

SOCIAL FACTORS AFFECTING THE ACCEPTANCE OF BREAST
CANCER SCREENING: A CASE OF WOMEN AT THE NAIROBI CITY
PARK MARKET

BY
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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT FOR THE
AWARD OF A DEGREE OF MASTER OF ARTS IN PROJECT PLANNING AND
MANAGEMENT OF THE UNIVERSITY OF NAIROBI.

APRIL 2013

DECLARATION

This research project is my original work and has not been presented for the award of a degree in any Institution of higher learning.

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This Research project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

This research project is dedicated to my family and all those who supported in the completion of this project writing. Thank you and God bless you abundantly.

ACKNOWLEDGMENTS

It has been an exciting and instructive study period in the University of Nairobi and I feel privileged to have had the opportunity to carry out this study as a demonstration of knowledge gained during the period studying for my masters of Arts degree. With these acknowledgments, it would be impossible not to remember those who in one way or another, directly or indirectly, played a role in the realization of this research project. Let me, therefore, thank them all equally.

Firstly, I am indebted to the all-powerful God for all the blessings he showered on me and for being with me throughout the study. And also thank my supervisor Dr. Lydia Wambugu, lecturers who taught me and my classmate for their support. Finally, I take this opportunity to express my deep gratitude to the lasting memory of my loving family, and friends who are a constant source of motivation and for their never ending support and encouragement during this research project.

ABSTRACT

Cancer is the leading cause of death in economically developing countries and breast cancer is the leading cause of death among women in both developed and developing nations. Statistics in Kenya show that about 50 Kenyans die daily from various forms of cancer. Most cancer patients seen in Kenya are diagnosed with late stages of the disease when treatment proves to be difficult if not impossible. The late stage diagnosis of breast cancer is seen to be more common in women from deprived backgrounds and therefore there is urgent need for these women to accept and be screened for breast cancer to avoid late diagnosis that make treatment difficult. The study sought to answer the following questions: what is the influence of breast cancer awareness and accessibility to breast cancer screening services on the acceptance of breast cancer screening and how perception and attitude towards breast cancer influences the acceptance of breast cancer screening. Research studies on factors influencing the acceptance of breast cancer screening as well as other forms of cancers were reviewed from a global perspective down to regional and local set up. A descriptive survey design was adopted for the study. The researcher collected data by means of questionnaire where both closed and open-ended questions were used. The population of the study consisted of 400 women working at the Nairobi City Park Market where 120 women were sampled for the study. The study revealed that women lack vital information such as, the benefits of breast cancer screening and types of screening methods. Social media (radio and television) plays a very important role in creating awareness among the market women about breast cancer. The study further revealed that Market women had very limited access to cancer screening services because they lacked enough resources and had no insurance cover to cater for screening cost. The study also showed that women feared to go for breast cancer screening because it was a very painful process. Study concludes that perception and attitude towards breast cancer screening positively influences the acceptance of breast cancer screening and a positive increase in any one of them will positively affect the acceptance of breast cancer screening. Among the recommendation suggested by the researcher includes, use of social media (radio and television) as the main channel to run the awareness campaigns on breast cancer screening, ensuring that there are community training programs on breast cancer, making it compulsory for women in informal sector to have a health cover and frequently run free cancer screening campaign at least once every month. The researcher suggested for further research to assess the influence of social factors on women working in other market in Nairobi or outside Nairobi as well as women working in other types of informal settings. The researcher further suggested research to establish whether cancer screening leads to change in one's lifestyle in terms of accepting cancer prevention measures.

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ABBREVIATIONS AND ACRONYMS

BSE	Breast self-examination
CDC	Center for Disease control and prevention
CBE	Clinical Breast Examination
UK	United Kingdom
US	United States
ER	Estrogen Receptors
PR	Progesterone Receptors
AIDS	Acquired Immune Deficiency Virus
HBM	Health Belief Model
USA	United States of America
CANSA	Cancer Association of South Africa
BRFSS	Behavioral Risk Factor Surveillance System
MCH-FP	Maternal and Child Health and Family Planning

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Cancer is the leading cause of death in economically developed countries and the second leading cause of death in developing countries. Breast cancer is by far the most frequent cancer among women with an estimated 1.38 million new cases diagnosed in 2008 (23% of all cancers) and ranks second overall (10.9%, of all cancer). It is now the most common cancer both in developed and developing countries with around 690,000 new cases estimated in each region (Global Cancer Statistics, 2011).

In high income countries, remarkable progress has been made in cancer management and care and although cancer incidence continues to rise due to influence of ageing lifestyle and population growth, mortality has fallen. (Centre for Disease Control-CDC Report 2010) Breast cancer ranks as the fifth cause of death from cancer overall (458,000 deaths), but it is still the most frequent cause of cancer death in women both in developing and developed region (Global cancer statistics, 2011).

This decrease in mortality and rise in survival rates is due to advances in screening especially through mammography and other early detection methods that are decentralized across the country and better treatment. In Western countries, there are cancer control programs that entail active recruitment strategies for breast cancer screening programs such as Sending letters, making phone calls, mailing educational materials and organizing training activities with reminders for the women. These are actions that increase the attendance rate of women invited to a community breast cancer screening service. Some combinations of effective actions (such as a letter and phone calls) have important effects and have been tested mostly among the lower socioeconomic groups of women (Bonfill, Marzo, Pladevall, Marti &Emparanza., 2009) Despite this advances, in the United States, a third of breast cancers cases are being diagnosed at a late stage when treatment is less effective. The study conducted by Centre for Disease Control found lower acceptance of screening and late presentation of

symptoms in low income and ethnic minority communities who also had long delays in getting their diagnosis and treatment. Many patients are unaware of the symptoms of cancer and health literacy, cultural attitudes towards seeking medical care, fear and embarrassment of cancer diagnosis and difficulties navigating the healthcare system all play a part. Physicians also add to the delay by failing to recognize sentinel signs and triage the right patients forward for further investigation (CDC Report 2010).

In the United Kingdom, according to research by the government's director of cancer services, up to 10,000 people die of cancer every year because their conditions are diagnosed too late due to several factors such as; ethnicity, social deprivation and gender. Social-economic status is a powerful driver of women accepting breast cancer screening; deprived population seems to have later stage presentation in breast cancer compounding the potential effect of inequalities of breast screening uptake. There is compelling evidence that certain ethnic sub-groups in the UK have lower participation rates than the general population despite the availability of cancer screening services and high proportion of informed population about cancer (Weller and Campbell, 2009).

Managing breast cancer in low and middle income countries poses a different set of challenges including access to screening, stage at presentation, and adequacy of management as well as availability of therapeutic interventions. The infrastructure and resources for routine mammography are often unavailable. In these countries, breast cancer is usually diagnosed at the late stages, and due to inadequate resources, women with breast cancer may receive inadequate treatment or palliative care. (Arafat, Temraz, Mrad, and Shamseddine. 2010)

Many barriers are identified for breast cancer patients in low and middle income countries which may correlate with lower incidence and higher mortality in those countries compared to high income countries. These barriers include the lack of breast cancer awareness due to poor health awareness and education, lack of screening programs due to lack of government support and inadequate funds, social barriers to early diagnosis and treatment due to low priority for women health issue in predominantly

patriarchal developing societies, fear of loss of employment, and the social taboo of cancer and misconception about cancer treatment and outcome, lack of standardized treatment protocol with diversity of clinical practices, healthcare standards and infrastructure and finally follow-up data and the lack of mortality data.

In Asia, breast cancer incidence is lower than in western countries; however, the incidence is rising at a more rapid rate than in western countries. Breast cancer is the leading cancer among Asian women at 31.3% and its diagnosis is generally at late stages compared to western countries (University of Malaya 2010). Late diagnosis of breast cancer in Asia is mainly due to various factors; ignorance and poor education among Asian women; geographical isolation and inadequate access to medical care, fear of surgery and belief in traditional treatment and absence of screening program as well as financial problem. In Malaysia, the delay in presentation of breast cancer was attributed to a strong belief in traditional medicine, the negative perception of the disease, poverty and poor education coupled with fear and denial.

In Latin America, breast cancer is the most commonly diagnosed cancer among women and more frequent at an advanced stage. This likelihood of diagnosis at an advanced state is present when education level, income, and detection method are controlled factors. Potential reasons for delayed diagnosis include less access to mammography screening, lower confidence in the value of screening and use of mammography, longer intervals between mammography, and delayed follow-up for abnormal result due to economic factors and fear and denial of disease (United States Cancer Statistics 2009).

As much as 95% of cancer patients in the African countries are diagnosed at late or end stage of the disease. The delayed diagnosis for these patients is due to the low level of cancer awareness between the population and the health workers, culture and constraints on access to specialized care that is usually nonexistent. Community dwelling women in Nigeria have poor knowledge of breast cancer and very few practice self-breast examination and clinical breast examination. In addition, education appears to be the major determinant of level of knowledge and health behavior among the Nigerian

women. The Free State province in South Africa has a low BSE, CBE mammographic screening rates attributed to a lack of awareness of the rising incidence of breast cancer in the province by the public in general and probably also by the healthcare professionals (Lepecka, Jakiel, Krasuka & Stanislawek, 2007).

In Egypt, patient mediated factors influencing late stage presentation of breast cancer include; lack of knowledge about BSE and not having a previous CBE or a mammogram. Social, financial and time constraints as well as long travel time and lack of pain are also other factors leading to late stage presentation of breast cancer (Psycho-oncology 2010).

Cancer is relatively new concept in Northern Uganda where people demonstrate a misconception or ideas of acceptable health seeking behavior, individual seem to measure health by the level of pain. Due to competing priorities, like providing for the family, people delay hospital visits until the pain becomes too distracting from daily activities. This breast cancer detection behavior directly affects chances of survival (Karen Im 2010). About 90.73% of breast cancer patients in Tanzania are diagnosed at advanced stage with about half of the tumor being ER-/PR. There are numerous patient mediate barriers to seek care which include; inability to pay for medical care and beliefs, fear, cultural factors and ignorance and delay in referrals from peripheral areas (Lepecka et al, 2007)

Statistics in Kenya has shown that about 50 Kenyans die daily from various forms of cancer according to pact Kenya cancer assessment in Africa and Asia 2010, (Kenya Department of Research 2011). As cancer treatment is improving in the developed world, in Kenya, these advances are yet to be realized. This is due to deficiency of resources, infrastructure, and trained personnel. Cancer of the breast (23.3%) and cervix (70.0%) remain the highest occurring cancers affecting women in Kenya (Cancer Incidence Report, 2006).

Most cancer patients seen in Kenya are diagnosed with late stages when treatment is difficult if not impossible. This trend is obviously associated with prolonged morbidity

and increased mortality from many preventable and manageable cancers. A study conducted in Western Kenya reported key to access as including fear of positive screening result, lack of awareness about the screening services and lack of finances to buy the service (Were, Nyaberi, & Buziba, 2011).

According to the department of Research, 2011, factors that are back tracking the fight against cancer in Kenya, are; inadequate facilities, few specialists, high cost of treating cancer, lack of accessibility to treatment and sedentary lifestyle. In Nairobi, breast cancer is the most frequent cancer among female accounting for 33.5% of the 20 major cancerous ailments among women (Kemri Cancer Statistics 2006). Most of the reported cancer a diagnosed at late stages when very little can be achieved with therapeutic intervention. According to cancer research UK 2012, late stage diagnosis was more common in women from deprived backgrounds.

This research study aims at investigating social-economic factors and the acceptance of breast cancer screening, which is the leading cancer among women in Nairobi. This study targets market women who have low resources and are medically underserved group and are more likely to develop cancer and die from it.

1.2 Statement of the Problem

In Kenya, cancer infrastructure is inadequate and some cancer management options are not available. Most breast cancer cases are diagnosed at an advanced stage when there is little that can be done. Breast cancer treatment is very expensive and many women with financial resources have to travel to countries like India, South Africa and USA for specialized treatment (Leigh mc Adam 2010). Women have a higher risk of breast cancer and there is therefore urgent need for them to accept and be screened for breast cancer to avoid late diagnosis that makes treatment difficult if not impossible.

Studies have been done on the influence of various factors on the acceptance of breast cancer screening among women in different setups around the world. Most of these studies have mainly focused on women attending hospital or those that have been

screened before. In Kenya, similar studies have been done on cancer screening acceptance in hospital setup for women attending hospital or those women who have been screened before. There are inadequate studies that have looked at how these factors are influencing the acceptance of breast cancer screening in low resource areas and among those women not attending hospital and have never been screened for breast cancer before.

Women in low resource settings are medically underserved and have a higher risk of developing breast cancer and die from it. This study looked at Nairobi city Park Market women who are in their most productive years of their lives and because of various reasons, do not go for breast cancer screening and neither do they practice self-breast examination which is a method of self-screening. This study aims at investigating how social factors; awareness, accessibility, perception and attitude influences the acceptance of breast cancer screening among women in Nairobi city Park market.

1.3 Purpose of the Study

The purpose of this study was to investigate social factors; awareness, accessibility, perception and attitude and how they affect the acceptance of breast cancer screening.

1.4 Objectives of the Study

1. To investigate the extent to which breast cancer awareness influences the acceptance of breast cancer screening among women at the Nairobi City park Market
2. To determine the influence of accessibility to breast cancer screening services on the acceptance of breast cancer screening at the Nairobi City Park Market.
3. To establish the extent to which perception of breast cancer influences acceptance of breast cancer screening among women at Nairobi City Park Market.
4. To assess the extent to which attitude towards breast cancer influences acceptance of breast cancer screening among women at Nairobi City Park Market.

1.5 Research Questions

1. What is the influence of breast cancer awareness on the acceptance of breast cancer screening among women at the Nairobi City Park Market?
2. To what extent can accessibility to breast cancer screening services influence acceptance of breast cancer screening among women at the Nairobi City Park Market?
3. What is the influence of perception towards breast cancer on the acceptance of breast cancer screening among women at the Nairobi City Park Market?
4. How do attitude towards breast cancer influence acceptance of breast cancer screening among women at the Nairobi City Park Market?

1.6 Significance of the Study

Racial and ethnic minority and medically underserved groups are more likely to develop and die from cancer, (American cancer society, 2009). Market women in Nairobi are medically underserved and are more likely to develop from breast cancer, the most frequent cancer among women in Nairobi, and die from it. This is due to the fact that these women have no resources to seek for specialized treatment that is too expensive or not available in the country.

This study was expected to benefit the ministry of health and sanitation and ministry of medical services in the drafting and implementation of national cancer control strategy 2010-2015. Relevant sectors in the ministry of health and sanitation and the ministry of medical services are also expected to benefit from this study in coming up with the best methods of breast cancer prevention and control among women in low resource areas. This study is also expected to benefit the various departments in government and non-governmental organization with an interest in cancer control and prevention on the best methods of increasing breast cancer awareness among women in low resource settings and ways of improving access to breast cancer screening and diagnostic services and uptake of other preventive measures and also inform them of how women in low resource areas perceive breast cancer. This study is also expected to inform the health service

providers on women expectation in order to encourage breast cancer screening and diagnosis attendance as well as being used as ground for further research.

1.7 Delimitations of the study

This research study was confined to exploring socioeconomic factors affecting the acceptance of breast cancer screening among women aged 18 years and above in Nairobi city Market because these were the women at higher risk of developing breast cancer. The study used descriptive research survey design. Stratified random sampling technique was used to select the sample size of women respondent in Nairobi City Market; this was because the women trading in the area operated different kind of businesses and this therefore ensured that women in all section of the market took part in the study.

1.8 Limitations of the Study

Due to the nature of Nairobi City Market, the respondents were not free in answering the questions that were posed to them for fear of victimization and discloser of their private life. This was overcome by assuring the respondents that the study was not going to be used anywhere else or by anyone else except for academic purposes. Secondly, since the study was confined to Nairobi City Park Market, generalization of the findings to all other markets was limited. The researcher however strived to make the study as inclusive as possible by sampling women across all sections of the market.

1.9 Assumptions of the Study

The first assumption of the study was that all women in Nairobi City Park Market had not accepted breast cancer screening.

The second assumption was that the breast cancer screening services were readily available to all women in Nairobi City park Market.

1.10 Operational Definition of Significant Terms

Cancer: Is a class of diseases characterized by out of control cell growth. These cells divide uncontrollably to form lumps or masses of tissues.

Breast cancer: This is the type of cancer that affects the breast part of women

Screening: This is the process of detecting cancer in women without signs or symptoms of breast cancer.

Social factors; these are the social experiences that help mold women lifestyle at the Nairobi City Market. In this study, the factors include; awareness, accessibility, perception and attitude.

Awareness: The state of Nairobi City Market women being aware, having knowledge about breast cancer, its causes, symptoms, prevention measure and treatment options.

Accessibility: Is the ability to access and benefit from the available breast cancer screening and treatment services available among the Nairobi City Market Women.

Perception: This is the act of understanding breast cancer and breast cancer screening for early diagnosis among women at the Nairobi City Market.

Attitude: This is a favorable or unfavorable evaluation of breast cancer screening

It is a positive or negative view a Nairobi city Market woman has towards breast cancer screening.

Nairobi City Park Market: This is a market in Nairobi that is located next to Nairobi City Park opposite the Agahkan University Hospital along Limuru Road.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses the relevant literature on influence of social factors; awareness, accessibility, perception and attitude on the acceptance of breast cancer screening among women from a global perspective down to a Kenyan perspective. It also features the theoretical framework, the theory whose principle forms this work and the conceptual framework of the study.

2.2 Cancer screening

Early detection of cancer is based on the observation that treatment is more effective when disease is detected early as there is a greater chance that curative treatment will be successful, particularly for cancers of the breast, cervix, Larynx, colon and rectum and skin. Early detection is therefore successful when linked to effective treatment, as 30% of treatable cancer can be cured if detected early. There are many factors influencing the extent to which members of a specific culture participate in cancer prevention and screening. These factors include the patient's birthplace and the level of acculturation or assimilation to the new host society (Hedeem, White, & Taylor, 1999), their cultural attitude towards bodily functions and the power of indigenous healers, their general and cancer-specific beliefs, their practices concerning health, diet, and access to screening, as well as their expectation concerning the quality of patient-provider interaction and communication in the health care setting (Lasky & Martz, 1993).

Cultural group is different and unique in defining health and well-being, perceiving the causes of disease, misfortune, and death (Spector, 2002), and identifying appropriate preventive health activities and effective treatment strategies to ensure the survival and well-being of its members (Kagawa-Singer, 1996). Therefore, being familiar with the history, culture, values, beliefs, and practices of ethnic minority individuals can be very helpful in understanding how patients and their families interpret the causes of cancer and the recommended regimen for cancer prevention, screening, and treatment. As Kagawa-

Singer (1996) stated, patients will only incorporate recommended medical regimens when these recommendations fit into their belief systems and are relevant to their lives at a specific point in time, and when they see that the changes are worth the effort to try and have the resources to do so.

They may not consider preventive health care a priority and engage in cancer screening practices unless they can seek and receive services from health care organizations that are responsive to their specific needs and coping patterns (Spector, 2002). Moreover, cultural beliefs, attitudes, and life experiences also affect an immigrant's reaction to cancer, health maintenance, daily activities, body discomforts, food preference, and various treatment and health practices (Lasky & Martz, 1993). These barriers make it very difficult for many medically underserved Asian Americans to access cancer screening services and to seek prompt treatment for cancer. It is therefore important for health professionals and cancer experts to improve access to services by designing culturally sensitive and consumer friendly programs that meet the needs of the medically underserved population.

Screening asymptomatic individuals for precancerous lesions or to detect early stages of cancer has been successfully demonstrated to reduce cancer mortality for cancers of the cervix, breast and colorectal. Screening and early detection of cancer are integral components of a cancer control program. Screening requires an effective and accurate screening test, public education to ensure participation of the target population and follow-up care for those detected with pre-cancer and cancer.

Early diagnosis can be improved by public and health provider education, and can result in substantial improvement in the outcome of persons detected with cancer, provided there is no delay in diagnosis and effective treatment. (Silvana et al, 2009).

Cancer screenings play an important role in reducing the morbidity and mortality of cancer. Prostate, colorectal, breast, and cervical cancers are amenable to routine screening. Such screenings often results in earlier stage diagnosis for cancer and more

favorable prognosis. However, even with these benefits identified, survival has been shown to vary among racial/ethnic groups (American Cancer Society, 2006).

Women over the age of 40 should screen for breast cancer (breast self-examination, clinical breast examination, and mammogram) and women over 18 should screen for cervical cancer. Screening guidelines also recommend that men over age 50 should screen for prostate cancer. These screening guidelines are shown to be effective in reducing breast cancer mortality (Kagawa-Singer, 1996). While major efforts are made in the education, screening, treatment, and rehabilitation of cancer in the mainstream world, cancer control efforts targeting the Asian American populations have been inadequate (Hedeem, White, & Taylor., 1999).

The poor and medically underserved often encounter numerous barriers to preventive health care. These barriers include poverty, substandard and overcrowded housing, crime, lack of resources such as transportation and child care, as well as lack of knowledge and skills in negotiating the health care system (Langer, 1999). The poor are often overwhelmed by various situations such as poor physical health, poor living condition, and unemployment. They may not consider preventive health care a priority and engage in cancer screening practices unless they can seek and receive services from health care organizations that are responsive to their specific needs and coping patterns (Lasky & Martz, 1993). It is therefore important for health professionals and cancer experts to improve access to services by designing culturally sensitive and consumer friendly programs that meet the needs of the medically underserved population.

Information on cancer screening and survival in Asian subgroups remains limited, even as these populations are increasing in the U.S. (Wing-Kim, 2003). Some studies show research focusing on the reason for the disparity of cancer screening rates between Asian Americans and other racial/ethnic groups (Lasky & Martz, 1993).

2.3 Empirical Review

There are many factors that are back tracking the fight against cancer, in Kenya these factors may include: inadequate facilities, few oncologist, high cost of treating cancer, lack of accessibility to treatment, lack of cancer awareness and social inequity. This study aims at investigating cancer awareness, perception towards cancer, accessibility to treatment and attitude and how these factors influence the acceptance of breast cancer screening.

2.3.1 Breast cancer awareness and the acceptance of breast cancer screening

Breast cancer awareness is an effort to raise awareness of breast cancer and reduce the disease's stigma by educating people about its symptoms, prevention measures and treatment options. Many studies have looked at how knowledge and awareness on breast cancer influences the acceptance of breast cancer screening among women. A study that evaluated breast cancer awareness among women presenting with newly diagnosed breast disease at University hospital in South Africa, revealed low breast cancer awareness and hence low rates of self and clinical examinations of the breast and low mammographic screening rates. The objective of the study was to assess the level of breast cancer awareness among women presenting with newly diagnosed breast disease at University Hospital in Bloemfontein, South Africa. The breast cancer awareness of the women, in turn, was related to their screening practices and the stage of breast cancer at presentation. Reports of data on the number of breast cancer awareness campaigns held and the number of people reached during the period April to June 2006 were acquired from Cancer Association of South Africa (CANSA).

Data was also obtained by means of interviewer-administered structured questionnaires, from consenting women presenting with newly diagnosed breast disease at University Hospital during the period May 2006 to April 2007. The result showed the examination and screening practices of women presenting with newly diagnosed breast disease at the University Hospital were generally low. This may be attributed to a general lack of awareness of the rising incidence of breast cancer in the Free State among both the public and healthcare professionals. (Matatiel and Heever, 2008).

A descriptive study conducted jointly at one public sector and one private hospital of Nawabshah, Pakistan to assess factors responsible for late presentation of breast cancer revealed that most cases of breast cancer presented in advanced stage probably due to poor economic status, illiteracy and negligence by patients or their family members and general practitioners. Sampling strategy was convenient sampling for the period of 5 years during which all the patients of breast cancer presented in the two hospitals were studied. (Altaf, Abdul, Abdulghaffar, & Ali, 2011).

Ahuja and Chakrabarti (2010) determined the level of knowledge regarding breast cancer and to increase awareness about breast cancer screening practice among a group of women in a tertiary care in Mumbai India. The aims was to determine the level of knowledge regarding breast cancer and to measure breast self-examination (BSE) performance in a group of 80 women aged 40 years and above. they conducted a cross sectional study over a period of two months commencing on August 1st 2009 and ending on 30th September 2009. 80 women were interviewed by means of a structured questionnaire. This study revealed that the respondents lacked knowledge of vital issues related to breast cancer and that practice of Breast Self-Examination was inadequate. It also revealed that doctors were not forthcoming in providing information to the general public regarding breast health. Spreading awareness amongst the general public is the need of the hour and should be advocated by means of effective educational programs.

Aluamhe, (2011) in his study to investigate breast cancer awareness and breast examination practices among women in a Niger delta hospital among the patient population visiting the general out-patient department of Central Hospital Warri showed that the practice of self-breast examination was significantly associated with previous breast complaints, a previous breast procedure, previous clinical breast examination and having a family member or acquaintance with breast cancer. The study used interviewer administered questionnaire designed to assess the awareness of breast cancer and breast examination practices of the women visiting the outpatient department of the hospital. The respondents ranged between 20-80 years. Breast cancer awareness was noted in 96.1% of respondents. Forty three point six percent of respondents knew breast cancer

begins with a breast lump. Self-breast examination had been practiced in 45.5% of respondents. Of this number, 83.3% of the practitioners did so at least monthly. Clinical breast examination had been experienced in 15.6% of respondents.

In Kenya, a study conducted to assess Knowledge and practice about cervical cancer and Pap smear testing among cervical cancer and non-cancer patients using a structured questionnaire to obtain information at Kenyatta National Hospital.

It revealed that fifty-one percent of the respondents were aware of cervical cancer while 32% knew about Pap smear testing. There were no significant differences in knowledge between cervical cancer and non-cancer patients and in both cases the level of knowledge was found to be low.

These studies show that most women are not taking up breast cancer screening due to high illiteracy level and lack of knowledge about vital issues related to breast cancer and prevention measures. From the review, previous breast complaints was also associated to practices of breast self-examination and high knowledge among women showed increase in uptake of breast cancer screening. The studies recommended the need to increase the level of knowledge and awareness about breast cancer and screening practices among women to increase uptake of the currently available hospital screening facilities.

2.3.2 Influence of accessibility on the acceptance of breast cancer screening

Early detection of breast cancer by screening mammography aims to increase treatment options and decrease mortality. Recent studies have shown inconsistent results in their investigations of the possible association between accessibility to breast cancer screening services and stage of breast cancer at diagnosis.

Celaya (2010), determined whether geographic access to mammography screening is associated with the stage at breast cancer diagnosis. The study used the state's population-based cancer registry where all female residents of New Hampshire aged 40 years who were diagnosed with breast cancer during 1998–2004 were identified. The

factors associated with early stage (stages 0 to 2) or later stage (stages 3 and 4) diagnosis of breast cancer were compared, with emphasis on the distance a woman lived from the closest mammography screening facility, and residence in rural and urban locations. The results showed a total of 5966 Newhamshire women were diagnosed with breast cancer during 1998-2004 and that there was no significant association between later stage of breast cancer and travel time to the nearest mammography facility. Using 3 categories of rural/urban residence based on Rural Urban Commuting Area classification, no significant association between rural residence and stage of diagnosis was found.

Maheswaran, Pearson, Jordan & Black, (2006) examined the association between socioeconomic deprivation, travel distance, urban-rural status, location and type of screening unit, and breast screening uptake where screening was provided at 13 locations—1 fixed and 12 mobile (3 at non-health locations). The study examined data from 1998 to 2001 for 34 868 women aged 50–64 years, calculated road travel distance, used 1991 enumeration district level Townsend socioeconomic deprivation scores, and a ward level urban-rural classification. The study concluded that socioeconomic inequality in breast screening uptake seems to persist in an established service. There was a small decrease with increasing distance, no difference between fixed and mobile units, and no difference between urban and rural areas but uptake seemed to be higher at non-health sites.

Lyimo and Tanya, (2012), identified the most important factors related to the uptake of cervical cancer screening among women in a rural district of Tanzania. They conducted a cross sectional study with a sample of 354 women aged 18 to 69 years residing in Moshi Rural District. A multistage sampling technique was used to randomly select eligible women. A one-hour interview was conducted with each woman in her home. The result showed that less than one quarter (22.6%) of the participants had obtained cervical cancer screening. The study found out that only knowledge of cervical cancer and its prevention and distance to the facility which provides cervical cancer screening were significantly associated with screening uptake. Based on this, the study emphasized on the importance of providing cervical cancer screening services within 5 km of where women reside.

Steven, Coughlin and King (2010), examined the relationships between ecologic measures of commuting time and use of public transportation in relation to breast and cervical cancer screening among women in U.S. metropolitan areas who participated in the 2004 and 2006 Behavioral Risk Factor Surveillance System (BRFSS) surveys. A total of 76,453 women aged ≥ 40 years were included in analyses on mammography. An analysis on Pap testing was limited to women aged ≥ 18 years. The result showed that in large U.S. metropolitan areas, transportation issues may play a role in whether a woman obtains cancer screening along with other factors.

Mupepi, Sampelle and Timothy, (2011) estimated what proportion of rural females who had received cervical screening, to assess knowledge, beliefs, attitudes, and demographics that influence cervical screening, and to predict cervical screening accessibility based on demographic factors, knowledge, beliefs, and attitudes that influence cervical screening. The study sample consisted of randomly selected, sexually active, rural females between 12 and 84 years of age. Five hundred fourteen females responded to an individually administered questionnaire. Of the 514 participants, 91% had never had cervical screening and 81% had no previous knowledge of cervical screening tests; 80% of the group expressed positive beliefs about cervical screening tests after an educational intervention. Females who were financially independent were 6.61% more likely to access cervical screening compared with those who were dependent on their husbands. Females in mining villages were 4.47% more likely to access cervical screening than those in traditional rural reserve villages. Females in resettlement villages were 20% less likely to access cervical screening than those in traditional rural reserve villages.

From the review, socio-economic deprivation is shown to be associated to low uptake of breast cancer prevention measure such as breast cancer screening and breast self-examination, the studies show inconsistency as to whether travel distance and transportation cost affects the uptake of breast cancer prevention measures.

2.3.3 Perception towards breast cancer and the acceptance of breast cancer screening

It is pertinent to study women's perception of breast cancer and its early-detection measures because their perception would influence their use of early-detection measures of breast cancer. In Nigeria, a cross-sectional study conducted to evaluate the level of awareness, perception, specific knowledge, and screening behavior towards Breast Cancer among rural women in Ipokia local government area of Ogun state showed that level of awareness about breast cancer among women in this study was low while their level of perception was just above average and screening behavior was very low. Again, perception variables positively and significantly correlated with screening behavior among the participants. The study recommended a serious awareness drive, education and communication strategies packaged towards these women, to reinforce their positive trends as well as aggressive health promotion intervention to encourage regular screening for breast cancer among women in the rural communities. (Ademola, Adenike, Adebo and Abraham, 2011).

A descriptive cross-sectional study conducted to describe perceived breast cancer risk, identify the percentage of women with inaccurate risk perceptions, and examine the influence of perceived and objective risk on screening behavior in a Community settings in a metropolitan area on the western coast of the United States using a multicultural sample of 184 English-speaking women who have never been diagnosed with cancer. From the study Participants reported that they “probably will not” get breast cancer and that their risk was “somewhat lower” than average. Family history of breast cancer was a significant predictor of perceived risk. Demographic characteristics and objective risk factors were not associated with perceived risk. Most women at high risk for breast cancer (89%) underestimated their actual risk; fewer women with low to average risk for breast cancer (9%) overestimated their risk. According to the study, inaccurate perceptions of risk do not promote optimal breast cancer screening. (Katapodi, Dodd, Kathryn and Facione, 2009)

Karen (2011), assessing breast cancer perceptions in Northern Uganda for the purpose of informing necessary cancer initiatives found out that the concept of cancer was relatively new in Northern Uganda, in conjunction with a lack of understanding and competing priorities, many women are often diagnosed in late and advanced stages. Most women go to the hospital when they feel distinctive pain in the body instead of getting regular check-ups. Breast cancer patients and the Gulu District community development officer participated in semi-structured interviews that were analyzed using qualitative data analysis. The study concluded that educating people on needs for more proactive health-seeking behavior could have a significant impact on cancer control in this community.

A Study on factors influencing breast cancer screening among Iranian women showed that Perceived self-efficacy and perceived barriers to breast self-examination (BSE) were significant predictors for BSE performance. For having mammography, health motivation was the main predictor. The aim of the study was to identify the rates of breast self-examination (BSE) performance and mammography use in Iranian women, and to characterize the demographic and cognitive factors associated with their breast cancer screening behavior. In the study, data was collected from a convenience sample of 388 females, using an adapted version of Champion's revised Health Belief Model Scale. The study concluded that eliminating barriers and increasing perceived self-efficacy with an emphasis to make the women acquainted with BSE performance; as well as increasing health motivation of women and persuading of physicians for clinical breast examination (CBE) performance with low cost and free access to mammography, are important to promote BSE and mammography. (Naroozi and Tahmasabi, 2011).

Ukwenya, Yusufu, Nmadu, Garba and Ahmed (2008) carried out a cross-sectional study at a teaching hospital in Kaduna, Nigeria, to investigate the extent and reasons for the delay between onset of symptoms and admission for treatment of symptomatic breast cancer. The patients had histological proven breast cancer and had been admitted for treatment. Data were obtained from interviews and patients' clinical and referral records. The study showed that delayed treatment of symptomatic breast cancer at this center in

Nigeria is as much related to the quality of medical care as it is to local beliefs, ignorance of the disease, and lack of acceptance of orthodox treatment.

Barbara, Elvan and Ramona (2005) compared perception of cancer fatalism among African American patient and their providers, who were recruited at federally funded community primary care centres where the majority of patients were African American women and the majority of providers were physicians and nurses. Patients indicated low perceptions of cancer fatalism, but providers believed patients were highly fatalistic. As the patients' educational level increased, perceptions of cancer fatalism decreased. The providers' belief that patients are fatalistic about cancer may influence patient-provider communication. They may be less likely to recommend screening, and patients may be less likely to initiate a discussion about cancer. Strategies are needed that target providers and their patients to address actual and/or perceived perceptions and their influence on cancer screening.

In Kenya, a cross-sectional questionnaire survey involving a consecutive sample of 219 consenting non-pregnant women attending MCH-FP clinic at Moi Teaching and Referral Hospital, Eldoret, to determine perceptions on cervical cancer risk, barriers to screening and previous screening. Perception of being at risk was significantly associated with a felt need for screening ($p=0.002$), an association that persisted only for women reporting multiple lifetime sex partners ($p=0.005$). Fear of abnormal results and lack of finances were the commonest barriers to screening reported by 22.4% and 11.4% of respondents, respectively. (Were et al 2011).

A descriptive study that assessed rural women's perception of breast cancer using data from two rural health districts in Ibadan, Oyo state of Nigeria, showed that 66.2% of the respondents considered that breast cancer is more severe than other forms of cancer. Respondents' perception of risk of developing breast cancer was low, as 64.8% rated themselves 1, on a scale of 1 to 9 (where 1 = does not perceive herself to have cancer; 9 = very much perceives herself to have cancer). Respondents' perceived cause of breast cancer included "putting money in brassiere" and attack from the enemy, among others.

None of the respondents identified early detection as an advantage of breast self-examination. Swelling was the most acknowledged early-warning sign (Oluwalosin, 2006).

Muchiri M. (2006) in his cross sectional study on factors influencing the decision for breast cancer screening in ol-kalou division Nyandarua district Kenya with a sample size of 384 women and using a questionnaire with items as knowledge level of the respondents as pertain to prevention methods, treatment and knowledge of the available services for breast cancer screening, parity, perception of cancer and individual risk perception. Of 384 subjects, 34.4% did not know about the disease, 16.4% had knowledge as pertains to cancer and had been screened. The Reason for not taking the screening included lack of knowledge, poor access to the health facility, perception not at risk and cultural definition of the disease. The most common reason was that they do not associate it to any direct benefit (66%). Education and Economic activity was found to significantly affect the decision to take a screening ($P=0.00$).

Muthoni and Miller, (2010) explored rural and urban Kenyan women's knowledge and attitudes regarding breast cancer and breast cancer early detection measures. The study employed eight focus groups with low- and middle-income rural and urban Kenyan women to explore their knowledge, attitudes, and behaviors concerning breast cancer and its early detection measures. Findings revealed a huge divide between urban middle-income women and all other groups with respect to knowledge of breast cancer and early detection measures.

From the review, women viewed breast cancer as a highly severe disease and Perceived benefits of early detection measures centered on preparing themselves for what was assumed to be inevitable death. Local belief, ignorance of the disease and lack of orthodox treatment was associated to delayed treatment of breast cancer and Perception of being at risk was significantly associated with a felt need for screening. One study showed a decrease in perception of cancer fatalism associated to increased patients educational level.

2.3.4 Attitude towards breast cancer and the acceptance of breast cancer screening

It is important to study the attitude of women towards breast cancer and uptake of breast cancer prevention measures because their attitude will highly determine whether these women take up breast cancer prevention measures such as breast self-examination and breast cancer screening. A qualitative study that was conducted to investigate breast cancer related knowledge, beliefs and attitudes among women from minority ethnic groups living in London and Sheffield found out that, people fear cancers and that this made them reluctant to discuss breast cancer. Breast cancer was considered a taboo subject for all. Although the white British women reported that they would feel comfortable talking about their breasts to friends and family, they said they would feel less comfortable talking about breast cancer. The white British women used words such as 'The Big C' to describe cancer, whereas the Asian and Arab women used more emotive and descriptive language such as 'disaster', 'scared', 'shaky', 'panic' and 'dragon'. The Asian and Arab women also reported that no words for cancer exist in their languages. A further common feature was that breast cancer evoked bad feelings, made them feel upset and scared.

However, the Asian and Arab women were more pessimistic, strongly associating breast cancer with 'A death sentence' and 'losing your hair'. All the groups reported that older people in their family and communities were more pessimistic and frightened by cancer, which they attributed to their experience of knowing someone who was diagnosed late and who died shortly afterwards. The Asian and Arab women also related the pessimistic attitudes of older women in their community to them not having had much experience of breast cancer in their country of origin – which made it an unknown mysterious disease. They also reported that breast cancer was a new disease for them, making it more frightening as they began to encounter more of it in the UK. (Scanlon, 2004).

Krombein (2006), evaluated knowledge, attitudes, and actual screening practices regarding breast cancer among women in the Bonteheuwel township in the Western Cape using both quantitative and qualitative approaches with a random sample of 100 women and a separate selected group of nine women who participated in a focus group

discussion. The result showed that majority of women (66%) felt that health was not just a matter of luck or faith, but was partly self-determined. More than half (52%) admitted worrying a lot about their health. The vast majority (99%) regarded breast cancer as either a very serious (88%; 95% CI: 82%-94%) or fairly serious (11%) disease, and 82% felt they were personally vulnerable, i.e. “somewhat likely” (69%) or “very likely” (13%) to someday get breast cancer, although the vast majority (92%) felt they were only equally likely (72%) or less likely (20%) than other women to develop breast cancer themselves. Only 45% felt that screening helped detect disease early, but 86% believed that the chances of recovery were good/very good with early diagnosis and intervention, and 82% believed that most cases could be cured. The main barriers to screening identified were a fear of being diagnosed with breast cancer and insufficient knowledge (20%). Others included the pain of the procedure (12%), cost (4%), “unnecessary unless there are symptoms” (4%), “nothing can be done anyway” (4%), forgetfulness (3%), lack of time (2%) and time-consuming (1%).

A cross-sectional survey designed to assess level of knowledge, attitude and practice of breast self-examination (BSE) amongst all nursing students of Lagos University Teaching Hospital using self-administered questionnaire, which was designed to evaluate information such as socio-demographic data, level of knowledge of breast cancer, the attitude of the participant toward BSE and practice of BSE. The respondent’s knowledge of breast cancer and breast self-examination was high (97.3%); 85.6% knew how to carry out breast self-examination correctly. Majority, 58.6% obtained their information from television/ radio. The attitude of respondents to breast self-examination was good, most of the respondents, 98.5% thought breast self-examination was necessary and 84.3% claimed to have carried out breast self-examination before. Respondents’ practice of breast self-examination was also good with 80.2% of the respondents claiming to carry out breast self-examination regularly. The level of awareness of breast cancer and breast self-examination was high among nursing students of the Lagos University Teaching Hospital (Rosemary, Nicholas, Modele, Adekunle, Adebayo, 2011).

A cross-sectional interview-based study conducted in 2008 among 500 women at five randomly selected primary health care centers in Qatar to determine their knowledge, attitude and practices regarding cervical cancer and screening. Just over 85% had heard of cervical cancer and 76% had heard about the Pap smear. Knowledge of cervical cancer was significantly greater among women aged 30–49 years, and those employed, married for > 15 years, with a university degree, or who had had 4 births or 3 miscarriages. Almost 40% had had a Pap smear test at least once and 85.5% of the rest would have a test if they were told that the procedure was painless and simple. Over half wanted the test to be done in the well-woman clinic at the primary health care center. Knowledge and practice was inadequate among those under 30 years old, those recently married and those with a lower education level. (Al-Meer, Aseel, Al-Khalaf, Al-Kuwari and Ismail, 2011).

From the review, attitude has been shown to influence the uptake of breast cancer screening; women with a positive attitude tend to practice breast self-examination and breast cancer screening. Most women regard breast cancer as a very serious disease and felt they were personally vulnerable and therefore practiced breast self-examination and screening with the belief that early detection can lead to better treatment.

2.4 Theoretical Framework

This research study is based on the Health Belief Model (HBM) that was originally introduced by a group of psychologists in the 1950's to help explain why people would or would not use available preventive services. The Health Belief Model is a psychological model that attempts to explain and predict health behaviors by focusing on the attitudes and beliefs of individuals. The model was developed as part of an effort by social psychologists in the United States Public Health Service to explain the lack of public participation in health screening and prevention programs. In this study the model has been used to explain why most women are not taking up breast cancer prevention measures such as breast self-examination and breast cancer screening. In this model, the researchers assumed that people feared diseases and that the health actions of people were motivated by the degree of fear (perceived threat) and the expected fear reduction of

actions, as long as that possible reduction outweighed practical and psychological barriers to taking action (net benefits).

The HBM can be outlined using four constructs which represent the perceived threat and net benefits: 1) perceived susceptibility, a person's opinion of the chances of getting a certain condition; 2) perceived severity, a person's opinion of how serious this condition is; 3) perceived benefits, a person's opinion of the effectiveness of some advised action to reduce the risk or seriousness of the impact; and 4) perceived barriers, a person's opinion of the concrete and psychological costs of this advised action. Another concept based on this model is known as cues to action, these are events (internal or external) which can activate a person's "readiness to act" and stimulate an observable behavior. Another concept that has been added to HBM since 1988 in order to better meet the challenges of changing unhealthy habitual behaviors is self-efficacy. Self-efficacy, a concept originally developed by Albert Bandura in social cognitive theory, is simply a person's confidence in his/her ability to successfully perform an action.

The Health Belief Model does not take into consideration other factors, such as environmental or economic factors, that may influence health behaviors; Secondly, the model does not incorporate the influence of social norms and peer influences on people's decisions regarding their health behaviors. Despite this limitation, this study adopted this model because it well explains certain health behavior; it has also helped to guide the search for "why" these behaviors occur and to identify points for possible change. Using this framework, change strategies can be designed such as developing messages that are likely to persuade women to make healthy decisions. Using the HBM, messages that are suitable to health education for breast self-examination, breast cancers screening and other positive behavior change can be developed.

2.5 Conceptual Framework

Figure 1 shows a conceptual framework that shows the relationship between the variable; breast cancer awareness, accessibility to breast cancer screening services, perception towards breast cancer and attitude towards breast cancer screening and the acceptance of breast cancer screening. It also shows how free cancer screening may influence the acceptance of breast cancer screening among the market women at the Nairobi City Park Market.

In the study, the independent variables were those that were seen to influence the dependent variable. These were breast cancer awareness, accessibility to breast cancer screening services, perception towards breast cancer screening and attitude towards breast cancer screening. When market women are more informed about breast cancer, then they can be able to understand the significance of early screening and this can therefore have a positive influence on the acceptance of breast cancer screening. Accessibility of breast cancer screening services by Market women both in terms of shorter travelling distance and affordable cost of screening can positively influence the acceptance of breast cancer screening. Positive perception and attitude towards breast cancer screening will also improve the Market women's acceptance of breast cancer screening.

Extraneous variables are variables that influence the relationship between the independent and dependent variables. In this study the extraneous variable, free cancer screening, was seen to undesirably influence the relationship between the independent variable and the dependent variable. This was controlled by carrying out the study at a time when there was no free cancer screening being offered by the government or any other non-governmental organization. The problem was further controlled by taking a sample that had not been offered free cancer screening by any organization for the last two years.

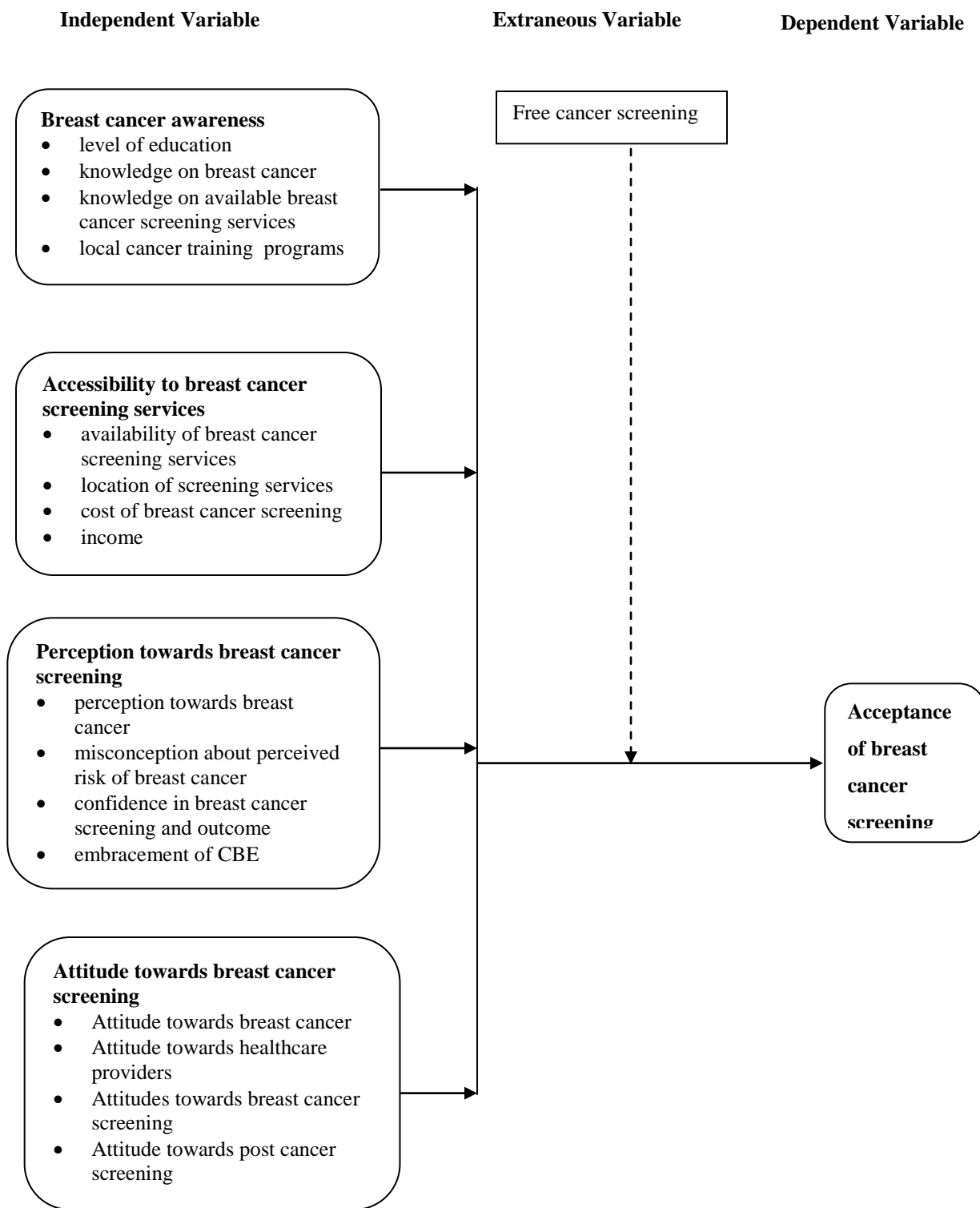


Figure 2.1: Conceptual Framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology which will be used in the study. It covers the research design, target population, sampling technique, data collection, validity and reliability of data collection instruments, data analysis techniques, and ethical considerations

3.2 Research Design

This study adopted a descriptive survey study design that was deemed the best design to fulfill the objectives of the study. According to Mugenda and Mugenda (2003), a survey is an attempt to collect data from members of a population in order to determine the current status of that population with respect to one or more variables. This design was appropriate for this study as it sought to investigate the influence of social factors; awareness, accessibility, perception and attitude on the uptake of breast cancer screening among market women at the Nairobi city Market.

3.3 Target Population

A target population, or the universe, is the population to which the researcher would like to generalize his/her results (Mugenda and Mugenda, 2003). The population of this study consisted of all the 400 women trading at the Nairobi City Park Market. The study chose Nairobi City Park Market because it had a larger population of women operating different kinds of businesses and this was very convenient for the study.

Table 3.1: Target Population of women at the Nairobi City Market

Category Business	Population size
Cereal	100
Grocery	200
Clothes	70
Salon	30
TOTAL	400

3.4 Sample Size and Sampling Technique

Sampling technique provides a range of methods which enables reduction of data to be collected, by focusing on data from a sub-group rather than all cases of elements. This technique is also suitable when working with smaller samples since it caters for cases that are particularly informative.

Mugenda and Mugenda (2003), states that for descriptive studies, ten percent of the accessible population is enough and further states that the rule of thumb should be to obtain as big a sample as possible. In this study, the research used a rule of thumb to obtain a sample size of 120 women, which was deemed representative. The researcher used stratified sampling technique to proportionately select 30% of the sample from each stratum as shown in Table 2

Table 3.2: Sample size

Category Business	Target Population	30% of the Target Population	Sample size
Cereal	100	$0.3*100$	30
Grocery	200	$0.3*200$	60
Clothes	70	$0.3*70$	21
Salon	30	$0.3*30$	9
TOTAL	400		120

3.5 Research Instruments

A detailed self-administered questionnaire was used for the study. The questionnaire contained open-ended, closed-ended and Likert type of questions that were intended to capture the research objectives. Questions were as simple as possible to avoid detailed clarifications and were administered through face to face interviews by the researcher. The questionnaire were divided into 2 parts where Part A covered general demographic data of the respondents, part B consisted of questions to determine the social factors influencing the acceptance of breast cancer screening among women at the Nairobi City Park Market

3.5.1 Piloting the research instrument

The study used 30 women at the Nairobi City Market, who were not part of the final sample respondents, for the piloting of the instrument used. This helped in checking whether the tool used was reliable and valid. Validity and reliability are used to establish the relevance and dependability of evidence gathered. This also helped in reconstructing the questions by removing any item that is ambiguous and improving them for easy interpretation and understanding by the respondents.

3.5.2 Validity of the research instruments

Validity is the degree to which results obtained from data analysis actually represents the phenomena under study (Mugenda and Mugenda 2003). The researcher discussed the content of the questionnaire with group members in class and the supervisor before going to the field, this ensured vague and unclear questions were eliminated or corrected. Validity was also ensured through use of experts in the medical field. The questionnaires were given to five medical doctors in order to evaluate the relevance and objectivity of each item in the questionnaire.

3.5.3 Reliability of the research instruments

According to Mugenda and Mugenda (2003), reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials. To ensure reliability, this study used internal consistency technique. This technique involved

administering the questionnaire in a single test to a sample of twenty women at Muthurwa Market in Nairobi. The researcher ensured there was no sensitization to the respondents which could have influenced the responses given in the test. In this approach, a score obtained in one item was correlated with scores obtained from other items in the instrument. Cronbach's Coefficient Alpha was then used to determine how items correlate among themselves. In this study, the researcher obtained a reliability coefficient of 0.81 that was deemed reliable. Mugenda and Mugenda (2003), states that a coefficient of 0.8 or more implies that there is a high degree of reliability of the data.

3.6 Data Collection procedures

The respondents were first informed that their responses were to be used for academic purpose only and also their anonymity was promised so as to collect accurate data. The primary data was obtained from the respondents through a structured questionnaire comprising of closed and open-ended questions. The questionnaires were delivered face to face to the respondents where they were given time to fill and later collected.

3.7 Data Analysis Techniques

Statistical Package for Social Science (SPSS) was used as an aid in the analysis. The researcher preferred SPSS because of its ability to cover a wide range of the most common statistical and graphical data analysis and is very systematic. Data pertaining to breast cancer awareness and accessibility to breast cancer screening services was conducted using descriptive statistics, which includes measures of central tendency and measures of frequency among others.

3.9 Operationalization of Variables

The operational definition of variables on the social factors influencing the acceptance of breast cancer screening among women at the Nairobi City Park Market, each critical variable was expounded as indicated in Table 3.3

Table 3.3: Operationalization of variables

Objectives	Types of Variables	Indicators	Measure	Measurement scale	Tools of Analysis	Types of analysis
1. To establish the influence of breast cancer awareness on the uptake of breast cancer screening among women at the Nairobi City Market	Independent breast cancer awareness Dependent uptake of breast cancer screening	-level of education -knowledge on breast cancer -knowledge on available cancer screening services -local cancer education programs -self breast examination -clinical breast examination -change in lifestyle -Attendance of cancer education programs	-educational qualification - knowledge on breast cancer, causes prevention and treatment -knowledge on where to go for screening -Availability of local cancer education programs -Frequency of SBE -frequency of CBE -reduction of cancer causing behavior -no of meetings attended	-ordinal -Nominal -Nominal -Nominal -Ordinal -Ordinal -nominal -ratio	Means, Percentages and Frequencies	Quantitative
2. To determine the influence of accessibility to breast cancer screening on the uptake of breast cancer screening among women at	Independent accessibility to cancer screening and diagnostic services Dependent Uptake of breast cancer screening	-availability of cancer screening services -location of screening services -cost of screening -family size and income	-no of screening services Available -distance of travel -cost of CBE and mammography -no of children -monthly income	-Ratio -Ratio -Interval -Ratio	Means, Percentages and Frequencies	Quantitative

the Nairobi City Market.						
3. To establish the influence of perception of breast cancer on the uptake of breast cancer among women at the Nairobi City Market.	Independent perception of breast cancer Dependent Uptake of breast cancer screening	-perception towards cancer - misconception about perceived risk -confidence in screening and outcome -embracement of CBE	-breast cancer perception -risks associated to breast cancer -confidence in breast cancer screening and outcome -embracement associated to CBE	-Nominal -Nominal -Nominal -Nominal	Means, Percentages and Frequencies	Quantitative
4.1 To assess the influence of attitude on the uptake of breast cancer screening among women at the Nairobi City Market.	Independent influence of attitude Dependent Uptake of breast cancer screening	-attitude towards healthcare system -attitude towards healthcare providers -attitudes towards breast cancer screening -attitude towards post cancer screening	- attitude towards hospital services -number of visits to healthcare providers -number of breast cancer screening -follow up after breast cancer screening	-Nominal -Ratio -Ratio Nominal	Means, Percentages and Frequencies	quantitative

CHAPTER FOUR
DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION
OF FINDINGS

4.1 Introduction

This chapter outlines the research findings obtained from the study on social factors and the acceptance of breast cancer screening among market women in Nairobi. It gives an analysis on how the social factors awareness, accessibility, perception and attitude influences the acceptance of breast cancer screening among market women in Nairobi. The data was collected using questionnaires on 120 women working in Nairobi city park market. The findings have been presented using frequency distribution tables.

4.2 Questionnaire return rate

A total of 120 questionnaires were administered to a sample of women at the Nairobi City Park Market. All 120 copies (100.0%) of the questionnaires were responded to by the respondents of which 6 were incomplete but could still be used in the analysis because section B questions, that were crucial for the study, were fully answered. The questionnaires were given to the respondent and collected immediately the respondent completed filling the questions, this ensured 100.0% return rate.

4.3 Demographic information about the respondents

This section presents the demographic characteristics of the respondents. The researcher studied the demographic characteristics that could help understand the factors under study. The researcher studied the age of the respondents, the level of education of the respondents and the number of years they have worked in their current working position.

4.3.1 Age of the respondents

The study sought to establish the age of the respondents. This was important because breast cancer is more prevalent among women who are 18 years and above and women aged 30 year and above have a higher risk of getting breast cancer according to CDC report(2010). This is presented in Table 4.1

Table 4.1: Age of Respondents

Age	Frequency	Percentage
18-25	43	35.8
26-30	15	12.5
31-40	45	37.5
40 and above	17	14.2
Total	120	100.0

The analysis indicates that out of 120 women who participated in the study, 43 (35.83%) are aged between 18 to 25 years, 15 (12.5%) are aged between 26 to 30 years, 45 (37.5%) are aged between 31 to 40 and 17 (14.17%) are above 40 years. This shows that all the respondents are at risk of getting breast cancer and therefore they should all accept and be screened for breast cancer.

4.3.2 Level of education

The study sought to establish the level of education because education greatly determines the women's understanding of health issue that affects them. This is presented in Table 4.2 as shown below:

Table 4.2: Level of Education

Level of Education	Frequency	Percentage
Primary	17	14.2
Middle level college	98	81.6
University	5	4.2
Total	120	100.0

The analysis in Table 4.2 indicates that out of 120 women who participated in the study 17 (14.167%) of the women had attained primary level of education, 98 (81.667%) had attained middle level college and only 5 (4.167%) had attained university level of education. This shows that 103 women (85.834%) had the required educational level to be aware of and understand issues related to breast cancer. This group of Women should

be made more aware through breast cancer education and the benefits of breast cancer screening in order to increase the level of acceptance of breast cancer screening.

4.3.3 Work experience

The study sought to determine the respondents work experience to enable the researcher determine the duration the respondents has been working in their current job.

Table 4.3: Work Experience

No of years	Frequency	Percentage
Less than 5years	34	28.3
5-10 years	68	56.7
10 years and above	18	15.0
Total	120	100.0

The analysis in Table 4.3 indicates that out of 120 women, 34 (28.33%) have worked in their current position for less than 5 years, 68 (56.67%) have worked in their current position for between 5 to 10 years and only 18 (15%) have in their current position for more than 10 years. This shows that 86 women, 71.67%, have been in the low income environment for more than five years. Therefore, the government or non-governmental organization should permanently avail breast cancer screening services that are affordable and within reach of many Market women.

4.4 Breast cancer awareness

The study sought to establish the level of breast cancer awareness among the respondents. The study assessed whether the respondents have ever heard of breast cancer. The study also determined the respondent's main sources of information about breast cancer and the availability of any local training programs on breast cancer.

Table 4.4: breast cancer awareness

	Frequency	Percentage
Heard of breast cancer	115	95.8
Never heard of breast cancer	5	4.2

The analysis in Table 4.4 indicates that out of 120 women who participated in the study 95.83% have heard of breast cancer, this shows that a majority of women at least have heard about breast cancer and had the knowledge about its existence.

From the study, 84.17% are not aware of any one method of breast cancer screening including self-breast examination. And 85.0% of women know at least one health facility where breast cancer screening can be done. This show majority of women do not practice self-breast examination which is the simplest method of breast cancer screening that does not cost money. The finding confirmed the study done by Ahuja and Chakrabarti (2010) to determine the level of knowledge regarding breast cancer and to increase awareness about breast cancer screening practice among a group of women in a tertiary care in Mumbai India who found out that the respondents lacked knowledge of vital issues related to breast cancer and the practice of breast self-examination was inadequate.

Table 4.5: Source of information

Source of information	Frequency	Percentage
Social media	97	80.8
School/college	2	1.7
Seminars/conferences	5	4.2
Local community programs	7	5.8
Others	9	7.5

The analysis in Table 4.5 indicate that out of 120 women who participated in the study, 97 (80.83%) have heard about breast cancer through social media (radio, television and internet), 7 (5.83%) have heard through the local community programs, 5 (4.17%) through seminars and conferences and only 2 (1.67%) have heard through school and

college while 9 (7.5%) has been through other means such as friends and personal life experiences. Social media, that is, radio, television and internet plays a major role in creating breast cancer awareness.

Out of 120 women who participated in the study, only 13.33% admitted knowing they exist and 62.5% of those women who admitted knowing they exist said they take place in churches while only 18.75% said they take place in estates and other places such as women groups. 68.75% of women who knew of such programs do attend. This shows that there are very few community programs on breast cancer. The study also shows that most training programs on breast cancer take places in churches and therefore churches play a big role in educating the general public about breast cancer.

4.5 Accessibility to breast cancer screening

The study sought to find out how accessible the respondents were to breast cancer screening services. The study determined the respondents income range, whether they had any insurance cover including NHIF, whether they had been screened for breast cancer before and how much they paid for the service and the mode of transport they use when going to hospital.

Table 4.6: Range of monthly income

Income range	Frequency	Percentage
<Ksh. 10,000	78	65.0
Ksh. 10,000-20,000	36	30.0
Ksh. 21,000-30,000	3	2.5
>30,000	3	2.5

The analysis in Table 4.6 indicate that out of 120 women who participated in the study, 78 (65%) earn less than Ksh. 10,000 and 36 (30%) earn between Ksh. 10,000 to Ksh. 20,000 and only 6 (5%) earn more than Ksh. 20,000 and out of 120 respondents. 67.5% do not have any insurance cover including the NHIF. This shows that majority of market

women in Nairobi cannot afford to go for breast cancer screening and should they happen to develop breast cancer then they may not be able to pay for treatment or management.

The study shows that out of the 120 women who participated in the study, 57.5% of the respondents use public transport while going to hospital, 39.17% walk and only 4% use personal vehicle while travelling to hospital. The women admitted having no problem in travelling to the health centers. This shows that the location of the health centers is within the reach of the market women in Nairobi. The finding of the study is contrary to the study by Lyimo and Tanya (2012) to identify the most important factors related to the uptake of cervical cancer screening among women in a rural district of Tanzania who found out that distance to the facility which provide cancer screening were significantly associated with screening acceptance.

From the study, out of the 120 women who participated in the study, only 30.833% of the respondents have been screened for breast cancer and 81% of them have been screened for free. This shows that market women do not go for breast cancer screening on their own volition and only do so during free cancer screening campaigns.

4.6 Perception and acceptance of breast cancer screening

Out of the 120 respondents, 5.83% of them strongly agreed that breast cancer only affects women aged 40 years and above, none of the respondent agreed, 16.67% were neutral, 60.83% disagreed and 16.67 strongly disagreed as shown in Table 4.7 below.

Table 4.7: Breast cancer occurrence and age of women

Level of agreement	Respondents	Percentage
Strongly agree	7	5.8
Agree	0	0.0
neutral	20	16.7
Disagree	73	60.8
Strongly disagree	20	16.7

From the result, majority of the respondents disagreed on whether breast cancer only affects women aged 40 years and above and therefore they believe that breast cancer can as well develop in women aged below 40 years. From the results, a mean of 4.9130 and a standard deviation of 0.83253 were obtained, this shows that majority of Market women have very positive perception that breast cancer can also affect women below 40 years.

None of the respondents strongly agreed that breast cancer only affect women with a family history of the disease, 28.335 agreed, 16.67 were neutral 44.17% disagreed and 10.83% strongly disagreed as shown in Table 4.8 below.

Table 4.8: Breast cancer effect among women with a family history of the disease

Level of agreement	Respondents	Percentage
Strongly agree	0	0.0
Agree	34	28.3
neutral	20	16.7
Disagree	53	44.2
Strongly disagree	13	10.8

From the results, over 50% of the respondents believe that breast cancer was not only common in women with a family history of the disease but also other families as well. From the result a mean of 4.0870 and a standard deviation of 1.35344 were obtained signifying a positive perception that any woman can develop breast cancer not necessarily those with a history of the disease. The finding of the study is contrary to the study conducted by Katapodi et al, (2009) to describe perceived breast cancer risk, identify the percentage of women with inaccurate risk perception and examine the influence of perceived and objective risk on screening behaviour in a community settings in a metropolitan area on the Western coast of the United States using a multicultural sample of 184 English-speaking women who have never been diagnosed with cancer who found out that family history of breast cancer was a significant predictor of perceived risk and most women at high risk for breast cancer (89%) underestimated their actual risk.

No respondent strongly agreed that breast cancer can only develop in women with formal employment, 16.67% agreed, 5.83 were neutral, 50% disagreed and 27.5% strongly disagreed as shown in Table 4.9 below.

Table 4.9: Breast cancer effect among women with formal employment

Level of agreement	Respondents	Percentage
Strongly agree	0	0.0
Agree	20	16.7
neutral	7	5.8
Disagree	60	50.0
Strongly disagree	33	27.5

From the result, majority of the respondents believe that breast cancer can not only develop in women with formal employment but also those in informal sector. From the above results a mean of 4.5217 and a standard deviation of 1.06173 were obtained signifying majority of market women are positive that breast cancer can develop in women both in formal and informal employment.

16.67% of the respondents strongly agreed that breast cancer treatment was painful, 55.83% agreed, 21.67% were neutral, no respondent disagreed and only 5% strongly disagreed as shown in Table 4.10 below.

Table 4.10: Pain during breast cancer screening

Level of agreement	Respondents	Percentage
Strongly agree	20	16.7
Agree	67	55.8
neutral	26	21.7
Disagree	0	0.0
Strongly disagree	7	5.8

From the result, majority of women, more than 70%, believe that breast cancer screening is painful. From the result, a mean of 4.1522 and a standard deviation of 1.42196 were obtained signifying majority of market women believed that breast cancer treatment is painful.

No respondent strongly agreed that a woman will die within a short period of time once diagnosed with breast cancer, 16.67% agreed, 10.83 were neutral, 66.67% disagreed and only 5% strongly disagreed as shown in Table 4.11 below.

Table 4.11: Breast cancer survival rate

Level of agreement	Respondents	Percentage
Strongly agree	0	0.0
Agree	20	16.7
neutral	13	10.8
Disagree	80	66.7
Strongly disagree	7	5.8

From the results above, majority of the respondents, more than 70%, believe that a woman will not die within a short period of time once diagnosed with breast cancer. A mean of 3.2391 and a standard deviation of 1.76567 were obtained from the results signifying a positive agreement that a woman can live longer with breast cancer. The finding of the study confirms the study done by Barbara et al, (2005) that compared perception of cancer fatalism among African-American patients and their providers who found that patients indicated low perception of cancer fatalism, but providers believed patients were highly fatalistic.

Table 4.12: Mean and standard deviation of perception and the acceptance of breast cancer screening

	Mean	Standard deviation
A. Breast cancer only affects old women aged 40 years and above	4.9	.8
B. Breast cancer is more common in women with a positive family history of breast cancer	4.1	1.4
C. Breast cancer can only develops in women with formal employment	4.5	1.1
D. Breast cancer treatment is painful and expensive	4.2	1.4
E. A woman will die within a short period of time once diagnosed with breast cancer	3.2	1.8

4.7 Attitude and acceptance of breast cancer screening

All 120 respondents would go to see a doctor within one week upon noticing the breast lump. When asked whether they would allow a male doctor to examine their breast, 113 (94.167%) said yes while only 7 (5.833%) said no. This shows that all respondents had a positive attitude towards breast cancer screening and would therefore seek for treatment as soon as they notice any symptoms and majority of the women a positive about being examined by the male doctor.

No respondent indicated that they strongly agree that breast cancer screening was a stress free process and takes a short time, 44.17% of the respondents agreed, 22.5% were neutral, 33.33% of the respondents disagreed and no respondent strongly disagreed as shown in Table 4.13 below.

Table 4.13: Level of agreement with the screening process

Level of agreement	Respondents	Percentage
Strongly agree	0	0.0
Agree	53	44.2
neutral	27	22.5
Disagree	40	33.3
Strongly disagree	0	0.0

The above results show that majority of the respondents agree that breast cancer screening is stress free process and takes a short time. A mean of 3.1957 and a standard deviation of 1.53242 were obtained from the results as shown in Table 4.13 indicating positive attitude towards breast cancer screening process and the duration for screening.

None of the respondent strongly agreed that they will get good treatment if they go for breast cancer screening, 77.5% agreed, 22.5% were neutral and none of the respondents neither disagreed nor strongly disagreed as shown in Table 4.14 below.

Table 4.14: Patient treatment

Level of Agreement	Respondent	Percentage
Strongly Agree	0	0.0
Disagree	93	77.5
Neutral	27	22.5
Disagree	0	0.0
Strongly disagree	0	0.0

From the above results, a mean of 3.1522 and a standard deviation of 1.53242 were obtained showing that the majority of market women were positive about the treatment they will receive at the health centers when they go for breast cancer screening for the first time.

22.5% strongly agreed that breast cancer can be cured if diagnosis is done early, 61.67% agree, 10% were neutral and only 5.83% disagree and no respondent strongly disagreed as shown in Table 4.15 below.

Table 4.15: Early breast cancer detection and treatment

Level of Agreement	Respondent	Percentage
Strongly agree	27	22.5
Agree	74	61.7
Neutral	12	10.0
Disagree	7	5.8
Strongly Disagree	0	0.0

From the result, a mean of 3.9130 and a standard deviation of 1.40114 were obtained as shown in Table 4.15, this shows that majority of market women believe that breast cancer can be cured if detected early.

Only 5% of the respondents strongly agreed that breast cancer screening was not important, 11.67% agreed, no respondent gave a neutral response, 55.83 disagreed and 27.5% strongly disagreed as shown in the Table 4.16 below.

Table 4.16: Importance of breast cancer screening

Level of Agreement	Respondent	Percentage
Strongly agree	6	5.0
Agree	14	11.7
Neutral	0	0.0
Disagree	67	55.8
Strongly disagree	33	27.5

From the above result, a mean of 3.5435 and standard deviation of 1.43022 were obtained as shown in table 4.16, this shows that majority of Market women believe that breast cancer screening is very necessary. The finding of the study confirms the study by

Rosemary et al, (2011) that evaluated the information such as socio-demographic data, level of knowledge of breast cancer, the attitude of the participants towards BSE and practice of BSE at the University Teaching Hospital who found that the attitude of the respondents to breast self-examination was good, most of the respondents thought breast self-examination was necessary.

Table 4.17: Mean and standard deviation of Attitude and the acceptance of breast cancer screening

	Mean	Standard deviation
Breast cancer screening is a stress free process and takes a short time	3.2	1.5
You will be treated well if you go for breast cancer screening for the first time	3.2	1.6
Breast cancer can be cured once it has been detected early	3.9	1.4
It is a waste of money to go for breast cancer screening	3.5	1.4

From table 4.17, the study shows that majority of Market women have a positive attitude towards cancer screening process, the treatment they will receive at the health center when they go for screening for the first time and most women believe that breast cancer can be cured when detected early. Majority of women also believe that breast cancer screening was important and not just a waste of money.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the findings in chapter four, draws conclusion and also sets out the conclusion of the study. In Section 5.2, the findings of the study are summarized; Section 5.3 outline the conclusion from the finding and Section 5.4 provides recommendation. A suggestion for further research is provided at the end of the chapter in Section 5.5

5.2 Summary of the findings

The study sought to establish the influence of breast cancer awareness, accessibility to breast cancer screening services, perception and attitude towards breast cancer on the acceptance of breast cancer screening among market women in Nairobi. From the study all the 120 women sampled were aged 18 years and above. Majority of these women, 81.667%, had attained middle level college qualification and therefore were in a position to understand breast cancer related issues. It also emerged that 71.60% of the women had worked in that position for over five years.

The study revealed that most of the women have heard of breast cancer and therefore had the knowledge about its existence while 84.17% of the women were not aware of any breast cancer screening method meaning they had never been screened before. Despite the fact that majority of them knew at least one health facility where breast cancer screening was done no one had gone to the facility for screening. The study further revealed that social media plays a very important role in creating awareness about breast cancer because majority of the women admitted to have heard about breast cancer on the radio, television as well as the internet. Local community training programs on breast cancer were also found to have a very significant role in creating awareness even though most of them were found to be taking place in churches.

From the study, majority of the women had very limited accessibility to breast cancer screening services due to their low income and lack of insurance cover. It emerged that the location of the health facilities that offered breast cancer screening services were within reach of most women and majority of the women used public transport to the facility while some could even walk. From the study, only 30.833% of the women who participated in the study had been screened for breast cancer and 81.0% of the respondents were screened for free during free cancer screening campaigns. This therefore calls for government intervention in reducing the cost of breast cancer screening through subsidies to enable more women to be screened.

From the study, majority of the respondents believe that they are all at risk of getting breast cancer irrespective of one's age and that the disease can also affect any woman with or without a family history of the disease. The study further revealed that majority of the Market women believe that they have equal risk of getting breast cancer like those women in formal employment. This is an indication of the market women understanding that breast cancer poses a big risk to them as well. It also emerged that majority of the women were not taking up breast cancer screening because they believed it was a very painful exercise and therefore the reluctance in the acceptance of breast cancer screening even though majority agreed that the disease had higher survival rate and therefore one can live longer once diagnosed with the disease.

The study further revealed that most women believe that breast cancer screening is a very stressful process even though they think they will get good treatment if they go for breast cancer screening. Majority of the women also believe that breast cancer screening is very necessary because the disease can be treated and cured if diagnosis is done early. The study also revealed that Market women were aware of the vital information about breast cancer and the importance of breast cancer screening but could not access the screening services due to lack of enough income and insurance cover to cater for the services. It also emerged that majority of the market women had positive perception and attitude towards breast cancer but had a negative perception towards breast cancer screening process and this can easily be overcome by breast cancer screening process awareness

campaign mainly through the social media as well other means like local community training programs on breast cancer screening process.

5.3 Conclusions of the study

Although most women have heard about breast cancer before, they lack vital information such as, the benefits for breast cancer screening and types of screening methods. Social media (radio and television) plays a big role in creating awareness among the market women about breast cancer and despite the fact that local community training program on breast cancer play a big role in educating women about the disease, there are very few of such programs in the community. The study therefore concludes that breast cancer awareness positively influences the acceptance of breast cancer screening. This affirms the willingness of the market women to go for breast cancer screening.

The study concludes that distance to the health facility does not influence the acceptance of breast cancer screening but further concludes that accessibility in terms of income and health care insurance cover such as NHIF positively influences the acceptance of breast cancer screening. The study further concludes that the variables perception and attitude towards breast cancer positively influences the acceptance of breast cancer screening and a positive increase in any one of them will positively affect the acceptance of breast cancer screening.

5.4 Recommendations of the study

In regard to the findings and basing on the aim of the study on social factors and the acceptance of breast cancer screening, the study recommends the following:

1. The government and non-governmental organization should use the social media (radio and television) as the main channel to run the campaigns on breast cancer screening as well as other campaigns on other health issues affecting the general public.

2. Relevant ministries and department in conjunction with non-governmental organization should ensure that there are community training programs on breast cancer as well as other types of cancer in villages in order to raise the level of awareness because such program play a big role in educating the society by the fact that they take place at the door step.
3. Policy should be put in place that makes it compulsory for women in informal sector to have a health cover through the national health insurance fund; this will increase their level of accessibility to health services.
4. The government should frequently run free cancer screening campaign at least once every month and at the same time subsidize the cost of cancer screening to at least Ksh. 300. This will make it possible for the women in low income area afford the service that is beyond the reach of many.

5.5 Recommendations for further Research

1. This research has focused only on women working at the Nairobi City Park Market, other similar studies can also be done on women working in other market in Nairobi or outside Nairobi as well as women working in other types of informal settings to find out if the results differ.
2. The study suggests that similar study can also be done on women working in the formal sector. This would determine whether these factors have similar influence on the acceptance of breast cancer screening on the two different sets of women.
3. Further similar study could also be done on men working in both formal and informal sector to investigate the influence of social factors on the acceptance of screening on cancers that affect men such as prostate cancer.
4. The study further suggest a study to be done to establish whether cancer screening leads to change in one's lifestyle, that is, embracing cancer prevention measures.

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APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

RE: REQUEST FOR YOUR PARTICIPATION IN M.A. RESEARCH PROJECT

I Charles Omillo Ojiambo am a student at the University of Nairobi pursuing a Master of Arts degree in Project Planning and Management. As part of my coursework, I am required to carry out and submit a research project report on the influence of social factors on the uptake of breast cancer screening; a case of women at the Nairobi City Park Market.

To achieve this objective, I kindly request for your assistance in completing the attached copy of the questionnaire. I assure you the information you provide is purely for academic purposes and will be treated with utmost confidentiality. Should the finding of this Research Project be of interest to you or your organization, a copy would be available at the University of Nairobi Library.

Yours faithfully,

Charles Ojiambo

**APPENDIX II: QUESTIONNAIRE FOR ASSESSING THE INFLUENCE
OF SOCIAL FACTORS ON THE ACCEPTANCE OF BREAST CANCER
SCREENING AMONG MARKET WOMEN IN NAIROBI**

The purpose of this questionnaire is to assess the influence of social factors; breast cancer awareness, accessibility to cancer screening services, perception towards breast cancer and attitude towards breast cancer on the uptake of breast cancer screening among women at the Nairobi City Park Market.

Your assistance in providing this information, which will be kept confidential, will be appreciated. It is part of a University of Nairobi postgraduate research project.

Questionnaire no.:

Date:

Instructions

Please tick (✓) the box that matches your answer or fill the space provide

PART A: General Information

1. Age

- a. 18-25 ()
- b. 26-30 ()
- c. 31- 40 ()
- d. 40 and above ()

2. Academic qualification

- a. Certificate ()
- b. Diploma ()
- c. Undergraduate degree ()
- d. Others (please specify)

3. How long have you been working in your present job?

- a. Less than 5 years ()
- b. 6 to 10 years ()
- c. Over 11 years ()

PART B:

This part contains four sections relating to the influence of social factors; breast cancer awareness, accessibility to cancer screening services, perception towards breast cancer and attitude towards breast cancer on the uptake of breast cancer screening among women at the Nairobi City Park Market.

SECTION 1: Influence of breast cancer awareness on the uptake of breast cancer screening

4. Have you ever heard about breast cancer?

- a. Yes (please answer question 5) ()
- b. No (please skip question 5 and go directly to question 6) ()

5. Where did you hear about it?

- a. Social media (Television, internet, Newspaper or Radio) ()
- b. School/college ()
- c. Seminars and Conferences ()
- d. Local community Programs ()
- e. Other (please specify)
-

6. Are there any training programs on breast cancer that you know?

- a. Yes () (please answer question 7 and 8)
- b. No () (please skip question 7 and 8, go directly to question 9)

7. Where are the training programs held?

- a. At the Market place ()
- b. Church ()
- c. Estate ()

d. Other (please specify)
.....

8. Do you attend the training programs?

a. Yes ()

b. No ()

9. Name any two methods of breast cancer screening,

.....
.....

10. Name the Hospitals or other health centers where breast cancer screening is done,

.....
.....
.....

SECTION 2: Influence of accessibility to cancer screening services on the uptake of breast cancer screening

11. What is your income per month?

a. Less than Ksh. 10,000 ()

b. Ksh. 10,000-20,000 ()

c. Ksh. 21,000-30,000 ()

d. Ksh. 31,000 and above ()

12. Do you have any kind of health care cover, including health insurance such as NHIF?

a. Yes ()

b. No ()

13. When was the last time you visited hospital for normal check-up?

.....

14. How do you normally travel to go to Hospital?

.....

15. Have you ever been screened for breast cancer?

a. Yes () (answer question 16)

b. No () (skip question 16 and go directly to question 17)

16. How much did you pay for breast cancer screening?

.....

17. How frequent do you go for breast cancer screening?

- a. Monthly ()
- b. Twice/ year ()
- c. Once/ year ()
- d. Other (specify)
- e. I don't ()

18. What is your experience in accessing breast cancer screening services?

.....

.....

.....

SECTION 3: Influence of perception towards breast cancer on the uptake of breast cancer screening.

19. Using the Likert 1-5 scale, with

- 1. = Strongly agree
- 2. = Agree
- 3. = Neutral
- 4. = Disagree
- 5. = Strongly disagree

How do you agree with the statements below? Please tick (✓) in the spaces provided for all the questions as appropriate

	1	2	3	4	5
A. Breast cancer only affects old women aged 40 years and above					
B. Breast cancer is more common in women with a positive family history of breast cancer					
C. Breast cancer can only develops in women with formal employment					
D. Breast cancer treatment is painful					

SECTION 4: Influence of attitude towards breast cancer on the acceptance of breast cancer screening

20. If you develop breast cancer how first will you go to see a doctor?

- a. Within one Week ()
- b. Within one Month ()
- c. Within one to three Months ()
- d. Not bother at all ()

21. Will you allow a male doctor to examine your breast?

- a. Yes ()
- b. No ()

22. Using the Likert 1-5 scale, with

- 1. = Strongly agree
- 2. = Agree
- 3. = Neutral
- 4. = Disagree
- 5. = Strongly disagree

How do you agree with the statements below? Please tick (✓) once in the spaces provided for all the questions as appropriate.

	1	2	3	4	5
A. Breast cancer screening is a stress free process					
B. You will be treated well if you go for breast cancer screening for the first time					
C. Breast cancer can be cured once it has been detected early					
D. It is a waste of money to go for breast cancer screening					