KNOWLEDGE, ATTITUDE AND PRACTICES OF WOMEN AND MEN REGARDING BREAST CANCER AND SCREENING AT ANTENATAL CLINIC, MULAGO HOSPITAL

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AN UNDERGRADUATE RESEARCH REPORT SUBMITTED TO THE SCHOOL OF NURSING IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF NURSING SCIENCE DEGREE OF INTERNATIONAL HEALTH SCIENCES UNIVERSITY

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DECLARATION

I, AKur Joyce Gertrude declare that the work presented in this research report is mine, done through my effort with the help of my supervisor in partial fulfillment for the award of Bachelor's Degree in Nursing of the International Health Sciences University (IHSU). To the best of my knowledge it has never been submitted anywhere in any institution for academic award or its equivalent.

Signed…… Date ……

AKUR JOYCE GERTRUDE

(Student)

APPROVAL

The research report has been done under supervision of Mrs. Situma Elizabeth and has therefore been approved.

SITUMA ELIZABETH

Signature……

Date …..…….

DEDICATION

This research report is dedicated to my dear husband Mr. Okello P. for his support, and my children for enduring the time I have been at school.

ACKNOWLEDGEMENT

I acknowledge with deep appreciation the Almighty God for having enabled me to carry out this research, for the protection, love, wisdom and for having been my rock that has enabled me to successfully finish this course.

I take this opportunity to thank my husband Mr. Okello P. for the assistance rendered to my efforts. May God reward him abundantly.

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Special thanks to my supervisor Ms Situma Elizabeth for her guidance, encouragement, supervision and being approachable despite her tight schedule. May God crown her goodness with much more graces and blessings.

Personal and professional thanks to the director and administration of Mulago National Referral Hospital for allowing me to carry out my research in their hospital at the Antenatal Clinic.

Am conscious of the enormous support, time and encouragement that was generously rendered to me by my respondents. Am grateful to my colleagues that have been so dear to me. May the Almighty God grant them wonderous blessings.

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OPERATIONAL DEFINITIONS

The following terms are used throughout this study and defined as follows:

Mammogram: Is an X-ray of the breast.

Attitude: The belief and feeling of the respondents about screening for breast cancer screening.

Breast Cancer: Cancer that forms in tissues of the breast, usually the tubes that carry milk to the nipple and glands that make milk. It occurs in both men and women.

Breast Self-Exam (BSE): An exam by a woman of her breasts to check for lumps and other changes.

Cancer: The abnormal, uncontrolled multiplication of cells, which, if left untreated, can ultimately cause death.

Clinical Breast Exam (CBE): A physical exam of the breast performed by a healthcare provider to check for lumps and other changes.

Early Detection: The use of screening tests to detect cancers at early stages to provide better opportunities for patients to obtain more effective treatment with fewer side effects.

Knowledge: The understanding the respondents have about carcinoma of the breast with respects to symptoms, risk factors, prevention and treatment, screening method.

Malignant: Term used to indicate a cancerous state.

Mammography: The use of film or a computer to create a picture of the breast.

Mastectomy: Surgical removal of the breast.

Practice: The action taken by individual respondents to go for screening.

Secondary Prevention: Preventive measures that lead to early diagnosis and prompt treatment of a disease or injury to limit disability and prevent more severe pathogenesis.

Tumor: Also known as a lump or growth, it is a mass of tissue in the body formed by a buildup of extra cells.

LIST OF ABBREVIATIONS

ACS	American Cancer Society
BSE	Breast Self Examination
CBE	Clinical Breast Examination
CDC	Centers for Disease Control and Prevention
IHSU	International Health Sciences University
KAP	Knowledge Attitude and Practice
MHRRC	Mulago Hospital Research Review Committee
MoH	Ministry of Health
SPSS	Statistical Package for the Social Sciences
TV	Television
UK	United Kingdom
USA	United State of America
WHO	World Health Organization

ABSTRACT

General objective: The overall aim of the study was to assess the knowledge, attitude and practices of women and men regarding breast cancer and screening at Antenatal Clinic, Mulago Hospital.

Methodology: The study was a cross-sectional design. One hundred and forty five (145) respondents were included by means of simple random sampling and a researcher administered questionnaire was used to collect information from the respondents for 9 days.

Results: Most (44.8%) of respondents identified positive family history as a potential risk factor for developing breast cancer, 65.5% stated that lump in the breast was a sign/symptom related to breast cancer, Clinical Breast Examination by a doctor as indicated by (75.9%), 96.6% did not know the age at which Breast Self Examination should be started, 98.6% had no idea on how to perform Breast Self Examination, 92.4%) of the respondents did not know the frequency of practicing Breast Self Examination, 94.5% had no idea on the frequency of Clinical Breast Examination and 97.2% of the respondents did not have any idea on the recommended age for starting mammography examination. Majority (88.3%) would consult the doctor if they developed breast cancer, 44.8% would see a doctor within one week if they developed breast lump, 51.7% of the respondents were unsure of the risk for developing breast cancer, 71.7% believed that they did not have any risk factors for breast cancer, 51.7% believed that breast cancer was not curable and 55.9% of the respondents supported the statement that long time survival is rare due to breast cancer. Majority (96.6%) had never practiced Breast Self Examination, 97.2% had never undergone Clinical Breast Examination and all respondents (100%) had never undergone mammography examination.

Conclusion:

Respondents in this study lacked adequate knowledge, had poor attitude and inappropriate practice about breast cancer and screening. The main barrier to breast cancer screening was lack of information, having no breast problem, not having visible signs and symptoms of breast cancer and associated cost among others.

Recommendation: Awareness campaigns and subsidizing the costs for clinical breast examination and mammography by Ministry of Health would improve survival from breast cancer. Involving all people in this awareness will greatly improve the current situation.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Breast cancer is a major health burden globally. Breast cancer occurs in both men and women, although male breast cancer is rare. It is the most common cause of cancer deaths especially among women but with recognizable percentages in men in both high resource and low resource countries (Bray, MacCarron and Parkin, 2004). Recent global cancer statistics indicate that breast cancer incidence is rising at a faster rate in populations of developing countries (World Cancer Report, 2010).

Breast cancer is the most common cancer worldwide contributing more than 25% of the total number of new cases diagnosed - nearly 1.7 million new cases in 2012 (Ferlay et al, 2012). In 2008, breast cancer caused 458,503 deaths worldwide (13.7% of cancer deaths in women and 6.0% of all cancer deaths for men), World Cancer Report (2008). In 2013, breast cancer continued to be the most common cancer diagnosed in Canadian women with an estimated 23,800 new cases and 200 men in Canada were diagnosed with breast cancer, representing 26 percent of all newly diagnosed cancers in women, making breast cancer the most commonly diagnosed cancer in Canadian women (Canadian Cancer Society, 2013).

The incidence of breast cancer in Africa is on the rise. Nonetheless, the true incidence of breast cancer in many African countries is unknown as there is gross under-reporting. Some figures quoted in the literature are hospital-based, which represent a small fraction of women and men dying from breast cancer, as most of them cannot access hospital care and die at home (Centers

for Disease Control and Prevention (CDC, 2010). In Africa, an estimated 92,600 new cases of breast cancer were diagnosed with a corresponding 50,000 deaths in 2008 (Jemal et al, 2012).

Notably, breast cancer has now become the most commonly diagnosed cancer in women in several Sub-Saharan African countries (Mackay, Jemal, Lee and Parkin, 2006). Breast cancer is a leading cause of death among women in West Africa with an approximately 30,000 new cases in 2008 and more than 16,000 deaths (Ferlay et al, 2008). In Eastern Africa, approximately 18,000 new cases and a corresponding 10,000 deaths were reported in 2008 (Ferlay et al, 2008).

The incidence of breast cancer in Uganda was very high. Though there was no systematic universal cancer tracking program. However, it was easily predictable that the incidence of breast cancer was growing at a faster rate and that the overall situation was not promising. For instance the incidence had doubled from 11:100,000 in 1961 to 22:100,000 in 1995 and was still rising (The Uganda Breast Cancer Working Group, 2005). Unfortunately the cases were often seen in late stages thus the outcome of treatment was inevitably unsatisfactory, and in Mulago Hospital, over 90% of cancer patients presented with advanced stages of the disease (Hospice Africa Uganda, 2006-2011). Studies also indicate that Ugandan cancer sufferers don't see cancer as a priority, as many don't see the urgency of their condition, particularly as breast cancer is not painful in the early stages. Because of ignorance or lack of awareness, people who get breast cancer are often diagnosed too late and die of the disease. This was because there was little awareness about how cancer is diagnosed and treated. The present day knowledge of this disease does not have any effective primary prevention. It was thus imperative that efforts should be made to detect the disease in its early stages. Early diagnosis could be successfully achieved by mass screening either by Mammography, Clinical Breast Examination (CBE) and Self breast

examination (SBE) or by the combination of three. Therefore, the study aimed to collect information concerning knowledge, attitude and practices towards breast cancer and screening.

1.2 Problem Statement

The rate of breast cancer was on the increase in Mulago Hospital and Uganda at large (Corey, 2010). The situation of breast cancer at the Uganda Cancer Institute in Mulago Hospital was a miserable one where 200 women were treated and five to six new cases of male breast cancer registered every year, according to records from the radiotherapy department at the Mulago National Referral Hospital in Kampala (2012). Unfortunately, in most of the cases (over 90% of patients) came for treatment in an advanced stage when little or no benefit could be derived from any sorts of therapy. This presentation of breast cancer at the advanced stage may stem from lack of knowledge and proper attitude, as well as inadequacy of practices of women and men regarding breast cancer screening and prevention.

The continued low screening and presentation of breast cancer patients in advanced stage is more likely to lead to severe distress to the patients and their families because of the high frequency of the disease, and reduced survival rate. However, early diagnosis could be successfully achieved by mass screening either by Mammography, Clinical Breast Examination (CBE) and Self breast examination (SBE) or by the combination of three (WHO, 2005). The Ministry of Health (MoH) through the mass media and health facilities promotes a “Be Breast Aware” campaign that encourages women above 25 years to go for CBE and annual mammograms, as well as teaching them how to conduct breast self-examinations (Kiguli et al, 2010). However, with such efforts, the struggle is far from over, as a limited population practice breast cancer screening; thus there

was need to determine knowledge, attitude and practices of women and men regarding breast cancer and screening at Antenatal Clinic (ANC), Mulago Hospital.

1.3 General Objective

The overall aim of the study was to assess the knowledge, attitude and practices of women and men regarding breast cancer and screening at ANC, Mulago Hospital.

1.4 Specific Objectives

This study sought:

1. To establish the knowledge of women and men regarding breast cancer and screening at ANC, Mulago Hospital.
2. To determine the attitude of women and men towards breast cancer and screening at ANC, Mulago Hospital.
3. To find out the practices of women and men towards breast cancer screening at ANC, Mulago Hospital.

1.5 Research Questions

1. What knowledge do women and men have regarding breast cancer and screening at ANC, Mulago Hospital?
2. What attitude do women and men have towards breast cancer and screening at ANC, Mulago Hospital?
3. What are the practices of women and men regarding breast cancer screening at ANC, Mulago Hospital?

1.6 Justification of the Study

Cancer of the breast is a preventable disease; its prevention, among other ways, is through early detection of premalignant stages of the disease and treatment. In recent years screening tests for breast precancerous and cancerous lesions using mammograms, clinical breast examinations and especially self-breast examination has been a suitable low-cost and a feasible alternative modality for control of breast cancer in resource poor setting. Detection of the premalignant lesions requires knowledge on the disease so that people are aware and hence have positive attitude towards practice of screening for premalignant breast lesions. Knowledge of the disease is important, so that people are aware and through motivation they can have positive attitude towards screening for premalignant breast lesions.

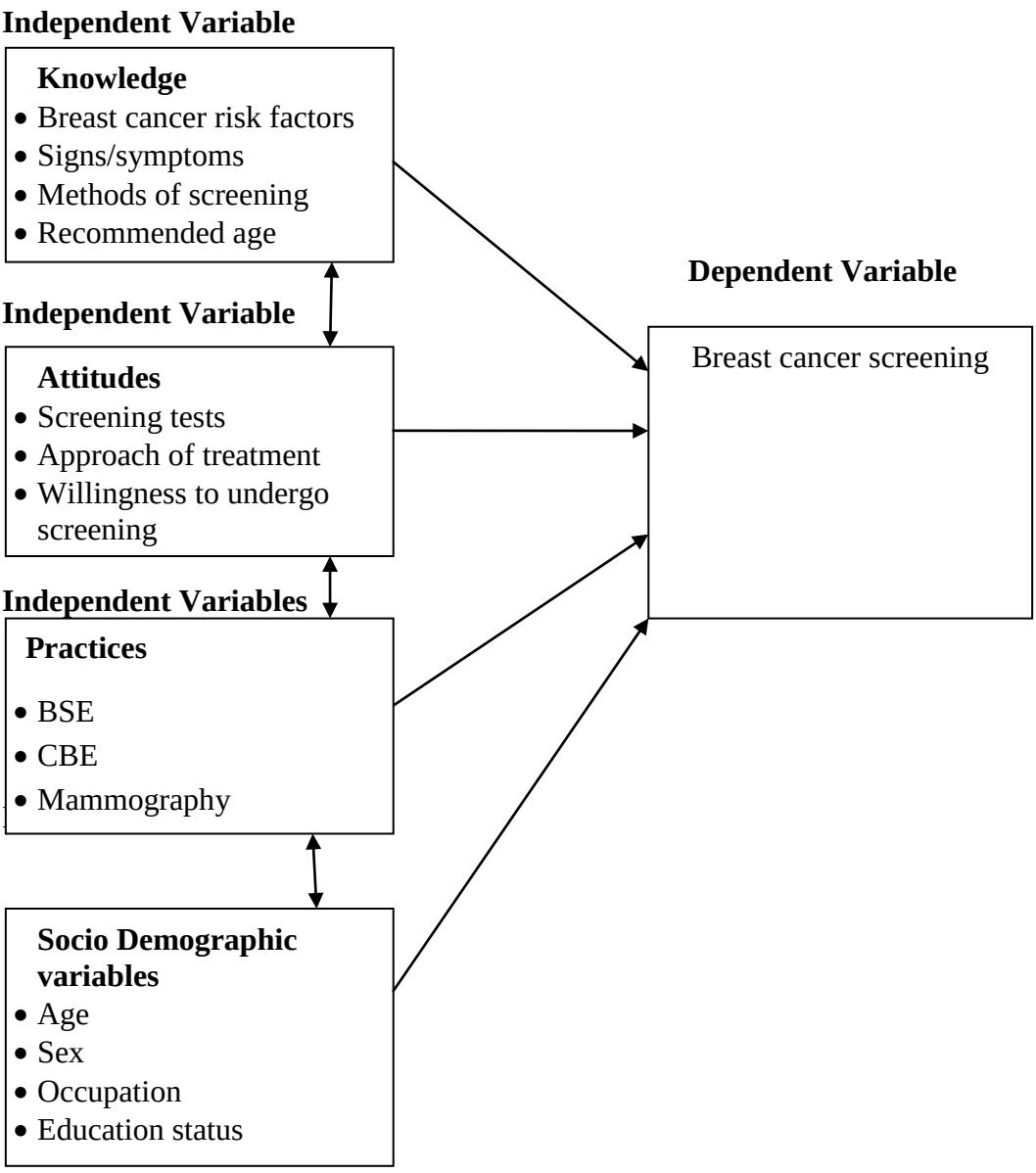
Not much was known about Ugandan women and men's knowledge, attitude and practice towards breast cancer and screening. This study aimed at looking on how knowledgeable these women and men were, their attitude and practices on screening for breast cancer.

The study would serve as a springboard or basis for future researchers, especially those which will delve on topics regarding the improvement of breast cancer awareness programs in our local communities, as well as on the dissemination of information to the grass-root communities.

Information obtained from this study would alert authorities so that proper measures can be taken to save the lives of Ugandan women and men by educating them and provide screening services in many places. At the end of the study education would be given to study respondents with poor and no knowledge and particularly the importance of screening would be emphasized.
Therefore, this study intended to assess the knowledge, attitude and practices of women and men regarding breast cancer and screening at ANC, Mulago Hospital.

1.7 Conceptual Framework

Figure 1: Conceptual Framework of Variables



Based on Figure 1, there are four main considerations that lead to either adequate or poor/non breast cancer screening practices. These include knowledge, attitude and personal characteristics that either independently or interact with one another to influence breast cancer screening practices. Knowledge aspects include risk factors, signs/symptoms, methods of diagnosis, recommended age. Attitude aspects include, beliefs in screening tests, approach of treatment and

willingness to undergo screening. Personal characteristics include, age, sex, occupation and education status.

Therefore, based on the framework, women and men will only be able to adopt breast cancer screening if they have adequate knowledge on breast cancer and screening and if they perceive themselves at risk of breast cancer which in the end will foster appropriate breast cancer screening practices. However, use of particular screening services is also moderated by personal characteristics like age and ones financial ability to pay for the services when required to among others.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter concerned with looking at literature related to knowledge, attitude and practice on breast cancer and screening among women and men. This chapter was organized under different sub headings that included; knowledge, attitude and practice on breast cancer and screening.

2.2 Knowledge on Breast Cancer and Screening

In a study by Kendra (2011) among college women in the University of Alabama in the United States (U.S), results showed that, 80% were aware that breast cancer risk increases with age. However, approximately 48% of respondents correctly believed that BSE should be performed once per month. A comparable 45% did not know that looking at one's breasts in the mirror is an important aspect of properly conducting breast self-examination. Only 35% of participants were aware that nipple discharge is abnormal, and only 28% correctly stated that that BSE should not be conducted during the menstrual cycle. And although 44% of the women were aware of current mammography recommendations, a significant percentage (21%) were not aware of current recommendations regarding mammography screening.

Yeliz et al. (2011) carried out a survey to investigate the knowledge, and attitudes regarding risk factors for breast cancer as well as screening such as breast self-examination, clinical breast examination and mammography among different groups of female health professionals from Turkey. In this cross-sectional study, 444 female health professionals in various health centers located in Çorum Province, Turkey, were involved. The rate of feeling under risk regarding

breast cancer among female health personnel was 31.3%. The majority (98.4 %) perceived breast self-examination as a beneficial method for the early detection of breast cancer.

Dundar (2006) in a study about "The knowledge and attitude of breast self examination and mammography in a group of women in a rural area in western Turkey" found that majority (76.6%) had heard about breast cancer but only 56.1% of them had sufficient knowledge about breast cancer. Television and radio programs were identified as the main source (39.3%) for information. Most of the respondents (72.1%) had knowledge about Breast self Examination. Another study was conducted by Alam (2006) in Riyadh to assess knowledge of breast cancer and sources of information. He found that knowledge on breast self examination was high. 82% knew about BSE and 61% knew about mammography. Knowledge on breast cancer risk factors was moderate.

Grunfeld et al (2004) conducted a survey on 1830 general female population of UK to elicit knowledge and believe about breast cancer. In the study it was found that women had limited knowledge on risk factors and breast cancer related symptoms. Only 23% correctly indicated that 1 in 10 have a chance to developed breast cancer. Less than one third recognized the role of advancing age as a potential risk factor. More than 70% of the sample identified that painless breast lump, lump under armpit, nipple discharge are potential symptoms.

Pohls et al (2005) conducted a study on "Awareness of breast cancer incidence and risk factors among healthy women" in Dusseldorf, Germany and found that 78.8% were well aware of breast cancer in general terms. Most of the women (94.9%) considered that former history of breast cancer is a risk factor. Interestingly 37.1% considered breast feeding, 32.0% considered age at menopause and 23.7% considered childlessness as a potential risk factors. Two -thirds of the

respondents estimated their personal risk of developing breast cancer was low to average. Gynecologists were the main source of information (59.9%) on breast cancer.

In a study entitled "Breast cancer risk factors knowledge among nurses in teaching hospitals of Karachi, Pakistan: a cross sectional study" conducted by Ahmed, Mahmud, Hatcher and Khan (2006) found that 35% had good knowledge, 40% had fair knowledge while 25% had poor knowledge of breast cancer risk factors. Majority (99%) of the nurses could identify that breast cancer is a non communicable disease and 96% answered that breast feeding is not the cause of developing breast cancer. Majority agreed that evil spirit had nothing to do with breast cancer. However, only 23% nurses knew that overweight increase the risk of breast cancer.

Nasiru and Olumuyiwa (2009) in a study on knowledge of breast cancer risk factors, beliefs about treatment and practice of screening methods among 207 female doctors, nurses and other healthcare professionals working in a university teaching hospital in Lagos, Nigeria showed that 14% had excellent knowledge of risk factors, 3% possessed very good knowledge, 45% had good knowledge while the remaining 37% had poor knowledge of risk factors assessed. Fifty-six percent among doctors had excellent knowledge and only 13% were considered as having poor knowledge. In contrast, 43% among nurses possessed poor knowledge and only 2(1%) had excellent knowledge. One hundred and eighty-two participants (89%) identified increasing age as a risk factor while 169 (82%) recognized current use of oral contraceptive pills as breast cancer risk factor. Other risk factors were recognized by less than three-quarter of participants. Least recognized risk factors were Nulliparity and advanced age at first childbirth. Two hundred and five respondents (99%) were aware of BSE. However, a lesser proportion (85%) was familiar with CBE. One hundred and eighty-eight respondents (91%) were aware of mammography as a screening method for breast cancer.

Another cross-sectional study was conducted among one thousand community-dwelling women from a semi-urban neighborhood in Nigeria by Okobia, Bunker, Okonofua and Usifo (2006) to elicit knowledge, attitude and practices towards breast cancer. The Study result showed poor knowledge on breast cancer. Mean knowledge score was 42.3% and only 214 participants (21.4%) knew that breast cancer present commonly as a painless breast lump. In response to questions about etiology of breast cancer, 40% believed that evil spirit causes breast cancer and 259 (25.9%) indicated that breast cancer result from an infection. In terms of methods of diagnosis 432(43.2%) were able to answer correctly identified that BSE is a method of diagnosis.

Oluwatosin and Oladepo (2006) conducted a study on rural women of Ibadan, Nigeria and found that 73.7% of the respondents claimed that they did not know any warning signs of breast cancer. Only 1.9% identified that painless lump could be a warning sign. Majority (90.7%) of the respondents did not know anything about treatment of breast cancer. More than half of the respondents (55.2%) however agreed that early detection and effective treatment can prevent death. Moreover, only 6.4% identified that BSE while 1.2% identified Clinical breast examination and no one could identify that mammography is an early detection measure.

Nergiz et al. (2011) conducted a study on knowledge, attitude, and beliefs women attending mammography units have regarding breast cancer and early diagnosis. A total of 333 women visiting second and third stage mammography units for a mammography, and 1018 women visiting first stage mammography units at Cancer Surveying and Training Centres were included. The rate of obtaining information about early diagnosis in breast cancer (88.6%), information about breast self-examination (87.6%), were higher in the group of women attending first stage mammography units in comparison to women attending other mammography units. The

knowledge score (71.8+18.8) of women attending first stage mammography units regarding breast cancer and early diagnosis was higher in comparison to women attending other mammography units.

In a study entitled "Current knowledge, attitudes and practices of women on breast cancer and mammography at Mulago Hospital, Uganda:" conducted by Kiguli et al in 2010 showed that majority of the women were informed about BSE as well as CBE, but little about mammography. This study also showed that majority of the women did not know about risk factors for breast cancer. This study also showed that majority of the women did not know the age range when mammography should be done nor did they know its potential in detecting early breast cancer. Regarding breast ultrasound, majority of the women thought that it was a potential risk for future breast cancer.

2.3 Attitude towards Breast Cancer and Screening

In the study on breast cancer beliefs and screening practices among Asian-American women, Lee-Lin et al. (2007) found this group to have negative attitudes towards breast cancer screening-generalized distrust of others, fear of pain or diagnosis, and disbelief in the efficacy of screening tests. Jahan, Al-Saiqul and Abdelgadir (2006) conducted a cross sectional study on 300 Saudi female in Qassim region of Saudi Arabia. They found that 69% of the women had never heard of BSE though the participants had positive attitude towards learning Breast self examination.

In a study by Yeliz et al. (2011) on knowledge, and attitudes regarding risk factors for breast cancer as well as screening such as breast self-examination, clinical breast examination and mammography among different groups of female health professionals from Turkey, findings showed that the rate of perceiving BSE as useful among health personnel was 98.4%, with a

lower rate in doctors (94.0%), compared to midwives/nurses (99.2%). The rate of those that believed that this examination should be done regularly was 72.5%. The most common reason for not doing breast self-examination was the belief that it was not necessary (45.8 %).

Another telephone survey was conducted by Chua (2005) on Cantonese Hong Kong women aged 18-69 years to assess the women level perception and attitude on screening mammography and early breast cancer management. In the study it was found that 58% had never heard of mammographic screening. 47% of the women had a misconception that mastectomy was the only curative treatment.

A study conducted by Azaiza and Cohen (2006) on health beliefs and rates of breast cancer screening among Arab women. The survey found poor attitude on breast cancer where a belief in the efficacy of traditional methods of therapy and prayer in the cure of breast cancer is widespread among females in developing countries and African-American women. In this study, half of respondents believed that prayer can lead to disappearance of cancer from affected breasts. Furthermore, only two-third was convinced that herbal or traditional mode of treatment cannot cure breast cancer.

Nasiru et al (2009) conducted a cross-sectional study among 207 female doctors, nurses and other healthcare professionals working in a university teaching hospital in Lagos, Nigeria. The results revealed that more than 80% of participants believed that breast cancer can be cured if detected early. Two-thirds held the belief that surgery is the most effective method of treatment for breast cancer. Among doctors, half believed that herbal or alternative medical therapy cannot cure breast cancer while a larger proportion (65%) among the remaining participants held similar belief. Forty two percent among doctors and 53.5% among the rest of participants believed that

breast cancer can disappear following prayer. Only 54 (26%) participants were convinced that prayer cannot lead to disappearance of breast cancer.

In a cross-sectional study conducted among one thousand community-dwelling women from a semi-urban neighborhood in Nigeria by Okobia et al. (2006) to elicit knowledge, attitude and practices towards breast cancer. The results showed that there was an indication of positive health seeking behavior as a majority of the participants mentioned that visiting the doctors was the best approach for breast cancer treatment.

In a descriptive cross-sectional study conducted among one hundred women reporting to the Radiology department in Mulago hospital by Kiguli et al. (2010) to establish knowledge, attitude and practices of women on breast cancer and mammography found that all women generally reported a negative attitude towards mammography. However, the participants expressed willingness to change their attitude towards mammography provided they got adequate information regarding its role. Majority of women (75%) in this study feared that breast ultrasound would pose a potential risk to cancer. Some women who had done CBE reported embarrassment especially when being examined by a male doctor which changed their attitude towards breast screening procedures. Although women in this study had not done any mammography, the procedure of carrying out the mammogram may turn out to be embarrassing as well.

Mubuuke, Kiguli, Businge and Byanyima (2009) carried out a study assessing current knowledge, attitudes and practices of expectant women toward routine sonography in pregnancy at Naguru health Centre, Uganda showed that women think ultrasound can cause cancer. Some women who had done CBE reported embarrassment especially when being examined by a male doctor which changed their attitude towards breast screening procedures.

2.4 Practices on Breast Cancer Screening

Nilaweera et al (2012) in their cross-sectional survey among 219 female health care workers selected using convenient sampling method investigating Knowledge and Practices on Breast and Cervical Cancer Screening Methods among Female Health Care Workers: A Sri Lankan Experience found that even though 84.1% practiced BSE, only 47.9% practiced it on a monthly basis. Only 19.2% had undergone a clinical breast examination within one year and 3.6% had ever undergone a mammography.

In a study about "knowledge and attitude of breast self examination and mammography in a group of women in a rural area in western Turkey" conducted by Dundar (2006) found that most of the respondents (72.1%) had knowledge about Breast self Examination but only 40.9% of the women had practiced BSE in the previous 12 month. 10.6% of the study group stated that they had mammography test and 25.0% had Clinical Breast examination.

Regan and Durvasula (2009) conducted a study on predictors of breast cancer screening among Asian and Latina university students in an urban university located in the Los Angeles Metropolitan area. Participants completed a written self-report questionnaire, which assessed health-related beliefs, sexual experience, cancer knowledge, family history of cancer, acculturation, and breast cancer screening behavior. Study results indicated that only 39.4% of Latinas and 36.0% of Asians reported having ever had a clinical breast examination.

Kendra (2011) in a study among adult college women on performing breast self-examination in the University of Alabama showed that a significant number of participant 116(34%) reported performing breast self-examination once a month. One hundred and thirteen (33%) reported performing breast self-examination hardly ever, not at all, or once a year.

In cross-sectional study by Yeliz et al. (2011) among different groups of female health professionals from Turkey, 81.3% of the participants stated that they did breast self examination, however, only 27.3 % reported doing so on a regular basis (performed monthly or once per menstrual cycle). Of the entire group, the rate of having a mammography was 10.1% and the rate of clinical breast examination was 24.8%.

Jahan et al. (2006) conducted a cross sectional study to identify breast cancer knowledge, attitude and practices of breast self examination among 300 Saudi female in Qassim region of Saudi Arabia. Results showed that 19.7% reported that they had practiced BSE in 57% of them had performed it in the last 12 month. The current study deferred from this as it was not be limited to BSE alone but included CBE and mammography.

In a cross-sectional study conducted among one thousand community-dwelling women from a semi-urban neighborhood in Nigeria by Okobia et al. (2006) to elicit knowledge, attitude and practices towards breast cancer. The results showed that in terms of practices, 34.9% participants practice BSE. Only 91 participants (9.1%) had clinical breast examination (CBE) in the past year and no one had the history of mammography examination. Majority of the respondents did not take part in BSE or clinical breast examination due to having no breast problem.

Jebbin and Adotey (2005) conducted a study on "Attitude, knowledge and practice of breast self-examination (BSE) in port Harcourt, Nigeria" and found that 39.0% of the respondents practiced BSE only occasionally. Another study was conducted by Alam (2006) in Riyadh to assess knowledge of breast cancer and sources of information. He found that only 41.2% performed BSE and 18.2% had mammography screening.

According to Kiguli et al. (2010) in their study among 100 women in Mulago Hospital, results showed that majority of the women frequently practiced BSE and occasionally sought for CBE, but did not go for mammography.

2.5 Conclusion

From the above literature one can say that overall knowledge was so high except in a few studies. The possible reason of high knowledge in these studies may be due to the study population's profession, as these studies were done on Nurses.

The attitudes and practice in the reviewed studies were generally not promising. Perhaps due to the fact that in many instances people may not practice what they know especially if they perceive themselves not at high risk.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter included study design, sources of data, study population, sample size calculation, sampling procedures, study variables, data collection techniques, data collection tools, plan for data analysis, quality control issues, plan for dissemination, ethical issues, and study limitations.

3.2 Study Design

The study was a cross sectional design assessing knowledge, attitude and practice on breast cancer and screening among women and men. A cross-sectional design was adopted, as it enabled collection of data from the research respondents in a single and relative period. This allowed the researcher to elicit information about a given phenomenon from the respondents' perspective regardless of follow-up. The researcher was able to determine individuals' knowledge, attitude and practice about breast cancer and screening.

3.3 Sources of Data

The primary source of data were women and men (20years and above) included in the study. The reason for this was to access firsthand information for the study.

Secondary sources include text books, journals, hospital records and hospital staffs. Data obtained from secondary sources was compared with the firsthand information from primary sources so as to arrive at a conclusion.

3.4 Study Population

The study population involved all women and men aged 20years and above receiving service at ANC Mulago Hospital. On average 100 to 200 female and male clients reported for services at the ANC per week. In this study both male and female adults were taken because all were affected by breast cancer and believed that along with female population needed to make aware male partner or husband because they also needed to change their attitude towards breast cancer affected wives. Male partner could be facilitators for improvement of health seeking behavior and early diagnosis. Moreover, they could provide better support, morally and spiritually.

Inclusion criteria only involved men and women (20years and above) who were seeking services at ANC, Mulago hospital.

Also men and women (20years and above) who consented to participate in the study.

Exclusion criteria. The following category of men and women were not included in the study: those who were very busy to take part in the study irrespective of their age qualification, the very weak or sick men and women who were not be able to participate.

3.5 Sample Size Calculation

Sample size was determined using Kish Leslie formula (1965) for random sampling using single proportions.

$$n=\frac{z^2pq}{d^2}$$

Where:

n= sample size

z= standard normal deviate, (a constant set at 1.96 on the basis of using the 95% confidence interval for estimation).

p= Estimated proportion of women and men screening for breast cancer from the general population (20years and above) receiving care in Mulago Hospital taken to be 10.6% - the estimated prevalence is adopted from a previous study by Dundar (2006) in Turkey.

d^2= margin of error (5%)

q= 1-p

$$n = \frac{(1.96)^2 (0.106) (0.894)}{(0.05)^2}$$

$$n = \frac{0.3640454}{0.0025}$$

n= 145

3.6 Sampling Procedures

Simple random sampling was employed. The study respondents had equal chances of being selected for participation. This was done in order to give an opportunity to every female and male adult who met the inclusion criteria to participate in the study without any bias. All women and men 20 years and above reporting to the outpatient department during the study period and consented to participate were included in the study. The sampling of potential respondents was done daily during working days and the process took 9 days to achieve the required sample.

3.7 Study Variables

3.7.1 Independent Variables

These are aspects or factors which literature review revealed that had significance on the practice of breast cancer screening. These were; knowledge and attitude about breast cancer and screening.

3.7.2 Dependent Variables

The dependent variable in this study was breast cancer screening. The use of recommended breast cancer screening methods such as BSE, CBE and Mammogram were considered.

3.8 Data Collection Techniques

The researcher conducted one-on-one, 30-45 minute-long structured questionnaire guided interaction. The interaction schedule involved a list of closed-ended questions, covering specific objectives (See appendix III). The interaction schedule was used so that the researcher could also raise particular themes that may not evolve naturally during the course of the interaction but may assist in answering the research questions. The one-on-one, structured questionnaire guided interaction was chosen for the purpose of this research because it permitted the interviewer to spend limited time but gathered information from reasonable larger group. All interviews were conducted in English, Luganda, Lusoga or Atesot depending on which language the individual respondent was conversant with amongst the listed languages.

3.9 Data Collection Tool

Data was collected using a questionnaire by considering all possible variables according to information, developed on the basis of relevant literature. Questionnaires were used because the format is familiar to most respondents, they are straight forward to analyze, simple to administer and can be filled in at the respondents' convenient time. The questionnaires were designed in such a way that reflects the objectives of the study; that is demographic characteristics of the respondents, the knowledge part, attitude on breast cancer and practices on different screening programs.

3.10 Plan for Data Analysis

The researcher started the process by systematically organizing the raw data encountered during data collection. Raw data was unordered, contains errors and missing data, these were transformed into an ordered error free data before analysis. Thus, the data was prepared in three tasks of: coding, entering and cleaning. The data was analyzed using the Statistical Package for the Social Sciences (SPSS) software version 16.0. Variables were transformed into meaningful data that can be readable by SPSS software. Analysis of qualitative data was done through descriptions of events and occurrences as gathered from the interactions.

3.11 Quality Control Issues

To ensure validity, the questionnaire was reviewed for information quality and legitimacy and any corrections that arose were made. The questionnaire was validated by the supervisor and three other experts in order to get their expert judgment on their reliability. It was then pre-tested before the survey. Questions asked sought for knowledge, attitudes and practices on breast cancer, use of mammography, BSE as well as CBE. Reliability was computed using statistical Package for Social Scientists (SPSS) and scores were evaluated. A quiet place was chosen for the interviews. The researcher first trained the research assistants on data collection. Data will be safely kept in a safe place under lock and only the investigator had access to this information.

3.12 Plan for Dissemination

On completion of the research, a report was compiled and copies of the report submitted to International Health Sciences University (IHSU), 1 to the supervisor, 1 copy submitted to the chairperson of the research committee of Mulago Hospital, and the researcher retained a copy for reference.

3.13 Ethical Issues

The International Health Sciences University (IHSU) Research committee reviewed the proposal for ethical consideration and approval to conduct this study was given. An application for ethical approval was submitted to the Research and Ethics Committee Mulago Hospital (Appendix I). Further permission was sought from the ANC department, Mulago Hospital. A respondent information sheet was issued to the respondents highlighting the scope of the study including the aim, purpose and importance of the study (Appendix II). Participation in this study was entirely voluntary and respondents were informed that their refusal to participate in the study would not result in a penalty. To reinforce voluntary participation, respondents were required to complete a consent form (Appendix II). Issues of confidentiality, respect and anonymity were explained and emphasized. Respondent's identity was kept confidential since the questionnaire did not request respondents to reveal their identity. Records of the survey and the consent forms were kept in a safe and private place under lock.

3.14 Limitations of the Study

The study outcome depended on the truthfulness and openness of respondents as the information sought was considered personal and sensitive. This study covered only one hospital and department among the many governmental and private owned health facilities in Kampala district and considered the present clients only as sample representative. This was due to resource constraints in terms of time and finance.

CHAPTER FOUR

PRESENTATION OF RESULTS

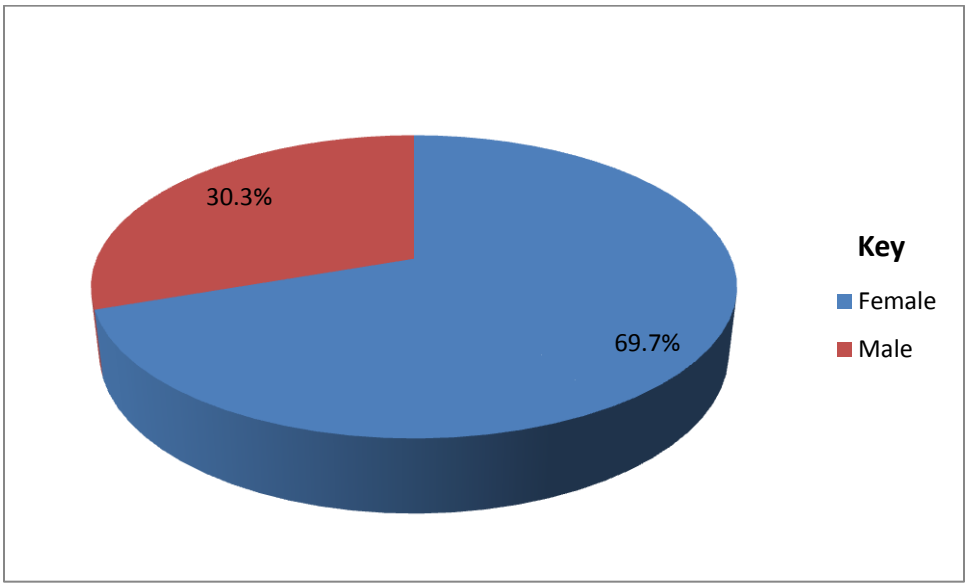
4.1 Introduction

This chapter covered data presentation. The study was conducted to assess knowledge, attitude and practices of women and men regarding breast cancer and screening at ANC, Mulago hospital. This chapter presents the findings from the field following the objectives spelt out in chapter one.

4.2 Background Information

The researcher administered questions (1) - (4) in the questionnaire to establish the background information of the respondents. The general information collected was tabulated as follows;

Figure 2: Showing the gender distribution of respondents



Source: Primary data

From the above figure it is illustrated that, 101(69.7%) of the respondents were female and 44(30.3%) were male.

Table 1: Showing age, occupation and education level of respondents

	Variables	Frequency	Percent
	Age		
Valid	20-25years	18	12.4
	26-30years	22	15.2
	31-35years	70	48.3
	Others	35	24.1
	Occupation		
	Unemployed	81	55.9
	Civil servant	19	13.1
	Self employed	45	31.0
	Education level		
	None	10	6.9
	Primary	34	23.4
	Secondary	80	55.2
	Others	21	14.5
	Total	145	100.0

Source: Primary data

Table 1 above shows that, most 70(48.3%) of the respondents were aged 31-35years, 81(55.9%) were unemployed, 45(31%) were self employed while 19(13.1%) were civil servants. Regarding education, more than half 80(55.2%) of the respondents were secondary school leavers, 34(23.4%) were primary school leavers, others 21(14.5%) attained tertiary level education and 10(6.9%) had no formal education.

4.3 Knowledge on Breast Cancer and Screening

In the bid to answer the first objective of the study, which was to establish the knowledge on breast cancer and screening among women and men (20years and above) receiving services in ANC Mulago Hospital, the researcher administered research tools whose findings were presented as shown in the following tables;

Table 2: Knowledge on breast cancer and screening

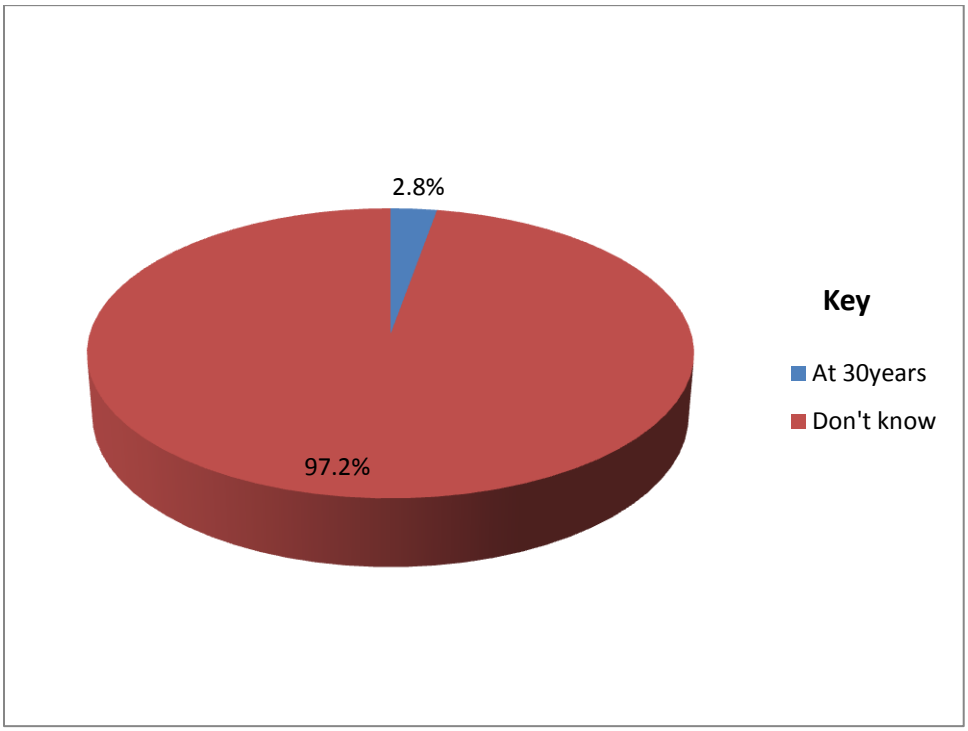
	Variables	Frequency	Percent
	Risk factors for breast cancer		
Valid	Increasing age	21	14.5
	Positive family history	65	44.8
	First child at late age	9	6.2
	Large breast	15	10.3
	Others	35	24.1
	Signs and symptoms of breast cancer		
	Lump in the breast	95	65.5
	Discharge from the breast	13	9.0
	Weight loss	35	24.1
	Lump under armpit	2	1.4
	Methods of breast cancer diagnosis		
	Breast Self Examination	12	8.3
	Clinical Breast Examination by doctor	110	75.9
	Mammography	5	3.4
	Don't know	18	12.4
	Awareness of age for practicing BSE		
	Yes	5	3.4
	No	140	96.6
	Knowledge of performing BSE		
	Yes	2	1.4
	No	143	98.6
	Frequency of practicing BSE		
	Weekly	1	0.7
	Monthly	10	6.9
	Don't know	134	92.4
	Frequency of CBE		
	Once in a year	8	5.5
	Don't know	137	94.5
	Total	145	100.0

Source: Primary data

From the above table it is illustrated that, most of the respondents 65(44.8%) identified positive family history as a potential risk factor for developing breast cancer. However, others 35(24.1%) did not have any idea on the potential risk factors for developing breast cancer. A large number of the respondents 95(65.5%) stated that lump in the breast was a sign/symptom related to breast cancer, slightly more than three quarters of the respondents 110(75.9%) indicated Clinical Breast Examination by a doctor as a method for diagnosis of breast cancer. Results in the table 2 above

also shows that 140(96.6%) did not know the age at which Breast Self Examination should be started, 143(98.6%) had no idea on how to perform Breast Self Examination, 134(92.4%) did not know the frequency of practicing BSE and 137(94.5%) had no idea on the frequency of Clinical Breast Examination.

Figure 3: Recommended age for mammography examination



Source: Primary data

Figure 3 above illustrates that overwhelming majority 141(97.2%) of the respondents did not have any idea on the recommended age for starting mammography examination and the least 4(2.8%) indicated that mammography examination is started at 30years.

4.4 Attitude towards Breast Cancer and Screening

The second objective of the study was to determine the attitude of women and men towards breast cancer and screening at ANC, Mulago Hospital. The findings were presented as below.

Table 3: Attitude towards breast cancer and screening

	Variables	Frequency	Percent
	Action to take if developed breast cancer		
Valid	Consult a doctor	128	88.3
	Use traditional medicine	8	5.5
	Agree to perform mastectomy (if necessary)	9	6.2
	How fast would you see a doctor if developed breast lump		
	Not bather at all	1	0.7
	Within one week	65	44.8
	Within one month	50	34.5
	Within 1-3 months	29	20.0
	Allow doctor of opposite sex to examine your breast		
	Yes	115	79.3
	No	30	20.7
	Perceived risk for breast cancer		
	Not at risk	6	4.1
	Lower risk	14	9.7
	Medium risk	20	13.8
	Higher risk	30	20.7
	Unsure	75	51.7
	Have any risk factors for breast cancer		
	Yes	41	28.3
	No	104	71.7
	Perceived benefit for breast cancer screening		
	Yes	55	37.9
	No	90	62.1
	Breast cancer curable		
	Yes	70	48.3
	No	75	51.7
	Long term survival rare due to breast cancer		
	Yes	81	55.9
	No	64	44.1
	Total	145	100.0

Source: Primary data

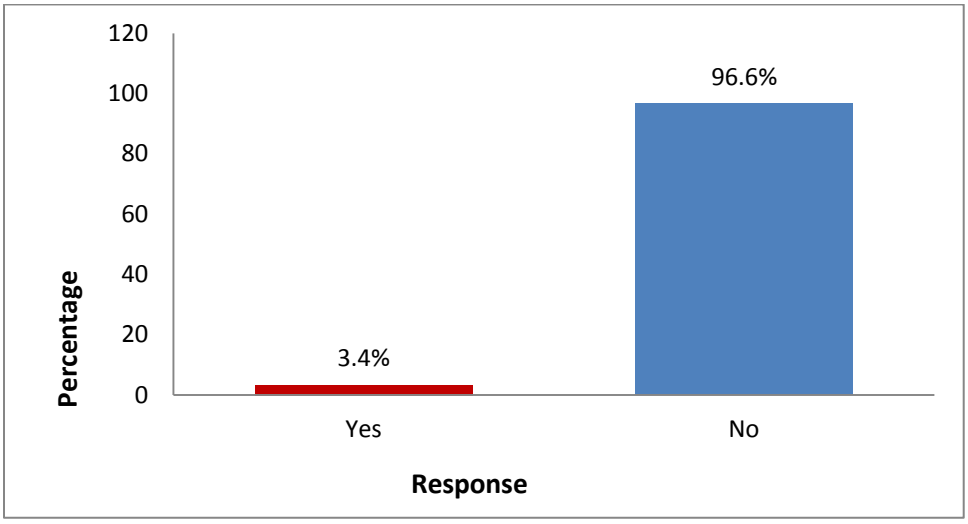
Table 3 results reveal that majority 128(88.3%) of the respondents would consult the doctor if they developed breast cancer, 65(44.8%) would see a doctor within one week if they developed breast lump, 115(79.3%) of the respondents agreed that they would allow a doctor of the

opposite sex to examine their breast and slightly more than half 75(51.7%) of the respondents were unsure of the risk for developing breast cancer. The study results further shows that 104(71.7%) of the respondents believed that they did not have any risk factors for breast cancer, 90(62.1%) of respondents indicated that breast cancer screening was not beneficial, 75(51.7%) believed that breast cancer was not curable and 81(55.9%) of the respondents supported the statement that long time survival was rare due to breast cancer.

4.5 Practices on Breast Cancer Screening

The third objective of the study was to find out the practices of women and men regarding breast cancer screening at ANC, Mulago Hospital. The researcher administered research tools whose findings were presented as follows;

Figure 4: Practice BSE



Source: Primary data

Basing on figure 4 results, a large number of respondents 140(96.6%) had never practiced Breast Self Examination while the least 5(3.4%) had ever practiced Breast Self Examination.

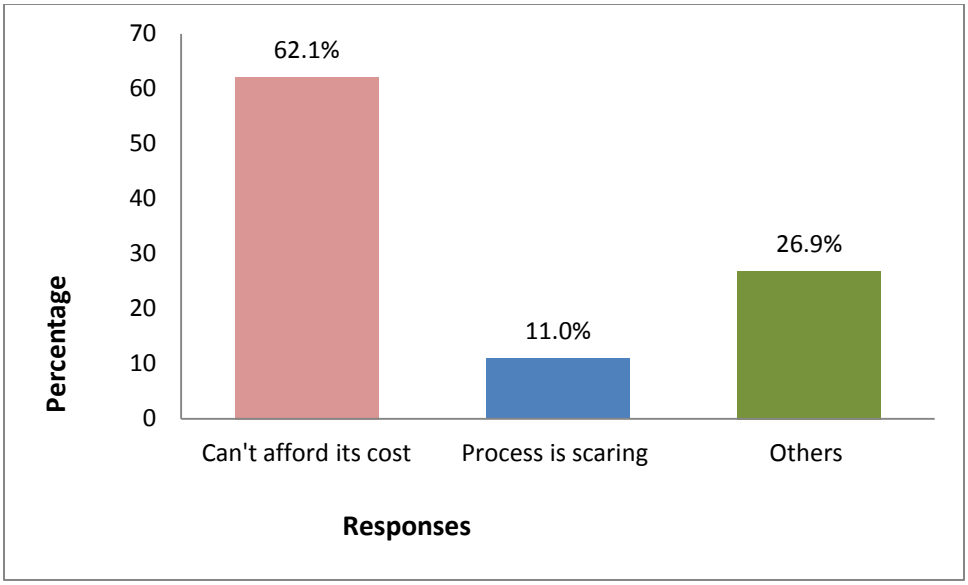
Table 4: Practice on breast cancer screening

	Variables	Frequency	Percent
	Frequency of practicing BSE		
Valid	Once in a month	2	40.0
	Once in 3 months	1	20.0
	More than once in quarter of a year	1	20.0
	Rarely	1	20.0
	Age started to practice BSE		
	Less than 25years	1	20.0
	26-30years	1	20.0
	31-35years	2	40.0
	>35years	1	20.0
	Reason for not practicing BSE		
	Don't have breast problem	100	71.4
	Don't think I should	10	7.1
	Don't feel comfortable	5	3.6
	Unsure about its benefits	8	5.7
	Others	17	12.1
	Undergone CBE		
	Yes	4	2.8
	No	141	97.2
	Reasons for not practicing CBE		
	Concern about extra money	9	6.4
	Fear of outcome	20	14.2
	No sign/symptom of breast cancer	112	79.4

Source: Primary data

The findings in Table 4 reveal that, out of the 4 respondents who had ever practiced BSE, 2(40%) of them practiced it once in a month and 2(40%) started practicing BSE between 31-35years. Research findings indicated that out of the 140 respondents who had never practiced Breast Self Examination, majority 100(71.4%) of them was because they did not have any breast problem, 141(97.2%) had never undergone Clinical Breast Examination, and 112(79.4%) of them was because they had no signs/symptoms of breast cancer.

Figure 5: Reasons for not undergoing mammography examination



The results presented in 5 shows that, majority 90(62.1%) of the respondents said could not afford the cost of mammography examination, 16(11%) feared the process while other 39(26.9%) did not have any idea about mammography.

CHAPTER FIVE

DISCUSSION

5.1 Introduction

This chapter presents discussion of the major findings following the objectives of the study as spelt out in chapter one.

5.2 Knowledge on Breast Cancer and Screening

Chapter four findings showed that less than half identified positive family history as a potential risk factor for developing breast cancer, which is lower than in Germany where more than three quarters of the respondents considered that former history of breast cancer was a risk factor (Pohls et al., 2005). However, in this study, 24.1% had no idea on the potential risk factors for developing breast cancer. This may be related to the previous study by Dundar (2006) in western Turkey where slightly more than half of them had sufficient knowledge about breast cancer. Also, only 65.5% of respondents in this study knew that lump in the breast was a sign/symptom related to breast cancer. However, none of the respondents could mention more than one sign or symptom related to breast cancer. This was in contrast with Grunfeld et al (2004) in the UK which found that more than 70% of the sample identified that painless breast lump, lump under armpit, nipple discharge are potential symptoms. This may be attributable to the difference in the study settings and emphasis put on information dissemination for preventive options.

More than three quarters of the respondents indicated Clinical Breast Examination as a method of diagnosis for breast cancer. This finding is indeed similar to what Aylin et al (2005) found in their study where majority of the respondents had no idea about mammography. This study also differed from the previous one in Mulago where majority of the women were informed about

BSE but little about mammography (Kiguli et al., 2010). This could be explained by the limited mammography services in Uganda. Mammography can only be accessed in the National referral hospital and a few private health facilities found in the capital city which leaves the majority of people and even health workers ignorant about it. Also in this study, 12.4% of the respondents did not have any idea about the methods for diagnosis of breast cancer. A lack of knowledge about the methods for diagnosis of breast cancer might be responsible for the practices of these respondents.

Majority (96.6%) of the respondents did not know the age at which Breast Self Examination should be practiced, which is contrary to Dundar (2006) in rural area in western Turkey where majority had knowledge about Breast self Examination. Nearly almost all respondents had no idea on how to perform Breast Self Examination and 92.4% of them did not know the frequency of practicing BSE. This was in disagreement with the previous findings by Alam (2006) in Riyadh where knowledge on breast self examination was high. The majority of respondents had no idea on the frequency of Clinical Breast Examination and majority of them did not have any idea on the recommended age for starting mammography examination. This was inconsistent with the findings of Kendra (2011) in the United States where nearly half of the women were aware of current mammography recommendations. The difference in the findings may be that previous study involved University students who were expected to have greater knowledge about breast cancer than lay people as shown in the current study.

5.3 Attitude towards Breast Cancer and Screening

Attitude results revealed that more than three quarters of the respondents would consult the doctor if they developed breast cancer, 44.8% would see a doctor within one week if they

developed breast lump and majority of them would allow a doctor of the opposite sex to examine their breast. This concurs with the previous study in Nigeria by Okobia et al. (2006) where the results showed that there was an indication of positive health seeking behavior as majority of the respondents mentioned that visiting the doctors was the best approach for breast cancer treatment. The findings were also related to previous findings by Azaiza and Cohen (2006) that found poor attitude on breast cancer where half of respondents believed that prayer could lead to disappearance of cancer from affected breasts. This is most likely because a large number of the respondents had some level of formal education enabling them to appreciate the importance of health care seeking in case of health problems.

In this study, only 20.7% of the respondents perceived themselves at a higher risk of developing breast cancer, which was lower than in Çorum Province, Turkey (Yeliz et al., 2011). Also, majority of the respondents believed that they did not have any risk factors for breast cancer, perceived breast cancer screening less beneficial, slightly more than half believed that breast cancer was not curable and believed that long time survival was rare due to breast cancer. This was in disagreement with the findings of Nasiru et al (2009) in Lagos, Nigeria where more than three quarters of respondents believed that breast cancer could be cured if detected early. This confirms the inadequate knowledge exhibited by the respondents on breast cancer and screening.

5.4 Practices regarding Breast Cancer Screening

The majority of respondents had poor overall practice regarding breast cancer screening. Overwhelming majority of the respondents had never practiced Breast Self Examination. This may be because of lack of adequate knowledge on breast cancer screening methods and the confidence in BSE in detecting breast cancer. This finding is contrary to the previous study by

Yeliz et al. (2011) in Turkey where majority of the respondents did breast self examination. The current finding was also contrary to the previous study in Riyadh (Alam, 2006).

Further findings revealed that out of the 140 respondents who had never practiced Breast Self Examination, majority of them was because they did not have any breast problem, which was similar to a study in Nigeria by Okobia et al. (2006) where majority of the respondents did not take part in BSE or clinical breast examination due to having no breast problem. This may be because the respondents lacked awareness that breast cancer can be asymptomatic for some time and perhaps did not attach great emphasis on preventive measures, affecting breast cancer screening.

Majority of the respondents 97.2% had never undergone Clinical Breast Examination, which was higher than in Sri Lankan (Nilaweera et al., 2012). In this study, more than three quarters had not undergone CBE because they had no signs/symptoms of breast cancer. This was due to people's belief that they may have breast cancer only if they have overt symptoms of the disease and their perception of good health give a hint about their perception of disease. Also, other reasons were fear of the outcome and concern about the extra cost for CBE. This was contrary to Champion and Skinner (2008) that people aware of the seriousness of breast cancer and considering that they are at risk more frequently have BSE, CBE and mammography than others. In fact, fear might have been a barrier to screening in some women since it might have created the feeling of inability to cope with disease outcomes. Pender (2006) explained that the importance placed by individuals on their health directly influence their health behaviors. She underlined that how individuals define health plays a role in their health promoting behaviors and that individuals are aware of the importance of health only when they become ill or suffer fear of death.

All respondents had never undergone mammography examination, which was similar to Kiguli et al. (2010) in their study among 100 women in Mulago Hospital that majority of the women did not go for mammography. The current findings was however different from the previous study in Turkey where 10.6% of the study group had mammography test (Dundar, 2006). This perhaps is because most of the respondents in this study were from diverse backgrounds and mainly from lower social status. This means that they may not have ready access to mammography.

Majority of the respondents said they could not afford the cost of mammography examination, feared the process of breast cancer screening while others did not have any idea about mammography. The fact that this group reported cost as barrier is not an unusual finding. This finding supports findings from previous studies. Lauver et al. (2001) found that one of the most common external barrier to mammography included high cost to screening, which influenced breast cancer screening. The cost of mammography in Uganda and probably globally is high, particularly for a person who does not have social security like most of the respondents in this study. The lack of information about mammography and the high costs for the few who know about it may be the biggest hindering factors especially in low-resourced settings.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the conclusion and recommendations derived from the study findings after critical analysis as follows.

6.2 Conclusion

In conclusion, it was found in this study that the knowledge among respondents was low. Areas where respondents had knowledge deficiencies were awareness on the age for practicing Breast Self Examination, knowledge of performing BSE, knowledge on frequency of practicing CBE and on the recommended age for mammography examination.

Most respondents had poor attitudes towards breast cancer and screening particularly concerning the perceived risk for breast cancer and the perceived benefits for breast cancer screening.

Majority of the respondents had inadequate breast cancer screening practices. The rates of performing regular BSE, going to a doctor for clinical breast examination and having a mammography were very low, showing that the public need sensitization programs on breast cancer and screening.

6.3 Recommendations

The following recommendations were made upon analysis of the study results as follows;

The ministry of health needs to provide focused educational programs to address this issue. Programs for the general population, especially those who have low education levels, do not work and spend most of their time at home, should be encouraged. For this purpose, the media

(local written and oral, radio, television, soap operas and newspapers among others) could be used. Through such programs, awareness of breast cancer, the importance of its early diagnosis, and prompt treatment can significantly increase.

Public health nurses and other health professionals should be aware of people's insufficient knowledge of having screening, understand their worries and fears and know facilitators of and barriers to screening. The results of this study can be utilized in planning and writing the content of education programs directed towards increasing early screening and diagnosis of breast cancer.

Clinicians and nurse educators need to come together to develop outreach programs that would provide education at a level of understanding for targeted populations.

The government together with non government organizations involved in public health should establish and maintain health promotion initiatives targeted at people so that they are well informed and can be proactive about protecting their health. Moreover, Breast Self Examination has been developed as an expression of self-awareness and autonomy.

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APPENDIX I

REQUEST TO CONDUCT RESEARCH AMONG WOMEN AND MEN IN MULAGO HOSPITAL

15th April 2014

To The Chairperson Research and Ethics Committee
Mulago Hospital
P.O.BOX,
Kampala – Uganda,

Request to conduct research on knowledge, attitude and practices regarding breast cancer and screening at ANC, Mulago Hospital.

This is to request for permission to conduct research on knowledge, attitude and practices of women and men regarding breast cancer and screening at ANC, Mulago Hospital as part of my report for a Bachelors in Nursing with the International Health Sciences University of Uganda. All information collected as part of the research is for purely academic purposes.

The research will focus on knowledge, attitude and practices of women and men regarding breast cancer and screening at the ANC of Mulago Hospital. This will help the management in generating solutions that are backed by evidence.

Please find attached a letter of introduction from the IHSU Research and Ethics Committee.

Your consideration in this matter will be highly appreciated.

Yours,

.....

Akur Joyce Gertrude

Researcher

APPENDIX II

RESEARCH CONSENT FORM

Title of the study: Knowledge, Attitude and Practices of Women and Men regarding Breast Cancer and Screening at ANC, Mulago Hospital.

Introduction:

Akur Joyce Gertrude who is the student researcher from the International Health Sciences University of Uganda is conducting an academic research on the knowledge, attitude and practices of women and men regarding breast cancer and screening at ANC, Mulago Hospital.

Purpose of the study:

This is a study and not a method of provision of treatment. The purpose of the study is to establish the knowledge and attitude on breast cancer and screening (as independent variables) and practices of women and men regarding breast cancer screening (as the dependent variable) at ANC, Mulago Hospital.

The results of this study will be used to provide a baseline for evidence based management of breast cancer and screening in Mulago Hospital on the much needed changes that will have an impact on breast cancer awareness and positive screening. Furthermore the results of the study will be used in writing the final report of the Bachelor's being a requirement for the award of a Bachelor's degree in Nursing for the researcher. The data collection component of the study will last for 7 days.

Why the particular participant is chosen:

You have been selected for this study because you are an adult at risk of developing breast cancer any time and a client of Mulago hospital.

Questions of the study:

In order to achieve the above overall purpose, the study will seek to answer the following research questions:

What knowledge do the women and men have regarding breast cancer and screening at Antenatal Clinic, Mulago Hospital?

What attitude do women and men have towards breast cancer and screening at Antenatal Clinic, Mulago Hospital?

What are the practices of women and men regarding breast cancer screening at Antenatal Clinic, Mulago Hospital?

Study procedure:

The researcher will first ask for the respondent's consent. If he/she agrees, he/she will be given a questionnaire to answer the study questions. After collecting the information from the respondents, the researcher will process, analyze and make conclusions.

Risk:

There are no physical risks of this study.

Benefits:

While you will receive no monetary benefit for your participation, a pen will be provided as part of the pack and it is hoped that your reward will come by way of improved and more fulfilling breast cancer services at Mulago Hospital during your tenure and/or those to come after you, dependent on the degree of adjustment agreeable to Mulago Hospital. This is your opportunity to speak out your mind.

Problems or questions:

If you have questions about the study, please feel free to contact Akur Joyce Gertrude on mobile number +256-772-885830.

Subject consent:

Akur Joyce Gertrude, who is the student researcher, has described what is going to be done, the risks, hazards and benefits associated with this study. He will be available for any questions at +256-772-885830.

I understand that my decision to participate in this study will not alter my usual health care or working relationship with the management of Mulago hospital. In the use of the information generated from this study such as publications, my identity will remain anonymous. Records of this study will be available at the Mulago Hospital Research Review Committee (MHRRC).

I understand that by signing this consent form, I do not waive any legal rights nor does it mean accepting liability, by agreeing to allow myself to participate.

A copy of this form will be provided to me.

Participant's signature..... Date……..

Investigator's signature..... Date……..

APPENDIX III

QUESTIONNAIRE ON KNOWLEDGE, ATTITUDE AND PRACTICES OF WOMEN AND MEN REGARDING BREAST CANCER AND SCREENING AT ANC, MULAGO HOSPITAL

Thank you for your willingness to complete this questionnaire. The questionnaire consists of 4 sections, and it would be appreciated if you complete the entire questionnaire.

Answer each question by putting a ticking [√] around the code representing your appropriate answer and use plain statements where applicable.

Section 1: Background Information

1. Gender/sex.
    1) Female
    2) Male
2. How old are you?
    1) 20-25
    2) 26-30
    3) 31-35
    4) Others (specify)……..
3. What is your occupation?
    1) Unemployed
    2) Civil servant
    3) Self employed
    4) Others (specify)……
4. What is your highest level of education?
    1) None
    2) Primary
    3) Secondary
    4) Others (specify)……

Section 2: Knowledge on breast cancer and screening

5. Please identify the factors which you think are potential risks for developing breast cancer. (multiple answers are applicable)
    1) Increasing age
    2) Positive family history
    3) First child at late age
    4) Large breast
    5) Others (specify)……
6. Please identify the signs and symptoms which you think related to breast cancer
    1) Lump in the breast
    2) Discharge from the breast
    3) Weight loss
    4) Lump under armpit
    5) Others (specify)……
7. Please identify the methods of diagnosis of breast cancer.
    1) Breast self examination
    2) Clinical breast examination by a doctor
    3) Mammography
    4) Don't know
    5) Others (specify)……
8. Do you know at what age breast self examination should be started?
    1) Yes
    2) No
9. Do you know how to perform breast self examination?
    1) Yes
    2) No

10. How often should breast self examination be done?

    (Tick the answer you think right)

    1) Daily
    2) Weekly
    3) Monthly
    4) Don't know
    5) Others (specify)……

11. How often should clinical breast examination be done? (Tick the answer you think right)

    1) Once in a year
    2) Once in two years
    3) Once in three years
    4) Don't know

12. What is the recommended age for mammography examination to start?

    1) At the age of 30
    2) At 35 years
    3) At 40 years
    4) At 45 years
    5) Don't know

Section 3: Attitude towards Breast Cancer and Screening

13. What would you do if you developed breast cancer?

    1) Will consult a doctor
    2) Will use traditional medicine
    3) Will agree to perform mastectomy (if necessary)
    4) Others (specify)……

14. If developed breast lump how fast will you go to see a doctor?

    1) Not bather at all
    2) Within one week
    3) Within one month
    4) Within 1-3 months

15. Would you allow a doctor of the opposite sex to examine your breast?
    1) Yes
    2) No
16. Please give your perceived risk for developing breast cancer (Tick only one answer)
    1) Not at risk
    2) Lower risk
    3) Medium risk
    4) Higher risk
    5) Don't know
17. Do you think you have any risk factors for breast cancer? (Please tick only one answer)
    1) Yes
    2) No
18. Do you think breast cancer screening is beneficial?
    1) Yes
    2) No
19. Do you think breast cancer is a curable disease?
    1) Yes
    2) No
20. Do you think long time survival (more than five years) is rare due to breast cancer?
    1) Yes
    2) No

Section 4: Practice on Breast Cancer Screening

21. Do you practice breast self examination?
    1) Yes
    2) No

(If no please go to question no.23)

22. If yes, then how often do you practice breast self examination?
    1) Once in a month
    2) Once in 3 months
    3) More than once in quarter of a year
    4) Never in a year

23. At what age did you start practicing breast self examination?
    1) Less than 25 years of age
    2) 25-30
    3) 30-35
    4) >35 years of age
24. If you don't practice BSE then what are the reasons?
    1) I don't have breast problem
    2) I don't think I should
    3) I don't feel comfortable doing this
    4) Unsure about its benefits
    5) Others (specify)……
25. Have you ever undergone clinical breast examination?
    1) Yes
    2) No
26. If yes, then how often do you practice clinical breast examination?
    1) Once
    2) 1- 3 times
    3) 3-5 times
    4) >5 times
27. If not, why are reluctant to participate in clinical breast examination?
    1) Concern about extra money
    2) Fear of outcome
    3) Concern of extra time
    4) No sign/symptom of breast cancer
    5) Others (specify)……
28. Have you ever undergone mammography examination?
    1) Yes
    2) No

29. If no, what is the reason?

1) Not within the age range
2) Can’t afford its cost
3) The process is so scaring
4) Others (specify)……

“Thank you very much for your kind participation”

APPENDIX IV

BUDGET

Item	**Quantity**	**Unit Price**	**Amount**
Flash disk	1	40,000	40,000
Stationary	1 Reams	15,000	15,000
Expenses for literature search		50,000	50,000
Typing and printing		100,000	100,000
Photocopying		20,000	20,000
Transport	1 Person	50,000	50,000
Meals	1 Person	100,000	100,000
Binding	3 Books	10,000	30,000
Miscellaneous		100,000	100,000
Total			**505,000=**

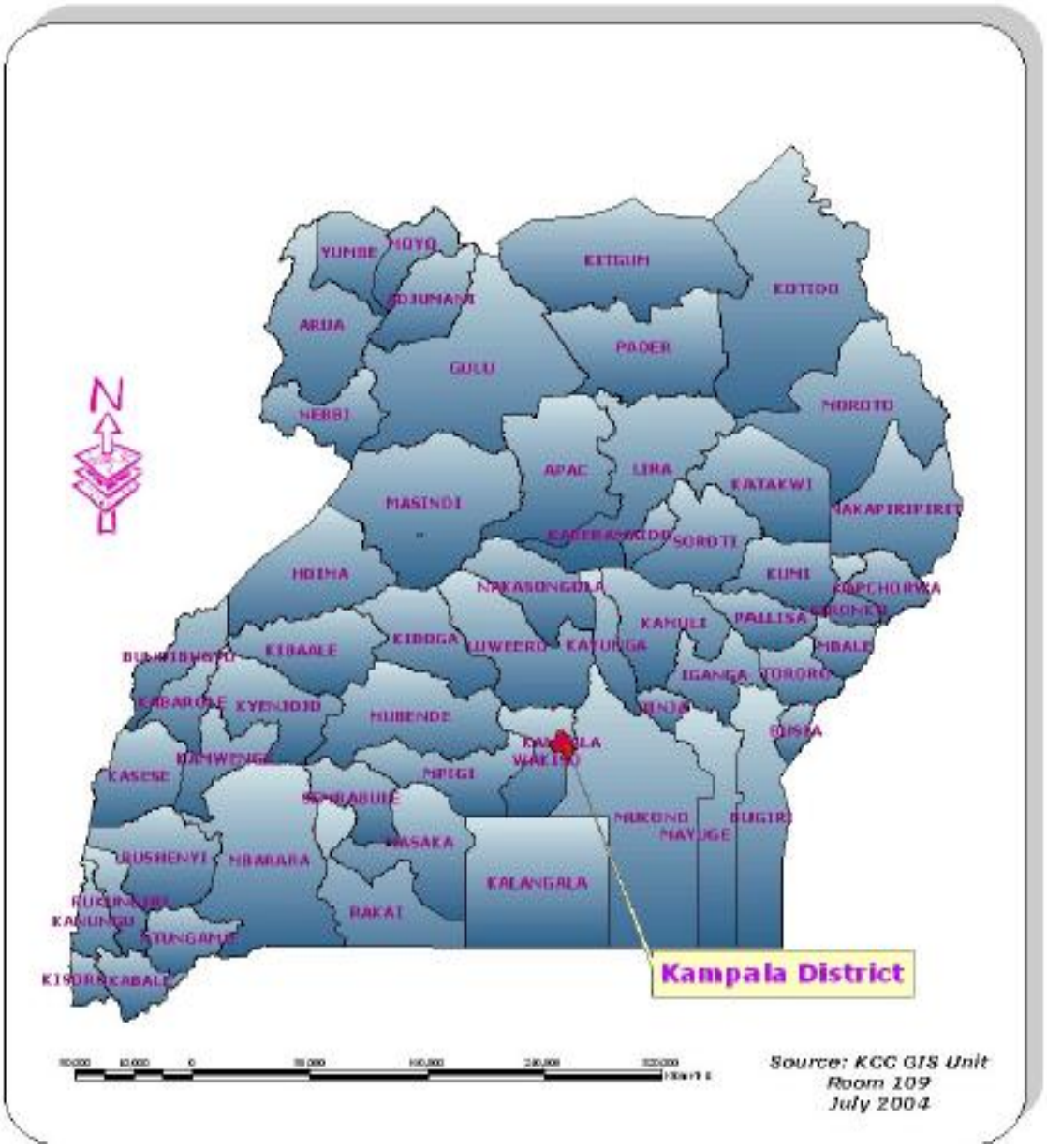
APPENDIX V

WORK PLAN

Activity	Time Frame										
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Selection of topic	■										
Proposal writing		■	■	■	■	■					
Submission of proposal						■					
Data collection							■				
Data analysis							■				
Report writing								■	■	■	
Submission and dissemination											■

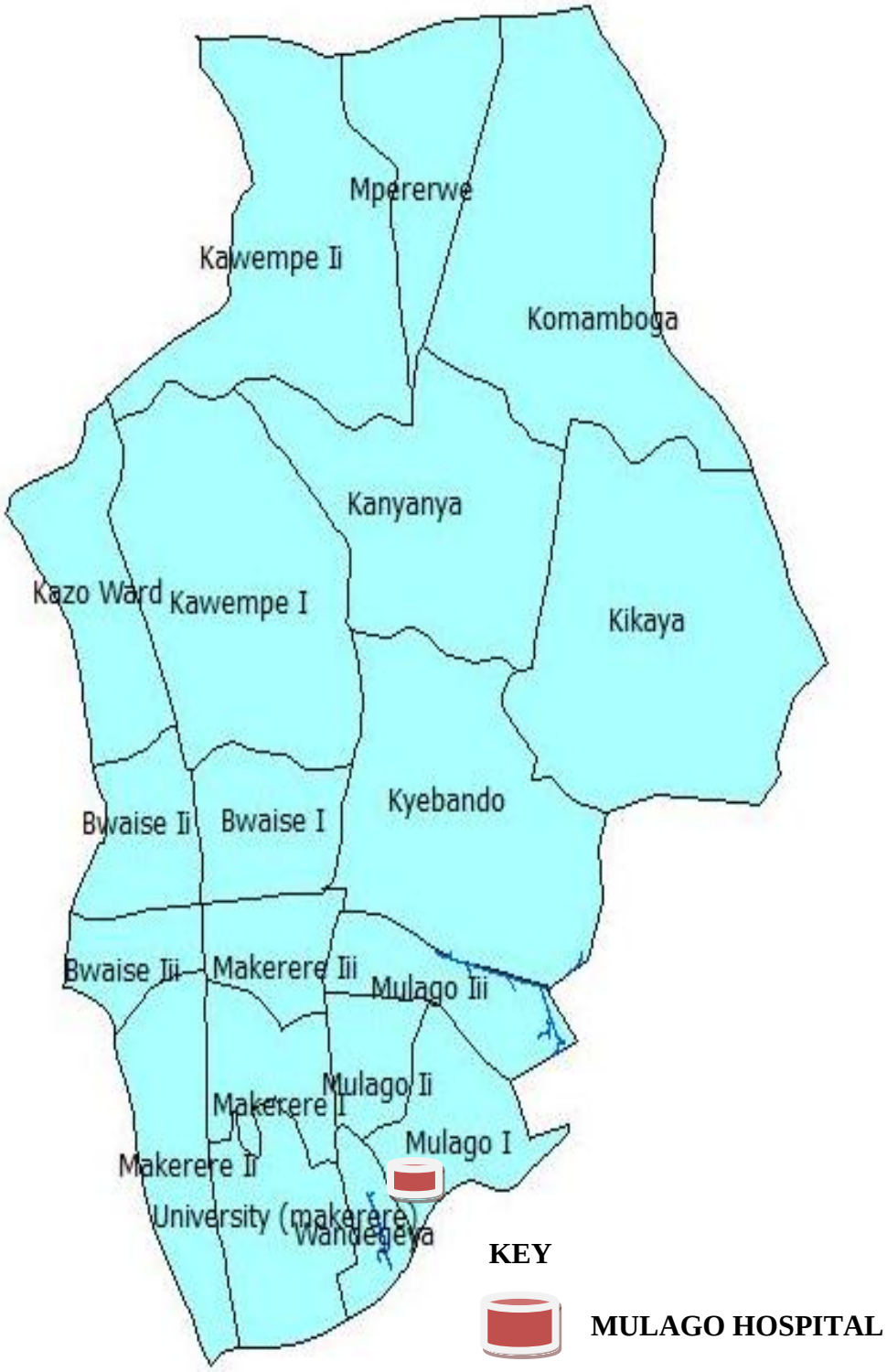
APPENDIX VI

MAP OF UGANDA LOCATING KAMPALA DISTRICT



APPENDIX VII

MAP OF KAWEMPE DIVISION LOCATING MULAGO HOSPITAL



APPENDIX VIII

INTRODUCTORY LETTER

IHSU INTERNATIONAL HEALTH SCIENCES UNIVERSITY

PART OF INTERNATIONAL MEDICAL GROUP

Office of the Dean, School of Nursing

Kampala, On the 10th day of September, 2014

TO WHOM IT MAY CONCERN

Re: Assistance for Research

Greetings from International Health Sciences University.

This is to introduce to you **Akur Joyce Gertrude** Reg. No. **2009-BNS-TU-024,** who is a student of this University. As part of the requirements for the award of a Bachelor of Nursing Sciences of this University, the student is required to carry out field research for the submission of a Research Project.

Joyce would like to carry out research on issues related to: **Knowledge, attitude and practice of women and men regarding breast cancer screening at antenatal Clinic, Mulago Hospital**

I therefore request you to render her such assistance as may be necessary for her research.

I, and indeed the entire University are thanking you in anticipation for the assistance you will render to her.

Sincerely Yours,

International Health Sciences University
10 SEP 2014
P. O. Box 7782, Kampala (U)

MRS. WAFULA ELIZABETH

DEAN

MAKING A DIFFERENCE IN HEALTH CARE

International Health Sciences University
P. O. Box 7782 Kampala | Uganda | East Africa

APPENDIX IX

ACCEPTANCE LETTER

TELEPHONE: +256-41554008/1
HOSPITAL
FAX: +256-414-5325591
E-mail: admin@mulago.or.ug
Website: www.mulago.or.ug

IN ANY CORRESPONDENCE ON THIS SUBJECT PLEASE QUOTES NO…

MULAGO NATIONAL REFERRAL

P.O. Box 7051
KAMPALA, UGANDA

THE REPUBLIC OF UGANDA

7th Nov, 2014.

Ms. Akur Joyce Gertrude
School of Nursing
International Health Sciences University.

Dear Akur,

Re: Approval of Protocol MREC: 656: Knowledge, Attitude and Practice of Women and Men Regarding Breast Cancer Screening at Antenatal Clinic, Mulago Hospital.

The Mulago Hospital Research and Ethics Committee reviewed your proposal referenced above and hereby grant approval for the conduct of this study for a period of (1) year from 7th Nov, 2014 to 6th Nov, 2015.

This approval is subjected to the following conditions:

1. That the study site may be monitored by the Mulago research and ethics committee at any time.
2. That you will be abide by the regulations governing research in the country as set by the Ugandan National Council for Science and Technology including abiding to all reporting requirements for serious adverse events, unanticipated events and protocol violations.
3. That no changes to the protocol and study documents will be implemented until they are reviewed and approved by the Mulago Research and Ethics Committee.
4. That you provide annual progressive reports and request for renewal of approval at least 60 days before expiry of the current approval.
5. That you provide an end of study report upon completion of the study including a summary of the results and any publications.

APPROVED
APPROVAL DATE 07 NOV 2014 EXPIRY DATE 06 NOV 2015
MULAGO RESEARCH ETHICS COMMITTEE
IRC

I wish you the best in this Endeavour.

DR.NAKWAGALA FREDERICK NELSON
CHAIRMAN- MULAGO RESEARCH & ETHICS COMMITTEE

Vision: "To be the leading centre of Health Care Services"