

**FACTORS AFFECTING PATIENT SATISFACTION AT KENYATTA NATIONAL
HOSPITAL, KENYA: A CASE OF CANCER OUTPATIENT CLINIC**

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DECLARATION

This research project report is my original work and has not been submitted for any award of a degree in any other university.

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DEDICATION

This work is dedicated to my family; wife Hellen Koki, daughter Margaret Mbithe and Son Meshark Mwanga. Their unwavering faith in me motivated me to persist in completing this project when my spirit waned. Thank you for instilling in me the confidence to accomplish this project.

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ABBREVIATIONS AND ACRONYMS

AHRQ	Agency for Health Care Research and Quality
CTC	Cancer Treatment Centre
HAI	Healthcare Associated Infections
KNH	Kenyatta National Hospital
MDCT	Multi Dimensional Computer Topology
MDG	Millennium Development Goals
MOMS	Ministry of Medical Services
MRI	Magnetic Resonance Imaging
SERVQUAL	Service Quality
SPSS	Statistical Package for Social Sciences
UK	United Kingdom
WHO	World Health Organization

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ABSTRACT

The purpose of this study was to examine factors affecting patient satisfaction at KNH. The objectives of the study were to establish how the factors: physical environment, technical quality, interpersonal relations and the accessibility of care affects patient satisfaction. A descriptive survey design utilizing quantitative research method was adopted. The target population was all 1010 patients in the month of May 2013. A sample size of 101 patients was sampled using systematic sampling method. The data collection was done using a structured self administered questionnaire with five point's likert scale. 75% of the patients sampled were on radiotherapy treatment, 10% on the chemotherapy, 105 on follow up after treatment and 6% were being diagnosed to determine mode treatment to apply. The data was analyzed using statistical package for social sciences (SPSS) version 12.0. The study unveiled that 61.8% of the respondents were satisfied with physical environment aspect of care although 89.9% and 60.7% of the respondents said the clinic was crowded and the toilets were dirty respectively. The respondents rated technical quality at 64.8% with 41.6% saying the doctors rarely gave them advice about their medical conditions. The interpersonal relation was rated highly at 81.9% with 32.6% saying there were no brochures explaining operations of the clinic. Communication was rated at 62% with 30.3% of the respondents saying they were not involved in making decisions about treatment and care. Accessibility to care was rated at 61.4% with 33.7% of the respondents saying they were delayed waiting for the doctor to arrive at the clinic. The overall satisfaction rating of the services at the Cancer Treatment Centre was of 64.9%. The study recommends to the KNH management to improve of cleanliness in the toilets, make waiting areas conducive for patients and improve signage to make easy for people to access different service points of care around the hospital; improve availability of diagnostic equipment and machines, train the machine operators and technicians on handling and maintenance as well as employing additional staff, encouraged staff to have good attitude towards patients and their relatives. Improve communication to create more understanding between all the parties. Counseling should be encouraged to prevent the patients, relatives and friends from anxiety and fear. Encourage provision of information on operation of the clinic through posters, brochures, magazines and books at the waiting areas and notice boards. The government should subsidize cancer drugs and laboratory reagents to reduce the cost of cancer treatment and make it affordable to the poor and marginalized Kenyans. The cancer treatment facilities should be decentralized to all the counties to make it easier for patients to access treatment services. More facilities should be considered in Central region which according to this study has high preference of cancer incidences. In conclusion patient satisfaction surveys are cost effective way to evaluate the healthcare quality provided to patients. They form platform for identifying and address barriers that hinder healthcare provision and encourage care givers embrace patient centred care, improvement of accessibility to care by increasing the time spent in consultation and the operation of the health facility.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Patient satisfaction is the major indicator of quality of care provided by health facilities. It is also considered as an 'outcome' measure, allowing one to assess the superiority of one treatment, program of care, health care organisation or system, over another. Across countries, one may foresee satisfaction ratings to be important for establishing the adequacy and the quality of health care practices (Calnan et al., 1994).

There has been an increasing interest in patient satisfaction assessment across nations recently (Abdullateef, 2011). Client/patient's satisfaction is one of the main components of quality of care and an indicator of care quality and its assessment provides feed-back to clinicians and to services. It can be assessed by mapping out patient satisfaction with care providers (O'Connell et al., 1999). Satisfaction is itself multi-dimensional, reflecting the range of experiences that an individual may have during illness. A systematic review of 139 articles reported that correlates of patient satisfaction include personal health status, age and ethnicity, as well as with the provision of information and choice of service (Crow et al., 2012).

Measures of satisfaction with care for cancer patients have been developed for clinical studies and used in hospitals but less for comparison of cancer services (Perneger, et al., 2003). Sandoval and colleagues (Fakhoury et al., 1996), using data collected from cancer services in Ottawa, Canada, have identified hospital staff and informational dimensions associated with patients perceptions of quality of care. In cancer palliative care, Fakhoury, Addington-Hall & McCarthy (Sandovall et al., 2006) found that informal care-givers' satisfaction was related to frequency of visits of healthcare staff.

According to WHO (2010), cancer is a leading cause of death worldwide and accounted for 7.6 million deaths (13% of all deaths) in 2008. Globally, Cancer causes more deaths than HIV, TB and Malaria combined. Lung, breast, colorectal, stomach, and prostate cancers cause the majority of cancer deaths. More than two thirds of all cancer deaths occur in low- and middle-

income countries. Important risk factors for cancer include tobacco use, unhealthy diet, physical inactivity and the harmful use of alcohol. The estimated percentage increase in cancer incidence by 2030, compared with 2008, will be greater in low- (82%) and lower-middle-income countries (70%) compared with the upper-middle- (58%) and high-income countries (40%).

According to Michel et al., (2008), Europe comprises only one eighth of the total world population but has around one quarter of the global total of cancer cases – some 3.2 million new patients per year. While the disproportionate cancer burden is readily apparent, the disease patterns in Europe cannot simply be generalized – overall cancer incidence and mortality rates vary at least two-fold between European countries and the differences are often far greater for specific cancers. Cancer diseases have serious implications not just for individuals and their families, but also for society in general and health systems in particular, remain an important health challenge in Europe and world-wide. At present, with more than 3 million new cases and 1.7 million deaths each year, cancer represents the second most important cause of death and morbidity in Europe. Without effective interventions, the cancer burden will increase dramatically, but comprehensive cancer prevention and control policies can bring significant benefits.

According to the United States Cancer Statistics: 1999–2008 Incidence and Mortality Web-based Report, Cancer is the second leading cause of death in the United States, exceeded only by heart disease. In 2008, more than 565,000 people died of cancer, and more than 1.48 million people had a diagnosis of cancer. The cost of cancer extends beyond the number of lives lost and new diagnoses each year. Cancer survivors, as well as their family members, friends, and caregivers, may face physical, emotional, social, and spiritual challenges as a result of their cancer diagnosis and treatment. The financial costs of cancer also are overwhelming. According to the National Institutes of Health, cancer cost the United States an estimated \$263.8 billion in medical costs and lost productivity in 2010.

Cancer is an emerging public health problem in Africa. 70% of the global Cancer burden is in LMICs (low and middle income countries) like Kenya. About 715,000 new cancer cases and 542,000 cancer deaths occurred in 2008 on the continent, with these numbers expected to

double in the next 20 years simply because of the aging and growth of the population. Furthermore, cancers such as lung, female breast, and prostate cancers are diagnosed at much higher frequencies than in the past because of changes in lifestyle factors and detection practices associated with urbanization and economic development. Breast cancer in women and prostate cancer in men have now become the most commonly diagnosed cancers in many Sub-Saharan African countries, replacing cervical and liver cancers. In most African countries, cancer control programs and the provision of early detection and treatment services are limited despite this increasing burden.

According to Imran et al., (2013), although infectious diseases continue to afflict Africa, the proportion of the overall disease burden in sub-Saharan Africa attributable to cancer is rising. The region is predicted to have a greater than 85% increase in cancer burden by 2030. The cancer burden in sub-Saharan Africa is poorly documented for several reasons, including the scarcity of updated, comprehensive, and reliable data. Nevertheless, on the basis of the available data, the cancer burden is rising, particularly in sub-Saharan Africa, where the increasing cancer burden is associated with factors that persistently affect the region, such as infectious diseases, unhealthy lifestyles, poor food supply, conflict, and poverty.

It has estimated that about 551 200 new cancer cases (243 500 in men and 307 700 in women) occurred in sub-Saharan Africa in 2008, with about 421 000 deaths. The four most common cancers by site in men were prostate cancer, liver cancer, Kaposi's sarcoma, and oesophageal cancer, whereas in women they were cervical cancer, breast cancer, liver cancer, and Kaposi's sarcoma (Ferlay et al., 2012). The mortality caused by these cancers generally followed their incidence patterns, indicating the poor availability of cancer care in sub-Saharan Africa. (Sambo et al., 2012).

According to a WHO (2008) estimates, non-communicable diseases caused 28% of the total burden of disease in South Africa in 2004; cancers alone caused about 3% of the total disease burden. Statistics based on 2009 death notifications¹³ suggest that cancers caused almost

40 000 deaths (6.3% of total deaths) and as such were the third most common cause of death, surpassed only by tuberculosis and by influenza grouped together with pneumonia (Statistics South Africa, 2009).

With a population of 170 123 740, Nigeria is the most populous country in Africa and the seventh most populous in the world (Central Intelligence Agency. World Factbook: Nigeria, 2013). Gross national income per head in 2012 was US\$2700 (at purchasing power parity) (Central Intelligence Agency, 2013). According to GLOBOCAN data (Ferlay et al., 2012), almost 102 000 new cases of cancer occur annually in the country, and 75 000 deaths per year are caused by malignant disease. 5-year prevalence in the adult population is roughly 223 000. No nationwide, population-based cancer registry exists, but data provided by some smaller population-based and hospital-based registries can be used to estimate the national burden of cancer. These data suggest that the cancer incidence is increasing. For example, the Ibadan Cancer Registry recorded 1093 cases in 2001, with a steady increase to 1576 by 2005. Because of a disproportionately high burden of infectious diseases, Nigeria is among those countries that face the challenge of the so-called double burden of communicable and non-communicable diseases (Abdoolkareem, 2013).

Rwanda has a population of more than 11 million people and a median life expectancy of 58 years. Health expenditure was 9% of gross domestic product in 2009, and there are roughly two physicians for every 100 000 people. (Central Intelligence Agency. World Factbook: Nigeria, 2013). According to GLOBOCAN data, (Ferlay et al., 2012) 6600 new cases of cancer occur annually; the five most common are cervical cancer, liver cancer, Kaposi's sarcoma, and cancers of the stomach and breast. About 5300 people die from cancer each year. Rwanda does not have a formal national cancer control plan as defined by the WHO guidelines. However, several initiatives have been launched by the Ministry of Health, in collaboration with various international donors and medical institutions, which focus on prevention, diagnosis, treatment, and palliation.

According to Ibrahim et al., (2009), Egypt is classified as a lower-middle-income country; however, characteristics of high-income, middle-income, and low-income countries coexist.

About 68 800 new cancer cases occur per year. Most common in men are cancers of the liver (mostly related to hepatitis C virus), bladder (although incidence is decreasing because of improved control of schistosomiasis), non-Hodgkin lymphoma and leukaemia, and cancers of the lung, prostate, brain and nervous tissue, and colorectum. For women, most common are cancers of the breast, liver, non-Hodgkin lymphoma and leukaemia, and cancers of the ovary, uterine body, bladder, colorectum, and uterine cervix.

Ghana has a population of 24 million people, and the median life expectancy is 59 years. According to one estimate noted by Ibrahim et al., (2009), the country has an average of one nurse for every 1500 and one doctor for every 20 000 people. As stated by Wiredu et al (2006), as a result, accurate estimation of the national cancer burden is difficult. Moreover, without accurate information about the regional distribution of cancers in the country, no realistic basis exists upon which to match the provision of cancer care with demand to ensure efficient resource use and equitable access. There roughly 16 000 cases of cancer occur annually in Ghana, with the five most common being cancers of the liver, breast, cervix, prostate, and stomach. Cancer is the fourth most common cause of death in the country (Abbey 2012).

Cancer as a disease is ranked third as a cause of death in the in Kenya after infectious and cardiovascular diseases. Data available is scanty and is mainly hospital based. Therefore the burden is unclear. It is estimated that in 2005, 18,000 deaths were due to cancer most of them being under age of 70. The leading causes of cancer in women are the cancers of the cervix and breast while in men are cancers of the oesophagus, head, neck and prostate. In children, the commonest cancers are blood cancers (Leukaemia) and lymphomas. The cancer of the digestive track such as that of stomach, liver, colon, and rectum are also on the increase. Patients have to travel from across the country some for as far as 600 Kilometers to access treatment. Diagnostic services are available mainly in the capital and large cities but limited in capacity. The national leading referral facility Kenyatta National Hospital is only public hospital providing radiotherapy services in the country with three cobalt machines covering a population of over 38 million. Patients referred from peripheral facilities have to wait for months before they can access services leading to majority of the patients attending at the late stage of the disease (<http://www.kenyacancernetwork/cancer-fact>).

According to Pact Kenya Cancer Assessment in Africa and Asia (2010), About 80,000 cases of Cancer are diagnosed each year. The Cancer situation in Kenya is dire with a severe lack of Medical Practitioners and a large number of new Cancer cases being diagnosed annually. Cancer is the 3rd highest cause of morbidity in Kenya [7% of deaths per year], after infectious diseases and cardiovascular diseases. It is difficult to get accurate national data because most data is coming from Nairobi and other urbanized settings. It is estimated that 28,000 new cases of Cancer each year in Kenya with more than 20,000 deaths per year. 60% of Kenyans affected by Cancer are younger than 70 years old. Leading Cancers: women: breast (34 per 100,000), cervical (25 per 100,000), men: Prostate (17 per 100,000), Esophageal (9 per 100,000). 70-80% of cancer cases are diagnosed in late stages. Number of radiation machines in the country: 4 (all in Nairobi). Number of treatment facilities: 4 (2 main, 2 limited). Number of oncologists in Kenya: under 10 (recommended figure is 300 oncologists per population of 100,000) (International Atomic Energy Agency, 2010).

The Cancer Treatment Clinic at Kenyatta National Hospital is dedicated to offering cancer diagnosis, treatment and care to cancer patients. On average, 60 new cases are attended weekly, 750 cases receive radiotherapy and 100 cases receive chemotherapy while 100 confirmed cases are on follow up at the oncology clinic. Due to heavy workload and lack of capacity for cancer treatment, patients have to wait up to four months to receive treatment, (KNH Medical Records, 2011).

1.2 Statement of Problem

An article published in Global Medicine (2011), Kenyatta National Hospital, the only Public institution that hosts most of the Cancer Experts and Technology in Kenya, indicated that the hospital is overwhelmed with cancer patients and cannot cope. According to Pact Kenya Cancer Assessment in Africa and Asia (2010) statistics, Kenya has shown that about 50 Kenyans die daily from various forms of cancers

According to Gesami et al., (2001) the equipment and facilities are not adequate for the patient load at KNH. The machines treat 100-150 fields daily from 7:00am to 7:00pm in two shifts. The equipment and facilities are outdated to mitigate cancer. The Cobalt 60 machines used by KNH

are the remnants of an old generation, and are equipped with limited capability to optimally treat complex cases.

The staff and space are grossly inadequate. There are only five Oncologists in the Public sector working at the KNH. Supporting personnel are lacking. According to the National Assembly of the Republic of Kenya Policy brief on the situational analysis of cancer in Kenya (2011), there are 15 to 20 Clinical Oncologists are needed in the KNH Cancer Unit. International Atomic Energy Agency (2010) report indicated that the Cancer situation in Kenya is dire with a severe lack of Medical Practitioners and a large number of new Cancer cases being diagnosed annually. The Kenyatta National Hospital Cancer Unit Report (2011) states that there are only Five (5) Clinical Oncologists, Four (4) Medical Oncologists and about Eight (8) Haematology Oncologists, in Kenya, 95% of who practice in Nairobi. Training one clinical oncologist is estimated to cost at least Kshs. 8 million.

Patient privacy and confidentiality is not observed at the clinic because of limitation in waiting areas and consultation cubicles. It also observed shortages of cytotoxic drugs. The drugs are very costly to the patients and therefore some delay buying the drugs thus affecting the treatment efficacy Comprehensive patient management structures that encourage interaction between all interested teams are not adequate. This would be beneficial to both staff and patient using multi- disciplinary approach. According to the treatment of patients is affected by doctor's attitude toward cancer patients and unaffordable of treatment. They also stated that most cancer patients are looked after by non cancer specialists and noted there is dire need to train more care givers. (Gesami et al., 2001).

According to Report by Global Medicine (2011), Cancer treatment is protracted and expensive, especially due to the intensive procedures required for the advanced Cancer cases. According to the Cancer Treatment Centre, Kenya National Hospital Patients pay Sh300 per session, translating to KSh1, 500 a Week. The entire six-week session costs Kshs. 9, 000. By contrast the Private Hospital charges Sh80, 000 per Week. For solid tumours, the tests may include but not limited to CT Scans or magnetic Resonance imaging (MRI) and biopsy which costs between Kshs. 10,000 to 30,000/-.

1.3 Purpose of the study

The purpose of this study was to examine factors affecting patients' satisfaction at Kenyatta National Hospital.

1.4 Objectives of the study

This study was aimed to achieve the following objectives;

1. To establish how physical environment affects patients satisfaction at Kenyatta National Hospital.
2. To examine how technical quality affects patients satisfaction at Kenyatta National Hospital.
3. To assess how interpersonal relations affects patients' satisfaction at Kenyatta National Hospital.
4. To determine how communication affect patients satisfaction at Kenyatta National Hospital.
5. To establish how accessibility to care affect patients satisfaction at Kenyatta National Hospital.

1.5 Research questions

The study sought to answer the following questions;

1. To what extent do physical environment affect patients' satisfaction at Kenyatta National Hospital?
2. To what level does technical quality affect patients' satisfaction at Kenyatta National Hospital?
3. To what extent do interpersonal relations affect patients' satisfaction at Kenyatta National Hospital?
4. How does communication affect patients' satisfaction at Kenyatta National Hospital?
5. How does accessibility to care affect patients' satisfaction at Kenyatta National Hospital?

1.6 Significance of the Study

The annual cancer mortality in Kenya is 22,100 with 14,000 of these deaths occurring at KNH (KNH Medical Records, 2011). The risk of getting cancer before the age of 75 years is 14% and dying before same age is 12%, (Globocan, 2008). Over 80% of cancer patients are diagnosed at

late stages due to inadequate diagnostic services and low level of awareness of cancer among the public.

The outcome of study may help the hospital management to come up with policies necessary to improve cancer treatment services at KNH in particular implementing recommendations by the patients. The study may also help the Cancer Treatment Clinic management in making decisions on how to make patients comfortable. The findings can further be manipulated to increase patients' satisfaction with services. The study will also help management make good facilities, amenities and service conditions which are essential for the hospital to provide patients centred care. The patients will provide feedback which the management of the hospital may implement to improve quality services provided at the clinic.

1.7 Assumptions of the Study

It is assumed that the participants recruited gave honest responses. They had the ability to evaluate the quality of treatment offered and rate it accordingly. It is also assumed that the information given was reflective of patients' experiences and expectations.

1.8 Limitations of the Study

This study was limited by non-response by respondent due to their medical condition, fragility, eyesight problem, cognitive deficit, and general weakness. Other limitations were language barrier and non honest responses by some participants.

1.9 Delimitations of the of Significant Study

This study was carried out at the Kenyatta National Hospital cancer outpatient clinic because it is the only cancer treatment facility in the country which has fully functional public cancer equipment and various medical specialties of cancer in Kenya

1.10 Definition of Significant Terms as used in the Study

Accessibility to care This means service provision unrestricted by geographical, economic, social, cultural, hospital organizational factors.

Cancer	Cancer is a generic term for a large group of diseases in which cells grow out of control and can spread from one part to other parts of the body.
Communication	This refers to the activity of expressing ideas and feelings or giving patient information through direct engagement or literature materials.
Cancer Outpatient Clinic	This is a clinic where cancer patients are treated without admission into the ward. They are booked to come to the clinic during the day, are treated and then go back home.
Interpersonal relations	This is connectedness relationship between patients and staff which is based on courtesy, respect, apathy and confidentiality.
Kenyatta National Hospital	The largest referral and teaching hospital in Kenya where all the complicated medical cases are referred.
Patients Satisfaction	It is the individual's positive evaluations of distinct dimensions of health service.
Physical environment	This refers to the pleasantness, comfort of the seating, attractiveness of waiting areas, clarity of signs and direction, good lighting, quiet clean, neat orderliness of the equipment and facilities.
Technical Quality	Refers to the skills, capacity and actual performance of health providers, managers and support staff. It also concerns availability of equipment and technology, thoroughness, accuracy and the attention to patients.

1.11 Organization of the study

This study is organized into five chapters. Chapter one which is introduction comprises of the study, statement of the problem, the purpose of the study, objectives, research questions, significance of the study, delimitation, limitations, and assumptions of the study and the definition of significant terms as used in the study.

Chapter two contains literature review, which comprises of the introduction, factors affecting patient satisfaction, review of theoretical and empirical literature, conceptual framework and the summary of the literature review.

Chapter three is presented under the following subheadings; introduction, research design, target population, sample size and sampling techniques, data collection methods, research instruments , validity, reliability, data collection procedures, operationalization table of variables and data analysis and presentation.

Chapter four presents the introduction, questionnaire return rate, demographic factors and respondents' level of education. The chapter further presents data analysis, presentation and interpretation.

Chapter five gives a summary of the main findings, discussion of the results, conclusion, recommendations and suggestions for areas of further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers literature review related to patients' satisfaction. The literature review is done focusing on physical environment, technical competence, interpersonal relations communication and accessibility as they relate to the patients satisfaction. Theoretical and empirical review is analysed, the summary of the review and the conceptual framework is also presented to bring out relationship between the variables.

2.2 Factors related to patients satisfaction

One of the more pressing challenges that health-care providers and researchers face is to develop a better understanding of the key components constituting patients satisfaction (health-care quality) and valid approaches to their measurement (Marrekchi, et al 2001). Surveying patient's satisfaction is the most common method for obtaining patients' views on their hospital stay. According to Brown (1989) and Calman (1986), many theories include patients' expectations as the basic concept of satisfaction. A traditional definition of satisfaction is, therefore, the degree of congruence between expectation and accomplishment La Monica et al. (1983) and Pascoe (1986). Despite the growing literature devoted to the concept of patients' satisfaction, no unified approach has been devised for its meaning and its measurement Williams (1994). Some authors have criticized the notion that patient's satisfaction is directly supported by the discrepancies between expectations and perception Williams (1994) and Arthur (1995).

In reviewing patients' satisfaction research, Risser (1975) identified four components of satisfaction: the cost; the convenience; the provider's personal qualities and the nature of the interpersonal relationship and the provider's professional competence. A classification with eight dimensions was presented by Ware et al.(1983): interpersonal manner-features, technical quality, care-competence, accessibility/convenience-factors involved in arranging to receive medical care, finances-factors involved in paying for medical services, efficacy/outcomes of

care (the results of services provided), continuity of care-constancy in provider or location of care, physical environment-features of setting in which care is delivered and availability-presence of medical care resources.

In a thorough review of studies of patients' satisfaction with hospital patient's care, Rubin (1990) listed the following as important components: nursing care, medical care, communication, ward management, ward environment, and discharge procedure. Abramowitz et al. (1987) proposed 10 components for hospital care: medical care, housekeeping, nursing care, nurses' aides, staff explanations of procedures and treatments, noise level, food, cleanliness, portering services, and overall quality.

Baker (1991) identified five components of satisfaction in the U.K. primary care setting: continuity of care, accessibility of the surgery, quality of medical care, premises, and availability of doctors. In the outpatients' context, McIver (1991) proposed accessibility, waiting times, waiting environment, attitude of staff, and patient's information as critical components. The components of patients satisfaction listed by Meredith, et al and Devlin (1993) included expectations, comprehension, participation, information and informed consent, risk perception and preference.

Empirical evidence shows that patients distinguish among components of care when judging its quality (Rubin, 1990) providing greater response variability than when considering overall satisfaction. Thus, it is accepted that substantial dissatisfaction exists with specific dimensions of care, notably waiting times and communications in primary care (Williams et al., (1991), Serrano-Del-Rosal et al. (2004). It is necessary to evaluate how important is the satisfaction level within each dimension in overall satisfaction, and how each affect each dimension and ultimately overall satisfaction.

There is an association between client satisfaction and the company shareholders returns. A reduced client satisfaction affects the company shareholders value (Aderson et al., 2004). According to Baker (1998), if patients are highly satisfied, an institution is more likely to receive high number of patients from word-of-mouth referrals. By providing excellent services,

it may be possible to attract patients who are able to pay hence contributing to overall efficiency healthcare in competitive market. On the contrary, if patients are dissatisfied an institution would receive many complaints and several of them would leave to other competitors. This was supported by Haber and Reichel (2005) who indicated that customer satisfaction is mostly associated with high possibilities that the satisfied customers will recommend the goods or services to other potential customers. Satisfying clients/customers benefits firms by getting more clients/customers without advertising and this result in saving of resources. Clients/customers of such a firm are less likely to respond to competitor's lower fees. Instead they would prefer to pay more to continue using the services/products of that firm (Lamb, 2004). Shareholders of such firms benefits by getting high returns from their satisfied clients/customers (Anderson et al, 2004).

Studies dealing with patients' satisfaction are not homogenous and more are needed to ascertain the best techniques for measuring quality of health care services and the importance of various predictors' on overall satisfaction. Little information is available about patients' satisfaction in Kenyatta National Hospital. Therefore, in light of the absence of a consensus on which components constitutes patients satisfaction construct and, also, in light of the lack of uniformity in the studies already conducted and expressed in the various methodological approaches described in the literature, this study is limited to discussions and analysis on physical environment, technical competence, interpersonal relations, communication and accessibility.

2.2.1 Physical Environment and Patients Satisfaction

Healthcare design is increasingly linking the physical environment of hospitals to patients and staff Outcomes. Improved physical settings can be an important tool in making hospitals safer, more healing, and better places to work (Hamilton, 2003). According to Ware (1977), Sources of satisfaction with the environment of care include general pleasantness of the atmosphere, comfort of seating, attractiveness of waiting rooms, clarity of signs and directions, lighting, quiet, and clean, neat and orderly facilities and equipment.

Woodside et al. [1988] found that location, equipment, and facility were important factors that hospital patients sought to optimize. For dental offices (Andrus, 1985), organization, neatness,

comfort of seating, magazine selection, and music all had a significant impact on dental service satisfaction (Chakraborty et al., 1993). Gotlieb (2000) found that patients' perceptions of their hospital rooms could influence patients' perception of hospital quality. Participants in 16 focus groups in four major cities in the U.S.A. (that is, Baltimore, Los Angeles, Phoenix, and Orlando) identified that cleanliness of the hospital rooms and bathrooms were one of the most noted items for quality of hospital care (Sofaer et al., 2005). Akinçi et al (2004) reported that outpatients in four Turkish hospitals indicated that the physical appearance of the hospital is a significant factor in the satisfaction of patients. For example, our respondents expected the providers to enhance the volume of readings, wall-mounted televisions, health education brochures, water, access to wheel chairs, and no-interrupted space for the minority populations. The items in the questionnaires related to aspects of outpatients hospitals, including attractiveness and size, cleanliness, ease in finding a seat to wait for a physician, room temperature, and the conditions of the bathrooms in the waiting areas. Cho et al.(2004) examined the relationship between service quality and outpatients satisfaction in a Korean general hospital.

According to Boyer et al. (2006), assessing patient satisfaction is used to improve the hospital environment, patient amenities and facilities in a consumerist sense, but not necessarily to improve care. Bitner (1992) conceptualized the existence of three types of objective, physical, and measureable stimuli that constitute all built environments, or services capes. Further, she consolidated these environmental stimuli into three dimensions: (1) ambient conditions; (2) spatial layout and functionality; and (3) signs, symbols, and artifacts. Although these stimuli characterize every consumption setting, they are not restorative to health, per se. There is troubling gaps in patients safety because variables that contribute to safe and quality care are not examined together. Physical environment is often forgotten. Physical environment shapes every patients experience and all healthcare delivery including those episodes of care that result in patients harm (Wachter, 2010).

According to Ulrich et al. (2008), understanding how environmental variables contribute to adverse events in health care represents the focus of a growing body of architects, researchers, and clinicians. A systems approach allows us to evaluate error or adverse events in the context of organizational vulnerabilities. As stipulated by Joseph et al 2010, the environmental latent

conditions undermine system defenses, setting the stage for active failures or establishing error-provoking conditions. Multiple occupancy patients' rooms are more difficult to clean and have fewer easily accessible hand washing opportunities (bathrooms, sinks, alcohol rubs) may result in increased transmission of Health care–Associated Infections (HAIs) through surface contact.

Because HAIs are transmitted through air, water, and contact with contaminated surfaces, the physical environment plays a key role in preventing the spread of infections in health care settings. In his article Bartley (2010) found out that evidence shows that single-bed patients rooms with high-efficiency particulate air filters and with negative or positive pressure ventilation are most effective in preventing airborne pathogens. Joseph and Rachid (2007) in their research on patients safely found that single-bed patient rooms are also easier to clean and have fewer surfaces that act as reservoirs for pathogens. Additionally, higher sink-to-bed ratios in single-patients rooms are associated with better hand washing compliance—a key factor associated with the spread of HAI.

Kaplan and McGuckin (1986) in their research conducted at Bronson Methodist Hospital in Kalamazoo, Michigan found that HAI rates among all patients care units declined by 11% (0.89 to 0.80 infections per 1000 patients days) when they moved from an older hospital with mostly semiprivate rooms and shared bathrooms to a new hospital with all private rooms with bathrooms. Moreover, among the six patients care units that changed from semiprivate to private room design, the infection rate declined by 45%. According to Van (2006), in addition, easy access to alcohol-based rub dispensers in patient's rooms has been linked to improved hand washing compliance. One study found that alcohol-rub dispensers located at the foot of the patient bed were better used than those by the sink. (Somner, 2007).

Workplace design that reflects a closer alignment of work patterns and the physical setting, such as redesign of a pharmacy layout, has been shown to improve work flow and reduce waiting times, as well as increase patient's satisfaction with the service (Pierce, Rogers, Sharp, & Musulin, 1990). Other studies that compared delivery times in decentralized and centralized pharmacy systems found medication delivery times are reduced by more than 50 percent by using decentralized drug-dose distribution systems (Hibbard et al., 1981; Reynolds et al., 1978).

There are many more factors associated with physical environment which affects patient's satisfaction. These factors include care providers working under very stressful environment, ventilation of hospitals, type of equipment in use, design of the patient's beds, lighting levels and auditory or visual distraction. These can be considered for another study.

2.2.2 Technical Quality and Patients Satisfaction

Technical quality refers to the skills, capacity, and actual performance of health providers, managers and support staff. It includes clinical skills related to preventive care, diagnosis, treatment and health counseling. Rashid and Jusoff (2009) noted that technical quality in health care services is defined primarily on the basis of technical accuracy of diagnoses or procedures as well as on compliance with professional specifications. They further noted that technical quality is mainly a function of competence of the personnel providing the service.

According to Ware et al (1978), technical quality pertain the provider's conduct, competence and adherence to high standards of diagnosis and treatment. The patients assess skills and the abilities of the providers and technical soundness and modernness of equipment and facilities. The positive end of the continuum is assessment to physical environment done on the bases of accuracy, experience, thoroughness and training of the providers as well as the extent, to which the providers pay attention to details, avoid mistakes, give good examination, clearly explain what expected to their patients. The negative continuum is also defined in terms of the defect equipment and facilities, outdated regimes and tendency to take unnecessary risks.

According to Brook et al, (2000) all definitions of quality Health care have technical quality as one of the components. Patients perceives high technical quality of care they receive as only procedures, tests, or services for which desired health outcomes exceed health risks by a sufficiently wide margin and that each of these procedures or services are performed in a technically excellent manner. The authors also noted that patients who has chronic or acute self limiting condition might value the art of care over the technical quality contrary to the patients with a broken leg who might place the highest value on technical quality aspect of care.

While assessing use and preferences for information about technical and interpersonal quality, Fung et al. (2005) found 90% of the sample selected the dominant physician for both validity checks, indicating a level of attention to task when presented with pairs of physicians who valued in technical quality and interpersonal quality, two thirds of the sample whose physicians with high technical quality at least 3 out of 5 times. They indicated age gender and ethnicity were not significant predictors of choosing physician who was higher in technical quality. According to Pugh et al. (2007), technical quality entails making the right decisions for each patients and having the technical skills to perform the care. Interpersonal quality in contrast includes quality of communication, ability to gain/maintain patients trust and ability to interact in a way that demonstrate empathy, honest and sensitivity to the patients concerns. This aspect of care is important for people with chronic illness that require patients to adapt profound life style changes.

However, Roa (2006) while using British adaptation of US questionnaire the General Practice Assessment Survey (GPAS) found no correlation between patient's evaluation of technical quality care and evidence based indicators drawn from a separate review of record. They concluded that patient's assessments are not reliable basis for assessing the technical quality of care. They argued that patient's questionnaires could not be used solely to measure quality of care. They further argued that GPAS questionnaire had limitations to measure technical quality using rated scale to assess patient's perceptions. Coulter (2006) said that patients prefer doctors who have excellent communication skills but also assurance that the doctors have sound up to date technical skills.

2.2.3 Interpersonal Relations and Patients Satisfaction

Interpersonal aspects of care, such as caring, respect, courtesy and listening, are characterized as the "softstuff" of relationships. Literature supports the satisfaction with care enhances patients outcomes. Wickizer et al. (2004) found that satisfaction with interpersonal and technical aspects of care was strongly associated with the overall treatment experience. They asserted that, of the five key factors driving customer satisfaction, assurance (the sense of confidence, competence and courtesy that the provider offers) and empathy (the degree of caring and attention to individual customers restate the concepts of respect, caring, courtesy and listening) are found in

what is commonly called "bedside manner."(Anderson et al. 1991) In the case of bedside manner, the primary foundation is the interaction between the provider and the patients yielding a positive or negative experience. (Person et al., 2009) It is in the context of this experience that the loyalty of the patients and even the effectiveness of the patients encounter are affected. Poor communication skills are associated with low levels of patient's satisfaction and loyalty, higher rates of complaints, increased malpractice risk and poorer outcomes of health. (Abrahamowicz et al., 2007).

According to a study done by Bruce (1990), interpersonal relations have shown to strongly influence clients: confidence in their choices and ability; satisfaction with services; and possibility of return visit. According to another study conducted by Alli et al (2012), the interpersonal relationship between the care provider and the patients were influenced by many factors. Interpersonal relations have been shown to strongly influence clients: confidence in their own choices and ability; satisfaction with services; and the possibility of a return visit. Further, according to study conducted by Alli et al. (2012), providers felt that the interpersonal relationships between staff and young clients were influenced by many factors. One factor that was mentioned by providers as a barrier to young clients was the negative attitudes of staff, limited contact time with patients, due to shortages staff had limited time consulting with clients. This is important since providers felt that information and education were key elements in encouraging young users' to utilize the health services as well as in preventing ill-health among young people. For this reason all providers expressed that they felt overworked and frustrated.

Given that the interpersonal relation between providers and clients influences to a large extent the uptake of services, there is an urgent need for improving this element of service delivery. Since providers training places emphasis on technical issues, the interpersonal aspect of services is often neglected. Adequate training in interpersonal relations is essential in helping overcome communication problems and enabling providers to interact with young clients at a more personal level (Alli, 2012).

2.2.4 Communication and Patients Satisfaction

Good staff communication helps reduce patients and family anxiety, promotes better care at home after discharge, and in other ways can improve outcomes. Good communication also tends to be the single most important factor affecting overall satisfaction with care across different patient categories (Press Ganey, 2003). Data obtained from 2,122,439 patients nationally in 2003 show that patients consistently report significantly higher satisfaction with communication from nurses and physicians when they are in single rooms compared to when they have one or more roommates (Press Ganey, 2003). To explain this clear and important advantage of single rooms, Kaldenburg (1999) has proposed that staffs in multibed rooms are reluctant to discuss patient's issues or give information within hearing of a roommate, out of respect for privacy. Growing concern for patient's confidentiality are certain to increase the already major advantages of single rooms with respect to communication.

Physicians' communication behaviours are important contributors to patient's satisfaction in the outpatients setting (Stewart 1995; Williams et al 1998). In the inpatients setting, several studies have indicated that the quality of aspects of communication with physicians is important to hospitalized patients (Moller-Leimkuhler et al., 2002).

Determining whether physicians' communication behaviors have a direct effect on patient's satisfaction ratings is not straightforward, however, because their association may be confounded in several ways (Rubin, 1990). For example, an association between ratings of communication behaviours and overall satisfaction could reflect reverse causation in which patients who are more satisfied with their care are also more likely to rate their physicians' communication behaviors highly. In addition, patients who have heard good news, or who have had a good health outcome, may give high ratings for the physician's communication behaviors and report greater satisfaction, producing an association not due to any effects of communication on overall satisfaction. Similarly, patients who are generally unhappy or more difficult to please might give lower ratings to both their physician's communication behaviors and their satisfaction, again producing a spurious association.

An obstacle to smooth communication flow between patients and physicians is the lack of effort on the part of some physicians to assess patient's information needs. Time constraints in busy clinics and physicians' belief that they know the amount and kind of information that is best for their patients to receive, may contribute to consultations that are physician-directed and physician-dominated, leaving patients with unmet communication needs and feelings of dissatisfaction. Patients' desires different types and amounts of disease information depending on their type of cancer, the extent of disease progression, and their unique personal life circumstances (Hall et al, 1993).

While patients with acute myeloid leukemia wanted basic information about their diagnosis, extent of disease, and treatment duration, these patients were less inclined to want additional information, such as survival and remission rates, chemotherapy details, and subtypes of their leukemia (Friis et al., 2003). Within palliative care, physicians have been cautioned to avoid assuming that dying patients necessarily benefit from receiving less information about their disease status. Rather, the unique communication needs of these patients should be assessed and attended to, and this may indeed result in the provision of additional information (Fallowfield et al., 2002).

A study done by Attree (2001) on the perception of the doctors, nurses, patients and their relatives found open communication and flow of information important. The author used a sample of 34 acute medical patients. In another study by Ngo-Metzger (2003) on the factors contributing to the quality of care from the perspective of Chinese and Vietnamese American patients with limited English knowledge skills, the result showed the ability of the providers to listen to what patients had to say (communication and information) very important. Infante et al (2004) studied perception of patients with chronic conditions presenting at the general setting in New Wales and South Australia using focus groups. They found good interpersonal skills (communication and information) very important in patient satisfaction. Bielen and Demoulin (2007) while studying on the influence of waiting time on satisfaction, suggested that investment in improving services might be better spend on information and communication.

However, Roher, Wilshursen, Adanson and Stephen (2008) studied patients from a family medicine clinic in Rochester (USA) and found reliance solely on patients centred communication to promote empowerment insufficient; instead, they suggested improvement on one-on- one communication between patients and care providers in clinically complex and urgent situations.

Saila (2008) rated effective communication as key to patient satisfaction. Informed consent has been routinely performed by care providers in countries where litigation against providers is common. Thus with patients making decisions about their health, it is imperative that communication between care providers and patients is very clear. Patient centred communication would allow clarity from care providers to patients thus enhancing patient satisfaction. Clarity of communication was raised as an important determinant of patients satisfaction by Sofaer and Firminger (2005), Anderson et al (2001), Attree (2001), Ngo-Metzger (2003), Anderson et al (2007), Saila (2008), Clever et al (2008), Tucker and adams (2001), and Infante et al (2004).

2.2.5 Accessibility of Care and Patients Satisfaction

Access to healthcare has multiple definitions, and its meaning in a given context is too often assumed. The most basic problem is that it is both a noun referring to potential for healthcare use, and a verb referring to the act of using or receiving healthcare. This leads to confusion between ability to get care, the act of seeking care, the actual delivery of care, and indicators thereof (Khan and Bhardwaj, 1994). Access means that healthcare services are unrestricted by geographical, economic, social, cultural, organizational or linguistic. It also means the timely use of personal health services to achieve the best health outcomes. (Access to healthcare in America, 1993). It requires three distinct steps gaining entry into the health care system, accessing a health care location where needed services are provided, finding a health care provider with whom the patients can communicate and trust.

According to Alegana (2012), health care utilization is affected by several factors including geographic accessibility. Empirical data on utilization of health facilities is important to understanding geographic accessibility and defining health facility catchments at a national

level. Accurately defining catchment population improves the analysis of gaps in access, commodity needs and interpretation of disease incidence. Here, empirical household survey data on treatment seeking for fever were used to model the utilisation of public health facilities and define their catchment areas and populations in northern Namibia.

According to WHO (2003), Service provision (availability and quality of care) and coverage of interventions are respectively a key function and goal of an overall health system. They have a direct impact on health outcomes and therefore on the burden of disease that affects many countries in the developing world. To measure effective coverage, defined as the probability that an individual will receive health gain from an intervention if they need it, contributes to a wider understanding of the performance of health systems which facilitates the development of evidence based health policies (WHO, 2003).

Two of the components defining effective coverage do actually have a geographic dimension: availability and accessibility coverage. Availability coverage reflects what resources are available and in what amount for delivering an intervention. This may include the number of health facilities, number of personnel, hours of operation, waiting time or the availability of different technologies. Accessibility coverage measures how physically accessible resources are for the population. The resources might be available but inconveniently located, therefore hindering physical access (WHO, 2003).

The independent analysis of these two components only provide uni-dimensional perspectives as the first one informs us about the availability of a service without considering if the population can actually physically access it while the second one tell us if the point of care can easily be accessed but without considering if the supply of care is sufficient to cover the demand. Combining both is not easy because it requires taking into conjointly the location and the maximum coverage capacity of each care provider, the geographic distribution of the population, the environment that the patients will have to cross to reach the care provider, as well as the transportation mode s/he will be using (WHO, 2003).

The access to health care impacts society on overall physical, social, and mental health status, prevention of disease and disability, detection and treatment of health conditions. It also impacts on quality of life, preventable death and life expectancy (Bierman et al., 1998).

Disparities in access to health services affect individuals and society by limiting people's ability to reach their full potential. It also negatively affects their quality of life. Barriers to services include lack of availability, high cost and lack of insurance coverage. According to Agency for Healthcare Research and Quality (AHRQ), these barriers lead to unmet health needs, delays in receiving appropriate care, inability to get preventive services and hospitalizations that could have been prevented. According to Ware et al (1978), the variables in this dimension are time and effort to get an appointment, distance or proximity to the point of care, time and effort required to get to the place where care is delivered, whether help is available on the phone and whether care can be obtained at home.

In a study conducted by Alli et al. (2012), accessibility and availability of health services was singled out as barrier to service provision. The respondents felt they were discouraged or prevented from using services because of logistical constraints such as inconvenient hours in which services were provided. The 46% of the respondents did not find opening and closing time convenient since the clinic opened between certain times in the day in which the young clients who were attending lectures or had transport constraints were not able to access services. Other logistical constraints arising from accessibility were the shortage of human resources, lack of infrastructure and high – case load which lead to long waiting times and loss of clients.

2.4 Review of empirical and theoretical literature

The desired need for the measurement of patient satisfaction has been largely driven by the underlying politics of “new public management” (Hood, 1995) and the concomitant rise in the health consumer movement, with patient satisfaction being one of the articulated goals of healthcare delivery. With the advent of the patient rights movement (Williams, 1994), the debate over the relationship between patient satisfaction as a valuation of the process of care versus the standard of technical care was well established. As a result, the use of patient satisfaction measures in the health sector became increasingly widespread. Boyer et al. (2006)

indicated that assessing patient satisfaction has been mandatory for French hospitals since 1998, which is used to improve the hospital environment, patient amenities and facilities in a consumerist sense, but not necessarily to improve care.

Whilst there are numerous specific patient satisfaction studies published in peer reviewed journals, there is a smaller body of work which critically reviews the literature and analyses the construct and its use. This work highlights agreement that patient satisfaction suffers from inadequate conceptualisation of the construct, a situation that has not changed significantly since the 1970s, and there is no agreed definition (Hawthorne, 2006). Crowe et al. (2002) identified 37 studies investigating methodological issues and 138 studies investigating the determinants of satisfaction. They indicated that there is agreement that the definitive conceptualisation of satisfaction with healthcare has still not been achieved and that understanding the process by which a patient becomes satisfied or dissatisfied remains unanswered. They suggest that satisfaction is a relative concept and that it only implies adequate service. Further, both Crowe et al. (2002) and Urden (2002) separately point out that patient satisfaction is a cognitive evaluation of the service that is emotionally affected, and it is therefore an individual subjective perception. Crowe et al. (2002) also highlight that there is consistent evidence across settings that the most important determinants of satisfaction are the interpersonal relationships and their related aspects of care. What is agreed is that satisfaction has become an endpoint in outcomes research and the benchmarking of services. Patient satisfaction has come to be seen as a part of health outcome quality which also encompasses the clinical results, economic measures and health related quality of life (Heidegger et al., 2006).

According to Hulka et al. (1970), the initial steps to measure patient satisfaction in the healthcare area with the development of the “Satisfaction with Physician and Primary Care Scale”. This was followed by Ware and Snyder (1975) with their “Patient Satisfaction Questionnaire”, aimed at assisting with the planning, administration and evaluation of health service delivery programs. At the end of the 1970s, the “Client Satisfaction Questionnaire” was developed by Larsen et al. (1979) as an eight-item scale for assessing general patient satisfaction with healthcare services, and was superseded by their “Patient Satisfaction Scale” (1984). Since that time, numerous instruments have been developed but the question remains as

to how valid and reliable those instruments really are. Further, the measurement of satisfaction varies depending on the assumptions that are made as to what satisfaction means (Gilbert et al., 2004) and a number of approaches to measurement can be identified: expectancy-disconfirmation; performance only; technical-functional split; satisfaction versus service quality; and attribute importance (Gilbert and Veloutsou, 2006).

Nguyen et al. (1983) indicated that, in the absence of standardised instruments as well as satisfaction scores across studies being so high, it was almost impossible to make meaningful comparisons between different patient satisfaction scale scores. Further Ware et al. (1983) reported that between 40 and 60 percent of respondents exhibited some form of acquiescent response set bias, and Coyle and Williams (1999) argued that dependence prevented patients reporting dissatisfaction. In addition most patient satisfaction tools have been developed in the USA for “ad hoc” hospital use (Hardy et al., 1996).

Van Campen et al. (1995) noted that patient satisfaction had been extensively investigated, identifying over 3,000 published articles and “dozens” of measuring instruments developed in the ten years prior to their review. Interestingly, they noted that quality of care from the patient’s perspective had often been measured as patient satisfaction. They reported that only five of 113 selected instruments were theoretically or methodologically rigorous, and of those five, only two that had been used were actually designed to measure perceived service quality, SERVQUAL (Parasuraman et al., 1988) and the Patient Judgment of Hospital Quality instrument (Meterko et al., 1990), with the latter being the only one which offered a method for generating items that directly represented patients’ views. However, it should be noted that whilst SERVQUAL has been used in healthcare, it was not designed specifically to measure perceived health service quality and it certainly does not measure satisfaction.

A number of meta-analyses of patient satisfaction studies have been conducted (Pascoe, 1983; van Campen et al., 1995; Sitzia, 1999; Crowe et al., 2002). These authors reported little evidence of a well-developed research model or a defined methodology.

To demonstrate the unresolved conceptual difficulties with the satisfaction construct, in the services literature it is depicted as: both a summary psychological state and encounter specific (Oliver, 1981); the discrepancy between prior expectations and actual performance (Yi, 1990); comprised of both affective and cognitive components; an outcome state (Oliver, 1989); the fulfillment response and an experiential construct (Oliver, 1997); a response to both process and outcome (Hill, 2003). Given the range of definitions, there has been contention in the marketing literature on how to conceptualise and measure the service recipient satisfaction concept. The study of customer satisfaction has largely been driven by the desire to understand the behavioural intentions of customers (Cronin et al., 2000); however its measurement varies depending on the assumptions that are made as to what satisfaction means (Gilbert et al., 2004). A number of main approaches to measurement can be identified: expectancy-disconfirmation; performance only; technical-functional split; satisfaction versus service quality; and attribute importance (Gilbert and Veloutsou, 2006).

Healthcare sector research into patients' perceptions of the dimensions of service quality (perceived service quality) has been limited (Clemes et al., 2001), yet studies seeking to assess the components of the quality of care in health services predominately continue to measure patient satisfaction (Lee et al., 2006). There is no consensus on how to best conceptualise the relationship between patient satisfaction and their perceptions of the quality of their healthcare. O'Connor and Shewchuk (2003) emphasized that much of the work on patient satisfaction is based on simple descriptive and correlation analyses with no theoretical framework. They concluded that, with regard to health services, the focus should be on measuring technical and functional (how care is delivered) quality and not patient satisfaction.

According to a study by Gotlieb et al. (1994) on patient discharge, hospital perceived service quality and satisfaction offered evidence of a clear distinction between perceived service quality and patient satisfaction. They found that patient satisfaction mediated the effect of perceived service quality on behavioural intentions, which included adherence to treatment regimes and following provider advice. Cleary and Edgman-Levitan (1997) pointed out that satisfaction surveys in the health care sector did not measure quality of care as they did not include important aspects of care items such as being treated with respect and being involved in

treatment decisions. In addition, Taylor (1999) highlighted that confusion continued in the sector regarding the differentiation of service quality from satisfaction and reported that some authors, for example Kleinsorge and Koenig (1991), referred to them as synonymous terms. Nevertheless patient satisfaction continues to be measured as a proxy for the patient's assessment of service quality (Turriss, 2005).

The traditional concept of healthcare relationships is based on three primary assumptions: the professional is the expert; the system is the gatekeeper for socially supported services; and the ideal patient is compliant and self-reliant (Thorne et al., 2000). Historically the definition and management of healthcare quality has been the responsibility of the service provider and health services have been largely introspective in defining and assessing quality, focusing mainly on the technical provider components. As a result there is comparatively little work investigating patient perceptions of health service quality (Bell, 2004). There has, however, been some work on clinical governance which has sought to emphasise the importance of the patient perspective but, in general, this work has been based on areas defined by service providers as important rather than on what actually matters to patients (Bell, 2004). Further, Weingart et al. (2006) report that service quality deficiencies in a Boston teaching hospital are so common amongst medical in-patients that they appear to be the norm.

In contrast, the literature shows significant reductions in the total cost of care when the patient's perception of the quality of the service improves, with the dynamics of poor service delivery often involving wasted effort, repetition, and misuse of skilled employees (Kenagy et al., 1999). Kenagy et al. (1999) point out that an increase in functional quality results in improved outcomes generally in medical illness and specifically in controlled studies of diabetes, hypertension, asthma and rheumatoid arthritis. Surgical outcomes show similar effects with fewer complications and shorter hospital stays. Therefore, improvements in functional quality will result in better health outcomes.

A healthcare service is one that requires high consumer involvement in the consumption process, and Lengnick-Hall (1995) argued that the traditional health sector views of technical quality and patient satisfaction were inadequate to manage the complex relationships between

the healthcare provider and the patient. Importantly, effective healthcare relies significantly on the co-contribution of the patient to the service delivery process. Studies have also evidenced that compliance with medical advice and treatment regimes is directly related to the perceived quality of the service and the subsequent resulting health outcome (O'Connor et al., 1994; Irving and Dickson, 2004; Sandoval et al., 2006).

Over the past few decades in the services marketing sector, much work has been undertaken to evaluate the consumer's perception of service quality, and a number of service models have been developed, with the gap model (Parasuraman et al., 1985) and its accompanying SERVQUAL (Parasuraman et al., 1988) having offered significant advances to the understanding and measurement of perceived service quality. Perceived health service quality has been studied extensively in the private healthcare sector; with SERVQUAL having been used frequently in a modified form and predominantly in the "for profit" American health sector (O'Connor and Trinh, 2000).

More recently, Brady and Cronin (2001) advanced the multidimensional hierarchical conceptualisation offered by Dabholkar et al. (1996) by combining that model with the three factor model of Rust and Oliver, and proposed a hierarchical multidimensional model of service quality. Based on this work, Dagger et al. (2007) have proposed service quality as a multidimensional, higher order construct, with four overarching dimensions (interpersonal quality, technical quality, environment quality and administrative quality) and nine sub-dimensions. They suggest that consumers assess service quality at a global level, a dimensional level and at a sub-dimensional level, with each level influencing perceptions at the level above (Figure 1). From their work with private oncology patients, Dagger et al. (2007) have shown that their model reflects the private patient's service quality perceptions, and they have developed and tested a scale for measuring perceived private healthcare service quality. Yet this work has had little impact, as the study and measurement of patient satisfaction continues to be the key target for consumer research in the health sector.

Further, only a few studies have sought to evaluate the provider understanding of the patient's perceptions of health service quality (O'Connor et al., 2000), and very few studies of perceived

public healthcare service quality have been undertaken (Sanchez-Perez et al., 2007). Finally, Brown (2007) editorially highlighted that the patient is becoming more silent partner in the health care system, as their views of quality have largely been sidelined by the number of attempts to exclusively determine patient satisfaction with health care. Research that focuses on strengthening our understanding of the meaning, measurement, and management of perceived service quality from the patient's perspective in healthcare is now arguably paramount.

2.4 Summary of the theories of patient satisfaction in healthcare

According to Gill (2009) the major patient satisfaction theories were published in the 1980s with more recent theories being largely "restatements" of those theories (Hawthorne, 2006). Five key theories can be identified:

Discrepancy and transgression theories of Fox and Storms (1981) advocated that as patients' healthcare orientations differed and provider conditions of care differed, that if orientations and conditions were congruent then patients were satisfied, if not, then they were dissatisfied.

Expectancy-value theory of Linder-Pelz (1982) postulated that satisfaction was mediated by personal beliefs and values about care as well as prior expectations about care. Linder-Pelz identified the important relationship between expectations and variance in satisfaction ratings and offered an operational definition for patient satisfaction as "positive evaluations of distinct dimensions of healthcare". The Linder-Pelz model was developed by Pascoe (1983) to take into account the influence of expectations on satisfaction and then further developed by Strasser et al. (1993) to create a six factor psychological model: cognitive and affective perception formation; multidimensional construct; dynamic process; attitudinal response; iterative; and ameliorated by individual difference.

Determinants and components theory of Ware et al. (1983) propounded that patient satisfaction was a function of patients' subjective responses to experienced care mediated by their personal preferences and expectations. Multiple models theory of Fitzpatrick and Hopkins (1983) argued that expectations were socially mediated, reflecting the health goals of the patient and the extent to which illness and healthcare violated the patient's personal sense of self.

Healthcare quality theory of Donabedian (1980) proposed that satisfaction was the principal outcome of the interpersonal process of care. He argued that the expression of satisfaction or dissatisfaction is the patient's judgment on the quality of care in all its aspects, but particularly in relation to the interpersonal component of care.

2.5 Conceptual Framework

The conceptual framework in this study therefore is based on Determinants and components theory of Ware et al. (1983). It is supported by Sitzia et al (1997) and Trendafilova et al (2006). The framework has five dimensions/components each with essential elements which are inclusive to broaden the perspective of the patients satisfaction construct. The conceptual framework brings out variables in the study and sets out their relationships (Kothari, 1990). The diagram below shows the direction at which variables those relate during provision of cancer treatment services. The boxes contain the variables that interact in provision of services while the pointed arrows show the direction of the casual effect of the variables.

Independent variables

Dependant variables

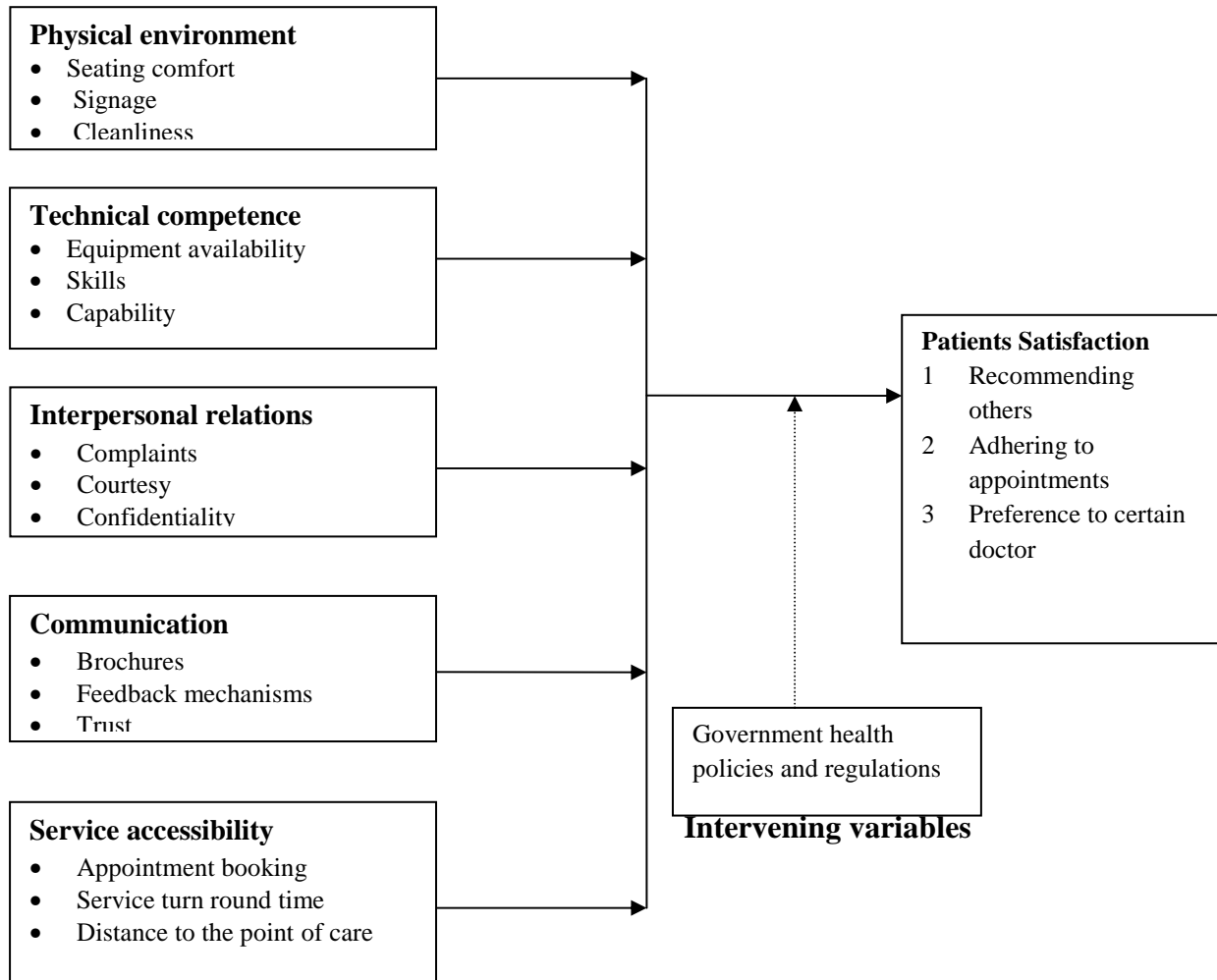


Figure 1: Conceptual Framework

2.6.1 Physical environment

These concerns the comfort with which the patients experience at the point of care. It focuses on cleanliness, quietness, lighting, congestion at the waiting areas and the availability of the signage to guide clients between the points of care. It also involves the comfort of seats in the service points.

2.6.2 Technical quality

These involve the capacity of the healthcare workers to adhere to the high standards of diagnosis and treatment. It also focuses on availability of equipment and technology,

thoroughness, accuracy and the attention to the details with which the healthcare workers accord patients.

2.6.3 Interpersonal Relations

These revolve around courtesy, respect, apathy, caring listening and confidentiality accorded to clients. Attention to this construct results low rate of complaints, loyalty and general high levels of satisfaction.

2.6.4 Communication

This construct is about availability of information through direct engagement by staff or literature material at waiting areas. It could also be organized group therapies between clients and staff to share diseases information. Feedback mechanism encourages involvement of patients in management of their conditions hence high level of satisfaction.

2.6.5 Accessibility of Care

These are concerns ease with which patients get appointments, proximity to the points of care, cost of care, unnecessary hospital admissions, delays in accessing care and ability to get preventive services. It also involves availability of care at home, help through telephone and lack of insurance.

2.6 Summary of the Chapter

One of the notable shortcomings of the patients satisfaction research is lacks of unified conceptual and theoretical framework thus its general lack of grounding in theory (William, et al 1998). It is also noted that (Calnan, 1988) there is inadequacy of the concept of patients satisfaction because it portrays conceptual weakness.

CHAPTER THREE

RESEACH DESIGN AND METHODOLOGY

3.1 Introduction

In this chapter, the researcher presented the research method used to achieve the objectives of the study. The quantitative research method was used. Details of sampling technique, sample size, data collection instruments, data analysis, validity and reliability of the study and ethical considerations are presented.

3.2 Study design

The study adopted descriptive survey design. According to Orodho (2009) a survey method is ideal for collecting information by administering questionnaires. The design is appropriate because it uses pre-determined population in this case patients to give information on of how they rate care at a specific time. The population is known because the clinic is operated through booking. Weekly booking are fixed as tabulated in Table 3.1

Patient Bookings	Patients Booked per Week
New case booked for treatment	60
Patients booked Radiotherapy treatment	750
Patients booked Chemotherapy treatment	100
Follow up Cases	100
Total	1010

Table 3.1 shows that 60 new patients are booked for review weekly, 750 booked for radiotherapy, 100 for chemotherapy and 100 booked for follow up after treatment.

3.3 Target Population

The target population for this study was the patients receiving treatment and care at the Cancer Treatment Clinic (CTC). There were 1010 patients attending the cancer clinic per week during the period of the study which formed the target population. The patients are diagnosed either in

KNH or in other hospitals and referred to cancer outpatient clinic for further management. All the patients who present with cancer are referred to cancer outpatient clinic for specialised treatment. They undergo three phases during their treatment routine: treatment preparations, treatment and post treatment follow ups. The treatment could only be radiotherapy or chemotherapy or surgery. In any given week, there are patients booked for clinic attendance at each of the three treatment phases. The data was collected in the month of May 2013 and it comprised of patients being prepared for treatment, those who had started on treatment and those on follow up after treatment.

3.4 Sample Size

The study adopted systematic sampling procedure whereby the patient booking registers formed the sampling frame. Every fortieth patient in the register was sampled for the survey making a sample of 101 respondents. The first fortieth respondent in the booking register was chosen as the first element in the sample then the subsequent fortieth elements were sampled. The 101 formed 10% of the population sample which according to Mugenda et al (2008) is a good representation population Those sampled were requested to sign a consent form after explanation about the objectives research and its. After signing the consent form then the researcher gave the respondents forms to fill. The identification of those to participate was determined a week before commencement of the study.

3.5 Data Collection Instruments

A structured questionnaire was used to collect data. The questionnaire was administered to the sample of 101 respondents with help of one research assistant. The questionnaire items were constructed as statements of opinion. Each item was accompanied by five response categories (strongly agree, agree, uncertain, disagree, and strongly disagree) corresponding to physical environment, technical competence, interpersonal relations, communication and accessibility. There was a section on the respondents' general suggestion on areas of improvement and if they could recommend a relative or friends and the reasons for it.

The use of questionnaire method is supported by Burns (2000) as appropriate when dealing with many respondents. The use of a questionnaire allows every participant to get a similar assessing

tool to complete which may result in standardized responses. During the questionnaire completion process, if any problem arises, the researcher or the assistants are available although they remain in the background (De Vos, 2001). The use of a questionnaire also eliminates a situation where the researcher is available but the respondent to be interviewed is not available as when using an interview in a qualitative study (Burns, 2000).

3.6 Validity

According to Mugenda and Mugenda (2003), validity refers to the accuracy and meaningfulness of inferences which are based on the research results. It is also the degree to which the results obtained from the analysis of the data represents the phenomenon under the study. Validity of the research is asking the right questions framed in the least ambiguous way (Sommer, 2007). An instrument is valid when it measures what it purports to measure (Robson, 2002). Validity of the questionnaire was measured to ascertain all the areas necessary for the study were covered in the instrument. The validity of the questionnaire was validated through help of the University supervisor and classmates as suggested by Robson (2002). Their comments were used to design the questionnaire to the required standards.

3.7 Reliability

The reliability of a measuring tool is the consistency it has in providing similar results from the same population when administered at different times (Currier 1984). Split half was used to determine the reliability of the questionnaire. Split half reliability test is very cheap and fast as it does not require having two test administrations (Cohen and Swerdlik, 2001). The questions in the study were divided into two halves using odd numbers and even numbers of the questions. One half of the questions were assigned even numbers and odd numbers to the other. Analysis was done on each set of data and thereafter the results of the data sets were correlated. A coefficient of 0.7 was obtained and therefore the questionnaire was found reliable for use.

3.8 Data Collection Procedures

The data collection was approved at all levels including University of Nairobi supervisor and Kenyatta National Hospital/University of Nairobi Ethics and Research Committee. At the national level, a permit to collect data was obtained from the National Council for Science and

Technology. Approval was also given by Kenyatta National Hospital Research Committees and the Head of the Cancer treatment Centre.

Respondents were requested to give consent to participate voluntarily after detailed explanation that there were no physical psychological or social risk associated with participation in the study. The explanations were verbal and in written. The confidentiality of information was safeguarded in such a way that the participant information was exposed to the public. Each respondent handled his/her questionnaire privately. There was no individual identity label on the questionnaire.

3.9 Methods of Data Analysis

The completed questionnaires were edited for completeness. The data was coded and entered into computer using SPSS version 12.0 then organized into frequency tables cross tabulation tables. In the study five points likert scale was used to indicate the level of patient satisfaction. The consisted of statement of opinion in which coding was applied depending on the opinion. The scoring rules in this study were adopted from Ware et al (1983) in their study on medical outpatient study. The scoring rules depended on whether the item in the questionnaire represents a favourable or unfavourable opinion about medical care. Because all subscales are scored so that higher scores indicate greater satisfaction with the aspect of care named by the subscale's label, items need to be scored so that high scores indicate greater satisfaction. Thus, given the precoding of item responses (where 1 = strongly agree and 5 = strongly disagree), precoded responses to all favourably worded items were recoded so that higher item scores will indicate greater satisfaction. The satisfaction index was computed from the average score on each of the five subsections of the questionnaire.

Table 3.2 Operationalisation Table of Variables

Research Objective	Type of variable	Indicators	Measurable elements	Level of scale	Data collection methods	Type of Analysis
To what extent do physical environment affect patients' satisfaction at Kenyatta National	Continuous	<ol style="list-style-type: none"> 1. Waiting area conduciveness 2. Signage 3. Cleanliness 	<ol style="list-style-type: none"> 1. Adequacy of chairs 2. Availability of signage 3. Visibility of signs 	Ordinal	Survey	Descriptive Data analysis
To what level does technical quality affect patients' satisfaction at Kenyatta National Hospital?	Continuous	<ol style="list-style-type: none"> 1. Equipment 2. Skills availability 3. Capability 	<ol style="list-style-type: none"> 1. Equipment down time 2. Number of doctors and nurses 3. Doctors/nurses knowledge 	Ordinal	Survey	Descriptive Data analysis
To what extent do interpersonal relations affect patients' satisfaction at Kenyatta National Hospital?	Continuous	<ul style="list-style-type: none"> • Listening • Courtesy • Caring • Respect 	<ol style="list-style-type: none"> 1. Frequency of complaints 2. Staff commitment 3. Personalized care 	Ordinal	Survey	Descriptive Data analysis
How does communication affect patients' satisfaction at Kenyatta National Hospital?	Continuous	<ul style="list-style-type: none"> • Brochures • Feedback mechanisms • Trust 	<ol style="list-style-type: none"> 1. Availability of brochures 2. Suggestion boxes 3. Lack of fears and anxiety 4. Distance to the point of care 	Ordinal	Survey	Descriptive Data analysis
How does accessibility affect patients' satisfaction at Kenyatta National Hospital?	Continuous	<ul style="list-style-type: none"> • Appointment booking • Service turn round time • Distance to the point of care 	<ol style="list-style-type: none"> 1. Adherence to appointment 2. Flexibility of appointments 3. Adequacy of doctors and nurses 4. Regularity of care 	Ordinal	Survey	Descriptive Data analysis

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This study sought to look into the factors affecting patient satisfaction at Kenyatta National Hospital. It also sought to establish the extent at which physical environment, technical quality, interpersonal relations, communication and accessibility to care influenced patients satisfaction at KNH. These factors are analysed and presented in this chapter.

4.2 Questionnaire Return Rate

The study covered 89 out of the target population of 101 respondents intended in collecting data collection in respect to factors affecting patient satisfaction at Kenyatta National Hospital Kenya. The respondents were introduced to the study and informed about its purpose and then their consent was sort to participate. The inclusion exclusion criteria were observed. Those who gave the consent filled the questionnaire and dropped at the information desk at the clinic. Table 4.1 shows the distribution of responses.

Table 4.1 Response Return Rate

Respondents	Frequency	Percentages (%)
Responses	89	88
Non response	12	12
Total	101	100

The Table 4.1 reveals return rate of 88% and non response rate of 12%. According to Mugenda (1999), a response rate of 70% and above in social sciences is considered sufficiently high and appropriate. The sample frame was a list of all KNH cancer patients visiting the clinic during the month of May 2013 when the research was conducted. A total of 89 out of the targeted sample of 101 filled the questionnaires. Findings from this study are presented in subsequent sections.

4.3 Demographic Factors

The study targeted all the patients attending clinic at Cancer outpatient Clinic. Section A of the questionnaire contained questions about demographic characteristics. This section represents demographic details of the respondents which included gender, age, and distribution of the respondents by region, income levels and educational status. Tables 4.3 to 4.6 present these details.

4.3.1 Gender of the Respondents

The research sought to establish the distribution of respondents' gender. The results obtained are tabulated in Table 4.2.

Table 4.2 Respondents by Gender

Gender	Frequency	Percentage (%)
Male	24	27.0
Female	65	73.0
Total	89	100.0

According to Table 4.2, the majority of the respondents (78%) were female while male were represented by 27% of the sample population. These shows female were more readily to participate in the study compared to the male gender.

4.3.2 Age of the Respondents

The research sought to establish the age of the respondents by responding the age question in the questionnaire. The age is very important because there is positive correlation between patient satisfaction and the patient's age. The old patients tend to be satisfied easily compared to the young patients. The results obtained were presented in table 4.3.

Table 4.3 Respondents Age Distribution

Age Distribution (Years)	Frequency	Percentage (%)
18-27	8	9
28-37	14	16
38-47	23	26
48 and above	43	48
Non Response	1	1
Total	89	100

According to the Table 4.3, 48% of the respondents were aged 48 years and, 26% were between the age 38 and 47 years while 16% were in the age bracket of 28 and 37 years old.

4.3.3 Regional Distribution of Respondents

The research sought to find out the regional distribution of respondents. This information is important because it can be used as an indicator of cancer diseases spread in Kenya. The information can also be used to plan intervention strategies by the government to manage the disease.

Table 4.4 Regional Distributions of Respondents

Regions	Frequency	Percentage (%)
Western	2	3
Rift Valley	4	6
Cost	2	3
Central	37	51
Nyanza	9	13
Eastern	18	25
Total	72	100

Table 4.4 above shows the distribution of the respondents by location. Majority (51%) of the respondents were from Central region with Eastern and Nyanza regions constituting 25% and 13% of the sample size respectively. The Coast and Western regions had the lowest respondents

at 3% respectively. There were no respondents from Nairobi region among the sampled respondents.

4.3.4 Respondents of Level Education

The study sought to establish the distribution of level of education among respondents because the level of education enables one interact and communicate more in life. The Table 4.4 shows the distribution of education attainment between the respondents.

Table 4.5 Level of Education

The level of education attained by the respondents was presented in table 4.5 below. This study sought to know the level education attained by the respondents because evaluation of some factors in this study required some level of education to be understood especially languages, signs and coordinating with others in the clinic.

Table 4.5 Level of education

Level of Education	Frequency	Percentage (%)
Primary education	30	34
Secondary education	43	48
University education	8	9
Others specify	7	8
Non Response	1	1
Total	89	100

Table 4.5 shows the majority (48%) of the respondents had secondary level of education, 34% primary and primary education while only 9% had university education. The 8% of the respondents specified their level of education different from that provided for in the questionnaire and 1% of the respondents did not give their education level.

4.3.5 Level of Income

The income level of the respondents is important because it shows the social status of the patients who seek treatment at KNH. It is also reflective of the patient’s abilities to pay for the

high cost of treatment. The distribution of the respondent's level of incomes is tabulated in Table 4.6

Table 4.6 Respondents Income Level

Income per Month (Kshs.)	Frequency	Percentage (%)
< 10,000	43	48
11,000-20999	7	8
21,000-30,999	6	7
31,000-40,999	3	3
41,000 and above	9	10
Non Responses	21	24
Total	89	100

Table 4.6 shows 48% of the respondents earned an income below Kshs. 10,000 per month followed by those in the income bracket of Kshs. 41,000 and above. The minority (3%) earned income between Kshs. 31,000 and 40,999 while 24% of the respondents did not disclose their income levels.

4.3.6 Respondents Nature of Employment

The employment status of the respondents was sought to collaborate it with the level of income. The collaboration show majority of the people attended are employed but their salaries are very low Kshs <10,000 as per the data in table 4.6 above. The employment status sought to establish the financial abilities of the respondents to access and sustain treatment given patients have to pay before they are treated. Employment is major source of income and therefore very important to support financing of medical health care.

Table 4.7 Respondents' Nature of Employment

Mode of Employment	Frequency	Percentage (%)
Casual	7	8
Permanently Employed	53	60

Self Employed	6	6
Not Employed	23	26
Total	89	100

Table 4.7 shows 60% of the respondents were in permanent employment, 26% not in any form of employment and 6% were on self employment. 8% of the respondents were in casual.

4.4 Respondents Treatment Stages

There are three stages in cancer treatment, the preparations before treatment is started, during the treatment and a follow ups after the completion of the treatment. The treatment could be either radiotherapy chemotherapy. The duration of the treatment is the number of years the patients has to undergo cancer treatment at the cancer treatment centre at KNH.

Table 4.8 Respondents' Stage of Treatment

Stage in treatment	Frequency	Percentage (%)
Treatment Preparations	5	6
Radiotherapy	16	18
Chemotherapy Treatment	31	35
Follow up after Treatment	36	40
Non Response	1	1
Total	89	100

Table 4.8 shows that 6% of the respondents were preparing for treatment by the time this research was conducted while 18% and 35% were undergoing radiotherapy and chemotherapy treatment respectively. Majority of the patients (40%) had completed treatment and were on follow up.

4.4.1 Duration of Treatment

The cancer disease is a chronic and terminal. Most of the patients who are diagnosed with the disease are managed for a long duration and very few of them are cured. This study sought to establish the duration in years in which the respondents had taken while undergoing treatment.

Table 4.9 Respondents' Duration of Treatment

Stage in Treatment	Frequency	Percentage (%)
< 1 Year	40	44.9
1-3 Years	26	27.0
3-5 Years	13	12.4
5Years and above	9	7.9
Non Response	1	1.1
Total	89	100.0

According to the Table 4.9, the majority of the respondents (44.9%) had less than one year since they had started treatment therapy, 39.4% were within 1-5 years of their treatment while 7.9% of the respondents had least 5 years and above since starting of the cancer treatment.

4.5 Presentation and Interpretation of Findings

This section dealt with the analysis of data to establish the factors that affect the patients' satisfaction with cancer outpatient services at Kenyatta National Hospital. The factors that affect patients' satisfaction with healthcare delivery are many but this study was limited to physical environment, technical quality, interpersonal relations, communication and accessibility to care were considered. Strongly agree and agree were combined into one score to represent all the favourable responses while strongly disagree and disagree were combined to represent unfavourable responses. The non responses were taken to also represent uncertain responses.

During the analysis of questionnaires, scoring rules used to compute satisfaction index depended on whether the score item represented a favorable or unfavorable opinion about delivery of medical care. The items were rated using five points likert scale ranging from strongly agree to strongly disagree with a central point or neutral (where 1 = strongly agree and 5 = strongly disagree). All the scores that reflected satisfaction and dissatisfaction were separated and summed up together and expressed in percentage and presented in a tabular form.

The uncertain scores and non responsive scores were also summed up together in the summary analysis of scores to represent uncertain. The summaries of the analysis were presented with percentages and frequencies recorded in the same cells but percentages in brackets.

4.5.1 The affects of physical environment on patient’s satisfaction at KNH.

Respondents were asked to indicate their satisfaction with various service provisions attributes relating to how they perceived physical environment in the cancer outpatients clinic. Four variables; crowdedness, cleanliness of the toilets, ease to find direction using signage and the conduciveness of the waiting area where used to gauge the satisfaction with service delivery. The measures of satisfaction were derived from question statements which were stated to reflect positive experiences of the respondents.

Table 4.10 How the physical environment affects patient’s satisfaction at KNH

Response Statement	Agree	Uncertain	Disagree
The clinic is crowded	80(89.9%)	2(2.2%)	7(7.9%)
The toilets are always clean	30(33.7%)	5(5.6%)	54(60.7%)
It is easy to find direction using signage	61(68.5%)	8(9%)	20(22.5%)
Waiting areas are conducive	49(55.1%)	9(10.1%)	31(34.8%)
Average Score	61.8%	6.7%	31.5%

From Table 4.10, the highest level of dissatisfaction was crowding in the clinic at 89.9 % followed by toilet cleanliness at 60.7% while the highest level of satisfaction was ease to find direction using the signage at 68.5%. Those who found the waiting area conducive were 55.1%. In general, 61.8% of the respondents were satisfied with the physical environment at the Cancer Treatment Centre, 6.7% were uncertain, 31.5% were dissatisfied with care.

4.5.2 The affects of technical quality on patient satisfaction at KNH.

Various dimensions of technical quality were examined in relation to patient’s satisfaction at KNH. The dimensions examined included doctors and nursed attention to patients, clarity of information given to the patient, adequacy of medication to patients. It also torches on the belief

by the patients on the competency of the doctors and nurses, availability of equipment to offer treatment to patients.

Table 4.11 How technical quality affects patient satisfaction at KNH

Response Statement	Agree	Uncertain	Disagree
Doctors and nurses are careful to check everything	75(84.3%)	7(7.8%)	7(7.9%)
Doctors answers to questions not clear	34(38.2%)	5(5.6%)	50(56.2%)
Staff give conflicting Information	27(30.3%)	16(17.9%)	46(51.7%)
Patients are told about medication side effect	71(79.8%)	9(10.1%)	9(10.1%)
Equipments are broken down most of the time	41(46.1%)	13(14.6%)	35(39.3%)
Doctors lack experience with my problems	15(16.9%)	7(7.9%)	67(75.3%)
Doctors and nurses are well trained and competent	79(88.8%)	5(5.6%)	5(5.6%)
I doubt ability of doctors	18(20.2%)	12(15.5%)	59(66.3%)
Doctors rarely give advise	47(52.8%)	5(5.6%)	37(41.6%)
Average Score	64.8%	9.8%	25.3%

According to observation in Table 4.11, the majority of the respondents (84.3%) agreed with statement that the doctors and nurses were careful to check everything while handling them, 56.2% disagreed that doctor’s answers to their questions were not clear. Also 51.7 % respondents said staff did not give conflicting information, 79.8% agreed they were told the about side effects of medication while 46.1% said medical equipment are broken down most of the times. Further 75.3% of respondents disagreed with the statement that the doctors lacked experience with their problems while 88.8% agreed with the statement that doctors and nurses were well trained and competent. It was also noted that 66.3% of the respondents said they did not doubt the ability of doctors and that 52.8% said doctors advise them appropriately. On average, 64.8% of the respondents were satisfied with the technical quality aspect of the treatment 9.8% were uncertain, 25.3% were not satisfied.

4.5.3 The affects of interpersonal relations on patient satisfaction at KNH.

The study sought to establish the interpersonal relations between the care givers and the patients. The variables used to establish the relationship in this study were respect between

doctors’ nurses’ patients and other staff in the clinic, positive engagement between doctors’ nurses and staff, privacy and confidentiality, team work in coordination of care and courtesy.

Table 4.12 How Interpersonal Relations affects Patient Satisfaction at KNH.

Respondents Statement	Agree	Uncertain	Disagree
Doctors and nurses have respect for patients and other staff	81(91%)	3(3.4%)	5(5.6%)
The staff do the best to keep me from worrying	78(87.6%)	4(4.5%)	7(7.9%)
Staff pay attention to privacy	75(84.3%)	6(6.8%)	8(9.1%)
The physicians have genuine interest in me	64(71.9%)	14(15.8%)	11(12.4%)
There is teamwork in coordination delivery of care	74(83.1%)	7(7.9%)	8(9%)
The staff are very friendly and courteous	66(74.2%)	9(10.1%)	14(15.7%)
Physicians do not give me respect	14(15.7%)	3(3.3%)	72(80.9%)
Average Score	81.9%	7.4%	10.8%

According to the Table 4.12, the majority of the respondents (91%) agreed with the statement that doctors and nurses had respect for them and other staff, 87.6% said staffs did their best to keep them from worrying while 84.3% agreed that Staff pays attention to privacy. It was also revealed that 71.9% of the physicians had genuine interest in patients while 83.1% said there was teamwork in coordination delivery of care. Further 64.2% of the respondents agreed with the statement that staff in the clinic were very friendly and courteous and finally 80.9% agreed that physicians respected them. On average 81.9%, of the respondents were satisfied interpersonal relations in the clinic, 7.4% were indifferent, 10.8% were dissatisfied.

4.5.4 The affects of communication on patients’ satisfaction at KNH.

This study sought to establish the effect of communication on patient satisfaction at KNH. The variables considered in this case were clarity of explanations given to patients, availability of brochures in the clinic, involvement of patients in decisions making about their treatment and care, evidence of engagement between the care givers and the patients and if doctors listened to patient’s issues. The importance of communication is supported by an article by American Academy on communication in Health care (2013) which states that clear that communication

and relationships issues are critical to patient care and have multiple influences on outcomes. Communication is important because it creates understanding between the care givers and the patients and it results into adherence to the medication and other treatment guidelines.

Table 4.13 How communication affects patients’ satisfaction at KNH

Response Statement	Agree	Uncertain	Disagree
The patients are explained the reasons for tests	80(89.9%)	3(3.3%)	6(6.7%)
There are brochures explaining operations of the clinic	36(40.4%)	24(27%)	29(32.6%)
Patients are not told about medication side effect	20(22.5%)	6(6.8%)	63(70.8%)
Purposes for medication given to take home not explained	14(15.7%)	3(3.4%)	72(80.9%)
Nurses did not discuss my anxieties or fears	25(28.1%)	13(14.6%)	51(57.3%)
Patients are not sufficiently involved in decisions about treatment and care	27(30.3%)	13(14.6%)	49(55.1%)
Doctors and nurses use terms without explaining	21(23.6%)	6(6.7%)	62(69.7%)
Doctors listen carefully	79(88.8%)	2(2.2%)	8(9%)
Average Satisfaction Index	62.0%	9.9%	21.1%

From Table 4.13, majority of respondents (89.9%) said they were explained the reasons for tests, 40.4% agreed there were brochures explaining how the clinic operated. The 70.8% of the respondents said they were not told about medication side effect while (80.9%) disagreed with the statement that they were not explained the purposes for medication given to take home. The majority of respondents (57.3%) disagreed with the statement that nurses did not discuss their anxieties or fears. Further, 55.1% of the respondents disagreed with the statement that patients were not sufficiently involved in making decisions about treatment and care, 69.7% disagreed with the assertion that doctors and nurses used terms without explaining and 88.8% doctors listen carefully. Generally on average 62.0% of the respondents were satisfied, 9.9% uncertain and 21.1% dissatisfied.

4.5.5 Accessibility to care affects on patients’ satisfaction at KNH.

The accessibility to care in this study focused on the ease with which cancer patients were able to get treated without hindrances at the cancer clinic at KNH. The factors considered in this case

was the ease to get treatment, ease of getting emergency treatment, clinic operating time, delays waiting for the doctor, availability of medicines in pharmacy and management of appointments. The satisfaction level was determined by adding together all the percentage responses in this section which reflected contentment with the situation as indicated in the Table 4.14 below and average score calculated.

Table 4.14 Accessibility to care affects on patients’ satisfaction at KNH

Response Statement	Agree	Uncertain	Disagree
I get hospital care without trouble	57(64%)	4(4.5%)	28(31.5%)
Easy to get care in an emergency situation	46(51.7%)	13(14.5%)	30(33.7%)
The clinic should be open more hours	78(87.6%)	6(6.7%)	5(5.6%)
Patients delay waiting for doctors to arrive	47(52.8%)	12(13.5%)	30(33.7%)
Prescribed medicines are available in the pharmacy	22(24.7%)	12(13.5%)	55(61.8%)
Hard to get appointments right away	55(61.8%)	8(9%)	26(29.2%)
Appointments are followed strictly	66(74.2%)	10(11.2%)	13(14.6%)
Queue to see the doctors is always too long	66(74.2%)	8(9%)	15(16.9%)
Average Score	61.4%	10.2%	28.4%

Table 4.14 shows the patients response to the questions on the accessibility of cancer outpatient services. The majority of (64%) respondents agreed that they got care hospital care without trouble, 51.7% said it was easy to get care in an emergency situation while 87.6% said the clinic should be open more hours. It was also noted that 52.8% said patients delayed waiting for doctors to arrive while 61.8% said all prescribed medicines were available in the pharmacy. 61.8% of the respondents said it was hard to get appointments right away and 74.2% noted that appointments are followed strictly. Further 74.2% said queue to see the doctors were always too long. In general, on average 61.4% of respondents were satisfied, 10.2% uncertain, 28.4% dissatisfied.

4.6 Overall Level of Patient Satisfaction

The overall level of customers’ satisfaction was calculated using the average score for the entire patient satisfaction dimensions. The average score was determined for each patient satisfaction

dimension then used to get a total score. In this model, the customer satisfaction ranges from 1 to 100 where 1 is poorest and 100 is excellent performance. The overall measure of customer satisfaction was 64.9 %.

4.6.1 Overall patient Satisfaction index

The summary of the patient satisfaction index was obtained from average scores in Tables 4.10, 4.11, 4.12, 4.13 and 4.14. Each of these tables is presentation of the variables contained in each of the dimensions. Table 4.15 is the presentation of the summary in tabular form.

Table 4.15 Overall Patients Satisfaction Index

Satisfaction dimension	Patients Satisfaction Index
Physical Environment	61.8
Technical Quality	64.8
Interpersonal Relations	81.9
Communication	62.0
Accessibility to Care	61.4
Average Score	64.9

Table 4.15 shows overall patient satisfaction score of 64.9% at Cancer Treatment Clinic at KNH. Specific dimensions were rated as follows; Physical Environment 61.8%, Technical Quality 64.8%, Interpersonal Relations 81.9%. Further, communication and accessibility to care were rated at 62.0 and 61.4 respectively.

The findings in this study showed that overall; the majority of patients were satisfied with cancer outpatient services at Kenyatta National Hospital. Most customers were satisfied with physical environment, technical competence, interpersonal relations, and communication. However, attributes related to communication need improvements.

4.6.2 Would you recommend cancer treatment services to a friend or relative?

The respondents were asked if they could recommend their relatives and friends to cancer clinic as another indicative question for patient satisfaction with the services at the clinic.

Table 4.16: Would you recommend cancer treatment services to a friend or relative?

Can you recommend others to KNH cancer Clinic?	Frequency	Percentage (%)
Yes	69	77.5
No	20	22.5
Total	89	100.0

Table 4.16 show that 77.5% of the respondents said they could recommend a friend or a relative to the clinic while 22.5% said they could not. This is shows majority patients were satisfied with the quality of services provided at the clinic.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the findings of the study which were then discussed against what was revealed in the literature. From the discussions, a conclusion was reached and recommendations and suggestions for further study were done.

5.2 Summary of the Findings

5.2.1 Physical Environment

Generally, 61.8% of the respondents were satisfied with the state of the physical environment within the cancer outpatients clinic, 6.7% were uncertain and 31.5% were not satisfied. Even though the respondents were satisfied, it was noted that the clinic was over crowded and the toilets were dirty.

5.2.2 Technical Quality

The findings show that 64.8% of the respondents were satisfied with the technical quality aspect of the treatment, 9.8% were indifferent and 25.3% were not satisfied. The respondents rated favourably all the items postulated in the technical quality.

5.2.3 Interpersonal Relations

The respondent rated all the aspects of the interpersonal relations positively. On average, 81.9 %, of the respondents were satisfied with interpersonal relations, 7.4% were indifferent and 10.8% were dissatisfied. The respect that the doctors and nurses showed the other staff and the patients were overly rated positive.

5.2.4 Communication

The findings show that 62.0% were satisfied with the level of communication in the clinic, 9.9% were uncertain and 35.1% dissatisfied. All the variables in this section received above average response.

5.2.5 Accessibility to Care

The findings show that 61.4% of the respondents were satisfied with accessibility of care at the clinic, 10.2% were uncertain and 42.0% were dissatisfied. This aspect of satisfaction was rated lowly compared to all other aspects.

5.3 Discussion

The final result of this study showed that vast majority of patients (64.9%) were satisfied with the services that they had received at the cancer outpatients' while (23.4%) were not satisfied. Similar study conducted by Pitaloka (2006) showed that more than half of the patients were satisfied with the service that they had received (56.7%), while not satisfied (43.3%). Also another study by Mawajdeh et al, (1996) illustrated that level of satisfaction of the patients was higher. From 289 pregnant women who received prenatal care at maternal and child health centres in Irbid reported being satisfied with overall of the service that they had received was 65%. Another study in Thailand demonstrated that more than two third of the pregnant women were satisfied (71.8%) towards the overall antenatal care service provided by the maternal and child health hospital.

5.3.1 Physical Environment

The study on physical environment focused on the crowdedness, cleanliness signage and the conduciveness of the waiting areas to represent the physical environment at the clinic. The results of this study showed the majority of the respondents (89.9%) found the clinic crowded. According to study conducted by Leather et al, (2003), there is strong evidence that comfortable environment, aesthetically pleasing, and informative relieve stress among patients and increases satisfaction with the quality of care provided. The authors (Leather et al, (2003) asserts that

renovating a traditional waiting area in a neurosurgical clinic by making small changes to the general layout, colour scheme, furniture, floor covering, curtains, and providing informational material and information displays resulted in more positive environmental appraisals, improved mood, altered physiological state, and greater reported satisfaction among waiting patients.

The overall respondents' satisfaction with the physical environment at the cancer outpatient clinic at KNH was 61.8%. This supports findings by Sofaer et al, (2005) in a study whereby she conducted focus group discussions which cited cleanliness of hospital rooms and bathrooms as the most important item in the quality of care. Further, the study by Ulrich et al (2004) confirmed that physical environment such as supportive work place, cleanliness, better ventilation and other better ergonomic designs helps reduce errors, reduce stress, reduce pain and improve other outcomes. The authors noted that improved physical settings can be an important tool for making hospitals safer and more healing and better place to work. This section is presents research findings vis-a-vis relevant literature.

The findings with dissatisfaction with the physical environment is supported by the study done by Abro and Jalbani (2012) in which they analyzed patients satisfaction certain service quality dimensions influencing patients' overall quality perceptions are taken by using SERVQUAL Model, which has applied at one of the public sector hospital "civil hospital Karachi". An analysis of 135 patients has been taken from 15 wards of civil hospital Karachi. Results showed that majority of the Patients were poor having income in between Rs 5000-10000 per month. Out of all variables Tangibility (Physical Infrastructure) received lesser satisfaction by Patients but overall patients were found satisfied with Services provided by Civil Hospital Karachi.

Regarding the satisfaction with signage, 68.5% of the respondents said they could find their way easily. The importance of signage in hospitals is emphasized by Zimring. (1990) in a study in which he found way finding problems in hospitals costly and stressful and have particular impacts on outpatients and visitors, who are often unfamiliar with the hospital and are otherwise stressed and disoriented. In a study he conducted at a major regional 604-bed tertiary-care hospital, the annual cost of the way finding system was calculated to be more than \$220,000 per year in the main hospital or \$448 per bed per year in 1990. Much of this cost was the hidden

costs of direction giving by people other than information staff, which occupied more than 4,500 staff hours, the equivalent of more than two full-time positions. While almost all hospitals strongly feel the problems associated with a complicated building and poor way finding system, it is usually difficult to tackle this problem with a piecemeal approach.

5.3.2 Technical Quality

The research focused on the reliability of the equipment, skills and abilities of the doctors and nurses and the capacity inherent to handle patients' treatment needs as determinant for satisfaction with the aspect of the technical quality at the cancer outpatients services. The overall satisfaction with technical quality was rated at 64.8% which implied the patients were happy with the doctors and nurses skills abilities at the clinic. The importance of satisfaction is emphasized by Otani and Kurz (2004) who found that behaviour of doctors, nurses and hospital staff, patients' education, interactions of doctors and staffs, moral support are more influential factors to judge patients satisfaction.

These findings are supported by feedback survey done by Heading, (2009) to identify opportunities to improve cancer care and the patient experience, areas of strong performance identified included: a) staff treating patients with dignity and respect; b) staff doing everything they could to treat cancer; c) patients trusting staff with confidential information; and d) patients receiving the services they needed. Staff doing everything to help with chemotherapy side effects was an additional area of strength.

The results of this study also showed that 46.1% of the respondents were dissatisfied with the availability of the equipment in the clinic. They said the number of equipment needed to be increased to reduce waiting time. This results supports findings a study done by Chimed-Ochir (2001) It is also noteworthy that the results of the studies in developing countries such as Bangladesh and Vietnam found the importance of tangible dimensions for satisfaction with healthcare services, while patients of developed countries such as Singapore, Taiwan, South Korea, and USA are less sensitive for tangible elements such as comfort of the room, a clean hospital environment, and modern equipment.

5.3.3 Interpersonal Relations

The interpersonal relations factors relate to care givers and patients interaction, it is usually represented by the parameters such listening, courtesy, caring and respect. The overall findings in this study showed that satisfaction with interpersonal relations was 81.9% with 108% dissatisfaction. This findings compared with a feedback survey done by Heading, (2009) to identify opportunities to improve cancer care and the outpatients experience, areas of strong performance identified included a) relationships between staff and cancer outpatients; b) care coordination (the transfer of patients between specialist groups); c) advising patients of wait times for surgery and their first treatment appointment; and d) providing privacy during care.

The findings are also supported by study done by Akhtari-Zavare (2010) in which the results regarding respondents' satisfaction on the four dimensions of nursing care (information given by nurse, the interpersonal relationship between the nurses and patients, physical environment, technical quality of nurse). Generally, most of the respondents were satisfied with the amount of information given by the nurses 294(76.6%), interpersonal relationship 371(96.6%), technical quality 295(76.8%), and physical environment 267(69.5%). In overall, a vast majority of the respondents 318(82.8%) were satisfied with the nursing care received, while others 66(17.2%) were not satisfied.

5.3.4 Communication

The respondents rated overall satisfaction with communication at 62%. This compares study by Press (2003) in which he obtained data from 2,122,439 patients nationally which he found that patients consistently report significantly higher satisfaction with communication from nurses and care givers. He further found that good staff communication helps reduce patients and family anxiety, promotes better care at home after discharge, and in other ways can improve outcomes. Good communication also tends to be the single most important factor affecting overall satisfaction with care across different patient categories.

This findings compares with the argument in the Gordon (2006) book that the patients' and family's trust in the clinician is a perception that the clinician will be present, committed to the patients' best interests, and technically competent. Patients with cancer have reported greater trust in their care givers following consultations in which they perceived the care givers to be informative, they were allowed to participate in the decision-making process, and they believed that the physician was sensitive to their concerns.

5.3.5 Accessibility to Care

The results showed the respondents were overall satisfied with accessibility at 61.4% while 28.4% said they were not satisfied. The accessibility to care in this research was limited to the getting emergency care, hours of the clinic operations, waiting time to see the doctor, availability of medicines in the pharmacy and the ease to get appointment. The findings contracts the research by Pitaloka and Rizal (2005) to identify the level and factors associated with patients' satisfaction in antenatal clinic at Hospital Universiti Kebangsaan Malaysia in which 61.3% of the respondents were not satisfied with the accessibility aspect of care.

Accessibility to emergency care received the least rating at 51.7% followed by delays experienced by the patients waiting to see the doctor which was rated at 52.8%. The highest number 87.6% of the respondents felt the clinic should be open for more hours while 61.8% felt prescribed medicines should be availed in the pharmacy.

5.4 Conclusions

Assessing satisfaction of patients is simple and cost effective way for evaluation of hospital services. The findings of the present study carried out to assessing factors affecting patients' satisfaction at Kenyatta National Hospital cancer outpatients services reveal that patients were satisfied with most of the dimensions considered with scored above average. There were only a small proportion of patients who expressed dissatisfaction with aspects of the services provided. Even though small, they are significant because they constitute a call for action by the KNH management to encourage the health personnel to improve patients satisfaction and embrace patients centred care.

Health Policy makers need to incorporate the needs cancer patients within the wide healthcare quality improvement initiatives. Ideally cancer patients should be involved in the design and implementation process of comprehensive, cancer treatment initiatives. This would form a platform for addressing the barriers that hinder health service provision. Further, this would help ensure that health services are tailored to the unique needs of cancer patients as well as the context within which they are embedded. To support this, ultimately the key priority should be to ensure that all countries adopt policies that encourage the provision of comprehensive health services which respond to the needs of different types of illnesses.

5.4 Recommendations

This study recommended to the management the Kenyatta National Hospital may consider implementing the following interventions in order to improve patient satisfaction not only to the Cancer Outpatient Clinic but the entire hospital;

1. Emphasis should be given to improvement of cleanliness in the hospital especially in the toilets. Sufficient quantity of water should be made available at all times to make it possible to flush toilets and wash hands. The waiting areas should be improved to make them conducive for patients and their relatives as they wait to be attended at the clinic. This could be done by fitting comfortable furniture, regulate lighting, ventilation and fit television sets for patients to catch up with news and reduce worrying about their conditions. The signage should be improved to direct people on where to access different service points of care around the hospital and within the clinic.
2. The improvement in availability and maintenance of diagnostic equipment and machines should be considered. This could be done by buying additional machines, reducing machines down time, availability of machines and equipment spare parts and implementing continuous training programmes for the machine operators and technicians on handling and maintenance as well as employing additional technical staff. Also includes should be employment of more doctors and nurses to make it easy for patients to be attended timely. Teamwork should be encouraged between the health care providers and patients for the maximum benefit of the both parties.

3. Behaviour of hospital staff should be improved by conducting special sessions for behaviour change and communication. The level of communication between the care providers, patients, relatives and their friends should be enhanced to create more understanding between all the parties. Counseling should be adequate to prevent the patients, relatives and friends from anxiety and fear. Information about the operation of the clinic and treatment requirements and regimes should be made available to all through posters, brochures, magazines and books at the waiting areas and notice boards. It is recommended that group therapies be formed to encourage patients share information about management of their conditions and to encourage each other to live positively.
4. Adequate training in interpersonal relations is essential in helping overcome communication problems and enabling providers to interact with patients at a more personal level. The government should subsidize cancer drugs and laboratory reagents to reduce the cost of cancer treatment and make it affordable especially to the poor and marginalized Kenyans. Government should also invest in research on the treatment and management of cancer conditions in the country. The cancer treatment facilities should be decentralized to all the counties to make it easier for patients to access treatment services. More of these facilities should be considered in Central region which according to this study has high prevalence of cancer incidences. Accessibility should also be enhanced by reducing the waiting time at all the points of care within the clinic and by opening the clinic for more hours preferably 24 hours, buying more machines and improvement assessment to emergency care.
5. It is good to note that one possible strategy to improve accessibility to care is to increase the time spent in consultation is to lengthen the visiting hours of the health facility. Since the health facility was opened only between certain hours this resulted in an overload of clients between these times reducing the amount of contact time providers had with individual clients. This will strengthen the capacity of health services, improving information systems and monitoring and evaluation of programs which are necessary steps in accelerating our trajectory towards provision of patient centred care in the country.

5.5 Suggestions for further study

Further research is recommended on:

1. The factors affecting patients satisfaction in the medical wards at Kenyatta National Hospital
2. The factors affecting accessibility to care at Casualty in Kenyatta National hospital.
3. The patients' satisfaction with the quality of the food provided to patients at Kenyatta National Hospital.
4. Factors affecting satisfaction of nurses with physical environment at Kenyatta National Hospital.

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APPENDICES

Appendix I Explanation of the Consent

Dear _____ (Name of patients optional)

I am _____ (Research Assistant) a research team member

I know you are in a lot of pain, distress and anxiety due to your illness. I am sorry about that but encourage you to be strong and rest assured the cancer treatment team is here for you. Since you came to the hospital you have come across many staff ready to guide you and help you throughout your treatment. I know it has been hectic going through all that but thank you very much for being a patients with the Kenyatta National Hospital fraternity. We wish you quick recovery.

In order for the hospital to continue improving the quality of services, we are conducting research to find out if patients like you and other are satisfied with the various aspects of services offered. I am asking you to be part of this research as a participant. You need to answer questions in this questionnaire (Show the questionnaire to patients at this point) which is enough to you before you are attended. This will gather your information and that of other participants to help us find areas that need improvement. Your participation is absolutely voluntary and you can choose to participate or not to participant. All information provided will be used for research purposes only and will be confidential. In case it is necessary, for your benefit you will have to give consent.

If you agree to participate, you can read this consent form (show the form) and sign thereafter. In case you need clarification, I am here and willing to clarify.

Wish you quick recovery. Thank you.

Appendix II: Research Consent

I Mr./Mrs./Dr/Prof_____

Hereby give consent to the researcher to collect any information from my file or from myself or any other individual who will be able to provide information on factors that affect patients satisfaction at Kenyatta National Hospital. I agree also to fill the questionnaire presented to me. I hereby declare that the basis of my consent is the comprehensive explanation of the researcher. I understand the information is purely for research purposes only and it will be kept confidential.

By signing this consent form, I authorize my participation in the study.

Signed_____

Date _____

In presence of _____

Signed _____

Appendix III: Patients Questionnaire

Kindly answer the following questions as accurately as possible. Your individual responses are strictly confidential and anonymous. Your answers shall be used for academic purposes only. Please tick against each answer in the space provided. The questionnaire has three sections.

SECTION A: PROFILE AND DEMOGRAPHIC FACTORS OF RESPONDENTS

a) Sex of respondents

- a) Male
- b) Female

b) Age of respondent in years

- a) 18 -27
- b) 28-32
- c) 33-32
- d) 33-42
- e) 43- And above

c) What is your highest education level?

- a) Primary
- b) Secondary
- c) University
- d) Others Specify

d) Employment status

- a) Casual
- b) Permanently employed
- c) Self employed
- d) Not employed

e) How long have you been attending this clinic?

- a) Less than 1 year
- b) 1-2 years
- c) 2-3 years
- d) 3-4 years
- e) 4 years and above

f) Income level

- a) <11,000
- b) 11,000-20,999
- c) 21,000-30,999
- d) 31,000-40,999
- e) 41,000-Above

g) Stage of Treatment

- i. Have not started the treatment sessions
- ii. Have started radiotherapy sessions
- iii. Have started chemotherapy sessions
- iv. Follow up after treatment sessions

h) Which is your home district?

SECTION B: DIMENSIONS OF PATIENTS SATISFACTION WITH CARE

Below is things people say about medical care. Please read each one carefully, keeping in mind medical care you are receiving now. We are interested with your feeling, good and bad about medical care you have received. How strongly do you AGREE or DISAGREE with each of the following statements in each of the seven dimensions of satisfaction with care. Kindly circle or tick for each statement that represents the opinion that is closest to your view.

1. Physical Environment

	Statements	Strongly agree	Agree	Uncertain	disagree	Strongly disagree
1.	The clinic is crowded					
2.	The toilets are always clean					
3.	It is easy to find direction in the hospital using signage's					
4.	The waiting areas are conducive					

2. Technical competence

	Statements	Strongly agree	Agree	Uncertain	disagree	Strongly disagree
1.	Doctors/nurses are careful to check everything					
2.	Doctors' answers to questions not clear					
3.	The staff gave conflicting information					
4.	Patientss are told about medication side effects					
5.	Medical developments are broken down most of the time					
6.	Doctors lack experiance with my problems					
7.	Doctors/nurses are well-trained and competent,					
8.	Doubt about ability of doctors					
9.	Doctors rarely give advice					

3. Interpersonal relations

	Statement	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1.	The doctors and nurses have respect for the patientss and other members of staff					
2.	The staff do the best to keep me from worrying					
3.	The staff pay attention to privacy					
4.	The physicians have genuine interest in me					
5.	There is team work in coordination and delivery of care					
6.	The staff are very friendly and courteous					
7.	Physician do not give me respect					

4. Communication

	Statement	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1.	The patients are explained the reasons for tests					
2.	There are brochures explaining operation of the clinic					
3.	Patients are not told about medication side effects					
4.	Purpose of medicines given to take home not explained					
5.	Nurses didn't discuss my anxieties or fears					
6.	Patients are not sufficiently involved in decisions about their treatment and care					
7.	Doctors and nurses use terms without explaining					
8.	Doctors listen carefully					

5. Access to services

	Statement	Strongly agree	Agree	Uncertain	disagree	Strongly disagree
1.	I get hospital care without trouble					
2.	It is easy to get care in an emergency					
3.	The clinic should be open more hours					
4.	Patients delay waiting for the doctors to arrive					
5.	All prescribed medicines are available in the pharmacy					
6.	I can reach doctor for help with medical question					
7.	It is hard to get appointment right away					
8.	Appointments are followed always strictly					
9.	The queue to see the doctor is always very long					

SECTION C: QUESTIONNAIRE CLOSURE

Please suggest areas to improve in the service provision at Cancer Treatment Centre in general

.....
.....

Would you recommend Cancer Treatment clinic friend/relatives? Yes No

If 'yes' to above, please state your reason(s)

.....
.....

If your reason to above is 'no' please state your reason(s)

.....
.....