EFFECT OF SERVICE QUALITY ON PATIENT SATISFACTION IN DENTAL CARE FACILITIES: A CASE OF MOLARS DENTAL CLINIC

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UNITED STATES INTERNATIONAL UNIVERSITY – AFRICA

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STUDENT’S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution, or university other than the United States International University-Africa for academic credit.

Signed: ________________________________  Date: ___________________

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This research project report has been presented for examination with my approval as the appointed supervisor.

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ABSTRACT

The purpose of this study was to investigate the effect of service quality on patient satisfaction in dental care facilities focusing on Molars Dental clinic. The study was guided by the following research questions: To what extent do tangibles affect patient satisfaction in dental care facilities? How does responsiveness to patient needs affect patient satisfaction in dental care facilities? Is reliability affecting patient satisfaction in dental care facilities? What is the effect of empathic assurance on patient satisfaction in dental care facilities?

The study employed descriptive research design with emphasis on the effect of service quality on patient satisfaction in dental care facilities. The target population of the study was 425 patients seeking dental service at Molars Dental clinic in Nairobi Kenya based on the estimate of the number of patients visiting the clinic quarterly. The sample of the study was 206 patients stratified by gender from different parts of the country. The sample frame consisted of a list of patients in terms of their gender. Data was collected using questionnaires and analyzed using the Statistical Package for Social Sciences (SPSS). Correlation coefficient and Linear regression analyses were used to determine the effect of different service quality dimensions on patient satisfaction in dental facilities. The findings were presented using tables and charts.

Overall, 204 of the anticipated 206 participants (98%) responded (respondent’s demographics: 121 female patients, 83 male patients, mode age range = 25 to 34 years, mode education level attained college). Most of the patients had sought services at the Clinic for at least between a year and five years. The highest rated service quality dimension was the tangibility dimension while the least rated was reliability dimension. All services dimensions had a moderate but significant correlation with patient satisfaction. Tangibility dimension and responsiveness were the strongest and most significant predictors of patient satisfaction. Empathy and reliability are shown to negatively, but not significantly affect patient satisfaction in dental care facilities.

In a dental care set-up, patients are likely to be satisfied if the tangibles and the responsive nature of the facility are satisfying and meet their needs. At the state at which they come to the facility, it is highly likely that showing empathy and stressing on being
reliable will have little or negative effect on patient satisfaction. From this study, it appears that having the physical infrastructure too and being focused on providing the professional service to address the various dental problems is more important to patients. Given that this study was conducted in one dental clinic, further studies targeting multiple dental providers in different geographies are encouraged. Similarly important issues have been raised from the study and including qualitative data collection targeting dental providers and patients will be helpful in answering these questions.

The study concludes that Molars Dental Clinic has up to date equipment and its physical facilities are visually appealing. From the study, it can be concluded that Molar Dental Clinic tells customers exactly when services will be performed and patients receive prompt services from the employees of the clinic. The study concludes that when the clinic promises to do something by a certain time, it does so, and when patients have a problem, the clinic is sympathetic and reassuring making it dependable. The study concludes that Molars Dental Clinic keeps its records accurately.

The study recommends dental practitioners to ensure they provide timely service to patients. The study has shown that most of patients were satisfied with the quality of care they received, but are concerned about the time in which they get served. Thus, to ensure overall satisfaction, timely service needs to be provided across the board.
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LIST OF ABBREVIATIONS AND ACRONYMS

AIHW: Australian Institute of Health and Welfare
CAHPS: Consumer Assessment of Healthcare Providers and Systems
DoH: Department of Health
DRSU: Dental Statistics and Research Unit
MoH: Ministry of Health
NHS: National Health Services
SERVQUAL: Service Quality
CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Problem

Health care today is being transformed more from a provider-centered approach to a patient-centered approach in which satisfaction of the patients’ needs is central to service quality (Sowole, 2007). As a result, many hospitals are shifting from the culture of the healthcare system of one formed by the preferences and decisions of medical professionals to one shaped by the views and needs of its users thus adopting a patient-centered attitude (Hendriks et al., 2002). In a market where consumers have options, the need to assess patient satisfaction to enable continuous improvement in quality can therefore not be overstated. Jackson and Kroenke (1997) postulates that healthcare service quality is an indicator aiding the discovering of the aspects of service quality that require changes to improve patient satisfaction. Peprah and Atarrah (2014) note that the importance of patients’ views as an essential tool for monitoring and managing as well as improving service quality has been stressed by many studies. Adebayo et al. (2014) however, points out that despite its importance to patient satisfaction, studies of the quality of dental care services are uncommon and lack uniform criteria worldwide.

Kotler defined satisfaction as: “a person's feeling of pleasure or disappointment resulting from comparing a product's perceived performance or outcome, in relation to his or her expectations” (Kotler & Keller, 2006). Consequently, satisfaction is a result of a mental assessment and evaluation of what client’s experience and the ensuing outcome of the services provided based on what they expected. This therefore implies that perceived service quality is considered as a cognitive construct, at the same time as satisfaction is an affective reaction to a specific service experience as a result of an evaluation process (Peprah & Atarah, 2014). Specifically, in dental care, Levin (2004) notes that satisfaction of the patient with dental treatment provided is an important aspect of quality of treatment and determines the future utilization of services.

For many years, healthcare has been an area where the patient’s level of satisfaction with the quality of services offered was not taken into consideration. This has however changed globally in the last 20 years, which has seen patient satisfaction surveys gain increased attention as meaningful and essential sources of information for identifying
gaps and developing an effective action plan for quality improvement in healthcare organizations (Al-Abri & Al-Baushi, 2014); the challenge remains in the implementation of the findings. According to Al-Abri and Al-Balushi (2014), there are very few published studies reporting the improvements resulting from feedback information of patient satisfaction surveys, and in most cases, these studies are contradictory in their findings.

The analysis of customer satisfaction began in the 1970s when consumer movement was on the rise and directly connected to the quality of offered services. This movement was given credence by a study in 1984 that evaluated consumer satisfaction as a measure of the quality of life (Ali, 2016). The movement gained momentum in 1990s, which resulted in many healthcare industries embracing continuous quality improvement. Since then most developed countries health services require a report on customer satisfaction in order to grant high quality status. According to Schoenfelder et al. (2011), in Germany, measuring satisfaction has been required since 2005 as an element of quality management reports. Since 2002, the Department of Health (DOH) launched a national survey program in which all National Health Services (NHS) trusts in England have to survey patient satisfaction on an annual basis and report the results to their regulators.

A study in Zimbabwe by Dabale et al. (2014) looking at the level of client satisfaction and Health service delivery in African clinics found out that there is a relationship between health service delivery and patient’s satisfaction. South Africa in their strategic plan released in 2010 termed “improved patient care and satisfaction” as one of 20 key outcomes for the 2009-2014 Medium Term Strategic Framework (DOH, 2010). In Kenya, Mwangi (2012) in his study underscores the challenges of assessing the quality of care offered to patients, as there are no data highlighting customer satisfaction levels. These studies entrench the measurement of patient satisfaction as a legitimate indicator for improving the services and strategic goals for all healthcare organizations.

According to the Institute of Medicine (2008), quality consists of the “degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge”. In the healthcare industry, quality of care is more than a concept; it is an important factor in the delivery of
healthcare (Buttell, Hendler & Daley, 2007). It is seen as a critical dimension of social justice and human rights principle and norms, and it forms one of the pillars of a viable and sustainable healthcare system (MOMS & MoPHS, 2011). Donabedian (1998) argues for the importance of incorporating patient perception into service quality assessment, which has seen healthcare managers incorporate patient centered care as a major component in the healthcare mission (Dawn & Lee, 2003).

The concept of patient satisfaction is not clearly defined, although it has been identified as an important quality outcome indicator to measure success of the services delivery system. On many occasions, it has been used interchangeably with the terms patient experience and perception and has been noted to have a multidimensional concept addressing many aspects of care (Sowole, 2007). Al-Abri and Al-Balushi (2014) note that there is no consensus between the literatures on how to define the concept of patient satisfaction in healthcare. They posit that many authors tend to have different definitions of patient satisfaction and highlight Donabedian's quality measurement model, as an example where patient satisfaction is defined as patient-reported outcome measure while the structures and processes of care are measured by patient-reported experiences. They quote Jenkinson et al. (2002) and Ahmed et al. (2011) who point out that patient satisfaction mostly appears to represent attitudes towards care or aspects of care while Mohan et al. (2011) referred to patient satisfaction as patients’ emotions, feelings and their perception of delivered healthcare services. Conversely other authors have defined patient satisfaction as a degree of congruency between patient expectations of ideal care and their perceptions of real care received (Balushi & Al-Abri, 2014).

Nagappan and John (2014); La Vella and Gallan (2014); Kaneet et al. (1997) describe patient satisfaction as a multifaceted and very challenging outcome to define. They argue that patient expectations of care and attitudes greatly contribute to the satisfaction, as do other psychosocial factors, including facilities and treatments services. They specifically note that in the case of dental care, dentist-patient interactions during a consultation, including cognitive and emotional aspects, have been demonstrated to affect patient compliance with clinical advice and follow-up visits. Patients’ assessment of care is thus a representative tool to provide the prospect for improvement, intensify strategic decision-
making, decrease costs, meet patients' expectations, monitor healthcare performance of health plans and offer benchmarking across healthcare institutions.

Customers have become more aware of the power they hold in influencing the quality of service offered by sharing their perception or level of satisfaction. A cross-sectional study by Balkaran et al. (2015) on patient’s satisfaction with Dental care facilities at the University of Wales Indies, School of dentistry discovered that patient satisfaction is linked to the outcome of care, as satisfied patients are more compliant with the advice of their dental practitioner, which leads to better effects of treatment. Gallan (2014) however points out that patient satisfaction is NOT the same as patient perceptions, as patients can perceive aspects of a health care encounter that serve as satisfiers as well as dissatisfiers. He notes that measures such as CAHPS (Consumer Assessment of Healthcare Providers and Systems), which capture patient perceptions of what happened, and how frequently things happened, can be drivers of satisfaction, but cannot be conceptually equated with satisfaction. He notes that Satisfaction can be measured with items that include the terms “satisfied,” “pleased,” and “happy.”

Research of patient satisfaction in advanced as well as developing countries has many common and some unique variables and attributes that influence overall patient satisfaction. One of the world’s longest established, patient centered dental satisfaction surveys originated in Australia in the late 1980s and ran through to 2005 (Narayanan & Greco, 2014). The Australian Institute of Health and Welfare (AIHW) Dental Statistics and Research Unit (DSRU) at the University of Adelaide cooperated on an attitudinal questionnaire that originally focused on three aspects of satisfaction: the context of the visit, the content of the visit, and the outcomes of the visit. From the mid-1990s, two additional aspects were surveyed: cost of dental care and satisfaction with facilities. The highest levels of satisfaction were for the friendliness of the clinic staff, the explanation of treatment needs and well-equipped surgeries. The lowest levels of satisfaction were for explanation of treatment options and cost-related items.

The line of measurement between service quality and patient satisfaction is very thin. Baldwin and Sohal (2003) identified 4 key areas that need to be measured in assessing dental service quality: Responsiveness meaning, the relationship between dentists keeping
scheduled appointments while accommodating patients at short notice and their patients’ perceived level of service quality; Empathic assurance which focuses on the relationship between treatments that maintain patients’ comfort, “self-respect” and that involve minimal pain and the patients’ perceived level of service quality; Reliability which focuses on practitioners who display traits that are consistent with the patient’s perception of “professionalism” and Tangibles focusing on the physical characteristics of the practice (i.e. the decor, look, ambience, etc. of the offices, surgeries, rooms, and reception areas, including the technology and equipment used within them.

These areas of focus borrow from Parasuraman et al. (1998) dimension of service quality (SERVQUAL) articulated as tangibles, reliability, responsiveness, assurance and empathy. Moreover, according to Newsome and Wright (1999), the five issues that influence patient satisfaction with dental treatment are technical competence, interpersonal factors, convenience, costs and facilities. They believe these are equivalent to the dimensions of service described by Parasuraman et al. (1998) but note that the perception of these attributes by the patient is not the sole determinant of patient satisfaction.

A remarkable outcome of four studies conducted in tertiary hospitals in different countries using the SERVQUAL model revealed that the nurses' courtesy, respect, careful listening and easy access of care was particularly the strongest driver of overall patient satisfaction (Al-Abri & Al-Balushi, 2014). A study of a Government Hospital, in West Java, Indonesia Dental clinic identified dissatisfaction with waiting time as a pain to patients due to the high number of clients they serve. This was found to compromise on quality. The study recommended increasing number of dental staff as well as dental chairs and making appointments to reduce on the waiting period except in emergencies. Another study found that the dental assistant's knowledge regarding patient's needs for the treatment and communication related to explanation of treatment given by the dentist was a huge factor affecting patient satisfaction (Dewi et al., 2011). Limited studies were concerned with dental assistant's knowledge about patient's needs, even though in this study is shown to be an important aspect.
In the same study, Dewi et al. (2011) found that the explanation given by a dentist about the treatment was an important aspect and received low satisfaction. This is in accordance with several studies which indicated that the doctor's explanation of illness and treatment options to the patient received a low evaluation. On the other hand, this result contrasted with another investigation, where the mannerism of dental surgeons, initial examination, accurate diagnosis and explanation of the treatment received “good” score in patient satisfaction. (Dewi et al., 2011). Overall, a limited number of studies have examined the fulfillment of patient's expectations by comparing patient's views on ideal behavior and the actual behavior of dentists. These studies clearly show the gap that exists between the sort of service patients hope to receive and the service they actually receive which call the satisfaction gap (Adebayo et al., 2014).

Molars Dental Clinic is a growing family dentistry registered under Kenya Medical Practitioners and Dentists (KPMD) board which is the oversight authority. It was established in 2008 with the aim of giving dental quality care to its clients. The clinic has a staff capacity of 60 including doctors, dental assistants/nurses and support staff. The last ten years have seen the clinic grow and increase their capacity and capability by embracing the latest technology in dental care as well as recruiting and training professional staff. The clinic embraces continuous learning to enable it stay ahead of its competition. This growth has however come with challenges of long queues and long waiting times. Additionally, staff turnover has also meant continuous training and learning to maintain quality. Increased clientele has also meant flexible hours to include a night shift once a week for more complex cases and operating on Sunday half day.

Whereas the clinic has embraced a feedback culture form the customer, there is no structured approach in embedding the customers’ views in the review process. It’s for this reason that the clinic seeks to assess customer satisfaction based on services offered. The findings will enable the clinic evaluate the services they offer as well as the support process. As the clinic enters its 10th year this becomes important especially in setting pace on how to attract, maintain clients for the next 10 years. The study focused on Molars Dental clinic to determine the effect of service quality dimensions on patients’ satisfaction. The study was underpinned by the five dimension of service quality.
1.2 Statement of the Problem

Dental care services are relatively scarce and expensive in Kenya and like many regions in the world they are mainly concentrated in the urban centers. As the standards of living have gone up many patients have become sophisticated and demand accountability from caregivers. There is however little published research assessing the service quality in Dental clinics specifically in Kenya. Patient satisfaction is not an area that is given focus and thus the care remains provider centered as opposed to patient centered where their input in the delivery of the services and the operating environment is factored in. Available research has targeted mainly the big hospitals but even this seems to focus more on perception issues, different health care programs and which areas to improve but does not focus on evaluating service quality and specifically from the customer perspective. It has been proposed that a significant variation exists between a patient’s expectations of treatment quality and the perceived service quality of the treatment received which has been attributed to a number of factors related to the service quality of the treatment delivered (Baldwin & Sohal, 2003).

The achievement of quality dental care is desirable for many patients, which may ultimately be linked to their satisfaction. There is however a need to investigate the link between what patients experience as quality and what they perceived as quality. Generally, quality could be described as the degree to which the characteristics of a product, process or service satisfies established or obvious needs. However Adebayo et al. (2014) argues that despite its importance to patient satisfaction, studies of the quality of dental care services are uncommon and lack uniform criteria worldwide. Many studies concluded that patients’ satisfaction implied quality care. He notes that this interpretation has several challenges as perception of quality of health care received is a subjective attitude relating to the health service but is not equivalent to satisfaction. Predicting variable of service quality has also been given less attention in the previous studies (Osman & Sentosa, 2013).

There are a number of critical issues relating to healthcare services that highlight the need to assess and measure patients’ satisfactions and improve them. Sewell (1997) puts forward that health which is particularly the relief or cure of ill health, is universally necessary and creates the needed attention to provide high quality services in response to
development in medicine. As a result, assessing and measuring patient’s satisfaction and perceived service quality is an important issue for a healthcare provider to understand what is cherished by patients, and to know where, when and how service can be altered or possible improvement can be made as well as how the scarce resources of the healthcare service would be distributed.

The Kenyan consumer is more aware of what they want and thus it’s important for health care providers to take this into consideration as they are offering their services. Specifically among dental clinics, the challenge remains in the ratio of dentist-patient, which is currently at 1:47000 against the WHO recommended dentists-to-population ratio of 1:7500. Kenya has a dentist population of about 1000 for a population of 47 million people. Moreover, 80% of these dentists are based in the large urban centers leaving large segments of populations based in the rural areas grossly underserved (MoH, 2015).

Whereas there is a lot of research on patient satisfaction, there is little to none linking this to service quality. Issues of service quality are equally challenging to measure. This study focused on the relationship between the different service quality dimensions and patients satisfaction based on Parasuraman’s model as put across by Baldwin and Sohal (2003).

1.3 Purpose of the Study
The purpose of this study was to investigate the effect of service quality on patient satisfaction in dental care facilities focusing on Molars Dental Clinic.

1.4 Research Questions
The following research questions guided the study:

1.4.1 To what extent do tangibles affect patient satisfaction in dental care facilities?
1.4.2 How does responsiveness to patient needs affect patient satisfaction in dental care facilities?
1.4.3 Is reliability affecting patient satisfaction in dental care facilities?
1.4.4 What is the effect of empathic assurance on patient satisfaction in dental care facilities?
1.5 Significance of the Study

A study of patient satisfaction on service quality did not only yield data to improve the particular clinic, but will add to the body of knowledge within Kenya on how to deal with issues of perception and quality in the provision of quality dental care to patients. The relevance of the study on each of these groups is elaborated in this section:

1.5.1 Molars Dental Practice

This study and its findings are key for the Molars dental practice, as the results will help them determine the areas of improvement. It is envisaged that the results of this study will also make the client feel as part of the practice when their views are implemented or taken into consideration.

1.5.2 The Kenya Dental Association

The data from this report will be very key to the Dental Association as it constitutes of other dentists who would be able to access the learning’s in the report to make changes to their service offerings in order to improve service quality. It is envisaged that the report will also add to the body of knowledge in the field of dentistry and customer service.

1.5.3 Dental Colleges

This report can form as a case study for dental colleges who want to learn how to maintain quality as well as how to administer a survey assessing the satisfaction of patients and how this in turn can shape service quality.

1.5.6 Future Researches/ Scholars

Patients’ satisfaction continues to be a subject of interest in academia and research. The study will add to the existing body of knowledge on the effect of service quality on patient satisfaction and will avail data for further research and practical reference.

1.6 Scope of the Study

The study was carried out at Molars dental at Electricity house in Nairobi, Kenya. The study focused on five service dimensions (Tangibles, Responsiveness, Reliability, and Empathic Assurance) and patients’ satisfaction for the patients visiting Molars Dental. The target population of the study was 425 patients seeking dental service at Molars
Dental Clinic in Nairobi Kenya based on the estimate of the number of patients visiting Dental quarterly. The sample of the study comprised of 206 patients stratified by gender from different parts of the country. The formula for getting 206 employees from the 425 is discussed in Chapter Three. The study used structured questionnaire based on SERVQUAL model.

1.7 Definition of Terms

1.7.1 Service Quality
Service quality is the difference between customers’ expectations for service performance prior to the service encounter and their perception of the service received. Service quality represents the general appraisal of service and may occur at multiple levels in an organization (Raza et al., 2012).

1.7.2 Patient Satisfaction
The result of comparison between what one customers expected about services provided by a service provider and what another customer received in actual services rendered by a service provider (Osman & Sentosa, 2013). It may also mean conformance to customer specifications.

1.7.3 Tangibles
Appearance of physical facilities, equipment, personnel and written materials (Zeithaml et al., 1990). A thing that is perceptible by touch. In the context of this study, tangibles are infrastructural aspects of the Molars Dental Clinic that have physical existence or form.

1.7.4 Reliability
Reliability is defined as the ability to perform the promised service dependably and accurately (Zeithaml et al., 1990).

1.7.5 Responsiveness
Responsiveness is defined as the willingness to help customers and provide prompt (Zeithaml et al., 1990).
1.7.6 Empathy
Empathy is defined as the caring, easy access, good communication, customer understanding and individualized attention given to customers (Zeithaml et al., 1990).

1.7.7 Assurance
Assurance is the credibility, competence and security in delivering services and is reliability is the ability of service providers to implement promised service dependably and accurately (Raza et al., 2012). This study defines assurance as the confidence and certainty in the clinics ability to deliver high quality dental services.

1.8 Chapter Summary
Chapter one dwelt lingered primarily on introducing the research topic and providing the context for the study; background of the study, statement of the problem, purpose of the study, research questions, importance of the study, scope of the study and definition of terms. In Chapter two, the study provides literature review related to the study, chapter three describes the research methodology. Chapter four details the results from data analysis while chapter five describes these results in-depth and relates them to findings from other studies.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter is a review of the literature that introduces different perspectives related to the relationship between leadership styles and employee commitment in private institutions and specific to the research questions which are: - To what extent do tangibles affect patient satisfaction in dental care facilities? How does responsiveness to patient needs affect patient satisfaction in dental care facilities? Is reliability affecting patient satisfaction in dental care facilities? What is the effect of empathic assurance on patient satisfaction in dental care facilities? This chapter provides empirical studies in relation how service quality affect patients’ satisfaction in organizations with specific focus on the five service dimensions based on the conceptual service quality model by Parasuraman et al. (1988). The chapter seeks to highlight previous research that has linked service quality to patients’ satisfaction in various sectors by reviewing studies that interrogate several outcome variables or measures of satisfaction.

2.2 Tangibility and Patient Satisfaction

Tangibility refers to the appearance that servicer providers gave in terms of good facilities, equipment, personnel and communication materials when delivering services. The physical characteristics of the practice (i.e. the decor, look, ambience, etc. of the offices, surgeries, rooms, and reception areas, including the technology and equipment used within them) have a significant positive effect on the patients’ perceived level of service quality (Aliman, 2016). Tangibles in services include physical evidence of the service and the physical evidence factor is divided into the following broad components: (1) physical facilities; (2) appearance of personnel; (3) tools or equipment used to provide the service; (4) physical representations of the service; (5) other customers in the service facility.

Rust et al. (1996) have argued that marketing tangible cues would help to eliminate the insecurity and uncertainty associated with intangibility. By adding more tangibility to services, the customer will be able to evaluate the offering before and after purchase (Rushhton & Carson, 1989). Tangibilization can thus be interpreted as addition of tangibility to intangible or less tangible offerings. Service tangibilization is broadly
categorized into two groups, namely, Operation-Based Tangibilization (OBT) and Marketing-Based Tangibilization (MBT). Services are mostly produced and consumed instantaneously, the OBT approach seeks to tangibilize operation activities done by service firms at the time of interaction between customer and offering by lowering the customer’s sense of intangibility. MBT helps in providing tangibilization by unifying customer Expectation, Decision-Analysis and Evaluation via Marketing (EDEM) efforts.

2.2.1 Decor

Patients’ satisfaction is no longer associated with the interaction with the medical specialist but it extends to the entire service including staff, experience, service and other factors (Jacobs, 2016). Decor that is a form of an interior design has a big impact on patient satisfaction. Patients are becoming more concerned when it comes to choosing where they go for their healthcare. Modern medical office furniture, facilities, and stylish decor can actually have a significant and tangible impact on patient safety, experience, and ultimately increase patient satisfaction (Jacobs, 2016). Ensuring privacy through room design has been proven to make patients feel more comfortable, but there are also many other ways that smart medical office interior design can reduce stress. Reducing noise, providing access to views of nature, and soothing, aesthetically pleasing surroundings have all been proven to reduce pain, improve overall well-being, and shorten the length of hospital stays.

Creating a quieter environment can make a big difference in patient satisfaction scores. Décor and design provides the patient with an opportunity to have a place to sit, read magazine and even have beverages. Furniture is an important tool in enhancing patients’ satisfaction. They give patients a place to relax (Pearson & Wilson, 2012). There is a trend toward patient-centered design in new hospital construction. Features of this trend include same-handed design (rooms on a unit have all beds oriented in the same direction and do not share headwalls); use of sound absorbent materials to reduced ambient noise, single-patient rooms to reduce transmission of infection and enhance privacy and visitor comfort, presence of comfortable waiting rooms and visitor accommodations to enhance comfort and family participation.
Siddiqui et al. (2015) conducted a study on changes in patient satisfaction related to hospital renovation with experiences with a new clinical building. The study aimed to characterize changes in patient satisfaction that occurred when clinical services (comprised of stable nursing, physician, and unit teams) were relocated to a new clinical building with patient-centered features. The study found that the most prominent increase was with pleasantness of décor. This implies that patients respond positively to pleasing surroundings and comfort differently from those with physicians and nurses. While examining tangibility and assurance as determinants of service quality for primary health care in South Africa, De Jager and Du Plooy (2007) study indicated patient dissatisfaction with both service quality dimensions. Specifically, cleanliness of a health facility was regarded as the most important variable for tangibility dimensions.

2.2.2 Equipment and Technology

The equipment and products used in healthcare facilities can have a significant impact on patient opinion hence patients’ satisfaction. Healthcare facilities are adopting technology in order to improve services to patients. Technology is linked to improved health care efficiency, quality, safety, and cost. Patient satisfaction is a cumulative construct embracing satisfaction with various hospital facets such as technical, functional, infrastructure, interaction and atmosphere (Zineldine, 2006). Although a patient may not be able to tell if equipment is effective, they can tell if it's visibly dated or worn. Satisfaction manifests itself as a distribution, access and utilization of health services.

Olomi et al. (2017) conducted a study on patients’ Level of Satisfaction with the Health Care Services Received at Outpatient Departments in Kilimanjaro Region. The study found that patients’ were generally not satisfied with the health care provision in all three hospitals. The study recommended that the hospital managements should focus on improvement of patient-provider relationship, availability of equipment and drugs and affordability of hospital bills.

2.2.3 Personnel

Patient satisfaction reflects provider's ability to successfully deliver care that meets patients' expectations and needs. A number of factors have been shown to influence patients' satisfaction including expectations from various health care services i.e. doctors,
nurses, and laboratory and pharmacy services. This will often vary from how the health personnel are dressed to how they communicate (Kagashe & Rwebangila, 2011). In dental care, patient’s expectations especially of the attitudes and communication skills of the dentists remained important for overall patient satisfaction (Fox, 2010). According to Crow et al. (2002) the most important health services factor affecting satisfaction was the quality of doctor-patients interaction. Communication is also vital for patient satisfaction. If a patient feels alienated, uninformed or uncertain about her health status and outcomes, it may affect the healing process.

Adebayo (2014) has pointed out that to date very few studies have evaluated the fulfillment of patient's expectations by comparing patient's views on ideal behavior and the actual behavior of dentists. This is taking into consideration that patient’s satisfaction is influenced by numerous factors including the nature, behavior, communication skill and personality of the dental healthcare provider.

Many studies on patient satisfaction show that desirable communication between patients and health care provider satisfied the patients (Patel, 2014). Communication skill is thus one of the important factors determining the level of patient satisfaction. Thus whilst the service management literature contains much by way of explanation as to why the measurement of service quality is challenging, little work, particularly empirical work, has been carried out to discover how service organizations are overcoming these difficulties (Kulasin & Fortuny-Santos, 2005).

Al-Doghaither (2004) evaluated the satisfaction of 400 inpatients with health services in Riyadh, and found that the highest mean satisfaction score was admission, and the lowest was communication. In Japan, outpatient satisfaction was unaffected by physical appearance/tangibles attribute but patient satisfaction was affected by process characteristics – service speed, quality of interaction with staff and the setting’s appearance (Elluech, 2008). Halil et al. (2010), through an investigation in Turkish hospitals, indicated that tangibility, reliability, courtesy and empathy were important criteria for customer satisfaction whereas responsiveness and assurance factors were not identified as important predictors of satisfaction.
In summary, several studies assessing service quality provided in private and public health care included the influence of tangibles. It has been argued that the single most important difference between services and products is the characteristic of intangibility and this has a significant influence on the marketing management of services (Parasuraman et al., 1985; Parasuraman & Grönroos, 1990). This often makes it difficult for customers to understand service quality and, as a result, more difficult for businesses to understand how consumers perceive and evaluate a service. Intangibility implies that a consumer’s perception of quality is often based on physical evidence and price rather than the core service. Physical evidence refers to the environment in which the service is delivered and where the firm and the customer interact and also any tangible commodities that facilitate performance or communication of the service (Zeithaml & Bitner, 1996).

This demonstrates that the physical evidence of a health care service production process can influence the service experience. Parasuraman et al. (1988) describe tangibility in SERVQUAL as the “solid” dimension used to assess service quality, while Santos (2002) refers to tangibles as the tangible elements of a service and includes aspects such as the appearance of physical facilities, tools and equipment, personnel, and communication material. Vandamme and Leunis (1993) measured service quality in a public hospital in Belgium and found that the most important dimensions explaining overall service quality included tangibility and assurance. Boshoff and Gray (2004) investigated the relationship between service quality, customer satisfaction and loyalty (as measured by purchasing intentions) among patients in the private health care industry in South Africa. The study revealed that the service quality dimensions of nursing staff empathy, assurance and tangibles, impact positively on patients’ loyalty. Satisfaction with the cleanliness of the hospital and the ward, neatness of the buildings, décor in the wards and appearance of the nursing staff will impact on loyalty. In this study, the importance of the cleanliness of the hospital was confirmed.

2.3 Responsiveness and Patient Satisfaction

Responsiveness can be defined as the willingness of service providers to provide service quickly and accurately. This means, responding quickly, promptly, rapidly and immediately to customer needs (Zeithaml et al., 1996). In dental care, it means that the relationship between dentists keeping scheduled appointments while accommodating
patients at short notice and their patients’ perceived level of service quality, is positive and significant (Zaghloul & Enein, 2010).

Responsiveness is the willingness to help customers and provide prompt service (Zeithaml et al., 1996). This dimension is concerned with dealing with the customer’s requests, questions and complaints promptly and attentively. A firm is known to be responsive when it communicates to its customers how long it would take to get answers or have their problems dealt with. To be successful, companies need to look at responsiveness from the viewpoint of the customer rather than the company’s perspective (Zeithaml et al., 1996). In Literature there are critical pointers that speak to the responsiveness of any service industry. These include: scheduling, waiting time and follow up.

2.3.1 Scheduling
Patient appointment systems are of great importance for efficiently managing outpatient clinics as well as patient satisfaction. An appointment scheduling system is a system used to manage appointment calendars and scheduling of appointments for physicians, dentists, and other health care providers. It allocates appointments to a time slot during consultation hours. This allocation is done according to appointment scheduling rules (Zaghloul & Enein, 2010).

To guide the parents into choosing the most suited appointment, the receptionist should be prepared with the relevant information to justify the time of scheduling (Katre, 2014). Appointment systems also ensure smooth workflow, reduce crowding in waiting rooms, and allow health systems to honour patient and provider preferences while matching supply and demand. All these factors go a long way in promoting patient satisfaction (Gupta & Denton, 2008). Same-day scheduling sets aside appointment blocks for patients to see a doctor on the same day rather than needing to schedule days or weeks in advance. This type of scheduling gets patients seen quicker, improves patient satisfaction.

Zaghloul and Enein (2010) conducted a study on Hourly-block and standard patient scheduling systems at two private hospitals in Alexandria. The study concluded that every health care organization should know how to choose the most appropriate method of
appointment system and how best to organize it to meet the needs of its patients. Patient scheduling was established to be an important tool for efficient outpatient department management as well as rationally operating outpatient resources and critical areas like physician productivity, patient satisfaction, and practice profits.

Globally, the World Health Organization (WHO) evaluates the performance of health systems on three main goals: 1) improving health, 2) fair financing and 3) responsiveness (WHO, 2000). Responsiveness of health systems pertains to one’s reasonable expectations of the non-medical aspects of health care (Karami-Tanha & Fallah-Abadi, 2014); the way and the environment in which patient are treated during they interact with health system (Valentine et al., 2015). Reasonable expectations are the known and accepted principles, laws and standards of nonmedical care (Desilva & Valentine, 2000).

The proposed model of responsiveness by WHO consists of eight elements of non-medical aspects of health care; these falls into two important components: A - Respect for individuals (interpersonal) – this includes maintaining patient dignity, establishing clear communication, upholding confidentiality of patient information and autonomy of individuals and families to make decisions about their own health. B - Customer-oriented (structural) – this includes prompt attention, access to social support networks during care, quality of basic amenities and choice of care provider (Murray & Frenk, 2000).

For patients, the responsiveness of the health system is an important component of their overall experience while undergoing medical care. Patients understand and judge the various aspects of their experiences throughout their time in a health care facility (Adesanya et al., 2012). Successes in patient responsiveness can directly affect patient welfare. Patient comfort is important and promotes and improves the overall health of patients. Therefore, focusing on responsiveness is an important goal in health systems (Gharai, 2013).

Patient expectations (medical or non-medical), as one of the important psychological factors, is considered to influence their evaluation of care and satisfaction with the treatment outcome (McKinley et al., 2002; Prudêncio et al., 2013; Yao et al., 2016). Patient satisfaction is directly related to perceived performance and expectations (Sahoo
et al., 2016). It is an affective response to the discrepancy between prior expectations and perceived performance after consuming health services (Zarei et al., 2014). If the patient’s experience of services inconsistent with his/her expectations, he/she will then be dissatisfied (Zarei et al., 2015). In other words, unmet expectations could contribute to dissatisfaction, which is likely to lead to poor compliance (Barlow et al., 2016; Yao et al., 2016). However if the received services meet the patient’s expectations, this will result in his/her satisfaction (Zarei et al., 2015; Sahoo et al., 2016). Based on above, it is expected to meet the reasonable expectations (responsiveness) of patients lead to their satisfaction. Previous studies have documented the effect of responsiveness on patient satisfaction; overall patient satisfaction is affected by the responsiveness of service providers (Bleich et al., 2009; Messina et al., 2009; Faleh et al., 2015). Hospital responsiveness generally leads to an increase in patient satisfaction with care providers, which in turn, leads to an increase in the utilization of health services (Naidu, 2009; Malhotra & Do, 2013).

2.3.2 Waiting Time
Commonly cited factors affecting patient satisfaction in the literature include timely access to appointments, provider–patient relationships, academic versus private practice setting, overall wait times, and time spent with providers (Kreitz et al., 2016). Several studies have shown a correlation between reduction in patient wait times and increased patient satisfaction in the outpatient clinic. A study by Patel (2014) evaluating patient satisfaction with Dental care services in the Priyadarshini Dental College and Hospitals found that most of patients were satisfied with the quality of care they received but some were dissatisfied as they were unable to understand explanation of treatment option provided by dental students and the long waiting time for the treatment. Patel notes that patient satisfaction is a key determinant of quality of care. In this study there was no particular model applied except that satisfaction was equated with quality.

An empirical study in 37 service firms in the USA assessing common operations practices and their impact on organization success found that effective operational practices in service quality and productivity had a great impact on success of service firms. Timely, prompt and consistent response to customers’ needs was a pre requisite to long term growth and success of all service firms, (Vargas & Manoochehri, 1995). A study exploring the relationship between operations strategies and operations activities in 34
service sectors in Australia established that firms that perform better had a strong correlation between their operations strategy and operations activities, with different operations strategies having different supporting operations to maximize performance, (Prajogo & McDermott, 2008).

Kreitz et al. (2016) conducted a study on the Influence of Wait Time on Patient Satisfaction in the Orthopedic Clinic. The study established that minimizing wait times in the orthopedic clinic may improve patient satisfaction but may not affect their likelihood of recommending the practice to others. Other studies have also a strong and inverse relationship between patient satisfaction and wait times in ambulatory care settings has been demonstrated. A strong and inverse relationship between patient satisfaction and wait times in primary care and specialty care physician offices has been demonstrated (Leddy et al., 2003).

2.3.3 Follow Up

Follow-up of patients is a good approach for providing medical advice, managing symptoms, identifying complications and giving reassurance after discharge. Follow-up is common amongst patients receiving treatments in the hospital and can be appropriate to address psychological consequences after treatment. Common follow-up care can be provided by family physicians (FPs)/general practitioners (GPs) and/or specialists (Thind, 2011)

Kimman et al. (2010), conducted a study on patient satisfaction with nurse-led telephone follow-up after curative treatment for breast cancer. The study compared patient satisfaction with a reduced follow-up strategy, in terms of nurse-led telephone follow-up, to satisfaction with traditional hospital follow-up. The study found out that nurse-led telephone follow-up had no statistically significant influence on general patient satisfaction.

Karydis et al. (2001) studied Greek patients finding significant quality gap based on the difference between perception and expectation. The highest quality gaps were for responsiveness followed by empathy and reliability the least gap being assurance. Thind (2011) conducted a study on Patient Satisfaction with Breast Cancer Follow-Up Care
Provided by Family Physicians with an aim of identifying the determinants of satisfaction with such care in low-income, medically underserved women with breast cancer. The study found that of the patients interviewed, 73.4% reported that they were extremely satisfied with their treatment by the FP/GP. Women who were able to ask their family physicians questions about their breast cancer had six times greater odds of being extremely satisfied compared with women who were not able to ask any questions.

2.4 Reliability and Patient Satisfaction

Reliability refers to the ability to deliver expected standard at all time, how the organization handle customer services problem, performing right services for the first time, providing services within promised time and maintaining error free record (Morgan & Hunt, 1994). There are the two important factors that give effects to any service industry; consistency and dependability. First, consistency refers to uniformity or compatibility between things or parts. This means that the quality is always the same, doing things in the same way and having the same standards. Frei et al. (1999) suggest that service quality should include uniformity of service output around an ideal target value determined by customers. Banks need to address the changing needs in predictable and consistent manner. Second, dependability refers to the assurance of providing services as expected. Trust is another key factor influencing the adoption of various types of service in electronic banking (Rexha et al., 2003). Anderson and Weitz (1989) stated that there is possibility of existence of trust when one party feels that the required need will be satisfied by the other party in the future.

According to the Morgan and Hunt, (1994) trust is the confidence of one party about the reliability and integrity of the other party. Kramer (1999) argued that trust is the composite of the feeling and thinking aspects and socially oriented. Hall (2005) stated that when a person trust on other party, he or she believe that the trusted person will behave with goodwill and with competence according to his or her domain. Mishra et al. (2008) pointed that reliability; openness; competence and concern are elements of trust and concluded that communication is the most significant element as compared to others. In public health, Practitioners who display traits that are consistent with the patient’s perception of “professionalism” have a significant positive effect on the patients’
perceived level of service quality. This means that the customer believes that the service provider will do what they say they are going to do, when they say they will do it.

As expected, clients are bound to get frustrated if there is inconsistency of performance and dependability. In a study by Bolton and Drew (1991), customers' assessments of quality and value were found to be a primary a function of disconfirmation arising from discrepancies between anticipated and perceived performance levels. With high volume facilities that are continue to be underfunded, the current health staff will remain overworked. As established in various assessments done by health partners supporting the Ministry of health, service charters are not visibly displayed and thus patients may not at all times be aware of the time it will take to acquire a certain service. In literature, low reliability scores in a healthcare set-up could also be as a result of the attitudes of the healthcare worker which may have changed as a result of the tangibility factors and the burden of increasing patient volumes. In examining health sector reform and public sector health worker motivation, Franco et al. (2002) observed that while financial incentives may be important determinants of worker motivation, they alone cannot and have not resolved all worker motivation problems. This implies that there are many layers of influences upon health worker motivation. In what is considered to be the most one of the most important contributions to the study of quality service, Valerie et al. (1990) found out that reliability is the most crucial dimension, regardless of the service being studied.

2.4.1 Professional Qualification
Patient satisfaction surveys have shown that health care worker attitudes, manners and amenities encountered during patients' experiences at medical facilities weigh with similar importance to treatment processes hence affecting patients’ satisfaction. In Nigeria Oketade et al. (2013) evaluated patients attending a tertiary dental care facility and found that most patients (89.1%) ranked the clinicians ability to deliver painless dentistry as the most important clinician-determined criterion of good clinical practice. In their evaluation of patient- determined criteria, most patients (85.1%) were concerned about sterility of procedures and proper handling of instruments. Lesser trained providers to the hospital workforce without adding more hospital professional nurse results in eroding the nursing skill mix that evidence suggests is associated with higher mortality and lower patient satisfaction (Gummer, 2016).
Research by Mahrous and Hifnawy (2012) looking at patient satisfaction of dental services provided by the college of dentistry focused on four disciplines: patient–dentist interaction, technical competency, administrative and clinic setup. The study noted that most patients were satisfied with the services rendered in the area.

Aiken et al. (2018) conducted a study on patient satisfaction with hospital care and nurses in England as an observational study. The aim of the study was to inform healthcare workforce policy decisions by showing how patient perceptions of hospital care are associated with confidence in nurses and doctors, nurse staffing levels and hospital work environments. The study established that patients’ perceptions of hospital care are strongly associated with missed nursing care, which in turn is related to poor professional nurse (RN) staffing and poor hospital work environments. Improving RN staffing in NHS hospitals holds promise for enhancing patient satisfaction.

Fung et al. (2005) concluded that patients consider factors such as availability, convenience, professional competence and technical ability, the nature of the doctor-patient relationship, interpersonal skills, and patients’ own previous healthcare experiences. Studies also suggest that although patients place value on the above factors, when actually choosing a new provider patients rely overwhelmingly on their own experiences, those of friends and family, or recommendations from their current healthcare provider. In summary, a critical part of how patient view reliability is shaped by how they perceive the qualifications of the provider. In a patients mind, there is a certain level of expectation based on the fact that a provider is qualified to provide that service that is expected.

2.4.2 Accuracy of Diagnosis
Ensuring that patient get an accurate diagnosis and the treatment is the best and most satisfaction that a patient want to receive from health practitioner. Rahman and Kutubi (2013) conducted a study on the assessment of service quality dimensions in healthcare industry: A study on patient’s satisfaction with Bangladeshi private Hospitals. The study established that correct treatment and delivering promised service are critical issues to
increase reliability in health care setting which then increases patients’ satisfaction. Poor compliance and further to treatment failure has been linked with poor patient satisfaction.

All clinicians are aware of the importance of reaching the correct diagnosis. It is impressed on every medical student and trainee from the outset. Khuller et al. (2014) argue that diagnosis is more important than ever before because the patient has so much to lose when there is a misdiagnosis. A diagnostic error may result in the patient being denied timely, effective therapy or being administered potentially toxic, incorrect medications. Where a prompt treatment could have returned a patient to full health, the consequences of a wrong diagnosis can be devastating. Getting the right diagnosis is key for the patient. In addition to being made in a timely fashion, the diagnosis and implications must be communicated effectively. The key issues are timeliness and accuracy. Timing may be minutes in acute situations or weeks in relation to sub-acute disorders.

Over-diagnosis is also a concern. This is when a condition is diagnosed that does not go to cause any symptoms or ill-health. This can result in the blurring of the borders between health and disease (Fung et al., 2005). While over-diagnosis is not an error, it can result in harm, over treatment and unnecessary anxiety. It has been described as the consequence of over testing. Specialties with a high risk of litigation such as neurosurgery, orthopedic surgery, emergency medicine are more likely to order an excess of investigations. The problem is compounded by patients’ belief that more tests means better care (Rahman & Kutubi, 2013).

2.4.3 Dependability of Promised Service
The ability to provide promised service by the health worker practitioners to their patients influences patient satisfaction. Patient satisfaction of healthcare organization is often used as a measure of organizational efficiency (Manaf et al., 2012). A study in the UK investigating what patients anticipate before admission and their perception after release from hospital found that service reliability and service assurance were the most important dimensions for patients. Patients’ perceptions did not meet their anticipations in hospital tangibles, service reliability, and service assurance, empathy of services and service responsiveness with service reliability being perceived as the poorest feature.
Disappointment in service reliability had a damaging effect on overall perception of quality of services which was perceived to be fair (Youssef et al., 1995).

Contentment with doctors and hospital charges were the main determinants of service quality for public hospitals with lack of communication between service providers and patients in public hospitals having detrimental effects on service quality, (Taner & Antony, 2006). Chahal and Kumari (2012) assessed the relationship between quality of services and public hospital performance and found a significant correlation between physical environment quality and interaction quality with waiting time, patient contentment, patient loyalty and image of public hospitals. Functional quality had a greater influence than technical quality on operational performance of tour operators in Kenya. Service quality perception, technical quality and functional quality had a substantial influence on operational performance (Inyo, 2013).

In Qatar hospitality industry, responsiveness, reliability and tangibles are the most valued dimensions by customers compared to assurance and empathy. Improving service quality would lead to cost reduction, process efficiency and waste reduction which increases customer satisfaction and return on investments, (Nair, 2016). Poor customer service, poor response time and high waiting times have detrimental effects on perceived service quality of firm offerings which affects customer satisfaction and operational performance of the organization, (Masson, Jain, Ganesh & George, 2016).

2.5 Empathic Assurance and Patient Satisfaction

Empathy relates to caring, attention and understanding the customer needed when providing services. The relationship between treatments that maintain patients’ comfort, ‘’self-respect’’ and that involve minimal pain and the patients’ perceived level of service quality, is positive and significant. Assurance also means that the providers are expected to be experts and this should be communicated. This can be done in many ways that are repeatedly seen by customers, including displaying industry certifications on patches, badges or buttons worn by employees; certification logos on emails, letters & reports; embed certifications into posters, newsletters and handouts. It is assumed that by communicating competencies, providers can help manage customer expectations and influence their service quality assessment in advance.
The extent to which a healthcare professional demonstrates empathy is assumed to have an impact on the patient experience, and patient satisfaction is one of the most frequently used outcome measures to evaluate empathy and communication (Kaplan, Ware & Greenfield, 1998; Mercer & Reynolds, 2002).

Health care providers’ empathy and understanding of patients’ problems and needs can greatly influence patient satisfaction. Patients desire doctors to be attentive and understanding towards them. Similarly patients expect nurses to provide personal care and mental support to them. This reflects service providers’ empathy. We posit that the more empathy received from the service provider, the greater the satisfaction of the patients (Andaleeb et al., 2007).

2.5.1 Credibility
Caring which a dimension of credibility is the degree to which a person perceives that a source has the person’s best interests at heart and is related to patients’ satisfaction. Studies have shown that patient satisfaction comes about when patients perceived that their medical records were kept confidential when health care professionals were more competent and caring (Paulsel, Richmond, McCroskey & Cayanus, 2005). Studies have also shown that patients are more satisfied with credible physicians (Richmond et al., 2002) and more likely to comply with the requests of credible physicians leading to patients loyalty (Wrench & Booth-Butterfield, 2003).

Anbori et al. (2010) defined patient loyalty as a strategic service plan to retain customers in the long term by providing better service quality. To achieve patient loyalty, providers must fulfil patient needs and expectations (Aliman & Mohamad, 2016). Anbori et al. (2010) mentioned that if providers know what service quality aspects are most important to patients and have mechanisms to prioritise and ensure that these are in place, then this will lead to patient satisfaction and willingness to reuse medical services. The authors looked at private hospital patient satisfaction and patient loyalty in Sana’a, Yemen. Reliability, empathy and assurance significantly influence patient willingness to return. However, their results show that tangibles and responsiveness do not have a significant impact on patient loyalty. Mortazavi et al. (2009) conducted research on patient satisfaction and patient loyalty in four Iranian private hospitals using six dimensions:
nursing care; operating room; admission and administration services; meals; expenses; and patient rooms. They found that patient satisfaction and loyalty are significantly correlated, and both factors have significant relationships with nursing care, operating room, admission and administration services, and patient room. Hu et al. (2011) measured patient satisfaction and patient loyalty in Taiwan’s hospitals and found that patient satisfaction did not have a considerable influence on patient loyalty in Taiwan. Fornell (1992) argued that loyal customers are not necessarily satisfied, but satisfied customers must be loyal customers; i.e., loyalty is not exclusive, absolute and/or permanent (Roberge et al., 2001). To achieve patient loyalty, providers need to communicate regularly with patients to understand their needs and expectations (Roberge et al., 2001).

2.5.2 Caring and Understanding
A very important aspect on which patient satisfaction depends is ‘nursing care’ because nurses are involved in almost every aspect of client’s care in hospital. Patient’s perception of nursing care can be influenced by their pre-service expectations of the service provider that are in turn influenced by number of factors such as, cultural background, and socioeconomic status (Samina et al., 2008). After receiving a service the patient compares the perceived service with the expected one. If the perceived service matches or exceeds their expectations they opt to come to the hospital again and recommend it to the needy persons because of their satisfaction.

Word-of-mouth and repurchase intention can be seen as sub-dimensions of customer loyalty. Among these two constructs, repurchase intention is a personal aim of the customer on sustaining the relationship with a service provider and purchasing the next service from the same one (Jones & Taylor, 2005). In marketing literature, researchers have reported that word-of-mouth plays an important role in the product choice process and in the selection of service providers (Gilly, Graham, Wolfinbarger & Yale, 1998). Word-of-mouth may be defined as an informal communication source among senders and receivers about service or good (Murray, 1991). Sweeney et al. (2008) suggests that the potential of word-of-mouth to impact on perceptions or on actions depends on the nature of the sender-receiver relationship, the richness and strength of the message and its delivery.
Patient satisfaction is widely used in the healthcare sector to determine service quality (Fenton et al., 2012; Shabbir et al., 2016). Azizan and Mohamed (2013) studied service quality and patient satisfaction at a public hospital in Pahang, Malaysia. Hospital service quality was significantly influenced by three factors: administrative service; medical and nursing care. Hospital infrastructure and interaction have an insignificant relationship with service quality. Leiter et al. (1998) conducted an empirical study in Canadian hospitals. They observed that patient satisfaction is significantly influenced by nurses, doctors and information. These elements led to high patient satisfaction. Manaf et al. (2012) studied the International Islamic University Malaysia Health Centre. Almost half (46.4 per cent) the patients were satisfied with service quality, whereas 7.3 per cent were dissatisfied. In Bangladesh, Andaleeb (2001) looked at patient satisfaction in private and public healthcare sectors using five dimensions: responsiveness; assurance; communication; discipline; and baksheesh. All, except baksheesh, had a noteworthy influence on Bangladeshi patient satisfaction.

2.5.3 Security in Delivering Service

Healthcare facilities can increase patient, employee and visitor satisfaction by providing a secure environment. When patients enter our facilities they expect that their medical care will be performed in a professional and safe manner (Abedi, Darvari, Nadighara, & Rostami, 2014). They also expect that the healthcare facility will take reasonable and appropriate steps to provide a physically safe environment for them, their property and private information, their family and their visitors. In addition patients arrive at healthcare facilities for any number of reasons (Walters & Jones, 2001). In Johannesburg, South Africa, Mpinganjira (2011) indicated that there were positive relationships between perceived service quality at each of the dimensional levels and patients’ overall satisfaction with a medical practice. Her study concluded that empathy dimension had the highest predictive power.

Security is considered to be one of the most important goals, underlying values, and sustainable resources of a community, and it should be noted that a sense of security is much more important than security itself. In terms of the subjective dimension, security is meant to feel safe (Abedi et al., 2014). Accordingly, security is directly related to the mentality and perception of patients (Samorin, Hassan, Gilani, Hemmati, & Gazi, 2014),
and sense of security is among the most basic human needs. Hence, it seems that this primary requirement has a significant impact on the level of people's quality of life and satisfaction (Shafipour, Mohammadi & Ahmadi, 2012), and the patients’ security is among the primary responsibilities of healthcare service providers. Sense of security is very effective in the provision of palliative care and improving the patients. Patients who feel safe are better treated and discharged faster resulting in their lower healthcare costs (Jouybari, Oskouie & Ahmadi, 2006).

Even, sense of security is considered as a very important basic need for caregivers, and as research shows, caregiver security may be a very significant empowering means in their caring for patients at home (Funk, Allan & Stajduhar, 2009; Milberg et al., 2012). According to the World Health Organization, at least one in every 10 hospitalized patients in developed European hospitals suffers while receiving medical care, 44 thousand patients per 100 thousand cases in developed countries such as America are victims of medical errors during surgery and treatment (Samorin et al., 2014). Patients may even be in a well-equipped healthcare setting, but the possibility of error endanger their safety and health. On the other hand, in developing countries, these factors can severely threaten the patients’ physical and emotional security (Funk, Allan & Stajduhar, 2009). Therefore, a patient’s security during the treatment process is not merely limited to the provision of equipped medical treatment facilities (WHO, 2010), and creating a sense of physical, mental, and social security for patients is a responsibility on the shoulders of every single service provider (Abedi, Azimehr, Rostami & Mohammadi, 2012; Yavari, 2011).

2.6 Chapter Summary
In chapter two, empirical literature relating to the research questions was reviewed. The literature demonstrated that there is a link between leadership styles and organizational commitments by the employees. Chapter three makes a description of the methods and procedures, which were used to conduct the study, especially the research design, population, sampling design as well as the collection and analysis of data.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction
This section describes the general methodology used in carrying out the research project. It discusses the research design, the population and sample design, the research procedure, the data collection and data analysis methods.

3.2 Research Design
The study adopted a descriptive research design. According to Zikmund, Babin, Carr and Griffin (2010), descriptive research describes the characteristics of objects, people or organizations. This type of research addresses the ‘who, what, when, where and how’ question. There are precise steps involved in a descriptive study; selection of a precise hypothesis, selection of appropriate methodology to collect information, selection of appropriate sampling methods, analysis and reporting of findings.

Descriptive research is often used as a pre-cursor to quantitative research designs, the general overview giving some valuable pointers as to what variables are worth testing quantitatively (Cooper & Schindler, 2011). For purposes of this study, the independent variables were the different service dimensions: tangibles, responsiveness, reliability’ and empathic assurance while the dependent variable is patient satisfaction.

3.3 Population and Sampling Design

3.3.1 Population
Population has been defined as any complete group of entities that share some common set of characteristics (Zikmund et al., 2010). Target population refers to all the members of a real or hypothetical set of people, the entire group of individuals, events or objects to which a researcher wishes to generalize the results of the study (Cooper & Schindler, 2010). The target population was 425 patients seeking dental service at Molars Dental clinic, Electricity house in Nairobi Kenya based on the estimate of the number of patients visiting Dental quarterly and were distributed as shown on Table 3.1.
Table 3.1: Quarterly Clinic Population Distribution

<table>
<thead>
<tr>
<th>No</th>
<th>Gender of the Patient</th>
<th>Number of Patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>244</td>
<td>57</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>181</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>425</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Molars Dental (2018)

3.3.2 Sampling Design

The sampling design describes in detail the sampling frame, sampling techniques and the sample size. Sampling refers to the process by which part of the population is selected and conclusions are drawn about the entire population (Cooper & Schindler, 2011). The sampling design describes in detail the sampling frame, sampling techniques and the sample size.

3.3.2.1 Sampling Frame

The sampling frame is a list of elements from which a sample may be drawn (Zikmund et al., 2010). The sample frame is the patient database held by Molars Dental clinic. The list of number of patients seeking dental service at Molars Dental for the past three months stood at 425, at the time of the study as per records provided by the Dental Molars Clinic. This number formed the sampling frame. The sampling frame according to current statistics was presented in Table 3.1.

3.3.2.2 Sampling Technique

Sampling is defined as any procedure that draws conclusions based on measurements of a portion of the population: (Zikmund et al., 2010). Stratified sampling method was preferred for this study because of the different categories that make up the dental patients. The strata’s in this study were the different genders of the patients visiting Dental Molars clinic. Stratified sampling was selected for the study since it has three main benefits: it increases the sample’s statistical efficiency, provides adequate data for analysing the various subpopulations, and enables different research methods and procedures to be used in different strata (Cooper & Schindler, 2011).
3.3.2.3 Sample Size

Sample size refers to the number of elements selected from a given population (Zikmund et al., 2010). For the purpose of this study, the Yamane (1967) formula shown below was used to estimate the sample size for the study and was distributed proportionately to size as shown in Table 3.2

\[
n = \frac{N}{1 + N(e^2)}
\]

Where \( n \) was the sample size, \( N \) was the population size, \( 1 \) was the constant and \( e^2 \) was the margin of error, which was 5% for 95% confidence level.

\[
n = \frac{425}{1 + 425(0.05^2)} = 206
\]

The study anticipated to sample 206 patients visiting Dental Molars Clinic and were distributed as shown on Table 3.2.

Table 3.2: Sample Size Distribution

<table>
<thead>
<tr>
<th>No</th>
<th>Gender of the Patient</th>
<th>Total Population</th>
<th>Percentage</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>244</td>
<td>48.4</td>
<td>118</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>181</td>
<td>48.4</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>425</strong></td>
<td><strong>48.4</strong></td>
<td><strong>206</strong></td>
</tr>
</tbody>
</table>

3.4 Data Collection Methods

The study employed the modified SERVQUAL tool to assess the patients at Molars dental Clinic. Cooper and Schindler (2011) state that data collection methods refer to the process of gathering data after the researcher has identified the types of information needed. This study focused on the use of primary data which was collected from the target sample. The questionnaire was structured according to the objectives: that, is tangible services, responsiveness to patient’s needs, reliability, empathic assurance and how they influence patients satisfaction.

The questionnaire was divided into six sections: The first part was designed to analyse demographic data, which focused on collecting the respondent’s personality characteristics. The second part looked at tangible services at Molars Dental Clinic with a
list of questions that were based on the identified tangible services studied in the literature review with five levels of preference. The third part of the responsiveness to patient needs. The fourth part of the questionnaire assessed the reliability services. The fifth part focused on empathic assurance, and the last part had questions related to patient satisfaction.

3.5 Research Procedures
A pilot study was conducted at the initial stages of data collection, to test whether the data collection tools are adequate to gather information related to the study. The pilot was conducted on twenty patients seeking dental services from the different dental clinic in Nairobi. The tools were amended based on the feedback provided by the pilot respondents and thereafter the study was rolled out for a period of three weeks.

To ensure high response rates, the study adopted a variety of measures to aid in this effort. These included a clearly worded cover letter to accompany the questionnaire and calling up respondents to bring to their attention that a questionnaire had been sent to their emails. After obtaining sufficient response, the data collection closed and the information entered into Statistical Program for Social Scientists (SPSS) for cleaning, coding, and analysis.

3.6 Data Analysis Methods
Data editing and coding was done by the Researcher to reduce error during the data entry stage and ensure that clean data was used for analysis. The study used both descriptive and inferential statistics in analyses of data. Descriptive analyses were done to describe and summarize the data. Reliability as well as validity analyses were carried out to check for consistency of the responses and variables that best described the given responses respectively.

Linear regression analyses were used to determine the effect of each service delivery on patients’ satisfaction at Molars Dental Clinic. Prior to conducting linear regression, pre-requisite test such as tests for normality, Heteroscedasticity, multicollinearity and linearity were carried out. Correlation analysis is the process of studying the strength of that relationship with available statistical data (Peck, Olsen, & Devore, 2009).
Correlational analysis was used to test for the association among the dependent variables and independent variables for the study. Thereafter, regression analysis was used to test for the effect of the independent variable of the service delivery on the dependent variable (patient satisfaction) as stated in the study objectives. The results were presented in form of tables and figures with brief descriptions. The regression model took the form of:

\[ y = \beta_0 + \beta_1 x_1 + \varepsilon \]

Where

- \( Y \) = patient satisfaction

- If \( X_1 \) then we have the tangible services

- \( X_2 \) then we have responsiveness to patient needs

- If \( X_3 \) then we have reliability

- If \( X_4 \) then we have empathic assurance

- \( \beta_i \) = Coefficients of the independent variables, where \( i = 1, 2, 3, 4 \)

- \( \varepsilon \) = error term

3.7 Chapter Summary

In this chapter, the general research design used and defined the population and sampling plan. The data collection methods and research procedures applied were described, along with the data analysis methods applied in order to use the collected data to answer the research questions. The next chapter details the analyses and results from data collected.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

The overall objective of this research was to investigating the effect of service quality on patient satisfaction in dental care facilities with Molars Dental clinic as a case. Guided by the research questions, this chapter provides the details of analyses and presents the findings. In total, 204 patients who had visited the Clinic were included in the research. This provided an overwhelming 98% of all the targeted patients for this study.

4.2 Sample Characteristics

4.2.1 Characteristics

Table 4.1 shows that at the patient level, there were more female respondents (59%) compared to their male counterparts (41%). Most of the respondents were aged between 25 and 44 years, had college education and mostly had a college certificate (45%) or a higher qualification (48%). This demographic was important especially in finding reliable results useful for determining the patient satisfaction.

Table 4.1: Sample Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Number</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>121</td>
<td>59</td>
</tr>
<tr>
<td>Male</td>
<td>83</td>
<td>41</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 25 years</td>
<td>25</td>
<td>12.1</td>
</tr>
<tr>
<td>25-34 years</td>
<td>93</td>
<td>45.5</td>
</tr>
<tr>
<td>35-44 years</td>
<td>80</td>
<td>39.4</td>
</tr>
<tr>
<td>45 years and above</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td><strong>Education attained</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>14</td>
<td>6.5</td>
</tr>
<tr>
<td>College</td>
<td>92</td>
<td>45.2</td>
</tr>
<tr>
<td>Degree and above</td>
<td>98</td>
<td>48.4</td>
</tr>
</tbody>
</table>
4.2.2 Length of Time they have Sort MDC Services
Table 4.2 shows that at the patient level had sort services from the Molars Dental Clinic for at-most 5 years. This demographic was important especially in finding reliable results useful for determining the patient satisfaction. The length of time they have been in contact with the clinic meant that most of them were repeat clients and had encountered the clinic procedures multiple times.

Table 4.2 Length of Time they have Sort MDC Services

<table>
<thead>
<tr>
<th>Length of time they have sort MDC services</th>
<th>Number</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than a year</td>
<td>86</td>
<td>41.9</td>
</tr>
<tr>
<td>1 to 5 years</td>
<td>111</td>
<td>54.8</td>
</tr>
<tr>
<td>More than 5 years</td>
<td>7</td>
<td>3.2</td>
</tr>
<tr>
<td>Total</td>
<td>204</td>
<td>100</td>
</tr>
</tbody>
</table>

4.2.3 Molar Dental Services
The Molars Dental Clinic continues to provide an array of services. All the respondents reported having received multiple services. In summary, root canal treatment (35%), x-rays (38%) and dental filling (38%) services were the most received while gum treatment (11%) and dental braces (13%) were the least received services. A graphical representation of these data is provided in Figure 4.1.
4.2.4 Molar Dental Clinic’s Service Care Rating

Overall, the patients felt that Molars Dental Clinic was very good in provision of dental services. Nearly three quarters of all the respondents responded to very good or excellent when asked to rate the services. There variations in responses with some of the service components rated as fair while others rated as excellent as shown on Table 4.3.

Table 4.3: Molar Dental Clinic’s Service Care Rating

<table>
<thead>
<tr>
<th>Item- Patient Responses</th>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
<th>Very Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of administrative admission procedures</td>
<td>x</td>
<td>3.7)</td>
<td>29.6</td>
<td>37</td>
<td>29.6</td>
</tr>
<tr>
<td>Simplicity of scheduling and time to get first appointment</td>
<td>x</td>
<td>7.7</td>
<td>30.8</td>
<td>42.3</td>
<td>19.2</td>
</tr>
<tr>
<td>There is professionalism by the dental care facility staff</td>
<td>x</td>
<td>7.4</td>
<td>11.1</td>
<td>33.3</td>
<td>48.1</td>
</tr>
<tr>
<td>The dental health care facility surrounding area is kept quiet</td>
<td>x</td>
<td>7.4</td>
<td>37)</td>
<td>44.4</td>
<td>11.1</td>
</tr>
<tr>
<td>The dental health care facility rooms are kept clean</td>
<td>x</td>
<td>3.7</td>
<td>18.5</td>
<td>25.9</td>
<td>51.9</td>
</tr>
<tr>
<td>At the dental health care facility doctors explain things in an understandable way</td>
<td>x</td>
<td>x</td>
<td>25.9</td>
<td>22.2</td>
<td>51.9</td>
</tr>
<tr>
<td>The dental health care facility handles patient information with privacy</td>
<td>x</td>
<td>x</td>
<td>22.2</td>
<td>33.3</td>
<td>44.4</td>
</tr>
<tr>
<td>Overall care received at Molars Dental Clinic</td>
<td>x</td>
<td>x</td>
<td>22.2</td>
<td>40.7</td>
<td>37</td>
</tr>
</tbody>
</table>

4.2.5 Patients Perceived Rate of Care

Figure 4.2 shows that service quality dimensions were analyzed descriptively. Each dimension varied in the way it was rated by the patient. A gap score analysis comparing the expectation of the patients and the perception of the services that were provided by the staff at Molar’s Dental Clinic was computed to estimate patient satisfaction.
4.3 Tangibility and Patient Satisfaction

4.3.1 Tangibility Dimension and Patient Satisfaction

The tangibility aspects of the dental clinic were examined and were as indicated on Table 4.4. The patients agreed to all items relating to the tangibles of the dental clinic. Specifically, the patients strongly agreed that the Clinic has up-to-date equipment and that the physical facilities were visually appealing. Similarly, most of them agreed that the Clinic staff were well-dressed and appeared neat and that generally; the physical facilities of the Clinic were keeping with the type of services provided. As summarized in Table 4.4, the standard deviations around the mean were small indicating little variance in the responses among the patients.

Table 4.4: Descriptive Statistics for Tangibility Dimension

<table>
<thead>
<tr>
<th>Tangibility Dimension</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Item- Patient responses (N=204)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molars Dental Clinic has up to date equipment</td>
<td>4.59</td>
<td>0.649</td>
</tr>
<tr>
<td>Molars Dental Clinic’s physical facilities are visually appealing</td>
<td>4.26</td>
<td>0.701</td>
</tr>
<tr>
<td>Molars Dental Clinic’s employees are well dressed and appear neat</td>
<td>4.18</td>
<td>0.718</td>
</tr>
<tr>
<td>The appearance of the physical facilities of this Clinic is in keeping with the type of services provided</td>
<td>4.09</td>
<td>0.614</td>
</tr>
</tbody>
</table>
4.3.2 Patient Satisfaction with Tangibility

In relation to patient satisfaction and as highlighted in Table 4.5, the tangibility aspects of the clinic satisfied patients (average positive gap score of 0.28). Similarly, all the items had a positive gap score. This was the service quality dimension with the highest patient satisfaction amongst the others.

Table 4.5: Gap Score for Tangibility Dimension

<table>
<thead>
<tr>
<th>Statements</th>
<th>Perception Score</th>
<th>Expectation Score</th>
<th>Gap Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molars Dental Clinic has up to date equipment</td>
<td>4.59</td>
<td>4.00</td>
<td>0.59</td>
</tr>
<tr>
<td>Molars Dental Clinic’s physical facilities are visually appealing</td>
<td>4.26</td>
<td>4.00</td>
<td>0.26</td>
</tr>
<tr>
<td>Molars Dental Clinic’s employees are well dressed and appear neat</td>
<td>4.18</td>
<td>4.00</td>
<td>0.18</td>
</tr>
<tr>
<td>The appearance of the physical facilities of this Clinic is in keeping with the type of services provided</td>
<td>4.09</td>
<td>4.00</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>Average for dimension</strong></td>
<td></td>
<td></td>
<td><strong>0.28</strong></td>
</tr>
</tbody>
</table>

4.4 Responsiveness and Patient Satisfaction

4.4.1 Responsiveness Dimension and Patient Satisfaction

In terms of responsiveness, most of the patients agreed that the clinic performed services exactly when they said they would, that they received prompt services from the employees of the clinic that the employees of the clinic were always willing to help and were not too busy to respond to customer’s request. From the standard deviations generated around the mean, there were little variations in response among the participants. A summary of these results are outlined in Table 4.6.
Table 4.6: Descriptive Statistics for Responsiveness Dimension

<table>
<thead>
<tr>
<th>Tangibility Dimension</th>
<th>Item- Patient responses (N=204)</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This clinic tells customers exactly when services will be performed</td>
<td>4.15</td>
<td>0.735</td>
</tr>
<tr>
<td></td>
<td>You receive prompt services from the employees of this clinic</td>
<td>4.06</td>
<td>0.685</td>
</tr>
<tr>
<td></td>
<td>Employees of this clinic are always willing to help customers</td>
<td>4.18</td>
<td>0.787</td>
</tr>
<tr>
<td></td>
<td>Employees of this clinic are not too busy to respond to customer requests promptly</td>
<td>4.15</td>
<td>0.551</td>
</tr>
</tbody>
</table>

4.4.2 Patient Satisfaction with Responsiveness

In terms of patient satisfaction and the responsiveness dimension, overall this dimension satisfied the patients. Particularly, as summarized in Table 8, the patients felt that the Clinic was always willing to help its customers. A summary of these results are outlined in Table 4.7.

Table 4.7: Gap Score for Responsiveness Dimension

<table>
<thead>
<tr>
<th>Statements</th>
<th>Perception Score Mean</th>
<th>Expectation Score Mean</th>
<th>Gap Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>This clinic tells customers exactly when services will be performed</td>
<td>4.15</td>
<td>4.00</td>
<td>0.15</td>
</tr>
<tr>
<td>You receive prompt services from the employees of this clinic</td>
<td>4.06</td>
<td>4.00</td>
<td>0.06</td>
</tr>
<tr>
<td>Employees of this clinic are always willing to help customers</td>
<td>4.18</td>
<td>4.00</td>
<td>0.18</td>
</tr>
<tr>
<td>Employees of this clinic are not too busy to respond to customer requests promptly</td>
<td>4.15</td>
<td>4.00</td>
<td>0.15</td>
</tr>
<tr>
<td>Average for dimension</td>
<td><strong>0.14</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.5 Reliability and Patient Satisfaction

4.5.1 Reliability Dimension and Patient Satisfaction

In terms of reliability, most of the patients agreed that the Clinic kept patients records accurately, were sympathetic to the customers’ needs, were dependable, and provided services at a promised time. There was uncertainty about the Clinic and keeping timelines. From the standard deviations generated around the mean, there were little variations in response among the participants. A summary of these results are outlined in Table 4.8.
Table 4.8: Descriptive Statistics for Reliability Dimension

<table>
<thead>
<tr>
<th>Tangibility Dimension</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item- Patient responses (N=204)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When this clinic promises to do something by a certain time, it does so</td>
<td>3.91</td>
<td>0.67</td>
</tr>
<tr>
<td>When you have a problems, this clinic is sympathetic and reassuring</td>
<td>4.03</td>
<td>0.578</td>
</tr>
<tr>
<td>Molars Dental Clinic is dependable</td>
<td>4.06</td>
<td>0.804</td>
</tr>
<tr>
<td>Molars Dental Clinic provides its services at the time it promises to do so</td>
<td>4.09</td>
<td>0.832</td>
</tr>
<tr>
<td>Molars Dental Clinic keeps its records accurately</td>
<td>4.28</td>
<td>0.719</td>
</tr>
</tbody>
</table>

4.5.2 Patient Satisfaction with Reliability

In terms of patient satisfaction and the reliability dimension, overall this dimension satisfied the patients. Particularly, as summarized in Table 4.9, the patients were not satisfied with the clinic keeping and sticking to its timelines. A summary of these results are outlined in Table 4.9.

Table 4.9: Gap Score for Reliability Dimension

<table>
<thead>
<tr>
<th>Statements</th>
<th>Perception Score</th>
<th>Expectation Score</th>
<th>Gap Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>When this clinic promises to do something by a certain time, it does so</td>
<td>3.91 Mean</td>
<td>4.00 Mean</td>
<td>-0.09</td>
</tr>
<tr>
<td>When you have a problems, this clinic is sympathetic and reassuring</td>
<td>4.03 Mean</td>
<td>4.00 Mean</td>
<td>0.03</td>
</tr>
<tr>
<td>Molars Dental Clinic is dependable</td>
<td>4.06 Mean</td>
<td>4.00 Mean</td>
<td>0.06</td>
</tr>
<tr>
<td>Molars Dental Clinic provides its services at the time it promises to do so</td>
<td>4.09 Mean</td>
<td>4.00 Mean</td>
<td>0.09</td>
</tr>
<tr>
<td>Molars Dental Clinic keeps its records accurately</td>
<td>4.28 Mean</td>
<td>4.00 Mean</td>
<td>0.28</td>
</tr>
<tr>
<td><strong>Average for dimension</strong></td>
<td><strong>0.07</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6 Empathic Assurance and Patient Satisfaction

4.6.1 Assurance and Patient Satisfaction

The assurance aspects of the dental clinic were examined. The patients agreed to all items relating to the tangibles of the dental clinic. Specifically, the patients agreed that they trusted the employees of the Clinic; they felt safe with the Clinic holding its transactions and the Clinic staff were polite. However, they were uncertain about whether the Clinic
administration gave adequate support to the staff to do their jobs well. As summarized in Table 4.10, the standard deviations around the mean were small indicating little variance in the responses among the patients.

Table 4.10: Descriptive Statistics for Assurance Dimension

<table>
<thead>
<tr>
<th>Item- Patient responses (N=204)</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>You can trust the employees of this Clinic</td>
<td>4.18</td>
<td>0.618</td>
</tr>
<tr>
<td>You feel safe in your transactions with this Clinic’s employees</td>
<td>4.09</td>
<td>0.614</td>
</tr>
<tr>
<td>Employees of this Clinic are polite</td>
<td>4.03</td>
<td>0.824</td>
</tr>
<tr>
<td>Employees get adequate support from this Clinic to do their jobs well</td>
<td>3.94</td>
<td>0.79</td>
</tr>
</tbody>
</table>

4.6.2 Patient Satisfaction with Assurance

In relation to patient satisfaction and as highlighted in Table 4.11, the assurance aspects of the clinic satisfied patients (average positive gap score of 0.06). Similarly, all the items had a positive gap score except for the clinics administration support to its employees. Overall, this was the service quality dimension with the lowest patient satisfaction amongst the others.

Table 4.11: Gap Score for Assurance Dimension

<table>
<thead>
<tr>
<th>Statements</th>
<th>Perception Score</th>
<th>Expectation Score</th>
<th>Gap Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Mean</td>
<td></td>
</tr>
<tr>
<td>You can trust the employees of this Clinic</td>
<td>4.18</td>
<td>4.00</td>
<td>0.18</td>
</tr>
<tr>
<td>You feel safe in your transactions with this Clinic’s employees</td>
<td>4.09</td>
<td>4.00</td>
<td>0.09</td>
</tr>
<tr>
<td>Employees of this Clinic are polite</td>
<td>4.03</td>
<td>4.00</td>
<td>0.03</td>
</tr>
<tr>
<td>Employees get adequate support from this Clinic to do their jobs well</td>
<td>3.94</td>
<td>4.00</td>
<td>-0.06</td>
</tr>
<tr>
<td>Average for dimension</td>
<td></td>
<td></td>
<td><strong>0.06</strong></td>
</tr>
</tbody>
</table>
4.6.3 Empathy and Patient Satisfaction

The empathy aspects of the dental clinic were examined. The patients agreed to all items under this dimension with little variation. Specifically, the patients agreed that the clinic gives individual attention, employees of the clinic give personal attention, employees of the clinic know what patient needs are, the clinic has operating hours convenient to all their customers, and the clinic has patients’ interests at heart. As summarized in Table 4.12.

Table 4.12: Descriptive Statistics for Empathy Dimension

<table>
<thead>
<tr>
<th>Item- Patient responses (N=204)</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Clinic gives you individual attention</td>
<td>4.06</td>
<td>0.727</td>
</tr>
<tr>
<td>Employees of this Clinic give your personal attention</td>
<td>4.03</td>
<td>0.957</td>
</tr>
<tr>
<td>Employees of this Clinic know what your needs are</td>
<td>4.21</td>
<td>0.592</td>
</tr>
<tr>
<td>The Clinic has operating hours convenient to all their customers</td>
<td>4.41</td>
<td>0.734</td>
</tr>
<tr>
<td>Molars Dental Clinic have your interests at heart</td>
<td>4.26</td>
<td>0.611</td>
</tr>
</tbody>
</table>

4.6.4 Patient Satisfaction with Empathy

It-terms of patient satisfaction, the patients were satisfied by the empathy dimension of the clinic. Similarly, all the items had a positive gap score especially employees of the clinic giving patients personal attention, indicating that it was a very strong factor among the variables. These summaries are provided in Tables 4.13.

Table 4.13: Gap Score for Empathy Dimension

<table>
<thead>
<tr>
<th>Statements</th>
<th>Perception Score Mean</th>
<th>Expectation Score Mean</th>
<th>Gap Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Clinic gives you individual attention</td>
<td>4.06</td>
<td>4.00</td>
<td>0.06</td>
</tr>
<tr>
<td>Employees of this Clinic give your personal attention</td>
<td>4.03</td>
<td>4.00</td>
<td>0.03</td>
</tr>
<tr>
<td>Employees of this Clinic know what your needs are</td>
<td>4.21</td>
<td>4.00</td>
<td>0.21</td>
</tr>
<tr>
<td>The Clinic has operating hours convenient to all their customers</td>
<td>4.41</td>
<td>4.00</td>
<td>0.41</td>
</tr>
<tr>
<td>Molars Dental Clinic have your interests at heart</td>
<td>4.26</td>
<td>4.00</td>
<td>0.26</td>
</tr>
<tr>
<td>Average for dimension</td>
<td></td>
<td></td>
<td>0.19</td>
</tr>
</tbody>
</table>
4.7 Inferential Analysis for Effects of Service Quality on Patient Satisfaction

4.7.1 Correlations for Service Quality on Patient Satisfaction

A Pearson Correlation Coefficient was ran to examine this. As summarized in Table 4.14. The table shows that tangibility dimension was significant to patient satisfaction (r=0.598, p<0.01). Reliability dimension was significant to patient satisfaction (r=0.594, p<0.01). Responsiveness dimension was significant to patient satisfaction (r=0.510, p<0.01). Assurance dimension was significant to patient satisfaction (r=0.529, p<0.01). Empathy dimension was significant to patient satisfaction (r=0.398, p<0.01).

Table 4.14: Pearson Correlation for Service Quality on Patient Satisfaction

<table>
<thead>
<tr>
<th></th>
<th>Tangibility Dimension</th>
<th>Reliability Dimension</th>
<th>Responsiveness Dimension</th>
<th>Assurance Dimension</th>
<th>Empathy Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.598**</td>
<td>.594**</td>
<td>.510**</td>
<td>.529**</td>
<td>.398**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>192</td>
<td>174</td>
<td>198</td>
<td>192</td>
<td>198</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).

4.7.2 Regression Analysis for Service Quality on Patient Satisfaction

Upon running linear regression to examine the linearity between the two variables and how each of the service quality dimensions affect patient satisfaction, the strength of the model was strong with only 39% of the variation in hospital service quality being able to be explained by service quality factors (adjusted R = .365). This implies that the generated linear regression model will substantively explain 37% of the variation in the data. This is summarized in Table 4.15.

Table 4.15 Regression Analysis Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>R Square Adjusted</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>R Square Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.624a</td>
<td>.389</td>
<td>.365</td>
<td>.54753</td>
<td>.389</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Empathy dimension, Tangibility Dimension, Responsiveness dimension, Assurance dimension, Reliability dimension
b. Dependent Variable: Patient satisfaction
An analysis of variance (ANOVA) test was run to test whether the model is significantly better at predicting patient satisfaction than using the mean as a better guess (null hypothesis that the model explains zero variance in the dependent variable). The result showed that $F$ (f-ratio), 16.037, is greater than 1 implying that the improvement (in predicting service quality) due to fitting the regression model is much greater than the inaccuracy within the model. The f-ratio is very unlikely to have happened by chance since the P-value is less .05 (sig=0.000). The implication here is that this model explains a significant amount of variance in the patient satisfaction rate. A summary of the results is given in Table 4.16:

Table 4.16: Regression Analysis of Variance

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>24.038</td>
<td>5</td>
<td>4.808</td>
<td>16.037</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>37.773</td>
<td>126</td>
<td>.300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>61.811</td>
<td>131</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Patient satisfaction
b. Predictors: (Constant), Empathy dimension, Tangibility Dimension, Responsiveness dimension, Assurance dimension, Reliability dimension

The regression coefficients showed both positive and negative linear relationships between the dependent and independent variables. Specifically, tangibility $[t (190) = 2.027, P=.05]$ and responsiveness dimensions $[t (196) = 2.169, P=.032]$ had the most significant effect in positively predicting patient satisfaction. Assurance and empathy service quality dimensions had a negative effect on patient satisfaction. Table 4.17 gives a summary of these results. These results demonstrate that patient satisfaction in any facility offering dental services can be computed as:

\[
\text{Patient satisfaction} = 0.767 + (0.09 \times \text{Tangibles}) - (0.085 \times \text{Reliability}) + (0.086 \times \text{Responsiveness}) - (0.035 \times \text{Assurance}) - (0.055 \times \text{Empathy})
\]

In summary, the $b$ coefficients show how many units’ patient satisfaction increases for a single unit increase in each predictor (service quality dimension). Importantly, the negative numbers associated with out of assurance and empathy dimensions of quality
imply that these dimensions might be affecting negatively to patient satisfaction while tangibility and responsiveness are the most critical determinants of patient satisfaction.

Table 4.17: Regression Analysis Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.767</td>
<td>.410</td>
<td>1.872</td>
<td>.064</td>
</tr>
<tr>
<td>Tangibility Dimension</td>
<td>.090</td>
<td>.045</td>
<td>2.027</td>
<td>.045</td>
</tr>
<tr>
<td>Reliability dimension</td>
<td>.085</td>
<td>.049</td>
<td>1.723</td>
<td>.087</td>
</tr>
<tr>
<td>Responsiveness dimension</td>
<td>.086</td>
<td>.040</td>
<td>2.169</td>
<td>.032</td>
</tr>
<tr>
<td>Assurance dimension</td>
<td>-.035</td>
<td>.051</td>
<td>-.680</td>
<td>.498</td>
</tr>
<tr>
<td>Empathy dimension</td>
<td>-.055</td>
<td>.034</td>
<td>-1.599</td>
<td>.112</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Patient satisfaction

4.8 Chapter Summary

This chapter has detailed the results from data analysis. It has shown that the extent to which tangibles affect patient satisfaction in dental care facilities was significantly correlated. Likewise, responsiveness to patient needs affects patient satisfaction in dental care facilities, and reliability also affects patient satisfaction in dental care facilities, since these factors were significantly correlated. The chapter shows that empathic assurance on patient satisfaction in dental care facilities was negatively, but significantly correlated with patient satisfaction in dental care facilities. The next chapter concludes the study by providing the discussions, conclusions and recommendations of the same.
CHAPTER FIVE

5.0 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
This Chapter gives a summary of the results and provides a discussion comparing these results and findings from other studies with similar objectives. It also provides recommendations and suggestions for areas for further research.

5.2 Summary
This study was set to explore how the various dimensions of service quality affect patients’ satisfaction with the dental care that they receive. Specifically, the study sought to find out: the extent to which tangibles affect patient satisfaction in dental care facilities; how responsiveness to patient needs affect patient satisfaction in dental care facilities; if reliability is affecting patient satisfaction in dental care facilities and effect of empathic assurance on patient satisfaction in dental care facilities.

The study employed descriptive research design with emphasis on the effect of service quality on patient satisfaction in dental care facilities. The target population of the study was 425 patients seeking dental service at Molars Dental clinic in Nairobi Kenya based on the estimate of the number of patients visiting the clinic quarterly. The sample of the study was 206 patients stratified by gender from different parts of the country. The sample frame consisted of a list of patients in terms of their gender. Data was collected using questionnaires and analyzed using the Statistical Package for Social Sciences (SPSS). Correlation coefficient and Linear regression analyses were used to determine the effect of different service quality dimensions on patient satisfaction in dental facilities. The findings were presented using tables and charts.

To answer what extent tangibles affect patient satisfaction in dental care facilities, the study found out that tangibility is significantly correlated with patient satisfaction and significantly determines how satisfied patients will be. Furthermore, patients; find the physical infrastructure status of Molars Dental Clinic satisfying (positive tangibility score of 0.28). Specifically, all the four elements of tangibility had positive gap scores. The least rated statement was on the appearance of the hospital and whether or not it keeps up with the type of services provided by the Clinic.
To answer to how responsiveness to patient needs affect patient satisfaction in dental care facilities, the study found out that responsiveness is significantly correlated with patient satisfaction and significantly determines how satisfied patients will be. Furthermore, patients coming to Molars Dental Clinic are satisfied with the responsive dimension of service quality (Positive gap score of 0.14). This result is largely attributed to the willingness of the Clinic employees to continue helping their patients (positive gap score of 0.18), employees willingness to promptly respond to patients (positive gap score of 0.15) and where possible patients continue to receive prompt services (positive gap score of 0.06).

To answer to the question of how reliability is affecting patient satisfaction in dental care facilities, this study found out that reliability was significantly correlated to patient satisfaction. It also determined that reliability negatively, but not statistically significantly, affected patient satisfaction. Furthermore, Results from this study showed a positive reliability score (Gap score of 0.07). Despite the positive results, patients coming to the dental clinic felt that the clinic did not always perform what they promised to perform (Gap score of -0.09). Nonetheless, they felt that when they had problems, the Clinic was sympathetic and reassuring (Gap score of 0.03), the clinic was dependable (Gap score of 0.06), the Clinic provided services at a time it had promised to (Gap score of 0.09) and that the Clinic keeps patient records accurately (Gap score of 0.28).

In investigating how empathic assurance affects patient satisfaction in dental care facilities, this study found out that empathic assurance was significantly correlated to patient satisfaction. It also determined that reliability negatively, but not statistically significantly, affected patient satisfaction. Furthermore, the patients felt that they can trust the Clinic employees (0.18), patients felt safe in their transaction with the Clinic’s employees (positive gap score of 0.09) and the patients find the hospital employees polite (positive gap score of 0.03). However, the patients felt that the employees were not getting adequate support from the clinic to perform their jobs well (negative gap score of -0.6).
5.3 Discussions

5.3.1 Tangibility and Patient Satisfaction

Molars Dental Clinic has up to date equipment. A study by Zineldine (2006) showed that the equipment and products used in healthcare facilities can have a significant impact on patient opinion hence patients’ satisfaction. Healthcare facilities are adopting technology in order to improve services to patients. Technology is linked to improved health care efficiency, quality, safety, and cost. Santos (2002) refers to tangibles as the tangible elements of a service and includes aspects such as the appearance of physical facilities, tools and equipment, personnel, and communication material.

Molars Dental Clinic’s physical facilities are visually appealing. A study by Zeithaml and Bitner (1996) observed that, physical evidence refers to the environment in which the service is delivered and where the firm and the customer interact and also any tangible commodities that facilitate performance or communication of the service. Adesanya et al. (2012) also states that, for patients, the responsiveness of the health system is an important component of their overall experience while undergoing medical care. Patients understand and judge the various aspects of their experiences throughout their time in a health care facility.

Molars Dental Clinic’s employees are well dressed and appear neat. A study by Boshoff and Gray (2004) showed that, patient satisfaction with the cleanliness of the hospital and the ward, neatness of the buildings, décor in the wards and appearance of the nursing staff will impact on loyalty. In this study, the importance of the cleanliness of the hospital was confirmed. The appearance of the physical facilities of this clinic is in keeping with the type of services provided. A study by Jacobs (2016) showed that, modern medical office furniture, facilities, and stylish decor can actually have a significant and tangible impact on patient safety, experience, and ultimately increase patient satisfaction.

The results of this study contribute to the diverse evidence in field of literature where the dimensions of service quality will change from one context to another. As an example, the findings of this study on tangibility are not similar to studies by Sohail (2003), De Jager, and Du Plooy (2007). While examining tangibility as a determinant of service

Specifically, cleanliness of a health facility was regarded as the most important variable for tangibility dimensions. This result was slightly different with our study with most patients relying more on the physical state of the available equipment and the appearance of the dental clinic as important issues to be addressed. While it is difficult to overhaul the physical infrastructure of dental service providers in one go, the results of this study present a challenge to hospital administrators on important aspects that should be paid attention to.

Creating a quieter environment can make a big difference in patient satisfaction scores. Décor and design provides the patient with an opportunity to have a place to sit, read magazine and even have beverages. Furniture is an important tool in enhancing patients’ satisfaction. They give patients a place to relax (Pearson & Wilson, 2012). Siddiqui et al. (2015) conducted a study on changes in patient satisfaction related to hospital renovation with experiences with a new clinical building. The study aimed to characterize changes in patient satisfaction that occurred when clinical services (comprised of stable nursing, physician, and unit teams) were relocated to a new clinical building with patient-centered features. The study found that the most prominent increase was with pleasantness of décor.

5.3.2 Responsiveness and Patient Satisfaction
This clinic tells customers exactly when services will be performed. Zaghloul and Enein (2010) opine that, patient appointment systems are of great importance for efficiently managing outpatient clinics as well as patient satisfaction. An appointment scheduling system is a system used to manage appointment calendars and scheduling of appointments for physicians, dentists, and other health care providers. It allocates appointments to a time slot during consultation hours. This allocation is done according to appointment scheduling rules.
Patients receive prompt services from the employees of this clinic. According to Zeithaml et al. (1996), responsiveness is the willingness to help customers and provide prompt service. This dimension is concerned with dealing with the customer’s requests, questions and complaints promptly and attentively. A study by Vargas and Manoochehri (1995) also showed that, timely, prompt and consistent response to customers’ needs was a pre requisite to long term growth and success of all service firms.

Employees of this clinic are always willing to help customers. According to Zeithaml et al. (1996), responsiveness is the willingness to help customers and provide prompt service. Anbori et al. (2010) mentioned that if providers know what service quality aspects are most important to patients and have mechanisms to prioritize and ensure that these are in place, then this will lead to patient satisfaction and willingness to reuse medical services.

The results of this study are consistent with patient views on responsiveness of healthcare systems and health providers across different parts of the world. In a 7-country study set up in Europe, Coulter and Jenkinson (2005) found out that just over half the respondents said that doctors always listened carefully to them, gave them time for questions and provided clear explanations. Specifically, their study found out that respondents from Switzerland and the United Kingdom reported consistently high rates of satisfaction with doctors' communication skills, while respondents from Poland were significantly less satisfied. A study by Mohammadi and Kamali (2014) in one of the large medical facilities in Iran, found out that more than half of the inpatients rated overall responsiveness as good (58.4%). The confidentiality dimension gained the higher score (82.5%), followed by communication (72.3%), and prompt attention (70.3%). The result from this study is a reminder that the way hospitals interact with patients can impact on their well-being.

Some researchers have termed this area of work “patient experience”. Andaleb and Ali (2001) argues that being responsive to patients and communicating openly with them are other vital components of health service delivery. Many healthcare service providers may project and reinforce a stereotypical image of the stone-faced and stern attendant who is reluctant to communicate. Patients continue to pay for such sub-par services in time, money, physical and psychological discomfort, and often a great deal of frustration.
Perhaps patients are denied the elements of responsiveness and personal attention because of their perceived subordinate status vis-a-vis the care provider. A challenge to dental service providers in Kenya is that if a health system is responsive, it is possible that interactions people have within the health system will improve their well-being, irrespective of improvements to their health.

5.3.3 Reliability and Patient Satisfaction

When this clinic promises to do something by a certain time, it does so. According to Morgan and Hunt (1994), reliability refers to the ability to deliver expected standard at all time, how the organization handle customer services problem, performing right services for the first time, providing services within promised time and maintaining error free record.

When patients have a problem, the clinic is sympathetic and reassuring. A study by Thind (2011) showed that, follow-up of patients is a good approach for providing medical advice, managing symptoms, identifying complications and giving reassurance after discharge. Follow-up is common amongst patients receiving treatments in the hospital and can be appropriate to address psychological consequences after treatment.

Molars Dental Clinic is dependable. Rexha et al. (2003) state that, dependability refers to the assurance of providing services as expected, and trust is another key factor influencing the adoption of various types of service in electronic banking. These two important factors give effects to any service industry; consistency and dependability. According to Manaf et al. (2012), the ability to provide promised service by the health worker practitioners to their patients influences patient satisfaction. Patient satisfaction of healthcare organization is often used as a measure of organizational efficiency.

Molars Dental Clinic provides its services at the time it promises to do so. Chahal and Kumari (2012) assessed the relationship between quality of services and public hospital performance and found a significant correlation between physical environment quality and interaction quality with waiting time, patient contentment, patient loyalty and image of public hospitals. Functional quality had a greater influence than technical quality on operational performance of tour operators in Kenya.
Molars Dental Clinic keeps its records accurately. According to Inyo (2013), service quality perception, technical quality and functional quality had a substantial influence on operational performance. Masson et al. (2016) notes that, poor customer service, poor response time and high waiting times have detrimental effects on perceived service quality of firm offerings which affects customer satisfaction and operational performance of the organization.

In what is considered to be one of the most important contributions to the study of quality service, Valerie et al. (1990) found out that reliability is the most crucial dimension, regardless of the service being studied. The results of this study are a challenge to the dental services providers. It is clear from the study that dental patients judge the quality of health services that they receive based on what they expect. As a result dental service providers in Kenya should not only promise reliability in advertising of dental services but should actually deliver the reliability.

Fung et al. (2005) concluded that patients consider factors such as availability, convenience, professional competence and technical ability, the nature of the doctor-patient relationship, interpersonal skills, and patients’ own previous healthcare experiences. Studies also suggest that although patients place value on the above factors, when actually choosing a new provider patients rely overwhelmingly on their own experiences, those of friends and family, or recommendations from their current healthcare provider.

5.3.4 Empathic Assurance and Patient Satisfaction
Patients can trust the employees of the clinic and they feel safe in their transactions with this clinic’s employees. Anderson and Weitz (1989) stated that there is possibility of existence of trust when one party feels that the required need will be satisfied by the other party in the future. According to the Morgan and Hunt, (1994) trust is the confidence of one party about the reliability and integrity of the other party. Kramer (1999) argued that trust is the composite of the feeling and thinking aspects and socially oriented. Hall (2005) stated that when a person trust on other party, he or she believe that the trusted person will behave with goodwill and with competence according to his or her domain.
Employees of this clinic are polite. Mishra et al. (2008) pointed that reliability; openness; competence and concern are elements of trust and concluded that communication is the most significant element as compared to others. In public health, Practitioners who display traits that are consistent with the patient’s perception of “professionalism” have a significant positive effect on the patients’ perceived level of service quality.

Employees get adequate support from this clinic to do their jobs well. According to Andaleeb et al. (2007) state that, patients expect nurses to provide personal care and mental support to them. This reflects service providers’ empathy. We posit that the more empathy received from the service provider, the greater the satisfaction of the patients. Health care providers’ empathy and understanding of patients’ problems and needs can greatly influence patient satisfaction. Patients desire doctors to be attentive and understanding towards them.

The clinic gives patients individual attention and personal attention. According to Zeithaml et al. (1996), responsiveness is the willingness to help customers and provide prompt service. This dimension is concerned with dealing with the customer’s requests, questions and complaints promptly and attentively. A study by Vargas and Manoochehri (1995) also showed that, timely, prompt and consistent response to customers’ needs was a pre requisite to long term growth and success of all service firms.

Employees of this clinic know what patient needs are and having their interest at heart. According to Andaleeb et al. (2007), health care providers’ empathy and understanding of patients’ problems and needs can greatly influence patient satisfaction. Patients desire doctors to be attentive and understanding towards them. Similarly patients expect nurses to provide personal care and mental support to them. This reflects service providers’ empathy. We posit that the more empathy received from the service provider, the greater the satisfaction of the patients.

The results of this study compliment a study carried out in Mombasa County. In examining service quality practices in public health facilities in Mombasa County, Mbuthia (2013) observed that most of the medical staff had a positive attitude and hence being able to instill confidence to the patients. However, most of the facilities in the
County did not guarantee the safety of the patients and their belongings. Most of the patients therefore had to take personal precautionary measures to safeguard their belongings. Patients were generally satisfied with the assurance dimension in this study. The results of this study is a reminder that It is also important to assure patients that they will obtain the desired level and quality of services when admitted to a hospital. A study by Büyükozkan et al. (2011) showed that hospitals should focus more on empathy, professionalism, and reliability to provide satisfactory and qualified service.

The extent to which a healthcare professional demonstrates empathy is assumed to have an impact on the patient experience, and patient satisfaction is one of the most frequently used outcome measures to evaluate empathy and communication (Kaplan, Ware & Greenfield, 1998; Mercer & Reynolds, 2002). For this study, the patients coming to Molars Dental Clinic generally found the Kenyan hospital to be empathetic (Positive empathy dimension score 0.19)

5.4 Conclusions
5.4.1 Tangibility and Patient Satisfaction
The study concludes that Molars Dental Clinic has up to date equipment and its physical facilities are visually appealing. From the study, it can be concluded that Molars Dental Clinic’s employees are well dressed and appear neat and the appearance of the physical facilities of the clinic is in keeping with the type of services provided. Thus it can be argued that marketing tangible cues of the clinic helps it to eliminate the insecurity and uncertainty that patients have about it.

5.4.2 Responsiveness and Patient Satisfaction
The study concludes that Molar Dental Clinic tells customers exactly when services will be performed and patients receive prompt services from the employees of the clinic. Employees of the clinic are always willing to help customers and they are never too busy to respond to customer requests, which has increased patient satisfaction with their services. This is vital, because for patients, the responsiveness of the health system is an important component of their overall experience while undergoing medical care. Patients understand and judge the various aspects of their experiences throughout their time in a health care facility.
5.4.3 Reliability and Patient Satisfaction
The study concludes that when the clinic promises to do something by a certain time, it does so, and when patients have a problem, the clinic is sympathetic and reassuring making it dependable. The study concludes that Molars Dental Clinic keeps its records accurately. These factors make the clinic favorable to patients since, reliability, openness, competence and concern are elements that build trust. This coupled with good communication provides an atmosphere that ultimately satisfies patients.

5.4.4 Empathic Assurance and Patient Satisfaction
The study concludes that patients can trust the employees of Molars Dental Clinic because patients feel safe in doing transactions with the clinic’s employees. The study concludes that the employees of this clinic are polite which could be as a result of them getting adequate support from the clinic’s management facilitating their ability to do their jobs well. The study concludes that the clinic’s employees provide individual and personalized attention to patients, and have the awareness of their patients’ needs. The study concludes that the clinic has convenient operating hours and that it has the interests of its patients at heart.

5.5 Recommendations
5.5.1 Recommendations for Improvement
5.5.1.1 Tangibility and Patient Satisfaction
The study recommends the management of Molar Dental Clinic to ensure that its dental facilities are deliberate about the infrastructural support available to meet its patients’ needs. Given that professional qualifications of the provider is applied when necessary equipment are available, management needs to understand that patients demand excellent tangibility levels. Furthermore, anything the patients view as tangible, play the most crucial row on how they will rate their satisfaction.

5.5.1.2 Responsiveness and Patient Satisfaction
The study recommends dental practitioners to ensure they provide timely service to patients. The study has shown that most of patients were satisfied with the quality of care they received, but are concerned about the time in which they get served. Thus, to ensure overall satisfaction, timely service needs to be provided across the board.
5.5.1.3 Reliability and Patient Satisfaction
The study recommends that, dental service providers in Kenya should not only promise reliability in advertising of dental services but should actually deliver the reliability. It is clear from the study that dental patients judge the quality of health services that they receive based on what they expect.

5.5.1.4 Empathic Assurance and Patient Satisfaction
The study recommends that medical procedures should be performed correctly the very first time. It is this commitment that patients, who have a choice, seem to want before committing themselves to dental services providers. Feelings of assurance are best conveyed through the skills, professionalism, commitment, and efficacy of the staff whose competence and training must come through in every interaction and encounter with patients.

5.5.2 Recommendations for Further Studies
Further studies covering multiple dental clinics and in both rural and urban areas are required to help validate these findings. Furthermore, to better understand the underlying constructs, qualitative data covering both patients and dental providers needs to be collected and analyzed to help answer the questions raised by this study.
REFERENCES


Narayanan, A. & Greco, M. (2014). *The Dental Practice Questionnaire: a patient feedback tool for improving the quality of dental practices*. Auckland University of Technology, Auckland, New Zealand. School of Medicine, Griffith University, Queensland, Australia.


APPENDICES
APPENDIX I: INTRODUCTION LETTER

United States International University – Africa,
P.O. Box 14634 – 00800,
Nairobi Kenya.

Dear Respondent,

RE: RESEARCH QUESTIONNAIRE.

I am a graduate student currently undertaking a Master of Business Administration Program at United States International University-Africa. As part of my Master’s Degree requirement. I am expected to successfully conduct an Applied Research on a relevant topic in my area of concentration (Business Management).

The study will look at The Effect of service quality on patient satisfaction in dental care facilities: A Case of Molars Dental Clinic.

This is an academic research and is strictly confidential. Your personal details will not appear anywhere. I would therefore like to request 10 -15 minutes of your time in completing the attached questionnaire. Thank you for your time.

Yours sincerely,

Justin Kikuvi Muendo.
APPENDIX II: QUESTIONNAIRE

PART ONE: Demographics
Please provide the following information. All information will remain confidential and to maintain anonymity, no names are required.

1. What best describes your age group?
   - Below 25 years (  )
   - 25-34 years (  )
   - 35-44 years (  )
   - 45 years and above (  )

2. What is your gender?
   - Female (  )
   - Male (  )

3. What is your highest level of education?
   - Primary (  )
   - Secondary (  )
   - College (  )
   - University (  )
   - None (  )

4. How long have you sought services at Molar Dental clinic?
   - Less than a year (  )
   - 1-5 years (  )
   - 6-10 years (  )
   - More than 10 years (  )

5. Please indicate the kind of service you receive at Molars Dental
   a. ______________________________________________
   b. ______________________________________________
   c. ______________________________________________
   d. ______________________________________________
**PART TWO: Quality of service provided by Molars Dental Clinic**

6. Please indicate the extent to which you agree or disagree with the following statements describing the tangible services by using the scale of 1-5 where: 1 - Strongly Disagree (SD), 2 Disagree (D), 3 Neutral (N), 4 Agree (A) and 5 Strongly Agree (SA).

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Molars Dental Clinic has up-to-date equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Molars Dental Clinic’s physical facilities are visually appealing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Molars Dental Clinic’s employees are well dressed and appear neat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The appearance of the physical facilities of this Clinic is in keeping with the type of services provided</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>When this Clinic promises to do something by a certain time, it does so</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>6</td>
<td>When you have a problems, this Clinic is sympathetic and reassuring</td>
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<td>7</td>
<td>Molars Dental Clinic is dependable</td>
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<tr>
<td>8</td>
<td>Molars Dental Clinic provides its services at the time it promises to do so</td>
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<td>9</td>
<td>Molars Dental Clinic keeps its records accurately</td>
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<tr>
<td>10</td>
<td>This Clinic tells customers exactly when services will be performed</td>
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<td>11</td>
<td>You receive prompt services from the employees of this Clinic</td>
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<tr>
<td>12</td>
<td>Employees of this Clinic are always willing to help customers</td>
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<tr>
<td>13</td>
<td>Employees of this Clinic are not too busy to respond to customer requests promptly</td>
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<tr>
<td>14</td>
<td>You can trust the employees of this Clinic</td>
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<tr>
<td>15</td>
<td>You feel safe in your transactions with this Clinic’s employees</td>
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<tr>
<td>16</td>
<td>Employees of this Clinic are polite</td>
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<tr>
<td>17</td>
<td>Employees get adequate support from this Clinic to do their jobs well</td>
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<td>18</td>
<td>The Clinic gives you individual attention</td>
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<tr>
<td>19</td>
<td>Employees of this Clinic give your personal attention</td>
<td></td>
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<tr>
<td>20</td>
<td>Employees of this Clinic know what your needs are</td>
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<tr>
<td>21</td>
<td>Molars Dental Clinic has your interests at heart</td>
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<tr>
<td>22</td>
<td>The Clinic has operating hours convenient to all their customers</td>
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</tbody>
</table>
PART THREE: Patients Satisfaction

7. Please indicate the extent to which you agree or disagree with the following statements describing the patients satisfaction by using the scale of 1-5 where 1 for Strongly Disagree (SD), 2 Disagree (D), 3 Neutral (N), 4 Agree (A) and 5 Strongly Agree (SA).

<table>
<thead>
<tr>
<th>Patients Satisfaction</th>
<th>Levels of Agreement</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Poor</td>
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<tr>
<td>Ease of administrative admission procedures</td>
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<tr>
<td>Simplicity of scheduling and time to get first appointment</td>
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<tr>
<td>There is professionalism by the dental care facility staff</td>
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<tr>
<td>The dental health care facility surrounding area is kept quiet</td>
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<tr>
<td>The dental health care facility rooms are kept clean</td>
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<tr>
<td>At the dental health care facility doctors explain things in an understandable way</td>
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<tr>
<td>The dental health care facility handles patient information with privacy</td>
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<tr>
<td>Overall care received at Molars Dental Clinic</td>
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</tbody>
</table>

8. Please add any additional factors besides the ones mentioned that you think would describe patients’ satisfaction in the organization?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

Thank you for your time and response