## GAP ANALYSIS ACROSS GROUPS

The only significant difference in gaps between groups is shown in red, which is GapR4 – the patient should be diagnosed right the first time.

| -     | -                    | Group S | Statistics |                | -               |
|-------|----------------------|---------|------------|----------------|-----------------|
|       | Healthworker/Patient | Ν       | Mean       | Std. Deviation | Std. Error Mean |
| GapR1 | Patient              | 33      | .21        | 1.654          | .288            |
|       | Healthcare worker    | 28      | .18        | .670           | .127            |
| GapR2 | Patient              | 32      | .03        | 1.555          | .275            |
|       | Healthcare worker    | 28      | 04         | .793           | .150            |
| GapR3 | Patient              | 30      | .10        | 1.185          | .216            |
|       | Healthcare worker    | 28      | .68        | 1.307          | .247            |
| GapR4 | Patient              | 32      | 1.34       | 1.494          | .264            |
|       | Healthcare worker    | 27      | .48        | 1.252          | .241            |
| GapR5 | Patient              | 33      | .39        | 1.560          | .272            |
|       | Healthcare worker    | 27      | .11        | .801           | .154            |
| GapA1 | Patient              | 33      | .27        | 1.353          | .235            |
|       | Healthcare worker    | 29      | .24        | .872           | .162            |
| GapA2 | Patient              | 32      | .38        | 1.289          | .228            |
|       | Healthcare worker    | 29      | .03        | .680           | .126            |
| GapA3 | Patient              | 32      | 03         | 1.470          | .260            |
|       | Healthcare worker    | 29      | .52        | .829           | .154            |
| GapA4 | Patient              | 32      | .09        | 1.489          | .263            |
|       | Healthcare worker    | 29      | .34        | .814           | .151            |
| GapT1 | Patient              | 32      | .75        | 1.344          | .238            |
|       | Healthcare worker    | 29      | .59        | 1.150          | .214            |
| GapT2 | Patient              | 31      | .39        | 1.283          | .230            |
|       | Healthcare worker    | 28      | .07        | .766           | .145            |
| GapT3 | Patient              | 29      | .83        | 1.391          | .258            |
|       | Healthcare worker    | 27      | .48        | .643           | .124            |
| GapT4 | Patient              | 30      | 1.23       | 1.695          | .310            |
|       | Healthcare worker    | 29      | .66        | .857           | .159            |
| GapT5 | Patient              | 32      | .56        | 1.318          | .233            |
|       | Healthcare worker    | 27      | .59        | .844           | .162            |
| GapT6 | Patient              | 32      | .50        | 1.368          | .242            |
|       | Healthcare worker    | 29      | .10        | .724           | .135            |
| GapT7 | Patient              | 31      | 1.03       | 1.622          | .291            |
|       | Healthcare worker    | 27      | .74        | .984           | .189            |

Group Statistics

| GapE1  | Patient           | 32 | .28 | 1.085 | .192 |
|--------|-------------------|----|-----|-------|------|
|        | Healthcare worker | 28 | .07 | .766  | .145 |
| GapE2  | Patient           | 29 | .52 | 1.243 | .231 |
|        | Healthcare worker | 28 | .18 | .772  | .146 |
| GapE3  | Patient           | 31 | .48 | 1.503 | .270 |
|        | Healthcare worker | 28 | .11 | .629  | .119 |
| GapE4  | Patient           | 31 | .42 | .923  | .166 |
|        | Healthcare worker | 28 | .32 | .863  | .163 |
| GapE5  | Patient           | 31 | .13 | 1.204 | .216 |
|        | Healthcare worker | 28 | .39 | .685  | .130 |
| GapRP1 | Patient           | 31 | .45 | 1.524 | .274 |
|        | Healthcare worker | 27 | .26 | .903  | .174 |
| GapRP2 | Patient           | 30 | .20 | 1.031 | .188 |
|        | Healthcare worker | 27 | .26 | .712  | .137 |
| GapRP3 | Patient           | 28 | .39 | 1.370 | .259 |
|        | Healthcare worker | 27 | .41 | .747  | .144 |
| GapRP4 | Patient           | 30 | .23 | 1.251 | .228 |
|        | Healthcare worker | 27 | .19 | .786  | .151 |
| GapRP5 | Patient           | 29 | .66 | 1.173 | .218 |
|        | Healthcare worker | 27 | .30 | .993  | .191 |

Now, for each of the five constructs, for both expectations and experiences, single construct scores will be found by averaging scores across items in the construct.

These single scores will be tested for reliability using Cronbach's alpha (should be >.7 for reliability); then analysis will be done as above to test for sig agreement and comparison across groups.

Formation of single measures -reliability

| Section    | Construct      | questions | Alpha |
|------------|----------------|-----------|-------|
| EXPERIENCE | Reliability    | AR1–AR5   | .701  |
|            | Assurance      | AA1-AA4   | .787  |
|            | Tangibles      | AT1-AT7   | .866  |
|            | Empathy        | AE1-AE5   | .847  |
|            | Responsiveness | ARP1-ARP5 | .863  |

| EXPECTATIONS | Reliability    | BR1-BR5   | .848 |
|--------------|----------------|-----------|------|
|              | Assurance      | BA1-BA4   | .780 |
|              | Tangibles      | BT1-BT7   | .920 |
|              | Empathy        | BE1-BE5   | .909 |
|              | Responsiveness | BRP1-BRP5 | .909 |

These values of alpha are all >.7 thus indicating reliability of single construct measures.

Testing for significant agreement/disagreement

| One-Sample Statistics |    |        |                |                 |  |  |  |  |
|-----------------------|----|--------|----------------|-----------------|--|--|--|--|
|                       | Ν  | Mean   | Std. Deviation | Std. Error Mean |  |  |  |  |
| AR                    | 64 | 3.5161 | .79153         | .09894          |  |  |  |  |
| AA                    | 66 | 3.8914 | .92265         | .11357          |  |  |  |  |
| AT                    | 63 | 3.6769 | .93873         | .11827          |  |  |  |  |
| AE                    | 65 | 3.8985 | .90975         | .11284          |  |  |  |  |
| ARP                   | 61 | 3.9057 | .80395         | .10294          |  |  |  |  |
| BR                    | 63 | 3.8651 | .90182         | .11362          |  |  |  |  |
| BA                    | 62 | 4.1465 | .81450         | .10344          |  |  |  |  |
| BT                    | 64 | 4.3150 | .82064         | .10258          |  |  |  |  |
| BE                    | 61 | 4.1820 | .86670         | .11097          |  |  |  |  |
| BRP                   | 63 | 4.1492 | .98241         | .12377          |  |  |  |  |

| -   |        |                              | one be | imple Test                                   |        |        |  |  |  |  |  |
|-----|--------|------------------------------|--------|--|--------|--------|--|--|--|--|--|
|     |        | Test Value = 3               |        |  |        |        |  |  |  |  |  |
|     |        |                              |        | 95% Confidence Interval of the<br>Difference |        |        |  |  |  |  |  |
|     | t      | df Sig. (2-tailed) Mean Diff |        | Mean Difference                              | Lower  | Upper  |  |  |  |  |  |
| AR  | 5.217  | 63                           | .000   | .51615                                       | .3184  | .7139  |  |  |  |  |  |
| AA  | 7.849  | 65                           | .000   | .89141                                       | .6646  | 1.1182 |  |  |  |  |  |
| AT  | 5.723  | 62                           | .000   | .67687                                       | .4405  | .9133  |  |  |  |  |  |
| AE  | 7.962  | 64                           | .000   | .89846                                       | .6730  | 1.1239 |  |  |  |  |  |
| ARP | 8.799  | 60                           | .000   | .90574                                       | .6998  | 1.1116 |  |  |  |  |  |
| BR  | 7.614  | 62                           | .000   | .86508                                       | .6380  | 1.0922 |  |  |  |  |  |
| BA  | 11.084 | 61                           | .000   | 1.14651                                      | .9397  | 1.3533 |  |  |  |  |  |
| BT  | 12.819 | 63                           | .000   | 1.31503                                      | 1.1100 | 1.5200 |  |  |  |  |  |
| BE  | 10.651 | 60                           | .000   | 1.18197                                      | .9600  | 1.4039 |  |  |  |  |  |
| BRP | 9.285  | 62                           | .000   | 1.14921                                      | .9018  | 1.3966 |  |  |  |  |  |

**One-Sample Test** 

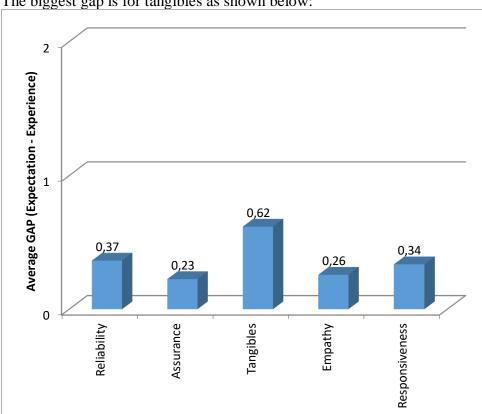
## GAP analysis

| One-Sample Statistics |    |       |                |                 |  |  |  |  |
|-----------------------|----|-------|----------------|-----------------|--|--|--|--|
|                       | Ν  | Mean  | Std. Deviation | Std. Error Mean |  |  |  |  |
| GapR                  | 61 | .3650 | .75869         | .09714          |  |  |  |  |
| GapA                  | 62 | .2258 | .80064         | .10168          |  |  |  |  |
| GapT                  | 62 | .6190 | .91209         | .11584          |  |  |  |  |
| GapE                  | 60 | .2583 | .72446         | .09353          |  |  |  |  |
| GapRP                 | 58 | .3371 | .75548         | .09920          |  |  |  |  |

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|       | One-Sample Test |  |                 |                 |       |       |  |  |  |  |  |
|-------|-----------------|--|-----------------|-----------------|-------|-------|--|--|--|--|--|
|       |                 | Test Value = 0                               |                 |                 |       |       |  |  |  |  |  |
|       |                 | 95% Confidence Interval of the<br>Difference |                 |                 |       |       |  |  |  |  |  |
|       | t               | df   | Sig. (2-tailed) | Mean Difference | Lower | Upper |  |  |  |  |  |
| GapR  | 3.758           | 60   | .000            | .36503          | .1707 | .5593 |  |  |  |  |  |
| GapA  | 2.221           | 61   | .030            | .22581          | .0225 | .4291 |  |  |  |  |  |
| GapT  | 5.344           | 61   | .000            | .61897          | .3873 | .8506 |  |  |  |  |  |
| GapE  | 2.762           | 59   | .008            | .25833          | .0712 | .4455 |  |  |  |  |  |
| GapRP | 3.398           | 57   | .001            | .33707          | .1384 | .5357 |  |  |  |  |  |

They all show a significant gap in expectations and experiences in all dimensions.



The biggest gap is for tangibles as shown below:

GAP measures for dimensions and across gender, income and age

|       | Group Statistics |    |       |                |                 |  |  |  |  |
|-------|------------------|----|-------|----------------|-----------------|--|--|--|--|
|       | Gender           | Ν  | Mean  | Std. Deviation | Std. Error Mean |  |  |  |  |
| GapR  | Male             | 24 | .5861 | .66135         | .13500          |  |  |  |  |
|       | Female           | 37 | .2216 | .79132         | .13009          |  |  |  |  |
| GapA  | Male             | 24 | .6146 | .73754         | .15055          |  |  |  |  |
|       | Female           | 38 | 0197  | .74748         | .12126          |  |  |  |  |
| GapT  | Male             | 24 | .5446 | .70509         | .14393          |  |  |  |  |
|       | Female           | 38 | .6659 | 1.02793        | .16675          |  |  |  |  |
| GapE  | Male             | 23 | .3522 | .78385         | .16344          |  |  |  |  |
|       | Female           | 37 | .2000 | .68961         | .11337          |  |  |  |  |
| GapRP | Male             | 22 | .5364 | .68837         | .14676          |  |  |  |  |
|       | Female           | 36 | .2153 | .77780         | .12963          |  |  |  |  |

**Group Statistics** 

| -     |                             |       |   |       |        | pies rest           |                    |                          |   |         |
|-------|-----------------------------|-------|---|-------|--------|---------------------|--------------------|--------------------------|---|---------|
|       |                             |       | Levene's Test for<br>Equality of Variances t-test for Equality of Means |       |        |                     |                    | ty of Means              |   |         |
|       |                             |       |   |       |        |                     |                    |                          | 95% Confidence<br>Interval of the<br>Difference |         |
|       |                             | F     | Sig.  | t     | df     | Sig. (2-<br>tailed) | Mean<br>Difference | Std. Error<br>Difference | Lower   | Upper   |
| GapR  | Equal variances assumed     | .096  | .758  | 1.871 | 59     | .066                | .36449             | .19483                   | 02537   | .75435  |
|       | Equal variances not assumed |       |   | 1.944 | 55.161 | .057                | .36449             | .18748                   | 01120   | .74018  |
| GapA  | Equal variances<br>assumed  | .192  | .663  | 3.271 | 60     | .002                | .63432             | .19390                   | .24645  | 1.02219 |
|       | Equal variances not assumed |       |   | 3.281 | 49.556 | .002                | .63432             | .19331                   | .24596  | 1.02268 |
| GapT  | Equal variances<br>assumed  | 1.821 | .182  | 507   | 60     | .614                | 12127              | .23928                   | 59990   | .35735  |
|       | Equal variances not assumed |       |   | 551   | 59.522 | .584                | 12127              | .22028                   | 56196   | .31942  |
| GapE  | Equal variances<br>assumed  | .572  | .452  | .789  | 58     | .434                | .15217             | .19298                   | 23413   | .53847  |
|       | Equal variances not assumed |       |   | .765  | 42.281 | .449                | .15217             | .19891                   | 24917   | .55352  |
| GapRP | equal variances assumed     | .059  | .809  | 1.592 | 56     | .117                | .32109             | .20175                   | 08307   | .72524  |
|       | Equal variances not assumed |       |   | 1.640 | 48.748 | .107                | .32109             | .19582                   | 07247   | .71464  |

**Independent Samples Test** 

Males perceive the gap in assurance to be greater than females.

| -     | -   |    |       | Descri         | iptives    |                |                   | r  |
|-------|---|----|-------|----------------|------------|----------------|-------------------|----|
|       |   |    |       |                |            | 95% Confidence | Interval for Mean |    |
|       | INCOME  | Ν  | Mean  | Std. Deviation | Std. Error | Lower Bound    | Upper Bound       | Mi |
| GapR  | <m5000< td=""><td>11</td><td>.0636</td><td>.81027</td><td>.24431</td><td>4807</td><td>.6080</td><td></td></m5000<>                | 11 | .0636 | .81027         | .24431     | 4807           | .6080             |    |
|       | <m5000 -="" m10000<="" td=""><td>14</td><td>.2476</td><td>.76390</td><td>.20416</td><td>1934</td><td>.6887</td><td></td></m5000>  | 14 | .2476 | .76390         | .20416     | 1934           | .6887             |    |
|       | M10001 - M20000   | 5  | .6400 | .74027         | .33106     | 2792           | 1.5592            |    |
|       | M20001+   | 6  | .4667 | .48442         | .19777     | 0417           | .9750             |    |
|       | Total   | 36 | .2824 | .73491         | .12249     | .0337          | .5311             |    |
| GapA  | <m5000< td=""><td>11</td><td>2273</td><td>.79415</td><td>.23945</td><td>7608</td><td>.3062</td><td></td></m5000<>                 | 11 | 2273  | .79415         | .23945     | 7608           | .3062             |    |
|       | <m5000 -="" m10000<="" td=""><td>14</td><td>.2679</td><td>.61601</td><td>.16463</td><td>0878</td><td>.6235</td><td></td></m5000>  | 14 | .2679 | .61601         | .16463     | 0878           | .6235             |    |
|       | M10001 - M20000   | 5  | .3500 | .51841         | .23184     | 2937           | .9937             |    |
|       | M20001+   | 6  | .7500 | 1.07238        | .43780     | 3754           | 1.8754            |    |
|       | Total   | 36 | .2083 | .79395         | .13233     | 0603           | .4770             |    |
| GapT  | <m5000< td=""><td>12</td><td>.1869</td><td>.72435</td><td>.20910</td><td>2733</td><td>.6471</td><td></td></m5000<>                | 12 | .1869 | .72435         | .20910     | 2733           | .6471             |    |
|       | <m5000 -="" m10000<="" td=""><td>14</td><td>.5367</td><td>.64418</td><td>.17216</td><td>.1648</td><td>.9087</td><td></td></m5000> | 14 | .5367 | .64418         | .17216     | .1648          | .9087             |    |
|       | M10001 - M20000   | 5  | .6857 | .53833         | .24075     | .0173          | 1.3541            |    |
|       | M20001+   | 6  | .5238 | .79111         | .32297     | 3064           | 1.3540            |    |
|       | Total   | 37 | .4413 | .68106         | .11197     | .2142          | .6684             |    |
| GapE  | <m5000< td=""><td>10</td><td>0300</td><td>.61473</td><td>.19439</td><td>4697</td><td>.4097</td><td></td></m5000<>                 | 10 | 0300  | .61473         | .19439     | 4697           | .4097             |    |
|       | <m5000 -="" m10000<="" td=""><td>14</td><td>.1429</td><td>.46029</td><td>.12302</td><td>1229</td><td>.4086</td><td></td></m5000>  | 14 | .1429 | .46029         | .12302     | 1229           | .4086             |    |
|       | M10001 - M20000   | 5  | .5600 | .81731         | .36551     | 4548           | 1.5748            |    |
|       | M20001+   | 6  | .5333 | .92664         | .37830     | 4391           | 1.5058            |    |
|       | Total   | 35 | .2200 | .66412         | .11226     | 0081           | .4481             |    |
| GapRP | <m5000< td=""><td>10</td><td>.1400</td><td>1.03730</td><td>.32802</td><td>6020</td><td>.8820</td><td></td></m5000<>               | 10 | .1400 | 1.03730        | .32802     | 6020           | .8820             |    |
|       | <m5000 -="" m10000<="" td=""><td>14</td><td>.2143</td><td>.69044</td><td>.18453</td><td>1844</td><td>.6129</td><td></td></m5000>  | 14 | .2143 | .69044         | .18453     | 1844           | .6129             |    |
|       | M10001 - M20000   | 5  | .6000 | .66332         | .29665     | 2236           | 1.4236            |    |
|       | M20001+   | 5  | .7600 | .77974         | .34871     | 2082           | 1.7282            |    |
|       | Total   | 34 | .3294 | .81484         | .13974     | .0451          | .6137             |    |

No significant differences across income groups

| -     | Descriptives |    |        |                |            |                |                   |         |   |
|-------|--------------|----|--------|----------------|------------|----------------|-------------------|---------|---|
|       | AGE          |    |        |                |            | 95% Confidence | Interval for Mean |         |   |
|       |              | N  | Mean   | Std. Deviation | Std. Error | Lower Bound    | Upper Bound       | Minimum | М |
| GapR  | <26          | 3  | .2667  | .75719         | .43716     | -1.6143        | 2.1476            | 60      |   |
|       | 26-35        | 22 | .4045  | .76624         | .16336     | .0648          | .7443             | -1.40   |   |
|       | 36-45        | 20 | .2633  | .83027         | .18565     | 1252           | .6519             | -2.20   |   |
|       | 46-55        | 10 | .4900  | .71872         | .22728     | 0241           | 1.0041            | 40      |   |
|       | 56+          | 6  | .4000  | .75895         | .30984     | 3965           | 1.1965            | 80      |   |
|       | Total        | 61 | .3650  | .75869         | .09714     | .1707          | .5593             | -2.20   |   |
| GapA  | <26          | 3  | .0000  | .90139         | .52042     | -2.2392        | 2.2392            | 75      |   |
|       | 26-35        | 22 | .3674  | .61703         | .13155     | .0938          | .6410             | 75      |   |
|       | 36-45        | 20 | .0750  | .73940         | .16533     | 2710           | .4210             | -2.00   |   |
|       | 46-55        | 10 | .0750  | .99338         | .31413     | 6356           | .7856             | -1.50   |   |
|       | 56+          | 6  | .6667  | 1.22134        | .49861     | 6150           | 1.9484            | -1.00   |   |
|       | Total        | 61 | .2350  | .80400         | .10294     | .0291          | .4409             | -2.00   |   |
| GapT  | <26          | 3  | 1.4762 | 1.83689        | 1.06053    | -3.0869        | 6.0393            | .14     |   |
|       | 26-35        | 22 | .7037  | .76980         | .16412     | .3624          | 1.0450            | 57      | 1 |
|       | 36-45        | 20 | .5167  | .79190         | .17707     | .1460          | .8873             | 95      | 1 |
|       | 46-55        | 10 | .6610  | 1.23627        | .39094     | 2234           | 1.5453            | 29      | 1 |
|       | 56+          | 6  | .2540  | .64990         | .26532     | 4281           | .9360             | 33      | 1 |
|       | Total        | 61 | .6291  | .91613         | .11730     | .3945          | .8637             | 95      |   |
| GapE  | <26          | 3  | .1333  | .11547         | .06667     | 1535           | .4202             | .00     | 1 |
|       | 26-35        | 21 | .4619  | .74194         | .16190     | .1242          | .7996             | 60      |   |
|       | 36-45        | 19 | .2526  | .74786         | .17157     | 1078           | .6131             | -1.00   |   |
|       | 46-55        | 10 | 0400   | .83693         | .26466     | 6387           | .5587             | -1.60   |   |
|       | 56+          | 6  | .1667  | .57155         | .23333     | 4331           | .7665             | 40      |   |
|       | Total        | 59 | .2627  | .72988         | .09502     | .0725          | .4529             | -1.60   |   |
| GapRP | <26          | 3  | .0000  | .52915         | .30551     | -1.3145        | 1.3145            | 60      |   |
|       | 26-35        | 22 | .3545  | .67593         | .14411     | .0549          | .6542             | 80      |   |
|       | 36-45        | 17 | .2235  | .80586         | .19545     | 1908           | .6379             | -1.20   |   |
|       | 46-55        | 10 | .4750  | .64517         | .20402     | .0135          | .9365             | 20      |   |
|       | 56+          | 6  | .5333  | 1.20444        | .49171     | 7306           | 1.7973            | -1.20   |   |
|       | Total        | 58 | .3371  | .75548         | .09920     | .1384          | .5357             | -1.20   |   |