

**KNOWLEDGE, ATTITUDE AND PRACTICE OF MEN AGED 40-75 YEARS
TOWARDS PROSTATE CANCER SCREENING IN NAKAWA
DIVISION KAMPALA DISTRICT**

BUSINGYE GRACE

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DECLARATION

I Busingye Grace, declare that this research dissertation is original and has not been published or submitted for any other degree award to any other university before and is of my own knowledge and effort from the training got from International Health Sciences University.

Signature.....

BUSINGYE GRACE

Date.....

APPROVAL

This is to confirm that this research dissertation has been done under my supervision and it is ready for submission.

Signature:

MRS SITUMA ELIZABETH

Date:

DEDICATION

I dedicate this research dissertation to my brother Justus Rutebemberwa whose support and encouragement is priceless and to my nuclear family for their being a treasure in my life.

ACKNOWLEDGMENT

I gratefully thank the almighty God for helping me be successful in this research.

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May the Almighty God richly bless you.

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OPERATIONAL DEFINITIONS

BPH	Benign Prostatic Hyperplasia
DRE	Digital Rectal Examination
IARC	International Agency for Research on Cancer
PSA	Prostate Specific Antigen
PCF	Prostate Cancer Foundation
UCI	Uganda Cancer Institute
WHO	World Health Organization

LIST OF ACRONYMS

Prostate Gland:	Is a gland surrounding the neck of the bladder in males mammals for releasing prostatic fluid.
Cancer:	Is the disease caused by an uncontrolled division of abnormal cells in the body part.
Screening:	Is a process of identifying apparently health people who may be at a risk of the disease.
Prostate Specific Antigen:	An antigenic enzyme released by the prostate and found in abnormally high concentrations in the blood of men with prostate Cancer.
Cluster Sampling:	Is a sampling technique used when natural but relatively homogeneous groupings are evident in a statistical population.

ABSTRACT

Introduction: Prostate Cancer is the leading cancer affecting men in Africa , with an estimated incidence of 40,000 cases and 28000 deaths in 2008 according to WHO. Therefore, the purpose of this study was to assess the knowledge attitude and practice of men aged 40-75 years towards prostate cancer screening in Nakawa division Kampala district.

Method: This was a cross-sectional study in which 220 respondents were interviewed using a self administered questionnaire. Data was analyzed using SPSS and presented in form of frequency tables for easy interpretation of the findings.

Results: This study found that 73.8% of respondents did not know signs and symptoms of prostate cancer, 52.4% did not know the risk age group and 67.2% did not know the predisposing factors, indicating low knowledge level about the disease.

Majority of the respondents 142(67.6%) had positive attitude towards knowing their status, though 175(83.4%) had never screened indicating a poor prostate cancer screening practice.

Conclusion: the study found low level of knowledge about Prostate cancer among men and also poor practice toward its screening since majority of the respondents had never screened. However most respondents had a positive attitude towards prostate cancer screening to know their status.

Recommendation: Ministry of Health, hospital managers, all clinicians and nurses need to work together to improve on prostate cancer screening strategies and creating awareness about the disease.

CHAPTER ONE: INTRODUCTION

The study was on the knowledge, attitude and practice of men aged 40-75 years towards prostate cancer screening in Nakawa Division, Kampala District. Under this study, the dependent variable is prostate cancer screening while the independent variables are knowledge, attitude and practice. The independent variables were studied in terms of knowledge about prostate cancer and its screening, as well as attitude and practice of men towards prostate cancer screening. This section covers the background of the study, problem statement, purpose of the study, general objective, specific objectives, research questions as well as the justification of the study. The section also conceptualizes the study variables in a diagrammatic form to give a clear flow of analysis between knowledge, attitude and practice towards prostate cancer screening.

1.1 Background of the study

Prostate cancer, also known as carcinoma of the prostate, is the development of cancer in the prostate, a gland in the male reproductive system. The disease burden of prostate cancer has taken a substantial amount of time for both researchers and medical practitioners, with its exact causes a subject of intensive research (WHO, 2014). Prostate cancer was initially considered a rare disease, probably because of shorter life expectancies and poorer detection methods in the 19th century. Globally, prostate cancer is the second most common type of cancer and the fifth leading cause of cancer-related deaths in men. In 2012, it occurred in 1.1 million men and caused 307,000 deaths in over 84 countries, more commonly in the developed world (WHO, 2014).

In the U.S, Prostate cancer Foundation (PCF), thought to screen, detect, treat and prevent the cancer and ultimately, revolutionized prostate cancer screening and follow up among patients though men still screen in late stage of the disease (Smith, Vilma and Brawley, 2012). Surprisingly, available records indicate that prostate cancer was the most commonly diagnosed cancer with 233,000 cases of diagnosis in 2014 and causing about 29,500 deaths in the US (Smith, Vilma and Brawley, 2012).

On the African continent, prostate cancer is an emerging public health problem in many countries. According to the International Agency for Research on Cancer (IARC), about 715,000 prostate cancer cases and 542,000 cancer deaths occurred in 2013 in Africa. This is because men do not screen early. Studies conflict on whether race or socioeconomic status affects knowledge of prostate cancer and screening (Family and community medicine 2009).

In East Africa, prostate cancer rates have been high. This observation is also consistent with the fact that screening by DRE and PSA is uncommon in Africa, leading to late diagnosis at a more advanced stage. In Kenya, various news reports indicate an increasing incidence of prostate cancer. These numbers do not account for patients attending the hospital's outpatient unit or the ones consulting doctors in private clinics. This means the figures are actually higher than the ones actually reported (Joan *et al.*, 2006).

In Uganda, the public health burden of prostate cancer is substantial, as Otumuet *al.*, (2011) noted that its incidence is one of the highest recorded in Africa. In fact, as of 2012, prostate cancer was the second most frequently diagnosed cancer accounting for 15% of all male cancers (WHO 2014). Men are supposed to screen with DRE and PSA every 2-4 years from the age of 40-75 years but Statistics from the Uganda Cancer Institute (UCI) at Mulago Hospital show that majority do not screen early and report in late stage of the disease (UCI Report 2014). The number of prostate cancer cases has increased from 48 in 2013 to 83 in 2014 and the majority were coming from Nakawa Division (Uganda Cancer Institute Registry, 2015). Additionally, the Globocom (2012) indicates that the incidence of prostate cancer is 2843/100,000 in Uganda and the one year prevalence is 28.1%. Thus, failure to find preventive strategies will result into many people affected by the burden of prostate cancer. It is therefore against this background that the researcher would like to investigate the knowledge, attitude and practice-affecting men aged 40-75 years towards prostate cancer screening in Nakawa division, Kampala district.

1.2 Problem statement

Globally Prostate Cancer is the 2nd most common type of cancer and the fifth leading cause of cancer related death in men, occurring more commonly in the developed world and rates have been increasing in the developing world. In 2012 it occurred in 1.1 million men and caused 307,000 deaths (Troncoso P et al, 2012).

It is advisable that all men between 40 to 75 years should undergo prostate cancer screening after every 2-4 years for early detection and treatment (Oluka, 2012). In Uganda, it has been noted that men come late for the screening services when the disease has reached its advanced stages. The number of prostate cancer cases at Uganda Cancer Institute is on the increase from 48 in 2013 to 83 in 2014, with 34.6% coming from Kampala alone. Out of this, 17.3% is from Nakawa division. This results into high incidence rates of prostate cancer among men resulting into death and a big burden on the government to manage patients in form of the cancer drugs. The government has put in place measures like sensitization on television, radio stations and screening services in health centers but despite the measures in place, number of patients who screen in advanced stage of the disease still remains high. This state of affair is worrying given the fact that this age group (40-75years) is the most productive among men and their level of knowledge is not yet known. It is against this background that the researcher decided to identify the knowledge, attitude and practice of men aged 40-75 years towards prostate cancer screening in Nakawa division, Kampala district.

1.3 Justification of the study

There is a high incidence and mortality rates of prostate cancer among men yet the level of knowledge, attitude and practice towards Prostate Cancer screening among the men at risk is not known in Uganda. Baseline information about the level of knowledge, attitude and practice towards prostate Cancer screening would help Ministry of Health, Health service providers and all health workers towards making policies and programmes that will improve efforts to fight Prostate Cancer disease burden.

Furthermore, to other researchers who may undertake research of a similar nature, the findings will provide a source of information that will be referred to by such researchers and in turn, they will make valid conclusions based on established and proven facts. The researcher will get an award of degree in nursing.

1.4 Major objective

The purpose of the study was to identify the knowledge, attitude and practice of men aged 40-75 years towards prostate cancer screening in Nakawa division, Kampala district.

1.5 Specific objectives

The study was guided by the following objectives;

- i). To determine the level of knowledge on prostate cancer screening among men aged 40-75 years within Nakawa division, Kampala district.
- ii). To identify attitude towards prostate cancer screening among men aged 40-75 years within Nakawa division, Kampala district.
- iii). To identify the practice of men aged 40-75 years towards prostate cancer screening within Nakawa division, Kampala district.

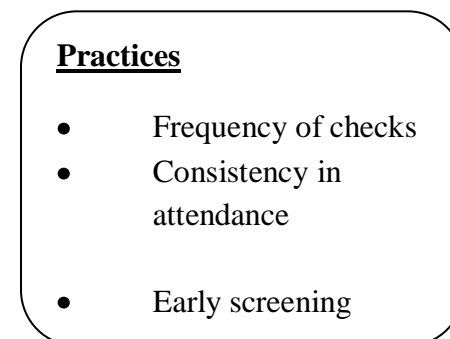
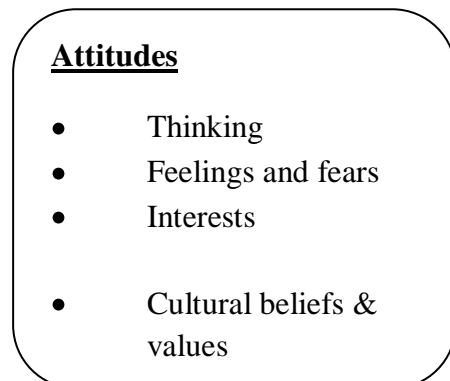
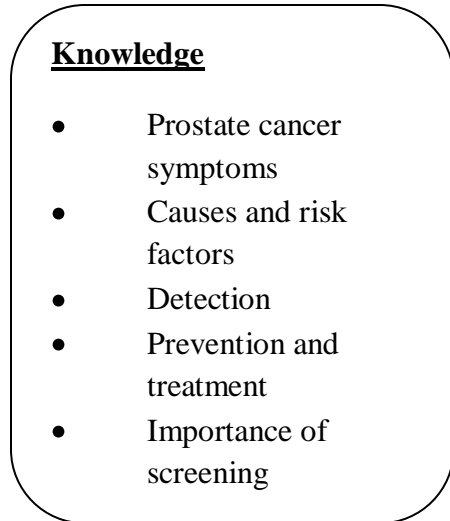
1.6 Research questions

- i). What is the level of knowledge on prostate cancer screening among men aged 40-75 years within Nakawa division, Kampala district?
- ii). What is the attitude of men aged 40-75 years towards prostate cancer screening within Nakawa division, Kampala district?
- iii). What is the practice of men aged 40-75 years towards prostate cancer screening within Nakawa division, Kampala district?

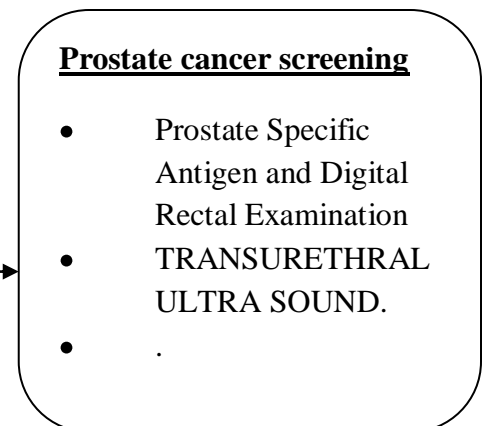
1.7 Conceptual framework

Figure 1: Relationship between the independent and dependent variables under study

INDEPENDENT VARIABLES



DEPENDENT VARIABLE



From the above conceptual frame work, it is indicated that the knowledge, attitude and practice form the independent variables where as the dependent variable is prostate cancer screening. The independent variables were studied in terms of knowledge, attitude and practice of men towards prostate cancer screening while the dependent variable was studied in terms of available screening service methods of PSA, DRE and Transurethral Ultra Sound. Furthermore, knowledge was studied in terms of prostate cancer symptoms, causes and risk factors, detection, prevention & treatment as well as importance of screening. Similarly, attitude was measured by looking at thinking, feelings, fears, interests, cultural beliefs & values. On the other hand, practice among men was studied in terms of frequency of checks, consistency in attendance and early screening.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This section brings out the views of different authors about the knowledge, attitude and practice of men towards prostate cancer screening. Literature is reviewed in line with the objectives of the study, which are identifying the level of knowledge on prostate cancer and its screening, identifying the attitude towards prostate cancer screening as well as identifying the practices of men aged 40-75 years towards prostate cancer screening. This literature has been described under level of knowledge, attitude and practice about prostate cancer screening.

2.1 Level of Knowledge on Prostate cancerscreening among Men Aged 40-75 years

Different academicians have come out to provide the significance of knowledge as far as screening for prostate cancer is concerned. Knowledge of prostate cancer and prostate cancer screening plays an important role in cancer screening utilization (Deibert *et al.*, 2011). Researchers have found a correlation between knowledge and screening behaviours among men with prostate cancer. According to Oladimeji *et al.* (2010), a person's history of prostate screening is related to knowledge regarding prostate cancer, and both knowledge and screening history are positively related to intent to undergo screening in the future. An international survey carried out by Schroder *et al.*, (2009) in Europe and the USA on general public awareness of prostate cancer showed that there was a lack of awareness of prostate cancer, thus causing lower screening rates among men with prostate cancer.

Similarly, in Uganda, few studies have been done on knowledge, attitude and practice towards prostate cancer and prostate cancer screening behaviors. These studies report a low level of awareness of prostate cancer and prostate cancer screening (Oluka 2012; Nakandi *et al.*, 2013). Besides, a cross sectional study done in 2009 on a native African urban population showed that 78.8% had never heard of prostate cancer and 5.8% had

heard of PSA (Baade, Youlden and Krnjacki. On the contrary, a study in Nigeria revealed that although older Nigerian men had high awareness rates on prostate cancer, their low knowledge of the aetiology, treatment, and prevention; their perception on the risk of developing the disease and uptake of screening was low (Oladimeji *et al.*, 2010).

According to Diefenbach,*et al.* (2006), common signs and symptoms that easily manifest when one has the cancer include slow flow of urine, painful ejaculations, blood in either urine or semen, reduced ability to get an erection, sudden desire to urinate, dribbling of urine as well as having a decreased libido and having knowledge of symptoms improved screening uptake of prostate cancer.

As Richards *et al.*, (2012) observed, setting up an education campaign with the intent of promoting awareness of cancer symptoms and encouraging self-referral to a local primary healthcare professional can reduce the risk of prostate cancer across the world. Providing handouts from hospital facilities would equally improve the knowledge that people have about the disease. Setting up a sensitization campaign has largely been embraced as one of the mechanisms for improving people's knowledge (Arnold-Reed *et al.*, 2008). Others recommend that using debates, radio talk shows and media houses, for people to know the treatment mechanism as well as preventing the disease is important (Wabinga *et al* 2013).

It was noted that detection of prostate cancer is majorly by screening with Prostate Specific Antigen and Digital Rectal Examination but the confirmatory methods are by biopsy removal from the prostate gland and microscopic examination of the prostate gland according to Wanyagah *et al*, 2013 and Javali *et al*, 2013.

The study by Nakandi *et al* 2013 in Kampala Uganda, 50% had heard about prostate cancer and the commonest source of information being by mass media only 12.5% of the respondents obtained information about prostate cancer from Health Workers. This shows that few men get access to information especially those in urban areas and majority in local villages miss out leading to lack of awareness about the prostate cancer.

In the same study, respondents confused prostate cancer symptoms with Gonorrhoea and had various misconceptions about the causes of the disease which shows that more knowledge about prostate cancer is still lacking and highly needed among men of the vulnerable age.

Wabinga *et al* 2013: Study showed that there is no formal program targeting prostate cancer which may explain the lack of awareness about prostate cancer among the population in Uganda.

It also revealed that there are no published data on prevailing knowledge, attitude and, practices of men regarding prostate cancer in Uganda.

It was noted that majority of Ugandan men are simply not aware of prostate cancer and do not take early urinary symptoms seriously (November Uganda, 2013).

This indicates need to create awareness about the prostate cancer and its screening services.

2.2 Attitude towards prostate cancer screening among men aged 40-75 years

In a study that was carried out on Black Americans, it was indicated that because of the negative attitude of people, their behavior towards prostate cancer and screening using the PSA and DRE examinations changed. In addition, Richards *et al.*, (2012) noted that attitude creates a barrier to knowledge about the disease, lack of access to screening services, embarrassment, and fear of a positive diagnosis. Other barriers that could result from attitude include distrust of medical professionals and the government, disinclination about sex-related health problems, complacency about the possibility of having prostate cancer, and belief that prostate cancer has a relation to sexual behavior. Positive reinforcement, optimism, and knowledge about prostate cancer are enabling factors associated with prostate cancer screening (Forrester-Anderson, 2005).

In a study by Hoffman (2009), it was observed that an important part of coping with a cancer diagnosis is recognizing emotions and feelings. Treatment that deals with our emotions and relationships (sometimes called psychosocial interventions) can help people

with prostate cancer feel more upbeat and have a better quality of life. However, there is no good evidence to support the idea that these interventions can reduce the risk of cancer, keep cancer from coming back, or help the person with cancer live longer. Nevertheless, things like group support, individual therapy, mindfulness, and relaxation techniques can be used to help reduce distress and cope with the emotions that come with a cancer diagnosis.

According to Diane *et al.* (2008), having a negative attitude about body illnesses affect the coping moods for certain diseases. For example, people with cancer and their families may feel guilty about their emotional responses to the illness. They may feel pressure to keep a “good attitude” at all times, which is unrealistic. This feeling of pressure can come from within themselves, from other people, or both. Conditions of sadness, depression, guilt, fear, and anxiety are all normal parts of grieving and learning to cope with major life changes. This was supported by Klabund *et al.*(2009), who observed that trying to ignore these feelings or not talking with others about them can make the person with prostate cancer feel lonely. It was also noted by Klabund et al, 2009 that some people feel guilty or blame themselves when they cannot stay with prostate cancer which only adds to their emotional burden and also fear to screen for prostate cancer. In line with this, many people want to believe that the power of the mind can control serious diseases. This is a comforting belief that can make a person feel safer from the risk of serious illness. But the down side of such beliefs is that when people with prostate cancer don't do well, they may blame themselves. Thus, it is important to maintain a positive attitude even when a person has screened positive of prostate cancer.

In a study conducted by Diefenbach *et al.* (2006), to learn more about attitude and survival, researchers looked at the emotional well-being of more than 1,000 patients with head and neck cancer to find out whether it affected survival. Over time, those who scored high on emotional well-being showed no differences in cancer growth or length of life when compared with those with low scores. Based on this evidence, it is important to analyze the attitude and emotional impact of people with prostate cancer to their well-being.

In a study by Ngugi & Magoha (2007) in Kenya, the attitude of the respondents to prostate cancer screening was positive as 66.4% were concerned about getting prostate cancer and 87.2% were of the opinion that screening should be done in symptom-free individuals. A positive association was noted between respondents' attitude to prostate cancer screening and their educational level. The respondents with tertiary and post-graduate education felt the most need for routine screening in symptom-free individuals (90.6% and 88%, respectively). This is in agreement with Ebuehi *et al*, 2011 study, which revealed that as education level goes high, the awareness and uptake of prostate cancer screening also increased.

Ebuehi O.M, OtumuI.O (2011) study revealed that although the respondents were aware of prostate cancer screening, few had taken the test. Because there is insufficient scientific evidence for the justification of screening in all men, the authors recommend that informed decision making should guide a decision to obtain screening for prostate cancer. This means that men should talk with their doctors to learn the nature and risks of prostate cancer understand the benefit and risks of screening and decide whether prostate cancer screening is right for them.

In the same study, it was identified that lack of awareness, fear, cultural and religious beliefs, traditional attitudes about male gender role, physician's attitude as well as sexual dysfunction as sensitive issues for black men which discouraged their involvement in prostate cancer screening. Men showed interest in wanting to know more about prostate cancer and its screening methods though. This shows that the level of knowledge about prostate cancer will determine the attitude you can put towards the disease which will consequently determine the screening behavior towards prostate cancer. From this study, knowledge contributed 76.1%, attitude 1.8%, while screening behaviour contributed 10.8% towards vulnerability to prostate cancer. Support for this finding can be traced to Asuzu and Obeke, (2012) whose study suggested the need to organize enlightenment programs that will encourage men to go for screening. The study also reveals that education has a role to play in prostate cancer related knowledge. According to Nakandi *et al* 2013, the study in Uganda showed that young men think prostate cancer is for old

men only above 70 years and think also it is a wastage of time & money to go for checkups. This attitude is poor towards prostate cancer screening, as this will lead to late detection of the disease.

In the same study, many men did not care about prostate cancer screening because they did not consider it dangerous as HIV, so they thought all they needed was to go for HIV testing / screening than for prostate cancer screening.

Also it was noted that men think they should not go for screening for prostate cancer as they do not have any sign of disease or pain and also think prostate cancer is incurable which is a misconception, as prostate cancer in its early stages is a symptomatic

2.3 Practices of men aged 40-75 years towards prostate cancer screening

Prostate cancer incidence in the world has been influenced by the different practices of people (Quinn *et al.*, 2005). Nakandi *et al.*, (2013) observed that practices of men towards prostate cancer screening can be analyzed following their pattern of attendances to health facilities for checkups as well as the frequency of their visits to health centers. For example, regular hospital attendances for prostate cancer checks are a good practice that can be used to detect prostate cancer in its early stage. This helps in early detection and proper treatment of the disease before symptoms escalate.

Besides the knowledge, obstacles such as cost, the access to health services and even cultural factors can determine more or less favorable health practices. Additionally, many factors can still motivate or encourage the provision for certain health practices. This motivation can be internal through symptoms such as pain or discomfort, or even external through advertising campaigns in the mass media (Smith *et al.*, 2012).

The study by Ebuehi *et al.*, 2011 shows that very few men go for screening tests and information about prostate cancer is given to those who come for medical checkups. This indicates that knowledge about prostate cancer is limited to few to health centers for some medical reasons, leading to lack of knowledge about the disease among many men at risk.

In a study by Wanyagah P. 2013, there was a significant relationship between increasing age and prostate cancer screening and as education level increased, the awareness and uptake of prostate cancer screening also increased. Therefore, knowledge of prostate cancer is necessary which will create awareness on the importance of early screening in order to detect the disease in its early stages for proper management

Many studies indicate low level of screening behavior for prostate cancer as men fear possibility of positive outcomes but Atulomah's 2010 study shows that screening behavior has value in predicting how individuals are likely to respond if an intervention is designed to stimulate the behavior among men through innovative health education strategies in order to improve on the attitude towards prostate cancer screening (Wanyagah P, 2013).

Nakandi *et al* 2013, study showed that men go for screening in late stages of the disease after getting signs and symptoms mostly above 60 years when actually screening should start as early as 40 years for early detection & management. For this reason, more effort is needed for men to improve on practice of going for screening early.

Little about practices of men towards prostate cancer screening is shown because few studies have been done on prostate cancer in Uganda (Wabinga HR 2013) and this showing little exposure to knowledge about prostate cancer screening.

Nakandi *et al.* (2013)'s study indicate that 17% of the respondents of 490 people did not know where prostate cancer screening is done indicating lack of awareness about the screening services and their location in Uganda.

It was also noted that men complain they are not counseled about testing for prostate cancer Nakandi *et al* (2013).

CHAPTER THREE: METHODOLOGY

3.0 Introduction

This section covers the methodology that has been used in the study. It includes the study design, sources of data, study population, sample size calculation, sampling procedures, study variables, data collection technique, data collection tools, plan for data analysis, quality control issues, ethical issues, limitations of the study, plan for dissemination.

3.1 Study Design

The study design has been a cross sectional descriptive study. It has been selected because it allows studying matters under question from a given point in time.

3.2 Source of data

The study used primary data which had first hand data collected from the field. The data was only obtained using data collection tools of questionnaires.

3.3 Study Population

The targeted population for this study were men aged 40–75 years and residents of Nakawa Division. These respondents were selected because they were deemed reliable in providing information that would be necessary for the study which has come up with a true picture of the knowledge, attitude and practice of men in the selected age bracket towards prostate cancer screening.

a) Inclusion criteria

The study considered all men aged 40-75 years residing in Nakawa division and they accepted to participate in the study.

b) Exclusion criteria

The study excluded all men in the chosen age bracket that were not residents of Nakawa division.

3.4 Sample size calculation.

A sample was a portion of the population whose results could be generated to the entire population. The researcher selected a sample size of 220 respondents. This number was derived using Kish and Leslie (1965) for sample size calculation, at 95% level of significance, with a standard of error (e), of 5% as indicated below;

$$n = \frac{z^2 p (1-p)}{d^2}$$

Where;

n = the number of respondent required (sample size).

P = the proportion of the target population estimated to have prostate cancer, estimate at 17.3% by Uganda Cancer Institute Report, (2014).

$$q = 1-p = 1-0.173 = 0.827$$

Z = the standard normal deviation (1.96) at 95% of confidence.

d = degree of accuracy desired in this case is 0.05

$$n = \frac{z^2 p (1-p)}{d^2}$$

$$n = \frac{1.96^2 \times 0.173(1-0.173)}{0.05^2} = \frac{3.8416 \times 0.173 \times 0.827}{0.0025}$$

$$= \frac{0.54962}{0.0025} = 219.86$$

$$n = 220$$

3.5 Sampling Procedures.

Six out of the sixteen villages in Nakawa division were systematically sampled by arranging the names of the villages in an alphabetical order. Thereafter, two villages were jumped after every one picked. A simple random sampling was applied to the clustered villages in order to get 37 respondents from four villages and 36 respondents from two villages make a total of 220 respondents.

3.6 Study variables

Under the study, the variables studied were knowledge, attitude and practice of men towards prostate cancer screening.

3.7 Data Collection technique / tools

In this study, the questionnaire was used. The reasons for adopting a questionnaire was because it was cheap and easy to administer, preserved confidentiality and would be completed at respondent's convenience. The researcher personally distributed the questionnaires by simple random selection of respondents and ensured accuracy of information.

3.8 Plan for data analysis

From the field, data was arranged, edited, coded and computed using SPSS and presented in frequency tables which made it easy to interpret the results. Likert scale was used to obtain data from participants which was then categorized to decide whether the level of knowledge was high or low, the attitude was good or poor and the practice good or poor.

3.9 Quality control issues

A pretested semi-structured questionnaire was used in the study. Pretesting of the questionnaire was done in Kimwani zone, Katanga village there after adjustments

weremade before executionof the study. The researcher trained the research assistant who was used in the field.

3.10 Ethical issues

The research was purely for academic purposes. To build the confidence of the respondents, the researcher obtained an introduction letter from the teaching institution, which was submitted to the management of the area of study to be granted permission to carry out research within the area. The researcher then requested for permission which was granted from the town clerk Nakawa division to address potential respondents who were informed of their voluntary participation and their consents were obtained. The researcher also designed the instruments without providing the option for the name to observe confidentiality. Furthermore, the researcher erected different collection points where each of the respondents dropped their responses to avoid suspicion from their colleagues about their participation. The researcher also ensured that she explains whatever was in the data collection instruments before respondents participated in filling the questionnaires.

3.11 Limitations of the study

The researcher faced the following limitations;

Accessing the anticipated respondents was also a challenge since some villages never had direct road access.

Poor attitude of the respondents towards the research, posed a challenge because some respondents refused to participate saying they don't benefit from anywhere.

Language barrier was a problem since most of them never knew English which required interpreter.

This study was conducted only in one division and in an urban setting.

3.12 Plan for dissemination

From the field, the researcher has made three copies of the research report. A copy was submitted to the University authorities as a requirement for partial fulfillment of the award of a bachelor's degree in nursing of International Health Sciences University.

One copy was provided to the study area at Nakawa division headquarters for helping in identifying gaps in the knowledge, attitude and practice of men aged 40-75 years towards prostate cancer screening. The researcher also remained with one copy for her guidance in other academic pursuit in the future.

CHAPTER FOUR: RESULTS OF THE STUDY

4.0 Study Population

In this study, a total of 210 participants were interviewed to assess their knowledge, attitude & practice towards prostate cancer screening. The results are summarized in tables and text below.

4.1 Table1: Baseline Characteristics of Study Respondents

N= 210

Age	Total Number	Percentage (%)
40-50	132	62.9
51-60	44	21.0
61-70	26	12.4
71-75	8	3.8
Tribe		
Muganda	65	31.9
Munyankole	75	35.7
Musoga	34	16.2
Others	34	16.2
Marital Status		
Single	24	11.4
Married	129	61.4
Co-habiting	51	24.3
Others	6	2.9
Religion		
Anglican	87	41.4
Moslem	27	12.9
Catholic	87	41.4
Others	9	4.3
Education		
Never went to school	7	3.3
Primary	22	10.5
Secondary	91	43.3
Tertiary	90	42.9
Respondents' Number of Children		
1 - 5	144	68.6
6 – 10	57	27.1
11 above	9	4.3
Occupation of the respondents		
Unemployed	8	3.8
Business man	122	58.1
Student	1	0.5
Employed	79	37.6

From the study, the majority of respondents 132 (62.9%) were aged 40 – 50 years and the least of the respondents 8(3.8%) were aged between 71 – 75 years, 75 (35.7%) of the respondents were Banyankole, 67(31.9%) were Baganda and 34 (16.2%) each were Basoga and others.

Among the respondents 129 (61.4%) were married, 87 (41.4%) were Anglicans and Catholics too were 41.4%, 91(43.3%) were of secondary education followed by 90(42.9%) of tertiary education and the least were 7(3.3%) who never went to school.

Majority of respondents 144 (68.6%) had a number of children between 1-5 and the least were 9 with 4.3% who had a number of 11 children and above, 122 (58.1%) were business men and the least were 8(3.8%) who were unemployed.

4.2 Table 2: Knowledge of Respondents on Prostate Cancer Screening.

N = 210

Prostate cancer is a disease for men:	Total Number	Percentage (%)
Strongly disagree	27	12.9
Disagree	26	12.4
I don't know	46	21.9
Agree	57	27.1
Strongly agree	54	25.7
Slow flows of urine, pain on ejaculation, blood in urine, Decreased libido are signs of prostate cancer		
Strongly disagree	11	5.2
Disagree	26	12.4
I don't know	118	56.2
Agree	41	19.5
Strongly agree	14	6.7
Prostate cancer has no symptoms		
Strongly disagree	41	19.5
Disagree	58	27.6
I don't know	76	36.2
Agree	25	11.9
Strongly agree	10	4.8
40-75years is a risk age for prostate cancer		
Strongly disagree	24	11.4
Disagree	22	10.5
I don't know	63	30.0
Agree	68	32.4

Strongly agree	32	15.2
Missing System	1	.5
Urinary infections predispose to prostate cancer		
Strongly disagree	13	6.2
Disagree	17	8.1
I don't know	111	52.9
Agree	56	26.7
Strongly agree	13	6.2
There is treatment for prostate cancer if detected early		
Strongly disagree	11	5.2
Disagree	11	5.2
I don't know	32	15.2
Agree	102	48.6
Strongly agree	54	25.7
There are screening services for prostate cancer		
Strongly disagree	1	5
Disagree	14	6.7
I don't know	44	21.0
Agree	104	49.5
Strongly agree	47	22.4
Age of 40-75 years is recommended for prostate cancer screening		
Strongly disagree	38	18.1
Disagree	23	11.0
I don't know	55	26.2
Agree	70	33.3
Strongly agree	24	11.4
Men should screen every after 2-4years		
Strongly disagree	17	8.1
Disagree	23	11.0
I don't know	58	27.6
Agree	62	29.5
Strongly agree	50	23.8
Prostate cancer is preventable		
Strongly disagree	13	6.2
Disagree	29	6.2
I don't know	64	30.5
Agree	72	34.3
Strongly agree	31	14.8
Missing System	1	5
Missing System	4	1.9
Regular screening helps in prostate cancer prevention		
Strongly disagree	6	2.9

Disagree	15	7.1
I don't know	50	23.8
Agree	93	44.3
Strongly agree	46	21.9
Prostate cancer is curable		
Strongly disagree	30	14.3
Disagree	27	12.9
I don't know	62	29.5
Agree	61	29.0
Strongly agree	29	13.8
Missing System	1	5
It is very important for men aged 40-75years to screen for prostate cancer.		
Strongly disagree	9	4.3
Disagree	9	4.3
I don't know	23	11.0
Agree	103	49.0
Strongly agree	66	39.4

As indicated in the table above, 111(52.8%) of respondents knew that prostate cancer is a disease for men and 99(47.2%) did not know, 155 (73.8%) of respondents did not know the signs and symptoms of prostate cancer, 111 (52.9%) did not know that prostate cancer has symptoms and 109 (52.4%) did not know the risky age of prostate cancer.

Among respondents, 141 (67.2%) did not know that urinary infections predispose to prostate cancer, 156 (74.3%) knew that there is treatment for prostate cancer if detected early, 151 (71.9%) knew that there are screening services for prostate cancer, 116 (55.3%) did not know the recommended age for prostate cancer Screening and 112 (53.3%) knew that men should screen every after 2 – 4 years. Also 106 (50.5%) of the respondents did not know that prostate cancer is preventable.

Majority of respondents, 139 (66.2%) knew that regular screening helps in prostate cancer preventable, 119 (46.7%) did not know that prostate cancer is curable and 169 (80.4%) knew that it is very important for men aged 40 – 75 years to screen for prostate cancer.

4.3 Table 3 Respondents Attitude towards Prostate Cancer Screening

N = 210

I think prostate cancer has no cure	Total Number	Percentage (%)
Strongly disagree	44	21.0
Disagree	54	25.7
I don't know	53	25.2
Agree	39	18.6
Strongly agree	20	9.5
Health looking men do not have prostate cancer		
Strongly disagree	90	42.9
Disagree	67	31.9
I don't know	37	17.6
Agree	14	6.7
Strongly agree	2	1.0
Prostate cancer is a disease for old men above 70years		
Strongly disagree	82	39.0
Disagree	76	36.2
I don't know	31	14.8
Agree	17	8.1
Strongly agree	4	1.9
Prostate cancer screening is not important since it doesn't show symptoms in early stages		
Strongly disagree	94	44.8
Disagree	60	28.6
I don't know	36	17.1
Agree	13	6.2
Strongly agree	7	3.3
Prostate cancer can be cured through prayers		
Strongly disagree	104	49.5
Disagree	45	21.4
I don't know	40	19.0
Agree	19	9.0
Strongly agree	2	1.0
Prostate cancer is attributed to witchcraft		
Strongly disagree	118	56.2
Disagree	48	22.9
I don't know	37	17.6
Agree	7	3.3
Strongly agree	0	0
It is costly to screen for prostate cancer		

Strongly disagree	20	9.5
Disagree	36	17.1
I don't know	99	47.1
Agree	38	18.1
Strongly agree	15	7.1
Missing System	2	1.0
Prostate cancer examination is a painful procedure		
Strongly disagree	21	10.0
Disagree	37	17.6
I don't know	112	53.3
Agree	24	11.4
Strongly agree	16	7.6
I feel embarrassed to expose my private parts for examination		
Strongly disagree	54	25.7
Disagree	53	25.2
I don't know	19	9.0
Agree	56	26.7
Strongly agree	27	12.9
Missing System	1	5
I fear to die after knowing I have prostate cancer		
Strongly disagree	74	35.2
Disagree	47	22.4
I don't know	15	7.1
Agree	53	25.2
Strongly agree	21	10.0
I am not interested in knowing my status on prostate cancer		
Strongly disagree	71	33.8
Disagree	71	33.8
I don't know	9	4.3
Agree	31	14.8
Strongly agree	26	12.4
Missing System	2	1.0

From the table above, 112 (53.3%) of the respondent think prostate cancer has no cure, 157 (74.4%) believed that health looking men can have prostate cancer, 52 (10%) think that prostate cancer is a disease for men above 70 years, 56 (26.6%) think that it is not important to screen for prostate cancer since it does not show symptoms in early stages.

Also, 149 (70.9%) did not believe that prostate cancer can be cured through prayers and 166 (79.1%) disagreed that prostate cancer is not attributed to witchcraft, 56 (26.6%) of

respondents only disagreed that it is costly to screen for prostate cancer, 58(27.6%) disagreed that prostate cancer screening is not a painful procedure.

More so, 83 (39.6%) said they feel embarrassed to expose their private parts for examination, 121 (57.6%) said they do not fear to die after knowing they have prostate cancer and 142 (67.6%) showed interest in knowing their status.

4.4 Table 4: Practice of Respondents towards Prostate Cancer Screening

N = 210

I have never screened for prostate cancer	Frequency	Percent (100)
Strongly disagree	18	8.6
Disagree	8	3.8
I don't know	8	3.8
Agree	86	41.0
Strongly agree	89	42.4
Missing System	1	.5
I have screened for prostate cancer once or more times		
Strongly disagree	107	51.0
Disagree	61	29.0
I don't know	13	6.2
Agree	13	6.2
Strongly agree	16	7.6
It is okay to go for screening above 75years:		
Strongly disagree	80	38.1
Disagree	47	22.4
I don't know	28	13.3
Agree	34	16.2
Strongly agree	21	10.0
There are no screening centers in Kampala for prostate cancer		
Strongly disagree	89	42.4
Disagree	31	14.8
I don't know	60	28.6
Agree	10	4.8
Strongly agree	18	8.6
Missing System	2	1.0

From the table above, Majority of the respondents, 175 (83.4%) had never screened for prostate cancer, 29 (13.8%) had screened, 127 (60.5%) did not agree it is okay to go for screening above 75 years and 88 (42.0%) did not know there are screening centers for prostate cancer in Kampala district.

CHAPTER FIVE: DISCUSSION OF RESULTS

5.0 Introduction

This study was carried out to assess the knowledge level, attitude and practice towards prostate Cancer screening among men aged 40 – 75 years.

5.1 Knowledge level on prostate cancer screening

Findings from the study indicated that there was low knowledge levels about Prostate Cancer and its screening as 47.2% of the respondents did not know a disease for men, some reaching an extent of saying it is also in children and it has no cure. They did not know the risky age, risk factors, signs and symptoms and recommended age for screening.

There was lack of awareness about the disease as compared to Wanyagah P 2013 study which had high awareness among the respondents on prostate cancer.

Although majority of respondents were well educated since 42.9% were of tertiary education and 43.3% were of secondary education, majority 83.4% had never screened for prostate cancer as compared to Wanyagah P 2013 study which showed that high education level is a determinant of knowledge on prostate cancer screening.

The overall knowledge levels in this study among men on prostate cancer screening was low as they were similar to Oladimeji et al 2010 study which showed the same in Nigerian and Australian men.

Though knowledge on prostate cancer screening was low among men in the study, most of them knew it is important to screen so that they know their status on prostate cancer as it was also found out in the study by Oladimeji et al 2010 which showed that even though knowledge was low among the population, most of the men were willing to screen for prostate cancer

5.2 Attitude of men towards prostate cancer screening

The study found out that men think that prostate cancer is a disease for the old above 70 years as it was also found out by Nakandi *et al* 2013 study.

Also the study showed that men think that prostate cancer is not curable and it is not important to screen when they have no pain or any other symptom, it is costly to screen and a painful procedure, all which are misconceptions because prostate cancer is asymptomatic in its early stages.

Despite the high level of education among respondents in this study, the attitude was good but level of knowledge and practice of prostate cancer screening was poor as compared to Magosha and Ngugi 2007 study which noted a positive association between respondents attitude to prostate cancer screening and their education level.

It was found that fear of positive diagnosis also created a negative attitude towards prostate cancer screening as men think it has no cure, which was also discovered by Richard et al 2012 study on prostate cancer screening.

5.3 Practice of men towards prostatecancer screening.

Findings of the study showed that there was very low uptake of screening services for prostate cancer among men due to lack of knowledge about the disease and awareness as it was also found in the study by Schroder et al 2009 which showed lack of awareness on prostate cancer causing low screening rates among men.

In the study by Ebuehi *et al* 2011, findings revealed that as education level went high, the awareness and uptake of prostate cancer screening also increased which is in disagreement with my study that indicates though majority of men were educated, they lacked knowledge on prostate cancer and its screening.

It was found out that very few (8.3%) of men in the study had screened for prostate cancer, indicating screening has remained low. This will lead to reduced early

detection rates, poor management of the disease and increased mortality from the disease as it was also found out by Ajupe et al 2009 study.

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.0 Conclusion

This study found that respondents did not know signs and symptoms of prostate cancer, they did not know the risk age group and predisposing factors, they did not know that prostate cancer is a disease for men, indicating lack of knowledge about prostate cancer.

Majority of the respondents had positive attitude towards knowing their status about prostate cancer.

Among the respondents, majority had never screened indicating a poor prostate cancer screening practice.

6.1 Recommendations

In view of the results of the study, the following recommendations have been made;

Ministry of health should strengthen its strategies towards prostate cancer screening by creating awareness about the disease among men especially of the risky age.

Administration in hospitals should pass a policy on routine prostate cancer screening among men of risky age.

Healthy workers especially Doctors and nurses should integrate prostate cancer screening services with other community outreach programmes.

All health workers should strengthen strategies towards sensitization on prostate cancer screening services.

The town clerk Nakawa division should also lay strategies towards sensitization of Prostate cancer screening in the area.

Further research is recommended to find out the factors contributing to low uptake of prostate cancer screening among men of risky age.

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APPENDIX I: CONSENT FORM

I have been approached by madam Busingye Grace, a student from International Health Sciences University, pursuing a bachelor’s degree of nursing sciences and undertaking research on the topic “knowledge, attitude and practice of men towards prostate cancer screening in Nakawa division, Kampala district.

I have understood the need to participate and have agreed to provide my opinion on the variables under the study.

Name (Optional):

Signature:

Date.....

APPENDIX II: QUESTIONNAIRE

Section A: Respondent's Social Demographic Data.

Instructions:

- Do not put your name on this questionnaire.
- Tick in the appropriate answer in the box provided.
- Write the answer in the space provided.

1. State your age

2. What is your tribe?

a) A muganda

b) Munyankore

c) Musoga

d) Others (specify).....

3. What is your marital status?

a) Single

b) Married

c) Co-habiting

d) Others (specify).....

4. How many children do you have? State the number.....

5. What is your Religion?

a) Anglican

b) Moslem

c) Catholic

d) Others (specify).....

6. What is your level of education?

- a) Never went to school
- b) Primary
- c) secondary
- d) Tertiary

7. What is your occupation?

- a) Unemployed
- b) Business man
- c) Student
- d) Employed

Section B: Knowledge on prostate Cancer

Please tick in the appropriate column provided below

Prostate cancer	Strongly Disagree	Disagree	I don't know	Agree	Strongly Agree
prostate cancer is a disease for men					
Slow flows of urine, pain on ejaculation, blood in urine, decreased libido are signs of prostate cancer.					
Prostate cancer has no symptoms					
40-75years is a risk age for prostate cancer					

Urinary infections predispose to prostate cancer.					
There is treatment for prostate cancer if detected early.					
There are screening services for prostate cancer.					
Age of 40-75 years is recommended for prostate cancer screening					
Men should screen every after 2-4years					
Prostate cancer is preventable					
Regular screening helps in prostate cancer prevention.					
Prostate cancer is curable.					
It is very important for men aged 40-75years to screen for prostate cancer.					

Section: C Respondents Attitude towards Prostate Cancer Screening.

Please tick appropriately the right column concerning screening of prostate cancer

Prostate Cancer Screening	Strongly disagree	Disagree	I don't know	Agree	Strongly agree
I think Prostate cancer has no cure					
Health looking men do not have prostate cancer.					

Prostate cancer is a disease for old men above 70years					
Prostate cancer screening is not important since it doesn't show symptoms in early stages					
Prostate cancer can be cured through prayers					
Prostate cancer is attributed to witchcraft					
It is costly to screen for prostate cancer.					
Prostate cancer examination is a painful procedure.					
I feel embarrassed to expose my private parts for examination.					
I fear to die after knowing I have prostate cancer.					
I am not interested in knowing my status on prostate cancer					

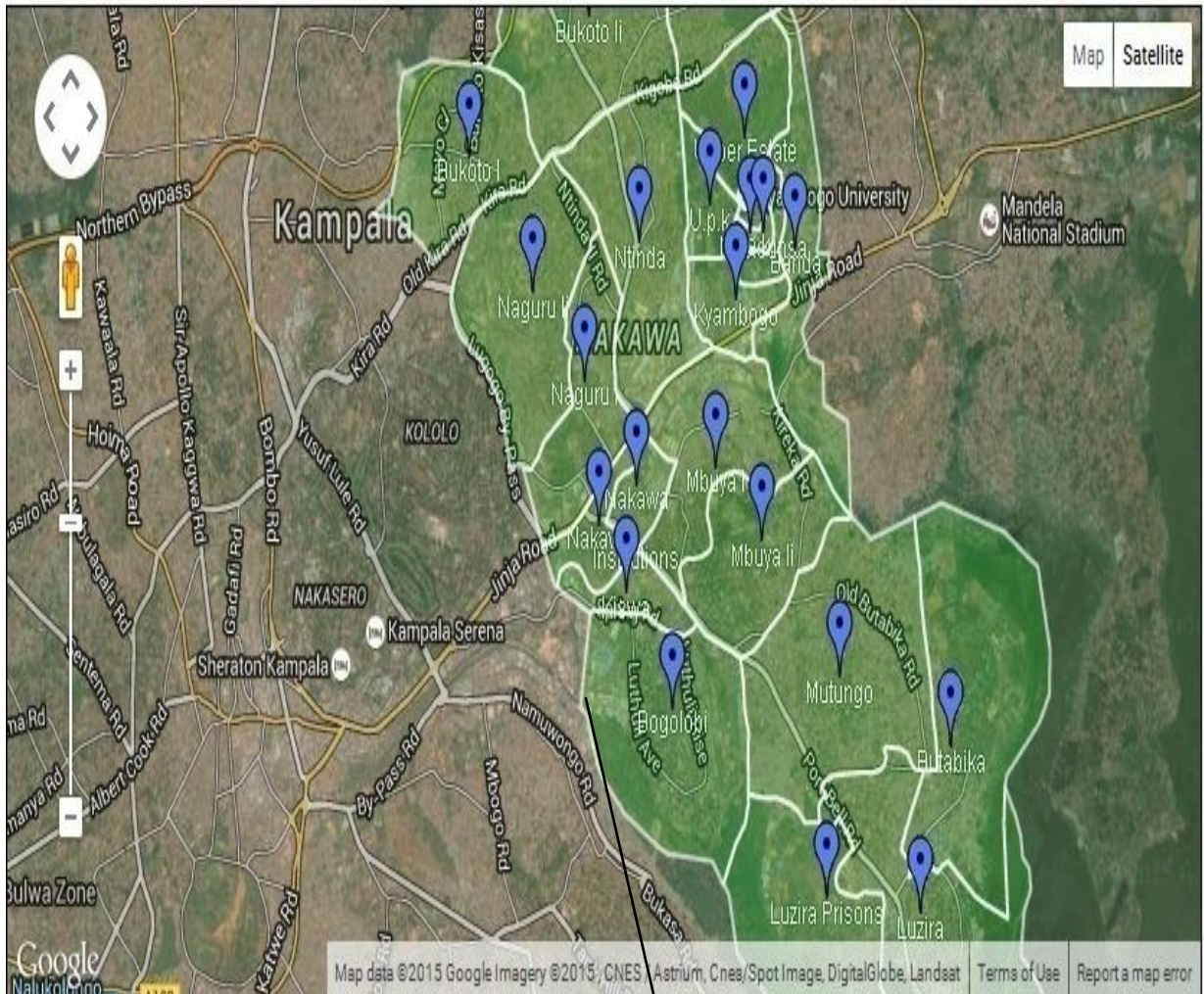
Section D: Practice towards Prostate Cancer Screening.

Please tick in the appropriate column provided below.

Practice on prostate cancer screening	Strongly disagree	Disagree	I don't know	Agree	Strongly agree
I have never screened for prostate cancer					
I have screened for prostate cancer once or more times					
It is okay to go for screening above 75years					
There are no screening centers in Kampala for prostate cancer					

Thank you for your cooperation.

APPENDIX III: MAP OF KAMPALA SHOWING NAKAWA DIVISION



Kampala District

APPENDIX IV: INTRODUCTORY LETTER



Office of the Dean, School of Nursing
Kampala, On the 12th day of June, 2015

TO WHOM IT MAY CONCERN

Re: Assistance for Research

Greetings from International Health Sciences University.

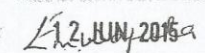
This is to introduce to you **Busingye Grace** Reg. No. **2012-BNS-TU-053**, who is a student of this University. As part of the requirements for the award of a Bachelor of Nursing Sciences of this University, the student is required to carry out field research for the submission of a Research Project.

Grace would like to carry out research on issues related to: **Knowledge, attitude and practice of men aged 40-75 years towards prostate cancer screening in Nakawa Division, Kampala District**

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,


SCHOOL OF NURSING
MRS. WAFULA ELIZABETH
DEAN

MAKING A DIFFERENCE IN HEALTH CARE

International Health Sciences University
P.O. Box 7782 Kampala | Uganda | East Africa
Tel: (+256) 0312 307 400 | E-mail: vc@ihsu.ac.ug | web: www.ihsu.ac.ug

APPENDIX V: CORRESPONDENCE LETTER I



OFFICE OF THE TOWN CLERK
NAKAWA DIVISION URBAN COUNCIL
Mob: 0794 660037
Email: gkiseka@kcca.go.ug

Ref: NDC/205/08

23rd June 2015

Ms. Busingye Grace
International Health Sciences University

ACCEPTANCE TO CONDUCT RESEARCH IN NAKAWA DIVISION

Reference is made to your letter in regard to the above subject matter.

I hereby inform you that your request to conduct research in Nakawa Division was accepted. However, you must conduct your research in accordance to rules and regulations that govern research in the Authority.

By copy of this letter, all LC I Chairpersons are hereby requested to avail you all the necessary information.

A handwritten signature in black ink, appearing to read 'G.B. Kisekka', is written over a faint watermark of the letter 'A'.

Godfrey B. Kisekka
TOWN CLERK



cc. Mayor, Nakawa Division
The Deputy Resident City Commissioner, Nakawa Division
Supervisor, Education and Social Services, Nakawa Division

P. O. Box 7010 Kampala - Uganda
Plot 1-3 Apollo Kaggwa Road
Tel: 0414 231 446 / 0204 660 000
Web: www.kcca.go.ug, Email: info@kcca.go.ug
f. [facebook.com/kccaug](https://www.facebook.com/kccaug), t. @KCCAUG

APPENDIX VI: CORRESPONDENCE LETTER II

KIMWANYI VILLAGE URBAN COUNCIL

TEL: 0772 889 075
0701 239 953



Email: kimwanyivillage@gmail.com

WANDEGEYA WARD, KAWEMPE DIVISION, KAMPALA



Date

TO: THE DEAN OF
STUDENTS
I.H.S.U

Dear Sir / Madam

RE : INTRODUCTION / RECOMMENDATION LETTER

NAME: BUSALCYE GRACE CONTACT: 0779822056

LANDLORD:

This is to introduce the above named person who is a true resident of our village. We have no any bad information on him/her. The purpose of this letter is to recommend him/her to lawfully deal with any individual, private or public institution. Please, kindly assist him/her after fulfilling your requirements.

Any assistance rendered to him/her is appreciated in advance.

Yours in service,

H.B
I have received her and allowed her to collect her data in our village Kimwanyi

Signed: ROSALCI SARAH
CHAIRMAN - KIMWANYI VILLAGE

