MEASUREMENT OF SERVICE QUALITY AND CUSTOMER SATISFACTION AT A CHILDREN'S HOSPITAL IN THE WESTERN CAPE

by

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DECLARATION

I, Laverne Michelle Johnson, declare that the contents of this thesis represent my own unaided work, and that the thesis has not previously been submitted for academic examination towards any qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.

Signed	**Date**

ABSTRACT

Healthcare facilities across South Africa are increasingly facing a myriad of societal, fiscal, political and cultural challenges associated with demands for greater quality in the provision of healthcare services. This study measures service quality and customer satisfaction at a Cape Town hospital (hereinafter referred to as Hospital X), with the aim of providing its management with information to enable them to enhance service quality and thus improve customer satisfaction.

It is essential to note that the respondents in this study were the parents or guardians of patients. The views of the patients were not obtained directly from them as it would have been unethical for minors to have participated in the survey. Their parents or guardians were surveyed in order to obtain the requisite data.

The problem investigated was that management at public hospitals does not regularly research what customers need from a service quality point of view, Therefore, Hospital X may be failing to provide a quality service to its customers, namely, parents and guardians. Against this background, the researcher set out to measure customer perceptions and expectations of service quality by making use of the SERVQUAL model. "Customer expectation" is what the customer can reasonably expect given the available resources and is likely to be influenced by personal needs and past experience. "Customer perceptions" are totally subjective and based on the customer's interaction with the service provided at Hospital X.

The SERVQUAL model (reliability, assurance, tangibles, empathy and responsiveness), is commonly known as the RATER model, RATER being an acronym formed from the first letter of each of the five dimensions of SERVQUAL. The study incorporates the SERVQUAL dimensions within a survey comprising a number of questions structured on a six-point Likert scale.

The results of applying the SERVQUAL model will indicate whether or not Hospital X provides a quality service to their customers.

The study seeks to demonstrate the importance of service quality and customer satisfaction to hospital management, as well as the impact that effective service quality can have on customers' evaluation of their overall hospital experience. (The term customer will be used interchangeably with parent and/or guardian in this study.)

This research study is descriptive, cross-sectional and employs a quantitative research method within a deductive approach. This approach focuses on well-defined variables relating to associations between the concepts of service quality and customer satisfaction. In addition, the study used a structured survey, specifically designed to measure service quality and customer satisfaction (Mujis, 2004:1).

The findings show that parents and guardians are generally satisfied with the quality of service provided at Hospital X, as the majority of the SERVQUAL dimensions were positively validated. Hospital X is, to a degree, providing services according to current hospital specifications, namely, the National Core Standards. However, many parents and guardians were dissatisfied with the amount of waiting time spent in the health care facility.

The use of online platforms such as hellopeter.com are on the rise and many parents and guardians use these platforms to share experiences and voice their opinions regarding the level of service quality that they did or did not receive. Currently Hospital X has multiple complaints listed on hellopeter.com that can be accessed publicly and from anywhere in the world.

If hospital managers do not do research, anticipate and take effective action to meet the current and future needs of their customers, the health care facility will risk violating customers' right to quality health services.

ACKNOWLEDGEMENTS

GLOSSARY
ACRONYMS AND ABBREVIATIONS

APP	Annual Performance Plan
HIV	Human Immunodeficiency Virus
ISO	International Standards Organisation
NHI	National Health Insurance
NSC	National Core Standards
OECD	Organisation for Economic Co-operation and Development
OHSC	Office of Health Standards Compliance
QIP	Quality Improvement Plan
RATER	Reliability, Assurance, Tangibles, Empathy and Responsiveness
SERVQUAL	Service Quality
SINJANI	Western Cape Data Repository
SPSS	Statistical Package for the Social Sciences.
WHO	World Health Organization
WOM	Word of mouth

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CHAPTER ONE: INTRODUCTION AND BACKGROUND

1.1   Introduction

Reliability, responsiveness, assurance and empathy play important roles within the healthcare environment, especially since competition has increased in South Africa in recent years with the advent of more private clinics and hospitals (Nyandoro, 2012:1; Wathek, 2012:134). This has increased the pressure on healthcare providers to improve the quality of service to their customers. Hence a Cape Town hospital that specialises in the healthcare of children (hereinafter referred to as Hospital X) is paying more attention to the quality of the service that it offers to customers by trying to better understand the needs of parents and guardians and their views of service quality. According to Mpinganjira (2011:3692) and Nyandoro (2012:1), this is a good strategy because it will put Hospital X in a better position to meet the needs of its most important customers, namely the parents or guardians (the customer) and the patients themselves (the consumer who receives medical treatment).

In this context, the researcher, who is involved in the public healthcare arena, decided to measure parent and guardian perceptions and expectations of service quality by making use of the SERVQUAL model. Customer expectation is what the customer expects given the available resources and is likely to be influenced by personal need and past experience. Customer perception is totally subjective and is based on the customer's interaction with the service provided at Hospital X.

The investigation will indicate whether or not Hospital X provides their customers with a quality service. It was occasioned by the sharing of many negative experiences through word of mouth (WOM) by visitors who had left the healthcare facility dissatisfied with the quality of service that they had received. In South Africa, a popular site called hellopeter.com is dedicated to improving customer service (hellopeter.com, 2016a). The website allows customers a public online platform to voice their satisfaction or dissatisfaction with a particular brand or company across all disciplines of service. There are numerous complaints listed on the hellopeter.com website about the hospital investigated (hellopeter.com, 2016a&b).

An important aspect of this study, therefore, was to measure the level of service quality that customers who visit Hospital X require so that those who manage the hospital can enhance service quality and improve customer satisfaction. It was hoped from the outset that the study would demonstrate to hospital managers the importance of service quality management, as well as indicate the impact that effective service quality management can

have on their customers' evaluation of the overall hospital experience. The latter would include the hospital establishing a stronger online presence.

Lastly, the study was embarked upon to determine whether there are gaps or deficiencies in service quality, and if so, how these might be corrected for the benefit of all the hospital's stakeholders.

1.2   Background and rationale for the research

State hospitals in South Africa face a myriad of challenges stemming from the prevalence of illnesses such as HIV and AIDS, drug abuse, unemployment, high medical aid costs, teenage pregnancies and an illegitimate birth rate that is among the highest in the world (DeRose, n.d.:32). The constantly increasing demand for services places great and growing pressure on healthcare facilities (South Africa, 2012:3). The introduction of the National Health Insurance (NHI) and its rollout will create additional pressure, as more people will enjoy free medical care and rely upon government institutions (South Africa, 2012:4; South Africa. Department of Health, 2015:10).

With the consumption of healthcare services by patients at Hospital X increasing, it is important for the hospital to provide services aligned to parents' and guardians' expectations. More generally, appropriate strategies need to be implemented and controlled within hospital healthcare systems to satisfy the anticipations of customers (Nyandoro, 2012:2; Al-Abri & Al-Balushi, 2014:3). In South Africa most healthcare service providers take a pride in their ability to diagnose illness accurately and treat it appropriately. But however laudable, this attitude does not necessarily square with parents' and guardians' views of what they and their children require from a service quality perspective at a healthcare institution (Collins, 2008:2-3).

To succeed in today's healthcare setting and satisfy the needs of customers, a clear understanding of customer expectations is vital (Al-Sawai, 2013:285). According to Al-Sawai (2013:287) and Nyandoro (2012:3), a healthcare facility that disregards its customers' anticipations will render the facility unsustainable in an already highly competitive healthcare environment. Currently Hospital X has multiple complaints listed on popular South African online platforms such as hellopeter.com that can be accessed publicly and from anywhere in the world. An example of these complaints can be found in Section 2.7.2 (Quaanitah, 2016:1).

Countless studies have been conducted across a variety of service industries, including healthcare (Mpinganjira, 2011; Wathek, 2012:131; Nyandoro, 2012; Al-Sawai, 2013:285-

287), investigating the relationship between service quality and customer satisfaction. In this study, the focus falls on the perceptions and expectations of parents or guardians who bring their children for treatment at Hospital X.

To keep abreast of customer requirements that are continually changing, hospital management should regularly assess customer expectations of service quality, in order to be in a position to enhance customer satisfaction. It is important for hospital managers to be kept up-to-date with what parents and guardians want, so as to be able to anticipate what their current and future requirements may be (Al-Abri & Al-Balushi, 2014:3-7; Maker, n.d.:9).

1.3   Research problem

Through her involvement in the public healthcare sector, the researcher has established that hospital managers do not regularly consult or involve customers in the evaluation and improvement of service quality. Hence the research problem, which is formulated as follows:

The research problem arises from the fact that public hospitals do not regularly research what parents or guardians need from a service quality point of view. In the case of Hospital X, managers are not aware of parents' or guardian's perceptions and expectations and may, therefore, be failing to provide a quality service.

1.4   Research objectives

The key research objective was to determine whether Hospital X provides a quality service that satisfies the perceptions and expectations of parents and guardians who visit the health care facility. The secondary objectives are as follows:

- To measure service quality and customer expectations, and assess their effect on customer satisfaction at Hospital X.
- To establish whether service delivery at Hospital X coincides with service quality specifications, by investigating the current written hospital specification in terms of quality (only one set of specifications will be used).

1.5   Key research question and ancillary questions

The following is the key research question: According to the perceptions and expectations of parents and guardians, does Hospital X satisfy their anticipation in terms of providing a quality service? The ancillary research questions are as follows:

- Is service quality at Hospital X in line with customer expectations and does it have an impact on customer satisfaction?
- Is the service delivery at Hospital X in line with current hospital specifications in terms of quality?

In order to determine whether Hospital X is providing a quality service, the SERVQAUL model will be used. The model makes use of five dimensions developed by Parasuraman et al. (1985). The results will be used to address the research question and determine if Hospital X provides a quality service that is in line with customer expectations, and if there is any impact on customer satisfaction.

1.6   Significance of the study

The findings stemming from the study may assist hospital management to identify service quality shortfalls that have an effect on customer satisfaction. This will be achieved by making use of the SERVQUAL model. The outcome will also assist management to better understand what causes gaps in service quality and how these gaps can be addressed to improve service quality and customer satisfaction. The findings may also assist policy makers to draft policy and guidelines to ensure that customer satisfaction and service quality is taken into account, and bring to the attention of hospital management that change to traditional ways of doing things is required in a digitally driven society. Finally, the study will help customers who visit Hospital X express their feelings and perceptions on the way that state health care facilitates are delivering services.

1.7   Theoretical framework

Quality healthcare and customer satisfaction are two important healthcare aims, particularly at a hospital that specialises in healthcare for children.

Service quality lies in the eye of the beholder and is rather individualistic, as expectations and perceptions often differ between two people (Hoffman & Bateson, 2011:326-327). Nevertheless, over many years' various models have been developed to evaluate service quality and customer satisfaction (Nyandoro, 2012).

Parasuraman et al. (1988:16) define service quality as a global judgment, or attitude, relating to the superiority of the service, while for Zeithaml (1988:35) it is the customer's assessment of the overall quality of the service. The implication is that service quality can be equated with conformance to customer expectations. Consumers compare their expectations with their perceptions of actual service performance (Parasuraman, et al., 1985:42). This has been described as the "disconfirmation approach".

In the literature, the Nordic school views service quality as what the customer receives (technical quality) and how the customer receives it (functional quality). Technical quality involves the activities of medical managers whereas functional quality is concerned with how the service is provided (physical condition of the hospital and appearance of staff).

The American school includes the five dimensions of SERVQUAL, also known as the RATER model (an acronym based on the initial letters of: reliability, assurance, tangibles empathy and responsiveness).

The SERVQUAL model was developed by Parasuraman et al. (1985) and is designed to measure service quality. International studies based on the application of the SERVQUAL model have found a significant relationship between service quality dimensions and customer satisfaction within, for example, the Korean healthcare system (Wathek, 2012:131; Nyandoro, 2012:29; Markovic et al., 2014:157).

The SERVQUAL model is an analytical tool and enables management to identify service quality gaps which may be affecting the quality of service. The model is extremely focused and is especially helpful to management because it identifies service quality factors from the viewpoint of the customer (Harmse, 2012:60).

The five dimensions of service quality – reliability, assurance, tangibles, empathy and responsiveness – were investigated by means of a research survey based on the SERVQUAL model (see Appendix 1).

1.8   Research design and methodology

The research design is a blueprint for the collection and measurement of data. Cooper and Emory (1995:114) describe the research design as "the plan and the structure of the investigation". It consists of five major components, namely the research study's questions, the study's propositions, the units of analysis, the linking of data to the propositions, and interpretation of the study's findings. The main intention of a research design is to prevent a situation where the evidence does not address the primary research questions (Kohlbacher, 2006:13-14).

The research makes use of a deductive approach and is quantitative in nature. A six-point Likert Scale was used to table the data and SPSS software utilised to analyse it (Zohrabi, 2013:254). Quantitative research is essentially about collecting numerical data to explain a particular phenomenon. This research used a quantitative data collection method based on the SERVQUAL model (Mujis, 2004:1). The results of quantitative research are descriptive rather than predictive (Mujis, 2004:1; Jansen, 2010:1; Silva, 2015:12-15).

This research study is descriptive and cross-sectional. The justification for choosing descriptive research is that the approach enables effective identification of the causes of a phenomenon. In this case, the phenomenon is the question of why Hospital X is failing to

provide quality service and why so many parents are dissatisfied, according to the negative WOM shared. A cross-sectional survey was chosen, which has the advantage of avoiding the problems associated with longitudinal designs, which are costly and time consuming.

1.8.1 Population and sampling

The population relevant to this research study comprises all the parents and guardians who visit Hospital X outpatient clinics with their children. The size of this population has been estimated at 9949 per month, according to figures captured on the hospital system. The data was downloaded into Excel format, and pivot tables and filters were used to exclude all inpatients. The sample size was calculated at 293, using the Raosoft expert sampling online calculator (see Table 1.1). It must be noted that as the patients were minors (under the age of 18 years), their parents or guardians were surveyed in order to obtain the requisite research data. In order to qualify as respondents, parents and guardians were required to meet the following criteria:

- Their children needed to be follow-up outpatients;
- Their children needed to be outpatients who were newly referred; or
- Their children needed to be new outpatients who were not referred, but who visited the hospital and various outpatient clinics.

As stated above, the parent or guardian who accompanied the patient completed the survey on the child's behalf. Naturally, the person who completed the survey must have been able to read and understand English.

Table 1.1: Sample Size

Selection of sample Non-probabilistic, convenience sampling was used to select the sample.	
Sampling method Raosoft expert sampling calculator was used to calculate the recommended sample size.	
Confidence level Confidence level can be defined as: "Statistical probability that the value of a parameter falls within a specified range of values" (Martin, 2016:1). A commonly used confidence level is 95.00%. The higher the confidence level, the higher the probability that the results are accurate (Martin, 2016:1).	95.00%
Margin of error The margin of error is determined by the researcher, measuring the extent of error that can be tolerated (Raosoft, 2016). For a margin of error to be considered acceptable, it is required to fall between 4.00% and 8.00% at the 95.00% confidence level. The margin of error chosen is slightly more than the desired 5.00% but substantially less than 8.00%. The researcher felt that it would be sufficiently accurate to make general assertions about the population at Hospital X (Raosoft sample size calculator, 2004; Data Star, 2008:1; Medina & Idoia, 2015:514).	5.65%
Population size Sourced from Hospital X systems and pivoted in Excel. Population size is estimated at 9949 per month.	9949
Sample size Calculated automatically by Raosoft online calculator, see Appendix 4.	293

1.8.2 Data collection

The requisite data was collected by means of a research survey completed by the parent or guardian at Hospital X. The survey comprised a number of questions, to which potential responses were structured on a six-point Likert Scale.

Prior to its distribution, the survey was pre-tested by the researcher for comprehensibility and ease of use, and also to determine whether it contained any ambiguities or unduly sensitive questions. It was tested on ten randomly selected parents or guardians and five of the researcher's colleagues.

After appropriate amendments, the survey was distributed to various respondents who visited the hospital with their children as outpatients. Thereafter, the completed survey instruments were collected and the data analysed.

1.8.2.1 Secondary data

A preliminary literature review was conducted to gather information on subjects such as service quality, service quality in health care, service quality models and other related matters. Data was obtained by way of the Internet, textbooks, accredited journals, written hospital specifications and healthcare legislation. More detail is provided in Chapter 2 of this study.

1.9   Ethical considerations

Ethical clearance for this research was obtained from the Cape Peninsula University of Technology and Hospital X. The study followed the rules and guidelines set out by the Cape Peninsula University of Technology's Ethics Committee. Furthermore, to ensure high ethical standards, the following protocols were observed:

- **Voluntary participation**: No participant was forced to participate, and it was communicated to participants that the research was only for academic purposes and that their participation was absolutely voluntary. They were also informed that they could withdraw from the study at any time (McGuire & Beskow, 2010:1).
- **The right to privacy, confidentiality, and anonymity**: The identities of the participants and their opinions were treated with confidentiality, and no participants' names were recorded during the data collection process. All completed surveys were collected by the researcher and placed in a locked box (Kaiser, 2010:1).
- **Dignity:** The dignity of all participants was upheld: they were not subjected to any embarrassment or inappropriate behaviour (Hamel & Nicholls, 2006:586).

All participants who participated in the study were provided with an oral description of the research project, and were assured of the confidentiality of all information that was provided. Since the researcher was dealing with parents and guardians with ill children who were receiving treatment at Hospital X, predominantly a children's hospital, the researcher ensured that the following applied throughout the study:

- The questions in the research survey were answered by the parents or guardians of the children as the patients were minors.
- As the researcher was dealing with a variety of parents and guardians with ill children, the researcher ensured that the parents or guardians and their children were treated with the utmost respect, dignity and empathy.

1.10   Limitations

This study was restricted to one public healthcare facility, Hospital X, which is situated in Cape Town and specialises in the care and treatment of children. All inpatients were excluded from the study and the research was limited to parents and guardians visiting the outpatient clinics with their children. An important additional limitation of the study was that the respondents were the parents or guardians of the patients. This means that the views of the patients were not obtained directly from the patients and were articulated through the opinions of the parent or guardian. It would have been unethical to allow under-aged children to participate in the survey.

There is also a limitation in the design of the study. The study makes use of research questions that are not convertible to hypotheses, thus no hypothesis is formulated. This approach is supported by Ahmad, (2016:1); Morgan, (2016); Asad, (2016:1) and Opatha, (2016) who all agree that the development of an hypothesis is not compulsory; and since this study is descriptive, the research questions were answerable through descriptive analysis of

the data that involves frequencies, percentages, graphs and other modes of analysis for determining the relationship among variables.

The study also makes use of one set of specifications to determine if Hospital X provides services according to specification. The National Core Standards was chosen as it is the most comprehensive and was specifically designed to address service quality matters at South African health care facilities.

Finally, constraints of budget and time also posed limitations. The researcher used the chosen survey methodology in a cost-effective way by self-administering the surveys to participants. This methodology also helped address the limitation of time, as the researcher had access to a large number of respondents and could collect data rapidly. This was in keeping with the timeframe of Master's degree research. Other research designs and methodologies such as experiments would not have been feasible within a setting like that of Hospital X (Nyandoro, 2012:49).

1.11   Introduction to the thesis structure

The thesis structure, together with a brief description of the content of each chapter is summarised below.

Chapter One: This chapter introduces the scope of the research and background to the research problem. It includes a brief outline of the population and sampling methods used in the study. The research problem, the research objectives and research questions, together with ethical considerations and limitations are all outlined in this chapter.

Chapter Two: This chapter presents a literature review, which is the foundation on which the study was constructed. It describes existing data and studies pertaining to service quality, the components of service quality, service quality dimensions and service quality models, and the influence of service quality on customer satisfaction.

Chapter Three: This chapter discusses the research design and methodologies used to identify the research population, the sample size and how the data was collected and analysed.

Chapter Four: This chapter documents the research findings and how they relate to existing secondary data.

Chapter Five: This chapter discusses the main findings of this study and contains the study's conclusions and recommendations. It indicates the contribution made by the research and concludes by discussing matters for future research.

1.12   Conclusion

The Chapter has outlined the theme of this study and the rationale for its choice. The research study sought to obtain the opinions of parents and guardians who take their children to Hospital X regarding the hospital's service quality, with the aim of formulating a strategy to improve the service quality, should this be required.

The study is appropriate since public hospitals do not recurrently research what customers need from a service quality point of view. Hospital managers are not fully aware of parents' and guardians' perceptions and so may be failing to provide appropriate services to its customers. Currently there are multiple complaints on an online platform called hellopeter.com (hellopeter.com, 2016), where negative experiences have been shared by the parents and guardians who have visited Hospital X and left dissatisfied with the quality of service that they received.

The study is intended to demonstrate the importance of service quality and customer satisfaction to hospital managers, as well as indicate the impact that effective service quality can have on customers' evaluation of the overall hospital experience.

The study is quantitative in nature, and incorporated the SERVQUAL model in the form of a survey structured on a six-point Likert scale. The population sample size was calculated at 293 by using the Raosoft expert sampling calculator (see Appendix 4).

High ethical standards were ensured and participation was completely voluntary. Each opinion was treated confidentially and the dignity of all participants was upheld.

An obvious limitation of the current study was that the views of the patients were not obtained directly from them but from their parents or guardians. In addition, the design of the study is limited to descriptive analysis, not using research questions conducive to the formation of hypotheses. This approach is supported by Ahmad, (2016:1), Morgan, (2016), Asad, (2016:1) and Opatha (2016), who agree that the development of an hypothesis is not compulsory as long as the research questions are sufficient to address the research problem.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Healthcare is a vital service used by 55 million South Africans on an ongoing basis. As a result of global pressures for quality healthcare services and through various media and word-of-mouth communications, customers (in this instance, parents and guardians) are more knowledgeable of the world around them (Luke, 2007:14). They expect more and are much more demanding when it comes to service quality than in previous years (Parasuraman et al., 1985:44). Parents and guardians are constantly watching for cues regarding quality of care, and will choose to visit a healthcare facility according to how the hospital appeals to them in terms of appearance and efficiency, and how healthcare workers interact with them.

These cues are also called quality indicators, which can be used to evaluate the ability of the hospital to render a desirable service. Luke (2007:24) explains that to achieve any form of competitive advantage, a healthcare facility needs to provide a quality service (Ramsaran-Fowdar, 2008:104). Healthcare managers must understand that the customer's views of service quality have an influence on their behaviour (Baltussen et al., 2002:42). This chapter addresses a number of topics relevant to service quality, including service quality models and dimensions. The latter part of the chapter provides insight into Hospital X, where the study was conducted.

2.2 Defining quality

Quality can be defined in many ways, and since the sense of the term changes in different situations, a single universal definition does not exist (Shariff, 2012:17). Parasuraman et al. (1985:41) define quality from a Japanese perspective as having nil defects; thus quality occurs when a task or service is executed correctly the first time. Authors such as Berry et al. (1985:45) define quality as conformance to specifications, especially conformance to customer specifications. An organisation can measure the quality of services that it provides by investigating customers' opinions. By doing this, the organisation can increase conformance and enhance its competitive advantage (Shariff, 2012:17).

Quality has variously been considered a trait of an organisation, a degree of excellence and a form of social status (Ghylin et al., 2006:75). A narrower definition is proposed by Hardie and Walsh (1994:53), who describe quality as a product of performance which results in customer satisfaction and is free of insufficiencies. Daniel and Berinyuy (2010:27-28) prefer to define quality as the extent to which customers believe the product or service offered will surpass their needs and expectations, while Haider (2001), following the International

Standards Organisation (ISO), suggests that quality equates to the totality of features and characteristics of a product or services, and its ability to satisfy the stated or implied needs of a customer (Haider, 2001).

2.3   Defining a service

Services are intangible: they are consumed immediately and cannot be stored for future use. In addition, each service is unique and specific to a service provider, making service really challenging to define. However, many authors believe that there is a difference between services and physical goods sufficiently clear to encourage the notion that goods and services are dichotomous. It is important to note that the distinction is not always completely clear, but that there remains a vital interdependence between goods and services (Hoffman & Bateson, 2011:4; Harmse, 2012:60).

It is useful to think of services and goods being arranged on a continuum of intangibility, so that no tangible element represents a "pure" service on one extreme on the continuum, and no intangible element a "pure" good at the other extreme. There are services that contain both tangible and intangible elements and fall between the two extremes of (in)tangibility (Hoffman & Bateson, 2011:4-5; Harmse, 2012:60). For example, the furniture, physical environment and any type of equipment is a tangible element at Hospital X, while the software applications used to track the folders of parents and guardians are an intangible element.

2.4   Defining service quality

As with a "service" discussed above, service quality is a vague and difficult concept to define (Parasuraman et al., 1985:41; Hoffman & Bateson, 2011:324). Due to this elusiveness, research regarding service quality and its measurement remains ongoing. There are two primary schools of thought on the concept of service quality, the American and the Nordic (European).

The American school uses descriptive terms and includes the five dimensions of SERVQUAL commonly known as the RATER model (reliability, assurance, tangibles empathy and responsiveness) (Parasuraman et al., 1985:42; Cronin & Brady, 2001:43; Hoffman & Bateson, 2011:324).

The Nordic school, on the other hand, defines service quality using overall terms that include the aspects of technical and functional quality as presented in the Grönroos model of Service Quality (1984).

Although both schools of thought emphasise vital aspects of service quality, there is no consensus that either fully captures the essence of the concept (Harmse, 2012:63).

The extent to which the needs of customers are met, and how well a service is delivered to meet these needs and expectations, constitute a common definition of service quality (Grönroos, 1984:35-36; Berry et al., 1985:46; Hoffman & Bateson, 2011:326-327). This definition is consistent with the "user-based" approach, where quality is defined as the extent to which the service positively serves the purposes of the customer during usage (fitness of use) (Harmse, 2012:65). In other words, service quality lies in the eye of the beholder and is a global judgment, or attitude, relating to the relative sensed superiority of the service (Harmse, 2012:63-64). Differences between expected performance and perceived performance give rise to what is known as the disconfirmation approach.

Expectations are often founded on an individual's needs, wishes or norms. This makes expectations very individualistic and dependant on personal circumstances, such as level of education and nature of employment. Moreover, expectations may be altered over time by experience or the media or the opinions of others. When expectations are not met by the organisation, this will have an effect on perceived service quality. Customer expectations are thus beliefs about a service that serve as a reference point when quality is judged (Parasuraman et al., 1985:42; Hoffman & Bateson, 2011:326-327; Shariff, 2012:17).

2.5   Service quality verses customer satisfaction

The literature review revealed that the distinction between customer satisfaction and service quality was not always clear (Hoffman & Bateson, 2011:325). There appears to be a substantial overlap between the two concepts (Zeithaml, 1988:35), although there is a degree of consensus that service quality and customer satisfaction are distinct concepts (Berry et al., 1985; Parasuraman et al., 1994; Hoffman & Bateson, 2011:325; Agbor, 2011).

Parasuraman et al. (1988:16) define perceived service quality as a global judgment, or attitude, relating to the superiority of the service. Zeithaml (1988:35) defines service quality as the customer's assessment of the overall quality of the service. Service quality thus appears to be aligned with conformance to customer expectations, resulting from a judgement when consumers compare their expectations with actual service performance (Parasuraman et al., 1985:42). As suggested above, this represents the disconfirmation approach (Harmse, 2012:63).

A common definition of customer satisfaction is also based on the disconfirmation approach, where customer satisfaction is said to be the product of a comparison between a customer's expectations and their perceptions of the actual service encountered. In other words, if a

customer's perceptions meet his or her expectations, the customer is satisfied. Conversely, if the customer's perceptions and expectations are not equivalent, then the customer will not be satisfied (Parasuraman et al., 1985:42; Hoffman & Bateson, 2011:295; Harmse, 2012:63).

Surprenant and Churchill (1982:492) view customer satisfaction as a product of past experiences containing emotional elements. This approach is known as the transaction-specific approach, which is more useful in the service environment as the consumption of a service is an experience and consists of a combination of evaluative and emotional processes that produce customer satisfaction (Fornell, 1992:6). Harmse (2012:63) concurs, stating that most definitions of satisfaction would involve an evaluative, affective or emotional response (Veloutsou et al., 2015:28).

Harmse (2016:64) and Jianyu et al. (2017:1) describe the differences between service quality and customer satisfaction by noting that a customer can have a perception of service quality without having actually experienced the service, whereas a customer has to actually experience a service to make a judgement on satisfaction. A customer can for instance perceive a service to be of high quality because of what is portrayed in the media or word of mouth communication, but cannot claim high satisfaction with that service without experiencing it first-hand (Harmse, 2012:64; Jianyu et al., 2017:1).

Schneider and White (2004:51-53) suggest that service quality is descriptive and based on facts (a customer's judgement about the service itself), while satisfaction is more evaluative and based on emotion (it is more a judgement on how the service affects the customer emotionally). Fornell (1992:6) and Saghier and Nathan (2013:2) agree that most definitions of satisfaction involve an evaluative and affective response.

The customers' perceptions serve as the foundation on which service quality is assessed by management. This idea is corroborated by Edvardsson (1998:142), who argues that service quality should be approached from the customer's perspective because it is the customer's perception of the outcome that determines the excellence of service. Understanding the customer's perceptions is crucial to rendering an outstanding service (Daniel & Berinyuy, 2010:27; Saghier & Nathan, 2013:2).

The current study supports the views of Parasuraman et al. (1985:42), Hoffman & Bateson (2011:295) and Edvardsson (1998:142) by choosing to focus on service quality and customer satisfaction from a customer's point of view, namely the parents and guardians who bring their children to Hospital X. Service quality will thus be evaluated in terms of the services that

the customer receives in comparison to what the customer expected to receive (Kassim & Bojei, 2002:845).

2.6   Perceived and expected service quality

According to Parasuraman et al. (1985:49), expected service quality can be situated along a continuum ranging from ideal quality to totally unacceptable quality. Where a customer's perception of service quality will be situated on this continuum depends on the discrepancy between expectations of the service and perceptions of the service as experienced at the service organisation.

When the perceived level of service is lower than the expected level, the result is unacceptable quality and customer satisfaction will not be achieved. When perceived service equals expected service, this result is ideal quality and the achievement of customer satisfaction achieved (Parasuraman et al., 1985:48).

Figure 2.1 demonstrates that perceived service quality is the product of the customer's comparison between the expected service and the perceived service.
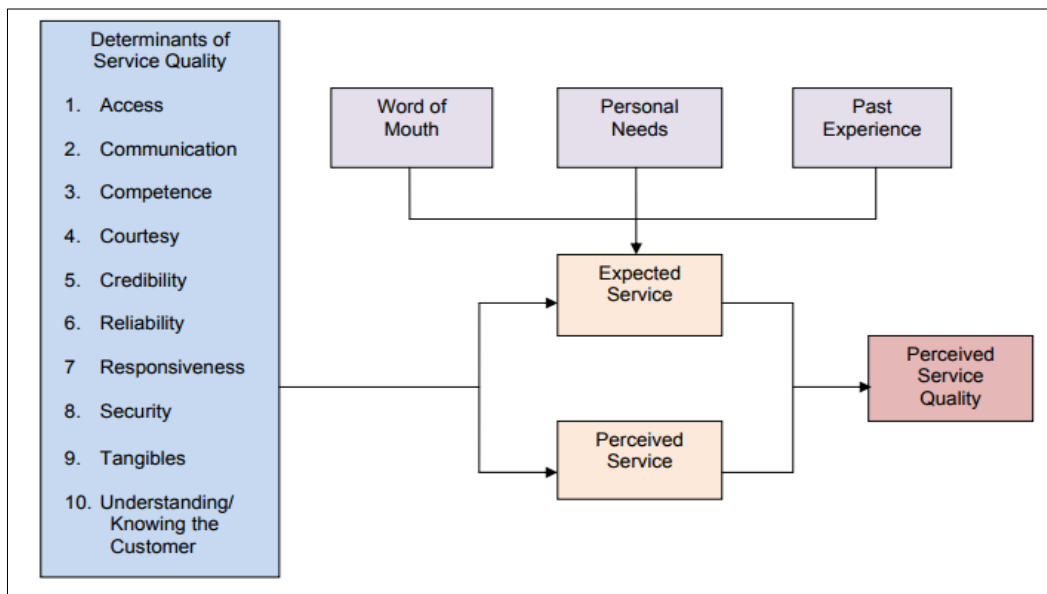
Figure 2.1 Perceived service quality (Harmse, 2012:73)

There are various components that contribute to the customer's perception of service quality, including personal need(s), past experience and word-of-mouth communication (Parasuraman et al., 1985:48). The customer's perception of performance and quality reflects what the customer experiences while the services are being provided (Parasuraman et al., 1988:17-18; Saghier & Nathan, 2013:3).

2.6.1 Personal needs and past experience

Personal needs – including physical needs, social needs, psychological needs and functional needs – influence and shape customer service expectations. For example, a parent or guardian with a disabled child may have special needs when visiting a health care facility. The arrangement of the hospital waiting room should conduce to the accommodation of disabled children and parents (William et al., 2016:83).

As far as past experience is concerned, participant 37 (for example) reported that the staff should treat people better and not tell them to sit down as if they were children. From this it can be assumed that when participant 37 returns to the hospital she may recall this experience. This experience may influence the level of satisfaction experienced by this participant when she returns in the future.

2.6.2 Word-of-mouth communication

Word of mouth (WOM) is a form of communication among customers concerning their personal experiences with a company or a product, and is regarded as a critical factor in service quality (Sundaram et al., 1998:527). Positive and negative WOM communication can have a strong influence on a customer's satisfaction.

With the introduction of social media and online communities, traditional face-to-face and even telephone conversations have been partly superseded. Many individuals who are dissatisfied with a service or product now turn to online platforms such as hellopeter.com to share their positive and negative experiences. When shared online these experiences have the potential to reach millions of internet users (Botha, 2014:367).

Anyone who pays an unsatisfactory visit to a healthcare facility is encouraged to complain as complaints create awareness of latent problems in the healthcare organisation (Reade, 2013:1). In many healthcare facilities across South Africa a compliment and complaint box or station can be found. Here visitors are encouraged to write down their complaint and place it in the box (Western Cape Department of Health. Reception Manual, 2015:33).

With the widespread use of the internet, social media and the development of online communities, traditional complaint boxes could become obsolete. Healthcare facilities need to ensure that they remain current by attending to the online compliments and complaints of visitors, as this form of WOM communication is expected to increase in the future (Wallis, 2014:1). An example of an online complaint found relating to Hospital X is given below:

> I have waited for two and a half hours for my folder and people who has arrived after me was sent through to go and see a doctor with their folder. I then stood up and went to the front desk and said that I have been waiting for two and a half hours and I have still not received my folder. (Quaanitah, 2016:1)

This complaint is consistent with the findings regarding the responsive dimension (waiting time) that will be discussed in Chapter 4.

2.7   Service quality models and dimensions

Determining service quality in the healthcare environment and evaluating customers' perceptions and levels of satisfaction is a challenging and complex task. The service quality model developed by Grönroos (1984) and the service quality GAP model developed by Parasuraman et al. (1985,1988) are described in this section. Lastly, the evolution from ten service quality dimensions to the SERVQUAL model will be presented (Nyandoro, 2012:27; Talib & Rahman, 2015:13).

2.7.1   Grönroos model of service quality

Grönroos (1984) is one of the leaders in the Nordic school of thought regarding service quality. He was also one of first researchers to call for conceptual models of service quality in order to understand the concept better. He is of the view that a proper conceptualisation of service quality should be customer-based (Grönroos, 1984:36) (see Figure 2.2).

Traditionally, service quality was viewed as what the customer interpreted it to be. This view is based on qualitative methods and measures perceived (interpreted) service quality (Grönroos, 1984:37). The Grönroos service quality model moves beyond this to incorporate three dimensions: technical quality, functional quality and image.

Technical quality is concerned with what the customer gets from interacting with the service organisation. In this context, parents and guardians go to Hospital X for their children to get medical treatment (Nyandoro, 2012:27 Yarimoglu, 2014:80).

Functional quality is concerned with how the service is provided. Customers have a tendency to assess the quality of healthcare by focusing on functional issues such as the physical condition of the hospital and the appearance of staff, such as their uniforms (Lam, 1997:146; Nyandoro, 2012:38; Yarimoglu, 2014:85).

The image of the service provider also plays a significant role in conjunction with the technical and functional quality of services, and includes factors such as word-of-mouth communication (Nyandoro, 2012:27; Yarimoglu, 2014:80).

Figure 2.2, below, provides an illustration of Grönroos's model of service quality.
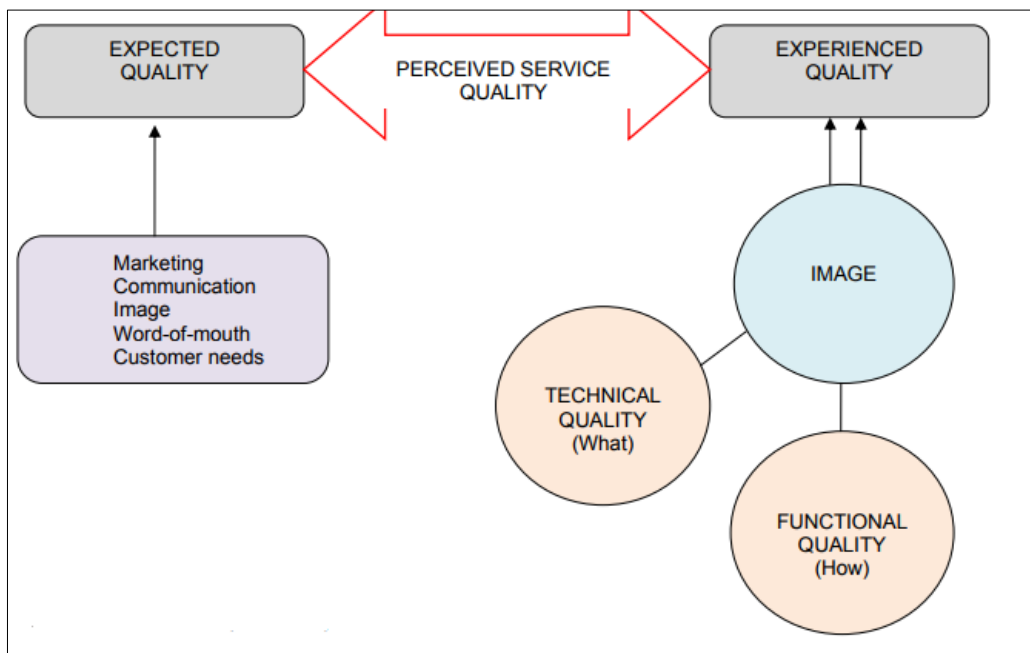
Figure: 2.2 Grönroos service quality model (Grönroos, 1988:12)

Grönroos's service quality model is not without its critics. According to Polyakova et al. (2015:65), the Grönroos service quality model was developed to focus on conceptualising service quality but not as a practical measurement tool that can be used by management operationally (Polyakova et al., 2015:65).

2.7.2   Service quality GAP model

During the 1980s, Parasuraman et al. (1985) developed the GAP service quality model through the findings from exploratory research that contained in-depth focus group interviews (Buttle, 1996:9).

The service quality GAP model provides a framework for organisations looking to systematically improve customer perceptions and expectations of service quality (Parasuraman et al., 1985:42; Luke, 2007:12).

The model illustrates the relationship between activities via vectors of connection. These vectors are portrayed as potential gaps between the main activities of the service organisation.

A gap illustrates obstacles to be overcome in order to achieve a good level of service quality (Ghobadian et al., 1994:46; Nyandoro, 2012:35). Figure 2.3, on the next page, illustrates these various gaps.
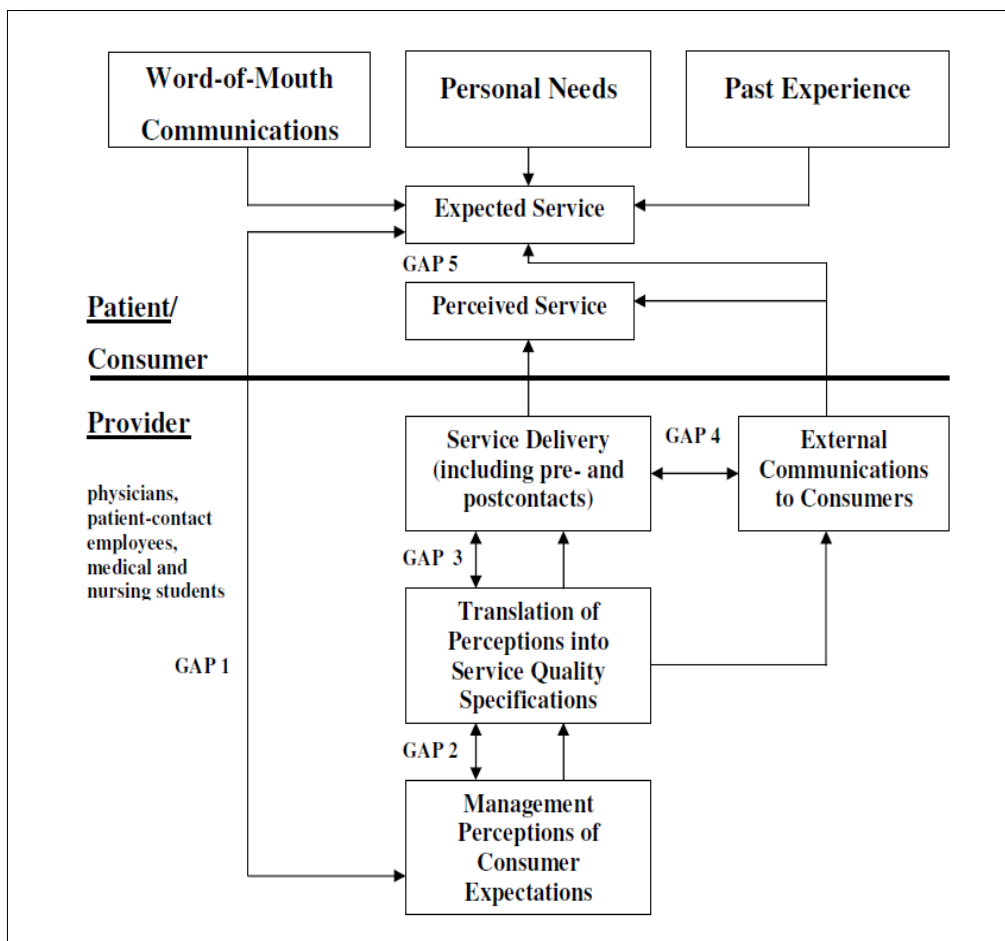
Figure 2.3: Service quality gap model (O'Connor, Trinh & Skewchuk, 2000:9)

As can be seen in Figure 2.3, there are five gaps in service quality:

Gap 1: **Customer expectation-management perception gap (knowledge gap)**: This gap illustrates that management might not completely recognise or identify with what customers anticipate from a service, and this lack of understanding may affect the ability of management to provide a quality service to its customers (Parasuraman et al., 1985:45; Shariff, 2012:32).

There are three factors that potentially affect this gap. 1) Marketing research (managers not researching or including customers in designing service quality policy); 2) Upward communication (there is a blockage in communication and information does not flow from the ground up); and 3) too many levels of management in the organisation causing, unnecessary red tape and processes (Hoffman & Bateson, 2011:322).

Gap 2: **Management perception-service quality specification gap (policy gap)**: This gap refers to an organisation not having the right service design or standards in place, resulting in unacceptable service quality standards.

For example, participant 224 reported that: "Nursing and admin staff are punctual and helpful. However, the doctors are extremely unprofessional. They arrive at the clinic late and chat and waste time in between. This is unacceptable as they do not have time to answer questions about your child".

Situations such as this can be avoided with the correct service design. Based on the above feedback, hospital managers can develop a standard of best practices documenting the importance of customer service. Once the document is created management needs to encourage physicians to make use of it.

Gap 3: **Service quality specifications-service delivery gap (delivery gap)**: This refers to weaknesses in employee performance. An organisation may have developed a specification or guideline, but failed to train employees in how to implement it. The procedure as documented is not always reflected in reality, with the result being a delivery gap.

For example, a parent books an appointment a week in advance with hospital reception. When the parent arrives a week later, the parent or guardian expects that the child's folder will be ready so that they will be able to see the doctor timeously. However, this is not the case. Sourcing of a patient folder from medical records can take anywhere between 30 minutes and 120 minutes, assuming that it can be found.

Participant 216 reported waiting four hours for a folder.

The lack of unified and integrated teams affects the organisation's ability to deliver. Medical records and reception should work together to ensure the patient folders are sourced timeously.

Gap 4: **Service delivery-external communications gap (communication gap)**: This refers to the difference between service delivery and what is conveyed or communicated to the customer about the service delivery.

For example, sometimes promises are made to customers via the media. Organisations tend to promise more than they can consistently deliver. If these promises do not match actual

service delivery the consequent communication gap leaves customers disappointed (Parasuraman et al., 1985:45).

Gap 5: **Expected service-perceived service gap (service gap)**: This gap refers to the difference between a customer's expectations and the actual service received.

For example, participant 103 reported that if one arrives early at the hospital, one should leave early. Unfortunately, participant 103's expectations were not met. The actual service provided did not allow participant 103 to leave early even though participant 103 arrived early.

Gap 5 is important. Service organisations should ensure that service quality measures up to what the customer expects from the service (Nyandoro, 2012:37; Shariff, 2012:32).

For service quality to be managed successfully, it is vital to manage the preceding four gaps that exist between expectations and perceptions on the part of management and employees. Only then can gap 5 be tightened successfully (Nyandoro, 2012:37; Shariff, 2012:32).

2.8   Evolution of the ten services quality dimensions to SERVQUAL

Because service quality is multidimensional, Parasuraman et al. (1985) identified ten overlapping dimensions of service quality that customers use to assess service quality when visiting an organisation.

Parasuraman et al. (1985) argue that no matter what the service, customers assume these dimensions when evaluating service quality (Buttle, 1996:9). The ten dimensions are: reliability; responsiveness; competence; access; courtesy; communication; credibility; security; understanding or knowing the customers, and tangibles. These are described in Table 2.1, below.

Table 2.1: Service quality dimensions (Nyandoro, 2012:24)

Dimension	Question relating to dimension
Access	How far is the facility from my home?
Communication	Does the staff provide information about my child's tests and do they communicate in the way that I understand?
Competence	Does the hospital appoint highly skilled medical and administrative staff?
Courtesy	Does medical staff care about my needs?
Credibility	Does the hospital have a good reputation?
Reliability	Does the hospital provide services that it promised?
Responsiveness	Does staff attend to my requests speedily?
Security	Do I feel safe and protected in this hospital?

| Tangibles | Is the physical environment eye-catching? |
| Understanding or knowing the customer | Does the staff provide personalised attention? |

As indicated in Table 2.1, there are two dimensions, namely tangibles and credibility, that can be known in advance of using a service. Responsiveness, reliability, access, understanding/knowing the customer, courtesy and communication are experiential dimensions and were mentioned most often by participants in this study. Only when the customer is consuming a service, can each of these dimensions be known to them (Parasuraman et al., 1985:47). Parasuraman et al. (1985:47-48) specify that customers will naturally depend on these dimensions of experience when evaluating service quality.

2.8.1   SERVQUAL

In 1988, Parasuraman et al. refined their exploratory research conducted in 1985 and revised the ten dimensions (see Table 2.1) by condensing them into five dimensions known as: reliability, responsiveness, assurance, tangibles and empathy. From this refinement the SERVQUAL instrument was created.

SERVQUAL is a commonly used and tested method of measuring customers' perceptions of service quality (Khang & James, 2004; Nyandoro, 2012; De Jager & Du Plooy, 2007; Saghier & Nathan, 2013). It is widely cited in the marketing and retailing literature and its use in industry has been widespread.

According to Parasuraman et al. (1988), SERVQUAL is a diagnostic tool that uncovers an organisation's broad weaknesses and strengths where service quality is concerned (Parasuraman et al., 1988; Hoffman & Bateson, 2011:328).

This study made use of a survey instrument that was compiled using the SERVQUAL dimensions. The survey was divided into sections inclusive of reliability, assurance, tangibles, empathy and responsiveness (see Appendix 1). These dimensions are briefly elaborated upon below:

Reliability: This dimension is defined as the ability to perform the promised service accurately. According to Nyandoro (2012:32), reliability has been repeatedly found to be a highly significant factor in customer satisfaction (Saghier & Nathan, 2013:4).

Assurance: This dimension deals with the ability of employees to encourage and instil trust and confidence (Saghier & Nathan, 2013:4).

Tangibles: This dimension deals with appearance. According to De Jager and Du Plooy (2007:100), parents' and guardians' perceptions of quality are based on physical evidence. This includes the environment in which the service is delivered. By improving the physical appearance of the facility, Hospital X can signal quality to parents and guardians (De Jager & Du Plooy, 2007:98; Saghier & Nathan, 2013:5).

Empathy: This dimension measures how parents and guardians are dealt with. Hospital managers can demonstrate empathy by providing customers with their undivided attention when listening to their concerns, and reassuring parents and guardians that they do care and understand their unique situations (Parasuraman et al., 1988:23; Shariff, 2012:28; Saghier & Nathan, 2013:4).

Responsiveness: This dimension can be defined as keeping the customers informed about what services will be performed and when, and responding quickly to their needs. This component is all about thoughtfulness and speed when dealing with queries (De Jager & Du Plooy, 2007:106).

2.8.1.1   Criticisms of SERVQUAL

The SERVQUAL model is not without criticism. There are two major criticisms of the SERVQAUL instrument, which involve the length of the survey questionnaire and the validity of the five service quality dimensions.

2.8.1.2   Length of the survey

According to Harmse (2012:66), the combination of expectation and perception questions in the survey results in a lengthy and highly repetitive survey. It has been suggested that the expectations section of the survey is of no real value and that actual performance is more important and should alone be used to assess service quality.

2.8.1.3   Validity of the five dimensions

According to Hoffman & Bateson (2011:326-328), the proposed five dimensions of reliability, assurance, tangibles, empathy and responsiveness do not hold up under statistical inspection (Hoffman & Bateson, 2011:326-328; Harmse, 2012:81).

Babakus & Mangold, (1992), Mpinganjira (2011) and Nyandoro (2012) disagree. Even though the five dimensions represent different facets of service quality they are interrelated and overlap may occur. Studies conducted by Babakus & Mangold (1992), Mpinganjira (2011) and Nyandoro (2012) all used SERVQUAL, and their findings support the internal cohesiveness of the dimensions that make up the SERVQUAL.

In conclusion, the model proposed by Grönroos (1984; 1988) is unsuitable for this study as it does not offer an explanation on how to measure functional and technical quality, whereas the five dimensions of SERVQUAL, measuring both the perceptions and expectations of customers, make it appropriate for this study. The study incorporated the SERVQUAL dimensions in a survey, which comprised a number of questions with possible answers structured on a six-point Likert scale (see Appendix 1).

2.9   Current Research

There are a number of South African studies that have applied the SERVQAUL model or a modification of it in provincial hospitals.

Studies conducted by Mpinganjira, (2011) Nyandoro, (2012), Mthanti (2015) and Whitford (2016) made use of the SERVQUAL model or a modification if it to identify gaps and make recommendations to hospital management that were specific to the health care services.

This study is based on the same theoretical model but is different in that it is the first to look at service quality at a children's hospital in Cape Town. The type of services and the way the facility is run operationally differ from the "normal" provincial health care facility. This approach is supported by Churchill et al. (1993:137-138), who suggest that the SERVQUAL model be modified and adapted according to the industry, type of service provided and the location of the facility.

2.10   Service quality in healthcare

The World Health Organisation's (WHO) mission is to improve the lives of all, to reduce the burdens of disease and poverty, and to provide access to responsive healthcare for all (Chieh-Sheng, 2016:1-2).

Healthcare services internationally are more sophisticated than those in South Africa. The aim of the 2016 Healthcare Index is to evaluate the healthcare processes, structures and outcomes of healthcare services worldwide (Numbeo, 2016:1).

On a scale in which a score of 100% would mean that there are no flaws in a country's healthcare processes or structures, Taiwan is in first place with the highest score of 86.43%, France in second place with 82.25% and Denmark third with 81.89%. Currently South Africa rests in 49th position (Numbeo, 2016:1).

The organisational structures for healthcare vary widely from country to country. An in-depth study by WHO and the Organisation for Economic Co-operation and Development (OECD),

commissioned by Health Minister Aaron Motsoaledi, found that South Africa's private healthcare is more expensive in relation to what South Africans earn than any European country (Child, 2016:1). South Africa was compared with Austria, Czech Republic, Finland, France, Germany, the United Kingdom and several other countries across Europe. The study shows that South Africa's GDP is 26.00% lower than the average GDP for the twenty OECD countries, but its private healthcare costs are 92.00% higher (Child, 2016:1).

Establishing and refining service quality in healthcare is not a new concept and has long been identified as the key factor differentiating services provided by competing hospitals locally and internationally. In international studies conducted by Alghamdi (2014:1271) and Hussein (2013:20), it was found that service quality has a positive effect on customer satisfaction. As a result, service quality has become a key area of concentration for hospital managers.

2.11   Healthcare services in South Africa

The Department of Health is primarily responsible for healthcare in South Africa, a developing country facing many challenges as a result of rapid changes post-1994.

Employment and access to medical aid remain problematic. South Africa has an alarming rate of unemployment and private medical care is very costly (Sheingold & Hahn, 2014:21). The result is that 70.50% of South Africans choose public healthcare facilities as the first point of contact to address health issues, while 27.70% choose private healthcare (Staff, 2016c:1-2).

Staff (2016c:2) also reports that people using private healthcare are "overwhelmingly positive about their experiences". At least 92.00% of South Africans visiting private healthcare facilities claim to be very satisfied with the care received, while only 57.50% of South Africans are very satisfied with public health services.

The number of South Africans who are covered by a medical aid scheme remains low at 17.50%. The major barrier to private healthcare cover is cost, and many South Africans rely on employment-based medical aid schemes (Rosenblum, 1984:33; Staff, 2016c:1).

Access to private medical aid is not always possible as many South Africans are unemployed and cannot afford it. (This is consistent with the findings reported in Chapter 4.) The effects of the global recession that commenced in 2008/2009 have been severe in South Africa, with over a million workers losing their jobs in the fourth quarter of 2009 (Padayachee, n.d.:3). During the first quarter of 2016, unemployment in South Africa increased by 2.2 percentage

points to 26.70% – reflecting a loss of 355,000 jobs (South Africa. Statistics South Africa, 2016:6; Staff, 2016d:1).

Healthcare in South Africa is slowly being transformed, but there are still huge escalating costs in public healthcare expenditure, and the healthcare system is under pressure for the following reasons:

- Diseases such as HIV and drug addiction. Many of South Africa's youth are currently infected with HIV and reliant on prohibited substances. Substance abuse remains an ongoing challenge in South Africa (Mtshali, 2013:2).
- Teenage pregnancies and the illegitimate birth rate in South Africa are among the highest in the world. DeRose (n.d.:32) found that 59.00% of children are born outside marriage and 58.00% of children are raised by a single parent in South Africa, resulting in single parents having to carry the burden of looking after children and attending to their healthcare needs (Poduval & Poduval, 2009:64).
- Unemployment and high medical aid costs (South Africa. Statistics South Africa, 2016:6; Staff, 2016d:1).
- Politically motivated budgetary decisions (Botha, 2014:367; Davey, 2016:1).

These factors place a strain on the country's healthcare system, with health care already consuming 8.80% of the total government budget (South Africa. National Treasury, 2015:2).

2.12   National Health Insurance

In South Africa, National Health Insurance is a proposed health financing system designed to pool the funds of contributors and provide access to quality, affordable personal health services for all South Africans, based on their health needs, regardless of their socioeconomic status. The South African government intends to roll out the National Health Insurance (NHI) project over a period of fourteen years. In phase one, currently in process, government will ensure through structure and financing that central hospitals will be changed into national assets consisting of training platforms and centres of excellence, locally and regionally (Office of Health Standards Compliance, 2015:13; South Africa. National Department of Health, 2011:8).

National Health Insurance (NHI) will be managed through the creation of a single fund that is publicly financed and publicly administered.

A somewhat different approach exists in other countries, for example, in France, which relies on a mixture of public and private funding. French citizens have access to basic healthcare coverage through national insurance funds, to which both employers and employees contribute (Capell, 2007:1; South Africa. Department of Health, 2015:9).

The key to the success of the French system, according to Capell (2007:2), is that the French customer values choices it provides. With these choices comes a high degree of customer satisfaction.

NHI is intended to ensure that the use of healthcare services does not result in financial hardship for individuals and their families across South Africa. According to Child (2016:1) 17.00% of the population in South Africa uses 41.85% of their income on private health care spending. This is six times the average in other countries, where only 6.80% is spent on private healthcare. The implementation of NHI is in line with the global vision that healthcare should be seen as a social investment and therefore not subjected to market forces, where it is treated as a normal commodity of trade (Office of Health Standards Compliance, 2015:13; South Africa. Department of Health, 2015:10).

2.13   National Core Standards as a basis for quality in South African healthcare facilities

In South Africa most healthcare service providers take a pride in their ability to accurately diagnose illnesses and medical conditions. Yet hospital managers rarely consider the views of parents and guardians regarding what they need from a service quality perspective.

This has started to change. According to the Annual Performance Plan (APP), service quality has become an area of focus for the Department of Health, with the introduction of the National Core Standards (Nyandoro, 2012:39; Western Cape Department of Health Annual Performance Plan, 2013:233; Craig et al., 2007:439; Pugh et al., 2007:2023).

The National Health Act, No. 61 of 2003, highlights the need for quality healthcare services in South Africa. On the basis of this, the Office of Health Standards Compliance (OHSC) was created. The main role of OHSC is to advise on health standards compliance, quality monitoring and strategies to improve the quality of South Africa's healthcare facilities. The role of the OHSC is thus to uphold the rights of all patients (as well as their parents or guardians) who use public healthcare services (South Africa. National Department of Health, 2011:8).

To fulfil strategic and legislative requirements, the OHSC developed the National Core Standards (NSC) for health facilities across South Africa. The NCS constitutes a benchmark against which health establishments can be assessed, gaps identified, strengths appraised and quality improved (Office of Health Standards Compliance, 2015:1).

The NCS further provides standards in terms of which all South African public healthcare facilities will be assessed for certification through a national process (South Africa. National Department of Health, n.d.:1-3; South Africa. National Department of Health, 2011:15).

The NCS documentation was approved by the policy-making body (the National Health Council) and presented to the Minister of Health in February 2011. The standards were based on existing policies and tailored to South Africa's healthcare context. All fixed healthcare facilities are now required to conduct an annual National Core Standards (NCS) self-assessment and develop a Quality Improvement Plan (QIP) (Office of Health Standards Compliance, 2015:13; South Africa. Department of Health, n.d:1).

Within the NCS structure there are six "fast track to quality" elements, also known as priority areas that need to be assessed annually:

- "Values and attitudes of staff"
- "Waiting times"
- "Cleanliness"
- "Patient safety and security"
- "Infection prevention and control"
- "Availability of basic medicines and supplies" (Health Advance Institute, 2016:1).

2.14   Hospital X

In 1945 a decision was taken by the South African Red Cross Society to build a Children's Hospital in memory of all the soldiers who sacrificed so much during the war. Many servicemen and women were moved by the decision and volunteered to donate two days' wages as a contribution to the building of the hospital (Children's Hospital Trust, 2008:1; Western Cape Government, 2016:1).

The hospital is devoted to the relief of suffering among children and serves as a living memorial for soldiers who contributed to the allied victory in the Second World War (Children's Hospital Trust, 2008:1; Western Cape Government, 2016:1-2). Today, 61 years later, Hospital X remains the largest, stand-alone tertiary hospital dedicated entirely to child healthcare in Southern Africa. It is also a referral hospital to which patients are referred from clinics and smaller hospitals in the Western Cape, the rest of South Africa and even across the border.

This iconic children's hospital is world-renowned and committed to delivering world-class paediatric treatment, care, research and specialist training to paediatric healthcare professionals from the entire sub-continent. The hospital conducts ground-breaking research

into various childhood illnesses that has a global impact (Western Cape Government, 2016:1-2).

The hospital manages around 260 000 visits from patients each year, the majority of whom are from impoverished communities. The hospital is committed to healing and promises that no child will be turned away. Hospital X currently operates with 270 beds and a staff complement of about 1100, ranging from academics, doctors and nurses to clerical and non-professional staff (Western Cape Government Annual Performance Plan, 2013:232). Local undergraduates and post-graduate students from around the world receive training and experience in the wards and clinics.

2.15   Conclusion

This Chapter provides a foundation for the study. It begins by considering the concepts of quality, service quality and customer satisfaction. It adopts the view of Parasuraman et al. (1985) that customer satisfaction is measured by the difference between customers' expectations and the perceived performance of the service provider.

It is reiterated in the literature that service quality has a positive effect on customer satisfaction and should therefore be a key area of concentration for hospital managers and professionals because of the potential to provide a quality service and increase customer satisfaction.

The Grönroos model of service quality was discussed and it was noted that the model was limited in that it offered no explanation of how practically to measure functional and technical quality, which rendered it unsuitable for this study.

The five dimensions of SERVQUAL measure the perceptions and expectations of customers, making it appropriate for this research study. The study made use of a survey divided into sections according to the SERVQUAL dimensions of reliability, assurance, tangibles, empathy and responsiveness.

The gap model illustrates the obstacles to accomplishing an acceptable level of service quality. Recommendations for closing gaps will be discussed in Chapter 5.

Due to the variety of challenges that South Africa faces and the pressures on healthcare provision. The NHI project has been introduced and is currently being rolled out across South Africa. The NHI is intended to ensure that the use of healthcare services does not result in financial hardship for individuals and their families across South Africa.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1   Introduction

Chapter Three discusses the methodology used to collect the research data. The Chapter begins by describing the research approach, research design and methodology, as well as the sampling procedure used. The Chapter also discusses the reliability and validity of the data collected, as well as the response rate and the process of analysis undertaken to process the data.

Research methodology can be defined as a systematic way of going about investigating a problem. It can also be defined as the set of methods by which knowledge is gained (Rajasekar et al., 2013:5).

As stated in Chapter One of this study, the researcher, who is currently involved in the public healthcare sector, decided to measure parent and guardian perceptions and expectations of service quality by making use of the SERVQUAL model. The research question is: According to the perceptions and expectations of parents and guardians, does Hospital X satisfy their anticipation in terms of providing a quality service?

3.2   Research approach

Two logical approaches can be followed when conducting research, deductive and inductive.

3.2.1   Deductive and inductive approaches

Following a deductive approach, the researcher develops a theory and designs a research strategy to test the theory. In the case of an inductive approach, the researcher collects data and develops a theory on the basis of the data analysed. This is generally done when it is difficult to identify the conceptual basis for a construct.

In this study the deductive approach was used. According to Olckers (2011:113-114) and Saunders et al. (2007:124-125), the deductive approach should possess the following characteristics:

- It is necessary to describe relationships between variables. In this study, the researcher via the literature review noted that customer satisfaction and service quality are inter-related: the higher the service quality, the higher the customer satisfaction.
- Quantitative data was collected using a survey related to associations between the concepts of SERVQUAL, as developed by Parasuraman et al. (1985, 1988, 1991).
- Controls should be put in place and applied to ensure the validity of data. For the purpose of this study, construct validity was assessed to substantiate whether the measuring instrument (the survey) appropriately evaluated service quality and customer satisfaction (Phelan & Wren, 2005; Heale & Twycross, 2015:66-67).

- The researcher, although involved in the public healthcare arena, is independent of what is being observed (Lee & Wu, 2015:252).

3.3   Research design and methodology

A research design is the blueprint and overall plan for how the research study is to be conducted. The research design assists in obtaining answers to the research questions and overcoming difficulties encountered during the research process (Deori, 2012:202).

In this study a standard procedure was followed, and the report has a set structure consisting of introduction, literature, methods, results and discussion (Olckers, 2011:116). The statistical analysis was done using SSPS software version 23, and includes statistics, Tables and Figures (Olckers, 2011:116).

The constructs being measured in this study aka the SERVQUAL dimensions are "real-life" phenomena and have been identified and tested in previous research studies. The data was collected using a survey based on SERVQUAL completed by the respondent sample. The data are in the form of numbers, which provides for accurate measurement, which means that the study is quantitative in nature. As can be seen from Table 3.1, the design selected for this research is exemplary of survey research (Mouton, 2001:153).

Table 3.1: Survey research design (Mouton 2001:152)

Description/ Definition	This research study is quantitative in nature and aims to obtain data from a sample that is representative of a greater population (Marshall, 1996:522; Mouton, 2001:152).
Design classification	The study is involved in the collection of empirical, primary data and numeric data, with medium control (Mouton, 2001:152).
Key Research Questions	The research questions in this study are exploratory and mostly descriptive (as in attitudinal surveys and public opinion polls) (Mouton, 2001:153; Hesse-Biber & Leavy, 2011:10).
Typical applications	The typical application used in this study was a survey (Mouton, 2001:152).
Selection of cases/ Sampling	The type of sampling used in this study includes non-probabilistic (convenience sampling) and is often used, especially in market research (Marshall, 1996:523; Mouton, 2001:153).
Mode of observation/ sources of data	Sources of data within the current study include a structured self-completing survey (Mouton, 2001:153).
Analysis	Data analysis includes descriptive statistics in the analysis of large survey data sets. Techniques used in this study include the use of statistical graphics (bar graphs and pie charts) (Mouton, 2001:153).

A cross-sectional survey was chosen, the advantage of which is that it avoids problems relating to longitudinal designs, which are costly and time consuming and can prevent

participants from taking part (Beck & Polit, n.d.:239; Nyandoro, 2012:48). The disadvantage of a cross-sectional study is that the research is conducted at only one point in time, and changes over time are ignored (Roundy, 2016:1). A descriptive method is always recommended as it is the design most conducive to learning about a situation, while quantitative descriptive research methods are useful for quantifying opinions and finding out how a population of people feels about certain issues (Nyandoro, 2012:48; Dubihlela, 2012:9-10; Beck & Polit, n.d.:239; Nah, n.d.:2).

3.4   Sampling and population

Munro and Munro (2003:59) define a sample as a portion of a population used as a basis for making inferences about the larger population that the sample represents. The views and opinions of an effective sample should therefore be representative of the population that is being studied.

3.4.1   Sampling methods

There are two types of sampling methods, probability and non-probability sampling. Probability sampling is a sampling technique in which the probability of each participant being selected from the population is known, whereas non-probability sampling is a sampling technique in which the chance or probability of each case being selected is not known (Olckers, 2011:121). Non–probability sampling, in the form of convenience sampling, was used to gather the research data from the research population that consisted of parents and guardians at Hospital X out-patient clinics. The research survey was distributed to the parents and guardians, who completed the survey according to their understanding of the quality of service received from the institution. The researcher randomly selected parents and guardians as they entered the outpatient clinics at the hospital, thereby attempting to prevent bias as far as possible. The completion of the survey was unassisted. The method was simple and in line with the budget and time constraints placed on the study (Manuel, 2008:33).

The selection of a suitable sample is crucial, to guarantee enough variance in responses and prevent any irregularity. Hinkin (1998:111) recommends that a sample used for data collection should be representative of the population of interest. What is the most appropriate size of a sample in relation to the research population, and if so, does size always count? The answer to this question depends on the size of the population and its homogeneity (Monette et al., 2011:148). For example, if the researcher wanted to conduct a study on people of the Islamic faith in terms of their religious tenets on the consumption of alcohol, it would only take one pious Muslim to act as a sample representative of the entire population of Muslims throughout the world (Crawford, 1997:117; Sommer, 2006b:1).

The sample size has been calculated at 293, at a confidence level of 95.00% and margin of error of 5.65%, as discussed in Chapter 1 (see Table 1.1). It must be noted that as the patients were minors, their parents or guardians were surveyed in order to obtain the requisite research data. In order to qualify as respondents, parents and guardians were required to meet the following criteria:

- Their children needed to be follow-up outpatients;
- Their children needed to be outpatients who were newly referred; or
- Their children needed to be new outpatients who were not referred, but who visited the hospital and various outpatient clinics.

As the patients were minors, their parents or guardians completed the survey on their children's behalf. Naturally, the person completing the survey must have been able to read and understand English.

3.5   Validity and reliability

The success of research depends in part on its validity and reliability. Validity is defined as the extent to which the study measures what it has set out to measure, whereas reliability relates to the consistency of a measure (Nyandoro, 2012:54; Heale & Twycross, 2015:66-67).

According to Phelan and Wren (2005:2), there are many aspects of validity, including content validity, construct validity and criterion validity. For the purposes of this study, construct validity was assessed to ascertain whether the measuring instrument (the survey) appropriately evaluated service quality and customer satisfaction (Phelan & Wren, 2005; Heale & Twycross, 2015:66).

Reliability, like validity, is a way of assessing the quality of the measurement procedure used to collect data. In order for the results of a study to be considered valid, the measurement procedure must first be reliable (Lund Research Ltd, 2012:1). Reliability refers to the consistency of a measuring instrument. Surveys have been used in many past research studies, and they are regarded as a tried and trusted data collection tool (Heale & Twycross, 2015:66-67). For the present research study, determining internal consistency was necessary. Internal consistency or homogeneity is calculated by using Cronbach's Alpha, which, according to Heale and Twycross (2015:67), is the most commonly used test to determine the internal consistency of a research instrument. Furthermore, from a technical perspective, Cronbach's Alpha is not a statistical test, but a coefficient of reliability or consistency (Tavakol & Dennick, 2011:53; Nyandoro, 2012:55).

3.5.1 Cronbach's Alpha

According to Tavakol and Dennick (2011:53), Cronbach's Alpha is a tool developed by Lee Cronbach in 1951 to measure internal consistency, that is, to measure how closely related a set of items is within a group. Reliability depends upon consistency: in this context, reliability is an index of how well a test consistently measures what it is supposed to measure. For example, a company may administer a survey to their employees to gauge their job satisfaction. High reliability for the test would indicate that it is consistently measuring their sense of job satisfaction. Low reliability would indicate that it is measuring something else, or possibly nothing at all (Andale, 2014a:2). Reliability tests, like Cronbach's Alpha, are most commonly used to see if surveys with multiple Likert scale questions are reliable.

The questions are designed to measure latent variables (variables that are not directly observed but are rather inferred from other variables that are observed and directly measured). A latent variable is therefore a hidden or unobservable variable, like a person's conscientiousness, and notoriously difficult to measure. Cronbach's Alpha will tell you if the test you have designed is accurately measuring the latent variable in which you are interested (Tavakol & Dennick, 2011:53; Andale, 2014b:2).

This technique calculates the mean of all possible combinations of split-half coefficients resulting from different splitting of the measurement instrument (Hair et al., 2003:173; Tavakol & Dennick, 2011:53). Figure 3.1, below, provides the Cronbach's Alpha formula for conceptual purposes.

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N-1) \cdot \bar{c}}$$

Figure 3.1: Cronbach Alpha equation (Tavakol & Dennick, 2011:53)

In Figure 3.1, above, N is equal to the number of items, c-bar is the average inter-item covariance among the items, and v-bar equals the average variance. One can see from this formula that if you increase the number of items, the Cronbach's Alpha will increase. Additionally, if the average inter-item correlation is low, the Alpha will be low. As the average inter-item correlation increases, Cronbach's Alpha increases as well, holding the number of items constant. Cronbach's Alpha reliability coefficient is expressed as a number between 0 and 1. The closer Cronbach's Alpha coefficient is to 1 the greater the internal consistency of the items in the scale (Tavakol & Dennick, 2011:53; Andale, 2014a:2).

3.5.2 Application to this study

Table 3.2 below presents the results of the alpha coefficient for this study and shows that the measure denotes high internal consistency.

Table 3.2: Cronbach's Alpha

Satisfaction Scales	Cronbach's Alpha
Reliability dimension	0.872
Assurance dimension	0.918
Tangible dimension	0.883
Empathy dimension	0.890
Responsiveness dimension	0.909

According to Bryman (2016:158), a computed alpha coefficient will vary between 1 which denotes perfect internal reliability and 0 which denotes no internal reliability. As displayed in Table 3.2, all the dimensions included in the study scored 0.8 and above, indicating a high degree of internal reliability for the measuring instrument. Cronbach's Alpha was calculated using SPSS software version 23.

In "Making sense of Cronbach's Alpha", Tavakol and Dennick (2011; 2:53-55) suggest a rule of thumb for interpreting the Alpha for dichotomous questions (i.e. questions with two possible answers) or Likert scale questions. This is shown in Table 3.3, below:

Table 3.3: Cronbach's Alpha rule of thumb (Andale, 2014a:2)

Cronbach's alpha	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

As can be seen from Table 3.2, the internal consistency of the data in this study ranges between good and excellent, indicating a high degree of consistency.

It is one thing knowing that the data collected are reliable and consistent, but whether they are valid or not is quite another (Henrichsen et al., 1997:1). As stated above, validity is an indication of how sound your research is. Validity applies to both the design and the methods of research. Validity in data collection means that the study findings truly represent the

phenomenon that the researcher is claiming to measure, and valid claims are solid claims (Henrichsen et al., 1997:1). If data is valid, it must be reliable, for example:

> If people receive very different scores on a test every time they take it, the test is not likely to predict anything. However, if a test is reliable, that does not mean that it is valid. Reliability is a necessary, however an insufficient condition for validity. (Sommer, 2006a:1)

The power of a motor car can be measured reliably using diagnostic tools, but this is not a valid test of an individual's driving ability or knowledge of the mechanical workings of the car (Sommer, 2006a:1; Roberts et al., 2006:41).

To conclude, if the results of a study are not deemed valid then they are essentially meaningless. If the test or survey does not measure what it sets out to measure then the results cannot be used to answer the research question, thus defeating the aim of the study. Such results cannot be used to generalise any findings and become a waste of time and effort. Moreover, just because a study is valid in one instance it does not mean that it is valid for measuring something else (Sommer, 2006a:1). Questions included in the survey were based on the research questions and related to services at Hospital X. The survey was answered by parents and guardians who allowed Hospital X to treat their children. The researcher believes that the research was both reliable and valid, as the findings are representative of what the researcher was attempting to measure.

3.6   Data collection

The development of the survey was based on associations between the concepts of SERVQUAL, as developed by Parasuraman et al. (1985, 1988, 1991). The research instrument consisted of four sections. Section A of the survey was designed to capture the demographic characteristics of the respondent (gender, age, employment status and medical aid status), while Section B consisted of 24 items developed to measure parents' and guardians' perceptions and expectations. Section C consisted of satisfaction scales designed to measure the dimensions of service quality and customer satisfaction in each dimension, and these were randomly placed under their respective sub-divisions. Section D of the survey comprised questions regarding overall customer satisfaction and loyalty scales.

Overall customer satisfaction was examined by using two statements, namely, "the hospital never fails to meet my expectations"; and "overall I am happy with the quality of service provided in the hospital". Customer loyalty was also tested by two statements, namely, "I will continue to come back to this hospital"; and "I will recommend this hospital to other people". Overall satisfaction and loyalty was examined by using statements structured on a six-point Likert scale.

Prior to distribution, the survey was pre-tested by the researcher to determine whether it was user-friendly, and whether it contained any ambiguous or sensitive questions. Pre-testing allows for errors to be rectified with little expenditure of time prior to the formal collection of research data. In order to determine the survey's ease of use, it was tested on ten randomly selected parents and guardians and five of the researcher's colleagues. Once the survey was amended to make it more user-friendly, it was then distributed to all parents and guardians in the outpatient clinics that met the requirements outlined earlier (see Section 3.4.1). Upon completion, the surveys were collected, collated and analysed by the researcher.

3.7   Response rate

A total of 350 surveys were distributed to the parents and guardians in the outpatient clinics at Hospital X. Missing surveys and spoiled surveys amounted to one hundred and nineteen (119), which translated into the receipt of 231 fully and accurately competed surveys. Although this figure fell short of the 293 respondents that were originally targeted (a shortfall of 62), the researcher felt that the findings would still be representative of the total population for the following reasons:

- The homogeneity of the respondents: All were parents and guardians of children who were treated at Hospital X (Monette et al., 2011:148).
- The homogeneity of the setting: Only one institution was dealt with, the Hospital X outpatient department, and not a variety of different hospitals (Monette et al., 2011:148).
- The fact that opinions, views and feelings, were sought from the respondents and not scientific facts.
- The confidence level is 95.00%, which is the recommended standard in quantitative research, and makes the data collected representative for the purposes of the study (Medina & Idoia, 2015:514; Martin, 2016:1-2).
- For a margin of error to be considered acceptable, it is required to fall between 4.00% and 8.00% at the 95.00% confidence level (Data Star, 2008:1; Medina & Idoia, 2015:514). As the margin of error was 5.65% at a 95.00% confident level (slightly more than the desired 4.00% but substantially less than 8.00%) the researcher felt that it would be sufficiently accurate to make general assertions about the population at the institution (Raosoft sample size calculator, 2004; Data Star, 2008:1; Medina & Idoia, 2015:514). Refer to Appendix 4.
- The response rate for this study was 78.83%. This represents an acceptable response rate according to Gordon (2016:1) who argues that a 50% response rate is acceptable for social sciences research.

3.8   Data analysis

This study aimed at obtaining the views and opinions of parents and guardians who experience services rendered by Hospital X. In order to achieve this, the research data was collected and analysed by the researcher and a qualified statistician by using the SPSS version 23 software. The study used descriptive statistics as a statistical tool. The SERVQUAL model was used to obtain data so as to ascertain service quality and customer satisfaction. If any service gaps were thus identified, the researcher could formulate and

suggest strategies to close them. The SERVQUAL dimensions applied in the study are discussed below.

Reliability: In this context, reliability refers to whether Hospital X delivers reliable service in terms of its promises to its customers (Yin, 2010:30; Nyandoro, 2012:32). According to Nyandoro (2012:32), South African public healthcare facilities do not offer reliable services as parents and guardians who bring their children have to wait excessive periods of time to see a doctor.

Assurance: The assurance dimension is the ability to encourage and instil trust and confidence amongst parents and guardians (Yin, 2010:28). Assurance can be demonstrated by the ability of medical professionals to create a sense of safety, by assuring parents or guardians that their needs are being taken into consideration (Yin, 2010:28; Nyandoro, 2012:71).

Tangibles: The tangible dimension refers to the physical appearance and neatness visible to parents and guardians at Hospital X. A beautiful physical environment is conducive to greater levels of satisfaction (Nyandoro, 2012:71).

Empathy: The empathy dimension deals with how staff treat parents, guardians and their children. Staff should always treat them in a caring manner and demonstrate empathy towards them by providing individual care. The greater the degree of empathy from healthcare employees, the greater the levels of customer satisfaction (Nyandoro, 2012:71; Shariff, 2012:28).

Responsiveness: This component is all about thoughtfulness and speed when dealing with customer queries (De Jager & Du Plooy, 2007:107-108; Nyandoro 2012:71). The greater the speed in dealing with parents and guardians the greater their satisfaction will be (Shariff, 2012:28; Nyandoro 2012:71).

3.9   The position of the researcher in the research

Parenting is a challenging responsibility that affects every decision a parent makes. The researcher cannot claim to understand the complexities of the situation and emotions of parents or guardians who have to deal with a sick child. The researcher therefore maintains a position of outsider, striving to understand the experiences so that she and others might gain insight into what affects them when visiting a service organisation. Steps taken to prevent possible researcher bias have been documented and discussed in Chapter 1, sections 1.8.1 and 1.8.2.

The researcher is currently involved in the Public Healthcare sector within Information Management. Experience in this environment has been an advantage to the researcher as it has allowed her to better understand the complexities of healthcare provision.

3.10   Conclusion

A deductive approach has been utilised in this study, within a design exemplary of survey research (Mouton, 2001). Non–probability sampling, in the form of convenience sampling, was utilised to identify respondents. The researcher randomly selected parents and guardians as they entered the outpatient clinics at Hospital X, thereby attempting to prevent bias.

Construct validity was assessed to substantiate whether the measuring instrument (the survey) appropriately evaluated service quality and customer satisfaction. Cronbach's Alpha, a test for internal consistency, indicated that all the dimensions completed in this study scored 0.8 and above, indicating a high internal consistency for the measuring instrument. The research population comprised all the parents and guardians who visited the outpatient clinics at Hospital X. The sample size amounted to 231 and although this figure fell short of the 293 respondents originally targeted (a shortfall of 62), the researcher felt that the findings would still be representative of the total population, for reasons discussed in Section 3.7.

The data was analysed by the researcher and a qualified statistician by using the SPSS version 23 software, making use of descriptive statistics. The development of the survey was based on associations between the concepts of SERVQUAL. The survey was used to obtain data from respondents to measure service quality and customer satisfaction.

CHAPTER FOUR: DATA ANALYSIS

4.1   Introduction

In Chapter 3 it was explained how the required research data was collected from the targeted population and how the size of the sample was computed. The researcher also defended the sample size which was smaller than planned, showing that it was still sufficiently representative in order to make accurate assumptions about what was researched. Chapter 3 also dealt with the content of the research survey and how it was distributed in order to garner the requisite research data. This Chapter presents the results of the data analysis.

4.2   Data analysis methodology

As stated in Chapter 3, the primary data for this research was collected by means of a self-administered survey. Before the data analysis could commence, the completed surveys were subjected to a process of data preparation, which consisted of data editing, coding and capturing. The data editing aspect involved checking each returned survey for completeness, whilst ensuring that the sampling criteria had been met. It must be noted that prior to the survey being handed out to the various respondents, it was pre-tested in order to identify ambiguity and determine "ease of completion". Once the data had been edited, coded and captured, they were analysed by using the SPSS statistical package version 23.

4.3   Analysis of research data

The content of the responses to the research survey ranged from demographic information to opinions about the service quality at Hospital X. These are discussed, below.

4.3.1   Gender of the respondents

The findings show that 80.87% of the respondents were female and 19.13% male (Figure 4.1). The researcher was not surprised by these findings, as no matter what else women achieve in life, there is simply no greater nor more important role for women than motherhood, which involves loving, nurturing and raising children (Poduval & Poduval, 2009:63; Christofferson, 2013:2; South Africa. Statistics South Africa. 2014c:3). It is also true that, in most families, it is the mother who is most closely involved with, and assumes final responsibility for, the health of the children. The statistic perhaps also reflects the high illegitimate birth rate in the Western Cape, which results in single females having to bear the burden of looking after their children alone (Poduval & Poduval, 2009:64-65). According to DeRose (n.d.:32), the illegitimate birth rate in South Africa is among the highest in the world. In data from 2008-2009 it was found that 59.0% of children are born outside marriage and 58.0% of children are raised by a single parent household in South Africa (DeRose, n.d.:33).

It may be assumed that this is one of the reasons why there are so many females accompanying children to Hospital X.
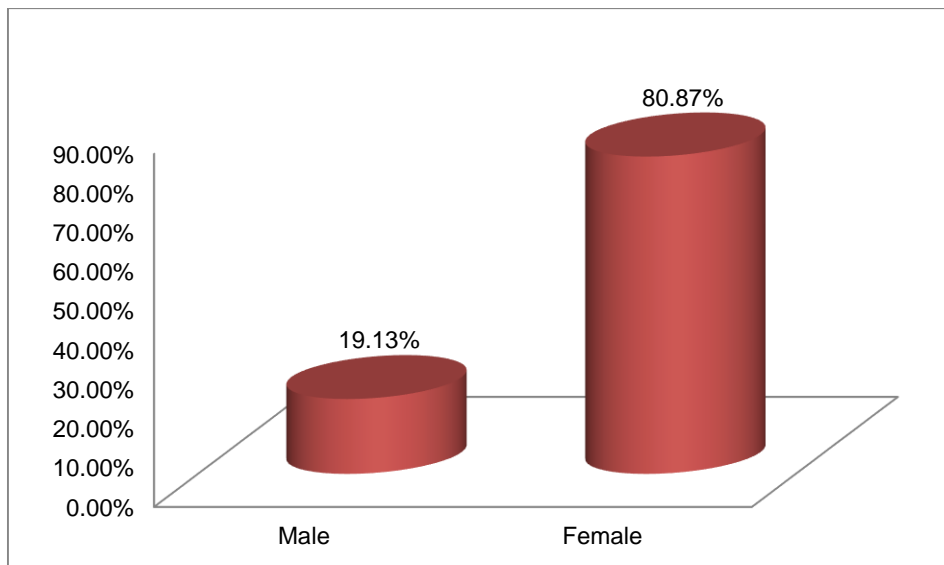

Figure 4.1: Gender of respondents

4.3.2   Age profile of the respondents

From Figure 4.2, it can be noted that 21.74% of participants were younger than or aged 25, 26.09% were between the ages of 26 and 30, 32.17% between the ages of 31 and 40 years, 13.91% between the ages of 41 and 50 years, 5.22% between the ages of 51 and 60, 0.43% between 61 and 65 years, and 0.43% above 65 years of age. When the above age profile percentages are added together, the sum is 99.99%, the other 0.01% being lost in rounding off within the SSPS system where the data was analysed. The percentages were calculated to two decimal points for the sake of accuracy.

According to Statistics South Africa (South Africa. Statistics SA, 2014b:30), South Africa has a high rate of pregnancies among teens under the age of 19. The prevalence of pregnancy increases with age, from 0.8% of females aged 14 to 11.9% of females aged 19. Since 2000 the number of HIV-related deaths among the age group 15-19 years has trebled, and data from Allison (2015:1) reveals that 26 new infections occur among this age group every minute. Mtshali (2013:2) found that clinics in South Africa saw the highest increase in drug use among children in the 15-19 age group. Research by Jordan et al. (2014:394) found that many young people in South Africa are "at risk" for HIV infection, teenage pregnancy and drug use (South Africa. Statistics SA, 2014c:5). As a result, older siblings have to assume the duty of caring for the children. This may be why so many mature individuals aged between 31 and 40 years are accompanying children to Hospital X (Mtshali, 2013:1; Jordan, 2013:1; Allison, 2015:1).
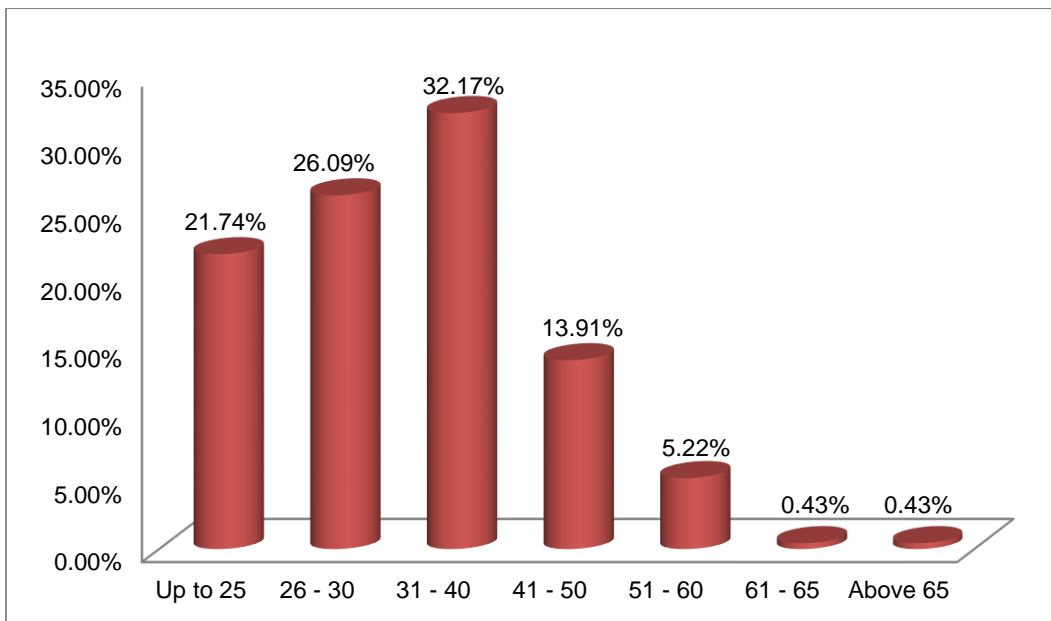
Figure 4.2: Age profiles

4.3.3 Employment profile of the respondents

Figure 4.3 shows that 32.47% of participants are employed full time, 14.29% are employed part time, 4.33% are students, 45.02% of respondents are unemployed, 0.43% are retired while 3.46% responded "other".

Von Fintel and Burger (2015:1) explain that the high rate of youth unemployment in South Africa may develop into a "middle aged" unemployment problem as the generation of youth ages. Research has shown that the deliberate exclusion of certain race groups from the educational system and from skilled occupations under the apartheid government has contributed to the high rates of unemployment seen in South Africa today (Von Fintel & Burger, 2015:1).

Since 1994 South Africans have enjoyed democracy, including free and unrestricted access to the economy and job opportunities. However, the global recession that commenced in 2008/2009 has meant that companies could no longer afford to employ more people (South Africa. Statistics SA, 2014a:5). As a result the work force has shrunk, with thousands losing their jobs and not many new jobs being created (Government Communication and Information System, 2016:1). With unemployment comes poverty; also, when people lose their jobs they lose their health benefits, while a reduced income means they cannot afford private medical care. The stress of unemployment attacks both physical and mental health (Rosenblum, 1984:33). A study by Statistics South Africa revealed that in 2011 a little less than half (45.5%) of all South Africans were living below the poverty line (South Africa. Statistics SA, 2014d:26).

Although the State contributes about 40.0% of all expenditure on health, the public health sector is under pressure to deliver services to about 80.0% of the population, as high levels of poverty and unemployment mean healthcare is largely the burden of the State (Government Communication and Information System, 2016:2). The public sector is stretched and under-resourced, while the growing private sector caters to middle and high income earners who tend to be members of medical schemes.
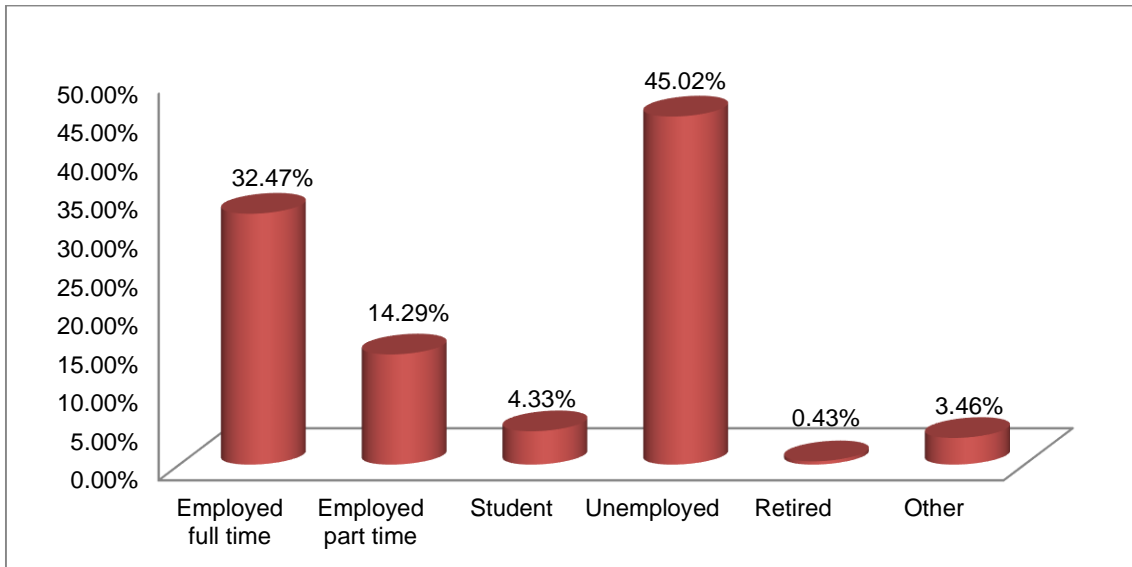
Figure 4.3: Employment profiles

In Figure 4.3, above, it may be seen that the majority of respondents are not gainfully employed and therefore do not have access to employment-based medical schemes. This is the key reason why these parents and guardians rely on public medical care to cater to their needs and the needs of their children. This finding could also be linked to the medical aid profile (see Figure 4.4 below), where the majority of participants responded that they did not belong to a medical aid scheme as private treatment and medical aid options are overly expensive and unavailable to the majority of the population (Expatica, 2016:1).

4.3.4 Medical aid profile of the respondents

Figure 4.4 indicates that only 6.99% of participants belonged to a medical aid scheme while 93.01% did not.

Many South Africans depend on employment-based health plans to gain access to the private medical care system (Rosenblum, 1984:33). Data published by the Institute of Race Relations (IRR) states that the majority of South Africans are not covered by medical aid (Staff, 2016a&b:1). This correlates with the findings of this study. In South Africa, only 17.5% of the total population of over 54.4 million are covered by a medical aid scheme, leaving

almost 44.9 million without cover and dependent on the State. According to Staff (2016c:1) in collaboration with the IRR, only 10.6% of Black South Africans are covered by a private medical aid, 19.3% of Coloured people, followed by 44.5% of Asians and 73.3% of White people (Staff, 2016c:1).

More than half of the population is thus reliant on the State (South Africa. Statistics SA, 2013: 28-29). As discussed in the employment profile above and in Chapter 2, many South Africans are unemployed and even for those who are employed or have an adult member working in the home, affording healthcare is still a challenge. In a study by Rosenblum (1984) the responses from participants included the following: "How can we stay healthy when we don't have the money to pay our doctors and lab work? Poor people take the punishment. Nobody cares anymore" (Rosenblum, 1984:31).

Owing to the high costs of medical aid schemes, the South African government intends to roll out National Health Insurance (NHI). The NHI is a health financing system designed to pool the funds of contributors and provide access to quality, affordable personal health services for all South Africans based on their health needs, regardless of their socioeconomic status (South Africa. Department of Health, 2015:10). As depicted in the employment profile (Figure 4.3), 45.02% of participants are unemployed and 93.01% of respondents do not belong to a medical aid (Figure 4.4). With the introduction of the NHI, South Africans will have access to healthcare services without financial hardship (South Africa. Department of Health, 2015:10-11).
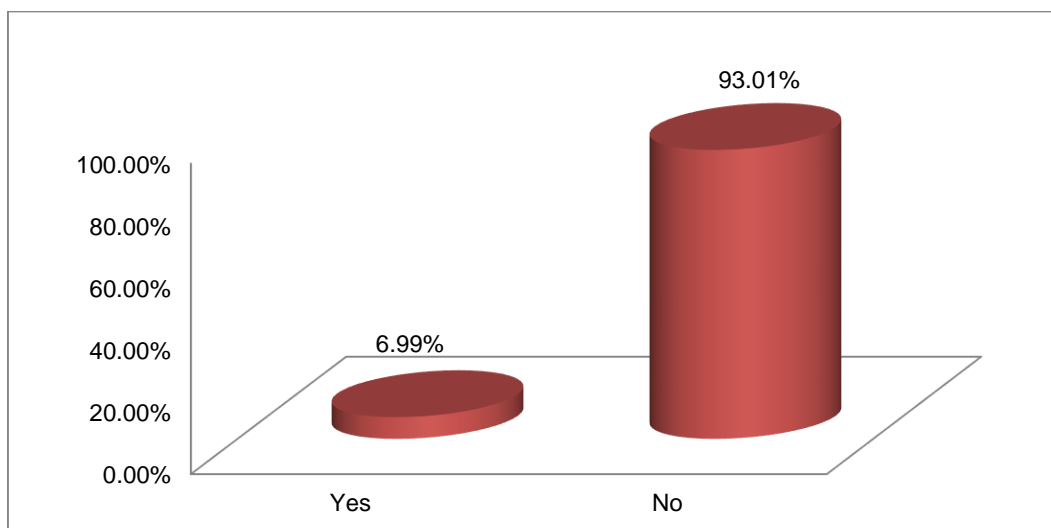

Figure 4.4: Medical aid profiles

As can be seen in Figure 4.4, the vast majority of respondents asserted that they did not belong to a medical aid. Besides placing a burden on public medical care from a capacity

point of view, such parents or guardians do not have the means to assist in funding the state as they are mainly unemployed. With that being said, service quality and customer satisfaction should still be a priority to hospital managers.

4.4 Descriptive analysis

The study seeks to determine whether Hospital X's services comply with the five dimensions of effective service quality, namely reliability, assurance, tangibles, empathy and responsiveness. The findings are as follows:

4.4.1   Reliability dimension

Reliability is defined as the ability to perform the promised service dependably and accurately. In its broadest sense, reliability means: Does Hospital X fulfil its promises regarding the delivery of quality services? (Mamilla et al., 2013:3210).

The study made use of a six-point Likert scale. Within this scale, "completely agree", "mostly agree" and "slightly agree" scores will be added together to form a total score for agreement. Similarly, all scores for "slightly disagree", "mostly disagree" and "completely disagree" will be added together to form a total score for disagreement.

In Figure 4.5, below, regarding reliability in record-keeping, it may be seen that 89.96% of participants agreed that staff at Hospital X keep their medical records up to date, whereas 10.04% of participants disagreed with the statement.
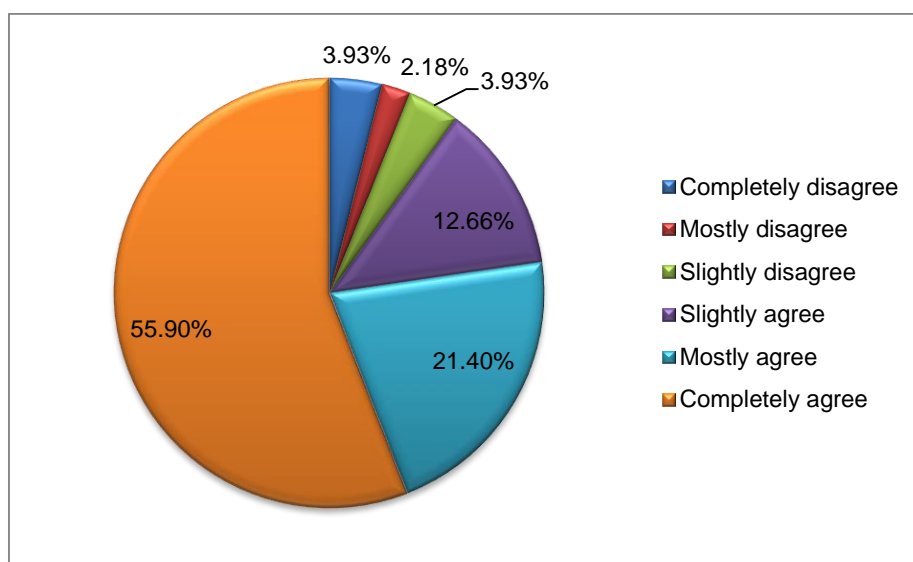

Figure 4.5: Staff kept records up to date

It can therefore be assumed that, to the extent that it performs dependably in respect of keeping information up to date, Hospital X provides a reliable service to parents and

guardians. The ability of healthcare workers to update medical records and provide parents and guardians with an accurate and efficient service is an important aspect of the reliability dimension. A good quality medical record details the patient's incident and health history and is essential to proper ongoing care for the patient. The information should be comprehensive enough to allow a doctor to carry on where the previous clinician left off (HCA Lawyers, 2016:1).

In a study conducted by Ilioudi et al. (2013:68), improving customer satisfaction through reliability leads to increased productivity, which leads to future recommendations. Physicians and staff can spend excessive amounts of time reacting to complaints about out-of-date or missing records and dealing with non-compliant parents or guardians who feel the staff is not providing an efficient service. Clearly, this negatively impacts on efficiency and customer satisfaction. Satisfied parents and guardians take up less physician and staff time and are less anxious during their visits. When parents or guardians feel that services are reliable they are more willing to cooperate during procedures, follow the care plan and recommend the healthcare facility to friends and family (Ilioudi et al., 2013:68; Language of Caring, 2016:1).

Recommendations are signs of satisfaction. If parents and guardians were not satisfied with service received they would not recommend Hospital X to individuals they care about (Agbor, 2011:72). A question was posed to find out whether parents and guardians were indeed prepared to recommend Hospital X to their friends and family members. The responses are depicted in Figure 4.6, below.
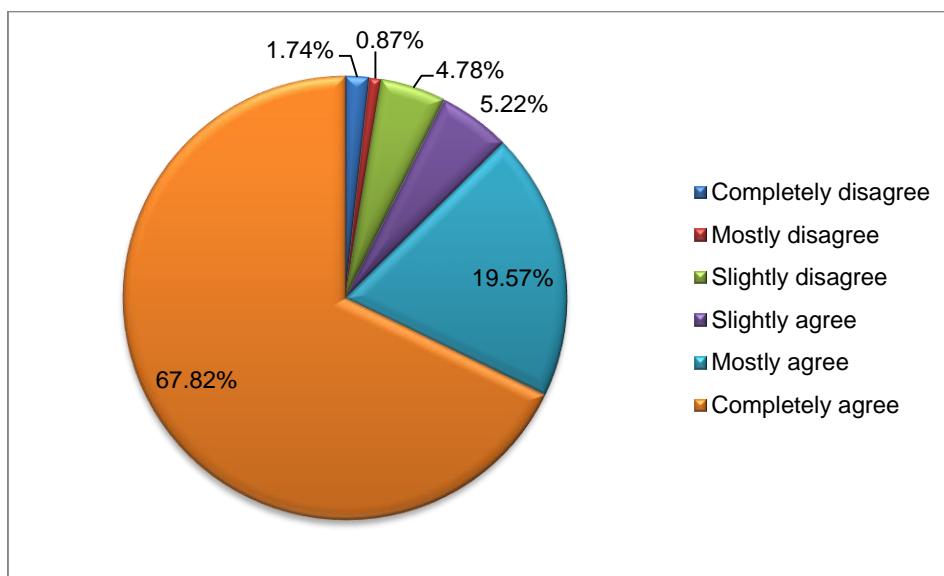
Figure 4.6: I will recommend to other people

As can be observed in Figure 4.6, above, 92.61% of the respondents responded in the affirmative, while 7.39% disagreed. From their overwhelming willingness to recommend

Hospital X to friends and family, it appears that parents and guardians are satisfied and believe that the hospital is providing a quality service.

Figure 4.7, below, displays the finding that 77.39% of participants responded that staff at Hospital X schedule appointments in such a way that they do not have to wait an unreasonable length of time to receive attention, while 22.61% disagreed with the statement.
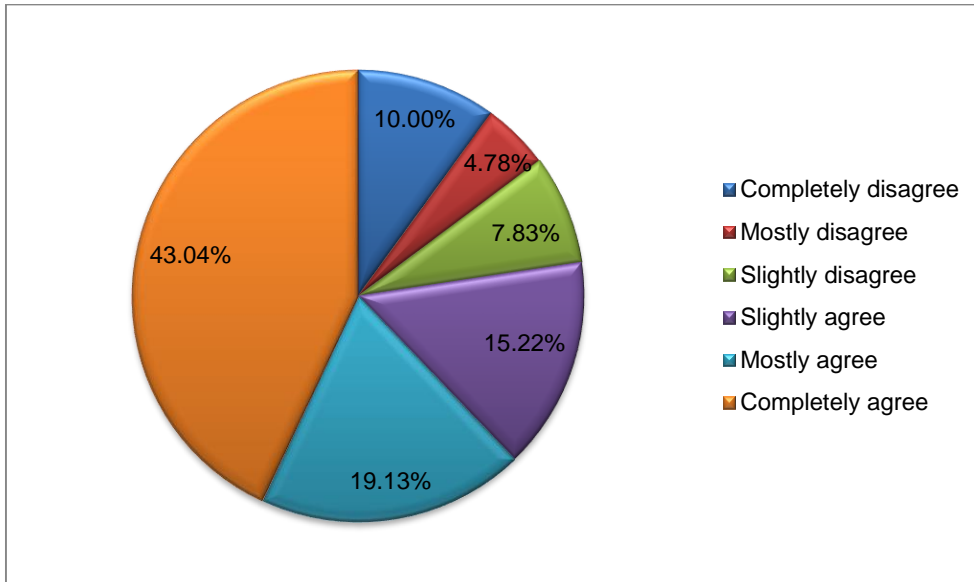
Figure 4.7: Appointments are scheduled reasonably

Figure 4.7 above reflects that by far the majority of the respondents concurred that Hospital X was effective in scheduling appointments. This meant that lead times for service were kept to a minimum, which contributes positively to customer satisfaction.

The research participants were also asked if services were provided at promised times. As can be seen in Figure 4.8, 75.54% responded that they agreed with the statement, while 24.45% disagreed. When the above percentages are added together, the sum is 99.99%, the other 0.01% being lost in rounding off within the SSPS system where the data was analysed. The percentages were calculated to two decimal points for the sake of accuracy. This kind of minor discrepancy will recur, but will not again be noted.
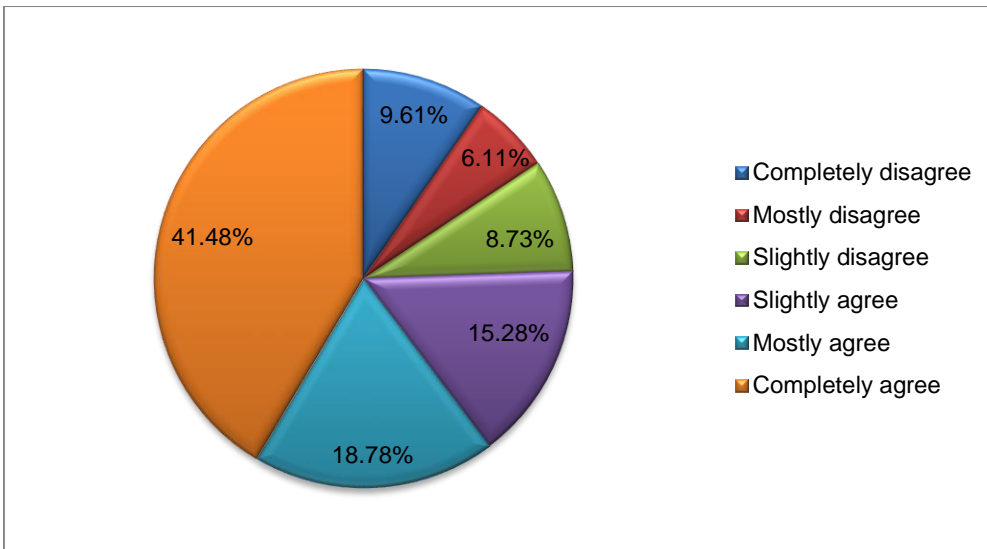
Figure 4.8: Services provided at promised times

Figure 4.8, above, reflects that the majority of the respondents believed that Hospital X provides a timely and convenient service. Since reliability refers to the ability to perform the promised service dependably and accurately, it may be inferred that Hospital X provides a reliable service to parents and guardians by scheduling their appointments in such a way that they do not have to wait for an unwarranted length of time to see the doctor in order to receive medical attention for their children.

Staff should always ensure that parents and guardians see the doctor at the time they were given or as close as possible to the time they were given when the appointment was made. This may of course not always be possible as healthcare is unpredictable, with many unforeseeable emergencies. When this happens, communication with the parents or guardians is imperative as overall satisfaction drops the longer they have to wait (Grey, 2012:1). For many parents and guardians visiting a hospital is like going travelling: they are required to pack snacks, reading material, and a travel bag due to excessive waiting times (Woo et al., 2013:69-74).

4.4.2. Assurance dimension

The assurance dimension refers to the knowledge and courtesy of employees, and their ability to inspire trust and confidence (Kitapcia et al., 2014:162). Assurance is about more than staff just having good manners, it is about establishing respectful relationships with clients. The study made use of a six-point Likert scale, and again, "completely agree", "mostly agree" and "slightly agree" scores are added together to form a total score for agreement, while all scores for "slightly disagree", "mostly disagree" and "completely disagree" were pooled to form a composite score for disagreement.

In Figure 4.9, below, on the subject of trust it was found that 89.13% of participants asserted that they trusted the hospital staff, while 10.86% said that they did not.
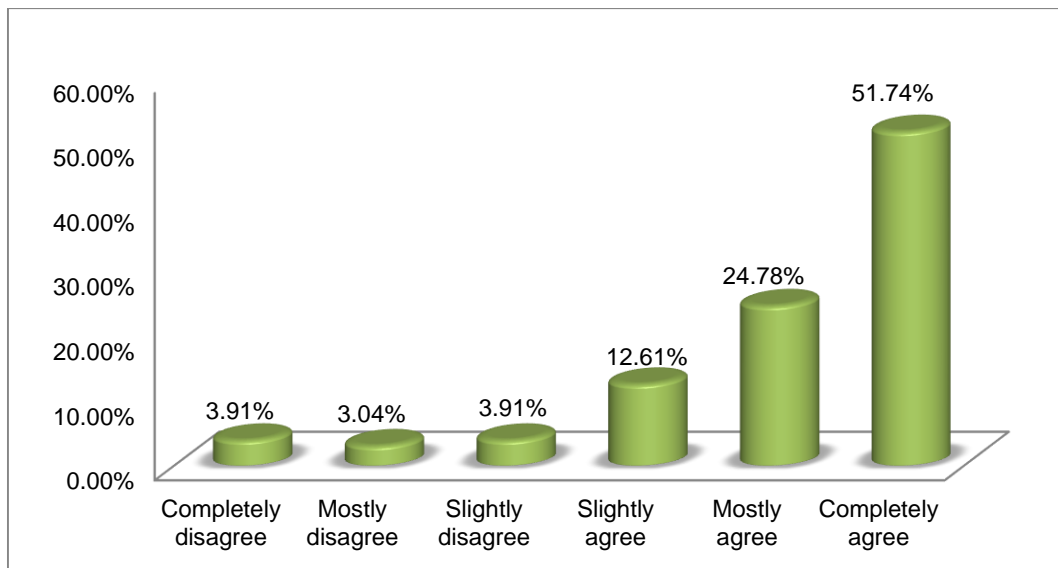
Figure 4.9: Trusting staff

Figure 4.9 indicates that very few parents and guardians do not trust the staff at Hospital X. The ability to inspire trust goes a long way in gaining customer confidence, as a visit to the hospital can be stressful enough without having to deal with unfriendly, inattentive, and disorganized staff (Britt, 2013:1). It is imperative for all staff to start and end parent and guardian encounters on a positive note, as this will leave a lasting impression on their customers. The more comfortable the parents and guardians feel, the more they will trust staff and follow through on the doctor's or nurse's instructions (Hall, 2010:17). The degree of trust or confidence a parent or guardian has in staff positively influences their satisfaction, with pre-existing trust gained from previous interactions directly affecting their current satisfaction. Service quality is intangible and it is necessary for medical staff to develop a trust relationship with parents and guardians to enhance customer satisfaction (Ching-Sheng et al., 2013:8-9).

Figure 4.10, below, depicts responses to the question asking whether staff members at Hospital X are courteous or not. Courtesy from staff also forms an essential part of the assurance dimension. In this study 89.61% of participants responded positively to the question by agreeing that staff members are courteous, whereas 10.39% disagreed with the statement.
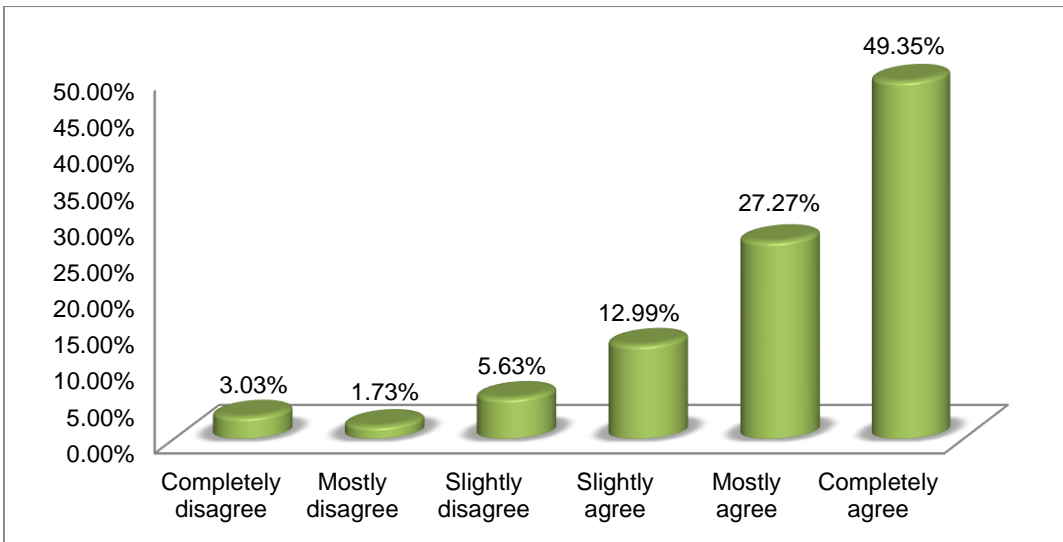
Figure 4.10: Staff is consistently courteous

As can be seen in Figure 4.10, above, very few respondents felt that Hospital X's staff members were discourteous. This important service facet plays a central role in developing trust and confidence in the relationship between staff members of Hospital X and their customers, namely the parents and guardians who bring their children for medical treatment.

Respectful treatment also includes using clear language. From the findings displayed in Figure 4.11, below, it may be seen that 92.61% of participants agreed that the diagnosis was explained in clear language, with only 7.38% of participants disagreeing with the statement. It is of vital importance that doctors and staff members treat their customers with empathy, particularly when communicating diagnoses of adverse medical conditions.
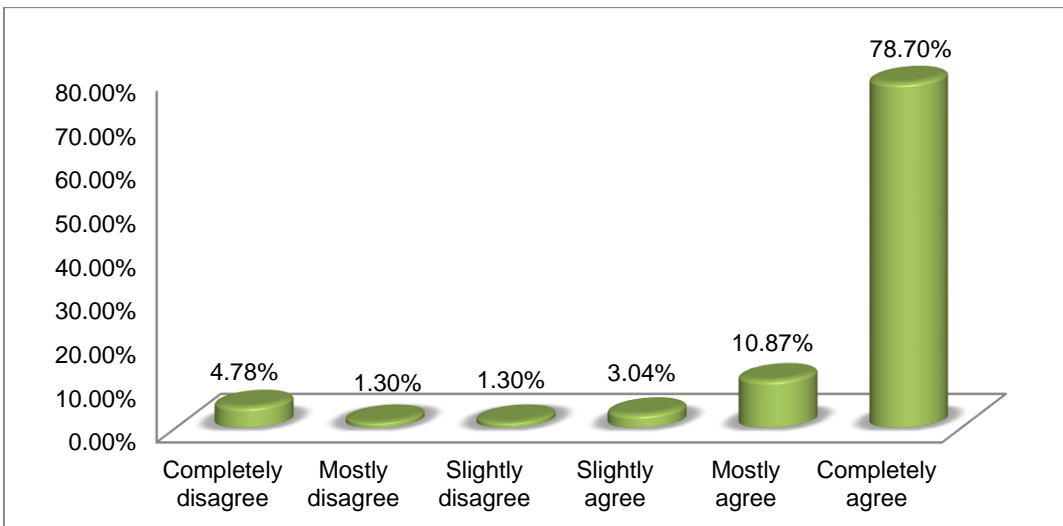
Figure 4.11: Diagnosis explained in clear language

From the content of Figure 4.11, it is evident that staff members and medical professionals deal with their customers in an appropriate manner when it comes to transmitting sensitive information such as the diagnoses of illnesses, by using clear and understandable language.

Courtesy can be defined as being polite and respectful to people (*Collins Dictionary*, 2016:547). This is an important trait within the healthcare environment as healthcare workers may treat customers as an illness rather than as a person (White, 2014:1). Staff should try to show politeness by introducing themselves to parents or guardians before doing anything to their children, and gently addressing parents' and guardians' concerns. White (2014:1) states that respectful treatment can include doctors' limiting the amount of medical jargon used or explaining in plain words what the diagnosis is, and also listening to parents or guardians without interrupting or imposing on them their own thoughts. The use of plain language is necessary because parents or guardians will tend to distrust the doctor if they are left confused by what they are hearing (Akunjee & Akunjee, 2014:1).

The assurance dimension produced a positive result as more than half of the participants reported that the hospital staff instil trust in them. Staff members are courteous when dealing with their queries, and explain diagnoses using clear language. Hospital X's staff have also demonstrated that they have the ability to care for and respect customer needs during the traumatic time of a child's illness, thereby producing a positive result for the assurance dimension. However, this may not always be the case, as there have been public online complaints that staff are discourteous and disrespectful to customers, and lack telephone etiquette. This is an example of an online complaint: "What a waste of time: the person who answered the phone was rude, abrupt and transferred me to a dead line 3 times, I eventually called back and she transferred me to the most rude doctor" (Major86, 2016:1).

Complaints will be discussed further in section 4.5.

4.4.3   Tangible dimension

The tangible dimension concerns the physical environment (De Jager & Du Plooy, 2007:100). As with the other dimensions, "completely agree", "mostly agree" and "slightly agree" scores were added together to form a total score for agreement; similarly, the scores for "slightly disagree", "mostly disagree" and "completely disagree" were added together to form an overall score for disagreement.

As can be observed in Figures 4.12 and 4.13, the tangible dimension produced a positive result, with participants reporting that they were satisfied with the level of cleanliness at Hospital X. In Figure 4.12 it can be seen that 96.10% of the respondents concurred that the

toilets were clean, with only 3.89% disagreeing. Hygienic toilet facilities are a vitally important aspect of healthcare, considering that germs can spread in unhygienic conditions.
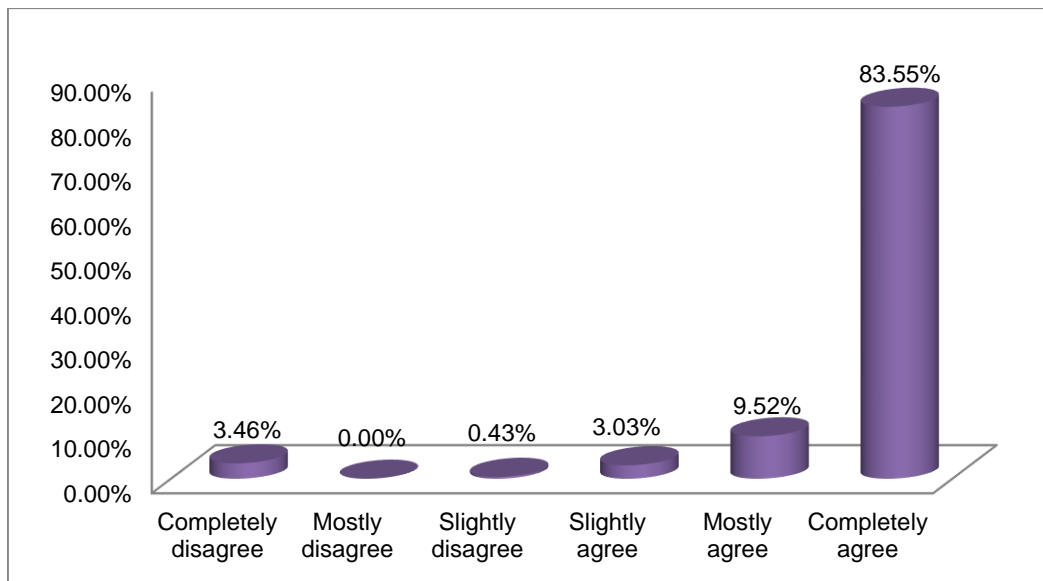
Figure 4.12: The toilets are clean

Likewise, as depicted below in Figure 4.13, 95.24% of the research participants agreed that the waiting area was clean. There was disagreement among 4.76% of respondents.
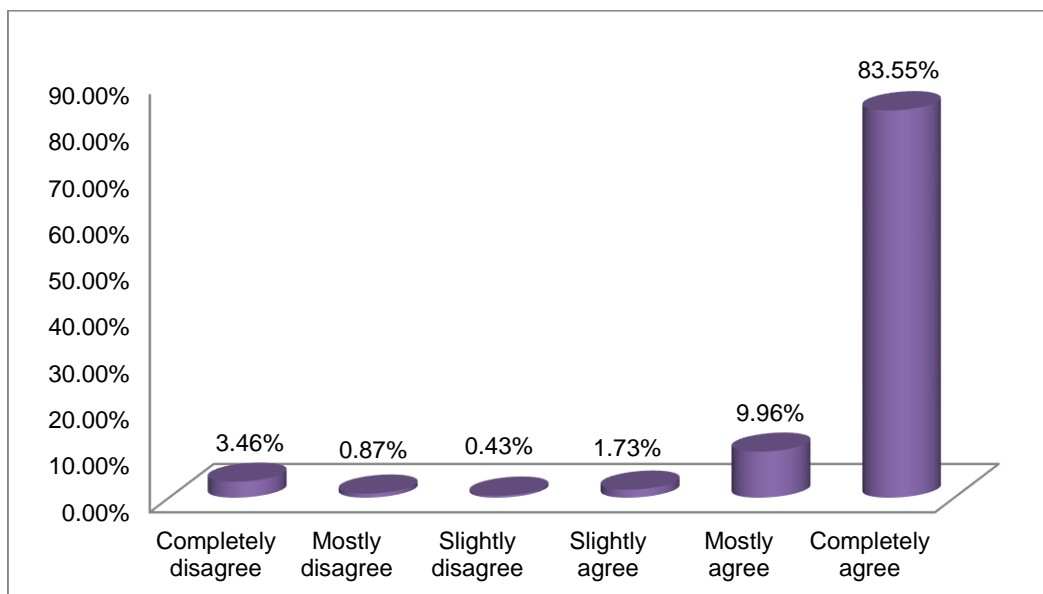
Figure 4.13: The waiting area is clean

It must be noted that Hospital X sees hundreds of parents and guardians accompanying patients daily, coming from different home settings with different sanitation habits. Customers also come to Hospital X with infections acquired from the community (BBC, 2005:1). It is imperative to keep toilets and waiting areas clean to prevent patients, parents and guardians from acquiring a healthcare-associated infection (BBC, 2005:2; Tallon, n.d.:3-4). The most

frequent way that patients acquire such an infection is through their hands, whether it is the hands of the parent or guardian after using the toilet or of the patient playing on the waiting room floor. Hands that have touched a contaminated surface transmit the organisms to the parent, guardian or patient. Because of this it is imperative that all surfaces in toilets and waiting rooms be wiped down frequently with alcohol or other cleaning materials, as failure to do this can directly affect service quality and customer satisfaction (BBC, 2005:2-7; Tallon, n.d.:3-4).

As Hospital X treats a number of medical conditions and illnesses, including children who are disabled, the wheelchair friendliness of the environment is an important factor. In this regard it may be noted in Figure 4.14 that 92.63% of participants agreed that Hospital X is wheelchair friendly, with 7.36% in disagreement.
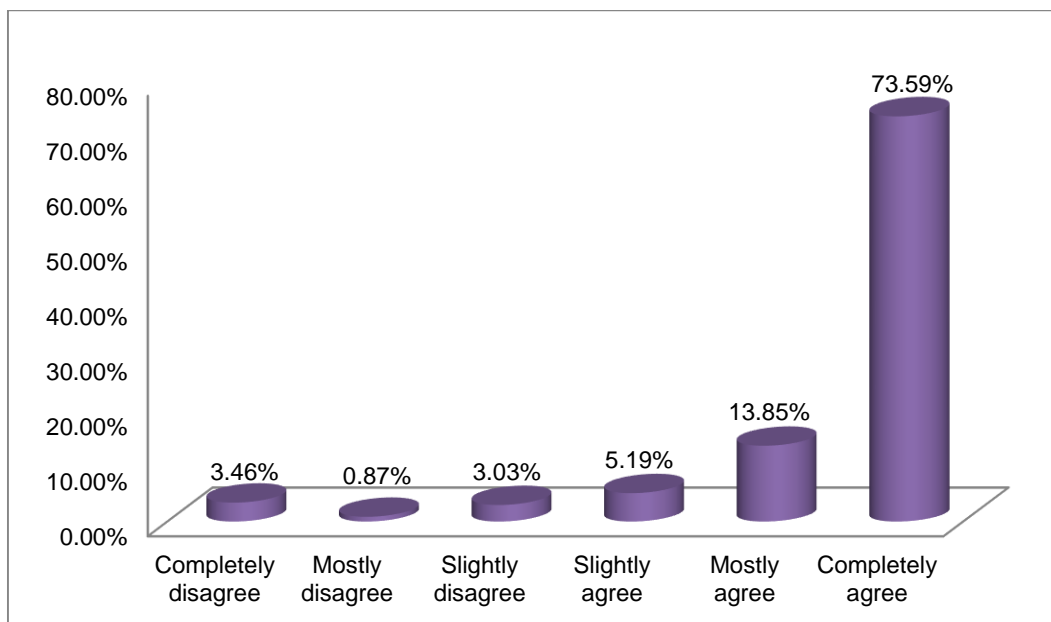
Figure 4.14: Wheelchair friendliness

From the data represented in Figure 4.14, above, it may be assumed that the participants are content with the accessibility of the institution from a wheelchair perspective.

Décor plays a significant role in the tangible dimension. In Figure 4.15, below, it may be seen that 90.87% of participants agreed that the décor and aesthetics of Hospital X are appealing, whereas 9.12% disagreed.

The atmosphere in a waiting room can be a direct or a subconscious indicator of quality, and the types of artwork present, the arrangement of seating and the type of lighting, can all have an impact on a patient's mood and well-being. Hospital X can enhance the mood of parents

and guardians together with their children, by improving the décor in outpatient departments to include cheerful, brightly coloured art on waiting room walls and in doctors' offices (Hohnenadel, 2015:2).
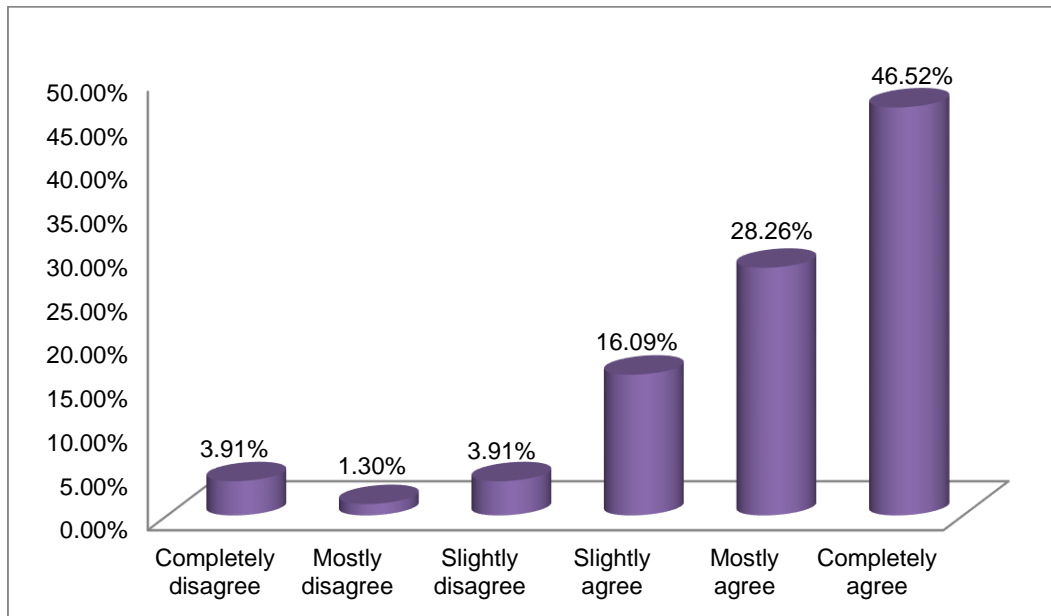
Figure 4.15: The decor is appealing

Very few people like hospitals. Most hospitals are unappealing and they often have a pervasive odour that contributes to a depressing experience for the patients and their parents and guardians. The physical environment should therefore not be taken for granted, as it can enhance the mood of patients and their relatives. Customers who visit a health care facility typically comment critically on waiting room atmosphere more often than on healthcare workers and their respective skills (Schierhorn, 2014:1; Hohenadel, 2015:1). Hohnenadel (2015:1) remarks that no matter how routine the visit or how often parents or guardians visit a healthcare facility, it remains a frightening and stressful experience. This is especially true for persons with disabilities, as a child with a walker or in a wheelchair may need additional help when his or her name is called (Schierhorn, 2014:3). The physical environment for persons with a disability should be given special attention, and seating arrangements in waiting and consultation rooms need to be accommodating. Children in wheelchairs need to be seated next to the person accompanying them to the facility rather than having to sit elsewhere because seating is restricted (Woo et al., 2013:71). It was therefore pleasing to the researcher that 90.87% of participants were of the opinion that Hospital X's layout, aesthetics and wheelchair accessibility were satisfactory (see Figures 4.14 and 4.15, above).

Being able to identify staff via their uniform contributes to the tangible dimension. From Figure 4.16, below, it may be noted that 87.88% of participants agreed that staff are easily identified by their uniform, with 12.12% in disagreement.
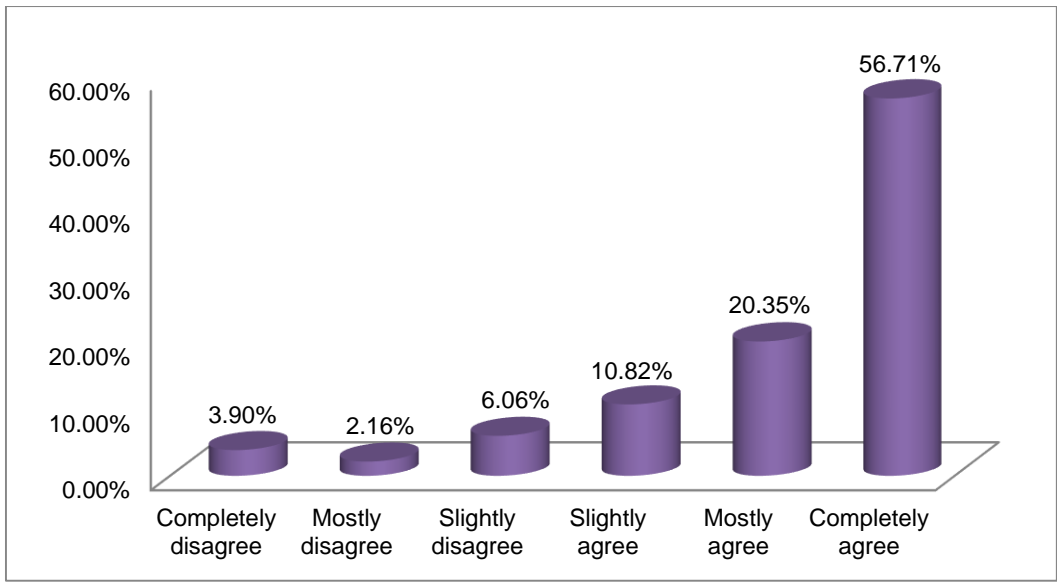
Figure 4.16: Members of staff are easily identified by their uniform

By far the majority of participants felt that staff members were easy to identify. Customers who visit the hospital need to be able to identify staff and a standard dress code helps them to differentiate between doctors, nurses and administration staff. How staff members are dressed contributes to a professional look and indicates quality and reliability, giving customers a boost of confidence in their abilities (Pearce, 2016:1). If staff did not wear a uniform it would be confusing to customers, who would not be able to distinguish between visitors and staff at Hospital X and therefore require a reference point. Identifying staff by their uniform provides this reference point (Robertson, 2009:3).

A clean, disability-friendly environment, appealing atmosphere and recognisable staff are all essential and contribute to customer satisfaction. This forms part of the tangible dimension, the physical environment where appearance matters (De Jager & Du Plooy, 2007:100). Since parents and guardians' perceptions of quality are often based on the physical evidence of the environment in which the service is delivered, by paying careful attention to the physical environment, Hospital X can convey a sense of quality and increase customer satisfaction (De Jager & Du Plooy, 2007:98).

4.4.4 Empathy dimension

The empathy dimension involves ensuring that customers are dealt with in a caring manner and given individualised attention. Staff should keep in mind that having a sick child places a great deal of pressure on parents and guardians and they should try to understand the specific needs of the parent or guardian. Staff can also demonstrate empathy by expressing to customers that they are aware of their uniqueness in respect of personal requirements (Parasuraman et al., 1988:23; Shariff, 2012:28; Kitapcia et al., 2014:164).

The study again made use of a six-point Likert scale. The three "agree" options were added together to form a total score for agreement, as were the "disagree" options for a disagreement tally.

For Hospital X, the empathy dimension produced positive results, as 90.48% of participants agreed that staff understood their needs, with only 9.52% disagreeing with this statement (see Figure 4.17, below).
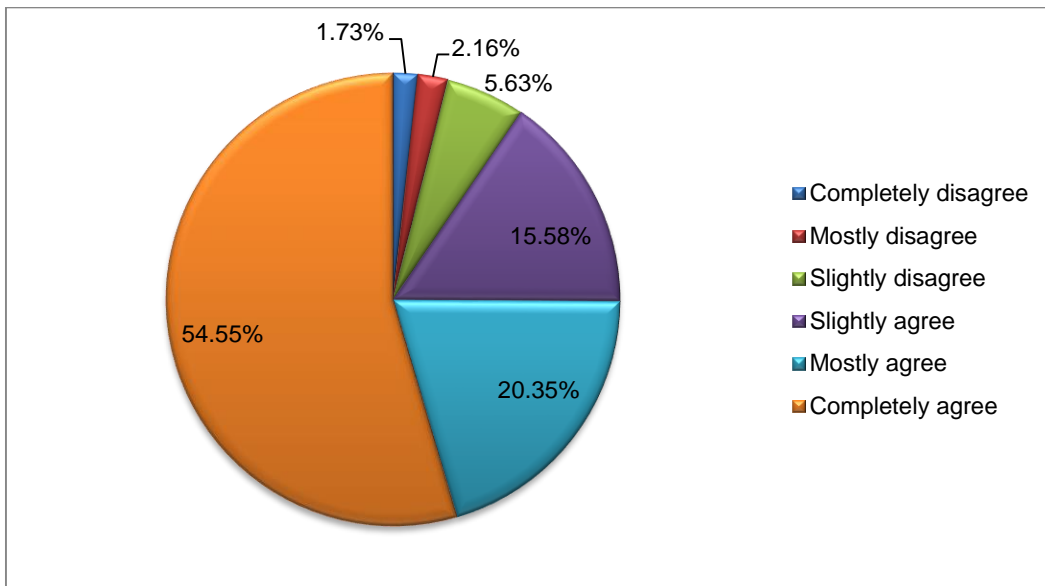
Figure 4.17: Staff are understanding

As can be seen in Figure 4.17, the majority of participants believe that Hospital X's staff members understand their needs and wants. This is an important consideration, as without a clear understanding of customer needs, the hospital would find it almost impossible to provide a quality service and increase customer satisfaction.

In Figure 4.18, below, it may be observed that 89.96% of participants reported that staff members treated them with respect and dignity, whilst 10.04% disagreed with the statement.
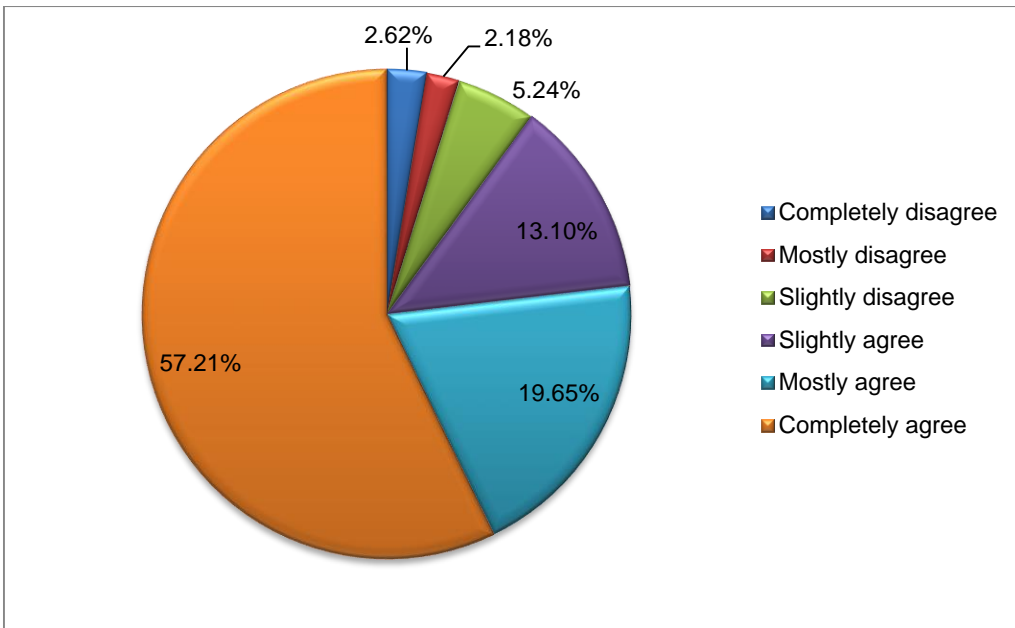
Figure 4.18: Staff treat me with respect and dignity

From the findings displayed in Figure 4.18, it appears that the staff generally treat parents and guardians with the respect and dignity they deserve. This level of satisfaction is based to a large extent on the ease with which a parent or guardian can express their feelings and concerns to someone who is willing to listen to them and treat them with respect (Ilioudi et al., 2013:71).

In response to the statement "I will continue to come back to this hospital", the findings, as displayed in Figure 4.19, below, indicated that 93.04% of participants would continue to come to the hospital for treatment. 6.96% disagreed with the statement.
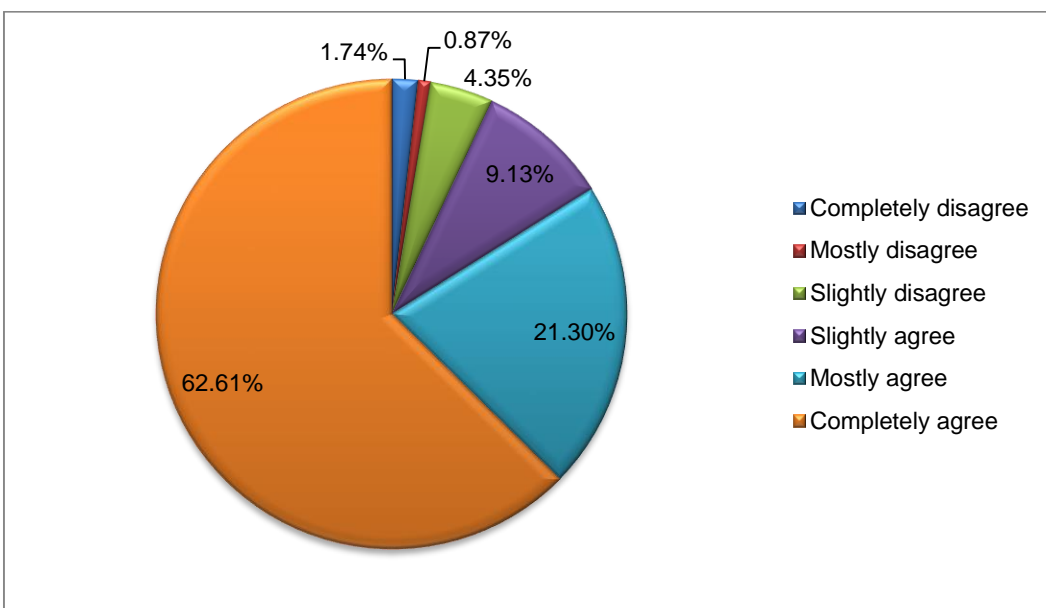
Figure 4.19: I will continue to come back to this hospital

As can be seen in Figures 4.18 and 4.19, evincing empathy correlates with greater customer satisfaction and the retention of customers (Kitapcia et al., 2014:161). Kitapcia et al. (2014:163-167) explain that the relationships among service quality, customer satisfaction and word-of-mouth communication in the healthcare industry, revealed that satisfaction influenced word-of-mouth communication, and that the empathy dimension was mainly represented in positive word-of-mouth communication once the customer had left the healthcare facility. This in turn had a strong influence on the customer's preparedness to come back to the hospital (Weissenstein et al., 2011:1-3; Kitapcia et al., 2014:163-167).

4.4.5 Responsiveness dimension

The responsiveness dimension can be defined in terms of the willingness of staff to help customers and provide a prompt service. Keeping parents and guardians informed about when services will be performed and responding quickly to them also form part of the responsiveness dimension (Kitapcia et al., 2014:162). This component is all about thoughtfulness and speed when dealing with customer queries (De Jager & Du Plooy, 2007:106).

The study made use of a six-point Likert scale and, as previously, the "agree" options were added together to form a total score for agreement, as were the "disagree" options for an overall disagreement score.

In Figure 4.20, below, it may be seen that 82.46% of participants agreed that staff members were responsive and responded quickly to their needs, whereas 17.54% disagreed with the statement.
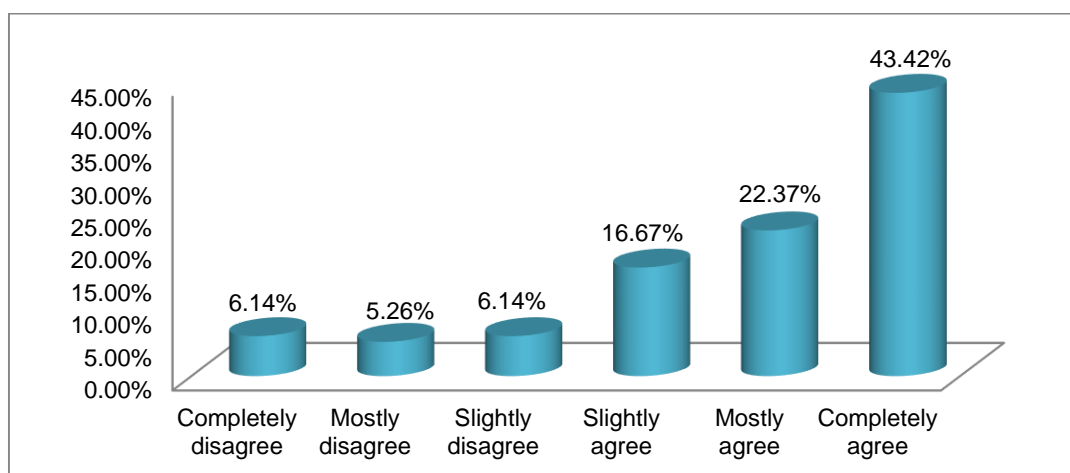
Figure 4.20: Staff respond quickly to my queries

The fact that staff members are perceived to respond quickly to the needs of the customer, is a good indication that they are well trained and motivated. Table 4.20 reveals that a large

majority of participants believed that they received timely attention from the staff members responsible for looking after their needs.

The quality of information the customer receives from staff is a factor that contributes decisively to their satisfaction (Ilioudi et al., 2013:71). In this study, 86.96% of participants agreed that the staff at Hospital X provided them with detailed information, while 13.04% of participants disagreed (see Figure 4.21, below).
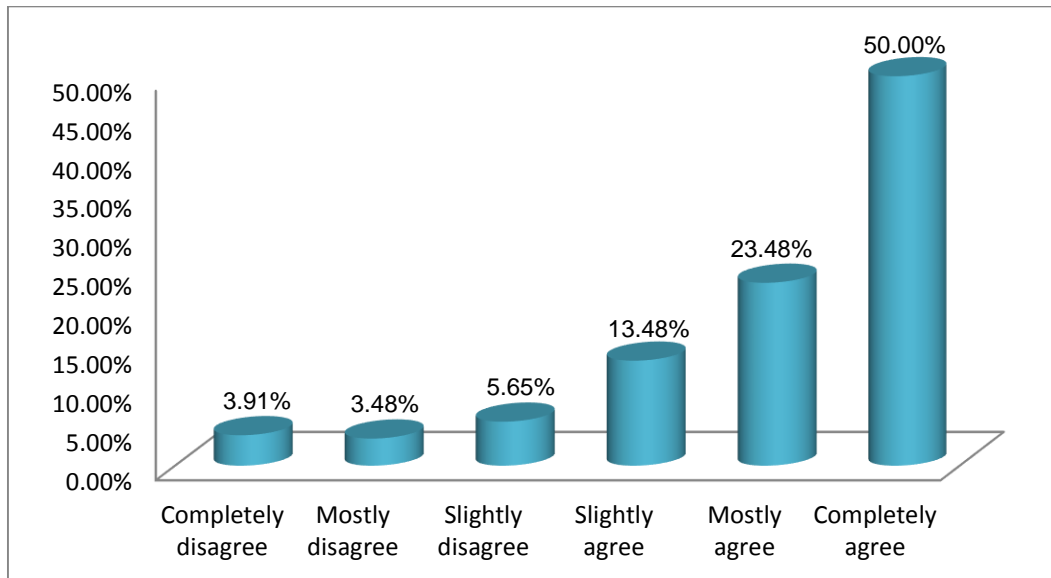
Figure 4.21: Staff provide detailed information

The displeasure of a customer is incurred when a staff member does not keep them informed during their visit to the hospital. Hall (2010:17) urges staff to inform customers of what is being planned and why. Staff should let parents and guardians know what to expect and, for example, how long their child's tests may take, so if they need to go out for refreshments or attend to other pressing matters they know more-or-less when to return to the hospital's outpatient clinic, instead of sitting around for hours not knowing what is happening (Hall, 2010:17). In the event of a handover to a different doctor, staff should inform parents and guardians of the switch. This will help eliminate confusion and ease the anxiety of parents and guardians visiting Hospital X. The findings in Figure 4.21, above, indicate that staff members communicated detailed and accurate information to participants, which naturally enhances the confidence they have in the hospital's employees.

Waiting time is a big part of the responsiveness dimension. In this study participant perception was tested and not actual waiting time. The findings, which are shown in Figure 4.22 below, reveal that 91.26% of participants agreed that 0-30 minutes is the ideal time to wait to be seen whereas 8.73% disagreed.
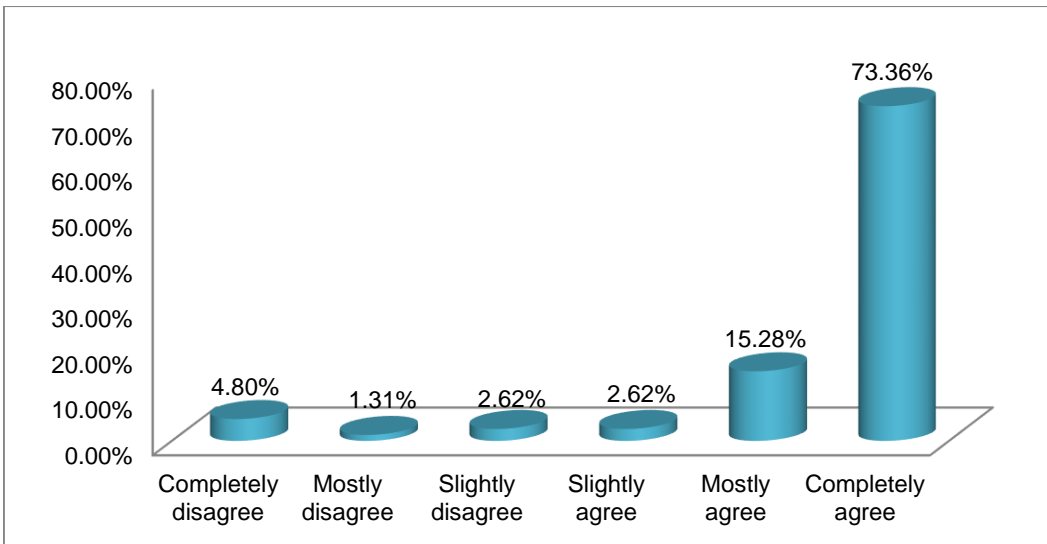
Figure 4.22: Waiting time of 0-30 minutes

Longer waiting times are associated with lower customer satisfaction (Anderson et al., 2007:1). Even though parents and guardians were provided with appointments and ideally would like to be seen on time, the finding in Figure 4.22, above, suggests that parents and guardians understand that emergencies happen and are prepared to be patient for up to 30 minutes after the original appointment time.

In addition to the above, this study found that 44.54% of participants were willing to wait up to 1 hour and 30 minutes to be seen, whereas 55.45% of participants were not (see Figure 4.23, below).
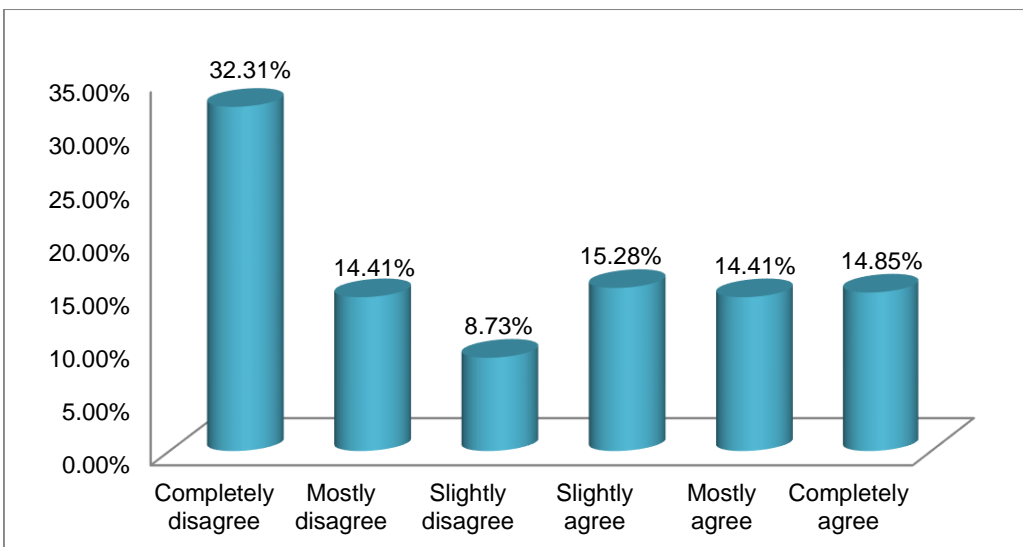
Figure 4.23: Waiting time of up to 1 hour and 30minutes

As can be seen in Figure 4.23, only 44.54% of participants were prepared to wait for service for 90 minutes, which is a clear indication that parents and guardians are not comfortable with waiting for long periods of time for service.

In Figure 4.24, below, the responses to an even longer waiting period are displayed; with 91.70% of respondents agreeing that such a protracted period of time was unacceptable. Only 8.29% would be willing to wait for 150 minutes.
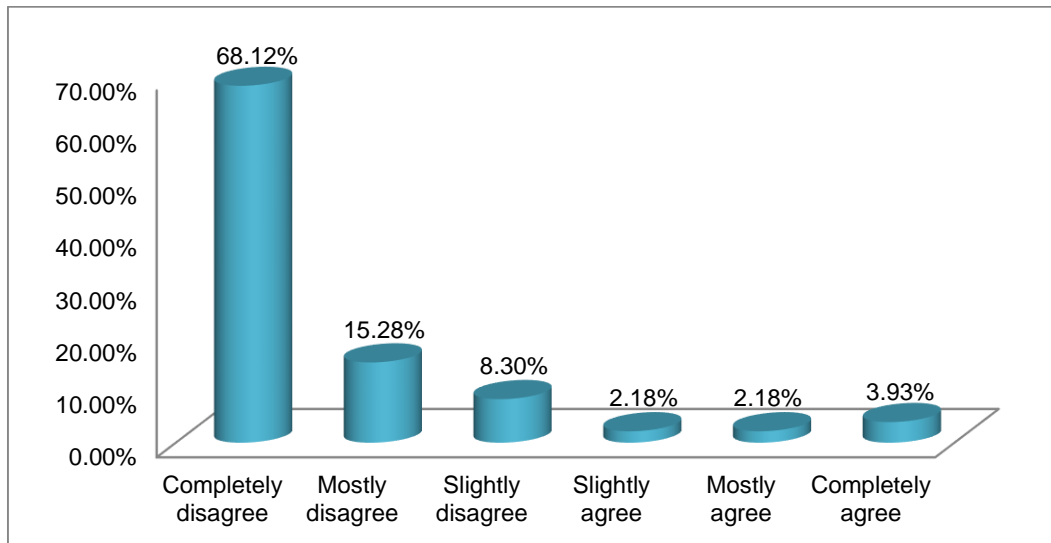
Figure 4.24: Waiting time up to 2 hours 30minutes

In Figure 4.25, below, 92.54% of the participants reported that they were not willing to wait up to 3 to 4 hours for service, whereas 7.45% were still willing to wait. As stated previously, these are not actual waiting times but participant perceptions.
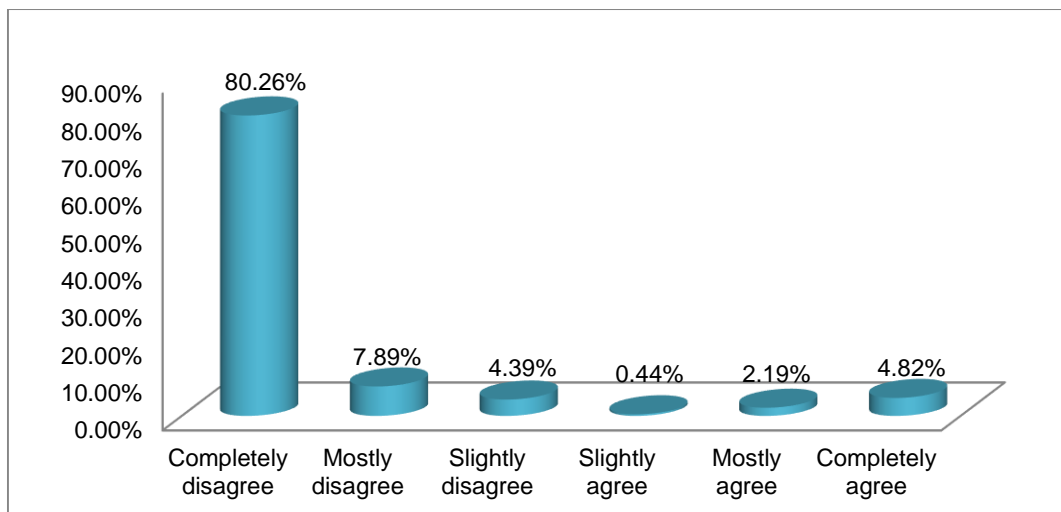
Figure 4.25: Waiting time up to 3 hours to 4 hours

It can therefore be concluded that parents and guardians are not comfortable with waiting for long periods of time to receive medical attention from Hospital X staff members. However, in reality, parents and guardians can end up waiting 2 to 4 hours for service after their original appointment time has passed. This was disclosed by many disgruntled participants who criticised the waiting time during the distribution of the survey and in written remarks

pertaining thereto. Therefore, it can be inferred that parent and guardian expectations are out of line with perceived performance at Hospital X. Schierhorn (2014:1) contends that it is insulting for staff to make appointments, only to have parents and guardians wait. The responses of the participants included the following:

- Participant 52 indicated that an appointment was made for 10:30am and they expected to see the doctor by 11am, but sat in the hospital for the whole day;
- Participant 85 insisted that consultations should happen timeously as children become impatient after waiting long periods of time;
- Participant 97 remarked that staff should not make appointments for 10am if the doctor only arrives at 13:30pm;
- Participant 169 reported that the pharmacy line is pathetic and they waited too long for medication; and
- Participant 183 requested that appointment times be adhered to instead of making them sit around for 4 hours after the appointment time.

The responses from those who participated in the research survey support the findings shown in Figures 4.23, 4.24 and 4.25, above. From the results it can be seen that, if parents and guardians are obliged to wait for more than 30 minutes after the original appointment time, customer satisfaction starts to decline; the longer they have to wait, the worse the situation becomes. It is frustrating for parents and guardians to wait an hour or more and then only see the doctor for five minutes. Thereafter they may wait in the pharmacy queue for another few hours to collect medicine (Camacho et al., 2006:409). When this happens they become anxious, agitated and irritated. They may also start complaining and become annoyed with staff, who are oftentimes overworked or just having a bad day. Parents and guardians may then react negatively to staff members and accuse them of having a bad attitude. The upshot may be critical online reviews complaining about the long wait for service and how rude the staff are. For example, participant 100 reported that:

> The amount of time you have to wait to see the doctor needs to be addressed; also ensure each area has user-friendly play areas as it's difficult for toddlers to sit for 2 - 3 hours. Also at Pharmacy waiting for medication is a nightmare, I waited 3 hours for a bottle of nasal spray.

Complaints are discussed in more detail in Section 4.5. Such a situation could have been avoided if the staff had told the customers why they were waiting and how long they would need to wait. Banks (2013:1) argues that the moment they are informed of how long the wait will be and the reason for such a wait, they are freed from the anxiety of the unknown and can control what they do with the waiting time. When informed about potential delays, parents and guardians can go outside for fresh air, follow up and make calls, check emails or even go out for a cup of coffee, instead of watching the clock, wondering when the wait will end (Banks, 2013:1-3).

In order to determine overall satisfaction, participants were asked if they were satisfied with the overall quality of services provided at Hospital X. From Figure 4.26 it can be observed

that 92.61% of participants were satisfied with the overall service quality at Hospital X, while 7.38% were not. Overall satisfaction can simply be defined as how participants rate their overall experience at Hospital X (Grizack, 2010:1).
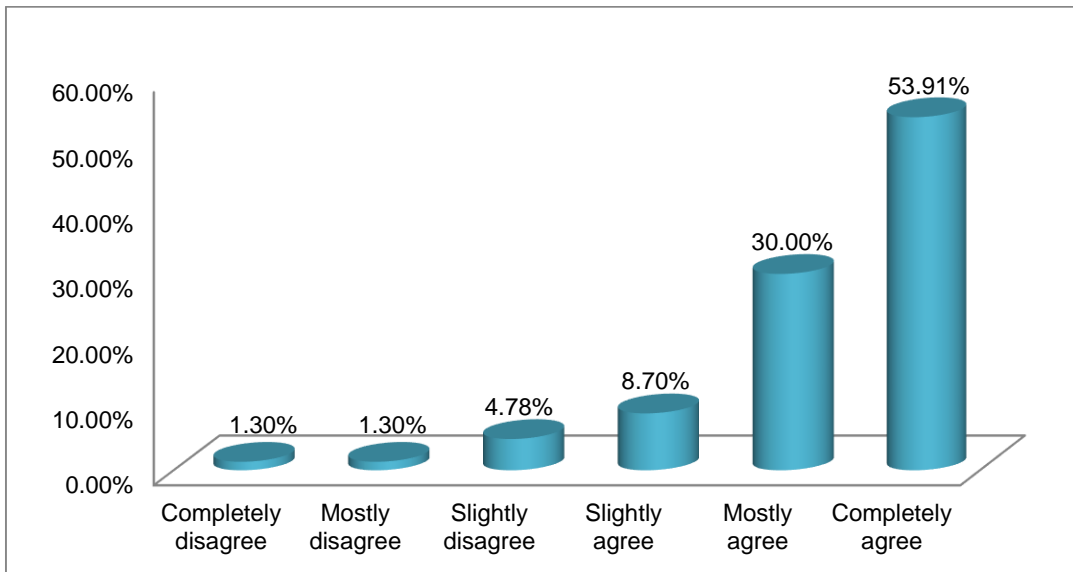
Figure 4.26: Overall satisfaction

4.5   To complain or not to complain

Vuori (1987:106) contends that customer satisfaction is an integral part of quality healthcare. It is important that the needs of patients, parents and guardians are satisfied when they visit a health care facility. In this research study the majority of participants reported that services are satisfactory at Hospital X. Why, then, are there bad reports about services at Hospital X in the online space?

The answer to this could, at least in part, lie in the fact that service quality lies in the eyes of the beholder. Berry et al. (1985: 34-35) contends that satisfaction is based on emotion (how the service affects the customer emotionally), and the quality of a service is judged to be high when customers say it is or when it has met their personal preference and/or expectation (Berry et al., 1985: 34-35). It is important to note that a customer can have a perception of service quality without having actually experienced the service – for instance, someone gets told a horror story about service at the facility – whereas a customer has to actually experience a service to make a judgement on satisfaction. In addition, expectations are often founded on an individual's needs, wishes or norms.

This makes expectations very individualistic as personal situations differ in terms of factors like level of education, employment, and media influence, and may of course alter over time. Society has evolved and parents and guardians (customers) have access to connectivity that was not readily available in the past. Today, social media platforms have become a popular

means of getting a complaint heard (or getting dissatisfaction aired), and this is expected to increase in the future (Wallis, 2014:1; Hoffman & Bateson, 2011:326-327). Thus it only takes one or a handful of dissatisfied customers to spoil the image of a facility: "In today's digitally-driven, social media-obsessed age, the customer's voice is louder and its reach stretches farther than ever before" (Alexov, 2016:3).

As a corollary, it was found that parents and guardians are no longer making much use of the complaint boxes at Hospital X. Only 59 complaints were received regarding excessive waiting times and inappropriate staff attitudes during the 2014/2015 financial year (SINJANI, 2016) (see Appendix 2). To voice their opinions and provide feedback, parents and guardians are taking to the social media. These postings quickly go viral, for reasons such as their political implications, or for the purposes of political satire (Botha, 2014:367); or because they resonate with existing emotions, as other parents and guardians can relate to a similar incident (Libert & Tynski, 2013:1; Lake, 2015:134).

Facilities should therefore adapt and consider an online platform for registering compliments and complaints. Healthcare institutions are complex organisations with a number of facilities, clinics and departments, which can be intimidating to a first-time visiting parent or guardian. For an individual who visits regularly, although the process may be familiar, negative experiences in the past could colour their current and future encounters (Western Cape Department of Health. Reception Manual, 2015:7). Parents and guardians who visit the healthcare facility come from different cultures and backgrounds and have differing perceptions of how a service should be rendered and what they consider a quality service. Because of this there will always be conflicting views (West, 2007:1).

Parents and guardians visiting the healthcare facility have the following choices when they experience poor quality service:
- They can remain silent (Beard, 2014:5); or
- They can lodge a complaint (Western Cape Department of Health. Reception Manual, 2015:52); or
- They can share their experiences on the social media (Alexov, 2016:1).

In a study conducted by Howard et al. (2013:1), it was found that customers do not always complain when they are dissatisfied. Clearly this somewhat undermines the possibility of improving service quality. Customers presumably remain silent because they are intimidated by the institutional setting and think that the staff will not listen to their concerns. Waiting times remain a big issue in most State healthcare facilities, and Hospital X is no exception. Howard et al. (2013:55) contend that the emotion of anger has been firmly linked to complaining behaviour. It seems that some parents and guardians are so frustrated with the

situation that they want nothing to do with the staff or completing a complaint form, so they turn to social media or online platforms to voice their experiences.

These are some of the reasons why parents and guardians do not voice their dissatisfaction when they are visiting the hospital (Hall, 2010:17). Howard et al. (2013:1) suggest that all staff should actively seek to identify and respond to parents or guardians who seem distressed but are not actively complaining. By doing this the level of attentiveness and responsiveness will ensure that opportunities to improve service quality and customer satisfaction are taken.

Hospital X is governed by National Core Standards (NCS), which cover all quality assurance matters including compliments and complaints. The hospital is required to have a compliment and complaint box (see Figure 4.27) in the reception areas as well as clinical areas, and the boxes should be clearly visible. The complaint box should be clearly marked in three official languages, and display a laminated form explaining the compliment and complaint procedure. The operational or facility manager has to ensure that the complaint box is secured with a lock at all times. Forms and pens need to be present next to the box. To ensure compliments and complaints are addressed timeously, the complaint box should be opened daily by the designated person (Western Cape Department of Health. Reception Manual, 2015:31).

Figure 4.27: Compliment and Complaint Box (Western Cape Department of Health. Reception Manual, 2015:31).

Through parents and guardians lodging their concerns, hospital management will be able to better manage services.

Before the advent of the social media people generally engaged in face-to-face or telephonic conversations to share information. With the arrival of social media sites such as Facebook, face-to-face conversations have been turned into digital conversations (Botha, 2014:367). Many people turn to online platforms to voice their experiences (see section 2.7.2, Charnwah, 2015:1 and section 4.4.2, Major86, 2016:1). These online posts can turn viral, catching the eye of thousands, even millions of internet users. Negative views circulated in this way can cripple the image of any brand (Duron, 2016:1-2). A review by Hinckley found that 67.70% of people are influenced by online reviews, and 54.70% admitted that online reviews are an important part of their decision-making process (Hinckley, 2015:1).

So even though the vast majority of parents and guardians reported that they were satisfied with the quality of services at Hospital X, there will always be two or three who have a negative experience, and sharing that experience online has a disproportionate impact. The experience shared is shown on the news feeds of friends and family and gets shared with a broader audience. These reviews also end up on online sites such as hellopeter.com. Even when the majority of customers are satisfied with the quality of a service, it only takes one upset customer to cripple the image of a healthcare facility.

4.6   Conclusion

The findings indicate that parents and guardians are satisfied with the quality of services rendered by Hospital X, as "disagree completely" was not a prominent outcome in the study findings.

Analysis of the results revealed that parents and guardians are satisfied with the reliability, assurance, tangible and empathy dimensions, but less satisfied specifically with waiting time, which resorts under the responsiveness dimension.

The reliability dimension produced a positive result as the majority of participants responded that they would recommend Hospital X to friends and family, showing that they felt that Hospital X was providing a quality service. The assurance dimension also produced a positive outcome, as the bulk of participants indicated that they trusted staff, that staff were consistently courteous, and that diagnoses were clearly explained.

The tangible dimension produced a positive result with the majority of participants responding that they found the décor at Hospital X appealing, and that Hospital X was wheelchair friendly. There was also positive feedback in the empathy dimension. Respondents found staff to be understanding and caring, an important element in the provision of quality service.

The majority of participants agreed that staff responded quickly to their needs and provided them with detailed information, thus producing a positive finding for the responsiveness dimension. But when participants were asked about their expectations and perceptions of waiting time, it was clear that these clashed with the waiting time they actually experienced.

Parents and guardians who are dissatisfied with the quality of services at Hospital X are encouraged to lay formal complaints with the healthcare facility, enabling hospital managers to improve service quality and customer satisfaction from feedback they receive. However, traditional complaint boxes are losing their effect as society evolves and online platforms become an increasingly popular method to get a complaint or compliment heard.

The majority of participants in this study responded that they were satisfied with the quality of services, although there were participants who disagreed. Those who had a negative experience could turn to online platforms and voice their dissatisfaction, which has the potential of reaching millions of other internet users. So even if the majority are satisfied it takes one bad online post to severely affect the image of the healthcare facility.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study obtained the views of the parents and guardians who take their children to Hospital X for medical treatment and therapy, regarding the quality of the hospital's service, with the aim of formulating a strategy to improve service quality should this be required.

As discussed above, service quality is an essential factor in customer satisfaction, as expressed through the willingness of the parent or guardian to return and recommend the healthcare facility to others (Nyandoro, 2012:78). After the relevant literature had been reviewed, the following key research question and ancillary questions were developed:

According to the perception and expectations of parents and guardians, does Hospital X satisfy their anticipations in terms of providing a quality service?

- Is service quality at Hospital X in line with customer expectations and does it have an impact on customer satisfaction?
- Is the service delivery at Hospital X in line with current hospital specifications in terms of quality?

5.2 Addressing the research questions

To address these research questions, the SERVQUAL model was utilised to determine the perceptions and expectations of parents and guardians bringing their children to Hospital X.

The five dimensions of service quality, namely reliability, assurance, tangibles, empathy and responsiveness were investigated by means of a research survey, to determine the extent to which perceptions and expectations were or were not met (Parasuraman et al., 1988:45; Bhattacharjee, 2010:322-327; Nyandoro, 2012). The research population was represented by parents and guardians who attended Hospital X outpatient clinics with their children; inpatients were excluded from the study. Data was not obtained directly from the patients but were inferred from the perceptions and opinions of their parents or guardians. It would have been unethical to have included minors in the survey.

The sample size was calculated at 293, according to Raosoft expert sampling, but only 231 fully and accurately competed surveys were analysed. Although this figure fell short (by 62) of the number originally targeted, the researcher felt that the findings would still be representative of the total population (further justification on sample size is provided in Chapter 3, section 3.7). The ancillary research questions are discussed below, in Section 5.2.1.

5.2.1 Ancillary research question one:

Is service quality at Hospital X in line with customer expectations and does it have an impact on customer satisfaction? The research question will be discussed using the five SERVQUAL dimensions, namely reliability, assurance, tangible, empathy and responsiveness.

5.2.1.1 Reliability dimension:

This dimension concerns the ability of Hospital X to perform the promised service accurately (Nyandoro, 2012:32). The majority of participants reported that services are provided at promised times and that appointments are scheduled reasonably. In addition, the majority of parents and guardians agreed that they would recommend Hospital X, which indicates that the services were performed accurately and were satisfactory. For this dimension it can be concluded that service quality is in line with customer expectations, a situation which has a positive effect on customer satisfaction.

5.2.1.2 Assurance dimension:

This relates to the degree of confidence and trust that parents and guardians feel when visiting Hospital X (De Jager & Du Plooy, 2007:100). The findings documented in Chapter 4 suggest that parent and guardian perceptions are in line with the perceived performance provided at Hospital X, as the majority of parents and guardians reported that the staff at Hospital X instil trust and confidence, are courteous and use clear language in explaining diagnoses. It can be concluded that for this dimension, service quality is in line with customer expectations, which has positive implications for customer satisfaction.

5.2.1.3 Tangible dimension:

The tangible dimension is all about physical environment and appearance (De Jager & Du Plooy, 2007:100). The findings documented in Chapter 4 show that parent and guardian expectations are met by the hospital, with the majority indicating that they found the waiting areas and rest rooms clean. Participants also confirmed that Hospital X is wheelchair friendly, that the decor is appealing and that staff members are easily identified. It can be concluded that for this dimension service quality is in line with customer expectations, which has a positive effect on customer satisfaction.

5.2.1.4 Empathy dimension:

This dimension deals with ensuring that parents and guardians are dealt with in a dignified and respectful manner. The overall findings show a positive result for the empathy dimension, as the majority of participants responded that they were treated with respect and dignity by hospital staff and would therefore return to Hospital X in the future. Based on the

findings it can be concluded that for this dimension service quality is in line with customer expectations, a situation conducing to customer satisfaction.

5.2.1.5 Responsiveness dimension:

This dimension deals with keeping parents and guardians informed about when services will be performed and responding quickly to their needs. The majority of respondents reported that staff members responded quickly to their needs and had the ability to provide detailed information. From the findings presented in Chapter 4, these two sub-sections of responsiveness (staff responding quickly and providing detailed information) reflected positive feedback. However, the opposite proved true for expected waiting time.

The findings set out in Chapter 4 reveal that the majority of parents and guardians are willing to wait up to 30 minutes after the original appointment time. A similar majority of the participants indicated that they were not willing to wait for long periods of time to be attended to (more than an hour). From these findings it can be seen that parents' and guardians' expectations of service with regard to waiting time clashes with the waiting time they actually experienced, which had a negative effect on customer satisfaction.

Based on the findings it can be concluded that, generally speaking, the anticipations of parents and guardians who take their children to Hospital X is in line with the level of service quality provided at Hospital X. However, as noted above, there is dissatisfaction with how long they are kept waiting for medical attention. This clearly has a negative effect on customer satisfaction.

A summary of the findings is presented in Table 5.1, on the next page. The study made use of a six-point Likert scale, although "completely agree", "mostly agree" and "slightly agree" were added together to form a total score for agreement, while all scores for "slightly disagree", "mostly disagree" and "completely disagree" were combined to form a total score for disagreement. Where an asterisk is present in Table 5.1, the sum is 99.99%, the other 0.01% being lost in rounding off within the SSPS system where the data was analysed. The percentages were calculated to two decimal points for the sake of accuracy.

Table 5.1 Summary of findings

RATER/SERVQUAL Dimensions	Finding	Agreement	Disagreement
Reliability dimension	Staff kept records up to date	89.96%	10.04%
	Appointments scheduled reasonably	77.39%	22.61%
	Services provided at promised times	75.54%	24.45% *
	Recommend Hospital X	92.61%	7.39%
Assurance dimension	Trusting staff	89.13%	10.86% *
	Staff are courteous	89.61%	10.39%
	Diagnosis explained in clear language	92.61%	7.38% *
Tangible dimension	Waiting area cleanliness	95.24%	4.76%
	Toilet cleanliness	96.10%	3.89% *
	Décor is appealing	90.87%	9.12% *
	Staff are easily identified by their uniforms	87.88%	12.12%
	Wheelchair friendly	92.63%	7.36% *
Empathy dimension	Treated with respect and dignity	89.96%	10.04%
	Staff are understanding	90.48%	9.52%
	I will come back to Hospital X	93.04%	6.96%
Responsiveness dimension	Staff respond quickly to my queries	82.46%	17.54%
	Staff provides detailed information	86.96%	13.04%
	0-30-minute waiting time	91.26%	8.73% *
	1 hour and 30-minute waiting time	44.54%	55.45% *
	2 hours and 30-minute waiting time	8.29%	91.70% *
	3 to 4 hours waiting time	7.45%	92.54% *
	Overall satisfaction	92.61%	7.38% *

5.2.2 Ancillary research question two:

Is the service delivery at Hospital X in line with current hospital specifications in terms of quality?

For this study, one set of specifications, namely the National Core Standards (NCS), was used to measure service quality at Hospital X. The purpose of the NCS is to develop a common definition of quality of care, to establish a benchmark against which health establishments can be assessed and to allow for National certification of compliance (Office of Health Standards Compliance, 2015:1). These definitions of care are universally applicable in all South African healthcare facilities, including Hospital X.

A subset of these standards focuses on the "fast track to quality" (South Africa. National Department of Health, 2011:15), also known as the six priority areas. This range demonstrates why Hospital X cannot only focus on one dimension, but needs to adopt a holistic approach when utilising the SERVQUAL dimensions to evaluate service quality (South Africa. National Department of Health, 2011:15).

The conclusion to be drawn from the findings of the customer survey in this study is that Hospital X is to a large extent providing service delivery according to the quality specifications set out in the National Core Standards. Although the hospital did not reach 100% compliance when measured against NCS (see Appendix 3), it did record an overall score of 84.24% for an internal NCS assessment conducted in 2015.

The service being provided is not perfect, as indicated by the NCS results, and there remains room for improvement. It needs to be noted that quality standard assessment is focused at individual health establishment level, where delivery of care takes place and where individuals can make a difference (South Africa. National Department of Health, 2011:9; National Core Standards, 2015/2016:5).

5.3   Recommendations

Measurement of the quality of a service remains challenging as it is an intangible and cannot be physically inspected for defects. In a competitive healthcare environment, hospital managers should instil strong organisational values and create a culture of continuous improvement. A shortfall or "gap" indicates obstacles to the accomplishment of good levels of service quality (Ghobadian et al., 1994:46; Pfeffer et al., 1995:5; Nyandoro, 2012:35; Qadeer, 2013:23). In the following sections, recommendations will be made for closing the five potential service quality gaps identified earlier.

5.3.1   *The customer expectation-management perception gap*:

This gap refers to management's not knowing or understanding what customers' expect of service quality (Shariff, 2012:32). In the research survey, the comments from participants ranged across all five service quality dimensions. Participants complained about the vending machines being out of order and a dirty waiting room (tangible), while the majority complained about waiting time (responsiveness). Some complimented the staff, indicating that they showed a lot of respect and treated them well (assurance). One participant indicated that they were treated kindly and that the doctors were very thoughtful (empathy), while some affirmed that they were happy with the manner in which services were delivered to them (reliability). This proves that a holistic approach is needed when evaluating service quality, and that hospital managers should invest in establishing more effective feedback channels in addition to the traditional compliment and complaint box.

Should management not adapt, they will not be able adequately to address the needs of customers, and this gap will remain an obstacle to the achievement of good service quality, which will negatively impact on customer satisfaction (Ghobadian et al., 1994:46; Pfeffer et

al., 1995:5; Nyandoro, 2012:35; Shariff, 2012:32; Abukhalifeh & Som, 2013:692; Qadeer, 2013:23).

To narrow this gap, Hospital X should develop a stronger research orientation, to increase the ability of the health care facility to understand the needs of its customers. In addition, there should be more effective bottom-up communication, with management having face-to-face conversations rather than providing written instructions (Zeithaml. et al., 1988:40; Hoffman & Bateson, 2011:323).

5.3.2   The management perception-service quality specification gap:

This gap occurs if the healthcare facility does not have the correct service design and standards in place (Abukhalifeh & Som, 2013:692). Currently Hospital X has the NCS to refer to, which was specifically designed to address service quality matters at healthcare facilities. As concluded above, it appears that Hospital X provides a satisfactory service in terms of quality, although there remains room for improvement. This gap will only be closed if hospital managers evince a greater commitment to service quality: If management is inconsistent in this regard, the gap will remain. Managers need to vigorously implement service quality aims, and invest in staff who recognise and are motivated to achieve service quality (Zeithaml et al., 1988:46; Abukhalifeh & Som, 2013:692).

5.3.3   The service quality specifications-service delivery gap:

This gap refers to differences between service quality standards and the services actually rendered by the service provider (Shariff, 2012:32; Abukhalifeh & Som, 2013:692). The service quality specifications for Hospital X are contained in the NCS assessment. Guidelines are provided on how services should be conducted and provided for customers. These guidelines do not always reflect the reality of what is happening in outpatient departments; therefore, relationship building and team work should become routine in order to close this gap. In addition, role ambiguity should be eliminated by having a strong communication system between management and staff right from the start. It is imperative that employees have the information necessary to perform their jobs adequately (Zeithaml et al., 1988:41; Hoffman & Bateson, 2011:326; Shariff, 2012:32; Abukhalifeh & Som, 2013:692).

5.3.4   Service delivery-external communications gap:

This gap refers to the difference between service delivery and what is communicated to customers about service delivery (Abukhalifeh & Som, 2013:692). Word-of-mouth communication from other individuals, whether positive or negative, can affect parents' and guardians' perceptions of quality. This gap can be narrowed by employees and departments within Hospital X working together to alleviate the tendency to over-promise. Another factor

that influences this gap is horizontal communication. Often decisions are made at a higher provincial level and communicated to the public before the local health facility is even aware of what is being communicated. This can place the health care facility in an awkward position, for example, when customers request certain services that the facility is not yet in a position to provide. Should this not be addressed this gap may widen (ZeithamI et al., 1988:44; Abukhalifeh & Som, 2013:692).

5.3.5 Expected service-perceived service gap:
This gap refers to the difference between customers' expectations and their perceptions of actual service quality (Shariff, 2012:32). Customer expectation is relative to available resources and is influenced by cultural background, personality, advertising and past experience, as well as information available online.

This gap is difficult to close as each parent and guardian has different needs and is situated in a unique context. However, to narrow the gap, management at Hospital X should pay close attention to customers' criticisms. In order to do this, they need to diversify the ways in which they receive compliments and complaints. Modern ways to connect with customers should be explored, such as using the internet and other online tools. It is up to hospital management to recognise that service quality is vital and worth investing in (Nyandoro, 2012:37; Shariff, 2012:32; Abukhalifeh & Som, 2013:692).

5.4   Delimitations and limitations of the research

The patients in this study were minors; it would have been unethical to allow them to participate in the survey, and therefore their parents or guardians were surveyed in order to obtain the requisite research data.

There is also a limitation in the design of the study, as much as it was limited to descriptive analysis. The study made use of research questions that were not suitable for conversion to hypothesis, a situation condoned by Ahmad (2016:1), Morgan (2016), Asad (2016:1) and Opatha (2016), who agree that the development of hypothesis is not compulsory, and that to formulate and address appropriate research questions is sufficient for worthwhile research. As this study is descriptive, the research questions were answerable through the descriptive analysis of data that involves frequencies, percentages and graphs, and the determining of relationships among variables based on the data and literature.

The study also makes use of one set of specifications to determine if Hospital X provides quality services. The National Core Standards was chosen as it is the most comprehensive

and was specifically designed to address service quality matters at South African health care facilities.

There may be similarities in terms of service quality between Hospital X and other healthcare facilities in South Africa. However, an important delimitation and limitation of the study was that it was restricted to one public healthcare hospital, moreover one that caters specifically for children. The findings of the study cannot be seen as a test of service quality at any other hospital. All inpatients were excluded and the research was limited to outpatients.

5.5   Contributions of this research

This research makes both a contribution to knowledge and a practical contribution, and these will be discussed below:

5.5.1   Knowledge contribution

This study's theoretical framework was based on the SERVQUAL model of service quality. The analysis has assisted in identifying gaps in service quality and discrepancies between customer perceptions of service quality at Hospital X.

Although there are studies in other industries which make use of the SERVQUAL model, no previous research applying the model has been conducted at Hospital X. The type of services and the way the facility is run differs operationally from the typical provincial health care facility. In this regard, the study would be supported by Churchill et al. (1993:137-138), who suggest that the SERVQUAL model may be modified and adapted according to the industry concerned, the type of service provided and the location of the facility. In thus extending the applicability of the SERVQUAL model, this research study makes a meaningful contribution to the existing body of knowledge (Berndt, 2009:4; Rafael, 2013:1).

5.5.2   Practical contribution

The recommendations discussed in Section 5.3 should be beneficial to hospital managers in in closing the service quality gaps identified, and thereby assisting the hospital to provide an improved, quality service to its customers. The findings of this study offer insight into service quality, customer satisfaction, as well as the influence that online word-of-mouth communication has on service quality and customer satisfaction.

Currently there are guidelines in place to monitor service quality at Hospital X. However, feedback from this research study may encourage a re-evaluation of the current guidelines, and possibly conduce to the development of a more modernised structure that allows engagement with customers in an online environment.

5.6   Conclusion

An important aim of this study was to identify the level of service quality that parents and guardians who visit Hospital X require, and to provide hospital managers with information to enable them to enhance service quality with the aim of improving customer satisfaction.

It was found that parents and guardians are no longer making much use of the complaint boxes at Hospital X. Only 59 complaints were received regarding excessive waiting times and inappropriate staff attitudes during the 2014/2015 financial year (SINJANI, 2016). To voice their opinions and provide feedback, parents and guardians are taking to the social media.

Thus hospital managers need to adjust current policy and ensure it aligns to current methods of online communication. It is important that hospital managers adapt and consider an online platform for registering compliments and complaints. This will allow managers the opportunity to improve services based on the feedback from parents and guardians.

Overall, the findings show that Hospital X is to a large degree providing services according to the NCS hospital specifications. However, there remains room for improvement. For example, hospital managers need to establish a strong online presence in order to deal effectively with compliments and complaints.

Further research could use the SERVQUAL model to investigate the perspective of employees at Hospital X, as this perspective was not covered in the current study. Additionally, this study surveyed parents and guardians at one public hospital only. Further study can be carried out in other public healthcare facilities to develop a comprehensive understanding of customer satisfaction and service quality in State healthcare facilities in South Africa.

The research established that customers (parents and guardians) are responsive to all five dimensions of service quality in evaluating the quality of service rendered by a healthcare facility (Nyandoro, 2012:89). That is why a holistic approach is required when assessing service quality and customer satisfaction.

To conclude, the evidence collected in this study confirms that parents and guardians who visit Hospital X are satisfied with the quality of services provided. Negative choices such as "disagree completely" were rare among respondents, except for the responsiveness dimension regarding expected waiting time. The study has thus addressed the research questions that it posed and fulfilled its objectives.

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Appendix 1: Research Survey

SERVICE QUALITY AND CUSTOMER SATISFACTION SURVEY

INSTRUCTIONS:
Please answer the following questions by marking (x) in the relevant block or writing down your answer in the space provided. For example if you are a female then in Question 1 insert an X as follows:

1. Gender

Male	1	
Female	2	X

Section A: Demographic information

1. Gender

Male	1
Female	2

2. Age in Years

Up to 25	1
26-30	2
31-40	3
41-50	4
51-60	5
61-65	6
Above 65	7

3. Current Employment status

Employed Full- time	1
Employed part-time	2
Student	3
Unemployed	4
Retired	5
Other (specify)	6

5. Are you a member of a medical Aid Scheme?

Yes	1
No	2

Section B: Parent and Guardian expectations

Please mark with an (x) in each row.

	Disagree completely	Mostly disagree	Slightly Disagree	Slightly agree	Mostly Agree	Completely agree
When visiting the hospital what expectations do you have?						
There must be a reception desk	1	2	3	4	5	6
There must be clear signs to direct me	1	2	3	4	5	6
There must be an information person where I can get directions from	1	2	3	4	5	6
There must be a security guard	1	2	3	4	5	6
There must be a place to get water	1	2	3	4	5	6
I must be able to identify the staff	1	2	3	4	5	6
It must be wheel chair friendly	1	2	3	4	5	6
The waiting area must be clean	1	2	3	4	5	6
There must be clean bathrooms	1	2	3	4	5	6
How long do you expect to wait in the waiting area before you are attended to?						
Up to 30 minutes	1	2	3	4	5	6
Up to 1 hour	1	2	3	4	5	6
Up to 1 and half hours	1	2	3	4	5	6
Up to 2 hours	1	2	3	4	5	6
Up to 2 and a half hours	1	2	3	4	5	6
Up to 4 hours	1	2	3	4	5	6
What expectations do you have of staff behaviour?						
Staff must be friendly	1	2	3	4	5	6
Staff must be professional	1	2	3	4	5	6
Staff must treat me with respect	1	2	3	4	5	6
Staff must show empathy toward me	1	2	3	4	5	6
What expectations do you have of the health care professional (HCP) treating you?						
The HCP must explain what my illness to me in a clear language using no medical jargon	1	2	3	4	5	6
The HCP must explain how, when and how frequent I should take medication	1	2	3	4	5	6
The HCP must be professional	1	2	3	4	5	6
The HCP exam room where he treats me must be clean	1	2	3	4	5	6
The HCP must have a respectful attitude.	1	2	3	4	5	6

Section C: Satisfaction Scale

To what extent do you agree with each of the following statements regarding the current situation at the hospital: Please indicate your answer using the following 6-point Liket scale where:

1. = Disagree completely

2. = Mostly disagree

3. = Slightly disagree

4. = Slightly agree

5. = Mostly agree

6. = Completely agree

Please mark with an (x) in each row.

	Disagree completely	Mostly disagree	Slightly Disagree	Slightly agree	Mostly Agree	Completely agree
Tangible Dimension						
The waiting area is clean	1	2	3	4	5	6
The waiting area is well lit and ventilated	1	2	3	4	5	6
The atmosphere and décor appearance of the waiting room is appealing	1	2	3	4	5	6
The equipment is functional	1	2	3	4	5	6
The staff working at the hospital are easily identified by their uniform	1	2	3	4	5	6
The hospital provides detailed information packs about the services provided	1	2	3	4	5	6
Responsiveness Dimension						
The staff are always willing to help me when I need their assistance	1	2	3	4	5	6
The staff respond quickly to my queries	1	2	3	4	5	6
The staff provide me with detailed information on the process that I need to follow when I enter the hospital?	1	2	3	4	5	6
The staff are never too busy to assist me	1	2	3	4	5	6
The staff always set up follow-up appointments quickly and professionally	1	2	3	4	5	6
Reliability Dimension						
Services are provided at the promised times.	1	2	3	4	5	6

Services are provided in a dependable and accurate manner	1	2	3	4	5	6
Hospital staff are competent in providing efficient services	1	2	3	4	5	6
The staff kept my records up-to-date	1	2	3	4	5	6
Staff schedule my appointments with medical professional in such a way that I do not have to wait an unreasonable time to receive attention	1	2	3	4	5	6
Assurance Dimension						
Staff are knowledgeable about the services the hospital offers	1	2	3	4	5	6
I feel secure when receiving services from staff at this hospital	1	2	3	4	5	6
The staff are consistently courteous when they dealt with me	1	2	3	4	5	6
I trust the staff as I feel they have my best interests at heart	1	2	3	4	5	6
The behaviour of the staff instils confidence in me	1	2	3	4	5	6
Empathy Dimension						
The operating times are convenient	1	2	3	4	5	6
Staff are understanding	1	2	3	4	5	6
Staff make me feel that they care about me	1	2	3	4	5	6
Staff treat me with respect and dignity	1	2	3	4	5	6

Section D: Overall satisfaction

	Disagree completely	Mostly disagree	Slightly Disagree	Slightly agree	Mostly Agree	Completely agree
By the level of service I have enjoyed it is evident that staff are well trained	1	2	3	4	5	6
By the level of service I experienced staff seem capable of providing the services I need from them	1	2	3	4	5	6
My assumed expectation of the level of service that I was expecting was fulfilled at the time of the delivery of the service.	1	2	3	4	5	6
The hospital never fails to meet my expectations	1	2	3	4	5	6
The hospital over-promises in their external communication with patients and the general public	1	2	3	4	5	6

Overall I am happy with the quality of service provided in the hospital	1	2	3	4	5	6
I will continue to come back to this hospital	1	2	3	4	5	6
I will recommend this hospital to other people	1	2	3	4	5	6

Are there any comments/issues you would like to list? If "Yes' please provide such comment below

_____
_____
_____
_____
_____

Thank you for your time in completing this survey.

Appendix 2: Complaints statistics Hospital X 2014/2015
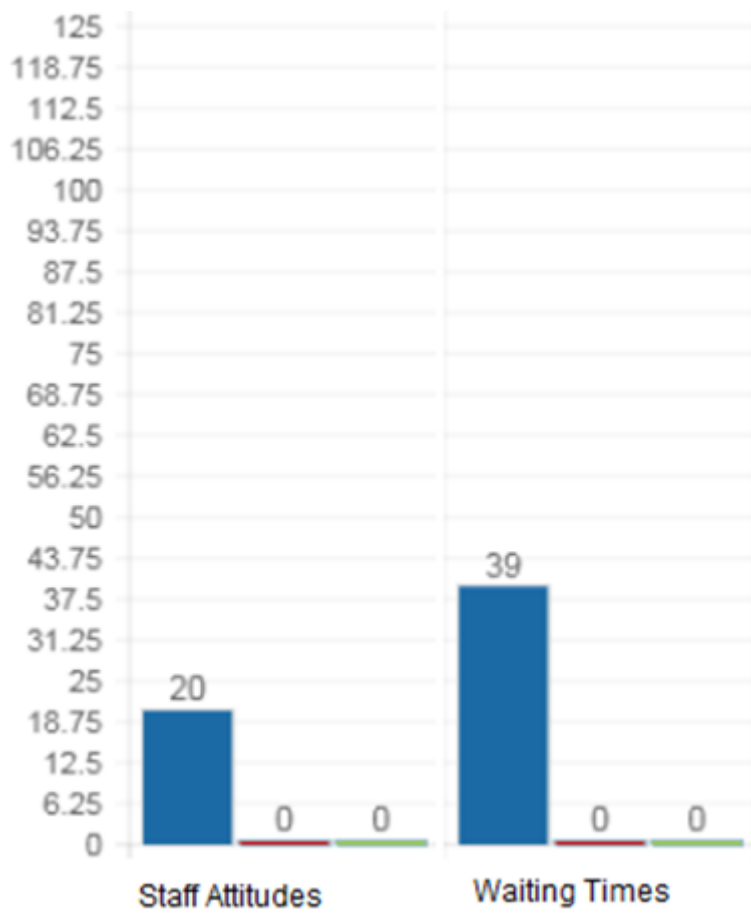
Appendix 3: Internal National Core Standards summary of results

health

Department:
Health
REPUBLIC OF SOUTH AFRICA

Feedback report

Province: Western Cape Province

District:

Sub-District:

Facility:

Legend

Score	X	V	E	D
< 20				
>= 20 and < 40	< 80	< 70	< 60	< 40
>= 40 and < 60	>= 80 and < 90	>= 70 and < 80	>= 60 and < 70	>= 40 and < 50
>= 60 and < 80	>= 90 and < 100	>= 80 and < 90	>= 70 and < 80	>= 50 and < 60
>= 80	>= 100	>= 90	>= 80	>= 60

Overall Performance	84.24%

Appendix 4: Raosoft sample size calculator

Raosoft®

Sample size calculator

What margin of error can you accept? 5% is a common choice	5.65 %	The margin of error is the amount of error that you can tolerate. If 90% of respondents answer *yes*, while 10% answer *no*, you may be able to tolerate a larger amount of error than if the respondents are split 50–50 or 45-55. Lower margin of error requires a larger sample size.
What confidence level do you need? Typical choices are 90%, 95%, or 99%	95.00 %	The confidence level is the amount of uncertainty you can tolerate. Suppose that you have 20 yes-no questions in your survey. With a confidence level of 95%, you would expect that for one of the questions (1 in 20), the percentage of people who answer *yes* would be more than the margin of error away from the true answer. The true answer is the percentage you would get if you exhaustively interviewed everyone. Higher confidence level requires a larger sample size.
What is the population size? If you don't know, use 20000	9949	How many people are there to choose your random sample from? The sample size doesn't change much for populations larger than 20,000.
What is the response distribution? Leave this as 50%	50.00 %	For each question, what do you expect the results will be? If the sample is skewed highly one way or the other, the population probably is, too. If you don't know, use 50%, which gives the largest sample size. See below under **More information** if this is confusing.
Your recommended sample size is	**293**	This is the minimum recommended size of your survey. If you create a sample of this many people and get responses from everyone, you're more likely to get a correct answer than you would from a large sample where only a small percentage of the sample responds to your survey.