

**EXPLORING FACTORS INFLUENCING SATISFACTION WITH
OUTPATIENT SERVICES AT NHC MAISHA CLINICS IN A PERI-
URBAN SETTING IN NAKURU COUNTY, KENYA.**

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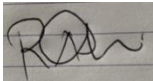
**SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF A MASTER'S DEGREE IN
BUSINESS ADMINISTRATION AT STRATHMORE UNIVERSITY**

2024

DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the dissertation contains no material previously published or written by another person except where due reference is made in the thesis itself.

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ABSTRACT

Patient satisfaction occurs when healthcare providers surpass their expectations in the delivery of high-quality health services. Improvement of patient trust in hospital setups necessitates the delivery of high-quality service by health providers. This study was motivated by an analysis of patient complaints at NHC-Maisha, some of which included dissatisfaction with service delivery particularly at the smaller health facilities. This study aims to assess patient satisfaction with outpatient health care provision at NHC-Maisha, a private health care provider in a peri-urban setting in Naivasha sub-County, Nakuru County. A descriptive cross-sectional study was conducted. The study adopted simple random sampling techniques and sampled 324 patients across the three branches of NHC-Maisha. Data was collected using the *Health-qual* scale. This scale was designed to measure user satisfaction with hospital service quality. The data was collected using a structured questionnaire and analysed using descriptive statistics, ANOVA and multiple regression. The findings showed that the average patient satisfaction was 4.254, SD = 0.777. Further, the satisfaction score based on the data collected was 60.77%. The findings indicated that there was an association between the sociodemographic factors such as gender and satisfaction with health services. The regression analysis showed all the dimensions of quality of care significantly influenced patient satisfaction positively, with the most significant effects being from the presence of empathy and perception of the safety of care followed by tangibles and efficiency. The results from this study will inform policy initiatives and interventions at healthcare facilities aimed at improving the quality of care and raising user satisfaction with health services. The study provides evidence that all four of the health service quality elements in the *Health-qual* scale - empathy, tangibles, safety, and efficiency have positive significant effects on patient satisfaction with outpatient service at NHC-MAISHA. This study recommends that further comparative research be done between Government and private hospitals to better understand the different implementation factors that might contribute to influencing the quality of healthcare services at the outpatient sections and patient satisfaction in hospitals.

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DEDICATION

I dedicate this work to almighty God for the gift of life during my study and my family for the endless support.



ACKNOWLEDGEMENT

I thank the almighty God for good health during this academic journey. Special appreciation goes to my family for their endless support, their prayers kept me going even in difficult times. Special appreciation also goes to my supervisor, Dr Jackline Oluoch-Aridi and Professor Frank Wafula for the endless guidance during the study. Your directions made the work understandable.

I also thank Strathmore University for the ample environment that made my study. Thanks to my classmate for the encouragement and teamwork.



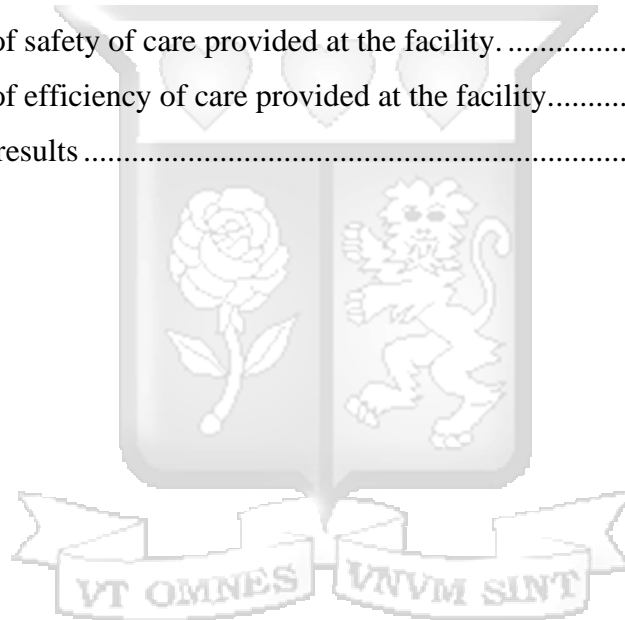
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LIST OF ABBREVIATIONS

DMOH	District Medical Officer of Health
HCAHPS	Hospital Consumer Assessment of Healthcare Providers & System
HEALTH-QUAL	Health Quality
KNH	Kenyatta National hospital MOH Ministry of Health
NHC	Ndonyo Healthcare
NHIF	National Hospital Insurance Fund
NPS	Net Promoter Score
OPD	Out-Patient Department
SDG	Sustainable Development Goals
SERVQUAL	Service Quality
UN	United Nations
WHO	World Health Organisation



CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Patient satisfaction has increasingly been recognized as an important outcome for the healthcare delivery system and has received massive awareness and attention from several diverse stakeholders ranging from health providers, researchers, to policymakers and has been identified as an indispensable component of high-quality healthcare systems (Institute of Medicine, 2001). Patients who are more satisfied with their care are more likely to feel empowered, involved in their care, and follow their doctor's recommendations, resulting in better health outcomes (Dupree *et al.*, 2011). According to the UN SDG three whose goals is “To ensure healthy lives and promote well-being for all at all ages” universal health coverage is essential, but it will not be effective unless we also improve the quality of care that people receive..

Previous studies conducted in developed countries have addressed patient satisfaction in hospital settings. For instance, a national cross-sectional study of both inpatients and outpatients in four regions of China assessed determinants of patient satisfaction and whether patients would recommend hospitals based on service delivery (Liang *et al.*, 2021). The study found that indeed patient satisfaction influences the decision of a patient to recommend hospitals based on service delivery. In another study, higher levels of satisfaction with the quality of care provided to patient was also reported in USA and England (Aiken *et al.*, 2021). These studies were done in developed countries but did not compare patient satisfaction in developed and developing countries from a comparative perspective; such an approach could provide more detailed information justifying differences in patient satisfaction between developed and developing world. Arguably, patients in developed countries value service delivery not only in health services but also in other sectors. For example, a customer is likely to recommend a service or product when the service delivery was good as compared to when the customer was not satisfied with the service.

In the developing world, many studies have shown relatively lower levels of patient satisfaction among patients as compared to developing world. Studies by Uzir *et al.* (2021) in Bangladesh, Olomi *et al.* (2017) in Tanzania and Meesala & Paul (2018) in India are among the many reporting lower levels of healthcare quality and subsequent patient

satisfaction in developing countries. A study conducted in Tanzania to assess satisfaction in outpatient units discovered that there was an overall dissatisfaction with the quality of care. The study recommended improvements of communication skills among the outpatient staff concerning showing compassion, politeness, and active listening (Olomi et al., 2017). The authors also indicated possible improvements in the availability of essential drugs, and clinician prescription skills. These studies both in developed and developing country contexts illustrate that determinants such as communications with healthcare workers are important across contexts. Other factors such as cleanliness, acceptable charges, short waiting times, availability of essential drugs, and clinician technical skills form the key determinants of patient satisfaction.

Several studies in Kenya have been done on patient satisfaction in both public and private settings. A study by Leslie et al. (2017) examined the link between healthcare infrastructure and the observed quality of care delivered across four health services. The study found that there was a weak correlation between the resources invested in care and the provision of evidence-based care. Furthermore, well-equipped facilities did not necessarily translate into better quality of care, and vice versa. This study highlights the complexities of measuring satisfaction and illustrates that despite health facilities having equipment might not guarantee satisfaction in the provision of healthcare services. One Kenyan study by Wanjau & Wangari (2012) indicated that over 50% of patients rated the quality of healthcare services as unfavourable, and the patients indicated that they only visit healthcare centres to seek services because of affordability (Wanjau & Wangari, 2012). A study by Okumu & Oyugi (2018) looked at how satisfied clients were with the quality of care they received during childbirth in both private and public hospitals in Kenya. The mothers involved in the study had all given birth within the previous 24 hours. The researchers found that most of the mothers were happy with the care they received throughout their stay in the hospital, from the time they were admitted until they were discharged. They were also willing to recommend the hospital to other people. This paper implied that patient satisfaction can be influenced by an individuals' perception (Okumu & Oyugi, 2018). Lastly a study assessing factors affecting patient satisfaction from a national hospital found that, 64.9% was the overall rating on satisfaction and the study recommended that the hospital should improve in cleanliness and waiting time (David, 2013).

Similar to these findings an internal assessment at NHC-Maisha reviewed patient experience and preliminary results showed that patients in the outpatient centre were dissatisfied with follow-ups as well as services like delay in turnaround time and feedback from other smaller clinics. Most studies done in Kenya have mostly focused on reviewing public hospitals and health centres, but few have examined patient satisfaction within the context of private health facilities that serve both rural and peri-urban populations. This study aims to expand the literature by assessing patient satisfaction at outpatient unit of NHC-Maisha, a private healthcare provider with three affiliated health centres that are situated in peri-urban settings in Nakuru County in Kenya. The results of this study will assist the management team at NHC Maisha to identify gaps and relevant solutions aimed at improving health service delivery that might lead to improved satisfaction amongst patients. Additionally the study will assist other clinicians in both the public and private sector as well as policymakers, and program managers with an in depth understanding of patient satisfaction, within peri-urban settings in Kenya.

1.2 Statement of the Problem

Patient satisfaction is a key indicator of the quality of healthcare delivery and a commitment to the smooth functioning of the healthcare system. This indicates that when patients are satisfied with the care they receive, it reflects well on the healthcare provider and contributes to the overall success of the healthcare facility (Parimala and Sofia, 2021). The dissatisfaction of patients due to poor service is rampant globally and some of the worst experiences are in sub-Saharan Africa (Dey, 2006). This dissatisfaction has resulted in patients moving from one health facility to the other, with studies showing a preference for private over public hospitals (Ahmad *et al.*, 2017; Fouad *et al.*, 2020; and Allahham, Mouselli, & Jakovljevic, 2022). Other studies indicated that dissatisfaction led to clients seeking for other alternative treatment leading to complications or even mortality. In Tanzania a study assessing satisfaction in outpatient discovered overall dissatisfaction in the quality of care.

The rise of private healthcare presents a potential solution to providing quality medical care, but there are still significant challenges to overcome in terms of accessibility (Muriuki 2018). Previous studies have examined the impact of healthcare service quality on customer satisfaction in both rural and urban settings in Kenya (Okwako & Symon, 2014; Naanyu *et al.*, 2020). These studies have examined different contexts or healthcare environments thus generating varying results with few focusing on peri-urban areas. While

the study by Naanyu et al. (2020) was done in a peri-urban area in Nairobi, it did not capture issues of satisfaction as influenced by quality dimensions. The study examined impacts of service quality on public facilities. Okwako & Symon (2014) also found that the quality of services offered in public hospitals in Kenya was lower than expected resulting to low patient satisfaction with such services.

Nyongesa (2018) found that patient satisfaction with quality of services offered in a hospital environment significantly dependent on healthcare quality dimensions with many the majority of people satisfied with services offered by a private faith-based institutions as compared to a public health facility. Similar to the other studies conducted in Kenya and reviewed in this study, focus of the study by Nyongesa (2018) compared public and private hospitals, and not urban versus rural areas; this is a potential gap in research that can be explored further. It is clear, there are few studies focused on healthcare service quality addressing customer satisfaction with outpatient services in private hospitals within peri-urban settings. Additionally, NHC Maisha recent assessment reviews of patient complaints on quality-of-service delivery indicated higher number of complaints and dissatisfaction with service delivery especially at smaller health facilities. These findings necessitated this as study to assess patient satisfaction at all three health facilities to identify the gaps in health service delivery. Therefore, this study aims to explore the factors influencing patient satisfaction at outpatient units NHC Maisha private health centres in Naivasha Sub-county.

1.3 Aim of the Study

To explore patient satisfaction with outpatient services at NHC Maisha, a private health facility mainly serving a peri-urban population in Naivasha, Nakuru County.

1.3.1 Specific Objectives

1. To describe the level of satisfaction among patients visiting the outpatient department of the NHC Maisha Health Centers in Nakuru Kenya.
2. To examine predictors of client satisfaction with services provided in the outpatient departments of the NHC Maisha Health Centers.
3. To explore the association between the four components of the process for the *Health-qual*(Empathy,safety,efficiency,tangibles with satisfaction in the outpatient services at NHC-MAISHA.

1.3.2 Research Questions

The following research questions will be used to achieve the research objectives:

1. What is the level of satisfaction among patients visiting the outpatient department of the NHC Maisha Health Centers in Nakuru Kenya?
2. What are the predictors of client satisfaction with services provided in the outpatient departments of the NHC Maisha Health Centers?
3. What is the association between the four components of the *Health-qual* scale with patient satisfaction at NHC-MAISHA clinics.

1.4 Operationalization of Variables

The Dependent Variable

The dependent variable is user satisfaction with outpatient healthcare services offered at NHC Maisha. This is measured using the *health-qual* scale that assesses the levels of satisfaction on a Likert scale. The five measures for the items range from strongly disagree, disagree, and neutral to agree and strongly agree. The indicators for this variable include Satisfaction with care, staff respond promptly, proper communication. For this variable, the analysis and presentation of findings was mainly through descriptive analysis (means and standard deviations).

The Independent Variables

The independent variables include the socio-demographic variables of age, sex, educational and employment background and level of income. The other four independent variables are derived from the process components of the *Health-qual* scale. The analysis for the socio-demographic variables analysed by examining mean differences using ANOVA. For the health-qual scale, analysis was done using regression analysis where the relationship between the variable and the dependent variable were assessed.

1.5 Scope of the Study

NHC Maisha is a private healthcare services hospital which is situated in the Naivasha sub-county in Nakuru County with three affiliate clinics and provides healthcare services for both outpatient and inpatient services. *NHC Maisha* provides curative, preventive, and

promotive health services. This study was aimed at exploring factors influencing patient satisfaction with outpatient services at *NHC Maisha* at the main facility in Naivasha town and its affiliated clinics in two peri-urban settings at Gilgil and Kwa Muhia. The target population for the sample was discharged patients attending outpatient facilities at all three clinics. Patients who were extremely ill at the outpatient were excluded from the sample.

1.6 Significance of the Study

Patient satisfaction is an indicator of an effective healthcare facility. This study examined the level of satisfaction and provided an in-depth understanding of factors affecting patients' satisfaction with the outpatient services at the *NHC Maisha* and its affiliate clinics. Study findings will contribute to identifying solutions to service delivery gaps for outpatient healthcare facilities in similar settings.

The study will also contribute to the existing body of knowledge on health service provision and patient feedback and satisfaction with care in peri-urban settings, an area that remains understudied in Kenya. It will inform hospitals on specific areas for improvement in health service delivery from the patients' perspective. The study will also inform health systems managers at county and national level on strengthening policy initiatives and interventions to improve client satisfaction across health facilities.

1.7 Chapter Summary

This chapter reviewed the introduction section, which provided a comprehensive background of the study. It laid out the problem statement which specified that patient satisfaction is poorly understood in private healthcare settings in peri-urban settings in Kenya. The broad objective for understanding patient satisfaction and its determinants was provided as well as specific objectives that followed the *HEALTH-QUAL* process items of tangibility, efficiency, safety, and empathy. The chapter also reviews the scope of the study which is the outpatient setting. The section concluded with the significance of the study to different stakeholders in private and public hospitals as well as policymakers.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses the theoretical background underpinning the study by reviewing studies examining healthcare provision across multiple domains, but with a focus on patient satisfaction, more so, in private settings.

2.2 Theories used in the study

Theories are formulated to help researchers better understand phenomena as well as critique and expand on the existing knowledge. For this study Donabedian theory of quality healthcare was chosen since it provides a comprehensive framework that assesses healthcare quality from three essential dimensions: structure, process, and outcome. This framework also allows one to examine the factors influencing satisfaction with outpatient services at NHC Maisha Clinics in a holistic manner, including the clinic's physical infrastructure (structure), the interactions between healthcare providers and patients (process), and the ultimate impact on patient health and satisfaction (outcome).

2.2.1 Donabedian theory of quality healthcare

The Donabedian theory of quality healthcare introduced by Donabedian (1980) was a fundamental tool developed for evaluating the quality of healthcare services. The theory describes three dimensions of the cube healthcare received and care providers; Donabedian (1980) further categorises quality of health care to be drawn from the structure, the process, and the outcome where he clearly states that structure is the physical and organisational characteristics where healthcare occurs. This includes facilities, equipment, and human resources. Process refers to all the interactions between patient and providers during care delivered to the patients like services, diagnostics, or treatment (Prasanta, 2020). The outcome reflects both the health status of the individual patient and the broader population they belong to. It's also shaped by the impact of healthcare services or interventions on the patient's health. The three measures have synergistic relationships which are important in evaluating healthcare quality.

Similarly, this study using the *Health-qual* model focuses on answering what are the socio

demographic factors that influence patient satisfaction, the relationship between the four component processes which include empathy, safety, efficiency, and tangibles being the constructs in the health quality theory by Donabedian (Lee, 2013). They both have similar constructs of the patient and the caregiver. The relationship between the results components of the *Health-qual* will go hand in hand with the outcome in the Donabedian theory as it influences client's expectations and loyalty to a health facility. This study mirrors the Donabedian theory by evaluating patient satisfaction with quality of care alongside the components of structure, process and outcomes which are covered under the *Health-qual* scale. As Prasanta argued by (2020), patient fulfilment affects clinical outcomes, and patient retention. Lee & Lee (2013) argued in a healthcare quality management paper that evaluating progressive and preventative measures, along with a commitment to continuous improvement, leads to the best possible clinic outcomes. This includes satisfying patients, retaining talented staff, and achieving financial stability. Donabedian (1966) concluded with an essential question and a demand for evidence where he states that one needs to ask what goes on at a facility rather than what is wrong. Similarly, the *Health-qual* model probes for the same questions: did you receive empathy, or safety from the Doctors or nurses. The Donabedian theory is a vital model for examining relationship between patient satisfaction and quality of healthcare services provided by public sectors in outpatient settings. According to Senić & Marinković (2013), the care that patients receive in hospitals and their satisfaction with those services are directly affected by the quality of the healthcare provided. Donabedian theory argues that structural measures in the healthcare environment directly affect process measures which in turn affects outcome measures. These relationships directly apply to the context of this study whereby the structures and processes within the healthcare sector are expected to lead to better quality care and subsequent patient satisfaction. The Donabedian theory especially depicting the relationship between structure, process and outcome was used by Kobayashi et al. (2011) to show the perception of services quality among patients and its effects on satisfaction. Therefore, the model is highly relevant and applicable to the objectives and aim of this study.

2.3 Empirical review

Many different studies have looked at patient satisfaction in healthcare. These studies have explored what factors influence satisfaction, how doctors and nurses can improve it, and how it relates to the quality-of-care patients receive. This empirical review summarizes

these studies and provides an initial understanding of what has been investigated on this topic so far.

2.3.1 Patient Satisfaction with quality of care

High-quality healthcare services are essential for the well-being of patients and the public. In most cases, such a focus will improve patient outcomes and well-being while ensuring the patients are satisfied with the quality of services offered by the health facilities. As such, many research studies have examined the concept of patient satisfaction as an important healthcare outcome. For example, the research study by Ferrand *et al.* (2016) showed that patient satisfaction is an important healthcare outcome that must be ensured or provided by healthcare organizations or facilities. In such contexts, it is important for the organization to first understand the unique needs of its patient population before designing customer-specific solutions to address the unique needs of these patients.

As Naidu (2009) noted, patient satisfaction is a complex, multidimensional factor. Therefore, maintaining high levels of patient satisfaction requires healthcare professionals and personnel in the sector to widen their view of the issue. In another study, Gill & White (2009) conducted a review of patient satisfaction as a concept critical to today's healthcare environment. The study noted that the presence of high-quality care directly affects patient satisfaction, which can be used by healthcare facilities to encourage positive consumer behaviours such as loyalty. This means that the first step to maintaining high levels of client loyalty is to ensure the patients are satisfied with the services offered, especially by focusing on providing high-quality care. Different aspects of healthcare quality must be identified and considered by organizations especially when seeking to satisfy the needs of the patients. Since the dimensions of healthcare quality captured in this study all examine the quality of healthcare services provided by these facilities (Lee, 2017), examining the effects of individuals dimension of healthcare quality may provide useful information on improving patient satisfaction with the services offered. Such information can also be used to improve healthcare decision making with a focus on the needs and expectations of the patients or clients.

Several studies have also been done in Kenya on patient satisfaction. For instance, a study by Ndambuki (2013) assessed how satisfied patients were with the nursing care they received in the Renal Unit at Kenyatta National Hospital. The findings indicated that most

patients in the renal unit were happy with the standard of nursing care they were given. This implies that the nurses at the renal unit were treating all the patients equally irrespective of their characteristics and this is shown with the level of satisfaction shown. Another study by Mwanga (2013) investigated patient satisfaction with the services offered at a cancer outpatient clinic at Kenyatta National Hospital. While a majority of the patients were satisfied with the clinic's services (64.9%), many were unhappy with the physical environment. In particular, patients complained that the clinic was overcrowded and the toilets were unclean. The overcrowding at the facility could be attributed to the fact that the clinic is one of the best and most affordable clinic for cancer patients and as such most patients prefer to visit it. Such studies must differentiate the sources of the satisfaction; is satisfaction a result of the quality of services offered or other factors such as access or range of services offered. This gap in research can be explored by conducting research that specifies each of these variables.

2.3.2 Determinants of patient satisfaction

While patient satisfaction remains one of the most important outcomes of healthcare organizations, it is dependent on a wide range of factors that vary from location to location or facility to the other. Therefore, a deeper understanding of the determinants of patient satisfaction, especially at the facility level, may increase the ability of organizations to maintain a high level of satisfaction among patients. While many studies in the nursing sector focus on examining the effects of different factors in the practice environment on satisfaction, a few capture patients' perceptions of their experiences and how these may affect the interpretation of satisfaction and perceived quality (Ferrand *et al.*, 2016). When examining the specific determinants of factors affecting the quality of care, the studies must focus on specific contexts or organizations.

Patient satisfaction levels may depend on both internal and external organizational factors as well as specific socio-demographic factors for the participants. For example, Xesfingi & Vozikis (2016) showed that patient satisfaction with the quality of services offered in primary care settings is dependent on socioeconomic variables such as public health expenditures and the age of the patients. However, these factors are context-based, meaning they will differ from one place to the other. Therefore, researchers need to conduct organization-specific studies that examine factors or issues specific to their organizations. A mixed research study by Chandra *et al.* (2019) examined the main factors affecting patient

satisfaction in an outpatient facility in Fiji. The authors noted that gender, number of visits, waiting time, and patient trust were important determinants of patient satisfaction levels in outpatient facilities. Trust in the doctors was reported to significantly affect the level of satisfaction with the services offered, with many people associating trust with good quality services offered by these professionals.

Also important are the socio-demographic determinants of patient satisfaction. Previous studies have been done to assess patient satisfaction with sociodemographic characteristics. Findings in a study done in Serbia had an overall score on satisfaction at 72.3% , satisfaction level was directly connected to age, gender, marital status and employment furthermore the patients who were more satisfied included older people, women as well as married people ,the employed and those living in the cities (Djordjevic, & Vasiljevic, 2019). One Kenyan study also assessed the relationship between some socioeconomic patient characteristics and patient satisfaction including age, education, sex, race and marital status and the results illustrated the varying importance of socio-demographic variables on patient perception of healthcare quality, patient satisfaction, and patient trust (Maina, 2016).

A study by Nyongesa et al (2014) aimed at establishing the determinants of patient satisfaction with healthcare at Pumwani Maternity Hospital. The results of the study showed that despite the high cost of services, inadequate staffing and poor sanitation at the facility, most of the respondents were generally satisfied with the quality of service offered. The factors that were identified to be affecting patient satisfaction at the facility include waiting time, availability of drugs, attitude of the providers, level of cleanliness, affordability of the services and level of staffing. Some of these factors arguably determine client satisfaction in any industry as it is expected that a client would be more satisfied if the environment is clean and the service providers are professional in how they handle patients. Another study by Tarus et al, (2014) showed that 87% of the patients at a referral hospital in western Kenya were satisfied with the nursing care that they received. The study recommended that since nursing care is a determinant of patient outcomes, it is important for nurses to be competent in how they handle patients. Both the studies by Nyongesa et al. (2014) and Tarus et al. (2014) agreed that quality of services offered is one of the determinants of patient satisfaction with the services being offered in the healthcare facility. Since different dimensions of healthcare quality exist as suggested by Lee (2017), including empathy, tangibles, safety and efficiency, there is a need for research studies to examine how each of

these healthcare quality dimensions affect the level of patient satisfaction provided within the hospital environment. The study conducted sought to fill this gap especially in a peri-urban environment.

2.3.3 Role of healthcare professionals in providing patient satisfaction

Healthcare practitioners are centrally placed to ensure patients are satisfied with the quality of care and services offered by an organization. Not only are healthcare professionals appropriately trained to provide quality care to patients, but they are also required by the code of medical or nursing practice governing their practice as appropriate. This means that the level of competence, skills, and commitment among healthcare professionals may determine whether a facility will achieve patient satisfaction or not. However, the type of equipment or technology present in a healthcare facility is equally important in the process. A research study by Manzoor *et al.* (2019) examined the role of physicians in shaping patient satisfaction levels in primary care settings. The study concluded that the behaviours of the physicians significantly moderated the effects of healthcare services on the satisfaction of patients. This means that actions such as showing empathy and care, listening to patients' needs or expectations, and attending to patients may enhance their perception of quality. Therefore, physicians and other healthcare practitioners are encouraged to adopt positive behaviours designed to put the interests of the patients first and above all things. At the personal level, nurses and other healthcare practices must identify and know the determinants of quality of care as suggested by Kenneth *et al.* (2019), where the nurses' ability to identify and understand the quality of care or its benefits was proposed as crucial to improving both the quality of care and patient satisfaction levels.

2.3.4 Relationship between quality of care and patient satisfaction

Quality of care is a major outcome of patient care in any healthcare facility. The quality of care determines patient outcomes, health, and overall well-being. Therefore, many research studies in the healthcare sector have emphasized the role of quality of care in providing patient satisfaction and improving patient outcomes. Shirley & Sanders (2016) showed that a strong relationship exists between the quality of care and patient satisfaction scores, where higher levels of quality care were directly associated with high levels of patient satisfaction.

While most studies provide evidence of the relationship between quality of care and patient satisfaction, a wide range of intervening factors exist that must be captured or researchers,

especially because most of these factors are context specific. For example, a research study by Mohamoud *et al.* (2020) showed that the quality-of-service delivery in Kenyan hospitals is dependent on whether these facilities are privately owned or public facilities. In general, the authors showed that the quality of services offered is lower in public facilities. When conducting such studies, it is important for such variables to be considered adequately. In another study conducted in the Kenyan context, Muke *et al.* (2022) showed that the quality of care and its impacts on patient satisfaction was dependent on factors such as the availability of resources such as equipment and personnel, which vary depending on the organization under study. This is a potential gap that this dissertation focussed on filling by examining the relationship between the quality of care and patient satisfaction in a specific facility.

2.4 Four process components of the *health-qual* scale

The *Health-qual* scale refers to a comprehensive set of healthcare service quality (*HEALTH-QUAL*) measurements items derived from focusing on care processes and results (Lee, 2017). It's a framework developed to measure the quality of services in modern Medicare that evaluates items on the patient perspective (Lee, 2017). This section provides a discussion of the four components of the *health-qual* scale which include perceptions of efficiency, providers' empathy/attitude, patient safety and tangibility.

2.4.1 Perceptions of efficiency

For patients to be satisfied with healthcare services, they need to experience high efficiency in delivery systems, well-equipped providers, improved services, and advanced equipment among others. In Africa, studies conducted focused on patient satisfaction have indicated that satisfaction is fundamental to the quality of care among the patients who visited the hospitals. A study in a South African setting, elaborated that patient satisfaction affects patient clinical outcomes and timely efficient patient-centred services (Myburgh, 2003). Another study on patient satisfaction set in Tanzania at a referral hospital observed that there was a high level of satisfaction among respondents mainly because of the hierarchical health delivery system with the referral hospital being at the apex with super speciality services (Khamis *et al.*, 2014). Efficiency of healthcare services reflects the extent to which a facility will address patient concerns in a timely manner and whether patient outcomes will be improved. Patients will gauge quality as the ability of an organization to provide

best outcomes for the patients using the resources available. Such capabilities will determine patient satisfaction with the services offered by the facility and considered important dimension of healthcare quality.

2.4.2 Providers' empathy/attitude

A study conducted by Allahham, Mouselli, & Jakovljevic (2022) found that private hospitals outperform public hospitals in terms of perceived empathy. The overcrowded environment at public hospitals and shortages in medical staff do not permit medical staff to spend enough time with patients and develop a sense of closeness and friendship. That is medical staff are forced, sometimes, to work beyond their knowledge and expertise to fill the shortage of services gap, and have less time to build rapport with patients, deteriorating the doctor–patient relationship (Fouad *et al.*, 2020). On the contrary, medical staff at private hospitals are in a better position to listen to patients and explain every detail of their treatment. There is direct relationship with empathy and quality of care provided to patients because empathetic healthcare providers will understand and put the needs of patients first when delivering care (Yuguero *et al.*, 2017). Therefore, when examining the effects of quality of care on patient satisfaction, empathy must be captured because it determines whether the healthcare provider will meet the needs or expectations of patients.

2.4.3 Patient safety

Hospitals must provide a sophisticated and safe treatment environment for patients and staff that enhances a sense of comfort and safety (Allahham, Mouselli, & Jakovljevic, 2022). Sallie *et al.* (2016) indicates that a hospital should develop a culture of safety as a core element of many efforts to improve patient safety and care quality. This culture influences medical personnel behaviour, attitudes and cognitions on the job giving a priority to patient safety. In a public setting, a study was done at the National Hospital in Kenya on factors affecting patient satisfaction. The findings concluded that the National Hospital should improve cleanliness and waiting time to see the doctors (David *et al.*, 2013). Patient safety is considered the cornerstone of high quality care provided to patients (Mitchell, 2008). Facilities where patient safety has been prioritized tend to engage in practices that prevent any form of harm on the patients. Such practices will result in improved patient outcomes which is why patient safety directly leads to improved satisfaction with the quality of care

provided. Therefore, when studying healthcare quality, patient safety must be considered and captured in such studies.

2.4.4 Tangibility

A study done in a hospital setting measured tangibles as a neat appearance of employees, visually appealing facilities, neat appearance of polyclinic service, professional appearance and modern equipment. Several studies have been done on patient satisfaction in both public and private settings within Kenya. A cross-sectional study done in eight countries including Kenya reviewed the association between infrastructure and observed quality of care in four health services and found that inputs of care were poorly correlated with the provision of evidence-based care. It also revealed that healthcare workers in well-equipped facilities provided poor care service and vice versa (Leslie *et al.*, 2017). A study done on evaluation of hospital service, the evaluation of the equipment and technology used during the examinations and treatment in these hospitals was measured according to the assessment hospital staff are visually clean in appearance was rated high at 88%, Rooms are quiet and clean at 64.7%. Tangible resources within the healthcare facility directly affect quality of care provided which means that these resources will directly affect patient satisfaction levels recorded in these facilities. The quality of the workforce and the quality of equipment are among the tangible resources that if present in an organization, may improve quality of care and thus patient satisfaction as suggested by Leslie *et al.* (2017). Therefore, it is important for research studies to ensure these relationships are captured.

2.5 Research Gap

From the review it's evident that few studies have focused on patient satisfaction in private settings in the peri-urban setting. Previous studies on patient satisfaction have largely focused on public hospital settings; (Wanjau & Wangari, 2012; Wandera *et al.*, 2016; Ahmad *et al.*, 2017; Foud *et al.*, 2012) none has focussed on assessing patient satisfaction in a private setting using a *health qual* model which focuses on care process and results.

The private sector has been understudied yet it plays a greater role in healthcare provision at 52% of healthcare in Kenya are private facilities. In an article by the World Bank, it stated that the Kenya private sector is one of the most developed and dynamic in Sub-Saharan Africa. It continued to state that even among the poor the private sector is an important source of care. This study will focus on outpatient facilities in the peri-urban setting using

the *health-qual* scale which specifically addresses the service quality of the health industry. Numerous studies focus on patient satisfaction in inpatient facilities and maternity wings the model will improve upon the existing studies that use the servqual model by evaluating patients' satisfaction with healthcare service delivery at outpatient facilities in public settings.



Table 1: Summary of literature and research gap

Author	Title of study	Findings	Research Gap
Wanjau N., & Wangari A. (2012)	Factors affecting provision of service quality in the public health sector: A case of Kenyatta National Hospital.	Low employee capacity, inadequate technology adoption, ineffective communication channels and inefficient funds affect delivery of services.	The study was conducted in a public hospital while this study examined patient satisfaction in a private setting.
Ferrand <i>et al.</i> (2016)	Patient satisfaction with healthcare services a critical review.	Patient satisfaction is key for any health organisation.	The study was a review while this study was an empirical study
Ndambuki (2013)	The level of patients' satisfaction and perception on quality of nursing services in the Renal unit, Kenyatta National Hospital Nairobi, Kenya.	Patients in the renal unit were generally satisfied with the using services offered	The study was conducted in the renal unit at KNH while this study will be conducted in a private hospital.
Mwanga (2013)	Factors affecting patient satisfaction at Kenyatta national hospital, Kenya: A Case of cancer outpatient clinic	The study showed that 64.9% of the respondents were satisfied with the services offered at the centre.	The study looked at patient satisfaction in a disease specific outpatient clinic for cancer whereas this study is aimed at general outpatient clinic
Xesfingi & Vozikis (2016)	Patient satisfaction with the healthcare system: Assessing the impact of socio-economic and healthcare provision factors	Patient satisfaction with the quality of services offered in primary care settings is dependent on socioeconomic variables such as public health	The study was not organisation specific. This study is specific to a particular organisation.

		expenditures and the age of the patients.	
Djordjevic, & Vasiljevic, (2019)	The Effect of Sociodemographic Factors on the Patient Satisfaction with Health Care System	An overall satisfaction score of 72.3%	The study was done in Serbia while this study is done in Nakuru county, Kenya.
Nyongesa et al (2014)	Determinants of clients' satisfaction with healthcare services at Pumwani Maternity Hospital in Nairobi-Kenya.	Despite the high cost of services, inadequate staffing and poor sanitation at the facility, most of the respondents were generally satisfied with the quality of service offered	The study was done at Pumwani maternity hospital a busy city based hospital while this study was conducted at NHC MAISHA with three clinics serving peri-urban populations in a smaller city

2.6 Conceptual Framework

The Conceptual Framework is a visual representation of an expected relationship between variables and how they are related to the study. While the dependent variable is patient satisfaction, the independent variables include socio-demographic variables, quality of care service, patient safety, patient perception, provider empathetic behaviour and availability of tangible facilities. The relationship between variables in the conceptual framework are informed by the *Healthqual* framework where dimensions of healthcare quality provided by healthcare providers such as safety, empathy, and tangibles (Lee, 2017) in facilities are predicted to directly affect the patient satisfaction with outpatient services provided by a facility located in a peri-urban region. In addition to the healthcare quality dimensions, it is also predicted that socio-demographics factors will influence perception of satisfaction with the quality of care provided to patients. Therefore, the conceptual framework developed directly reflects the relationship between variables in the study and aligns with the research objectives developed.

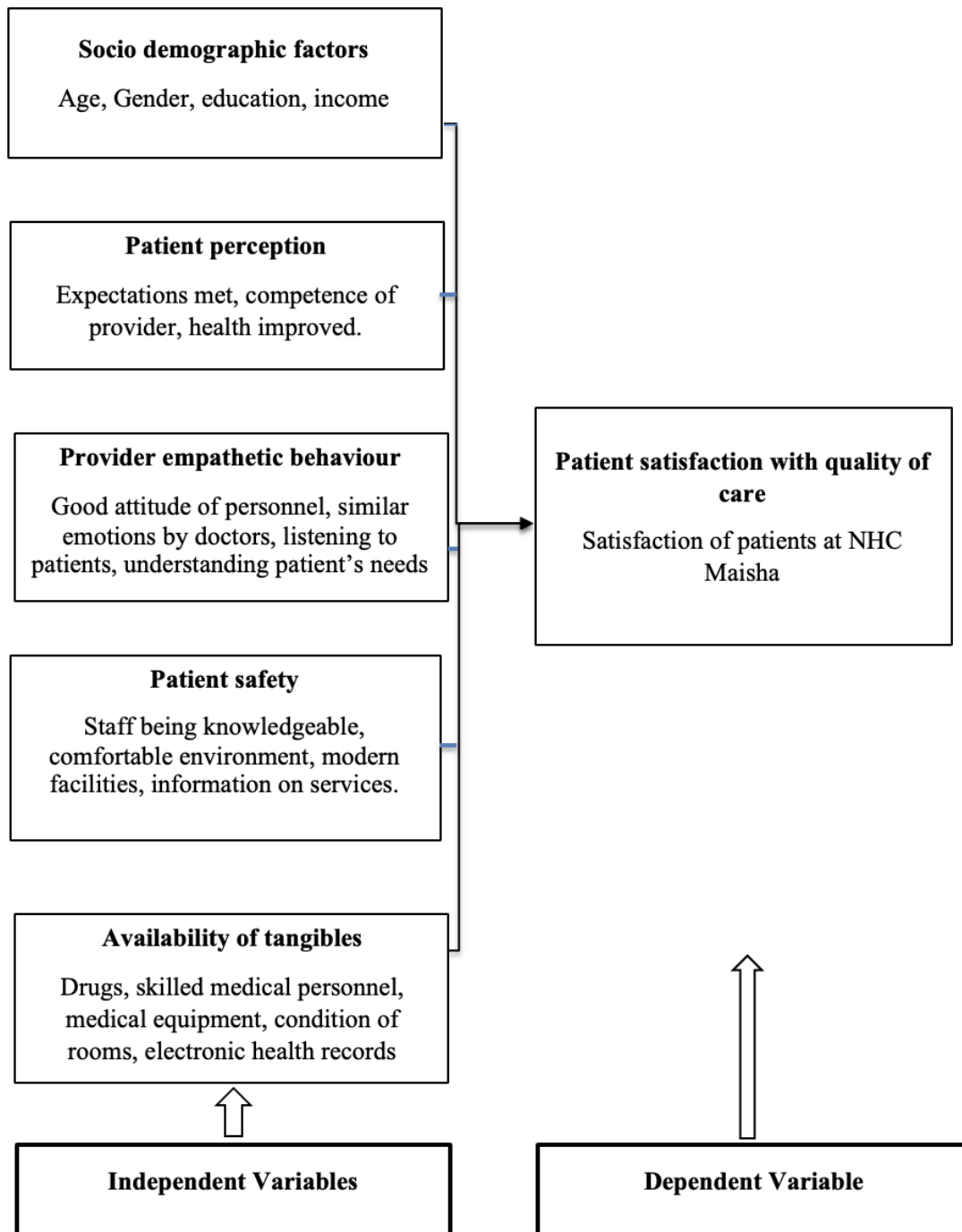


Figure 1 Conceptual framework (Author, 2023)

2.7 Chapter Summary

The chapter outlines the theories and conceptual frameworks that are relevant to this study and also discusses other related studies touching on patient satisfaction based on medical care provision. The chapter outlines the conceptual framework and showcases how the independent variable interacts with the outcome variable of satisfaction with health care service delivery in outpatient settings.



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the steps the researcher employed to answer the research questions of the study. It reviewed the research philosophy, research design, and the approaches employed in data collection, and analysis. This chapter also has a description of the study setting, the target population, the sampling procedure and sample size calculations, research quality (reliability & validity) limitations of the study and finally concluded with the ethical considerations.

3.2 Research Philosophy

Research philosophy is the belief about how data about a phenomenon should be collected, analysed and used. This study will involve the collection of primary data. The study adopted a positivist philosophy. Positivists tend to use large sample sizes to produce precise, objective and quantitative data (Collis and Hussey, 2014). Positivist research philosophy claims that the social world can be understood objectively (Žukauskas *et al.*, 2017). As such, by adopting a positivist research philosophy, the study strives to eliminate bias and subjectivity. Positivist research philosophy was also chosen for this study since it is closely associated with quantitative research methods which were used for this study and also due to the fact that it allows for generalizations for a wider population. Finally, positivist research philosophy was adopted since the study aimed at formulating hypotheses and empirically testing them.

3.3 Research Design

The research design refers to the techniques and methods followed by a researcher to get data (Mackey and Gass 2015) it entails research questions, identifying the information required, and methods of collecting and analysing data. This is a descriptive cross-sectional study that utilised quantitative techniques in assessing patient satisfaction with outpatient healthcare provision at NHC-MAISHA and will employ the *Health-qual* questionnaire. The survey questionnaire was administered to all discharged patients at the outpatient departments at NHC-Maisha and its affiliate clinics in peri-urban settings.

Descriptive cross-sectional studies provide data for describing the status of phenomena or relationships among phenomena at a fixed point in time (Ihudiebube-Splendor & Chikeme, 2020). The participants in a cross-sectional study are recruited based on the inclusion and exclusion criteria set for the study. Once the participants have been recruited for the study, the researcher follows the study to assess the results and study the association between the study variables. The advantage of adopting a descriptive cross-sectional study is that these studies can usually be conducted relatively faster and are inexpensive. The cross-sectional survey will measure the following items in the *Health-qual* scale; items on empathy, safety, tangibles, efficiency, and strategies for improvements in care services. The survey will also establish relationships between the sociodemographic variables and the items on the *Health-qual* scale. The descriptive correlational design helped describe variables in the study as well as provide relationships between different variables. For example, the *Health-qual* scale was used to describe elements of the quality of care provided to patients in the study. At the same time, the model helped determine relationships between elements of the quality of care and the level of patient satisfaction.

3.4 Study Setting

NHC Maisha is a medical centre providing preventive, curative and rehabilitative services to the people of Naivasha and its environs. It has three main branches located in Naivasha Town which provide comprehensive outpatient care with services including Consultation, radiology, pharmacy, physiotherapy and laboratory, Kwa Muia branch serves both in and outpatients and lastly Gilgil branch. The main industry in Naivasha is agriculture, focused on floriculture with a large population of flower farm workers. Tourism is also the main income earner for most residents. The public health system consists of the Naivasha sub-county hospital, with 24 public Government of Kenya health facilities. There are four Faith Based Organisation hospitals and approximately 49 private health facilities (DMOH, 2022).

3.5 Study Population and Sample Population

The sampling frame was drawn from the daily outpatient attendance of all three clinics of NHC Maisha. This study employed simple random sampling. Outpatients attending clinics were randomly selected to fill out the questionnaire at the waiting bay. Random numbers were generated using a computer and used to select patients to survey in the out-patient.

The main clinic is based in Naivasha town and has the highest outpatient visits (*NHC Maisha* health outpatient records 2021). The total average of clients in all branches was used to estimate the sampling frame.

As a result, we shall use the average of the data from all outpatient attendance volumes to estimate the required sample size.

The Yamane formula, for known finite population (Yamane, 1967) was computed as follows:

$$n = \frac{N}{1 + Ne^2}$$

Where:

n = sample size

N = population size*

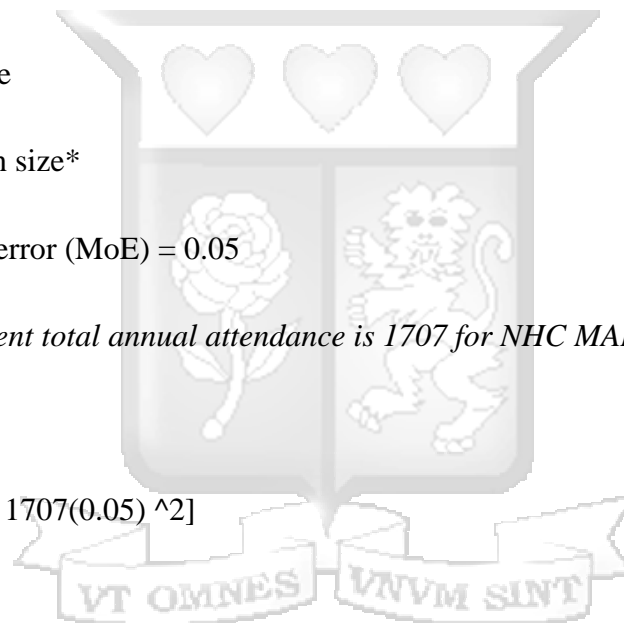
e = margin of error (MoE) = 0.05

**The Average outpatient total annual attendance is 1707 for NHC MAISHA clinics*

Therefore:

$$n = 1707 / [1 + 1707(0.05)^2]$$

$$n = 324$$



For this study, a sample size of 324 participants were enrolled into the study. Proportionate sampling was used to ensure that the sample accurately represents the attendance metrics as the different NHC Maisha branches (which are strata in this case) within the whole population. The strata was constructed based on the population in each branch. The sample size in each population is as shown in table 2.

Table 2: Sample size for each strata (Author, 2023)

Branch	Sample size	frequency
Town	150	46%
Kwa Muia	99	31%
Gilgil	75	23%
Totals	324	100%

3.6 Inclusion and exclusion criteria

The study included persons who were above 18 (able to give informed consent) who were visiting NHC Maisha and affiliate clinics for outpatients. The study will also exclude any person who declines consent or those who are still unwell. Patients who were extremely ill at the outpatient were also excluded from the sample.

3.7 Operationalization of variables

The Dependent Variable

The dependent variable is user satisfaction with outpatient healthcare services offered at NHC Maisha. This is measured using the *health qual* scale that assesses the levels of satisfaction on a Likert scale. The five measures for the items range from strongly disagree, disagree, and neutral to agree and strongly agree.

The Independent Variables

The independent variables include the socio-demographic variables of age, sex, educational and employment background and level of income. The other four independent variables are derived from the process components of the *Health-qual* scale

Table 3: Operationalization of variables

Objective	Variables	Indicators	Scale	Analysis
To describe the level of satisfaction among patients visiting the outpatient department of the NHC Maisha Health Centers in Nakuru Kenya.	Patient satisfaction with quality care	Satisfaction with care, staff respond promptly, proper communication	Ordinal	Descriptive statistics
To examine predictors of client satisfaction with services provided in the outpatient departments of the NHC Maisha Health Centers.	Socio demographic variables	Age in years Gender Education level Income	Ratio	ANOVA
To explore the association between the four components of the process for the <i>Health-qual</i> (Empathy,safety,efficiency,tangibles and satisfaction with outpatient services at NHC-MAISHA.	Healthqual scale	Empathy, tangibles, safety, efficiency	Interval	Regression analysis

3.8 Data Collection

Data collection refers to ways in which the study obtained the required data. Primary data was obtained using structured questionnaires. Data collection was done using the *Health-qual* tool based on the Likert scales questionnaire model, tailored to capture patient satisfaction using the 5 dimensions as explained above (Lee, 2017). The data was collected on exit as clients left the facility.

3.8.1 Study Questionnaire

The questionnaire was divided into five sections immediately after the general instructions. Section A comprises biodata of the respondents. The aim was to profile the respondents in terms of their sociodemographic characteristics of gender, age, education and background information. The *Health-qual* instrument was used in collecting data a self-administered questionnaire which consists of two sections (Lee, 2017): Section A had questions on the socio-demographic characteristics of respondents such as age, marital status, educational and employment background as well as income levels. Section B will elicit information on four key process measures from the *Health-qual* scale 1) Empathy 2) Safety 3) Tangibles —4), Efficiency. For a full version of the questionnaire (See Appendix 1)

The items were measured on a five-point Likert-type scale through 1–5 which indicates 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral 4 – Agree and 5 – Strongly Agree. The questionnaire was translated into Swahili. Two research assistants were trained to assist with administering the survey in Swahili. A pilot was done with patients to ascertain if respondents can understand the items and the wording as well as the Swahili translations.

3.9 Data Analysis and Presentation

Data analysis refers to the ability to test information obtained in the questionnaire to process the accurate results for making study conclusions on our results. The Quantitative data obtained from the *health -qual* survey was analysed using the Statistical Package for Social Sciences (SPSS) version 26. Subsequently, the collected data was edited and coded before being keyed into the software. Descriptive statistics such as frequencies, percentages, mean scores and standard deviations will be obtained (Stapor & Stapor, 2020).

ANOVA analysis was conducted to determine the associations between the socio-demographic variables and the other independent variables. Multiple regression analysis was employed to ascertain how patient satisfaction was influenced by the five dimensions, quality of service, tangibles, patient safety, patient perception and provider empathetic behaviour. All statistics were tested for significance at the 95% confidence interval. The results from the study were shared with the NHC-Maisha directors and the facility executive management team for feedback.

3.10 Pre-test results

The pretest was conducted by administering questionnaires to 30 residents of Nakuru County. When conducting a pretest, the number of respondents should not be large but should be between 1% and 10% (Mugenda and Mugenda, 1999). The pre-test was done at a public health facility near the main health facility in Naivasha sub-county, Nakuru. During the pretest, the questionnaires were given to the participants randomly to assess the quality of the questions included in the questionnaire. The process was also used to assess the validity and reliability of the questionnaire. The researcher considered the comment and suggestions from the respondents during the pretest to improve the questionnaire. The respondents from the pretest were not included in the actual study.

3.10.1 Validity

The researcher established content validity to determine the extent to which the questionnaires cover an adequate topic under study while containing a representative sample of the sample. In addition, a peer review established the content validity of the instrument where a student from the Strathmore Business School, was requested to determine the significance of the contents used in the research.

3.10.2 Reliability

To establish the reliability of the questionnaire, internal consistency was used. This describes the ability of a research instrument to yield consistent results when applied to the same population repeatedly (Mugenda, and Mugenda, 1999). The Cronbach's Alpha Test was used with a threshold of reliability set at 0.7. The results of the pilot study will be used to test reliability. The results from Table 4 below indicate that Cronbach's alpha reliability coefficients for the instrument were above 0.7 which was within the acceptable reliability range hence the instrument was reliable.

Table 4: Reliability statistics

<i>Constructs</i>	<i>Cronbach's Alpha</i>	
	<i>A</i>	<i>Number of items</i>
<i>Patient satisfaction</i>	0.930	5
<i>Patient safety</i>	0.908	5
<i>Patient perception</i>	0.948	6
<i>Provider empathetic behaviour</i>	0.953	5
<i>Availability of hospital tangibles</i>	0.971	8

3.11 Ethical Considerations

The study was conducted after approval from Strathmore University Business School, ethical approval was sought from both the university Institutional ethics committee and

permission to do research from the National Commission for Science and Technology and Innovation (NACOSTI) Ref. No. 824332.

Thereafter a letter requesting permission to collect data was presented to the NHC Maisha facility executive team.



CHAPTER FOUR

STUDY FINDINGS AND ANALYSIS OF RESULTS

4.1 Introduction

The chapter details the results and findings regarding patient satisfaction with outpatient healthcare provision at NHC-Maisha Private Health Centres in a Peri-urban setting in Nakuru County. The results have been analysed based on research objectives. The results of the diagnostic tests conducted are also presented in this section.

4.2 Demographic information of participants

In an attempt to understand the sample included in the study, a range of demographic information was collected from the participants, including gender, age, education level, employment, and income. A table illustrating the socio-demographic variables is summarized in Table 5.

Table 5: Summary of socio-demographic variables (n=324)

	Frequency	Percentage (%)
Gender		
Male	159	49.07%
Female	165	50.93%
Age categories in years		
18-25 years	61	18.8%
26-35 years	114	35.2%
36-45 years	92	28.4%
46-55 years	45	13.9%
Above 55	12	3.7%
Highest education level		

No formal education	4	1.2%
Primary level	18	5.6%
Secondary level	109	33.6%
College/University	193	59.6%
Employment Status		
Unemployed	51	15.7%
Employed (Government/public sector)	94	29.0%
Employed (private sector)	124	38.3%
Self-employed	55	17.0%
Monthly Income		
Less than 10000	84	25.9
10001 – 20000	71	21.9%
20001 – 30000	50	15.4%
30001 – 40000	38	11.7%
40001 – 50000	22	6.8%
Above 50000	59	18.2%

The survey was conducted on a total of 324 respondents. In terms of gender, the majority of the participants were male (50.9%), while the remaining 49.1% were female participants (Figure 2)

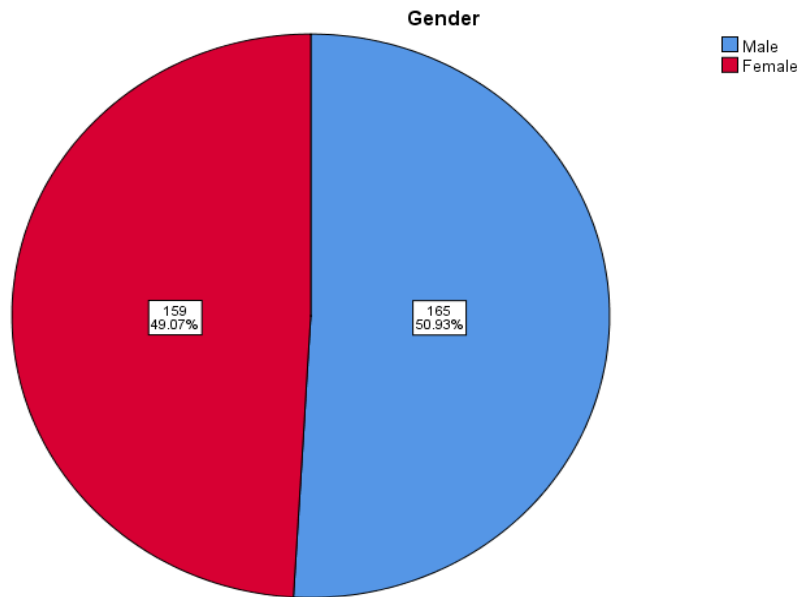


Figure 2 Gender of participants

The age of the participants also varied across the age groups examined. The majority of the respondents were of the age group 25 – 34 (35.2%), followed by the 36 – 45 age group at (28.4%). A small number of the respondents were 50 years and above (3.7%). Figure 3 shows the distributions of the respondents' age groups.

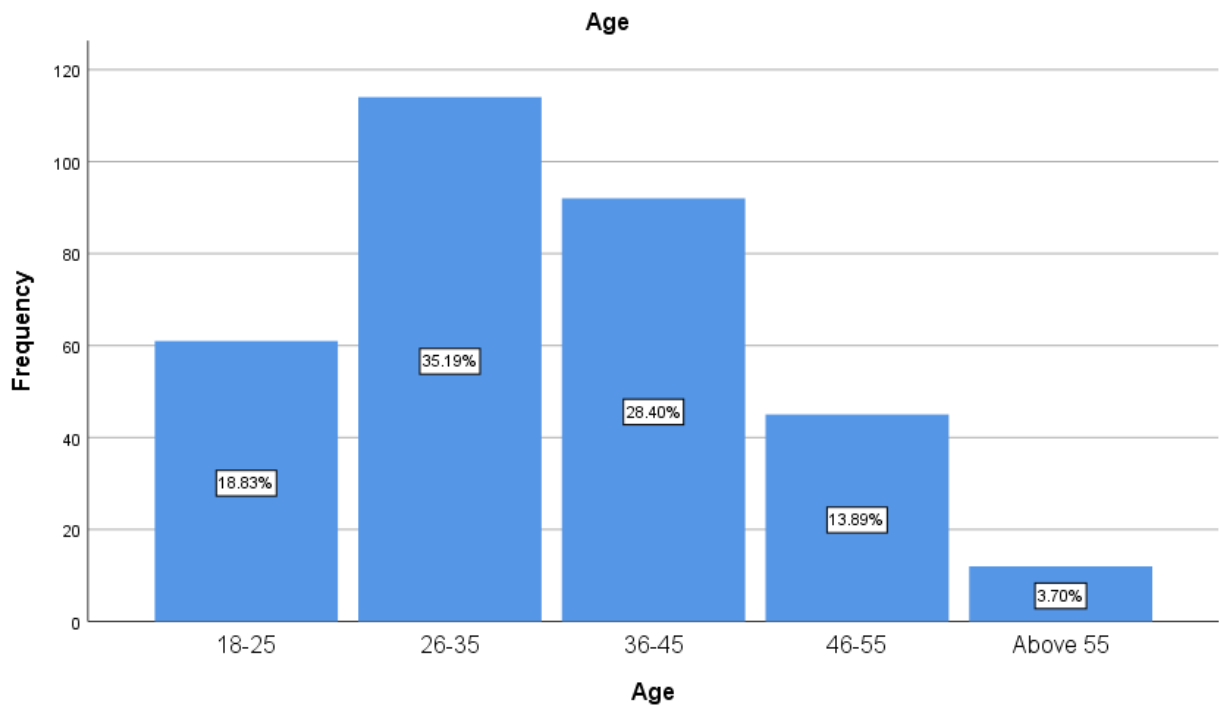


Figure 3 Age of the participants

The highest educational level of the participants was also recorded. The majority of the respondents, 59.6%, had achieved college or university level education; a small proportion had no formal education level, 1.2%. Another 33.6% of the participants had attained a secondary level of education, as shown in Figure 4.

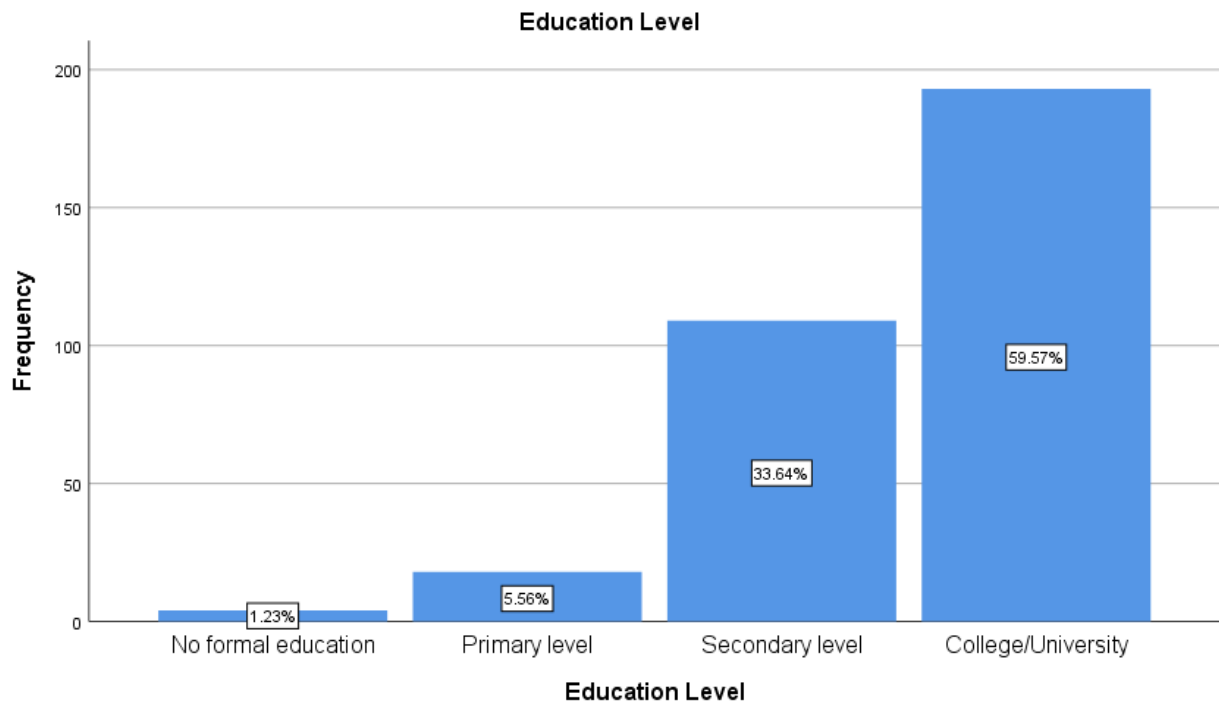


Figure 4 Education level

A large number of the participants were employed in the private sector (38.3%). However, only 29.0% were working in the public sector. At the same time, 17% were self-employed, and another 15.7% were unemployed (Figure 5)

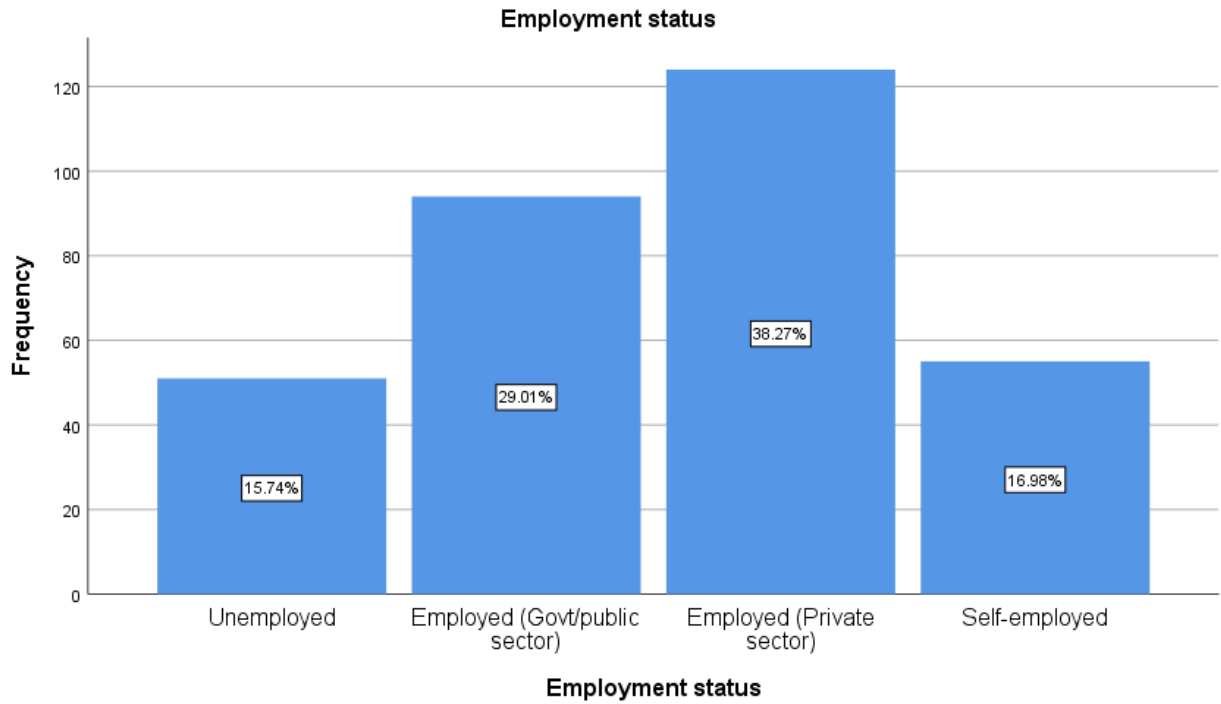


Figure 5 Employment status

The respondents' monthly income status was evaluated. The largest proportion of the participants (25.9%) earn less than KES 10,000.00, while the lowest proportion of the participants earns between KES 40,001 – 50,000 (Figure 6).

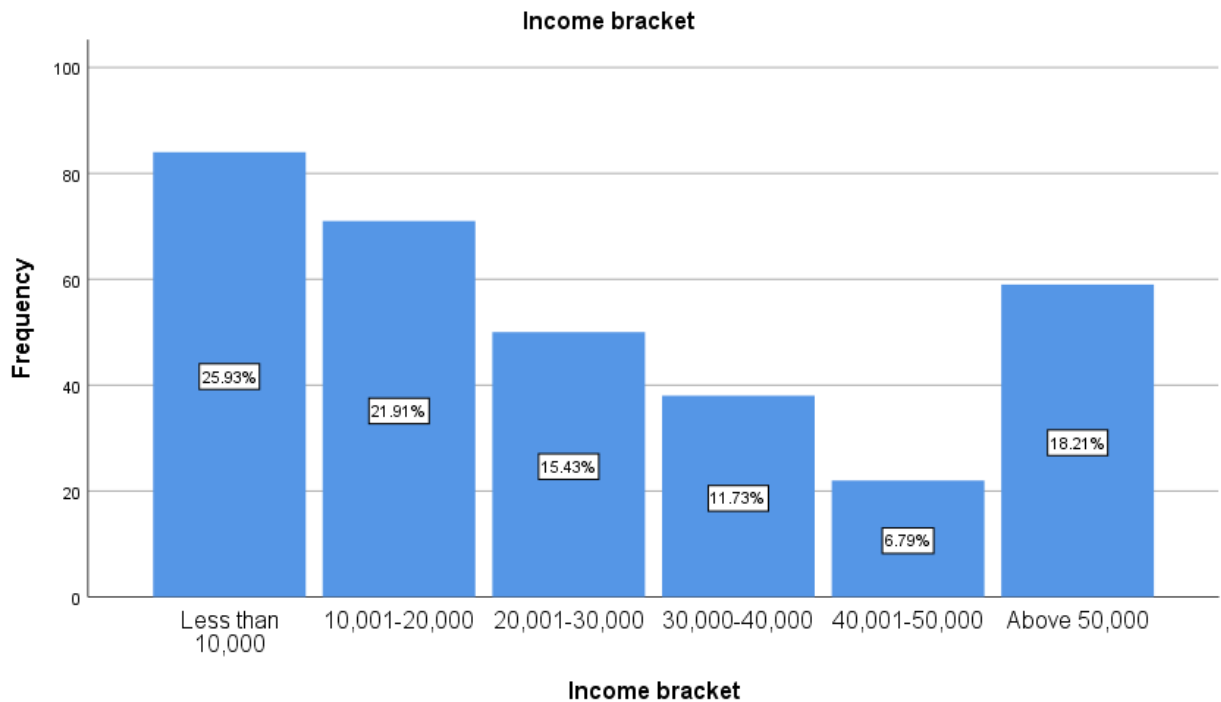


Figure 6 Monthly income

4.3 Patient Satisfaction at NHC

The overall purpose of this research study is to examine patient satisfaction with outpatient healthcare services provided to patients at the NHC Maisha Private Health Centres. Therefore, variables or statements that measure patient satisfaction with the quality of care were included in the survey questionnaire that was required to be answered on a 5-point Likert scale (Strongly agree, agree, neutral, disagree, and strongly disagree). In terms of the interpretations, the following scales were used; 0 – 1.49 = strongly disagree, 1.50 – 2.49 = Disagree, 2.50 – 3.49 = Neutral, 3.50 – 4.49 = Agree, and 4.20 – 5.00 = strongly agree. The overall satisfaction score was 60.77%. The highest level of patient satisfaction was with patient safety (M=4.312, SD=0.868), whereas the lowest mean was satisfaction with care received (M=4.1821SD 0.90451) (See Table 6). Since patient satisfaction with the quality of care offered was measured using five different statements, each catching a unique aspect of patient satisfaction, pooled data was generated where values for each of the statements were averaged as appropriate. The average patient satisfaction was 4.254, SD = 0.777, which means the majority of the participants agreed that they were satisfied with the quality of care provided to the patients in the facilities.

Table 6: Patient satisfaction with the quality of care or services (n=324)

	Mean	Std. Deviation
I was satisfied with the care I received	4.1821	.90451
Medical staff put in a lot of effort much effort to deliver care	4.2222	.86199
Staff is ready to respond to patients' inquiries	4.2685	.86850
There is clear communication between patients and healthcare providers	4.2840	.89005
The medical staff ensures patients' safety	4.3117	.86828

4.4 Relationship between socio-demographic variables and Level of satisfaction

One of the most important objectives of the research study was to assess or examine the relationship between socio-demographic variables and the levels of patient satisfaction with the outpatient healthcare services offered at the NHC Maisha facility. The relationship between the socio-demographic variables (Gender, Age, Education level, Employment Status, and Monthly income) and the level of patient satisfaction with the quality of care or services offered to the patients was examined using ANOVA. In all the analyses, the average pooled values of patient satisfaction were used as the dependent variable, while the five socio-demographic factors were used as the independent predictors in the mean comparisons. The ANOVA findings showed that only the gender of the participants significantly predicted the patient satisfaction levels at the facility (Table 7). Specifically, it was evident that the male patient satisfaction levels were significantly higher ($M=4.341$, $SD=0.641$) as compared to the patient satisfaction levels among the female participants ($M=4.164$, $SD=0.890$), $F(1,322) = 4.249$, $p = 0.040$ and this was statistically significant based on the p-value. Therefore, many males, compared to female participants, significantly agreed that the level of patient satisfaction at the facility was high. The remaining socio-demographic variables did not significantly affect or influence patient satisfaction levels.

Table 7: Effects of socio demographic variables on patient satisfaction (n=324)

Socio-demographic Factors	Mean Differences in Patient Satisfaction		ANOVA Results (F, p-value)
	Mean	SD	
Gender			$F(1,322) = 4.249$, $p = 0.040^*$
Male	4.341	0.641	
Female	4.164	0.890	
Age categories in years			$F(4,319) = 2.116$, $p = 0.079$
18-25 years	4.479	0.706	
26-35 years	4.228	0.820	
36-45 years	4.244	0.741	

46-55 years	4.053	0.859	
Above 55	4.183	0.386	
Highest education level			
No formal education	4.550	0.526	F(3,320) = 1.976, p = 0.117
Primary level	3.889	0.855	
Secondary level	4.207	0.856	
College/University	4.308	0.718	
Employment Status			
Unemployed	4.455	0.669	F(3,320) = 1.667, p = 0.174
Employed (Government/public sector)	4.245	0.715	
Employed (private sector)	4.234	0.823	
Self-employed	4.127	0.833	
Monthly Income			
Less than 10000	4.298	0.681	F(5,318) = 0.732, p = 0.600
10001 – 20000	4.127	1.005	
20001 – 30000	4.296	0.723	
30001 – 40000	4.237	0.809	
40001 – 50000	4.445	0.404	
Above 50000	4.247	0.721	

4.5 Healthcare service quality (Descriptive results)

The other core objective of the research study was to assess the relationship between the quality of care provided to the patients (empathy, tangibles, safety, and efficiency) and patient satisfaction with the healthcare services offered at NHC Maisha. In this context, the healthcare service quality was assessed using the four components of the *Health-qual* Scale used in the survey, including empathy, tangibles, safety, and efficiency. In all instances, each of these variables was assessed using a 5-point Likert Scale, as was done in the other

parts of the survey. Therefore, averages and standard deviations of the scores on each measure in these variables were analysed to support the study's objective. The composite means for tangibles, empathy, efficiency, and safety were 4.15, 4.13, 4.12 and 4.10, and respectively.

4.5.1 Empathy

Empathy was one of the elements captured in the survey to assess the extent to which the participants viewed the quality of care provided by the facility. This was measured in terms of the providers' empathy behaviour as perceived by the participants. The majority of the respondents strongly agreed that the staff members listened carefully to the patients (M=4.213, SD=0.894). However, in all the other instances, there was general agreement among the participants on the empathic behaviours of the healthcare providers in terms of having positive attitudes and disposition when attending to patients (M=4.096, SD=0.957) when addressing patients by name (M=4.068, SD=1.002), when engaging with the patients (M=4.099, SD=0.959) and by understanding patient needs and problems (M=4.167, SD=0.919), as shown in Table 8. A pooled variable was developed where the scores for each measure were averaged to generate a composite variable that averages all the measures under the empathy component of quality of care examined in the survey. The mean pooled score for the perception of quality of care based on empathic behaviours displayed by the service providers shows that the participants agreed that these behaviours were exhibited when providing care, M = 4.128, SD = 0.869.

Table 8: Perception of empathic behaviours among providers by the respondents

	Mean	Std. Deviation
Healthcare providers have positive attitudes and dispositions when attending to patients	4.0957	.95735
The doctor addresses patients by name	4.0679	1.00233
Staff express empathy when engaging with patients	4.0988	.95865
Staff members listen to patients	4.2130	.89426
The staff understands patients' problems/needs	4.1667	.91935

4.5.2 Tangibles

The availability of hospital tangibles was also evaluated as part of the quality of care provided by the facility to its clients and patients. The majority of the respondents strongly agreed that the hospital is clean (M=4.272, SD=0.941) and that the hospital uses an electronic health records system to provide services to the people (M=4.213, SD=0.983) (Table 9). In the other instances, the participants agreed that medical practitioners are experienced/skilled, hospital rooms were in good condition, there was evidence of the use of technology for delivery of services making the patients' journeys easier, the hospital staff used standard equipment, prescriptions given were easy to understand, and there was medical equipment. In general, the participants agreed that the hospital service providers used hospital tangibles to provide good quality care (M=4.147, SD=0.866, pooled data)

Table 9: Perception of quality of hospital tangibles used for providing healthcare services.

	Mean	Std. Deviation
The Hospital is clean	4.2716	.94115
The hospital uses electronic health records	4.2130	.98331
Medical practitioners are experienced/skilled	4.1451	.93136
Hospital rooms are in good condition	4.1420	.96930
There is the presence of the use of technology for the delivery of services which makes the patient journey smoother	4.1265	.96344
Hospital staff use standard equipment	4.0988	.95541
The prescription given is easy to understand	4.0957	.90754
There is the availability of medical equipment	4.0864	.95337

4.5.3 Safety

The safety of the care provided to the patients was also considered an element of the quality of care offered by the facility. The majority of the respondents strongly agreed that the hospital environment was comfortable ($M=4.25$, $SD=0.936$), which is an important part of the safety of services offered to the patients. Similarly, the results showed that the participant agreed that the medical staff has confidence in providing patient care/treatment ($M=4.164$, $SD=0.911$, that the staff is knowledgeable in the delivery of the services to the patients ($M=4.161$, $SD=0.875$), and that the facilities can be considered modern and up to the standard ($M=4.096$, $SD=0.931$) (Table 10). Overall, the average scores for the performance of the scores from the survey on safety were calculated; the results showed that the participants agreed patient safety was present in the care provided at the facility ($M=4.105$, $SD=0.814$).

Table 10: Perception of safety of care provided at the facility.

	Mean	Std. Deviation
The hospital environment is comfortable	4.2500	.93562
The medical staff has confidence in providing patient care/treatment	4.1636	.91145
The staff are knowledgeable in the delivery of the services	4.1605	.87563
The facilities can be considered modern and up to standard	4.0957	.93112
I get updates on current and further planned services regularly	3.8549	1.09060

4.5.4 Efficiency

The patient perception of the efficiency of services offered was evaluated by the respondents. The majority of the respondents strongly agreed that they received the required level of treatment at the facility (M=4.250, SD=0.955), they received services according to their expectations (M=4.216, SD=1.030), and there was provider competence at the facility (M=4.210, SD=0.960). There was agreement among the participants on two other measures where they agreed that they received high-quality care and there were improved healthcare processes (Table 11). Overall, the average scores for the performance of the scores from the survey on efficiency were estimated. The results showed that the participants agreed there was efficiency in the quality of care provided to the patients at the facility (M=4.166, SD=0.891).

Table 11: Perception of efficiency of care provided at the facility.

	Mean	Std. Deviation
I received the required treatment	4.2500	.95527
I received services according to my expectations	4.2160	1.03031
There is provider competence	4.2099	.96008
I received high-quality care	4.1914	.97354
I received improved healthcare processes	4.1759	.95563
I received continued monitoring/aftercare service	3.9506	1.11729
I get updates on current/further planned services regularly	3.8549	1.09060

4.6 Regression analysis

A major focus of this research study was to examine the effects of the quality of care provided to the patients at the facility and the level of satisfaction. The components of the *Health-qual* Scale were, therefore, considered the independent variables, while the level of patient satisfaction was used as the dependent variable for the analysis. In both instances, averages for the pooled data from individuals' scores or subscales were used to conduct the regression analysis, which, according to Weisburd *et al.* (2022), is appropriate for examining causal relationships between variables of interest in research.

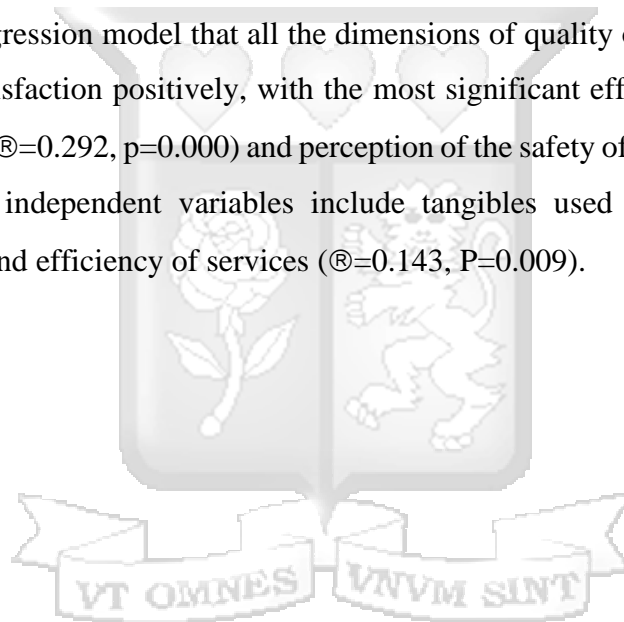
The generated regression model was significant, meaning the selected independent factors significantly predicted the level of patient satisfaction with the quality of services offered to the patients at the facility, $F(4,319) = 133.105$, ($p = 0.000$). The resulting model also generated an excellent predicting power, $R^2 = 0.625$, meaning up to 62.5% of the variation in the patient satisfaction levels can be explained by the independent variables. Other factors not captured in this study may explain the remaining percentage. The specific effects of each independent predictor in patient satisfaction are summarized in Table 12

Table 12: Regression results

Variables	B	Std Error	Beta	t	Sig.
(Constant)	1.011	.144		7.027	.000
Empathy behaviours	.292	.057	.326	5.129	.000**
Tangibles used for providing care	.150	.056	.167	2.663	.008**
Safety of services	.200	.068	.209	2.947	.003**
Efficiency of services	.143	.054	.164	2.638	.009**

(DV = Patient satisfaction; p-value significance, * $p < 0.05$, ** $p < 0.01$; $R^2 = 0.625$; $F(4,319) = 133.105$, $p = 0.000$)

It is clear from the regression model that all the dimensions of quality of care significantly influenced patient satisfaction positively, with the most significant effects being from the presence of empathy ($\beta = 0.292$, $p = 0.000$) and perception of the safety of services ($\beta = 0.200$, $p = 0.003$). The other independent variables include tangibles used for providing care ($\beta = 0.150$, $p = 0.008$) and efficiency of services ($\beta = 0.143$, $P = 0.009$).



CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.1 Introduction

This section summarises the discussion of the findings, as well as the recommendations for future studies and a conclusion.

5.2 Discussions of Findings

This study was aimed at understanding the factors on patient satisfaction at outpatient services at three NHC Maisha private health centres within a peri-urban setting in Nakuru County. Patient satisfaction is important because it influences clinical outcomes, patient retention and medical malpractice claims. It also impacts the timely, efficient and patient-centred delivery of quality healthcare (Bhanu Prakash, 2010); Lee *et al.*, (2017) indicate that patients, care providers and staff prioritise the availability of clinical service options as well as an environment in which it is safe and secure, clean, comfortable, quiet and pleasant to practise and receive medical care.

5.2.1 The level of satisfaction among patients visiting the outpatient health department of NHC Maisha centres in Nakuru Kenya.

The first objective of was to establish level of satisfaction among patients visiting the outpatient department of the NHC MAISHA Health centres in Nakuru Kenya. The results found that the highest level of patient satisfaction was with the fact that the medical staff ensured patient safety, followed by satisfaction with the presence of clear communication between patients and the health care providers. Furthermore the overall satisfaction score was found to be 60.77%. These results on percentage satisfaction are less than those obtained by a study by Barrios-Ipenza *et al.* (2020) who found a 70% patient satisfaction score in their study on patient satisfaction in the Peruvian health services. The results are also less than those obtained in a study by Mwangi (2013) to determine the factors that affect patient satisfaction at the cancer outpatient clinic at Kenyatta National Hospital who showed that 64.9% of the respondents were satisfied with the services offered at the centre. The results found that the highest level of patient satisfaction was with the fact that the medical staff ensured patient safety, followed by satisfaction with the presence of clear communication

between the patients and the healthcare providers. Therefore, when handling issues related to patient satisfaction, healthcare facilities need to recognize the magnitude of the issue and ensure a multidisciplinary approach is considered. For example, focusing on improving the quality of care alone will not achieve the required results in terms of patient satisfaction. The organization needs to view the issue from a wider angle and involve all other parties or ensure every aspect of care is captured. For instance, the needs of the patients must be known; the facility must have the equipment needed by the patients, and the workforce must be adequately competent to cater to the diverse needs of the patients. An important concept in healthcare that can be used to enhance both quality of care provided to the patients and the level of satisfaction is the concept of care coordination and collaboration. According to Sarwar *et al.* (2019), healthcare collaborations can help address complex problems inherent in the healthcare sector.

5.2.2 The predictors of client satisfaction with services provided in the outpatient departments of NHC Maisha Health centres.

The second objective of the study was to assess predictors of client satisfaction with services provided in the outpatient departments of NHC Maisha Health centres. The focus was on examining how demographic factors of the study population influenced their perception on patient satisfaction levels. From the findings, it was established that gender was the only factor that was significantly associated with the outcome variable, patient satisfaction. Particularly, it was evident that the male patient satisfaction levels were significantly higher as compared to the patient satisfaction levels among the female participants at NHC Maisha. The results are like those by Larson (2019) who indicated that broader social factors including patient's satisfaction such as age and gender can explain variations in patient's experiences of care and ability to evaluate the quality of care received and satisfaction.

5.2.3 To effects of the four components of the health-qual scale on patient satisfaction at NHC-MAISHA clinics.

The third objective of the study was to explore the association between the four components of the process components of the *health-qual* scale of empathy, tangibles, safety, efficiency and satisfaction with healthcare services at NHC Maisha. The research assessed the quality of care with outpatient services and showed that it strongly determines satisfaction. Quality of care was also viewed in terms of empathetic behaviours of nurses or healthcare providers to patients. On the relationship between health worker empathy and patient satisfaction, the

findings revealed the strongest significant relationship indicating the importance of empathy. This finding is supported by Allahham *et al* (2022) who found out that private hospitals outperform public hospitals in terms of perceived empathy. Other studies in Africa such as Umoke *et al* (2020) also found that respondents in general hospitals in Ebonyi State in Nigeria were highly satisfied with empathy at the hospitals. Patients' voices must begin to be heard and doctors need to address patients by name. This shows a sense of rapport between the patient and doctor as well as makes the doctors treat the patient instead of the disease. A customer service in-training in the organisation is recommended to help the doctors address the patients by name; this will shape confidence in the patient being attended to (Olomi, 2017). The authors further recommended that hospital management should focus on the improvement of communication skills among the outpatient staff concerning showing compassion, politeness, and active listening. These findings are closely supported by a study (Alrubae, 2011) that illustrated that patients of private hospitals are more satisfied and feel more trust in their healthcare providers.

Liang (2012) discovered that overall patient satisfaction is most commonly influenced by communication with doctors, hospital cleanliness and acceptable charges. This implies that the outpatient services at NHC Maisha need to strengthen communications with patients and meet their expectations by providing updates on current and planned services. This can be done through training staff and encouraging teamwork. This will eventually act as an assurance of their safety with the quality of services. Another study by Meterko *et al* (2004) equally concluded that teamwork, an aspect of patient safety culture, has a strong positive relationship with patient satisfaction.

This study assessed the relationship between hospital efficiency and improvements in care service, and patient satisfaction. The results imply that NHC staff provide the right treatment for the medical indications of patients. This may include some specific practices employed at the NHC such as the five rights of drug administration (right patient, right drug, right time, right dose and right route). Matthew (2010). Additionally, this finding also implies that the NHC Maisha are adequately trained and prepared, follow medical guidelines and prescribe the correct prescriptions. A study of hospitals in developing countries indicated that patient perception of health services seems to have been ignored by health providers, especially regarding service quality (Syed, 2001). Emphasis has to be put on patient perception across all facilities.

The research finally assessed the relationship between hospital tangibles and patient satisfaction at the NHC Maisha private health centres. The findings indicated a strong relationship between high mean scores on respondents' cleanliness of the hospital. This implies a commendable job in maintaining the cleanliness of the hospital by the NHC-MAISHA staff. This result can be attributed to the fact that NHC- Maisha has contracted corporate cleaning services via a company with clear key performance areas and would suggest for other health facilities to do the same. This finding on cleanliness can be compared to a study done in a public hospital in Kenya where the findings concluded the overall rating was 64% and recommended for the hospital to improve cleanliness and waiting time to see the doctors David (2013). Other maternal health studies such as Oluoch-Aridi (2018) also indicate that patients can choose hospitals based on the cleanliness of the hospital. Other studies such as Olomi (2017) also identified possible improvements in the availability of essential drugs resulting in improvement in clinical prescription skills. Further, as opined by Leslie, Sun, & Kruk (2017) hospital infrastructure is key to patient satisfaction, and this explains why patients are more likely to go to facilities with great infrastructure.

In conclusion, this study answered all the research questions in the affirmative by providing empirical evidence indicating that patient safety, patient perceptions of service quality, provider empathetic behaviour and availability of hospital tangibles all have a positive and statistically significant effect on patient satisfaction for patients attending outpatient health services at NHC Maisha hospitals. This agrees with a study by Paul (2011) who implied in his study that private facilities appear to be of higher (interpersonal) process quality than public facilities but not necessarily higher technical quality; this was observed in the other three countries he studied.

5.3 Recommendations

Based on the findings of the study the following recommendations are provided for NHC Maisha health centres: Hospitals should employ adequate staff and they should be well trained on how they relate with patients in terms of empathy and being compassionate. Expressing empathy is highly effective and powerful; it builds patient trust and improves health outcomes. NHC Maisha can initiate education and training programmes aimed at

equipping their staff with effective communication and interpersonal skills or employ external consultants to impart such skills. To avoid giving contradictory information, hospitals should ensure that only designated personnel should be allowed to communicate with patients on specific issues to promote the improvement of the empathetic behaviour of the staff. NHC Maisha staff must be trained on how to effectively communicate with the patients to ensure that satisfactory information is given to patients, and they have understood the information being passed to them. Continuous updates on current and further planned services regularly should also be communicated to help build on patient satisfaction.

Tangibles was the second most influential indicator hospital infrastructure is key to patient satisfaction and this explains why patients are more likely to go to facilities with great infrastructure. This is an implication that NHC-Maisha should consider investing more in hospital equipment especially in the affiliates the smaller health care facilities that provide specialized care.

Safety of care was considered as an element of quality of care where the respondents strongly agreed that the hospital was comfortable ,the facility considered modern and standard ,the hospital needs to enroll in Safecare accreditations programs to ensure higher standards are practiced across all the branches to all the staffs.

Lastly efficiency of services had the lowest influence on satisfaction. From the literature for patients to be satisfied with services they need to experience high efficiency in delivery systems, well equipped providers, improved services, and advanced equipment. therefore, strategies to improve efficiency should be put in place by the management. One of the potential areas for improvement is the use and reliance on digital technologies to improve the quality of care provided to patients. While technologies such as electronic health records are massively adopted in healthcare facilities, new and promising technologies such as big data, artificial intelligence, and machine learning may still offer great opportunities for the future of healthcare. This would significantly improve efficiency at NHC-Maisha. As suggested by Secundo *et al.* (2021), digital technologies offer excellent opportunities for increasing the quality of care provided by organizations in the healthcare sector. This is an excellent area of consideration for the organization in attempts to increase the quality of care and patient satisfaction.

Further Research: This research emphasised assessing the relationship between quality of care for service provision and patient satisfaction with outpatient service at NHC Maisha Private Health Centres in Nakuru County. Further studies should be conducted to determine the implementation of factors influencing the quality of healthcare services at the outpatient section at both government hospitals and private hospitals using comparative approach. More research should be conducted targeting other private hospitals for comparison and to determine whether satisfaction with outpatient healthcare services can be achieved sustainably across hospital size and typology.

The results showed that the level of patient satisfaction differed among the patients based on gender, with female participants displaying significantly lower satisfaction compared to males. These findings encourage the facility to consider specific issues related to the quality of care that may have resulted in this difference. In such cases, a qualitative follow-up study may be conducted where a sample of patients may be interviewed to understand more about the issues causing the gender disparity in the perception of satisfaction. According to Brannen (2017), combining qualitative and quantitative research approaches may generate deeper and more detailed information on a phenomenon under study; this may be applied in this context.

The other recommendation related to the need for the facility to increase or maintain the quality of care provided to the patients. While all the dimensions of quality of care significantly predicted patient satisfaction, areas such as tangibles and service efficiency had the lowest impacts on the model. Therefore, the organization can consider investing more in hospital equipment, in the affiliate facilities especially those that need to provide specialized services. Also, the efficiency of services offered can be improved at the facility as appropriate. However, the exact decisions will require more research and be aligned with the goals and objectives of the facility.

5.4 Limitations of the study

Two main challenges present as limitations to the current study. First, the very sick patients in the emergency room were not recruited for interview. To address this limitation, other patients from other departments were sampled.

Secondly, the study adopted a quantitative research design which did not allow the researcher to probe the respondents further. This limitation was addressed through

Questionnaire development focused on pre-tests that ensured valid information was collected from the participants. Perhaps the inclusion of a qualitative approach would be supplemented to discover key problems more in understanding more on why some clients were dissatisfied.



5.4 Conclusion

In conclusion, this study provided adequate empirical evidence that healthcare service quality and in particular patient safety, quality of care, provider empathetic behaviour and availability of hospital tangibles have positive and significant relationships with patient satisfaction with outpatient health services at the NHC Maisha private health centres in Nakuru County.

A moderate level of patient satisfaction was recorded with the outpatient services provided at the facility. The highest satisfaction levels were linked to perception of patient safety and the presence of clear communication between patients and healthcare providers. The lower patient satisfaction in relation to literature underscores complex nature of patient satisfaction in healthcare facilities. Therefore, efforts to improve patient satisfaction must consider the multidimensional nature of the variable. At the same time, patient satisfaction was dependent on Gender with males having higher satisfaction levels as compared to females. Quality-related factors such as empathy, tangibles, safety and efficiency in the services delivered to patients all affected patient satisfaction with quality of care. These relationships reinforce the need for healthcare providers and policy makers in the sector to consider ways of improving patient satisfaction levels. The need for patient-centred care designed to create value while satisfying the needs of patients has been brought out clearly from the study's findings.

These findings support policymakers' views that previously concluded that most clients in Kenya would prefer to visit the private health facility in pursuit of high-quality healthcare services (Worldbank, 2010). These findings imply that policymakers and hospital management within the public sector can learn from private hospitals' strategies on enhancing key aspects of health service delivery such as patient safety, empathy and provision of tangibles.

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APPENDICES

Appendix 1: Letter of Introduction

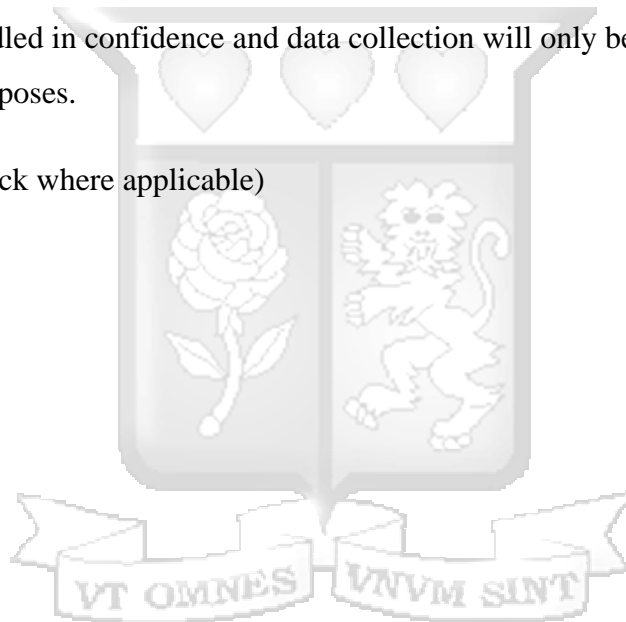
Introduction

My name is Roseline Odhiambo Okumu. I am an MBA student at Strathmore University Business School. Registration number 91035. In partial fulfilment of the course of master's in business administration in healthcare management, I am conducting research on the assessment of patient satisfaction in a private clinic at the peri-urban setting in Naivasha sub- County, Nakuru County. I would like to request you for your participation in this research by answering the questions below. All your responses will be handled in confidence and data collection will only be used for academic purposes.

Instructions (Kindly tick where applicable)

Yours sincerely

Roseline



EXPLORING FACTORS INFLUENCING SATISFACTION WITH OUTPATIENT SERVICES AT NHC MAISHA CLINICS IN A PERI- URBAN SETTING IN NAKURU COUNTY, KENYA.

Appendix 2: Questionnaire

General Instructions

- a) For each question pick the appropriate answer by checking the response you feel is more appropriate.
- b) Check the box by ticking or any other mark
- c) Please make a single response per question

Section A: socio-demographic characteristics of respondents

1. What is your gender?

- Male
- Female
- I prefer not to say

2. What is your age (in years)?

- 18 -25
- 25 - 35
- 35 -45
- 45 -55
- 55 and above.

3. Education level

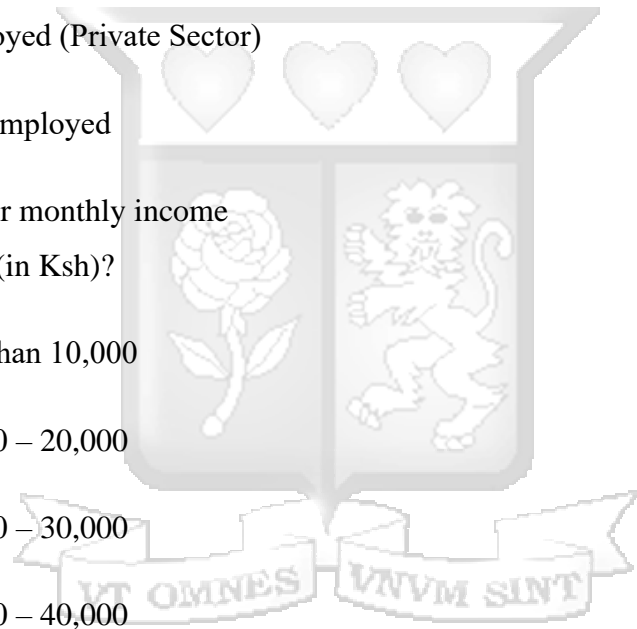
- No formal education
- Primary Level
- Secondary Level
- College/University

4. Employment status

- Un-employed
- Employed (Govt/Public sector)
- Employed (Private Sector)
- Self Employed

5. What is your monthly income bracket (in Ksh)?

- Less than 10,000
- 10,000 – 20,000
- 20,000 – 30,000
- 30,000 – 40,000
- 40,000 – 50,000
- 50,000 and above.



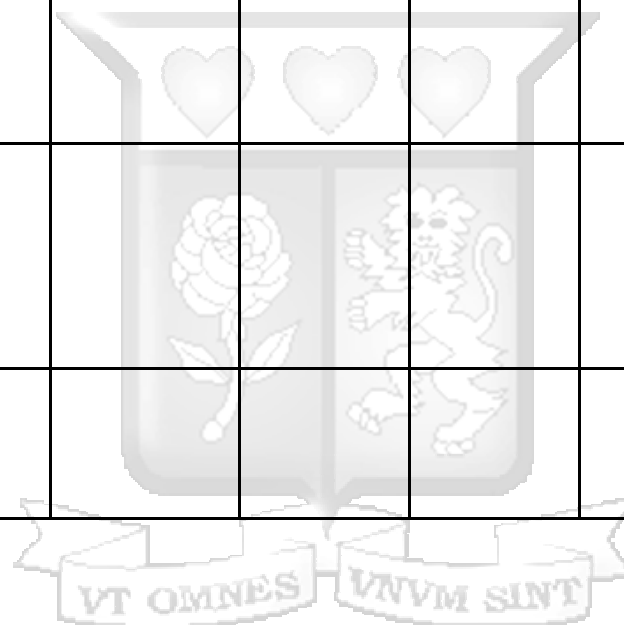
Section B: Variables

Kindly read each question and indicate your most appropriate response by checking the respective box that corresponds to your chosen response.

1. Patient satisfaction at NHC-Maisha

1.1 On a scale of 1 to 5, do you agree or disagree with the following statement....

Item	1(strong ly disagree)	2(dis 3(Neu	3(Neutral)	4 (Agree)	5(Strongly agree)
I was satisfied with the care I received					
Medical staff put in much effort to deliver care					
Staffs are ready to respond to patients' inquiries					
There is proper communication between patients and healthcare providers.					
The medical staff ensure patients' safety					



Monitoring of care

2. Patient safety at NHC-Maisha

2.1 On a scale of 1 to 5, do you agree or disagree with the following statement....

Item	1(strongly disagree)	2(disagree)	3(Neutral)	4 (Agree)	5(Strongly agree)
The medical staff are confidence in providing patient care/treatment					

The hospital environment is comfortable					
There are modern facilities here					
The staff are Knowledgeable					
I get information update on when services are being offered					

3. Patient perception of care provision at NHC-Maisha

3.1 On a scale of 1 to 5, do you agree or disagree with the following statement....

Item	1(strongly disagree)	2(disagree)	3(Neutral)	4 (Agree)	5(Strongly agree)
I was seen according my expectations					
I received the required treatment					
I received high quality of care					
There is provider Competence					
I received continued monitoring or after care service					
I received improved healthcare processes					



4. Provider empathetic behaviour at NHC-Maisha

4.1 On a scale of 1 to 5, do you agree or disagree with the following statements.....

40

Item	1(Strongly disagree)	2(disagree)	3(Neutral)	4(Agree)	5(Strongly agree)
Health care providers have good attitude					

Doctor call patients by name					
Staff portray Similar emotions with patients					
Staff members are friendly					
Staff members listen to patients					
Staff members are considerate of patients' situation/show s attention and concern					
Staff understands patients' problems/needs					

5. Availability of tangible facilities at NHC-Maisha with patient satisfaction

5.1 On a scale of 1 to 5, do you agree or disagree with the following statements.....

Item	1(Strongly disagree)	2(Disagree)	3(Neutral)	4 (Agree)	5(Strongly agree)
The prescription given is easy to understand.					
Medical practitioners are experienced/skilled					
The Hospital is clean					
There is availability of medical Equipment					

There is use of technology to improve processes					
Hospital staff use standard equipment					
Hospital rooms are in good condition					
The hospital has electronic health records					

Appendix 3: Kiswahili Version of Questionnaire

KIAMBATISHO 2:

Maelekezo ya Jumla

a) Kwa kila swali chagua jibu linalofaa kwa kuangalia majibu ambayo unahisi yanafaa Zaidi. b) Angalia kibanduku kwa kuweka alama ya tiki au alama nyingine yoyote.

c) Tafadhali toa jibu moja kwa kila swali

Sehemu ya A: Sifa za kidemografia ya kijamii za wenye kuhojiwa.

1) Wewe ni wa jinsia gani?

1. Ya Kiume

2. Ya kike

3. Napendelea kutojibu/kutosema.

2) Una miaka mingapi?

● 18 -25

● 25 - 35

● 35 -45

● 45 -55

● 55 ama Zaidi.

3) Kiwango chako cha elimu

● Sikupata elimu rasmi

● Ngazi/Kiwango cha shule ya msingi

● Ngazi/Kiwango cha shule ya sekondari



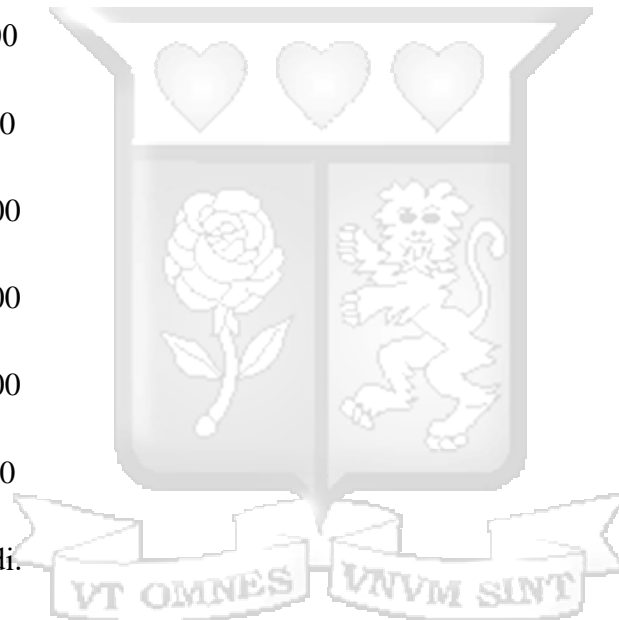
- Ngazi ya chuo kikuu

4) Hali yako ya ajira

- Sina ajira
- Nimeajiriwa (Katika serikali/Sekta ya umma)
- Nimeajiriwa (Katika sekta ya kibinafsi)
- Nimejijiri mwenyewe

5) Mapato yako ya kila mwezi (kwa Ksh) yako katika kundi gani hapo chini?

- Chini ya 10,000
- 10,000 - 20,000
- 20,000 – 30,000
- 30,000 – 40,000
- 40,000 – 50,000
- 40,000 - 50,000
- 50,000 na Zaidi.



SEHEMU YA B: VIGEZO

Soma kila swali na uonyeshe jibu lianlofaa Zaidi kwa kuangalia kisanduku kinachohusika ambacho kinalingana na jibu ulilochagua

6. Ubora wa huduma ya utunzaji katika NHC-Maisha

1.1 Kwa kiwango cha 1 hadi 5, ni kwa kiasi gani unafikiria umeridhika au hujaridhika

.....

Kipengele	1 (Sijaridh ika sana)	2 (Sijaridhi ka)	3(Kwa kiasi Fulani nimeridhik a)	4(Nimeridhi ka)	5(Nimerid hik a sana)
Niliridhika na utunzaji niliopata					
Juhudi za wafanyikazi wa matibabu kutoa huduma					
Wafanyikazi wako tayari kutoa majibu kwa maswali ya wagonjwa					
Mawasiliano kati ya mgonjwa na wenye kutoa huduma za matibabu					

Wafanyikazi wa matibabu					
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wanahakikisha wagonjwa ' usalama					
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d) Ufuatiliaji wa huduma/utunzaji

1. Usalama wa mgonjwa katika NHC-Maisha

2.1 Kwa kiwango cha 1 hadi 5, ni kwa kiasi gani unafikiria umeridhika au hujaridhika

.....

Kipengele	1(Sijaridh ika sana)	2 (Sijaridhika)	3(Kwa kiasi Fulani nimeridhik a)	4(Nimeridhik a)	5(Nimer idhika sana)
Kujiamini kwa wafanyikazi katika kutoa huduma/matibabu					

Mazingira ya karimu ni ya kuleta Faraja/ Starehe					
Vifaa vya kisasa					
Wafanyikazi wenye ujuzi/uzoefu					
Ulijulishwa kuhusu ni wakati gani ambapo huduma Zitatolewa					

e) Mtazamo wa mgonjwa kuhusu huduma katika NHC-Maisha

3.1 Kwa kiwango cha 1 hadi 5, ni kwa kiasi gani unafikiria umeridhika au hujaridhika

Kipengele	1 (Sijaridh ika sana)	2 (Sijaridhi ka)	3(Kwa kiasi Fulani nimeridhika)	4(Nimeridhi ka)	5(Nimerid hika sana)
Nilionekana					

kulingana na matarajio yangu					
Nilipata matibabu Yaliyotarajiwa					
Nilipokea huduma ya hali ya juu					
Uwezo wa mtoa huduma					
Nilipokea ufuatiliaji unaoendelea au baada ya huduma ya utunzaji					
Nilipokea michakato bora ya huduma ya afya					

d) Tabia ya huruma ya muhudumu katika NHC-Maisha

4.1 Kwa kiwango cha 1 hadi 5, ni kwa kiasi gani unafikiria umeridhika au hujaridhika

.....

Kipengele	1 (Sijaridhika sana)	2 (Sijaridhika)	3(Kwa kiasi Fulani nimeridhika)	4(Nimeridhika)	5(Nimeridhika sana)
------------------	---------------------------------------	-----------------------------------	--	-----------------------	----------------------------

			a)		
Mtazamo wa wenye kutoa huduma					
Daktari humuita mgonjwa kwa majina yake					
Wafanyikazi huonyesha hisia sawa na wagonjwa					
Kiwango cha urafiki					
Kuwasikiliza wagonjwa					
Kuzingatia hali ya mgonjwa/wanaonyesha umakini na kujali					
Wafanyikazi wanaelewa matatizo ya mgonjwa/mahitaji					

f) Upatikanaji wa vifaa vinavyoonekana katika NHC-Maisha

5.1 Kwa kiwango cha 1 hadi 5, ni kwa kiasi gani unafikiria umeridhika au hujaridhika

Kipengele	1 (Sijaridhika sana)	2 (Sijaridhika)	3(Kwa kiasi Fulani nimeridhika)	4(Nimeridhika)	5(Nimeridhika sana)
Dawa iliyotolewa ni rahisi kuelewa					
Madaktari wenye uzoefu/ujuzi					
Usafi wa hospitali					
Upatikanaji wa vifaa vya matibabu					
Utumiaji wa teknolojia ili kuboresha michakato					
Wafanyikazi wa hospitali hutumia vifaa vya kawaida					
Dawa zilizotolewa					

ni rahisi kuzielewa					
Vyumba vya hospitali vipo katika hali nzuri					
Upatikanaji wa rekodi za afya za Kielektroniki					



Appendix 4: Informed Consent

PARTICIPANT INFORMATION AND CONSENT FORM

Study Title: EXPLORING FACTORS INFLUENCING SATISFACTION WITH OUTPATIENT SERVICES AT NHC MAISHA CLINICS IN A PERI-URBAN SETTING IN NAKURU COUNTY, KENYA.

Investigator: ROSELINE AWINO ODHIAMBO (*Master of Business Administration in Healthcare Management*) STRATHMORE BUSINESS SCHOOL, STRATHMORE UNIVERSITY.

Purpose of study: The study focuses on assessing patient satisfaction at NHC MAISHA facilities and its affiliate clinics. It aims to assess the relationship between socio demographic variables, patient safety and hospital tangibles in relation to patient satisfaction.

The study is for academics and the information gathered will help improve the facility in patient satisfaction, safety and care.

How to Participate: You will be required to give responses to some questions which will be asked personal details, quality of care at NHC MAISHA, patient safety and about the facility. This may take approximately 20 minutes.

Right to refusal or withdrawal: Taking part in this study is your choice; you may choose not to be in it. Your participation is voluntary and you are free to agree or disagree to participate in this study. You may withdraw from the study at any time even after signing this form and there will be no victimisation.

Confidentiality and privacy: Your involvement in this research study will be kept confidential by identifying you in the study records by a code/unique number. The study results/report that will be used in the final thesis will not use your name. All research records will be stored in securely locked cabinets. That information may be transcribed into our database but this will be sufficiently encrypted and password protected. Only the people who are closely concerned with this study will have access to your information. All your information will be kept confidential.

Risks and benefits: There are no risks or discomforts associated with this study and neither are there any direct benefits to you for taking part in.

For further clarifications or questions on this study, please contact me

Investigator: Roseline Odhiambo (Mobile: 0710595832 or Email roseline.okumu@strathmore.edu)

My Supervisor: (Mobile: or Email:)Dr Jackline Aridi (0715961081 or email jackline.aridi@strathmore.edu)

Enquiries to: The Secretary- Strathmore University Institutional Ethics Review Board,
P.O BOX 59857-00200, NAIROBI; Email: ethicsreview@strathmore.edu; Tel No: + 254 703 034 375

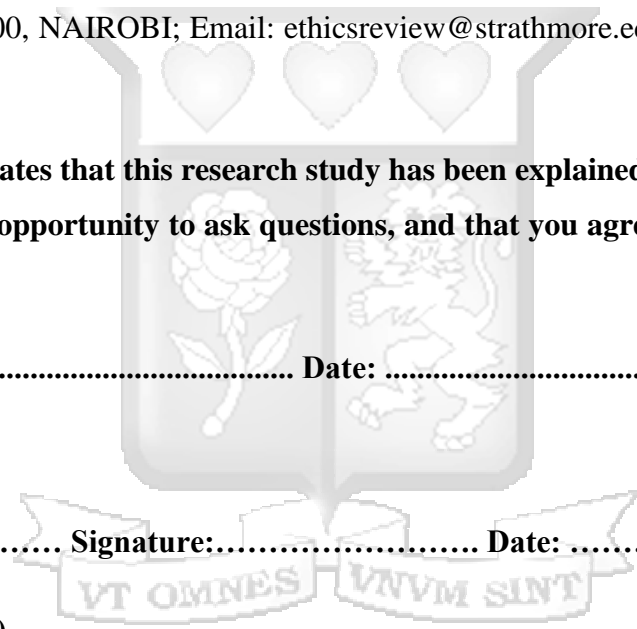
Your signature indicates that this research study has been explained to you, that you have been given the opportunity to ask questions, and that you agree to take part in this study.

Signature: **Date:**

For Official Use:

Name:..... **Signature:**..... **Date:**

(Research Personnel)



Appendix 5: Kiswahili Consent

MAELEZO KWA MSHIRIKI NA FOMU YA IDHINI

Kichwa cha Utafiti: KURIDHIKA KWA WAGONJWA NA UTOAJI WA HUDUMA ZA MATIBABU YA NJE KWENYE VITUO VYA AFYA VYA KIBIBAFSI VYA NHC MAISHA KWENYE ENEO LA PEMBEZONI MWA MJI KATIKA GATUZI LA NAKURU, KENYA.

Investigator: ROSELINE AWINO ODHIAMBO (*Master of Business Administration in Healthcare Management*) STRATHMORE BUSINESS SCHOOL, STRATHMORE UNIVERSITY.

Madhumuni/Lengo la utafiti: Utafiti unalenga kutathmini kuridhika kwa wagonjwa katika vituo vya NHCMAISHA na kliniki zake washirika. Unalenga kutathminiuhusiano kati ya vigezo vya demoggrafia ya kijamii, usalama wa mgonjwa na vitu vinavyoonekana hospitalini vinahusiana na kuridhika kwa mgonjwa.

Utafiti ni wa kitaaluma na maelezo yatakayokusanywa yatasaidia kuboresha kituo katika kuridhisha mgonjwa, uaslama na huduma.

Jinsi ya kushiriki: Utahitajika kujibu maswali ambayo yatauliza mambo ya kibinafsi, ubora wa huduma katika NHC MAISHA, usalama wa wagonjwa na kuhusu kituo chenyewe. Hii huenda ikachukua takribani dakika 20.

Haki ya kukataa kushiriki au kujitoka kutoka kwenye utafiti: Kushiriki kwenye utafiti huu ni chaguo lako; unaweza kuchagua kutoshiriki. Kushiriki kwako ni kwa hiari yako na uko huru kukubali au kukataa kushiriki kwenye utafiti huu. Unaweza kujitoka kwenye utafiti wakati wowote hata baada ya kuweka sahihi kwenye fomu hii na hakutakuwa na uonevu wowote kwako.

Usiri na faragha: Kuhusika kwako kwenye utafiti huu kutawekwa siri kwa kutambuliwa kwenye rekodi za utafiti kutumia kodi/nambari maalum. Majibu/ripoti ya utafiti amabayo itatumika kwa tasnifu ya mwisho haitatumia jina lako. Rekodi zote za utafiti zitahifadhiwa kwenye kabati zilizofungwa kwa usalama. Maelezo haya huenda yakaandikwa kwenye hifadhi zetu za data, lakini hii itasimbwa vya kutosha

na kulindwa kutumia neno maalum la siri. Ni watu ambao wanahusika kwa karibu kwenye utafiti pekee ndio watapata/watafikia maelezo yako. Maelezo yako yote yatawekwa kuwa siri.

Hatari na faida: Hakuna hatari ama usumbufu ambao unahusishwa na utafiti huu na pia hakuna faida ya moja kwa moja utakayopata kwa kushiriki kwenye utafiti huu.

Kwa ufafanuzi Zaidi ama ukiwa na maswali kuhusu utafiti huu, tafadhali wasiliana na mimi.

Investigator: Roseline Odhiambo (Mobile: 0710595832 or Email roseline.okumu@strathmore.edu)

My Supervisor: (Mobile: or Email:)Dr Jackline Aridi (0715961081 or email jackline.aridi@strathmore.edu)

Kwa maswali: Katibu-Bodi ya Mapitio ya Maadili ya Chuo Kikuu cha Strathmore, P.O BOX 59857-00200, NAIROBI; Email: ethicsreview@strathmore.edu; Tel No: + 254 703 034 375

Sahihi yako inaashiria kwamba umeelezewa kuhusu utafiti huu, kwamba umepewa nafasi ya kuuliza maswali, na kwamba unakubali kushiriki kwenye utafiti huu.

Sahihi: **Tarehe:**.....

Kwa Matumizi Rasmi:

Jina: **Sahihi:** **Tarehe:**
..... (Wafanyikazi kwenye utafiti)

Appendix 6: Budget

ITEM	QUANTITY	UNIT PRICE	TOTAL (Ksh.)
Questionnaires, consent forms	324	40.00	12,960
Printing and binding of the proposal	3	500.00	1,500
Data Analysis	1	35,000.00	35,000
Printing and binding of Dissertation	3	4,000.00	12,000
Miscellaneous		5,000.00	5,000
2 Assistants	6 Days	1,500.00	18,000
TOTAL			84,460

Appendix 7: SU-ISERC Letter of Approval



16th February 2023

Mrs Odhiambo Roseline Awino Okumu,
roseline.okumu@strathmore.edu

Dear Mrs Odhiambo,

**RE: Patient Satisfaction with Outpatient Healthcare Service Provision at NHC
Maisha Private Health Centres in a Peri-Urban Setting in Nakuru County**

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU- master's** research proposal. Your application reference number is **SU-ISERC1547/23**. The approval period is from **16th February 2023 to 15th February 2024**.

This approval is subject to compliance with the following requirements:

- i. Only approved documents including (informed consents, study instruments, and MTA) will be used
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 48 hours of notification
- iv. Any changes, anticipated or otherwise, that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 48 hours
- v. Clearance for the export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke/> and obtain other clearances needed.

Yours sincerely,

for: **Dr Ben Ngoye,**
Secretary; SU-ISERC

Cc: Mr Ambrose Rachier,
Chairperson; SU-ISERC



Appendix 8: SU Letter of Introduction

Ola Sangale Rd, Macaraka Estate,
P.O. Box 59857 00200, Nairobi, Kenya.
Cell: +254 703 414/6/7, Twitter: @SBSKenya
Email: info@sbs.ac.ke or visit www.sbs.strathmore.edu



20th February 2023.

To Whom It May Concern,

RE: FACILITATION OF RESEARCH – ROSELINE AWINO ODHIAMBO.

This is to introduce Roseline Awino Odhiambo, a Master of Business Management in Healthcare Management (MBA-HCM) student at Strathmore University Business School, admission number MBA HCM/91035/20

As part of our MBA-HCM Program, Roseline is expected to do applied research and undertake a project. This is in partial fulfillment of the requirements of the course; to this effect, Roseline would like to request appropriate data from your organization.

Roseline is undertaking a research paper on “**Patient Satisfaction with Outpatient Healthcare Service Provision At NHC -MAISHA Private Healthcare Centers In A Peri-Urban Setting In Nakuru County Kenya.**” The information obtained shall be treated confidentially and shall be used for academic purposes only.

Our MBA-HCM Programme seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct use to the industry. We would be glad to share our findings with you after the research, and we trust that you will find them of great interest and practical value to your organization.

We appreciate your support and will be willing to provide further information if required.

Yours sincerely,

A handwritten signature in black ink, appearing to be "Njoki Kiagiri".

Njoki Kiagiri.
Manager – Graduate Programme



Appendix 10: NACOSTI Research License


REPUBLIC OF KENYA


NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION.

Ref No: **824332** Date of Issue: **16/March/2023**

RESEARCH LICENSE




This is to Certify that Ms. Roseline awino odhiambo of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nakuru on the topic: patient satisfaction with outpatient healthcare service provision at NHC-maisha private health centres in a peri-urban setting in Nakuru county, for the period ending : 16/March/2024.

License No: **NACOSTI/P/23/23953**

824332

Applicant Identification Number


Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code



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See overleaf for conditions