

**SERVICE QUALITY PRACTICES IN PUBLIC HEALTHCARE
FACILITIES IN MOMBASA COUNTY, KENYA**

BY

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DECLARATION

This research project is my original work and it has not been submitted for a degree in any other university

Signed.....

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This research project has been submitted for examination with my approval as university supervisor

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I am thankful to God for enabling me go through the process of writing this project. It was quite a challenge but He has given me strength and wisdom all along.

I also acknowledge the unwavering support of my Supervisor Mr. Stephen Odock. I have drawn a lot of support and encouragement from him all along.

DEDICATION

I dedicate this project to my wife Mercy, my children Clement and Gloria.

ABSTRACT

Organizations have found it fruitful to improve services selectively by paying more critical attention to the service dimensions or attributes as part of a customer service management. The measure of such service dimensions is important because it leads to an objective criterion for prioritizing and implementation. One of the objective measures of service quality is the consideration of the extent to which an organization practices the dimensions of service quality. This study sought to determine the extent to which the health facilities in Mombasa County adopt service quality practices, to determine the dimension of service quality emphasized by the public healthcare facilities in Mombasa County and to determine the challenges faced by the public healthcare facilities in Mombasa County in the adoption of service quality practices. The respondents were the management staff responsible for the maintenance of quality standards in the healthcare facilities. A structured questionnaire was distributed to all the 26 public healthcare facilities in Mombasa County. The service quality dimensions investigated included the tangibles, reliability, responsiveness, assurance, empathy, competence, access, communication, credibility and safety. The results show that the facilities have employed competent staff who are responsive to the needs of the patients. It also indicates a high level of reliability of the services provided. It however shows that most of the physical facilities are not appealing and the medical equipment are inadequate. Communication is the dimension that has the greatest shortfall. This is because most of the facilities are still processing the patients manually. The study also revealed that the greatest challenge towards the provision of quality services in these facilities is shortage of funds and inadequate staff. This is perhaps because most of the dimensions of service quality require funding or competent and experienced staff. It is therefore recommended that some of the dispensaries be elevated to the higher level of district hospitals. This will ensure that the hospitals access more funding and can be allowed to offer both outpatient and inpatient services. The government can also ensure the recruitment and deployment of additional competent medical personnel to these facilities. This will greatly improve the level of service quality provided.

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ABBREVIATIONS AND ACRONYMS

CPGH	Coast Provincial General Hospitals
GoK	Government of Kenya
KACC	Kenya Anti-Corruption commission
KEMSA	Kenya Medical Supplies Agency
KIPPRA	Kenya Institute of Public Policy Research and Analysis
MOH	Ministry of Health
MTRH	Moi Teaching and Referral Hospital
NTRH	National Teaching and Referral Hospitals
P-C-P	Pivotal Core Peripheral
SERVPERF	Service Perception Model
SERVQUAL	Service Quality Model
TI-K	Transparency International- Kenya
UAE	United Arabs Emirates
UN	United Nations
USA	United States of America
WHO	World Health Organization

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CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Organizations in the service sector are in an increasing pressure to demonstrate that their services are customer focused and that continuous improvement on the services being delivered is observed. The limitations of finances and other resources within which these organizations make it difficult to remain competitive. It is therefore essential that customer expectations are properly understood and measured, and that from the customers' perspective, any gap in the customers' expectations and perceptions is identified. The information obtained assist the managers in identifying cost-effective ways of closing service quality gaps and of prioritizing which gaps to focus on. It is on this background that service organizations, both public and private, are realizing the significance of customer centered philosophies and are turning to quality management approaches to help manage their service delivery processes (Sheetal & Harsh, 2004).

Chase and Bowen (1991) proposed three theories that explain service quality. The first theory, the attribute theory, is based on the assumption that service quality is a function of the service delivery system. This implies that management can determine the level of service quality by controlling the inputs in the service delivery system. The second theory is the customer satisfaction theory. This theory was proposed Parasuraman et al., (1988) and it states that service quality is determined by the customers when they compare their expectations of service and their perceptions. If there is a discrepancy between customers' expectations and their perceptions, a gap in service quality exists. The third theory is the interactive theory. This theory proposes that service quality is deemed to exist when the customers and employees are satisfied (Klauss, 1985).

Human health has a great effect on the well being of the society. The World Health Organization (WHO) defines health as a state of complete physical, mental and social wellbeing and not merely the absence of disease and infirmity (World Health Organization, 1978). The enjoyment of the highest attainable standards of health is one of the fundamental rights of every human being (KIPPRA, 2004). In Kenya, healthcare is provided by the national government, county governments, church missions, industrial health units, private institutions and individuals. The challenges facing healthcare in Kenya include, inequitable distribution of healthcare institutions, inadequate health personnel, poor management of the healthcare services, inadequate funding, lack of medical supplies, poor operational efficiency and poor health information communication (Government of Kenya, 1994).

Most of the public health facilities in Mombasa County experience an acute shortage of medicines and other essential supplies. In some cases, when a doctor recommends an injection, patients are forced to buy needles, syringes and gloves from private chemists or clinics around the public facility. Further, cases of conflict of interest in many public health facilities in Mombasa county has led to poor quality service delivery. Many MoH doctors or senior staff are consulting in many health institutions in Mombasa city. In some situations, some of the staff are consulting in more than four private health institutions. This has resulted to poor service delivery (Transparency International-Kenya, 2011).

1.1.1 Service Quality

Service quality concept have been the subject of many researchers' literature over the years because of the difficulties in both defining and measuring it with no overall consensus merging on either (Wisniewski, 2001). There are many definitions of service quality. Parasuraman et al., (1988) defines service quality as a gap between the consumers' expectations and perceptions. In this regard, service quality is viewed from the perspective of

the consumer. Service quality can also be defined as the customers judgment about an entities overall excellence or superiority (Zeithaml, 1987).

Consumers do not view service quality in the same way as the marketers and researchers do. The researchers and marketers view service quality via a conceptual view. The conceptual meaning distinguishes between mechanistic and humanistic meanings of service quality. The mechanistic perspective views quality as an objective aspect or feature of the service whereas the humanistic perspective involves a subjective response of people to an object and is therefore highly subjective (Garvin, 1983). This implies that consumers are more subjective in their definition of quality. Their perceptions therefore vary according to individual needs. This view is upheld by Olshavsky (1985) when he defines quality as a form of overall evaluation of a product, similar in many ways to attitude. This definition focuses on service quality in the context of the service in question and the characteristics the service and the service provider should possess in order to project a high quality image.

The foregoing discussions hold the view that quality service delivery is achieved when the customers' expectations are met and their needs satisfied. This need is customer oriented and should not be construed to mean that the service provider should always comply with the customer and his wishes. The customer may not always be right and sometimes may not be able to articulate or verbalize his needs and wishes. Further it is often appropriate to distinguish other different groups whose needs, expectations and demands should be met apart from the customers. These include the employees and the owners. The customer's perception of quality must not be compromised. However, to be able to give the customers the right quality, the needs of these two groups should be met as well. In this regard, service quality can be defined as that which meets the expectations and satisfies the needs of the customers, employees and the owners (Edvardsson, 1998). The customer's picture of the

company's employees, their experience, knowledge and competence combined with their commitment and willingness to serve affects a customer-perceived quality. It is a matter of both ability and willingness to serve.

Management of service quality starts with the identification of the determinants of service quality. This is because when the determinants of service quality are identified, the managers are able to specify, measure, control and improve customer perceived service quality (Johnston, 1995a). Exploratory research carried out by Parasuraman et al., (1985) revealed that the criteria used by consumers in assessing service quality fit 10 potentially overlapping dimensions. These dimensions include tangibles, reliability, responsiveness, communication, credibility, security, competence, understanding the customer and access. These dimensions and their descriptions served as the basic structure of service quality domain from which items were derived for the SERVQUAL scale.

The SERVQUAL model has been used extensively to measure service quality by comparing the levels of customer expectations and perceptions. Parasuraman et al., (1988) published empirical evidence from five service industries that suggested that five dimensions more appropriately capture the perceived service quality construct. The five dimensions of service quality include; tangibles, reliability, responsiveness, assurance and empathy. Tangibles refer to the appearance of physical facilities, equipment, personnel and communication materials. Reliability is the ability to perform the promised service dependably and accurately.

Responsiveness is the willingness to help customers and provide prompt service. Assurance refers to the knowledge and courtesy of employees and their ability to convey trust and confidence. Finally, empathy is the caring, individualized attention the organization accords to its customers. In addition to understanding the importance of these service dimensions, the

managers should also seek to establish their relative importance for each organization (Donnelly & Dalrymple, 1996). The high level of competition has led retail and service businesses to seek more profitable ways to differentiate themselves. A key step to the success of the organizations is delivery of superior service quality (Rudie & Wansley, 1985). Delivering of superior service quality appears to be a prerequisite for the success, if not survival of these organizations.

1.1.2 Public Healthcare in Kenya

The health of the citizenry has a bearing on the economic development of a nation. A healthy society increases productivity and diverts resources to other economic developments (KIPPRA, 2004). The benefits of healthcare go beyond curative interventions. One person's health has a bearing on the health status of others. A sick person may affect other persons in various ways. Firstly, communicable diseases can be passed on to others. Secondly, loss of production can affect the well being of the dependants of the sick persons. Thirdly, healthy persons can suffer losses because of the cost of caring for the sick persons. Clearly therefore, the benefits of treating a sick individual goes beyond the individual (KIPPRA, 2004).

The achievement of sound health care is critical to the social-economic development of a society. A good healthcare delivery system, food security, good nutritional status, and the absence of epidemic diseases are the conditions that produce a healthy population, capable of participating in a country's economic, social and political development. The relationship between a healthy population and productivity has been demonstrated in the countries that invested heavily in healthcare services (Schultz & Tansel, 1993). This is because the improvement of healthcare services reduces production losses caused by worker illness, diverts the national resources to other development activities and increases enrolment of children in schools and increases learning capacity (KIPPRA, 2004).

There are three types of health facilities in Kenya. These include hospitals, health centers and health sub-centers including dispensaries and mobile clinics. The dispensaries and health centers serve as primary care centers (KIPPRA, 2004). The facilities are distributed regionally, with the modern facilities available in the major cities or only at the national level. At the top of the hierarchy are the National, Referral, and Teaching Hospitals (NRTH) such as Kenyatta National Hospital in Nairobi and the Moi Teaching and Referral Hospital (MTRH) in Eldoret town. The next best level of care is found in the provincial hospitals, followed by sub-district hospitals. Beneath the sub-district level, there are health centers, dispensaries and community health organizations. There were 6,190 health facilities in Kenya, serving an estimated population of 38 Million people in 2008. This is equivalent to 16 facilities per 100,000 people or 11 facilities per 1,000 square kilometer (Ministry of Health and Sanitation, 2008).

The disparity in the distribution of the facilities coupled with poor road networks have contributed to inaccessibility to the facilities. The goal of the Government of Kenya has been to ensure every Kenya lives within 4 kilometers of a health facility. However, while some citizens may be able to access a well-equipped facility 15 kilometers away via a well tarmacked road, many others might be 4 km away from a limited facility with no doctors, few resources and only accessible by foot (Njoroge, 2010).

There are various challenges facing public health facilities in Kenya. Firstly, health budgets are insufficient. This is perhaps due to the deteriorating economic conditions and the effects of HIV/AIDs that has led to a shortage of workers (Xu et al., 2006). Other challenges include shortage of drugs and medical supplies, unaffordable out-of-pocket costs for the consumers of health services, poor remuneration or non-payment of health workers leading to a demotivated workforce, poor quality of care and inequitable distribution of health services.

Additionally, corruption in public hospitals has led to deterioration of the services provided (World Health Organization, 2008).

Other challenges facing the health sector includes insufficient funding, shortage of medical personnel, poor management of health services, inadequate medical supplies and low level of operational efficiency (Government of Kenya, 1994). Inefficiency in the public health sectors results from the combination of financial, managerial and organizational problems. Other causes of inefficiencies include, imbalances in staffing, limited input hours by health staff, malfunctioning machines and equipment and poor transport (Owino, 1997). These factors translate into inefficiency and poor quality of healthcare services in the country.

1.1.3 Public Healthcare in Mombasa County

The County of Mombasa is located at the coast province of Kenya. It comprises of 6 constituencies namely Mvita, Chagamwe, Jomvu Kuu, Nyali, Kisauni and Likoni constituencies. It has a population of 939, 370 all of which are urban dwellers (Government of Kenya, 2012). The health service delivery in Kenya is organized around six levels of care. The health centers in Mombasa comprises of one provincial general hospital, the Coast Provincial General Hospital (CPGH), which acts a referral centre, receiving health conditions that cannot be managed by lower level health centers. The county has three district hospitals namely: Port Reitz District Hospitals, Tudor Sub-District Hospitals and Likoni Sub-District Hospitals. There are also 20 dispensaries in the county and one community health centre (Government of Kenya, 2010). The Coast Provincial General Hospital serves 33,000 in-patients and 197,810 out patients annually. Poor quality of service delivery at the hospital lead to the formation of the Quality Assurance Steering Committee in the year 2010 whose main objective was to ensure continuous delivery of quality service to the patients.

Although the county recorded higher levels of immunization at 73% in 2010/11 compared to the country average of 64%, it has among the highest levels of malaria prevalence. In the year 2010/11, the level of malaria as a percentage of the first outpatient visitors was 31.5% compared to the country average of 27.7% ranking it 29th out of the 47 counties in Kenya (Government of Kenya, 2012). In a survey carried out by the Kenya Anti- Corruption Commission of Kenya in 2010, it was revealed that even though the government agency for the supply of drugs, the Kenya Medical Supplies Agency (KEMSA), was availing drugs to the public hospitals, most patients were buying their own drugs and other items. Top among the items being bought included drugs at 52%, food and equipment at 16% each. This indicates that the quality of healthcare in these public institutions has greatly declined. The management of these institutions should seek for better ways of enhancing quality in service delivery (Kenya Anti-Corruption Commission, 2010).

1.2 Research Problem

The consistent delivery of superior service is the strategy that is increasingly being offered as a key to various service providers in order to position themselves more competitively in the market. Service quality has become an edge for gaining competitive advantage over peer organizations (Brown & Swartz, 1989). Customers service initiatives are thus closely related to quality service initiatives. This implies that service companies have to take into account variables of service quality such as reliability, responsiveness, assurance, empathy and tangibles (Payne, 1993).

The concept of service quality is by its very nature elusive, abstract and distinct. This is because consumers do not easily articulate their requirements. Additionally, the measurement of service quality is difficult. Consequently, only a handful of researchers have been able to operationalise the concept (Parasuraman et al., 1985, 1988: Brown & Swartz 1989: Carman,

1990). However, most of these researchers seem to agree that the pursuit of quality service is an essential strategy for success and survival in today's competitive business environment (Chowdhary & Prakash, 2007).

Healthcare delivery systems in Kenya faces various challenges including poor service quality, being more customer oriented, increasing accessibility and cost reduction. According to the World Health Organization (World Health Organization, 2007), the average life expectancy was 54 years, compared to the global average of 68 years in 2006. Healthy life years are anticipated at 48 years with 82% of the lost healthy years attributed to communicable diseases. The health centres in Mombasa county have a shortage of 34 doctors, 105 nurses and 60 public health officers and 50 clinical officers. Patients suffering from minor ailments have had to travel for long distances to the referral hospital because the health centres lack equipment, personnel and drugs to attend to them (Okwany, 2013). The services provided by the hospital are therefore not reliable nor are they responsive to the needs of the patients.

Many researchers in the past have concentrated their studies on service quality with regard to customer satisfaction. Jabnoun and Rasasi (2003), while undertaking a study on the quality of service delivered in private and public hospitals in the United Arab Emirates (UAE), proposed that future research on the quality of service in health care should be carried out in other parts of the world. While most of the researchers (Mostafa, 2005; Donnelly & Dalrymple, 2006) seek to study service quality from the customers' point of view, this research sought to investigate the service quality practices employed by the public hospitals.

In a study seeking to find out the service quality measurement techniques employed by the banks in Kenya, Ndegwa (2012) found out that banks in Kenya are placing more emphasis on

the quality of service at the front offices than at the back office. This indicates that banks value the moment that customers interact with the front office staff. Tirimba (2012) conducted a research on service quality at Kenya Airways in Kenya. The study sought to establish the determinants of customer satisfaction at Kenya Airways. The study found out that among the various dimensions that satisfy customers at the airline include, security and safety, timely communication to customers including changes in flights, employee courtesy and providing a variety of foods. From the foregoing discussions, the researcher is posing the following questions. To what extent do hospitals in Mombasa County adopt service quality practices? What dimensions of service quality do they emphasize? What challenges do they face in the adoption of these service quality practices?

1.3 Research Objectives

The objectives of this study were:

- i. To establish the extent to which public healthcare facilities in Mombasa County adopt service quality practices.
- ii. To determine the dimensions of service quality emphasized by public healthcare facilities in Mombasa County.
- iii. To determine the challenges faced by the public healthcare facilities in Mombasa County in the adoption of service quality practices.

1.4 Value of the study

The findings of the study may help public hospitals in Kenya to improve the quality of services provided to the public. The implementation of the recommendations on the best service quality practices to be employed in the public hospitals may enhance cost efficiency and effectiveness. It can also improve the level of customer satisfaction. The findings can

also help other healthcare providers in establishing the best ways of improving service quality.

The research on service quality practices in public hospitals may also provide theoretical background on how best to improve service quality in public hospitals. The study sought to bridge a research gap in the study of the internal processes of healthcare centers in public service. Most of the literature on service quality is customer focused. This study provides a theoretical contribution on how best to employ quality service practices in the internal processes of public hospitals. The findings of the study may also be used as ground for further research.

The findings of the study may also be used to guide policy formulation with regard to the provision of healthcare in the public health care centers. The policy makers at the national and county governments may use the findings of the study in formulating service quality policies which can guide the investment in healthcare. The findings can also assist the private hospitals in developing strategies that may enhance provision of superior quality service to its customers. This may become the basis of competitive advantage.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter comprises of a section on reviewing theoretical literature on service quality. It also includes some discussion on the dimensions of service quality and various models of service quality. In addition, it includes a review of empirical studies on service quality done in Kenya and other parts of the world.

2.2 Service Quality Theories

Service quality can be conceptualized into three theories as was proposed by Chase and Bowen (1991). These theories include the attribute theory, the customer theory and the interactive theory.

2.2.1 Attribute Theory

The attribute theory is based on the presumption that the quality of service is as a result of the service delivery system. It therefore assumes that the application of the product quality framework to services determines the quality of service delivery. This implies that the management has significant control on the quality of service because they determine the inputs that will define the level of service quality. The service provision process is defined as the acceptable standard of performance. The management view the process of service provision as a process that requires trained coordination and control since the service is standardized. This theory places more emphasis on the production processes rather than the expectations of the customers (Weiner, 1985).

2.2.2 Customer Satisfaction Theory

The customer satisfaction theory was proposed by Parasuraman et al. (1988). This theory defines service quality as the difference between the customer expectations of service quality and their perceptions of the service actually received. This theory implies that customer

expectations are the basis for satisfaction and that the customer anticipates high quality service standard in his expectations. The consumer creates his own individual benchmark, and the rating of his satisfaction is the result of his after-purchase state. This theory is therefore customer focused rather than process focused.

2.2.3 Interactive Theory

The interactive theory was proposed by Klauss (1985). This theory defines service quality as shared experiences of gain to all participants in the service delivery encounter. Service quality is deemed to have been achieved when the participants-the customers and the employees-are satisfied. Another theory was developed by Leblanc and Nguyen in 1988 and it comprised of five dimensions of service quality which included corporate image, internal organization, and physical support, interaction between the customers and staff as well as the level of customer satisfaction (LeBlanc & Nguyen, 1988).

2.3 Dimensions of Service Quality

Many writers agree that the consumers' expectations are rarely concerned with a single aspect of the service package but rather with many aspects (Berry et al., 1985; Johnson & Lyth, 1991; Sasser et al., 1978). The understanding by the management of the determinants of service quality will be helpful in measuring, controlling and improving the perceived customer service quality. This will ensure the gap between the expectations of the consumers and their perceived quality of services is minimized or eliminated (Johnston, 1995a). Different conceptualizations have been proposed by various authors regarding service quality dimensions. Garvin (1988) also proposed a nine-dimension model for measuring service quality. These dimensions include performance, features, conformance, reliability, responsiveness, durability, service, aesthetics and reputation.

Parasuraman et al., (1988) conceptualized service quality to comprise of five dimensions. These dimensions include tangibles, reliability, responsiveness, assurance, and empathy. These dimensions led to the development of the SERVQUAL model which is widely used to measure service quality. Tangibility refers to the appearance of physical facilities, equipment, personnel and communication material, location and access. Reliability is the ability to perform the promised service dependably and accurately. Responsiveness is the willingness to help customers and provide prompt services. Empathy refers to the caring individualized attention the organization provides to its customers. It includes communication, access and understanding of the customers. Finally, the assurance dimension refers to the ability to convey trust and confidence and it includes courtesy, competence, credibility and security (Chowdhary & Prakash, 2007). Parasuraman et al., (1988) further observed that of the five dimensions, reliability is ranked to be the most important while tangibility is ranked the least important to the consumers.

2.4 Service Quality Models

2.4.1 The SERVQUAL Model

The SERVQUAL model for measuring service quality has attracted a lot of interest by researchers in the field of service quality. It is perhaps one of the most popular standardized questionnaire to measure service quality. The approach starts from the assumption that there exist gaps between the expectations of the customers consuming the service and their perception of the service that is actually received. The SERVQUAL instrument poses a set of 22 structured and paired questions designed to assess the customers' expectations of the service provided and what was actually received (perception). A five-point Likert- type scale anchored on "Strongly Agree" to "Strongly Disagree" is used. The model has proved to be a useful instrument for measuring service quality levels in various industries such as banks,

airlines hospitality and the legal profession (Mostafa, 2005). The SERVQUAL model is also considered to be the most scrutinized and adaptable in providing a valid instrument for measuring health service quality (O'connor et al., 1992).

2.4.2 SERVPERF Model

This is a more recent model representing a slight modification of the SERVQUAL model development by Parasuraman et al., (1988). The model was developed by Cronin and Taylor in 1992. It proposes that customers' perceptions of the service quality is a better measure of service quality. This is different from the SERVQUAL model where customers' expectations before the receipt of service are compared with the perceptions after receiving the service. The SERVPERF scale comprises of 22 questions. Service quality is deemed to exist when higher perceived performance is observed.

2.4.3 Pivotal Core Peripheral (P-C-P) model

This model was developed by Phillip and Hazlett in 1997. The P-C-P attributes model represents a framework for measuring service quality in an organization. It is based on three ranked levels including, pivotal, core and the peripheral. The pivotal attributes can be defined as the outputs of the service organization. These attributes focus mainly on the outcomes of the interactions between the customer and employees of the organization. The second level is the core attributes. These are centred around the pivotal attributes and have a key role to play in the service encounter. They represent all the people and the organizational processes which the customer has to interact with or negotiate in order to achieve the pivotal attribute (the outcome). The final level is the peripheral attributes. These are the incidental extras which the customer receives and which, from the view point of the customer, brings to the service delivery process completeness of the service encounter.

2.4.4 Gaps Model

The gaps model of measuring service quality is considered to be the best received and the most valuable contribution in the services literature (Brown & Bond III, 1995). The service gap model was developed by Parasuraman, Zeithaml and Berry (1988) in order to show the various activities that define service quality. The gap model shows the interaction between the organization activities and their linkages in the process of delivering quality service. The linkages represent gaps or discrepancies in service quality.

The first gap relates to the difference between the customers' expectations and management perceptions. This gap arises when the management is not aware of the customers' needs. It is as a result of lack of marketing research orientations, inadequate upward communication and too many layers of management. The second gap is the management perceptions versus service specifications gap. This gap arises when there is lack of commitment on quality service from the management. It also arises when there is no standardization and the absence of goal setting.

The third gap relates to the difference between the service specifications and the service delivery (Shahin, 2006). This gap arises due to role ambiguity and conflict, poor employee-job fit and poor technology-job fit, poor supervisory control systems, lack of perceived control and lack of teamwork. The fourth gap is the Service delivery versus external communication gap. This gap arises when there is lack of proper horizontal communication and the propensity to over-promise. The fifth gap is the discrepancy between customer expectations and their perceptions of the service delivered. This gap arises when there is a shortfall due to the influences exerted on the customers' side from past experience, personal needs and recommendations. The sixth gap represents the differences between the customers' expectations and the employee's perceptions. This is due to the difference in understanding

the customers' expectations and the employees' perceptions. The final gap is the seventh gap which represents the discrepancy between the employees perceptions and management perceptions. This gap arises from the difference in understanding the customers' expectations between the managers and the service providers. All the other gaps with the exception of the fifth gap are concerned with the way the service is delivered, whereas gap five relates to the customer and is considered to be the true measure of service quality (Shahin, 2006).

2.5 Challenges Faced in Implementing Service Quality Practices

Managers are faced with various challenges in the process of implementing service quality. Firstly, the comprehensive understanding of the customers' expectations is not easy. Consumers may not define quality in the same way as the managers do. Managers may view quality conceptually but the consumers may view quality as a form of the overall evaluation of a product, similar to attitude (Olshavsky, 1985). Secondly, lack of commitment to quality by the top management affects the implementation of quality practices. Managers cannot delegate quality. Many managers feel that the quality department is totally responsible for the quality of the services. When the service quality system lacks support from the top management, it is bound to fail (Miller & Cangemi, 1993). Thirdly poor communication of service quality requirements to the staff has continued to pose a challenge to the implementation of the service quality practices.

The capacity to shape the knowledge of service quality to fit a specific organization requires the establishment of an open communication with all levels of an organization. The top management should help their employees to answer such questions as: Where are our competitors? What are their strengths and weaknesses? What are our strengths and weaknesses? What are our most significant customers? How satisfied are they with what we are giving them? Fourthly the bureaucracies and predictable systems of the organization

discourage the implementation of new ways of improving service quality. In such cases, service quality programmers and practices are required to fit within this bureaucracy, management's comfort zone and the status quo (Olshavsky, 1985).

However, for quality to improve, emphasis must be placed on new strategies, new techniques and new ideas relating to what the customer thinks and what the market demands. Fifthly, when the workers are not empowered, they may not be able to support the proposed service quality improvement strategies. Workers should therefore be recognized just as important as the resources and customers. Being the internal customers of the organization, they are aware of the deficiencies of the services and service delivery processes (Martin, 1991).

2.6 Empirical studies

Mostafa (2005) carried out an empirical study of patient's expectations and satisfactions in Egyptian hospitals. The study involved the use of a cross-sectional questionnaire survey. A sample of 332 patients from 12 Egyptian hospitals participated in the study. He employed the use of the SERVQUAL model in his study and found a 67% variance between the expectations and perceptions of the patients (customers). A discriminate function was estimated for patients who selected public hospitals and those who selected private ones. The SERVQUAL model was found to be significant in influencing the choice of hospital by the patients. Boshoff and Gray (2004) studied the relationship between service quality, customer satisfaction and loyalty (as is measured by purchasing intentions) among the patients in the private healthcare industry in South Africa. The study revealed that the service quality dimensions of nursing staff empathy, assurance, and tangibles impact positively on the patients loyalty.

Marley et al., (2004) investigated the role of leadership, clinical quality and process quality on patient satisfaction in the hospitals of the United States of America (USA). The study

involved a causal model, hypothesized and evaluated using structural equation modeling for a sample of 202 hospitals. The study revealed that good leadership is a good construct in the determination of service quality. Further, the outcome showed that clinical and process quality are good intermediate outcomes in determining patient satisfaction.

Jabnoun and Rasasi (2005) studied the relationship between transformational leadership and service quality in the UAE hospitals. Data collected from 242 patients and 201 hospital employees showed that UAE patients were generally satisfied with the quality of service provided to them by the hospitals. The study also revealed that quality is positively related to all dimensions of transformational leadership.

A study conducted by Donnelly et al. (2006) on the quality of police services in Strathclyde Police, Scotland, found a significant shortfall in meeting the expectations of the customers. The study also identified various gaps in the police force including the formalization of service quality standards, the force's ability to meet set standards and the ability to deliver the level of service promised to the customers. However, a key limitation in this study is the use of the SERVQUAL model which lacked the discriminant validity between the five dimensions used by the model.

Various studies have been done in Kenya with regard to service quality. In a study seeking to establish the relationship between service quality and technology in the banking industry, Ombati (2007) found out that the level of service quality is highly influenced by the level of technology adopted by the banks. Customers were more satisfied with the services offered by the banks that had automated their services, particularly with regard to security of transactions, efficiency, accuracy of records and convenience.

In a study investigating the determinants of service quality by the national carrier, Kenya Airways, Tirimba (2012) focused on the dimensions of service quality that had a direct impact on customer satisfaction. This study found out that airline passengers at Kenya Airways were satisfied with security and safety, timely communication of changes in flight and weather conditions of the destinations, courtesy of the employees to the passengers and the provision of a variety of food to the passengers.

2.7 Summary of the Literature Review

The above literature review indicates that most of the researchers in service quality seem to focus on quality from the customer's point of view. The attribute theory, however, suggests that service quality can be viewed from the management's point of view. The management of service providers can determine the level of quality of their services by determining the inputs and the operations of the service delivery processes. However, in so doing they must also incorporate the views of the users (consumers). Sometimes, it is not easy to understand what the consumers want and as a result gaps in the service delivery processes exist. The bridging of these gaps have been the subject of many studies.

From the foregoing discussions, it is evident that although many studies have been done to assess the quality of services in various countries in the world, virtually no previous study have been conducted in the developing countries with a particular emphasis on evaluating the internal structures for enhancing service quality. This study aimed at filling this research gap by investigating the service quality practices employed by the public healthcare facilities in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research design used in the study. It also describes the population of the study, the data collection methods and the section on how the data collected was analyzed.

3.2 Research Design

The research design that was used in the study is a descriptive cross-sectional survey design. Descriptive research is a process of collecting data in order to test a hypothesis or to answer questions regarding the characteristics of the subject under study. It reports the way things are and is used to test the behavior, attitudes and characteristics (Gay et al., 2006). The research design was a survey where the participants answered questions administered through questionnaires. The design was cross-sectional in nature because it described the characteristics of the population at a given point in time. Descriptive survey was preferred in this study because the answers to the questions could be easily analyzed statistically.

3.3 Population of the study

The population of the study comprised of 26 public healthcare facilities in Mombasa County. These included the Coast Provincial General Hospital, the District Hospitals, and dispensaries. The list of the healthcare centers is included as Appendix 2. A census of all the health care facilities was taken because the population was considered small.

3.4 Data collection

The study used primary data. This data was collected using a structured questionnaire that was administered using 'drop-and-pick-later' method. The respondents were the administrators of the various healthcare facilities. The questionnaire comprised of 61 questions divided into four sections. Section A was about demographic data while Section B

sought information on various dimensions of service quality being employed in the healthcare facilities. Section C sought information on the practices employed in service quality monitoring and the final section (Section D) sought to investigate the various challenges encountered by the healthcare facilities in the application of service quality practices.

3.5 Data Analysis

The data collected was organized and checked for consistency, completeness and accuracy. It was then analyzed by calculating the descriptive statistics and the Pearson's Product Moment Correlation Coefficient. The descriptive statistics in this regard comprised of the mean and the standard deviation. The mean value is the average value for the various dimensions of service quality and the standard deviation indicates the spread on the dimensions.

3.5.1 The Mean (M)

$$M = \frac{1}{n} \sum_{i=1}^n u_i$$

Where n= is the population and M= Mean

3.5.2 The standard deviation (S)

$$S = \sqrt{\frac{\sum_{i=1}^n (x_i - u)^2}{n-1}}$$

where S= Standard Deviation, x_i =individual score, u =Mean of all scores and

n =sample size.

3.5.3 Pearson's Product Moment Correlation Coefficient (γ)

Pearson Correlation is a measure of the strength of association between two variables. It is measured by the Pearson's Product Moment Correlation Coefficient (γ). The value of the correlation can range from between +1 and -1. A minus one indicates negative correlation and the plus one indicates positive correlation. A correlation coefficient of zero indicates no

correlation (Lucey & Lucey, 2007). The Pearson's Product Moment Coefficient is calculated as follows:

$$r_{xy} = \frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}}$$

where r_{xy} = The Pearson's Product Moment Correlation Coefficient between x and y , x and y = individual score for x and y observations. The Correlation coefficients sought to examine the relationship between the various dimensions of service quality taken two at a time (for example reliability and responsiveness)

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter comprises the analysis of the data collected. The demographic information of the respondents is analyzed followed by the analysis of the various dimensions of service quality. The relationships between the dimensions of service quality are examined and finally a test of independence is carried out on the dimensions of service quality and the classes of the healthcare facilities.

4.2 Demographic Information

The data was collected using a structured questionnaire that was administered to all the 26 public health facilities in the County of Mombasa. Out of the 26 questionnaires, 23 were returned representing a response rate of 88%. 69% of the respondents were female. There is only one provincial hospital in the county and three district hospitals. The responses from the province and district hospitals were received.

4.2.1 Sector of Public Service

All the respondents are officials of the County Government of Mombasa as is shown in Table 4.1. This is because the healthcare facilities in the county form part of the functions devolved to the county governments from the National Government.

Table 4.1: Respondents Sector of Public Service

Sector of Public Service	Frequency	Percentage (%)
County Government	23	100
National Government	0	0
Total	23	100

4.2.2 Training on service Quality

The study shows that 65% of the staff managing service quality in the these facilities have been trained on service quality management. This indicates that there are some managers who have not been trained on service quality management (34%) implying that in some facilities, delivery of quality services may be comprised. The results are summarized in Table 4.2.

Table 4.2: Training on Service Quality

Respondents	Frequency	Percentage (%)
Respondents trained	15	65
Respondents not trained	8	35
Total	23	100

4.2.3 Position in Management

The research shows that most of the managers entrusted with quality service in the facilities are line managers. 22% of the service quality managers are part of the top management, 35% are part of the middle level management and the remaining 43% are line managers. All the service quality managers in the district hospitals and the provincial general hospitals are part of the top management team. This may explain why the higher level facilities provide superior quality compared to the lower level facilities. The summary results are shown in Table 4.3.

Table 4.3: Management Levels of Service Quality Managers

Management level	Frequency	Percentage (%)
Top Level	5	22
Middle Level	8	35
Line management	10	43
Total	23	100

4.2.4 Work Experience

Most of the employees entrusted with managing service quality in the facilities have no more than 5 years experience in this position. 48% of the respondents stated that they have between 0 and 5 years of experience in the management of these facilities. 35% of the respondents have had experience of between 6 and 10 years while 4% indicated having had experience of between 10 and 16 years. Most of the highly experienced managers are serving at the provincial general hospital and the district hospitals. The summary results are shown in Table 4.4.

Table 4.4: Working Experience of the Facilities Managers

Years of Experience	Frequency	Percentage (%)
0-5	11	48
6-10	8	35
10-15	1	4

16-20	1	4
Above 20	2	9
Total	23	100

4.2.5 Patients Served per day by the Facilities

The Provincial general hospital and the district hospitals serves both inpatients and outpatients. All the dispensaries serve outpatients only.

4.2.5.1 Outpatients

The information on the number of the outpatients served daily is indicated in Table 4.5. It can be observed that 22% of the facilities serve outpatients ranging from 0-50 daily while 52% serve between 50-100 outpatients daily. Only 1 of the facilities (4%), the Coast Provincial General Hospital, serves over 1000 outpatients daily. 9 % of the respondents did not indicate the range of the number of outpatients served.

Table 4.5: Daily Outpatients Served

Outpatients range	Frequency	Percentage (%)
0-50	5	22
50-100	12	52
100-500	3	13
500-1000	0	0
Over 1000	1	4
No Response	2	9
Total	21	100

4.2.5.2 Inpatients

The inpatients services are provided by 4 facilities only. 75% of these facilities serves between 0-50 inpatients only while 25% of the facilities serve over 500 inpatients daily. The information on inpatient services is provided in Table 4.6.

Table 4.6: Daily Inpatients Served

Inpatients range	Frequency	Percentage (%)
0-50	3	75
50-100	0	0
100-200	0	0
200-500	0	0
Over 500	1	25
Total	4	100

4.2.6 Medical staff in the Health Sector

The study shows that most of the medical staff are stationed at the Coast Provincial General Hospital, The district hospitals also have doctors, clinical officers and nurses but all the dispensaries are ran by clinical officers or registered nurses.

4.2.6.1 Number of Doctors in the facilities

It can be observed from table 4.7 that 26.1% of the healthcare facilities have no medical doctor while 65.2% of the facilities have less than 5 doctors, 4% of these facilities have more than 40 doctors. This is because most of the medical doctors are attached to the provincial general hospital and the district hospitals.

Table 4.7: Number of Doctors in the Facilities

Number of Doctors	Frequency	Percentage (%)
0	6	26.1
0-5	15	65.2
6-10	1	4.35
10-20	0	0
20-30	0	0
30-40	0	0
Over 40	1	4.35
Total	23	100

4.2.6.2 Number of Nurses in the facilities

Table 4.8 indicates that 70% of the facilities have less than 5 nurses while 13% of the facilities have more than 40 nurses. This implies a shortage of medical personnel given the high number of outpatients and inpatients attending these facilities daily.

Table 4.8: Number of Nurses in the Facilities

Number of Nurses	Frequency	Percentage (%)
0-5	16	70
6-10	2	9
10-20	1	4
20-30	1	4
30-40	0	0
Over 40	3	13
Total	23	100

4.2.6.3 Number of Clinical officers in the facilities

Most of the facilities have less than 5 clinical officers standing at 78% while a few (9%) have 6-10 clinical officers. 4% of the facilities have between 30-40 clinical officers and this perhaps represents the provincial general hospital and some district hospitals. Table 4.9 shows the distribution of clinical officers in the facilities.

Table 4.9: Number of Clinical Officers the Facilities

Number of Clinical	Frequency	Percentage (%)
0-5	18	78
6-10	2	9
10-20	2	9
20-30	0	0
30-40	1	4
Over 40	0	0
Total	23	100

4.3 Dimensions of service quality

The study sought to investigate the extent to which the healthcare facilities in Mombasa County are adopting quality service practices. In this regard, the research concentrated on various dimensions of service quality including the tangibles, reliability, responsiveness, assurance, empathy, competence, access, courtesy, communication, credibility and safety. The respondents were asked to rate on a scale of 1 (strongly agree) to 5 (strongly disagree) the extent to which they agreed with the statements on each of the dimensions. The overall means as also shown (the mean score is 2.5). The following section discusses the results.

4.3.1 Tangibles

The respondents were asked various questions regarding the tangibles dimension. This related to the availability of modern equipment, appearance of the physical facilities, the professional appearance of the medical staff, cleanliness of the rooms, availability of power for emergency and quality of meals. The results are summarized in Table 4.10.

Table 4.10: Tangibles Dimension

Dimension	Mean	Std Deviation	Rank
Availability of Modern Equipment and machines	3.00	1.45	6
Visually appealing facilities such as buildings, lawns, furniture etc	2.74	1.39	4
Smart professional appearance of nurses and doctors	2.3	1.18	2
Clean inpatient rooms and balanced food portions	1.74	0.81	1
Available power for emergency	2.5	1.34	3
Power back up available	3.27	1.72	7
The food is always balanced and good in portion	2.82	1.33	5
Overall Mean	2.68		

The results indicate that most of the healthcare facilities have clean rooms and the medical staff have been professional in their appearance. This boosts the confidence of the patients. However, even though most of the facilities have been provided with power supply, lack of power backup in times of power outages still remain a great challenge to the facilities. This makes it difficult to attend to emergencies. The overall assessment of the tangibles (2.68 points) is below average.

4.3.2 Reliability

Under this dimension the respondents rated various aspects on reliability of the service provided including provision of services as promised, accuracy of treatment, speed of the registration process and the accuracy of patients records. The summary of the results are

indicated in Table 4.11. The overall mean score of 1.6 shows that most facilities are practicing the dimension of reliability in service delivery.

Table 4.11: Reliability Dimension

Dimension	Mean	Std Deviation	Rank
The hospital always provide services as promised	1.52	0.51	2
Speed of registration of patients is satisfactory	1.48	0.59	1
Patients always get accurate treatment	1.83	0.89	4
Patients' records are always accurate	1.57	0.66	3
Overall mean	1.6		

The results under this dimension show that patients are registered fast enough and most of the facilities provide services as promised. However, in some cases the patients are not provided with accurate treatment, perhaps due to the poor status of the equipment for diagnosis. Most of the patients' data is processed manually and hence the poor system of recording patient data. The overall mean of 1.6 under the reliability dimension is above average. This implies that most healthcare facilities are practicing this dimension.

4.3.3 Responsiveness

This dimension was concerned with responses regarding the way the medical staff tackles the requests from the patients, their enthusiasm in helping patients and patients' privacy during consultations. The summary of the findings is shown in Table 4.12.

Table 4.12: Responsiveness Dimension

Dimension	Mean	Std Deviation	Rank
The staff responds to patients requests satisfactory	1.70	0.82	3
The staff are desirous of helping patients	1.52	0.67	1

The patients are afforded individualized attention and are cared for	1.52	0.59	1
Overall Mean	1.58		

The results indicate that the staff are desirous of helping the patients and they accord them individualized attention. This helps in boosting the patients' confidence. However, some of the staff are not able to respond to all the patients' request satisfactorily. This is true in most of the dispensaries because they do not have medical doctors but clinical officers and registered nurses. The overall evaluation of this dimension shows a mean score of 1.58 which is above average. This implies that responsiveness as a dimension of service quality is highly practiced by the facilities.

4.3.4 Assurance

This dimension sought the responses relating to the assurance of quality services on the patients. It therefore related to the ability of the facility to handle patients' problems, security of the patients rooms, attitude of the medical staff and their ability to instill confidence in patients. The results are summarized in Table 4.13.

Table 4.13: Assurance Dimension

Dimension	Mean	Std Deviation	Rank
The hospital is able to handle patients problems	1.83	0.58	3
Doctors and other employees are able to instill confidence to the patients	1.61	0.72	2
The rooms are always secure	2.18	1.07	4
The attitude of the nurses to the patients is satisfactory	1.48	0.59	1
Overall Mean	1.77		

The results reveal that most of the medical staff have a positive attitude and hence being able to instill confidence to the patients. However, most of the facilities do not guarantee the safety of the patients and their belongings. Most of the patients therefore have to take personal precautionary measures to safeguard their belongings. The assurance dimension has an average score of 1.77 which is above average. This means that this dimension is widely adopted by the facilities in their service delivery processes.

4.3.5 Empathy

Empathy related to how the doctors and nurses are attentive to patients, the convenience of consulting hours and the care accorded to the patients by the medical staff. The summary results are indicated in Table 4.14.

Table 4.14: Empathy Dimension

Dimension	Mean	Std Deviation	Rank
The nurses are attentive to patients	1.61	0.58	2
The hospitals has convenient consulting hours	1.87	0.92	3
Doctors are caring to the patients	1.50	0.61	1
Overall Mean	1.66		

The results indicate that most doctors and nurses are attentive and caring to the patients. However, some of the facilities do not have convenient consulting hours. This is much so in the dispensaries which operate during the day only and hence not available at night. This makes it difficult to attend to emergencies arising at night. The mean score for the empathy dimension is 1.66 which is above average. This shows that empathy is among the most practiced dimensions of service quality by the facilities.

4.3.6 Competence

This dimension related to the qualifications and competences of the medical staff. It also sought to examine the reputation of the medical staff. The results are shown in table 4.15.

Table 4.15: Competence Dimension

Dimension	Mean	Std Deviation	Rank
All doctors and nurses are well qualified	1.43	0.51	2
All doctors and nurses are well experienced	1.35	0.49	1
All doctors and nurses have good reputation	1.52	0.59	3
Overall mean	1.43		

The results indicate that all the doctors and nurses are well qualified. This may be because only registered medical officers are deployed to these facilities. Most of the medical staff have enough experience to run the facilities. However, some of them do not have a good reputation in handling patients. The overall mean score of 1.43 gives the highest mean score for all dimensions practiced in the facilities. This implies that the competence dimension is the most practiced dimension of service quality in the healthcare facilities.

4.3.7 Access

Access relates to the availability of the medical staff at all times and the number of rounds conducted by the doctor for the inpatients. The results for this dimension are indicated in Table 4.16.

Table 4.16: Access Dimension

Dimension	Mean	Std Deviation	Rank
There is always a doctor available for the patients	1.7	0.93	1
The number of rounds taken by the doctor are satisfactory	1.86	0.95	2

Overall mean	1.78
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The results show that most of the facilities have a medical staff available for consultation and treatment at all times. The number of rounds conducted by the doctors for inpatients are also satisfactory. This is because all the dispensaries have a clinical officer or nurse in-charge at all times and the provincial general hospital and the district hospitals which officer inpatient services have many doctors for conducting ward rounds. The access dimension has a mean score of 1.78 indicating an above average mean score. This implies that this dimension is widely practiced.

4.3.8 Courtesy

Courtesy relates to the politeness of the medical staff to the patients and the way they treat the patients. The summary results on this dimension are indicated in Table 4.17.

Table 4.17: Courtesy Dimension

Dimension	Mean	Std Deviation	Rank
The hospital staff are always polite to patients	1.61	0.66	2
Patients are treated with dignity and honor	1.39	0.58	1
Overall mean	1.5		

Table 4.17 shows that most of the medical staff are polite to the patients and they treat them with honor and dignity. This is perhaps because the medical staff are competent and qualified professionals. Courtesy dimension has an overall mean score of 1.5 which is among the best mean scores. This implies that most of the facilities practice courtesy in service delivery processes.

4.3.9 Communication

The responses on this dimension related to how the process of registration, billing and dispensing of drugs have been computerized. It also sought information on the availability of counseling facilities in the institutions. The results are shown in Table 4.18.

Table 4.18: Communications dimension

Dimension	Mean	Std Deviation	Rank
There is a computerized registration facility	3.30	1.61	2
There is a computerized billing facility	3.83	1.40	3
The is a counseling facility for patients	1.43	0.59	1
The pharmacy is computerized	3.83	1.40	3
Overall mean	3.1		

The results show that most of the facilities have counseling facilities for patients. They have designated counselors in the facility. However, almost all the facilities do not have computerized systems. Only a few have partially computerized the billing systems and the registration process. Most of the processes are conducted manually in the other facilities. This probably explains the poor recording systems of patients' data as was observed earlier. The dimension of communication has an overall mean score of 3.1. This is poorest of all overall mean scores. This means that communication as a dimension of service quality is least practiced in the healthcare facilities.

4.3.10 Credibility

This dimension relates to how trustworthy the medical staffs are to the outpatients and the faith that patients have in them. The summary results are shown in the Table 4.19.

Table 4.19: Credibility Dimension

Dimension	Mean	Std Deviation	Rank
Doctors are trustworthy	1.71	0.64	2
Patients have faith in the doctors and nurses	1.57	0.60	1
Overall Mean	1.64		

The results indicate that most of the doctors are reputable and the patients have faith in them. This is perhaps because of the high level of competence and experience of the medical personnel as was observed earlier. The overall mean score for credibility dimension is 1.64 which is above average.

4.3.11 Safety

This dimension relates to the general security of the facility as well as the awareness of patients in regard to the dangers of fire. The findings are shown in table 4.20.

Table 4.20: Safety Dimension

Dimension	Mean	Std Deviation	Rank
There is an alarm provided in case of danger	3.22	1.51	4
There is fire proof arrangement	3.17	1.40	3
There are clear instructions in case of fire	2.96	1.22	2
The general safety of patients and their items is satisfactory.	2.57	1.21	1
Overall mean	2.98		

The results indicate that most of the facilities do not have arrangements for safety in case of fire. The patients and staff are not aware what to do in case of fire and there are no alarms or clear instructions when fire arises. The overall mean score for the safety dimension is 2.98.

This is among the poorest scores indicating that most facilities are not embracing safety of patients as a key dimension of service quality in the facilities.

4.3.12 Overall Evaluation of the Dimensions

The overall assessment of the various dimensions of service quality in the healthcare facilities is shown in Table 4.21.

Table 4.21: Overall Assessment of the Dimensions

Dimension	Overall Mean	Rank
Tangibles	2.68	9
Reliability	1.6	4
Responsiveness	1.58	3
Assurance	1.77	7
Empathy	1.66	6
Competence	1.43	1
Access	1.78	8
Courtesy	1.5	2
Communication	3.1	11
Credibility	1.64	5
Safety	2.98	10

Table 4.21 shows that the highest ranked quality dimension is competence ((Overall mean score = 1.43), followed by courtesy ((Overall mean score = 1.5). This implies that most of the facilities have competent and experienced medical staff. It also shows that in most facilities, the staff are courteous and they treat the patients with honor and dignity. The third most practiced dimension of service quality is responsiveness (Overall mean score = 1.58).

The medical staff also responds to the patients' complaints with speed and the patients are accorded the required privacy and individualized attention. Communication remains the greatest hurdle in the provision of quality services to the patients. Its overall mean is the worst, standing at 3.1. The processes in the facilities such as patients' registration, billing, discharge and drugs dispensing should be computerized.

4.4 Relationships Between the dimensions

The mean scores for all the dimensions of service quality were tabulated and the Pearson Correlation Coefficient for each pair of the dimensions was calculated and the following values were obtained. The correlation matrix of the dimensions is shown in table 4.22.

Table 4.22: Correlation Matrix

	Tangibles	Reliability	Responsiveness	Assurance	Empathy	Competence	Access	Courtesy	Communication	Credibility	Safety
Tangibles	1.00										
Reliability	0.25	1.00									
Responsiveness	0.01	0.67	1.00								
Assurance	0.40	0.63	0.61	1.00							
Empathy	0.17	0.69	0.74	0.66	1.00						
Competence	0.33	0.70	0.71	0.78	0.74	1.00					
Access	0.20	0.59	0.70	0.63	0.56	0.37	1.00				
Courtesy	0.29	0.89	0.75	0.72	0.70	0.66	0.74	1.00			
Communication	(0.01)	(0.46)	(0.36)	(0.35)	(0.41)	(0.22)	(0.37)	(0.47)	1.00		
Credibility	0.14	0.57	0.66	0.42	0.31	0.41	0.71	0.69	(0.36)	1.00	
Safety	0.48	0.01	0.07	0.14	(0.28)	0.06	0.16	0.06	0.07	0.52	1.00

The study shows that there is a high correlation between courtesy and reliability (0.89). This may be related to the competence of the staff at the health facilities because both dimensions relies largely on the competence of the staff. Competent staff are able to treat the patients with dignity and honor and are able to make accurate diagnosis and treatment. The lowest

level of negative correlation is observed between the dimensions of reliability and communication (-0.46). In this study, the dimension of communication sought to identify efficiency and reliability of communication systems especially through computerization. It was found that communication has a negative correlation with all the other dimensions. However, there was a marked negative correlation between the dimension of communication and reliability.

The study also showed that there is a very little correlation between the responsiveness and tangibles. This means that improving the physical facilities of the healthcare centres cannot make the facility to be more responsive to the needs of the patients. This is because responsiveness in this case relates to the characteristics of the hospital and medical staff. It refers to the speed with which the hospital staff respond to the patients needs and how they accord them individualized care. It was also observed that the correlation between the dimension of safety and reliability is too low to be relied upon. This is because the reliability aspect of the service relates to the treatment process but the safety dimension is concerned to responses in case of danger and the general safety of the environment within the facility.

The correlation between the dimensions of assurance and competence is generally high, standing at 0.78. This indicates that the quality of medical staff determines their ability to deliver promised services to the patients. When the health facilities employ competent staff, they are able to maintain the right attitude to the patients, handle patient's medical problems and instill confidence to the patients. In this regard therefore, a health facility can greatly improve the assurance on the patients by engaging qualified and competent medical staff. The correlation between the dimensions of responsiveness and courtesy was also observed to be high, standing at 0.75. This indicates that when the hospital staff are responding to the

needs of the patients with speed and affording them the required individualized attention, they also treat them with dignity and honor.

It is also important to note that the dimension of safety seem to be isolated from most of the other dimensions of service quality. This is indicated by relatively low correlation coefficients in comparison with the other dimensions. This is perhaps because this dimension is unique in its practice. It relates to the preparedness of the facilities in cases of fire and other emergencies and the general safety of the patients. There are other forms of regulations relating to safety such as statutory requirements that may not be necessarily driven by the desire to please the patients.

4.5 Quality Monitoring

This section sought information relating to the measures employed by the facilities in monitoring service quality. This included profiling of patient data, compliance with medical and doctors appointments and compliance with the treatment plane. It also include employee and patient satisfaction. The availability of a Quality Policy statement was also considered. The summary of the results is shown Table 4.23.

Table 4.23: Quality Monitoring

Dimension	Mean	Std Deviation	Rank
Patient data is profiled and used for service planning	1.00	0	1
Compliance with medication is monitored	1.00	0	1
Compliance with appointments schedule is monitored	1.00	0	1
Compliance with a treatment plan is monitored	1.00	0	1
Job satisfaction of the employees is evaluated	1.43	0.51	6
General patient satisfaction surveys are conducted	1.35	0.49	5

The hospital has a comprehensive quality system	1.43	0.51	6
The hospital has a Quality policy statement	1.52	0.51	8
The quality policy statement is displayed conveniently for the patients to see	1.61	0.50	9
Overall Mean	1.26		

The results indicate that in all the facilities, the patients' data is profiled, compliance of medication and treatment plans and appointments schedules are monitored. However, most of the facilities do not have quality statements and some of the facilities with quality policy statements have not displayed them conveniently for patients to see. This means that not all the medical staff are quality conscious and that in some facilities, the patients are not aware of such quality policy statements.

4.6 Challenges Encountered in Implementing Service Quality Practices

This section sought to establish the challenges facing the facilities in the process of providing quality service to patients. The information relates to professional training in service quality, adequacy of medical personnel, funding, staff motivation, senior management support and communication. The results are shown in Table 4.24.

Table 4.24: Challenges in Implementing service Quality Practices

Dimension	Mean	Std Deviation	Rank
Lack of professional training in service quality management	2.57	1.08	6
Inadequate staff	1.57	0.73	2
Lack of funds	1.30	0.47	1
Low staff motivation	1.65	0.65	3
Lack of support from senior management	1.96	0.93	4

Poor Communication	2.17	0.89	5
Overall Mean	1.87		

The respondents believe that the main challenge affecting the implementation of service quality practices is lack of funds. This is perhaps because most of the dimensions of service quality require adequate funding. Lack of adequate medical staff also poses a great challenge in service quality. Another challenge to providing quality service in these facilities is poor communication. This supports the findings on the dimension of communication which indicates poor communication in the facilities. The findings also show that professional training in service quality is not a major challenge in providing quality service. This was observed earlier with 65% of the respondents indicating that they have been trained in service quality management.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter comprises of the summary of the findings and the discussions. It also contains the conclusion of the study as well as the recommendations on the findings observed. Finally, it contains a section on suggested areas for further research.

5.2 Summary

The findings of the research indicate that the level of adoption of service quality practices by the public healthcare facilities in Mombasa County is very low. Only a few have succeeded in the adoption of these practices. The various dimensions of service quality practiced by the healthcare facilities include the tangibles, reliability, responsiveness, assurance, empathy, competence, access, courtesy, communication, credibility and safety.

The study also showed that the level of application of these quality dimensions differ, with some being more emphasized than others. The most emphasized dimensions are competence, courtesy responsiveness, reliability and credibility. Some of the dimensions, though important, are not being emphasized. These include communication, safety the tangibles and access. The most practiced service quality dimension is competence and the least practiced is communication.

The study showed that among the challenges being faced by the healthcare facilities in practicing service quality dimensions are lack of funds, inadequate staff, low staff motivation, lack of support from senior management poor communication and lack of professional training in service quality management. The highest ranking challenge among these is lack of funds and the lowest ranking is lack of professional training in service quality management.

5.3 Conclusions

The study shows that most of the health facilities have adopted some service quality practices but in varied measures. The service quality dimensions adopted include tangibles, reliability, responsiveness, assurance, empathy, competence, access, courtesy, communication, credibility and safety. This is similar to the findings of Berryl et al. (1985) which showed that customers' expectations are rarely concerned with a single aspect of the service package but with many aspects. The study showed that competence of the staff is the most practiced service quality dimension. The study also showed that competence and courtesy has the highest correlation coefficients with all other dimensions. This may be an indication that competence of the healthcare facility staff has the greatest effect on customer satisfaction. This finding concurs with the findings of a study conducted by Andaleeb (1998) which showed that the perceived competence of the medical staff and their demeanor have the greatest impact on customer satisfaction.

The study also established the various challenges facing the health facilities in the provision of quality service. These include lack of funds, inadequate staff, low staff motivation and lack of support from senior management. Donnelly et al. (2006), while conducting an investigation of the service quality in Strathclyde Police, Scotland, found out that the major shortfall was on reliability. The police were not able to deliver the services as promised. The study by Donnelly (2006) also showed that resource constraints was the major hindrance in providing quality service to the citizens. This is consistent with the findings of this study where lack of adequate funding is ranked as the number one challenge in proving quality service to the patients.

5.4 Recommendations

The findings indicate that most of the health facilities in Mombasa County are adopting service quality practices. The provincial general hospital and the district hospital provides superior service quality compared to the dispensaries. The main challenge facing the facilities was observed to be inadequate funds and inadequate staff. The national government may raise level of some of the dispensaries to district hospitals and include outpatient and inpatients services. This will increase the allocation of funds for these facilities from the national government and ensure that adequate staff are deployed to the facilities. This will also ensure that the patients are provided with convenient consulting hours where emergencies occurring at night can be attended to.

The health facilities should endeavor to employ competent and experienced medical staff to run the facilities. This is because most if the dimensions of service quality such as reliability, courtesy, credibility and assurance depend on the competence of the medical staff. If the staff are not competent, most of the service quality dimensions will be compromised and the reverse is also true.

The national government and the county government should ensure that all the staff working within the facilities are trained on service quality. Some service quality dimensions such as courtesy and empathy have great value to the patient yet they do not cost much to the facility. The hospital staff should be trained on how to conduct themselves when dealing with the patients to instill confidence to the patients.

5.5 Limitations of the Study

This study has a few limitations. Firstly, most of the respondents were not always available to complete the questionnaires. The researcher had to travel long distances to drop and pick

the questionnaires. Consequently some questionnaires were not returned. Secondly, most researchers are of the view that service quality should be viewed from the customers' point of view. However, this study evaluates service quality from the management's point of view. Thirdly, patients in the public healthcare facilities are viewed as customers, in the same way they are viewed in the private sector. Using the private sector evaluation to assess the performance of the public sector may not be the best assessment because of the uniqueness of the public sector. It was also assumed that the private sector has no influence in the running of the public healthcare facilities. This may not be the case because some organizations provide funding and staffing to these facilities and this boost the level of service quality.

5.6 Suggestions for Further Research

The research aimed at determining the extent to which public healthcare facilities in Mombasa County adopt service quality practices and to determine the kind of service quality dimensions adopted by these facilities. Further research may be conducted by comparing the level of quality service in public facilities in the county with that of private healthcare facilities. Additionally, it may be important to investigate the level of quality service in a certain class of public healthcare facilities in Kenya (for example comparing the level of service quality in all provincial general hospitals in the country). Further studies can also be conducted to establish the relationship between service quality practices and important health variables such as the number of recoveries, repeat infections after treatment in the same facility or the number of deaths in a healthcare facility

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Appendix 1: Questionnaire

TOPIC: SERVICE QUALITY PRACTICES IN PUBLIC HEALTHCARE CENTERS IN MOMBASA COUNTY, KENYA.

Dear respondent, this is to assure you that every information provided on this questionnaire will be treated as confidential. It will only be for the purposes of the topic understudy.

Please do not indicate your name

Answer by ticking the appropriate box where applicable

SECTION A: DEMOGRAPHIC INFORMATION

1. Sex : Male Female

2. In which sector of public service are you deployed?

National government County Government

Others (Specify) _____

3. Have you ever received any training on service quality?

Yes No

4. What position do you currently hold at your place of work?

Top Management Middle Management Line Management

Others (Specify) _____

5. How many years have you held this position?

0-5 years 6-10 years 10-15 years

16-20 years Above 20 years

6. How many patients does your health centre serve per day?

Out patients

0-50	50-100	100-500	500-1000	Over 1000

In patients

0-50	50-100	100-200	200-500	Over 500

7. How many medical staff in the following categories do your health center have?

	0-5	6-10	10-20	20-30	30-40	Over 40
Doctors						
Nurses						
Lab technologist						
Radiologist						
Pharmacists						
Clinical officers						
Medical Interns						

Section B: Dimensions and practices of service quality

- **Tangibles**

		Strongly Agree	Agree	Not sure	Disagree	Strongly disagree
8	The hospitals has modern equipment for diagnosis and treatment					

9	The hospital has visually appealing facilities (buildings, lawns, furniture etc					
10	Doctors and nurses have smart professional appearance					
11	The patient rooms are always clean and calm					
12	Electrify is always available for emergency					
13	There's is back up for power black					
14	The food is always balanced and good in portion					

- **Reliability**

		Strongly Agree	Agree	Not sure	Disagree	Strongly disagree
15	The hospital always provide services as promised					
16	Speed of registration of patients is satisfactory					
17	Patients always get accurate treatment					
18	Patients' records are always accurate					

- **Responsiveness**

19	The speed of responding to patients', complaints					

	is satisfactory					
20	There is desire among the staff for helping patients					
21	The patients are accorded individualized attention and are cared for					

- **Assurance**

		Strongly Agree	Agree	Not sure	Disagree	Strongly disagree
22	The hospital is able to handle patients problems					
23	Doctors and other employees are able to instill confidence to the patients					
24	The inpatient rooms are always secure					
25	The attitude of the nurses to the patients is satisfactory					

- **Empathy**

		Strongly Agree	Agree	Not sure	Disagree	Strongly disagree
26	The nurses are attentive and patient to patients					
27	The hospital has convenient consulting hours					
28	Doctors are caring to the patients					

- **Competence**

		Strongly Agree	Agree	Not sure	Disagree	Strongly disagree
29	All doctors and nurses are well qualified					
30	All doctors and nurses are well experienced					
31	All doctors and nurses have good reputation					

- **Access**

		Strongly Agree	Agree	Not sure	Disagree	Strongly disagree
32	There is always a doctor available for the patients					
33	The no of rounds taken by the doctor for in-patients are satisfactory					

- **Courtesy**

		Strongly Agree	Agree	Not sure	Disagree	Strongly disagree
34	The hospital staff are always polite to patients					
35	Patients are treated with dignity and honor					

- **Communication**

		Strongly Agree	Agree	Not sure	Disagree	Strongly disagree

		Agree		sure		disagree
36	There is a computerized registration facility					
37	The is a computerized billing facility					
38	The is a counseling facility for patients					
39	The pharmacy is computerized					

- **Credibility**

		Strongly Agree	Agree	Not sure	Disagree	Strongly disagree
40	Doctors are trustworthy					
41	Patients have faith in the doctors and nurses					

- **Safety**

		Strongly Agree	Agree	Not sure	Disagree	Strongly disagree
43	There is an alarm provided in case of danger					
44	There is fire proof arrangement					
45	There are clear instructions in case of fire					
46	The general safety of patients and their items is satisfactory.					

Section C: Quality Monitoring

(tick {√} as appropriate)

		Yes	No
47	Patient data is profiled and used for service planning		
48	Compliance with medication is monitored		
49	Compliance with appointments schedule is monitored		
50	Compliance with a treatment plan is monitored		
51	Job satisfaction of the employees is evaluated		
52	General patient satisfaction surveys are conducted		
53	The hospital has a comprehensive quality system		
54	The hospital has a Quality policy statement		
55	The quality policy statement is displayed conveniently for the patients to see		

Section D: Challenges Encountered in Implementing Service Quality Practices

The following challenges affect the implementation of service quality practices

		Strongly Agree	Agree	Not sure	Disagree	Strongly disagree
56	Lack of professional training in service quality management					

57	Inadequate staff					
58	Lack of funds					
59	Low staff motivation					
60	Lack of support from senior management					
61	Poor Communication					
	Others (Specify)					

Appendix 2: List of Public Healthcare Facilities in Mombasa County

1	Chaani dispensary
2	Coast Provincial General Hospital
3	Ganjoni Dispensary
4	Innoculation Clinic
5	Jomvu CDF Dispensary
6	Jomvu kuu dispensary
7	Kisauni CDF Dispensary Mlaleo
8	Kisauni Dispensary
9	Likoni district hospital
10	Majengo Dispensary
11	Magongo dispensary
12	Mikidani dispensary
13	Miritini dispensary
14	Mtongwe dispensary
15	Mvita Dispensary
16	Mwakirunge Dispensary
17	Mwembe Tayari Staff Clinic
18	Old Town Dispensary

19	Old Town Staff Clinic
20	Port reitz district hospital
21	Shika adabu dispensary
22	Maunguja Dispensary
23	Tudor district hospital
24	Utange Dispensary
25	Bamburi Dispensary
26	Kongowea Dispensary