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Value of clinician - patient communication on patient satisfaction and net promoter score in private healthcare centers in Kenya.

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VALUE OF CLINICIAN - PATIENT COMMUNICATION ON PATIENT SATISFACTION AND NET PROMOTER SCORE IN PRIVATE HEALTHCARE CENTERS IN KENYA

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DECLARATION

Declaration by Candidate:

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 thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

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Approval

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ABSTRACT

Healthcare services remain one of the basic and fundamental services to humanity. The attainment of the United Nations Sustainable Development Goal 3 and Kenya Vision 2030 blueprint will require a healthy nation. In the quest for the provision of good healthcare, the health service provider-patient engagement, interaction and communication are critically important. This study sought to determine the value of clinician-patient communication on net promoter score for private healthcare enterprise and impact on patient satisfaction in Nairobi Kenya. The specific objectives were to determine the influence of quality clinician-patient communication on patient satisfaction and to determine the effect of clinician-patient communication on Net Promoter Score of private healthcare enterprise in Nairobi Kenya. The study was anchored by the diffusion of innovation theory and supported by convergence theory. This study adopted a positivism research philosophy and descriptive survey method as the research design. The target population was 6,466 patients/caregivers with sample size of 377 patients/caregivers. A questionnaire was used to collect primary data. Data analysis was carried out using SPSS Version 21 and entailed descriptive and inferential statistics. The descriptive statistics comprised frequencies and percentages. Inferential statistics involved simple linear regression to determine the influence of quality clinician-patient communication on patient satisfaction and net promoter score of private healthcare enterprises. It was established that patient-clinician communication is positively and significantly correlated with patient satisfaction in private health care enterprises (β=1.496, p-value=0.000). In addition, patient-clinician communication is positively and significantly correlated with net promoter score in private health care enterprise in Kenya (β=1.743, p-value=0.000). The study concluded that patient-clinician communication influences patient satisfaction and net promoter score. The study recommends training clinicians on proper verbal and non-verbal communication to foster a deeper interaction and relationship with patients. Thus, the study recommended the establishment of an effective feedback communication loop between clinicians and patients to avoid instances of ambiguity and miscommunication.

Key words: *clinician-patient communication, net promoter score, patient satisfaction, private healthcare enterprise, Nairobi Kenya*

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LIST OF ACRONYMS AND ABBREVIATIONS

FBOs: Faith Base Organizations

HIV: Human Immunodeficiency Virus

KEPSIE: Kenya Patient Safety Impact Evaluation Project

NACOSTI: National Council for Science Technology and Innovations

NGOs: Non-Governmental Organizations

SPSS: Statistical Package for Social Sciences

UNSDG 3: United Nations Sustainable Development Goal 3

WHO: World Health Organization

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This research project has been possible because of the tremendous support from Dr. Nancy Njiraini who has guided me, advised me, and supported me throughout this journey. I would also like to thank my family and friends for all the encouragement and the support that they have offered me.

DEDICATION

I wish to dedicate this thesis to my beloved wife Jedidah, my son Samuel, and my beloved parents who have always supported and motivated me in my studies.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter presents the background of the study and the research problem. The objectives of the study are highlighted. The scope of the study is discussed. The chapter is concluded by discussing the significance of the study to practice, policy makers and research.

1.2 Background to the Study

Healthcare services remain one of the basic and fundamental rights to humanity. The United Nations Sustainable Development Goal 3 focuses on good health and well-being. In addition, the Kenya Big 4 Agenda recognizes health as one of the key pillars. Moreover, the Constitution of Kenya 2010 also recognizes health as basic right to the citizen of Kenya (Oberst, 2021). The Kenya Health Policy, 2014–2030 demonstrates the health sector's commitment, under the government's stewardship, to ensuring that the country attains the highest possible standards of health, in a manner responsive to the needs of the people (Ministry of Health, 2014). The Kenya Vision 2030 blueprint to make Kenya a middle-income country also banks on health of the citizens. Despite the numerous health service intervention policies and programs, the provision of health services in Kenya remains problematic. According to Ministry of Health (2021), 6 out of 10 Kenyans cannot access quality health care, translating to 60% of the Kenyan population.

One of the recent measures that has gained prominence in assessing the quality of healthcare that patients have received is their patient experience (Alismail et al., 2020). Patients are increasingly involved in evaluation of the quality of received care, through the feedback they provide, regarding their interactions during pre-treatment and medical examination (Velayos et al., 2021). Feedback from patients' interactions and experiences is instrumental in identifying aspects of healthcare that need improvement, aspects that meet expectations, exceed expectations and aspects that inform the selection of healthcare providers by patients. In many instances, patient experience can be based on the perceived attitude of healthcare professionals, or the information availed to patients concerning their treatment (Hamilton et al.,

2021). However, information regarding patient treatment remains diverse and thus becomes difficult to be relied upon.

It is becoming evident in many health care sectors that customer feedback is vital in providing information which can be of great help in streamlining service processes (Hu et al., 2022). The urge to listen to beneficiaries is necessary in getting insights that will embrace effective means among health programs. Improving effectiveness of clinician-patient communication encompasses patient experience and medical standards adherence (Tye-Murray et al., 2022). A positive patient experience is important in that it promotes sharing of information from the patient that is crucial to the diagnosis process, and thus reduces the undertaking of unnecessary laboratory and radiological investigations. A positive patient experience is fully endorsed by scholars and policymakers in the marketing division, as an ideal tool for new referrals via word-of-mouth, and can be measured by Net-Promoter-Score.

In the quest for the provision of quality healthcare, the health service provider (clinician) and patient engagement, interaction, communication are critically important. The proper diagnosis of a patient's health symptoms and signs, progress and uptake of medical drugs prescribed is dependent on the quality of clinician-patient communication (Iedema et al., 2015). The quality of patient experience with clinicians is useful to the clinicians in the extraction of important health information from the patients, such as disease symptoms and past medical treatment interventions. Some patients may be reluctant, feel uneasy or ashamed to share certain medical problems ailing them (Belasen & Belasen, 2018). In such situations, good rapport between the patient and clinician breaks away the uneasiness allowing the patient to share their medical prognosis and the clinician can thus propose proper medical intervention for the patient (Vermeir et al., 2015). The engagement between clinician and patient is termed as value of clinician-patient communication. Patient-experience is a wider term that encompasses the range of interactions that patients have with the health care system, i.e., the actual and perceived environment, the virtual and actual interaction with payors, insurance providers, clinicians from various cadres and non-medical staff in the healthcare facilities.

Clinician-patient communication is considered a cornerstone in the medical field and at the same time remains a complex relationship. On one hand it's defined by

the professional communication of medical practitioner guidance and on the other hand there lies the extra ordinary diversity of emotions and ques exhibited by patients during the diagnosis process. Clinician-patient communication involves diagnosis, prescription discussions with the patient and making referrals where necessary. These discussions not only affect treatment but also determine the future prognosis of the patient, especially with regard of quality of life. Building mutual trust between a clinician and their patient improves communication plus feedback with full confidence on safety and effectiveness of treatment interventions. The quality of clinician-patient communication is decisive in the direction that diagnosis ought to proceed and parameters which are needed for it to be successful. Quality clinician-patient communication contributes to correct diagnosis, treatment, and smooth functioning of health systems. Communication between clinician and patient is more important than treatment outcomes for overall patient satisfaction, as quality communication leading to patient satisfaction with treatment offered also positively impacts the perceived effectiveness of the treatment (Sara Atanasova et al., 2020).

As an integral component of health care quality, patient experience includes several aspects of healthcare delivery that patients value highly when they seek and receive care, such as getting timely appointments, easy and correct access to information plus good communication with health care providers (Anhang et al., 2014). Clinician-patient communication is the interpersonal conversation and engagement between a health service provider and patient about medical conditions and past medical records (Richter & Muhlestein, 2017). Effective doctor-patient communication is a central medical function in building a therapeutic doctor-patient relationship, which is the heart and art of medicine in the delivery of high-quality health care services (Ha & Longnecker, 2010). Provision of quality healthcare services makes it easy for the marketing and promotion of the healthcare service provided by the healthcare facility mainly through the quality of clinician-patent communication. In the healthcare sector, clinician-patient communication about the quality of medical services is one of the major channels of marketing particularly for private healthcare enterprises. Gürcü and Korkmaz (2018) noted that 68.1 % of healthcare seekers in the private medical care insisted proper clinician-patient communication enhanced the medical prognosis. Thus, the better the patient

experience and the higher the Net Promoter Score, the greater the likelihood that a health facility can offer its services to a greater number of clients.

1.2.1 Patient communication

Communication is of the utmost importance in the provision of healthcare services and breakdown of communication between clinician and patient would derail the quality of healthcare services (Ratna, 2019). Patient communication is the ability of the patient or health seeker to convey medical information regarding their health condition and past medical history to medical service providers (Mittal et al., 2015). Clinicians' ability to communicate information effectively and compassionately is key to a successful patient-doctor relationship (Chandra & Mohammadnezhad, 2021). The use of patient-centered conversation, courteous communication skills, and shared decision making improves patient-clinician communication outcomes. Clinician-patient communication is critically important in conducting proper medical prognosis and intervention.

Communication and interpersonal skills form part of core training programs for medical practitioners. Effective and efficient communication is part of a strategy in ensuring that healthcare service providers provide quality healthcare services to the patients (Madula et al., 2018). A clinician's non-verbal communication during a consultation is as important as the information being conveyed to the patient (Wong & Lee, 2006). The important aspects of clinician–patient communication comprises developing a good interpersonal relationship, being a listener, exchanging information, and making patient-centered conversation that led to better medical prognosis (Ratna, 2019). Good and effective clinician-patient communication improves patients' trust in their healthcare providers, enables the clinicians to extract important medical information from the patient, enhances patient satisfaction levels and adherence to medical treatment.

In primary healthcare, patients prefer a patient-centered communication that is more responsive to patient perspectives and needs, perspectives such as their concerns, expectations, ideas, and feelings, with patient values guiding decision making (Sharifabad et al., 2019). Proper clinician-patient communication builds on discussions and decisions that involve sharing of adequate and accurate information, providing empowering and compassionate care while doing so and being sensitive

to patient needs which builds relationships (Belasen & Belasen, 2018). Some of the ingredients for patient-centered communication include the doctor's listening skills, empathy, the patient's storytelling skills, an environment that lacks distractions, medical expertise, adequate time, and use of simpler language which is easily understood by the patient (Ha & Longnecker, 2010). Good clinician–patient communication is more likely to result in patients being satisfied with their care, follow the doctor's advice, adhere to their treatment plan, better mental health, enhanced psychological adjustments and increase in Net Promoter Score (Andrew et al., 2014). Clinicians' effective communication skills are characterized by comfort, acceptance, listening, responsiveness, and empathy.

1.2.2 Net Promoter Score

Net Promoter Score is a technique used in many fields to assess the efficiency of software, websites, shopping experiences, patient experiences among others (Alismail et al., 2020). This technique is widely applied in medical field because of its simplicity that features single question made up of standard scale, and implementation, analysis and reporting are very straight forward (Lucero, 2022). It is useful when used as benchmark for the field especially when examining experience on aggregate from all health care perspective (Krol et al., 2015). Ordinarily, Net Promoter Score is effective in understanding what works most for who and under what circumstances. It is known for providing a standard measure in determining the level of satisfaction based on customer experiences.

Net Promoter Score is regarded as the simplest and most straight forward way of assessing patients' experiences and satisfaction (Koladycz et al., 2018). The technique is synonymous with the ultimate question of suggesting a patient's level of satisfaction. According to Dawes, (2023) Net Promoter Score stems from the field of management and marketing, and it is a universal single question framed as 'How likely is it that you would recommend this business/ enterprise products/ services to a friend or a family member?' Participants are expected to give their responses on a scale of 0 to 10 where responses close to 0 are regarded as "not likely" whereas a response close to 10 indicates "extremely likely". Individuals who give responses ranging from 9 to 10 are considered as 'promoters' while those ones who give

responses in the range of 6-8 are considered ‘passives’ and individuals who give responses from 0-6 are considered ‘detractors’.

Despite this technique being regarded as simple and concise in examining satisfaction of customers, its methodology and ability to predict progress is debatable (Baquero, 2022). This technique suffers from ambiguity since it cannot define why patients are either satisfied or not. Some scholars have argued that this technique is biased because it only focuses on existing patients and is very rigid when it comes to new patients (Adams et al., 2022). One of the key principles of this technique is focusing on a single activity yet in practical terms there are possibilities of other outcomes which may not be captured by this technique.

The computation of net promoter score is obtained by grouping customers into ‘promoters’, the group that is much more willing to recommend family/friends to consume health services from the same health facility, mathematically denoted by integers 9 and 10 on the level of willingness (Andreski et al., 2020). The second category of individuals are regarded as ‘passives’, denoted by integer 7 and 8 on their ability and willingness to recommend. The third group constitutes the ‘detractors’ who are denoted by integers ranging from 0-6 in terms of willingness to recommend family/friends to consume health care products or services from the same health facility (Krol et al., 2015). Net Promoter Score is among the simplest of computations for this metric of word-of-mouth referrals, and its strong ability to predict growth make it the most appropriate technique as compared to other alternative techniques that are more complex or expensive (Wilberforce et al., 2019).

1.2.3 Private Healthcare Enterprise

The Kenyan Constitution (2020) states that every Kenyan has a right to quality and affordable health care in terms of quality medical attendance, access to medical equipment and drugs, reception, and patient experience. The government is at the center of enhancing access to healthcare services through public healthcare facilities.

The health system in Kenya is comprised of public healthcare as the leading players constituting the Ministry of Health/parastatal organizations and the private sector (Wamae, 2019). The enactment of devolution saw many health care facilities devolved and its management is under the county government. The private sector is

composed of healthcare facilities established for profit and Faith Based Organizations (Kungu et al., 2019). Health care services are provided across a network of over 4600 health care facilities spread across Kenya with the government-run public health facilities accounting for over 51% of the total health facilities (Muga et al., 2015). The public health systems are classified into the following categories: national referral health facilities, county referral health facilities, level four health facilities, health centers, dispensaries, and level one health facilities.

Despite the significant importance of healthcare access to the nation, the clinician-patient ratios in Kenya are extremely low according to WHO standards, and as expected the patient experience in public health facilities is poor. To enhance access to healthcare services, the government of Kenya recognizes the private healthcare service providers in the provision of healthcare services. Private healthcare facilities are the most accessible health facilities and are deemed integral in the achievement of UNSDG 3, Kenya Vision 2030 and Big four agenda on access to health.

The private healthcare sector in Kenya has become more prominent in recent years by supporting the provision of improved healthcare access to Kenyans. The private healthcare service providers in Kenya are non-profit organizations (including faith-based and mission health facilities as well as local and international NGOs), and for-profit private healthcare providers. Private Healthcare Enterprise refers to healthcare service providers who are privately managed and operated. The funding of these healthcare providers is mainly through private sources. In addition, the recruitment and deployment of human resource personnel of these health service providers are through private engagement. However, for these private health service providers to operate, they must adhere to the regulations, guidelines, and policies of the National Ministry of Health among other regulatory bodies.

1.3 Problem Statement

The Kenya Patient Safety Impact Evaluation Project of 2015 (KEPSIE) identified that when comparing public to private and NGO health facilities in Kenya; there was no difference in overall correct treatment rates, no difference in high use of antibiotics across the three sectors and relatively high prices

in private and FBO/NGO facilities when compared to public institutions yet 29% of the general population still preferred to visit private/NGO health facilities (which comprise approximately 50% of the health facilities present yet offer services to less than a third of the population) (Maina et al., 2020). KEPSIE attributed the difference was due to the belief that private and FBO/NGOs health facilities provide more patient-centered care with better patient-experience and more time spent per patient whereas in public facilities, the patient experience was rather low with much higher wait and turn-around-time in public health service facilities. However, not all the private health facilities are recording favorable net promoter score. The net promoter score for private health facilities according to KEPSIE (2024) was 58%, a reduction from 62% in 2023. This is relatively low. The falling net promoter score has been attributed to the slow speed of attending to patients, inadequate medical supplies, and equipment although studies have not focused on clinician-patient communication and how it influences net promoter score (Mohamoud, 2021; World Bank, 2022).

Patient experience is directly linked to patient preference for private healthcare facilities. The better the overall patient experience, the higher the Net Promoter Score and therefore, the health facility can offer its services to a greater number of clients and thus expect good experience and rating from customer (Jandavath, & Byram, 2016). Proper and courteous communication regarding the patient's condition, diagnosis, prognosis, treatment options, expected recovery period and obtainment of informed consent should be done by all clinicians (Green et al., (2015). It is argued that proper patient communication at this point ensures the patient is well-informed about the medical condition and thus can make an informed decision to select and comply with treatment (Sutherland, 2019). However, anecdotal evidence suggests clinicians are not communicating effectively in Kenya health service institutions (health facilities and medical centers). Inadequate communication between clinicians and patients limits proper prognosis, and thus undermines accuracy of treatment/prescription, compliance and health outcomes.

Past studies indicate that favorable general patient experience not only positively impacts healthcare quality improvement, but that it would encourage patients to return to the same facility for future appointments and market the facility to new

patients (Anhang et al., 2014; Richter & Muhlestein, 2017). However, it is not specifically clear how patient communication, which is only one of many factors affecting patient experience, affects Net Promoter Score in an urban private health facility located in low middle income countries like Kenya. Findings out precisely how clinician-patient communication affects Net Promoter Score would help private-healthcare quality and health managers to better incorporate protocols and guidelines for effective patient communication, geared towards improving quality of health services and thus serving a greater proportion of the population. The proposed study seeks to determine the value of patient experience with clinicians, specifically clinician-patient communication, on Net Promoter Score for private healthcare enterprise in Nairobi Kenya.

1.4 Overall Objective

The main objective of the study is to determine the value of clinician-patient communication on patient satisfaction for private healthcare enterprise and impact on net promoter score in Nairobi Kenya.

1.4.1 Specific Research Objectives

i. Determine the effect of quality clinician-patient communication on patient satisfaction at private healthcare enterprise in Nairobi Kenya.
ii. Determine the effect of clinician-patient communication on net promoter score of private healthcare enterprise in Nairobi Kenya.

1.5 Research Questions

i. What is the impact of clinician-patient communication on patient satisfaction at private healthcare enterprise in Nairobi Kenya?
ii. What is the impact of clinician-patient communication on net promoter scores of private healthcare enterprise in Nairobi Kenya?

1.6 Scope of the Study

The study seeks to determine the value of patient experience with clinicians, specifically patient communication, on net promoter score to new patients in private healthcare enterprise in Nairobi Kenya. The specific objectives determined the effect of patient experience, doctor-patient communication, on Net Promoter Score

of private healthcare enterprise and net promoter score in Nairobi Kenya. The study was limited to private health care facilities in Nairobi City County since the region generally boasts the highest concentration of private healthcare facilities in the country. Private health facilities are perceived to have better patient experience and clinician-patient communication. The study was delimited to 52 registered and licensed level 5 private health care facilities in Nairobi. The unit of observation will be the one clinician from each of the private healthcare facilities.

1.7 Significance of the Study

The study is important to policy makers, especially Ministry of health, private health sector practitioners and researchers.

1.7.1 Private health sector practitioners

The results of the study would also provide hospital management with greater justification for investing time and resources associated with bolstering patient experience programs. Improvements in training, technology, and staffing focused on patient communication can be justified to improve not only quality but operational sustainability of healthcare systems in Kenya.

1.7.2 Policymakers

The study may assist in the reviewing and formulation of policies that enhance the experience of patients in hospital particularly on how patient-doctor relationship should be like. They can improve the communicational training guidelines for clinicians with aim of enhancing their communication practices with patients. Proper communication between clinicians and patients may enhance quality of healthcare services and achievement of Kenya Vision 2030 and universal healthcare coverage.

1.7.3 Researchers

The findings of this study may be of great significance to researchers and academicians regarding the role of clinician-patient communication and Net Promoter Score in private healthcare enterprise in Nairobi Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the theories that guided the proposed study. Further, in-depth critical analyses of past studies are undertaken as guided by the study objectives to identify research gaps. The chapter ends by presenting a conceptual framework and operationalization of study variables.

2.2 Theoretical Framework

The study was guided by diffusion of innovation theory and supported by convergence theory.

2.2.1 Diffusion of innovation theory

Diffusion of innovation theory was postulated by Everett Rodgers (1962) and is premised on how new ideas, concepts, or practices can be implemented within a community or society and from one society to another. The theory has identified and defined five subgroups based on the audience features and their affinity to embrace new ideas (Beal & Rodgers, 1960). The five subgroups included innovators, early adopters, early majority, late majority, and laggards. The theory acknowledges 'change' as a critical phenomenon and how individuals should approach any change within their cycle.

The diffusion innovation theory has been applied in understanding mode of communication and sharing of information in organization (Nsereka, 2021). According to health communication partnership (2005) change manifests in several ways that include creating awareness, knowledge and interest, decision, trial or implementation and confirmation or rejection of behavior. According to Rodgers (2003) diffusion of innovation theory is suitable in explaining communication channels used by organizations or individuals to communicate. One of these channels is interpersonal communication, where two or more individuals communicate directly to each other. Diffusion is regarded as a special social process that requires interpersonal communication relationships (Rodgers, 2003). Interpersonal communication is considered the most appropriate in creating change or strong attitude held by an individual.

This theory is useful in understanding the interpersonal communication and relationship between a clinician and patient. Strong interpersonal communication between a patient and a medic make it easier to diagnose diseases, which require a patient to describe their history and symptoms. Diffusion of Innovation theory also enhances patient satisfaction because by strong interpersonal communication, a clinician will be provided with most of the information of diagnostic importance by the patient, and a collectively owned treatment plan (by both clinician and patient) will be prescribed. In addition, patients are likely to refer their friends to their clinician for treatment, based on the positive experience occasioned by effective communication, thus improving the clinician's Net Promoter score. Effective communication gives patients the confidence to share information regarding their true state of health which makes diagnosis more accurate.

2.2.2 Symbolic Convergence Theory

Symbolic Convergence theory (1970) was postulated by Ernest G. Borman and the theory is premised on the explanation of constitutive communication processes and consequences of such convergence both within and beyond small groups. Kincaid, (1981) argued that information sharing, mutual understanding and mutual agreement is important in bringing social change. O'Sullivan et al. (2003) argued that individual perception and behavior are influenced by behaviors and perceptions of others in their group (for example, a patient group). Lewis (2002) noted that information sharing is a participatory process whereby all parties create and share information. Communication emphasizes the need for individual perceptions to be respected, and this information is encouraged to be shared by the listener to foster dialogue and understanding. This theory envisioned communication as a process in which participants respect each other and consider other individual feelings, emotions, and beliefs.

The Symbolic Convergence theory has been employed in communication studies to identify forms and structures of communications strategies in organization (Olumide, 2017). The theory was useful to the study because it emphasizes the importance of effective communication. Effective communication is characterized by full participation of the respective parties guided by mutual respect and understanding. A clinician and patient who clearly understand each other are likely to find a solution to any problem arising and hence improve patient-clinician relationship. This improves the net promoter score where patients carry the reputation of the health provider with high esteem.

2.3 Empirical Literature Review

2.3.1 Impact of clinician-patient communication on patient satisfaction.

Employing a cross sectional study design, Wachira et al. (2021) found longer clinician-patient communication is associated with greater satisfaction in HIV care. Effective clinician-patient communication amounts to customer satisfaction. Patients who perceive their clinicians as having good communication skills are mostly associated with satisfaction with medical care services. Strong clinician-

patient communication enhances the quality of health care services within the private healthcare enterprise.

Employing bivariate and multivariate models Jetty et al. (2020) studied patient-physician racial concordance associated with improved healthcare use and lower healthcare expenditures in minority populations. Racial concordance is associated with improvements in communication, which facilitates improved adherence to treatment plans, deeper partnership formation between patients and clinicians, and ultimately better customer experience. A better clinician-patient communication has resulted in improved shared decision making, improves patient understanding of the risk posed by the diseases and strong adherence to medication.

Rodin et al. (2009) investigated the clinician–patient communication: evidence-based recommendations to guide practice in cancer. Clinician-patient communication is critical in management of patients when they are in their critical care especially on chronic diseases such cancer. Communication serves to build and maintain relationships and to also reach an informed consensus between clinician and patient on treatment decisions taken. The process of communication between health providers and cancer patients can significantly affect customer experience. However, there has been evidence that communication has been suboptimal in most instances, and this is attributed to the emotional experience of patients which has hampered health service delivery.

Yan et al. (2015) studied Effect of clinician-patient communication on compliance with flupentixol-melitracen in functional dyspepsia patients. Inadequate physician-patient communication results in poor compliance and adherence of medical prescriptions. On the other hand, improved physician communication is associated with enhanced adherence to medication among patients, which in of itself has a positive effect on patient experience and satisfaction.

Mossialos et al. (2004) assessed what are the equity, efficiency, cost containment and choice implications of private health-care funding in Western Europe? The study concluded that private sources of funding health care can be regressive and present barriers to access of quality healthcare. Well-funded health care systems are associated with efficiency and effectiveness and thus provision of higher quality services.

Horton and Cole (2011) investigated medical returns on seeking health care in Mexico using qualitative interviews. Patients tend to look for health care services that derive high customer experience from their investment and would change healthcare providers despite higher costs, in a consistent effort to look for higher quality services. Patients pay much attention to the rapidity of services, effective medications, and emphasis on medical discretion as features distinguishing quality of health care system. Better health care systems encourage new patients to visit these medical centers and by extension, make referrals.

Mei-Ping Chen et al. (2015) assessed net promoter score in the health care sectors from the U.S., U.K., and Germany stock markets: evidence from the continuous wavelet analyses. Although health care is a unique and important industry to human life and the global economy, there is a relative dearth of literature discussion aiming at international co-movement in health care sectors net promoter score. Returns on health care are only significant in the short term but this important role tends to decline with time in developed countries like United Kingdom. Among the three health care systems, the UK and US policies are the two extreme systems, as we observe from the diverse patterns of the UK and US wavelet power spectrums. Thus, the type of health care system might influence the power spectrum of health care sector net promoter score.

International comparisons of health care sector net promoter scores offer an opportunity for countries to learn from each other's experiences in managing health care systems as well as health care capital markets. Thirumalai et al. (2022) concluded that it is extremely difficult for businesses in the service industry to excel at both client satisfaction and sales volumes: this may explain the tradeoff between high-volume higher-level health facilities having poorer net promoter scores than low-volume lower-level health facilities. The study concluded that the higher throughput rates may lead to significantly lower levels of experiential quality and net revenue from operations, accounting for the medical central quality of care. Diversification of care is associated with increased throughput, improvements in service satisfaction and a corresponding increase in the net revenue from operations.

2.3.2 Impact of clinician-patient communication on net promoter score of healthcare systems

Street et al. (2009) studied pathways linking clinician–patient communication to health outcomes. Although many studies reveal that clinician-patient communication can predict net promoter score several weeks after consultation, accounting for these findings is still unclear. In addition, clinician-patient communication may influence net promoter score in health care indirectly. The possibilities of various satisfaction outcomes due to patient and clinician interaction largely depend on patient understanding, trust and clinician-patient consensus. These also affect intermediate outcomes which in turn affect healthcare and the general wellbeing of the people. Communication can improve healthcare through increased access to care, greater patient knowledge and shared understanding, higher quality medical decisions, enhanced therapeutic alliances, increased social support, patient agency and empowerment, and better management of emotions.

According to Alnaser (2020), communication is the link between getting information and passing it to other people. All living creatures communicate with each other; however, the methods differ. The healthcare industry relies heavily on communication for delivering messages, exchanging ideas, and passing information through speech, signal, and writing. Hence communication is essential for any medical professional to effectively perform their duties and to foster patient satisfaction.

Chandra and Mohammadnezhad (2021) studied doctor–patient communication in primary health care: a mixed-method study in Fiji. Effective and efficient communication is part of health care component of strengthening quality thus enhancing net promoter score. However, communication of clinician and patient is largely determined by perceived behavior of most doctors who tend to have negative attitude over patients, though most of doctors are horned to have effective communication skills. Clinician-patient communication is centered on developing strong interpersonal relationships, good listening skills and making patient a central management of the entire process. Good and effective doctor–patient communication improves patients' trust in their doctors and their satisfaction level and indirectly affects patients' health outcome, such as improvement in symptoms and adherence to medical treatment.

Mazor and Street (2016) assessed clinician-patient communication measures: drilling down into assumptions, approaches, and analyses. Communication measures vary according to the dimensions of reporter, focus of measurement, target, and timing. Not surprisingly, researchers, policy makers, and health care providers increasingly are working to improve the assessment of communication in health care settings to better understand what aspects of clinician-patent communication. Findings common ground on communication measurement would provide opportunities for synthesizing findings across different research programs and conducting meta-analytic studies to identify the best, evidence-based communication practices.

2.4 Research Gaps

Several studies have been conducted on the value of clinician - patient communication on net promoter score for private healthcare enterprise and impact on health outcomes. Although several studies have predicted that clinician-patient communication is a significant predictor to net promoter score, other scholars still opined that this relationship remains unclear. Street et al. (2009) pointed out that clinician-patient communication can predict net promoter score several weeks ahead, but this finding remains debatable creating a knowledge gap. Accordingly, Alnaser (2020) noted communication is critical in passing important message which can assist in improving health outcomes but failed to mention the appropriate means of communication that can spur health outcomes. Chandra and Mohammadnezhad (2021) noted that effective and efficient communication is part of health care component of strengthening provision of quality healthcare services, however, behavior is also an important factor which influence communication. This study however failed to interrogate the role of behavior in shaping communication which has resulted in a knowledge gap, while Mazor and Street Jr (2016) focused on communication measures vary along dimensions of reporter, focus of measurement, target, and timing.

Wachira et al. (2021) remarked that clinician-patient communication improved satisfaction of clients on the health care service they are deriving. Jetty et al. (2020) observed that racial concordance is associated with improvements in

communication, which facilitates improved adherence to treatment plans, deeper partnership formation between patients and clinicians, and ultimately better customer experience. Rodin et al. (2009) noted that clinician-patient communication is critical in management of patients when they are in their critical care especially on chronic diseases such cancer. Yan et al. (2015) noted that inadequate physician-patient communication result to poor compliance on the adherence medication prescriptions.

Mossialos et al. (2004) argued that that private source of funding health care are always regressive and present healthcare barriers to access health care. Horton and Cole (2011) pointed out that patients tend to look for health care services that derive high net promoter score from their investment and at times they keep on changing health facilities because they are not necessarily shied away by high cost but constantly look for quality services. Mei-Ping Chen et al. (2015) argued that returns on health care are only significant in the short term, but this important role tends to decline with time in developed countries like United Kingdom. Among the three health care systems, the UK and US policies are the two extreme systems, as we observe from the diverse patterns of the UK and US wavelet power spectrums. Thirumalai et al. (2022) argued that the higher throughput rates may lead to significantly lower levels of experiential quality and net revenue from operations, accounting for the medical central quality of care.

Table 2.1: Summary of Research gaps

Author	Title	Findings	Research gaps	Focus of current study
Street et al. (2009)	Pathways linking clinician–patient communicatio n to health outcomes.	The quality of clinician-patient communication can predict health outcomes several weeks after consultation.	Health outcomes several weeks after consultation may be affected by other indirect factors. Health outcomes are also not the only determinants of patient satisfaction.	The current study strictly focused on the immediate effect of clinician-patient communication on patient satisfaction, while trying to incorporate all direct and indirect factors affecting satisfaction.
Alnaser (2020)	Effective communicatio	Communication is critical in	The study failed to mention the	This study focused on

	n skills and patient health	passing important messages which can assist in improving health outcomes.	appropriate means of communication (verbal versus non-verbal) that can affect health outcomes.	investigating the appropriate means of communication that can enhance patient satisfaction.
Chandra and Mohammadnezhad (2021)	Doctor–Patient Communication in Primary Health Care: A Mixed-Method Study in Fiji.	The study concluded that effective and efficient communication is part of health care component of strengthening provision of quality healthcare services, however, behavior is also an important factor which influence communication.	Health outcomes are not the only determinants of patient satisfaction.	The current study focused on the immediate effect of clinician-patient communication on overall patient satisfaction, while trying to incorporate all direct and indirect factors affecting satisfaction.
Wachira et al. (2021)	Higher Clinician-Patient Communication Is Associated With Greater Satisfaction With HIV Care.	The study found out that that clinician-patient communication improved satisfaction of clients on the health care service they are deriving.	This study only focused on HIV care, which is one among many subsets of primary care.	This study was not selective to any subset of primary care and investigated holistic satisfaction with primary care.
Yan et al. (2015)	Effect of clinician-patient communication on compliance with flupentixol-melitracen in functional dyspepsia patients.	The study established that inadequate physician-patient communication resulted to poor compliance on the adherence medication prescriptions.	Positive health outcomes, brought about by prescription compliance, are not the only determinants of patient satisfaction.	The current study focused on the immediate effect of clinician-patient communication on overall patient satisfaction, while trying to incorporate all direct and indirect factors affecting satisfaction.
Jetty et al. (2020)	Patient-Physician Racial	The study established that racial	This study focused mainly on racial	This study did not focus on the role of racial

	Concordance Associated with Improved Healthcare Use and Lower Healthcare Expenditures in Minority Populations	concordance is associated with improvements in communication, which facilitates improved adherence to treatment plans, deeper partnership formation between patients and clinicians, and ultimately better customer experience.	concordance between minority and majority racial groups.	concordance, as Kenya is a cosmopolitan African country where racism is minimal at best.
Mei-Ping Chen et al. (2015)	Co-movements of Returns in the Health Care Sectors from the U.S., U.K., and Germany Stock Markets	The study concluded and argued that returns on health care are only significant in the short term, but this important role tends to decline with time in developed countries like United Kingdom.	This study focused on health system in developed high-income countries, and this brings about a contextual difference given the uniqueness of health systems in LMICs such as Kenya.	This study focused on a developing LMIC economy, I.e. Kenya.
Thirumalai et al. (2022)	You cannot be good at everything: tradeoff and net promoter score in healthcare services	Higher through put rates may lead to significantly lower levels of experiential quality and net revenue from operations, accounting for the medical quality of care.	The study did not conclude whether the inverse is also true, i.e. whether lower throughput rates may lead to higher experiential quality and patient satisfaction.	This study focused on both dimensions, i.e. health facilities with fewer visits per day (Levels 1 and 2) and facilities with higher visits Levels 3 and 4) were included.

2.5 Conceptual Framework

This figure 2.1 presents the conceptual framework of factors identified that may influence patient satisfaction and net-promoter-score of private providers of health

care in Kenya. The independent variable is clinician-patient communication. The dependent variables are patient satisfaction and net-promoter-score.

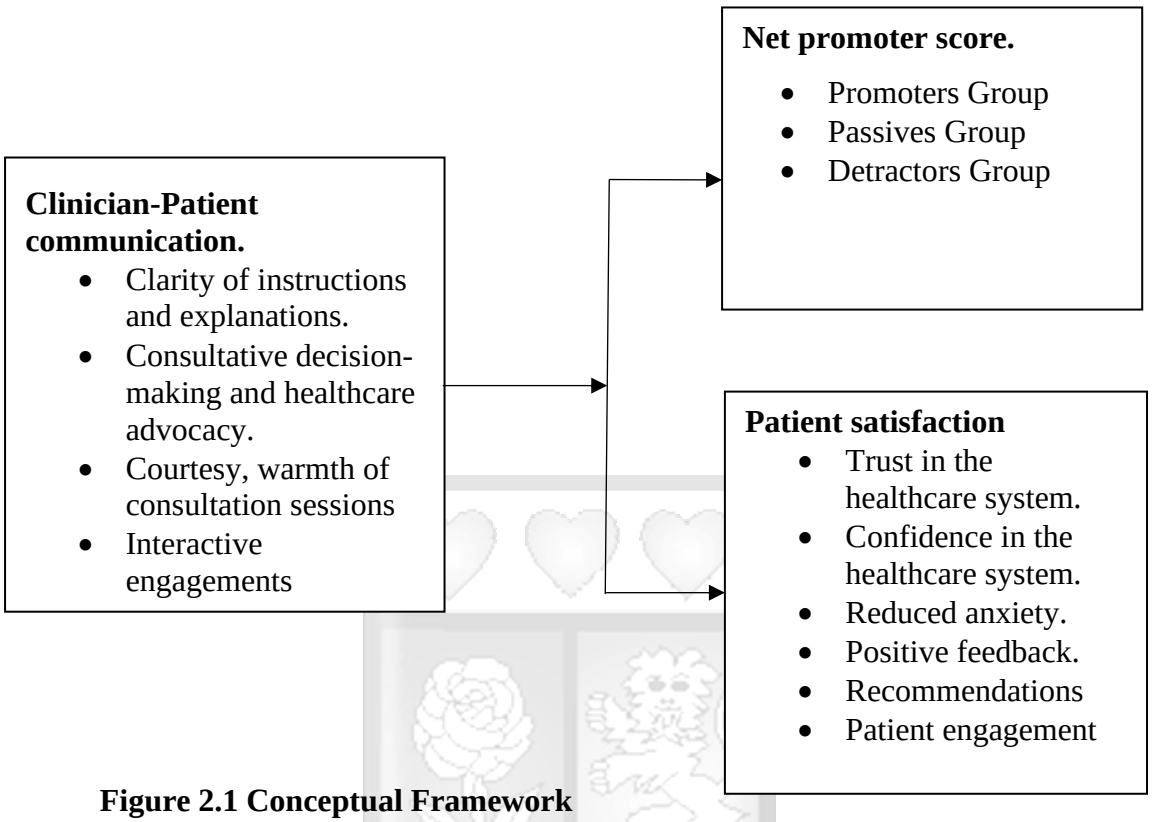

Figure 2.1 Conceptual Framework

Source Author, 2023

Adapted from Diffusion of innovation theory (Rodgers, 1962) and Symbolic Convergence theory (Borman, 1970)

2.6 Summary of Literature

This chapter provided the theories that guided the study. The theories include Diffusion of innovation theory and Symbolic Convergence theory. In addition, empirical review of studies conducted on factors affecting net promoter score for private health care enterprise. There are many factors that affect the net promoter score for private health care enterprises. However, this study was delimited to impact of clinician-patient communication on health care outcomes, clinician-patient communication on net promoter score. The chapter also presented a summary of the research gaps and conceptual framework.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology that was adopted to answer the study's research questions. It highlighted the design of the research, the target population of the study and the sampling methods that was employed. Additionally, this chapter presents the methods that was used to collect data, analyze it and how the researcher ensured quality and ethical conduct during the research.

3.2 Research Philosophy

According to Creswell (2013) research philosophy is a pattern of beliefs on the procedural steps of research design on how data should be gathered and analyzed. Research philosophy is the foundation of knowledge on which a study is based and assists research to expose, understand and minimize research biases (Sekaran &

Bougie, 2013). This study adopted a positivism research paradigm. As per the positivist research philosophy, the research findings are observable and measurable truths that are quantifiable statistically (Tamminen & Poucher, 2020). With this philosophy, a structured methodology guided by a scientific principle follows the formulation of a problem based on the aims of the study in answering the research objectives.

The positivist research philosophy is suitable in this study because it helped answer research questions by anchoring the study on scientific objectivity (Park et al., 2020). With the positivist approach, the results would also be analyzed scientifically to give logical results (Collis & Hussey, 2014). With the positivist research philosophy, only the factual information gained through observation can be trusted. Therefore, the role of the researcher is limited to collection and interpretation of the information. Positivism research philosophy assisted in determining the impact of clinician-patient communication on net promoter score and patient satisfaction in private healthcare enterprise in Nairobi Kenya.

3.3 Research design

The descriptive survey method was used in this investigation. To completely appreciate a subject by constructing a profile of the issues, people, or events being researched, descriptive research requires data collection and tabulation (Cooper & Schindler, 2007). A descriptive approach can be brought into reality by coming up with a snapshot of the market environment, regarding the elements under question, at a critical time. The strategy guarantees that it is possible to examine what, when, who, and where in relation to a given relevant and the degree of inside variables.

Descriptive research design helps a researcher to arrive to response to questions under inquiry. There are many such designs and the selection of which one to use is guided by issues such as nature of data being collected, approaches that were engaged to gather data, why the study is being conducted, environment under which it is conducted and time considerations (Nardi, 2018). The study adopted descriptive survey design. Descriptive design explains the casual relationship among variables, and it also goes deeper to explicate reasons for the phenomena (Taguchi, 2018) where ordinarily causation is inferred. Descriptive design uses hypothesis and

theories to pursue factors that caused a phenomenon (Bordens, 2014). These features made descriptive design more suitable for this study.

3.4 Population and Sampling

Population refers to an aggregate of subjects intended to be studied in a universe. It is from these subjects that conclusion about the population is drawn (Stillwell & Clarke, 2011). Target population is the community of interest (Acharya, 2010). The target population were private health care enterprise chain in Nairobi City County, Kenya. There are 53 legally registered level 5 private health care medical centers operating in Nairobi City County (Nairobi City County health care report, 2020) which formed the unit of analysis.

The unit of observation were the patients/ caregivers visiting the private health facilities in Nairobi City County on daily basis. According to Kenya Household and Health Expenditure and Utilization Survey (KHHEUS) (2022), the average daily patient visiting private health care medical centers operating in Nairobi City County in 122. Thus, the target population were 6,466 patients/caregivers.

3.4.1 Sample size and Sampling procedure

Sampling is process where a portion of target group is selected to represent in a given study (Blumberg *et al.*, 2014). Sampling is a deliberate selection of several members of a population who provided the data from which conclusions were drawn for larger population groups that these samples represent. The major criterion used when deciding on the sample size is the extent to which the sample size represents the population.

Yamane (1967) simplified formula was used to obtain the sample size of the study. This is calculated as shown in the formula.

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

Where:

n = sample size

N = population size

e = the level of precision

1 = Constant

This formula assumes a degree of variability (i.e. proportion) of 0.5, the level of precision of 5% and a confidence level of 95%.

Sample size for; n = 6,466/ {1+ 6,466 (0.05) 2 }

= 376.696= 377 patients/caregivers.

n = 377 patients/ caregivers.

The stratified random sampling was used to obtain a sample of patients/ caregivers who participated in the study. The strata were the 53 private health facilities operating in Nairobi County. Based on the number of target private health facilities, an average of 7 patients/ caregivers were sampled from each of the hospital (377/53=7 patients/ caregivers).

3.5 Data Collection Methods

The study relied on primary data. Primary data were collected in the study using a self-administered questionnaire. The questionnaire was developed based on research objectives of the study. The questionnaire was structured in a way that the first section asks for the general information of the respondents, i.e., clinicians. The second section had questions on quality of clinician-patient communication that is offered by the respondents, i.e. clinicians, third section on Patient Satisfaction and Net Promoter Score of private healthcare enterprise in Nairobi, Kenya. The questionnaires were administered by the researcher directly to the respondents with a help of one trained research assistant who had directly issued the questionnaires to the respondents for data capture and returns. The questionnaire was in a five-point scale questions and were scored as: Strongly Disagree = 1; Disagree = 2; Undecided = 3; Agree = 4; Strongly Agree = 5.

The inclusion criteria was all the patients that visited the private health facility at the time of the study. All the patients who were sound mind and those who had caregivers were included in the study. Those patients who were in critical conditions and did not have caregivers were excluded from the study. Thus, patients who had

sound mind and capable to answer the questionnaire participated otherwise, those who are in critical conditions, their caregivers participated in answering the questionnaire on their behalf. The patients/caregivers were identified at the point of exit in the hospital. In each private health hospital, 7 patients/ caregivers were targeted sample size (377 patients/caregivers /53 private health facilities). Data collection occurred at the point of exit when the patients/caregivers are leaving the health facility. The caregivers/patients were asked for their consent to participate in the study and those who refused were granted their wish.

3.6 Data Analysis

After data collection, questionnaires were edited for consistency to be termed complete. The questionnaire was revised to be described as complete for uniformity. Data was cleaned up by editing, tabulating, and coding to identify any abnormalities in the replies and to include numeric data in the answers for future examination.

Descriptive statistics were used to examine data that includes central trend (mean) measurements and dispersion measure (variance and standard deviations). To interpret level of patient's satisfaction at private healthcare enterprise in Nairobi Kenya, mean response of 1 to1.49 indicates the patient is not satisfied at all, mean response of 1.5 to 2.49 indicates the patient is dissatisfied, mean response of 3.5 to 3.49 indicates the patient is somewhat satisfied, mean response of 3.5 to 4.49 indicates the patient is satisfied. The net promoter score of private healthcare enterprises in Nairobi Kenya were calculated as.

Net Promoter Score (NPS)=% Promoters - % Detractors

Results were presented using graphs and tables. The simple linear regression model below was used to determine the influence of quality clinician-patient communication on patient satisfaction and net promoter score of private healthcare enterprise in Nairobi Kenya.

$$Y_{1\text{-}2} = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where:

Y_1 = Net Promoter Score of private healthcare enterprise in Nairobi Kenya

Y_2 = Patient satisfaction at private healthcare enterprise in Nairobi Kenya

β_1 is the regression coefficients

β_0 = Constant Term

X_1 = Value of clinician-patient communication

ε=Error term

3.7 Research Quality

3.7.1 Pilot Testing of Research Instruments

The developed questionnaire was subjected to piloting by 10 doctors/clinical officers and nurses. For convenience purposes 10 questionnaires were administered to the respondents, representing 10% of the sample size in line with Kothari (2004) recommendations. The pilot study participants were not included in the final study. The responses from the pilot study were used to adjust the questionnaire accordingly.

3.7.2 Reliability

Reliability is the extent to which the instrument can yield similar results in repeated trials (Orodho & Kombo, 2002). After the pilot study, the questionnaire was subjected to analysis. Since the pilot involved a single test treatment, the reliability of the test instruments was determined using Cronbach alpha coefficient to test for the internal consistency of the items. Statements in the questionnaire with reliability coefficients of 0.7 and above are deemed ideal for the study.

3.7.3 Validity

Validity is the extent to which an instrument measures what it purports to measure (Franklin & Ballan, 2001). It is the best available approximation to the truth or falsity of a given inference, proposition, or conclusion. There are different facets of measuring validity namely content, face, and construct validity. Both aspects of validity were ascertained through expert judgment. This involved giving the

supervisor the questionnaire to the supervisor who may recommend areas that require changes or amendments.

3.8 Ethical Considerations

To deliver on the demands of the legal and ethical parameters, the researcher sought permission and authority from National Council for Science Technology and Innovations (NACOSTI) and Strathmore University ethics committee to conduct this study. Secondly, the participants were, among other measures, given an introductory letter and given all the details about the research and how the information were used to facilitate informed consent. Consent to undertake the study within the private hospital premises were requested from the hospital management. The private health facilities were assured that the information being collected was only used for academic research and was not used against them or to damage the name of any hospital that participated. The information collected was held with utmost confidential.

The respondents were assured that information given were singularly used for the purposes intended only. The principal investigator also assured the respondents participation in the study is completely voluntary and they have a right to withdraw from the study at any time without repercussions.

Additionally, the researcher assured the respondents of confidentiality and anonymity as they were not asked to fill out their names or any other identifying personal information in the questionnaires. The principal investigator did not coerce nor compel any person to participate in the study.

For participants who are illiterate and cannot read and write, an impartial literate person, not connected to the research, was presented throughout the consent process as witness. In addition, participants who are illiterate and thus unable to sign the consent form were asked to put their thumbprint.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1 Introduction

The study examined value of clinician - patient communication on patient satisfaction and net promoter score in private healthcare centers in Kenya. This section is important since it presented findings of this investigation. The presentation of data was done in both descriptive and inferential form. Descriptive analysis employed standard deviation and mean to measure central tendency of the data which gave a clear structure of the data. The inferential analysis used correlation and regression to determine the relationship among variables under investigation.

4.2 Response Rate

Private health care providers were considered the most important group that facilitated the success of this study. The selection of private health care providers was done because of their better record of clinician-patient communication based on patient perceptions (KEPSIE 2015). This has made private healthcare providers attractive to more Kenyans when compared to the public healthcare counterparts. The sample for the study was 377 participants from which the research obtained responses from 72.68% (n=274) respondents with only 27.32% of the participants not able to engage in the study. This response rate was deemed sufficient to undertake the quantitative analysis and provide inferences that can be applied in the context of this study.

Response rate		
	Frequency	Percentage
No response received	103	27.32%
Response received	274	72.68%
Total	377	100%

Figure 4.1 Response Rate

4.3 Demographic Characteristics

The study assessed various demographic features of the patients/caregivers. The demographic information comprised the gender of the patient/caregiver, age of the patient/caregiver and sources of payments of medical bills. The study used percentages to form descriptive statistics and measure this phenomenon.

4.3.1 Gender of the respondents

The study investigated the gender of the respondents visiting the private healthcare enterprises for medical care. Majority of the patients/caregivers (55%) were females while 45% were males. The results imply that most patients who visit private clinics in Nairobi are female.

Gender of respondents		
	Frequency	Percentage
Male	123	45%
Female	151	55%
Total	274	100%

Figure 4.2 Gender of the respondents

4.3.2 Age of the patient/caregiver

The study enquired the age of the study participants. The findings are presented in figure 4.3. It was noted that 33% were aged 30-40 years, 26 percent aged 41 years and above while 25 percent were aged 19 years to 30 years. Only 16% were aged 18 years and below.

Age of patient/caregiver		
	Frequency	Percentage
Less than 18yrs	44	16%
19 to 30 years	69	25%
31 to 40 years	90	33%
41 years and above	71	26%
Total	274	100%

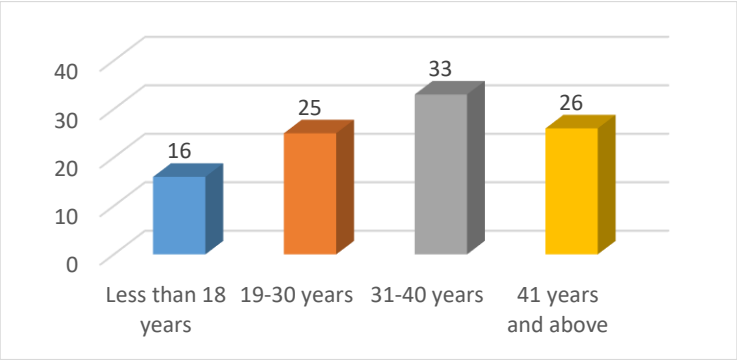

Figure 4.3 Age of the patient/caregiver

4.3.3 Education attainment

The study assessed the educational attainment of the caregivers/ patients. The findings are presented in figure 4.4. According to the results 38.0 percent had secondary education attainment, 34 percent tertiary, 19 percent primary and 9 percent none. Educational attainment may inform health care seeking behavior and as awareness of available medical services.

Highest Education Attainment		
	Frequency	Percentage
Tertiary	93	34%
Secondary	104	38%
Primary	52	19%
None	25	9%
Total	274	100%

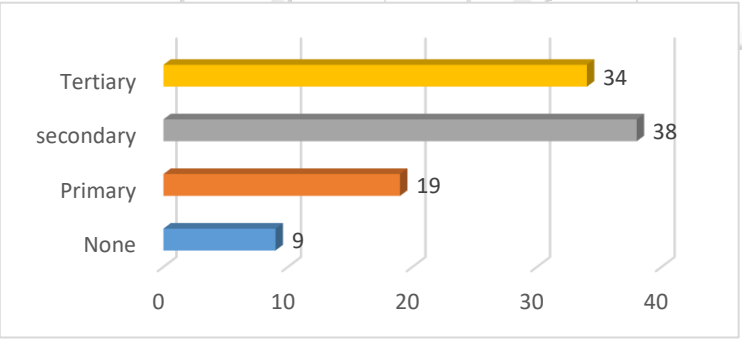

Figure 4.4 Education attainment

4.3.4 Source of payments of medical bills

The study assessed the how the patents/ caregivers financed the health services they receive. The findings are presented in figure 4.5. According to these findings, 52 percent of patients funded it using out of pocket funds, 23 percent insurance cover,

18 relative friends/ relatives and 7 percent well-wishers and other sources. Other means (such as fundraising or exemptions because of inability to pay hospital bill). The results imply that out of pocket remains the major mode patients use to pay for medical services received.

Source of payment of medical bills		
	Frequency	Percentage
Out-of-pocket	142	52%
Insurance schemes	63	23%
Friends/relatives	49	18%
Well-wishers	19	7%
Total	274	100%

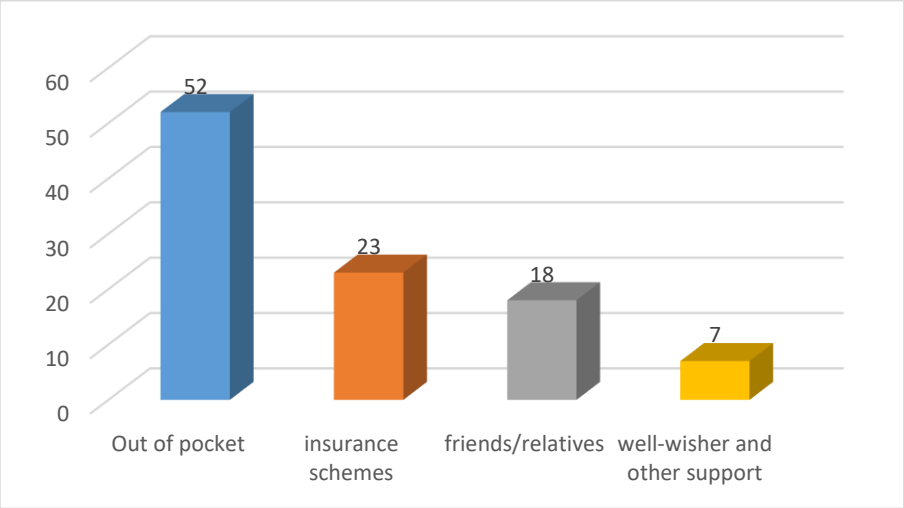

Figure 4.5 Source of payment of medical bills

4.4 Descriptive Analysis

4.4.1 Quality of clinician-patient communication.

The study investigated how the quality of clinician-patient communication affected patient satisfaction and Net Promoter Score at private healthcare enterprises. The study employed mean and standard deviation to analyze clinician-patient communication and the findings are presented in Table 4.1. The measurement parameter employed was the usage of a quality scale, i.e. 1= strongly disagree, 2= disagree, 3=somewhat agree, 4=agree, 5=strongly agree.

Table 4.1: Clinician-Patient communication

Statement	Mean	Standard Deviation
The clinician greets the patients appropriately.	4.35	0.64
The clinician introduces themselves to the patient.	4.22	0.61
The clinician introduces the patient to a seat.	4.12	0.68
The clinician listens attentively to the patient when they are introducing themselves.	4.20	0.65
The clinician demonstrates appropriate non-verbal behaviors while communicating with the patient.	4.13	0.65
The clinician attentively listens to patients' statements without interruption.	4.14	0.66
The clinician expresses empathy to the patients using nonverbal expressions.	4.07	0.69
The clinician provides patients with an opportunity to ask questions or seek clarification during consultations.	4.16	0.67
The clinician provides patients with understandable written or visual materials to support their understanding of their medical condition and treatment plan.	4.07	0.63
The clinician allows the patient to fully express themselves without interruption.	4.12	0.61
The clinician helps patients clarify statements they seem not to understand.	4.17	0.62
The clinician allows the patient to state any additional information or questions they may have.	4.21	0.67
The clinician allows the patient to adequately elicit their view regarding their ailment (s) or concerns.	4.15	0.57
The clinician shows acceptance or acknowledgment of the patient's idea or emotions about the ailment/ health issue.	4.06	0.62
The clinician carefully explores patient's expectations or preference.	4.15	0.61
The clinician uses easily understood statements and expressions when communicating to the patient (s).	4.23	0.63
The clinician checks or makes a follow up of patient's understanding of information given.	4.14	0.62
The clinician asks the patient if there is anything else they would want to share or discuss.	4.18	0.64
The clinician reaches an agreement that considers patient's expectation and understanding before beginning any treatment plan.	4.14	0.66
The clinician inquires on the patient's willingness and ability to follow the treatment plan.	4.15	0.64
The clinician encourages patients to ask any burning question or issue before I/we start the treatment.	4.14	0.64

The clinician discusses follow up plan of treatment with patient with clear dates/times to take medicine or return for treatment well communicated.	4.08	0.64

Healthcare personnel in the private sector greet their patients regularly (M=4.35, SD 0.64). This entails proper introduction by medical personnel in the sector to enhance familiarity and understanding (M=4.22, SD 0.61). Extensive introduction by health personnel involves extending hospitality to patients by offering them a seat (M=4.12, SD 0.68). Thereafter, medical personnel take their time to attend to their patients by listening to their concerns (M=4.20, SD 0.65). In most instances clinicians in private healthcare pay keen attention to detail while listening (M=4.14, SD 0.66). In special cases, clinicians use non-verbal communication to get more information from their patients (M=4.13, SD 0.65). On several occasions, clinicians use non-verbal cues as a form of expressing empathy (M=4.07, SD 0.69). Even with their difficult or painful circumstances, patients are given ample time to explain themselves (M=4.16, SD 0.67). Once patients explain themselves clearly then clinicians take their time to explain the appropriate position on how various medical processes are carried out (M=4.07, SD 0.63). This is evident by clinicians giving necessary feedback to patients who need further clarification (M=4.12, SD 0.61). Clarification on issues which are problematic or contentious to patients are explained clearly (M=4.17, SD 0.62). Additional information from patients is also considered before making a final decision (M=4.21, SD 0.67). This opens an opportunity for patients to express themselves and further divulge more information regarding their ailment (M=4.15, SD 0.57). This communication is characterized by clinicians showing acknowledgement in cases where the patient becomes emotive (M=4.06, SD 0.62). On the other hand, from the patients' perspective, clinicians have adequate knowledge and skills of exploring patients' preferences (M=4.15, SD 0.61). This is backed by communication expertise of clinicians (M=4.23, SD 0.63). To ensure continuity of care, clinicians have designed mechanisms that allow follow-up of patients (M=4.14, SD 0.62). This is attained by enabling patients to have a feedback mechanism (M=4.18, SD 0.64). It is important for patients and clinicians to both develop an understanding of their terms of engagement (M=4.14, SD 0.66). This is evident with clinicians tracking patients' history of treatment (M=4.15, SD 0.64). For this to be realized there is a need to

encourage patients to ask any burning questions or mention any additional concerns before commencing treatment (M=4.14, SD 0.64). This is marked by clinicians following up on a plan of treatment with their patients, with clear schedules on when and how to take their medicine, and when to return for review (M=4.08, SD 0.64).

4.4.2 Patient satisfaction

The study sought to determine the influence of the quality of clinician-patient communication on patient satisfaction at private healthcare enterprises. The study adopted mean and standard deviation to analyze determinants of patient satisfaction and the findings are presented in Table 4.2. The measurement parameter employed was the usage of a quality scale, i.e. 1= strongly disagree, 2= disagree, 3=somewhat agree, 4=agree, 5=strongly agree.

Table 4.2 Patient satisfaction

Statement	Mean	Standard Deviation
The cleanliness of the medical facility where I was treated.	4.25	0.70
The general appearance of the health facility.	4.23	0.70
Dress code and tidiness of the medical staff.	4.14	0.83
Accuracy and effectiveness of the diagnosis and treatment provided to the patient.	4.06	0.84
Medics adherence to scheduled appointment times with the patient in the hospital.	3.85	0.95
Provision of prompt medical feedback to the patient (s) on time.	3.91	0.87
Ability of medics to promptly address patient's concerns when they arrive.	4.01	0.87
Effort made by the medics to understand and meet the patient's specific needs.	4.05	0.84
Strong sense of responsibility among the medical staff to provide timely services to the me/ the patient.	3.99	0.90
Effective communication regarding patient's treatment plan.	4.01	0.79
Medics' ability to show special attention to all patients especially those in urgent attention.	4.12	0.77
Ability of the medic to take time to address patients emotional and psychological concerns.	4.08	0.86
Provision of individualized attention to the patient.	4.03	0.84

Most of the private healthcare facilities have maintained high levels of cleanliness (M=4.08, SD 0.64). This was affirmed by the physical outlook of healthcare facility

(M=4.23, SD 0.70). The dress code of staff is neat and appropriate (M=4.14, SD 0.83). This is replicated in diagnosis of patients which is considered by many as accurate and precise, together with effectiveness of treatment (M=4.06, SD 0.84). Clinicians in private enterprises generally adhere to scheduled appointment times with their patients in the health facilities. (M=3.85, SD 0.95). This conformity stretches to provision of prompt medical feedback to the patients (M=3.91, SD 0.87). This is affirmed by ability of medics to promptly address patients' concerns when they arrive (M=4.01, SD 0.87). This involves efforts made by clinicians in understanding patients' specific needs (M=4.05, SD 0.84). In addition, there exists a strong sense of responsibility among the clinicians to provide timely services to patients and enhance their understanding (M=3.99, SD 0.90). This was attained by devising effective communication strategies (M=4.01, SD 0.79). Extension of special attention to all patients especially those in urgent attention was appropriate in enhancing communication (M=4.12, SD 0.77). Moreover, clinicians took time to address patient's emotional and psychological concerns as a way of improving communication (M=4.08, SD 0.86). This was actualized by providing individualized attention to patients (M=4.03, SD 0.84)

4.4.3 Net Promoter Score

The dependent variable the study examined performance that was measured by net promoter score. The net promoter score is a preferred method of measuring the overall performance of business systems from the customer's perspective, and particularly healthcare systems for this study. The NPS ranges between 0-100 percent. The higher the percentage, the high the NPS while the smaller the percentage the lower the NPS. The findings are presented in Table 4.3.

Table 4.3 Net Promoter Score

% Promoters	% passive	% detractors
94.04%	76.17%	50.41%

Net promoter score = % promoters - % detractors

Net promoter score = 94.04% – 50.41%

Net promoter score = 43.63%

% score	Average
% Promoters	94.04%
% passive	76.17%
% Detractors	50.41%
Net promoter score	43.63%

The net promoter score was 43.63%. This implies that overall patient satisfaction with clinician-patient communication and other factors (listed in table 4.2) is 43.63% in private healthcare enterprises.

4.5 Impact of clinician-patient communication on patient satisfaction at private healthcare enterprise in Nairobi Kenya

The first objective of the study was to investigate the impact of clinician-patient communication on patient satisfaction at private healthcare enterprise. The study used inferential statistics such as correlation and simple linear regression to determine the relationship and impact of independent variable on dependent variable.

4.5.1 Correlation analysis

The study adopted Pearson correlation in determining the association between clinician-patient communication on patient satisfaction and findings are presented in Table 4.4

Table 4.4 Correlation Results

Correlations				
		Patient satisfaction	Clinician patient communication	
Patient satisfaction	Pearson Correlation	1	.386**	
	Sig. (2-tailed)		0	
Clinician patient communication	Pearson Correlation	.386**	1	
	Sig. (2-tailed)	0		
** Correlation is significant at the 0.01 level (2-tailed).				

The findings in Table 4.4 indicated that there exists a positive and moderate association between Clinician patient communication and patient satisfaction (r = .386**, sig = .000).

4.5.2 Regression Analysis

The study employed simple linear regression to determine the impact of clinician-patient communication on patient satisfaction at private healthcare enterprise and the findings are presented in Table 4.5.

Table 4.5 Regression Results

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.386a	0.149	0.146	1.528

a Predictors: (Constant), Clinician patient communication

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	110.513	1	110.513	47.332	.000b
	Residual	632.74	271	2.335		
	Total	743.253	272			

a Dependent Variable: Patient satisfaction

b Predictors: (Constant), Clinician patient communication

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	1.655	0.908		1.824	0.069
	Clinician patient communication	1.496	0.217	0.386	6.88	0

a Dependent Variable: Patient satisfaction

Based on the findings in table 4.5 coefficient of determination (also known as R square) was 0.149. This implied that clinician patient communication explains 14.9% of variation in patient satisfaction. This was affirmed by analysis of variance which determined the significance of the model in determining the relationship of the study variables. The findings of the study indicated a calculated F of 47.332 (p value =0.000<0.05). This demonstrates that the model is statistically significant and was appropriate in determining the relationship of the patient-clinician communication and patient satisfaction. The regression coefficient findings indicated that patient-clinician communication positively and significantly affected patient satisfaction in private health care enterprise in Kenya (β=1.496, p-value=0.000). This was supported by t statics of 6.88>1.96 which implies that

enhancement of patient-clinician communication by a unit yielded patient satisfaction by 1.496 units. The proper diagnosis of patient's health situation, progress and uptake of medical drugs prescribed is dependent on the quality of clinician-patient communication.

4.6 Impact of clinician-patient communication on net promoter scores of private healthcare enterprise

The second objective of the study was to determine the impact of clinician-patient communication on net promoter scores at private healthcare enterprises. The study used inferential statistics such as correlation and simple linear regression to determine the relationship and impact of independent variable on dependent variable.

4.6.1 Correlation Analysis

Pearson correlation was employed to determine the association between clinician-patient communication and net promoter scores at private healthcare enterprises. The findings are presented in Table 4.6.

Table 4.6 Correlation Results

Correlations				
		Net Score Promoters	**Patient satisfaction**	
Patient clinician communication	Pearson Correlation	1	.647**	
	Sig. (2-tailed)		0	
Patient clinician communication	Pearson Correlation	.647**	1	
	Sig. (2-tailed)	0		
** *Correlation is significant at the 0.01 level (2-tailed).*				

The findings also found out that patient satisfaction and Net Score Promoters of private health care providers have positive and significant association ($r=0.647$, $p=0.00<0.05$). This association is strong since correlation coefficients are greater than 0.5.

4.6.2 Regression Analysis

The study employed simple linear regression to determine the impact of clinician-patient communication on Net Promoter Scores at private healthcare enterprises, and the findings are presented in Table 4.7.

Table 4.7 Regression Results

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.647a	0.419	0.417	1.262
a Predictors: (Constant), Patient clinician communication				

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	311.562	1	311.562	195.587	.000b
	Residual	431.691	271	1.593		
	Total	743.253	272			
a Dependent Variable: Net Score Promoters						
b Predictors: (Constant), Patient clinician communication						

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	0.8	0.511		1.565	0.119
	Patient clinician communication	1.743	0.125	0.647	13.985	0
a Dependent Variable: Net Score Promoters						

According to the findings in table 4.7 coefficient of determination also known as R square was 0.419. This implies that clinician patient communication explains 41.9% of variation in Net Promoter Score. This was affirmed by analysis of variance which determined the significance of the model in determining the relationship of the study patient-clinician communication and net promoter scores. The findings of the study indicated a calculated F of 195.587 (p value =0.000<0.05). This demonstrates that the model is statistically significant and was appropriate in determining the relationship of the patient-clinician communication and net promoter score. The regression coefficient findings indicated that patient-clinician communication

positively and significantly affected net promoter score in private health care enterprise in Kenya (β=1.743, p-value=0.000). This was supported by t statics of 13.985>1.96. It implied that enhancement of patient-clinician communication by a unit amounted to an increase of 1.743 units of net promoter score.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The section examined the summary of study results and discussion of findings. Conclusion of the study were inferred from the results investigated by the study. It is from the conclusion that this study made recommendations to various players in the health sector to foster clinician-patient communication.

5.2 Discussion

The study carried out an investigation on the value of clinician - patient communication on patient satisfaction and net promoter score in private healthcare centers in Kenya. The study made emphasis on determining the influence of quality clinician-patient communication on patient satisfaction at private healthcare enterprise in Nairobi Kenya and assessing effect of clinician-patient communication on net promoter score of private healthcare enterprise in Nairobi Kenya. The study was guided by 'Diffusion of innovation theory' and 'Symbolic Convergence theory'. The two theories were premised on how sharing of ideas, i.e. communication, alters aspects of human. Patient-clinician communication is a function and relationship that requires patients to share their conditions and ideas in detail for the clinician to obtain an accurate diagnosis and collective treatment plan. The two theories predicted that effective sharing of information between patients and clinicians would have a desirable outcome for both parties. The findings of the study established that patient-clinician communication significantly affected and improved both patient satisfaction and net promoter score. This is in concurrence with what the 'diffusion of innovation theory' predicted, which is that interpersonal communication between clinician and patient is of more value than organizational mass communication. Interpersonal communication is more effective when clinicians and patients communicate by both verbal and non-verbal ques. This was also affirmed by contingency theory that emphasized communication as a process in which participants respect each other's perspectives while communicating and consider the other individual's feelings, emotions, and beliefs. The study variables were patient-clinician communication as the independent variable, and patient

satisfaction together with Net Promoter Score as the dependent variables.. Among these variables, patient-clinician communication improved both the level of patient satisfaction in consumers of healthcare and significantly improved net promoter scores of private health facilities.

5.2.1 Quality of clinician-patient communication on patient satisfaction at private healthcare enterprise

The first objective of the study was to determine how quality clinician-patient communication affected patient satisfaction. The study employed correlation and regression analysis to determine the relationship between clinician-patient communication and patient satisfaction. The findings from the two analyses depicted a positive and significant relationship between patient-communication. According to 'diffusion of innovation theory', the choice of communication channel is crucial in fostering interpersonal communication between individuals. The key aspect of interpersonal communication is creating a courteous, respectful, and positive attitude where an individual can fully express themselves. This free expression of individuals is key for the diagnosis process since patients will share all the information that is required to make a correct diagnosis. Communication is instrumental in building relationships among patients and clinicians.

Based on the descriptive results, it was found that patient-clinician communication is a key pillar of patient satisfaction. Patient-clinician communication is instrumental in creating first impressions and building confidence between patient and clinician. The use of non-verbal communication ques enables a clinician to collect more information from patients who may not be able to properly employ verbal communication. Proper diagnosis of a patient requires extracting information from patients thus effective patient-clinician communication is key. This relationship is also key in understanding patient perspectives, biases and reaching a collective consensus on treatment plans.

The findings of the study are corroborated with findings from Street et al. (2009) who investigated the link between clinician-patient communication and health outcomes. The nature of communication between these two parties is important in

promoting understanding and resolving patient concerns. This communication is essential in building a better understanding of the nature of an individual's ailment. This may affect the overall immediate and future wellbeing of patients. Communication can improve healthcare through increased access to care, greater patient knowledge and shared understanding, higher quality medical decisions, enhanced therapeutic alliances, increased social support, patient agency and empowerment, and better management of emotions.

Chandra and Mohammadnezhad (2021) reported that effective and efficient communication is part of the health care component of strengthening quality thus enhancing patient satisfaction. The perceived behavior has been a predictor of communication between patient and clinician. A negative or non-conducive attitude by clinicians during verbal and non-verbal communication will adversely affect patient satisfaction in the private health sector. In most cases this communication revolves around interpersonal relationships which is key in fostering a conducive working relation among the respective parties. Effective communication is essential in cultivating a good relationship between patient and clinician.

In addition, Mazor and Street (2016) noted that communication is a relative event that depends on individual perception and occasionally is subjective. This variation in communication is influenced by environment, timing, assumptions, and approaches advanced by one party. This complexity in communication within the health care sector has attracted interest from different stakeholders who undertake research to find workable solutions over this gray area. Getting a common ground in communication is important since it creates opportunities for synthesizing findings across different research programs and conducting meta-analytic studies to identify the best, evidence-based communication practices.

5.2.2 Quality of clinician-patient communication on Net Promoter Scores of private healthcare enterprise

The second objective of the study examined how clinician-patient communication affected Net Promoter Scores in the private sector. Pearson correlation and simple linear regression were applied, and it showed that clinician patient communication has a positive influence on net promoter score of private health care.

Communication is key in enhancing how healthcare facilities perform. Proper diagnosis involves effective communication which does not need secondary tests to establish a problem. These findings are backed up by a symbolic convergence theory. This theory posits that communication is important in shaping behaviors of individuals. Communication involves sharing vital information that will be helpful. Participatory of parties on conversing of issues is essential in establishing perception of individuals. Individual perception is a predictor of behavior that is an essential determinant of communication. Communication emphasizes the need of individual perception and the information being shared and encouragement of dialogue so that fostering of understanding. This theory envisioned communication as a process in which participants respect each other and consider other individual feelings, emotions, and beliefs.

The findings of the study are collaborated with a study by Jetty et al. (2020) which established that improvement in communication enhanced treatment strategy. Improved communication is key in decision making since exposure to risk opens a way of understanding and considering de-risk measures. This foster customer satisfaction since efficiency in communication is important in delivering the intended message. This is aided by competent communication skills which are required. Strong clinician-patient communication enhances the quality of health care services within the private healthcare enterprise.

According to Rodin et al. (2009) communication in the health sector is an essential management tool that increases customer satisfaction and fosters overall performance. This tool is important in managing complicated situations, for instance people living with chronic diseases. Effective communication is a crucial component in building relationships and negotiating for treatments. This conversation is instrumental in enhancing patient experience. In addition, effective communication has been associated with emotional intelligence of individuals. Lack of adequate communication results in poor compliance and adherence of medication and treatment. On the other hand, improved physician communication is associated with enhanced adherence to medication among patients, which has a positive effect on patient experience.

Investigation by Horton and Cole (2011) noted that communication in the health care sector enhance customer experience. This is because customers look for

experience from investment undertaken. Patients tend to look for health care services that derive high customer experience from their investment and at times they keep on changing health facilities because they are not necessarily shy away from costs, but they constantly look for quality services. Patients consider utility deriving from consuming certain product, and they will always choose a product which they benefit most from. Better health care systems encourage patients to visit medical centers and by extension making referrals.

5.3 Conclusion

The study's conclusions were that the independent variable affected both dependent variables. Effective clinician-patient communication creates a pleasant patient experience and significantly encourages new referrals to the clinician by the patient's word-of-mouth. Proper diagnosis based on patient medical history is only captured when there is effective communication among the clinician and the patient. According to the Symbolic Convergence Theory, information sharing is crucial for effective communication. This applies directly to patients in that sharing of all their clinical information is paramount to proper diagnosis and ultimately offering quality services by the clinician.

The first objective investigated the influence of patient-clinician communication on patient satisfaction. The study concluded that patient-clinician communication had a positive and significant influence on patient satisfaction. This communication is essential in building understanding on the nature of an individual ailment. This may affect the wellbeing of individual especially when giving proper medication. This conversation is supposed to be deep when patients require critical care, especially those suffering from chronic ailments such as cancer. The conversation is not only important for prescribing treatment, but to offer moral support by exhibiting empathy. There is a need for clinicians to be emotionally intelligent when dealing with patients because patients need hope and empathy to foster their emotional and overall wellbeing.

The second objective of the study examined how patient-clinician communication affected the net promoter score. The study concluded that patient-clinician communication significantly and positively affects Net Promoter Scores. Effective communication is important in providing feedback. Many clinicians will largely rely

on feedback from patients to obtain new referrals to their services. Competent communication skills are necessary to foster effective communication.

5.4 Recommendations

This section presents the recommendations that can be inferred from the study's findings. The study established that patient-clinician communication affected patient satisfaction positively and significantly. The interaction of clinicians and patients is at times constrained especially when offering empathy to patients. The study recommends training clinicians on the elementary communication ques that will foster this relationship. The training should target the emotional intelligence of clinicians so that they can extract key diagnostic information from their patients without negatively altering the patient's emotions.

The second objective of the study found out that patient-clinician communication is a significant predictor of Net Promoter Score. The feedback mechanism in many private health facilities has not been explored fully and this may delay the treatment plan of patients. Thus, the study recommended the establishment of an effective feedback mechanism between clinicians and patients. It is important to sieve out suggestions from clients to understand their perspective on important issues affecting their overall satisfaction. The design of feedback mechanism is key in ensuring that necessary and important information is tapped from the patients. The feedback from the patient may be instrumental in identifying existing gaps in the institution and not limiting communication only but also inclusive of other aspects.

5.5 Suggestions for Further Research

The study recorded a low R- square which implied that patient-clinician communication might not be the only variable explaining customer satisfaction and enhancing Net Promoter Scores. Future studies ought to include a moderator or mediator in fostering the relationship of the study variables. Empirical studies have used customer experience as a moderator between patient-clinician communication and net promoter score. Future studies should opt to employ customer experience as a moderator of the relationship between patient-clinician communication and net promoter score.

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APPENDICES

Appendix I: Introductory Letter

September
2023

Dear Participant,

RE: REQUEST TO COLLECT DATA FOR ACADEMIC RESEARCH

I am a Strathmore University master's student, pursuing my master's degree in business administration – Healthcare Management. I am currently writing a project titled, "Value of Clinician - Patient Communication on net promoter score for Private Healthcare Enterprise and Impact on Health Outcomes in Nairobi Kenya" As part of my sample, I'm requesting you to participate in filling this questionnaire that takes you less than 20 minutes.

Your participation is highly appreciated.

Yours Faithfully

Sign……

Date……

Charles Wahome

Student

Appendix II: Consent Form

This study is about value of clinician-patient communication and net promoter score for private healthcare enterprise and impact on health outcomes in Nairobi Kenya.

1. I, voluntarily, agree to participate in this study.

2. I am aware that though I have agreed to participate, I can withdraw any-time or decline to answer any question without any consequences of any type.

3. I am aware that I can withdraw rights to use data for any other purpose other than the one intended for.

4. The aim and nature of the research was explicitly explained to me and had the chance to make inquiries on where I did not understand.

5. I am aware that participation involves collecting data on clinician-patient communication and net promoter score for private healthcare enterprise and impact on health outcomes in Nairobi Kenya.

6. I am aware that there are no benefits whatsoever that I shall accumulate for agreeing to participate in this research.

7. I am aware that any information I provide in this research shall be held confidentially.

8. That in the reporting of this results, my anonymity will be observed though use of unique identifiers that shall conceal any details of me or the identity of people I speak about.

9. I understand that disguised information from my participation may be cited in dissertation, conferences, published materials etc.

10. I understand that by informing the researcher on any potential harm to myself or any other individual of participating in this study, they can report to appropriate authorities; they may decide to report to me first or report to the relevant authority without my permission.

11. The undersigned consent form will be kept at Strathmore University and shall be granted access upon permission by relevant authorities, School of Business.

12. I am aware that I can access the information any time as required by freedom of information legalization.

13. I am free to engage any person who participated in the study to ask for more clarification and information.

---------- ----------

Signature of participant Date

I believe the participant is giving informed consent to participate in this study.

---------- ----------

Signature of principal investigator Date

Charles Wahome

Strathmore Business School

Strathmore University

Appendix III: Questionnaire

Data gathered in the survey are solely for academic reasons and will be used in part to carry out a master's Research project to evaluate the "Value of Clinician - Patient Communication on Patient Satisfaction and Net Promoter Score". The data collected will be treated with the utmost discretion. There are six parts.

SECTION A: General information

1. Name of the medical center (Optional)…….

2. Gender of the patient/caregiver

   Male [ ] female [ ]

3. Age of the patient/caregiver

   Less than 18 years [ ] 19-30 years [ ] 31-40 years [ ] 41 years and above [ ]

4. Education attainment by the patient/caregiver

   None [ ] primary [ ] secondary [ ] tertiary [ ]

5. Sources of payments of medical bills?

   Out of pocket [ ] insurance schemes [ ] friends/relatives [ ] well-wisher and other support [ ]

SECTION B: **CLINICIAN-PATIENT COMMUNICATION**

6. How would you rate the quality of clinician-patient communication exhibited by medics in this private medical center? Using a scale of 1-5, indicate the level of agreement regarding the following statements in respect

to clinician-patient communication. Use the scale 1= strongly disagree 2= disagree, 3=somewhat agree 4=agree, 5= strongly disagree

Clinician-patient communication	**1**	**2**	**3**	**4**	**5**
Introduction The clinician greets the patients appropriately					
The clinician introduces themselves to the patient					
The clinician introduces the patient to a seat					
Building Relationship with patient The clinician listens attentively to the patient when they are introducing themselves					
The clinician demonstrates appropriate non-verbal behaviors while communicating with the patient					
The clinician attentively listens to patients' statements without interruption					
The clinician expresses empathy to the patients using nonverbal expressions					
Gathering information from the patient The clinician provides patients with an opportunity to ask questions or seek clarification during consultations					
The clinician provides patients with understandable written or visual materials to support their understanding of their medical condition and treatment plan					
The clinician allows the patient to fully express themselves without interruption					
The clinician helps patients clarify statements they seem no to understand					
The clinician allows the patient to state additional information or questions they have.					
Understanding patient's perspective The clinician allows the patient to adequately elicit their view regarding their ailment (s) or concerns					
The clinician shows acceptance or acknowledgment of patient's idea or emotions about the ailment/ health issue					
The clinician carefully explores patient's expectations or preference					
Sharing information The clinician uses easily understood statements and expressions when communicating to the patient (s)					
The clinician checks or makes a follow up of patient's understanding of information given					
The clinician asks the patient if there is anything else they would want to share or discuss					
Reach agreement. The clinician reaches an agreement that considers patient's expectation and understanding before beginning any treatment plan					
The clinician inquires on the patient's willingness and ability to follow the treatment plan					

Closing the session The clinician encourages patients to ask any burning question or issue before I/we start the treatment					
The clinician discusses follow up plan of treatment with patient with clear dates/times to take medicine or return for treatment well communicated.					

SECTION C: **PATIENT SATISFACTION AT PRIVATE HEALTHCARE ENTERPRISE IN NAIROBI KENYA**

7. How would you rate your satisfaction/patient's satisfaction at this private healthcare medical center enterprise? Use a scale of 1-5, where 1= no satisfied at all, 2= dissatisfied, 3= somewhat satisfied 4=satisfied, 5= very satisfied

Patient satisfaction at private healthcare enterprise in Nairobi Kenya	**1**	**2**	**3**	**4**	**5**
Tangibles The cleanness of the medical facilities where I was treated					
The appearance of the health facility					
Dress code and tidiness of the medical staff					
Reliability Accuracy and effectiveness of the diagnosis provided to the patient					
Medics adherence to schedule appointment times with the patient in the hospital					
Provision of prompt medical feedback to the patient (s) on time					
Responsiveness Ability of medics to promptly address patient's concerns when they arrive					
Effort made by the medics to understand and meet the patient's specific needs					
Strong sense of responsibility among the medical staff to provide timely services to the me/patient (s)					
Assurance Effective communication regarding patient's treatment plan					
Medics' ability to show special attention to all patients especially those in urgent attention					
Empathy Ability of the medic to take time to address patients emotional and psychological concerns					
Provision of individualized attention to the patient (s)					

SECTION D: NET PROMOTER SCORE OF PRIVATE HEALTHCARE ENTERPRISE IN NAIROBI KENYA

8. On a scale of 1 to 10, how likely are you to recommend [this healthcare facility] to others?

1 ◯ **2** ◯ **3** ◯ **4** ◯ **5** ◯ **6** ◯ **7** ◯ **8** ◯ **9** ◯ **10** ◯

Interpretation

Promoters (9-10): Loyal enthusiasts who will most likely recommend the health facility to others and help attract new customers.

Passives (7-8): Although satisfied, these customers are not devoted to your brand and may easily switch to a competitor if a better offer is on their radar.

Detractors (0-6): Unhappy customers who may affect the health business reputation and growth through negative word-of-mouth.

Net Promoter Score (NPS)=% Promoters - % Detractors

Appendix IV: List of Private Health Care Medical Centers Operating in Nairobi City County

1. AAR Healthcare
2. Acacia Medical Center
3. Aga Khan University Hospital Nairobi
4. Avenue Healthcare
5. Bristol Park Hospital
6. Care Hospital
7. Coptic Mission Hospital
8. Family Health Options kenya
9. Garden Specialist Hospital
10. Getrude Gardens Children Hospital
11. Guru Nanak Ramgarhia Sikh Hospital
12. Jacaranda Healthcare
13. Jamaa Mission Hospital
14. Jamia MedClinics
15. Kasarani Maternity and Nursing Home
16. Komarock Modern Healthcare
17. Ladnan Hospital
18. Langata Hospital
19. Livewell Health Clinic
20. Maria Immaculata Hospital
21. Mariakani Cottage Hospital
22. Marura Nursing Home
23. Masaba Hospital
24. Medanta Africare
25. Mediheal Hospital
26. Melchizedek Hospital
27. Menelik Hospital
28. Meridian Equator Hospital Limited
29. Meridian Medical Center
30. Midhill Hospital
31. Mp Shah Hospital
32. Nairobi East Hospital
33. Nairobi Hospital
34. Nairobi South Hospital
35. Nairobi West Hospital
36. Nairobi Women's Hospital
37. Oasis Healthcare Group
38. Penda Health
39. Radiant Hospital
40. Reinha Rosary Hospital
41. Ruai Family Hospital
42. Ruaraka Uhai Neema Hospital
43. Savannah Healthcare Services
44. Scion Hospital
45. St Patrick Healthcare Centre
46. St. Francis Community Hospital
47. St. Mary's Hospital Langata

48. St. Scholastica Uzima Hospital
49. The German Medical Center
50. The Lifeline Group of Health facilities
51. The Mater Hospital
52. Wema Hospital
53. Westlands Medical Centre

Source: Nairobi City County health care report, 2020

Appendix V: Work plan

Activity	**May 2022**	**Jun 2022**	**Jul 2022**	**Aug 2022**	**Nov 2023**	**Dec 2023**	**Jan 2024**	**Feb 2024**
Proposal development								
Presentation								
Pilot testing								
Data Collection								
Data Coding and Editing								
Data Analysis								
Report Writing								
Submission								

Appendix VI: Budget

Item Description	Qty Description	Quantity	Unit Price - KShs	Cost- KShs
Book binding	Pieces	15	400	6,000
Contingency				20,000
Photocopying Services	Pages	2000	2	4,000
Data Collection				15,000
Spiral binding	pieces	20	150	3,000
Stationery	pieces	1	2,000	2,000
Article Publication		2	20000	40000
Total				**90,000**

Appendix VII: SU-IERC Ethics Approval & NACOSTI PERMIT

Strathmore UNIVERSITY

15th December 2023

Dr Wahome Charles,
charles.muraguri@strathmore.edu

Dear Dr Wahome,

RE: Value of Clinician - Patient Communication on Patient Satisfaction and Net Promoter Score in Private Healthcare Centres in Kenya

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU-masters** research proposal. Your application reference number is **SU-ISERC1929/23.** The approval period is from **15th December 2023 to 14th December 2024.**

This approval is subject to compliance with the following requirements:

i. Only approved documents including (informed consents, study instruments, 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 72 hours of notification.
iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 72 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,

Mr Ambrose Rachier,
Chairperson; SU-ISERC

STRATHMORE UNIVERSITY INSTITUTIONAL SCIENTIFIC AND ETHICAL REVIEW COMMITTEE
(SU-ISERC)
15-Dec-2023
Email:ethicsreview@strathmore.edu
P.O BOX 59857-00200
NAIROBI-KENYA

Ole Sangale Rd, Madaraka Estate. PO Box 59857-00200, Nairobi, Kenya. Tel +254 (0)703 034000
Email admissions@strathmore.edu www.strathmore.edu

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 470410

Date of Issue: 18/January/2024

RESEARCH LICENSE

This is to Certify that Dr.. Charles Wahome of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: VALUE OF CLINICIAN - PATIENT COMMUNICATION ON PATIENT SATISFACTION AND NET PROMOTER SCORE IN PRIVATE HEALTHCARE CENTERS IN KENYA for the period ending : 18/January/2025.

License No: NACOSTI/P/24/32434

470410

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013 (Rev. 2014)
Legal Notice No. 108: The Science, Technology and Innovation (Research Licensing) Regulations, 2014

The National Commission for Science, Technology and Innovation, hereafter referred to as the Commission, was the established under the Science, Technology and Innovation Act 2013 (Revised 2014) herein after referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

CONDITIONS OF THE RESEARCH LICENSE

1. The License is granted subject to provisions of the Constitution of Kenya, the Science, Technology and Innovation Act, and other relevant laws, policies and regulations. Accordingly, the licensee shall adhere to such procedures, standards, code of ethics and guidelines as may be prescribed by regulations made under the Act, or prescribed by provisions of International treaties of which Kenya is a signatory to
2. The research and its related activities as well as outcomes shall be beneficial to the country and shall not in any way;
    i. Endanger national security
    ii. Adversely affect the lives of Kenyans
    iii. Be in contravention of Kenya's international obligations including Biological Weapons Convention (BWC), Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Chemical, Biological, Radiological and Nuclear (CBRN).
    iv. Result in exploitation of intellectual property rights of communities in Kenya
    v. Adversely affect the environment
    vi. Adversely affect the rights of communities
    vii. Endanger public safety and national cohesion
    viii. Plagiarize someone else's work
3. The License is valid for the proposed research, location and specified period.
4. The license any rights thereunder are non-transferable
5. The Commission reserves the right to cancel the research at any time during the research period if in the opinion of the Commission the research is not implemented in conformity with the provisions of the Act or any other written law.
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10. The Licensee shall submit one hard copy, and upload a soft copy of their final report (thesis) onto a platform designated by the Commission within one year of completion of the research.
11. The Commission reserves the right to modify the conditions of the License including cancellation without prior notice.
12. Research, findings and information regarding research systems shall be stored or disseminated, utilized or applied in such a manner as may be prescribed by the Commission from time to time.
13. The Licensee shall disclose to the Commission, the relevant Institutional Scientific and Ethical Review Committee, and the relevant national agencies any inventions and discoveries that are of National strategic importance.
14. The Commission shall have powers to acquire from any person the right in, or to, any scientific innovation, invention or patent of strategic importance to the country.
15. Relevant Institutional Scientific and Ethical Review Committee shall monitor and evaluate the research periodically, and make a report of its findings to the Commission for necessary action.

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