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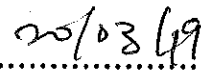
This is to certify that SONIRAN ARINOLA ZAINAB ELIZABETH, of the Department of Demography and Social Statistics, Faculty of Social Sciences, Federal University Oye Ekiti, Ekiti State, Nigeria carried out a research on the topic "Social Determinant And Knowledge Of Male Workers Towards Prostate Cancer" in partial fulfillment of the requirements for the award of Bachelor of Science (B.Sc) in Demography and Social Statistics, under my supervision



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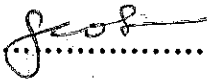
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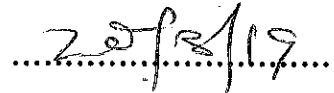
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DR. LORETTA NTOIMO

Head of Department



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EXTERNAL EXAMINER

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DEDICATION

I wish to dedicate this work to almighty God, the alpha and omega who has made this project a success and to my parents Mr. and Mrs. Oteju Soniran, friends and family for their encouragements, affection, support and contribution towards this work being a success.

ACKNOWLEDGEMENT

My utmost gratitude goes to Almighty God, the Creator of the Universe and the source of all knowledge for His grace, mercy and loving kindness upon my life and for seeing me through the thick and thin of this program.

My appreciation also goes to my supervisor, Mr. Ogunsakin Adesoji for sparing out of his limited time and busy schedule to read, tutor, direct and guide me through the completion of this research work. May the Almighty God reward you; enrich you abundantly in every ramification of your life and also grant you success in whatever you lay your hands upon.

I want to appreciate the entire lecturers and non-academic staff in the department; Prof. Ogunjuyigbe, Dr Odushina, Mr Soji, Miss Alex-Ojei Christianah, Dr Shittu, Dr Ntoimo, Mr. Babalola, Mr Abatan amongst others for their support, encouragement, impartation and contribution to the success of my studies.

My profound and immeasurable gratitude goes to my parents Mr and Mrs. Oteju Soniran, my sisters Mrs Oyindamola Soniran and Oteju Olusola, my brother Soniran Ibrahim for their endless contribution, support, inspiration and encouragement. I couldn't have come this far without God through you all. May God in His abundance bless you in all your endeavors and may he grant you long life to reap the fruit of your labor in sound health and riches. To my friends Oyetibo Folakemi, Taiwo Omolayo, Akunwane Kate, Abimbola Grace, Gurusa iyanuoluwa, Ubogu Daniel amongst others i can't thank you enough. To the entire DSS class of 2018 and the whole RCCG Oye family, it won't be complete without you. Thank you and God bless you all.

ABSTRACT

This study evaluated the knowledge and attitude of male workers in EKSUTH towards prostate cancer. The study adopted the use of primary data with an open and closed ended questionnaire and the inclusion criteria were men aged 30 - 72 years whom are working in EKSUTH and are eligible and willing to participate. This research was achieved through a random selection amongst all department in the institutions, with a proposed 220 samples derived using the sample population of 2000 workers. The achieved sample size was 140 due to the study setting and location, also the unavailability of staffs. Univariate and Bivariate analysis was performed to determine factors affecting the level of knowledge and attitudes; of which some of the factors were found to be significant. The project adopted the use of SPSS and STATA packages in analyzing data related to the study.

The cognitive behavioral theory and epidemiological transition theory was adopted as a framework for further inquiry into the research. Bi-variate analysis was carried out using chi-square to show the relationship between Knowledge and attitude of male workers and prostate cancer and also the relationship between socio-demographic variables of age, marital status, income, level of education, religion, and ethnicity and their resultant effect on the knowledge and attitude of male workers towards prostate cancer in EKSUTH were analyzed. The result of the bi-variate analysis showed that at 5% level of significance, some of the demographic variables such as education, income, and job role were significant at $p\text{-value} = 0.000, 0.000, 0.000$ respectively to the knowledge and attitude of male workers towards prostate cancer in this research. The univariate analysis carried out in these research shows that majority of the respondents were within the ages of 30-39, and most of them are Christians with a high percentage of tertiary educational attainment, and majority of the respondents are receiving below a 100,000 thousand monthly. Advanced level of education (tertiary education), job role and income were major predictors of adequate knowledge. There is a need for exploration of new platforms for creating awareness on PC in the community and inclusion of PC facilities in routine medical check-ups for early diagnosis in eligible men.

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CHAPTER ONE

1.1 BACKGROUND TO THE STUDY

According to Claus & Libby (2011) Prostate cancer is a major public health concern and is associated with significant increase in healthcare costs. It is the second most common malignancy in men, with 782,600 incident cases estimated globally in 2007. In their USA alone, an estimated 192,280 new cases of prostate cancer occurred in 2009, with 27,360 deaths. With an estimated increase in the elderly population in the industrialized world from 400 million individuals greater than 65 years in 2000, to approximately 1.5 billion by 2050, and an apparent increase in the 10-year relative survival rate of those diagnosed with prostate cancer, the economic burden of prostate cancer is predicted to increase markedly. Earlier detection through screening of serum PSA has been successful in identifying men who might benefit from treatment; as a result, many men are now diagnosed earlier and with lower-stage cancer than was previously the case, effectively increasing the economic burden of this disease.

Prostate cancer is the 4th most common cancer in both sexes combined and the 2nd most common in men, it is one of the several cancers associated with the prostate glands in men. It is the number one cancer in males in Africa. It was estimated in 2012 as 1.1 million men were diagnosed worldwide which accounted for 15% of which 70% of infected men are in developed regions.

According to Ferlay (2012), the incident rate accounts for 30% of all cancers in Africa and worldwide variation accounts 102 per 100,000 populations for US BLACK, 60 per 100000 population for US white, 50 per 100,000 population for Sweden as their incident rates. Due to its high rate of mortality, it has become pertinent for researchers to delve into studies surrounding prostate cancer, its knowledge and people's predisposition towards it. The disease is common amongst men of ages 40- 60 years of age due to their maturity in prostate glands. Due to the unavailability of current registries in Nigeria, information on death rate has been difficult to identify the rate of infected individuals (Lisa).

According to Eli Lilly, from ESMO cape town (2017), researchers on epidemiology has predicted that prostate cancer would continue to increase from 15% in 2010 to 18 in 2030, 21% in 2040 and 25% in 2050 and the death rate would double in 20 years to 20% in the world This

disease is becoming rampant in most African countries and the incidence rate in Africa will likely continue to rise with improving economies and increasing westernization, warranting the need for more high quality population based registration to monitor cancer incidence in African countries which include Nigeria

Preventive measures of Prostate Cancer

According to American Cancer Society (2016) there is no sure way to prevent prostate cancer. Many risk factors such as age, race, and family history can't be controlled. But there are some things you can do that might lower your risk of prostate cancer.

Body weight, physical activity, and diet

The effects of body weight, physical activity, and diet on prostate cancer risk are not clear, but there are things you can do that might lower your risk, such as: Eating at least 2½ cups of a wide variety of vegetables and fruits each day, being physically active, Staying at a healthy weight.

Vitamin, mineral, and other supplements

Some earlier studies suggested that taking certain vitamin or mineral supplements, such as vitamin E or selenium, might lower prostate cancer risk. But in a large study, neither vitamin E nor selenium was found to lower prostate cancer risk.

Several studies are now looking at the possible effects of soy proteins (called isoflavones) on prostate cancer risk. The results of these studies are not yet available. Any supplement has the potential for both risks and benefits. Before starting vitamins or other supplements, talk with your doctor.

Medicines

Some drugs might help reduce the risk of prostate cancer. Drugs that include;

5-alpha reductase inhibitors

The drugs finasteride (Proscar) and dutasteride (Avodart) have been studied to see if they can lower prostate cancer risk, but it's not clear if the benefits outweigh the risks for most men.

Still, men who want to know more about these drugs should discuss them with their doctors. These drugs are currently used to treat benign prostatic hyperplasia (BPH), a non-cancerous growth of the prostate.

Aspirin

Some research suggests that men who take a daily aspirin might have a lower risk of getting and dying from prostate cancer. But more research is needed to show if the possible benefits outweigh the risks, such as an increased risk of bleeding.

Other drugs

Other drugs and dietary supplements that might help lower prostate cancer risk are now being tested in clinical trials. But so far, none have been proven to do so.

1.2 STATEMENT OF PROBLEM

Prostate cancer is very high in most developing countries, its number of reported cases has increased from 500 in 1986 to 1750 in 2006 in less developed countries and the death rate amongst men increased from 15 per 100000 men aged 45-49 to 1300 per 100,000 men aged 75 and above in 1992-1996 according to Mutambirwa (2017). According to the W.H.O (2013) more than 20% of death occurred in 2012 in western African countries and 6.6% of total men death in the world which has led to an increase in mortality compared to other developed countries in the world.

According to Joe (2017) a common challenge encountered is late presentation by the affected patients and this has been attributed mainly to poor awareness, inadequate health education, and lack of screening programs for prostate cancer, poverty, poor healthcare facilities and paucity of specialist urological care. This statement was supported by (Olapade, Obamuyide, & Yisa, 2008); who stated that much emphasis has been placed on cancer in women in Nigeria, especially breast and cervical cancer, little attention has been given to the cancers affecting men. Currently, there is no formal program targeting prostate cancer which

may explain the lack of awareness about prostate cancer thereby limiting the knowledge, attitude and practice of prostate cancer amongst the population.

1.3 RESEARCH QUESTIONS

1. What are the trends of prostate cancer?
2. What are the effects of prostate cancer on socio-demographic variables e.g. age, sex, level of education etc?
3. What is the impact of job role on the knowledge of male workers in EKSUTH towards prostate cancer?

Hence, the focal point of this research is to examine the demographic factors that cause prostate cancer via the trends of the disease over time.

1.4 GENERAL OBJECTIVE

1. To evaluate the knowledge of prostate cancer amongst male workers in EKSUTH given their prior knowledge about the disease.

SPECIFIC OBJECTIVES

1. To examine the trend of prostate cancer.
2. To determine the influence of socio-economic factors on the knowledge of prostate cancer on male workers in EKSUTH.
3. To assess the impact of job role on the knowledge of male workers in EKSUTH towards prostate cancer

1.5 JUSTIFICATION OF THE STUDY.

The need for awareness cannot be over-emphasized as research has found that the mortality rate of men in less developed countries is high. In Nigeria, the life expectancy of the population is 54.5, and the crude death rate of Nigerians is 13/1000 population as at 2015 according to Dr Ntoimo. For a period of three years 2010 – 2013, the reported cases of diseases in general has increased from 1.6 million to 2.1 million in 2011, and an increase of 3.9 million at the end of 2012. It number of reported cases has increased from 500 in 1986 to 1750 in 2006 amongst black countries and the death rate amongst men increased from 15 per 100000 men aged 45-49 to 1300 per 100,000 men aged 75 and above in 1992-1996 according to (Muṭambirwa, 2017). This is as a result of the inability of the health facilities to cover the ever growing rate of incidences of disease in the country. The focal point of this research is to ascertain the variables of study that affect the rate of prostate cancer and to appraise the effectiveness and evaluate the knowledge and attitude of males towards this disease.

1.7 DEFINITION OF CONCEPTS

Prostate cancer (PC) - is a cancer that occurs in male prostate glands, which is common amongst men of ages 40 and above.

PSA- Prostate-specific antigen

KA is known as the knowledge and attitudes of respondents towards prostate cancer.

EKSUTH is known as Ekiti State Teaching Hospital

CANCER According to Cancer Council (2016) Cancer is a disease of cells, which are the body's basic building blocks.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

The literature review for this study focused on the epidemiology of PCa, risk factors, prevention and treatment modalities as well as on the knowledge and attitude studies done in Africa and beyond..

CANCER

According to Cancer Council (2016) Cancer is a disease of cells; which are the body's basic building blocks. The body constantly makes new cells to help us grow, replace worn-out tissue and heal injuries. Normally, cells multiply and die in an orderly way. Sometimes cells don't grow, divide and die in the usual way. This may cause blood or lymph fluid in the body to become abnormal, or form a lump called a tumor. A tumor can be benign or malignant:

Benign tumor – Cells are confined to one area and are not able to spread to other parts of the body. This is not cancer.

Malignant tumor – This is made up of cancerous cells, which have the ability to spread by travelling through the bloodstream or lymphatic system (lymph fluid).

It can be noted that inside of cells are coded instructions for building new cells and controlling how cells behave. These instructions are called “genes”. Genes are part of DNA (deoxyribonucleic acid), which is grouped together into bundles called chromosomes.

PROSTATE CANCER

Prostate cancer is a disease of the prostate gland that presents as either asymptomatic disorder as noted by (Persec, Sović, Romic, Herak, & Hrgovic, 2010) or a systemic malignancy as seen by (Bambury & Gallagher, 2012) It is marked by a disruption of the prostate architecture causing abnormal structure of the prostate and an increase in Prostate Specific Antigen (PSA)

Prostate cancer occurs when normal cells begin to grow faster or die slower and either pattern causes a tumor to form. Some prostate cancers occur as a result of abnormal changes called

“mutations” in genes. Put in other words, Prostate cancer develops when abnormal cells in the prostate gland start to grow more rapidly than normal cells, and in an uncontrolled way. Most prostate cancers grow more slowly than other types of cancer, although this is not always the case. There are two stages of advanced prostate cancer. If the cancer grows and spreads outside the prostate gland into the seminal vesicles (glands that lie close to the prostate) or nearby parts of the body, such as the bladder or rectum, it is called locally advanced prostate cancer. Metastatic prostate cancer is when the cancer has spread to distant parts of the body such as the lymph glands or bones according to (Fagan., 2016).

According to the Brazilian Society of Urology, one out of six men aged 45 or over may have the disease without knowing. This high frequency, which makes prostate cancer a public health problem, coupled with the possibility of detection with a relatively simple procedure, should make this disease a priority in the care of male health. In this sense, this care involves preventive actions of primary feature (which includes actions focused on the risk or predisposing factors) and secondary feature (early diagnosis and a proper therapeutic approach to prevent disability and mortality that may be caused by the disease).

Regarding early prevention, risk factors are, most of the times, unknown and inevitable, hindering more specific prevention measures for prostate cancer. However, two risk markers are recognized as important: age and family history. Regarding age, the likelihood of prostate cancer in men younger than 39 is one for every 10,000 men; one for 103 men aged between 40 and 59 and one for 8 men aged between 60 and 79 years old(6). Therefore, cases increase exponentially over 50 years, making screening essential from this age on. Current researches seem to validate Prostate Cancer (PC) as the leading cancer among men of African descent in the USA, Caribbean, and Sub-Saharan Africa (SSA). In 2008, it was estimated that PC deaths were five times greater in SSA than that observed among African-Americans or their Caucasian counterparts. It was also estimated that by 2030 the incidence rate would have doubled in Africa according to (Rebbeck, 2013)

Among men, prostate cancer has a high prevalence, with relatively lower cancer-specific mortality risk compared to lung and colon cancer. Accounting for 29% of all cancers in men, prostate cancer is the most common cancer among men behind non melanoma skin cancer and is the second highest cause of cancer death among men of all races. Over 2 million men currently

alive in the United States have had prostate cancer, and it is estimated that 16.48% of men will be diagnosed with prostate cancer at some point during their lives. Estimates of newly diagnosed prostate cancer cases hover near 240,000 for 2011. However rampant the disease might be, the incidence of mortality may not necessarily be a risk factor. It is estimated that 1 in 6 men will be diagnosed with prostate cancer but only 1 in 36 are expected to die because of it. This may be because it is predominantly diagnosed in more senior adults, and, with a generally favorable outlook, men usually die before any symptoms appear. To be sure, there are tens of thousands of individuals who suffer the symptoms of aggressive prostatic cancer, but, in terms of the larger picture of prostate cancer, these men are well in the minority.

2.2 FACTORS CAUSING PROSTATE CANCER

Researchers do not know exactly what causes prostate cancer. But they have found some risk factors and are trying to learn just how these factors may cause prostate cells to become cancer.

On a basic level, prostate cancer is caused by changes in the DNA of a normal prostate cell. DNA is the chemical in our cells that makes up our genes. Our genes control how our cells function. We usually look like our parents because they are the source of our DNA. But DNA affects more than just how we look as listed below;

- Some genes control when our cells grow, divide into new cells, and die:
- Certain genes that help cells grow, divide, and stay alive are called oncogenes.
- Genes that normally keep cell growth under control, repair mistakes in DNA, or cause cells to die at the right time are called tumor suppressor genes.
- Cancer can be caused in part by DNA changes (mutations) that turn on oncogenes or turn off tumor suppressor genes.
- DNA changes can either be inherited from a parent or can be acquired during a person's lifetime.

Interpretation of cancer incidence and mortality rates in a defined population requires an understanding of multiple complex and interacting factors. These factors include the prevalence of risk factors in the population, changes in the use of medical interventions to screen and treat the disease, and changes in how data are collected and reported.

Risk factors of prostate cancer

As much as prostate cancer cannot be cured or prevented in men, there are several ways of reducing its effect or mode of growth that may lead to an increase in mortality and a reduction of labor force of a country. There is several cause and risk factors of prostate cancers that needs to be addressed having in mind that risk factors are anything that aggravates an individual's chance of getting the disease. But having a risk factor, or even several, does not mean that you will get the disease. Many people with one or more risk factors never get cancer, while others who get cancer may have had few or no known risk factors.

Researchers have found several demographic factors that might increase the risk of getting prostate cancer such as: age, family history, gene change, race/ ethnics, geography.

Age

Age is the strongest risk factor for developing prostate cancer. Prostate cancer generally affects men over 50, and is rarely found in younger men. Approximately one half of all men in their fifties have some cancer cells within their prostate and 8 out of 10 men (80%) over the age of 80 have a small area of prostate cancer. Most of these cancers grow extremely slowly and so, particularly in elderly men, may never cause any problems.

Race/Ethnicity

Prostate cancer occurs more often in African-American men and in Caribbean men of African ancestry than in men of other races. African-American men are also more than twice as likely to die of prostate cancer as white men. Prostate cancer occurs less often in Asian-American and Hispanic/Latino men than in non-Hispanic whites. The reasons for these racial and ethnic differences are not clear.

Geography

Prostate cancer is most common in North America, northwestern Europe, Australia, and on Caribbean islands. It is less common in Asia, Africa, Central America, and South America. The reasons for this are not clear. More intensive screening in some developed countries probably accounts for at least part of this difference, but other factors such as lifestyle

differences (diet, etc.) are likely to be important as well. For example, Asian Americans have a lower risk of prostate cancer than white Americans, but their risk is higher than that of men of similar backgrounds living in Asia.

Family History

Prostate cancer seems to run in some families, which suggests that in some cases there may be an inherited or genetic factor. (Still, most prostate cancers occur in men without a family history of it. Having a father or brother with prostate cancer more than doubles a man’s risk of developing this disease. (The risk is higher for men who have a brother with the disease than for those who have a father with it.) The risk is much higher for men with several affected relatives, particularly if their relatives were young when the cancer was found.

These factors listed above have made me dive into this study to buttress on the impact of the knowledge and practice of male workers towards prostate cancer. This cancer has several effects on the population such as: increase in mortality, reduction in fertility, weak erection in man as a result of depletion in prostate glands (in-sexuality), depression, weight gain, urinary problem, decrease in life expectancy, and increase in private and governmental funding.

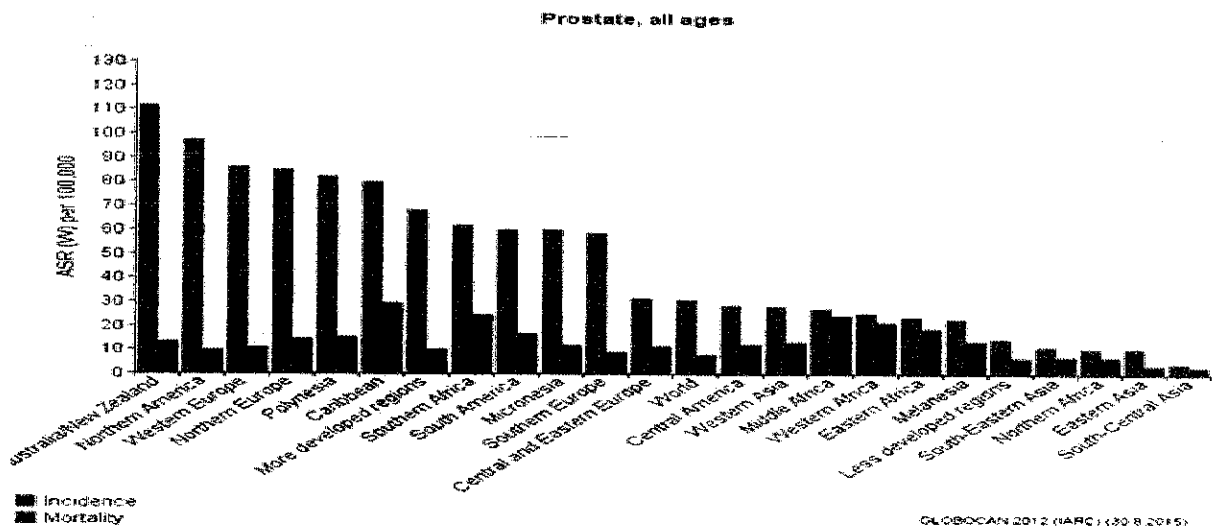


Figure 1. Age standardized incidence and mortality rate per 100,000 individuals in different parts of the world⁷. Graph created by IARC data analysis software.

GLOBALCAN 2012 (IARC) (30.8.2015)

Fig: 1 worldwide prostate cancer mortality

2.3 WORLDWIDE CANCER MORTALITY

The burden of cancer is increasing, and thus the African Organization for Research and training in Cancer (AORTIC) has committed to fostering research, education and advocacy on a variety of levels to increase the awareness of cancer in Africa as opined by Cancer in Africa (2011). It is well documented that having adequate knowledge about prostate cancer is also a significant determinant of screening behavior (Pendleton et al., 2008). According to Lilly & Mutambirwa (2017), researchers on epidemiology has predicted that prostate cancer would continue to increase from 15% in 2010 to 18 in 2030, 21% in 2040 and 25% in 2050 and the death rate would double in 20 years to 20% in the world This disease is becoming rampant in most African countries and the incidence rate in Africa will likely continue to rise with improving economies and increasing westernization, warranting the need for more high quality population based registration to monitor cancer incidence in African countries such as Guinea, Nigeria, South Africa, Zimbabwe, Uganda, Malawi, and Kenya etc. The low levels of knowledge and attitude among African populations have been noted in Nigeria, Uganda, and Ghana.

2.4 PROSTATE CANCER IN NIGERIA

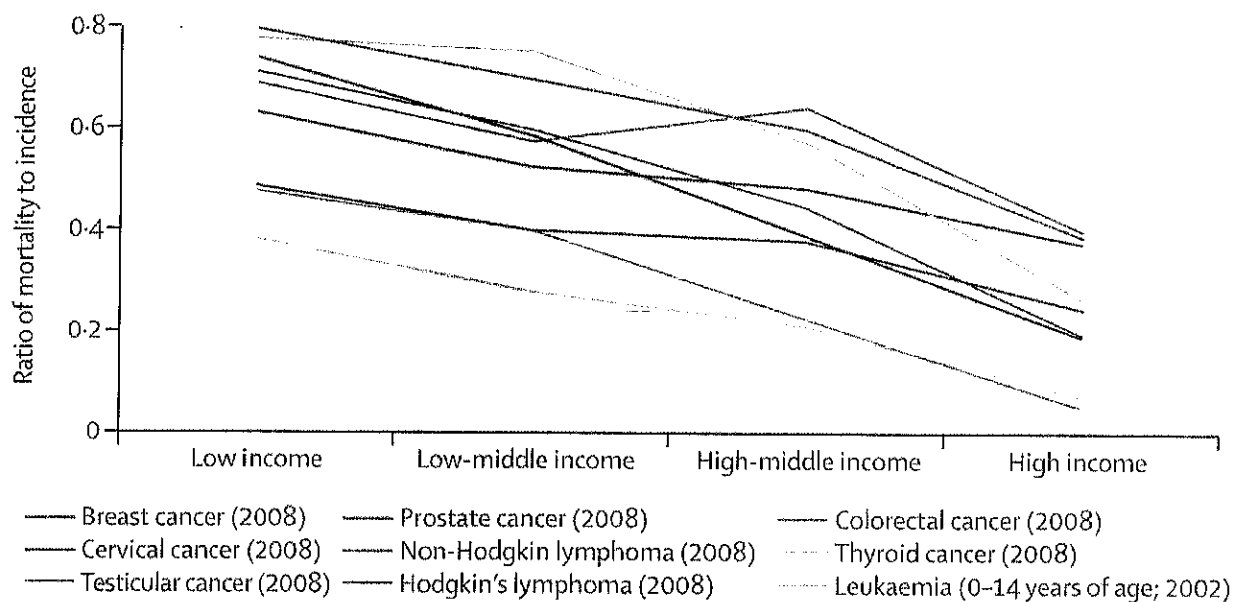
Prostate cancer is common amongst men of ages 40- 60 years of age due to their maturity in prostate glands. Due to the unavailability of current registries in Nigeria, information on death rate has been difficult to identify and also the rate of infected individuals have been unknown due to the problem of screening and knowledge about the disease given the victims as opined by (Lisa). In Nigeria, thou there is no certain reports on rate of prostate cancer or the incidence rate (as opinioned by an official of NBS I.C.T department Lagos state office.), low levels of knowledge and attitude were observed among men in a rural community in the Ikenne local government district (Eo, Et, Kola, Mm, & Adebusoye, 2014). A similar finding was reported in a qualitative cross-sectional study conducted in Ibadan, South West Nigeria. The study recommended for the creation of community awareness programs on prostatic diseases in the community as opined by (Atulorhah, Motunrayo, Olanrewaju, Ademola, & Omotoyosi, 2010) A hospital based study in Nigeria however, reported a contrasting result. In this study 74.1% of the men were reported to be aware of the existence of prostate cancer except that their participation in screening activities was low. Prostate cancer is a malignant tumor that occurs in the prostate gland, which is found only in men. The prostate gland is the size of a walnut and surrounds the

first part of the urethra which carries urine from the bladder to the penis. Early cancer of the prostate gland (early prostate cancer) is when the cancer is only in the prostate and has not spread into the surrounding tissues or to other parts of the body. It is also called localized prostate cancer. Locally advanced prostate cancer is cancer that has spread into the tissues around the prostate gland.

In 1973, (Nkposong, 1973) urologists from the University College Hospital, Ibadan, South West Nigeria, at the time the only referral center for cancer treatment, noted a low but increasing incidence of prostate cancer. It moved from 8th position of male cancers in 1969 to 2nd place by 1979, with liver cancer leading the pack. In 1981, Udeh also reported the same position from Enugu, but up till 2002, (Globocan & Ferlay, 2008) reported that PC was not among the top 5 cancers in developing countries (Titilola, Sep 23, 2011). Angwafo, while reporting 93.8/100000 incidence from Cameroon in 1994, asked the question "Is prostate cancer rare in black Africa?" while Osegbe in a report from Lagos where the hospital incidence was put at 127/100000, surmised that incidence of PC may be underestimated in Nigerians. Similar reports of increasing hospital based incidence came from other parts of Nigeria with rates of 61.3/100000 from Calabar and 182.5/100000 from Ife. The stance of Globocan has since changed with the 2008 report that PC had become the top male cancer and fourth commonest cancer in Nigeria. Ogunbiyi and Shittu from the Ibadan Cancer Registry in 1999 announced a definite increase of PC among Nigerians. It had risen from 8th position in 1969 to 1st position in 1996, being 11% of all male cancers. Studies from Kano, Zaria, Benin and Maiduguri showed PC as 16.5%, 9.2%, 7.13% and 6.15% of male cancers.

2.5 TRENDS OF CANCER MORTALITY BY INCOME LEVEL

Analyzing temporal trends in cancer incidence and mortality rates can provide a more comprehensive picture of the burden of the disease and generate new insights about the impact of various interventions. For example, assessing trends in breast cancer mortality rates over the past two decades may be informed by knowledge of the known risk factors for the disease, changes in mammography screening, and the dissemination of efficacious adjuvant therapies. The trends of prostate cancer is therefore analyzed by income level



2.6 THEORETICAL REVIEW

Cognitive-Behavioral Theories and Prostate Cancer Perceptions and Beliefs

Despite the burden of disease and premature mortality experienced by African American men, there have been only modest attempts to explain their health-related behaviors, with respect to prostate cancer, using cognitive-behavioral theories. These frameworks have included the Health Belief Model (Myers, 1999); Plowden, 1999) and the Preventive Health Model (myer, 2000); (Myers, 1996)

Preventive Health Model: The Preventive Health Model (PHM) (Myers et al.2000; Myers et al., 1996) integrates major constructs from preventive health behavior theories and self-regulation theory. Preventive health behavior theories posit that people are highly rational in decision making about health behavior in so far as people consider the likelihood that certain health-related event will or will not occur as well as personal values related to occurrence of the event (cameroon, 2003).

The self-regulation theory assumes that individuals form cognitive and affective representations of health-related problems and that these representations have an effect on whether or not people choose to engage in specified health behaviors (janz, 1984)

The PHM theorizes that background, psychological representation, social support and influence, and program factors are associated with both intention to engage in a preventive health behavior and taking preventive action (Myers et al., 1996).

Myers et al. (1996) applied the PHM (Myers et al.) to assess the receptivity of African American men in Philadelphia to annual prostate cancer screening with the aim of predicting their intent of participating in prostate cancer screening tests. This study found that over two thirds of the participants intended to undergo annual prostate cancer screening. In addition, most men tended to view prostate cancer screening as reasonable and effective for the prevention and early diagnosis of prostate cancer.

Despite their findings, the authors remained skeptical that African American men were unconditionally receptive to prostate cancer screening, stating that relatively few men in the study perceived their personal risk for prostate cancer as being high. Furthermore, other factors contributing to prostate cancer screening were expressed through concerns over the abnormal screening results, screening related discomfort and embarrassment, and financial cost.

In another study, Myers et al. (2000) applied the PHM (Myers et al., 1996) to examine the background characteristics, social influence factors, and program factors thought to be associated with African American males and genetic testing for prostate cancer. The purpose of this study was to identify factors associated with the intent of

African American men participate in tests to determine their genetic risk of prostate cancer. Unlike the Meyers et al. (1996) study, they found that past screening, perceived susceptibility, and beliefs related to early detection may influence receptivity to testing for prostate cancer risk.

Studies using the PHM (Myers et al., 2000; Myers et al., 1996) as a framework for examining prostate cancer screening behaviors of African American men found that cognitive and socio-demographic factors were the most significant predictors of the intent to take preventive action and actual preventive behavior. Contrastingly, affective factors such as social support and influence did not predict cancer screening use among this population.

Researchers have theorized that conditions where an individual is encouraged to consider the benefits and risks of cancer screening, affective factors may become significant in elucidating behavior. (Trafimow 1998), found that for many behaviors, affect made a larger contribution than cognition in predicting behavioral intentions. This is based on the principles that although people are aware of screening for cancer and believe these tests are beneficial; however, they still do not participate in cancer screening. (Fishbein, 2005) Underscored the importance of affect, but in addition emphasized the use of attitude measures that include both instrumental and affective behavioral components, such as cancer-specific anxiety or apprehension regarding the actual screening procedures.

The Epidemiological Transition Theory

The epidemiologic transition describes changing patterns of population age distributions, mortality, fertility, life expectancy, and causes of death. The very term “epidemiologic transition” raises the question of transition from what to what? There are two major components of the transition:

- (1) Changes in population growth and composition, especially in the age distribution from younger to older
- (2) Changes in patterns of mortality, including increasing life expectancy and reordering of the relative importance of different causes of death.

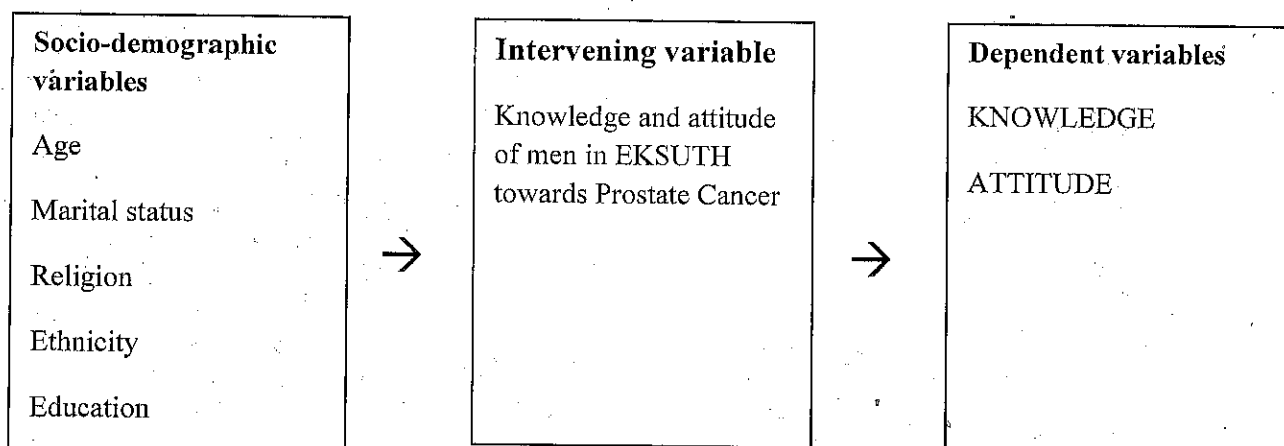
Conceptually, the theory of epidemiologic transition focuses on the complex change in patterns of health and disease *and* on the interactions between these patterns and their demographic, economic and sociologic determinants and consequences. The theory is most relevant as a way of looking at and understanding the relation among disease, mortality patterns, and population dynamics rather than as a definitive explanation or prediction

The health or epidemiological transition is driven by increased urbanization, improved health care, western lifestyle and increasing age are some of the core factors that drive the trend towards non-communicable diseases, including cancer in Africa. Based on Namibia DHS 2013-2014, the factors that have been observed to contribute to an increased incidence of PC are economic status, alcohol intake, smoking, diet, inactivity, age, gender and ethnicity.

2.7 CONCEPTUAL FRAMEWORK

The framework of this study is divided into three components:

- a) The knowledge that men have regarding prostate cancer;
- b) The attitudes and how the men feel towards prostate cancer and
- c) Their social determinants towards prostate cancer.



The first objective was to measure the level of knowledge, whether adequate or inadequate based on the Likert scale. The way the men feel about prostate cancer was assessed by their attitude response, as per the second objective. Based on the knowledge and attitudes, the social determinants would be evaluated.

RESEARCH HYPOTHESIS

1. Ho: Income and educational status has no effect on the knowledge and attitude of male workers towards prostate cancer in EKSUTH.

H1: Income and educational significant has an effect on the knowledge and attitude of male workers towards prostate cancer in EKSUTH..

2. Ho: the job role have no significant impact on the knowledge and attitude of male workers towards prostate cancer in EKSUTH

Hi: the job roles have a significant impact on the knowledge and attitude of male workers towards prostate cancer in EKSUTH

CHAPTER THREE

METHODOLOGY

3.1 Introduction

A quantitative approach using a descriptive cross sectional design would be used for this study using systematic random sampling. This was appropriate is to ensure that all respondents has an equal chance of being selected, therefore being representative of the population of study and allowed the inference of the findings to the entire population under study, if they are willing and available (Elsayir, 2014); (Dicker, Coronado & Koo, 2009). The systematic sampling which is the purest form of probability sampling will be used for eligible men between the ages of 30–70 years attending EKSUTH for the study.

3.2 RESEARCH METHOD AND DESIGN

A quantitative approach using a descriptive cross sectional design was used for this study using systematic random sampling. This was appropriate to ensure all respondents had an equal chance of being selected for the study and allow the inference of the findings to the entire population under study (Elsayir, 2014); (Dicker et al, 2009).

Eligible men between the ages of 30 – 70 years who are working in EKSUTH irrespective of their departments were recruited for the study. The systematic sampling which is the purest form of probability sampling was used. By using systematic sampling, each member of the population had an equal and known chance of being selected and therefore representative of the population being studied.

3.3 STUDY SETTING AND POPULATION

The south-west part of Nigeria is made up of the 6 main states “Lagos, Ogun, Oyo, Osun, Ekiti, Ondo” of which Ekiti state is my study setting. It is located in the south western part of Nigeria with a population of over 2 million people, with 16 local governments and an annual growth rate of 2.6 percent. The study location is EKSUTH (Ekiti State University Teaching Hospital) with over 15 departments serving as a tertiary centre for 16 general hospitals and 32 comprehensive health centers in the state that caters for the health need of a population of over 2

million people and located at Ado-Iworoko-Ifaki road, Ado-Ekiti, Ekiti state. The research study aims at looking into the population of male workers in the institution,

Inclusion Criteria

Men aged 30 - 72 years attending Ekiti State Teaching Hospital (EKSUTH), who are working in EKSUTH and are eligible and willing to participate.

Exclusion Criterion

- Male patients aged 30 - 72 with prior diagnosis of prostate cancer will not be part of the study
- Men with debilitating medical or health issues, mentally unstable and speech disabled will be excluded
- Male patient who were critically ill will also be excluded

3.4 SAMPLE AND SAMPLING METHOD

The sample size was calculated using Epi-info 7 version statistical package using the following parameters: Population size: 2000 (catchment population in EKSUTH), confidence interval at 5%, Confidence limits: 95%, Design effect: systematic, hence the maximum possible sample size of 222 was used. Men working at EKSUTH were needed for the study. The estimated number of males who responded was 140, while there was unavailability of respondents due to their work. The first participant was randomly selected amongst every department, medical and non-medical until a target sample size of 140 was achieved.

3.5 RESEARCH INSTRUMENT

This research would be carried out using primary source of data (questionnaire). The questionnaire was a semi-structured questionnaire (open and closed ended questionnaires) designed based on WHO guidelines on conducting knowledge and attitude with a sample size of 140 respondents. The questionnaire was also developed based on NDHS 2006; the questionnaire was in English and consisted of open ended questions.

Four sections namely A, B, and C made up the questionnaire. Section A consisted of questions on socio-demographic characteristics such as age, religion, education, marital status, occupation,

Monthly earnings, ethnicity, nationality, health status, hospital department. Section B also captured questions on knowledge, prostate cancer risk factors, signs and symptoms, treatment options, sources of information (where they heard of prostate cancer), and major health issues in men. Section C captured attitude questions towards prostate cancer as a disease.

3.6 VALIDITY

The validity of a test is the extent to which the test measures the variables under the study (Designs, 2001). It ensures accuracy and correct interpretation of the results of the study. In this study validity was achieved by cross-checking, inspecting and scrutinizing the information entered in the questionnaires to ensure that the data collected was accurate, relevant, complete, consistent and homogeneous.

Validity was also enhanced as adjustments were made to the questionnaire as a result of pre-testing the data collection tool.

3.7 RELIABILITY

Reliability is the consistency of a measure that ensures consistency of a test. In this study, reliability of the questionnaires was ensured by designing open and closed-ended questions that measure knowledge and attitude of prostate cancer. Furthermore the conditions in which the questionnaires were administered ensured that the results obtained from the study are accurate. The participants were briefed on what the study was all about, with additional supervision of the research assistants to minimize errors and ensure data accuracy.

3.8 DATA MANAGEMENT AND ANALYSIS

The use of SPSS application package was adapted to input the data collected (via questionnaires) for the purpose of analyzing. Using STATA application package (STATA13.0), univariate analysis was carried out using table of frequency distribution to describe the knowledge and attitude of male workers in EKSUTH. Bi-variate analysis was carried out using chi-square (χ^2) to show the relationship between the workers status and prostate cancer. In addition binary logistics was used in the multivariate analysis to identify the strength of association and examine the attitude and knowledge of prostate cancer.

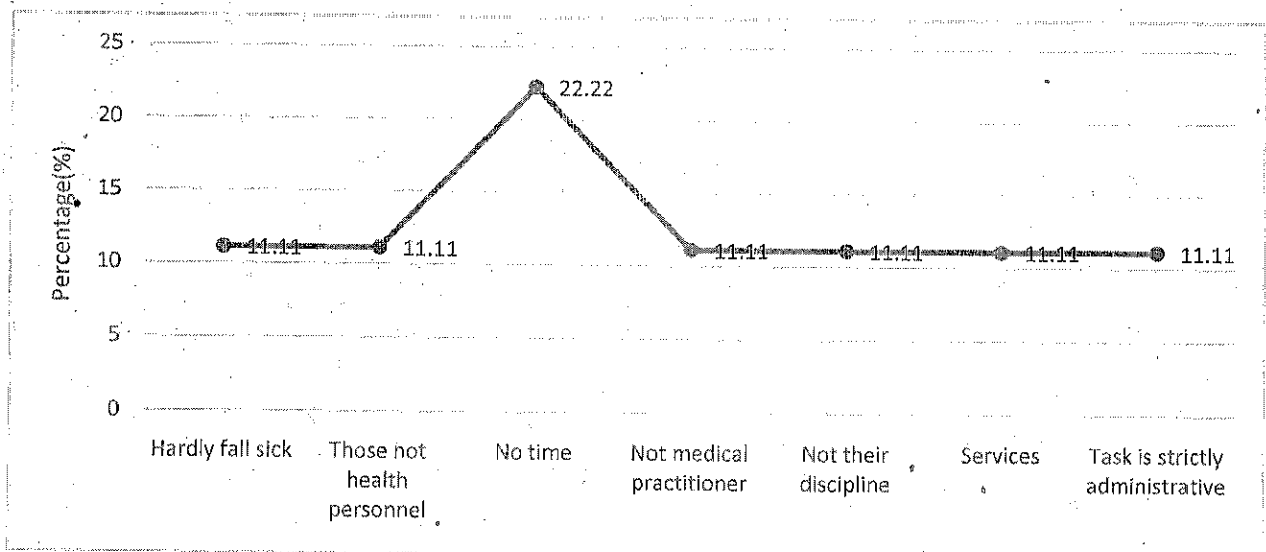
CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS RESULTS

TABLE 4.1.1 UNIVARIATE ANALYSIS OF SOCIO-DEMOGRAPHIC CHARACTERISTICS OF MALE WORKERS IN EKSUTH

Socio-demographic variables	Frequency	Percent
Age(years)		
30-39	78	55.71
40-49	30	21.43
50-59	29	20.71
60-69	3	2.14
Total	140	100.00
Religion		
Christian	116	82.86
Muslim	23	16.43
Others	1	0.71
Total	140	100.00
Ethnicity		
Hausa/Fulani	4	2.86
Igbo	15	10.71
Others	5	3.57
Yoruba	116	82.86
Total	140	100.00
Educational status		
Secondary	24	17.14
Tertiary	105	75.00
Others	11	7.86
Total	140	100.00
Income		
below 100000	69	49.29
100001-200000	39	27.86
above 200001	32	22.86
Total	140	100.00
Marital status		
divorced/separated	2	1.43
Married	96	68.57
Single	42	30.00
Total	140	100.00
QA11		
No	15	10.79
Yes	124	89.21
Total	139	100.00

Socio-demographic variables	Frequency	Percent
How often do you go for medical check-ups		
Occasionally	58	41.43%
Often	39	27.86%
Rarely	19	13.57%
very often	24	17.14%
Total	140	100.00%
Do you know if there are facilities in place to care for patients with prostate cancer in EKSUTH		
Yes	96	68.57%
No	13	9.29%
Uncertain	31	22.14%
Total	140	100.00%



Those who their job role does not give them access to health care information

4.1.1 Socio-demographic characteristics of male workers in EKSUTH.

The results in table 4.1.1 above showed the socio-demographic characteristics of male workers in EKSUTH. It was reported that the total number of men aged 30-39 years had a

greater percentage by 55.71%, 40-49 years by 21.43%, 50-59 years by 20.71%, and 60-69 years by 2.14% respectively. Christian male workers reported were 82.86%, Muslim male workers reported were 16.43%, and others reported were 0.71%. Hausa/Fulani male workers reported by 2.88%, Igbo workers reported by 10.71%, Yoruba male workers reported by 82.80%, and others reported by 3.57%. Male workers who reported secondary education were 17.14%, workers who reported tertiary were 75.00%, and male workers who reported others were 7.80%. Workers who reported below 100000 incomes were 49.29, those who report between 100001-200000 were 27.86%, and those who reported above 200001 were 22.86. It was reported above that 68.57% were married, 1.43% are divorced/separated, and 30.00% are single male workers.

Majority of the male workers reported that their job role gives them access to health information by 89.21% and minority of them reported that their job role those not give them access to health information by 10.79%. Male worker who reported that they go for check up rarely were 13.57%, those reported very often were 17.14%, men who reported often were 27.86% and workers who reported occasionally were 41.43%. Majority of male workers in EKSUTH reported that there are facilities for patient with prostate cancer in EKSUTH by 68.57%, minority of them reported that there is no facility for patients with prostate cancer in EKSUTH by 9.29%, while some reported uncertain by 22.14%.

Table 4.1.2 UNIVARIATE ANALYSIS OF KNOWLEDGE OF MALE WORKERS ABOUT PROSTATE CANCER

Knowledge variables	Frequency	Percent
What is the most important health issue in men		
Cancer	11	8.33%
Diabetes	62	46.97%
HIV/Aids	14	10.61%
others specify	32	24.24%
partial stroke	13	9.85%
Missing values	8	
Total	140	100.00%
Have you ever heard of prostate cancer		
Yes	101	73.72%
No	34	24.82%
Uncertain	2	1.46%
Missing values	3	
Total	140	100.00%

Where did you hear of prostate cancer?		
family and friends	6	5.61%
Hospital	67	62.62%
Internet	14	13.08%
Media	13	12.15%
Others	1	0.93%
Physician	6	5.61%
Missing values	33	
Total	140	100.00%
Have you heard of prostate cancer testing		
1Yes	92	66.19%
2No	41	29.50%
3Uncertain	6	4.32%
Missing values	1	
Total	140	100.00%
If yes, from where		
family and friends	2	2.06%
Hospital	67	71.13%
Internet	10	11.34%
Media	9	10.31%
Others	1	1.03%
Physician	4	4.12%
Total	92	100.00%
At what age do you think a man should be tested for prostate cancer		
31-40	23	19.49%
41-50	52	44.07%
51-60	18	15.25%
61 above	8	6.78%
below 30	17	14.41%
Missing values	22	
Total	140	100.00%

KNOWLEDGE ABOUT PROSTRATE CANCER

Knowledge variables	Frequency	Percent
Have you ever had a family history of prostate cancer		
1Yes	26	18.84%
2No	110	79.71%
3Uncertain	2	1.45%
Missing values	2	
Total	140	100.00%
Do you have a personal history of prostate cancer?		
1Yes	6	4.38%
2No	128	93.43%
3Uncertain	3	2.19%
Missing values	3	
Total	140	100.00%

Do you know if prostate cancer awareness is common in the community		
1Yes	43	31.39%
2No	72	52.55%
3Uncertain	22	16.06%
Missing values	3	
Total	140	100.00%
Do you think prostate cancer awareness should be common in the communities		
1Yes	114	83.82%
2No	20	14.71%
3Uncertain	2	1.47%
Missing values	4	
Total	140	100.00%
How much understanding do you have of prostate cancer?		
a bit about it	38	28.36%
a lot about it	56	41.79%
don't know anything	26	19.40%
don't know much	14	10.45%
Missing values	6	
Total	140	100.00%
Have you ever received any information on prostate cancer		
1Yes	83	60.58%
2No	48	35.04%
3Uncertain	6	4.38%
Missing values	3	
Total	140	100.00%
Do you know the symptoms of prostate cancer		
1Yes	77	56.20%
2No	55	40.15%
3Uncertain	5	3.65%
Missing values	3	
Total	140	100.00%
Does smoking cause prostate cancer?		
1Yes	53	39.26%
2No	33	24.44%
3Uncertain	49	36.30%
Missing values	5	
Total	140	100.00%

KNOWLEDGE ABOUT PROSTATE CANCER

Knowledge variables	Frequency	Percent
Does excess alcohol intake cause prostate cancer		
1Yes	61	44.53%
2No	21	15.33%
3Uncertain	55	40.15%
Missing values	3	

Total	140	100.00%
Does prostate cancer occur mainly in men aged 40 above		
1Yes	85	62.04%
2No	14	10.22%
3Uncertain	38	27.74%
Missing values	3	
Total	140	100.00%
Is painful urination a symptom of prostate cancer?		
1Yes	74	53.62%
2No	14	10.14%
3Uncertain	50	36.23%
Missing values	2	
Total	140	100.00%
Do you think prostate cancer can be hereditary		
1Yes	65	47.10%
2No	30	21.74%
3Uncertain	43	31.16%
Missing values	2	
Total	140	100.00%

4.1.3 ATTITUDE TOWARDS PROSTATE CANCER

The table below shows the percentage of male workers in EKSUTH toward attitude of prostate cancer. It was reported that 18.98% of male workers have done the cancer test, 78.10% if male workers have not done the test, while 2.92% of workers are uncertain. 3.65% of male workers think they can have prostate cancer in future, 86.80% of men believe they cannot have PC in future, while 9.49% of men were uncertain. 27.41% of male workers believe obesity is causes of PC, 38.81% of workers believe that obesity is not a cause of PC, while 37.78% of male workers were uncertain. It was also reported by 51.88% of male workers that PC treatment has side effects, and 17.29% reported that it does not have side effects, while 30.83% of workers were uncertain. 10.61% of male workers believe that one should never go for testing, 73.48% of worker believe that one should go for the test often, while 15.91% of workers believe that one should rarely go for the test. 40.31% of male workers believe having multiple sex partners can lead to prostate cancer, 35.66% of workers believe that multiple sex partner cannot lead to PC, while 24.03% of men were uncertain. 50.76% of male workers believe family history has an effect on PC, 30.30% believe that family history has no effect on PC, while 18.94% of workers are uncertain. 70.45% of workers believe that PC increases with the tendency of age, 9.09% of males believe that PC does not increase with age, while 20.45% of males are uncertain.

Table 4.1.3 UNIVARIATE ANALYSIS SHOWING ATTITUDE OF MALE WORKERS TOWARDS PROSTATE CANCER

Attitude variables	Frequency	Percent
Have you ever been tested for prostate cancer?		
1Yes	26	18.98%
2No	107	78.10%
3Uncertain	4	2.92%
Missing values	3	
Total	140	100.00%
Do you think you can have prostate cancer in future		
1Yes	5	3.65%
2No	119	86.86%
3Uncertain	13	9.49%
Missing values	3	
Total	140	100.00%
Some people say that obesity is a cause of prostate cancer, do you agree		
1Yes	37	27.41%
2No	47	34.81%
3Uncertain	51	37.78%
Missing values	5	
Total	140	100.00%
Do you think prostate cancer treatment practice has side effects		
1Yes	69	51.88%
2No	23	17.29%
3Uncertain	41	30.83%
Missing values	7	
Total	140	100.00%
How often do you think one should go for prostate cancer testing		
Never	14	10.61%
Often	97	73.48%
Rarely	21	15.91%
Missing values	8	
Total	140	100.00%
Do you think having multiple sex partners can lead to prostate cancer		
1Yes	52	40.31%
2No	46	35.66%
3Uncertain	31	24.03%
Missing values	11	
Total	140	100.00%
Do you think family history has an effect on prostate cancer		
1Yes	67	50.76%
2No	40	30.30%
3Uncertain	25	18.94%
Missing values	8	
Total	140	100.00%

With an increase in age, does tendency of having prostate cancer increase		
1Yes	93	70.45%
2No	12	9.09%
3Uncertain	27	20.45%
Missing values	8	
Total	140	100.00%

4.2 Associations between socio-demographic determinants and knowledge about prostate cancer

Result from table 4.2 below shows that there is a statistical significant between knowledge of prostate cancer and some socio-demographic characteristics amongst male workers in EKSUTH such as educational status, monthly income at 0.05 ($p \leq 0.05$). it also shows that there was no statistically significant between Knowledge about prostate cancer and some other socio-demographic characteristics amongst male workers in EKSUTH such as age, religion, ethnicity, marital status of the respondents at 0.05 ($p > 0.05$). there is no significant relationship between age and knowledge of prostate cancer ($\chi^2=1.767$, $P = 0.622$), where by men age 30-39 years had a good knowledge by 67.9% , 40-49 years by 63.3%, 50-59 years by 69.0%, 60-69 years by 33.3% and a poor knowledge of the disease by 32.1%, 36.7%, 31.0%, 66.7%, respectively. There is no statistical significant between religion and knowledge of prostate cancer ($\chi^2=2.443$, $P = 0.295$), where by male workers who are Christians have a good knowledge of 68.1%, Muslims 60.9%, others 0.0% about the disease and a poor knowledge of 31.9%, 39.1%, 100% respectively. There is no statistical significant between ethnic groups and knowledge of prostate cancer ($\chi^2=6.178$, $P = 0.103$), where by Yoruba's have a good knowledge of 62.1%, Igbo's 86.7%, Hausa/ Fulani 100%, others 80% and a poor knowledge of 37.9%, 13.3%, 0%, 20% respectively.

There is a significant relationship between education and knowledge of prostate cancer ($\chi^2=23.672$, $P = 0.000$), whereby men with secondary school attainment have a good knowledge of 25.0%, tertiary 73.3%, others 90.9% and a poor knowledge of 75.0%, 26.7%, and 9.1% respectively.

There is a significant relationship between monthly income and knowledge of prostate cancer ($\chi^2=41.505$, $P = 0.000$), where by worker who receive below 100000 have a good knowledge of 40.6%, between 100001-200000 87.2%, above 200001 96.9% about the disease and a poor knowledge of 59.4%, 12.8%, and 3.1% respectively. There is no significant relationship between marital status and knowledge about prostate cancer ($\chi^2=3.122$, $P = 0.210$), where by male

workers who are married have a good knowledge of 69.8%, single 57.1%, divorced/separated 100% about the disease and a poor knowledge of 30.2%, 42.9%, and 0% respectively. There is a significant difference between health information and knowledge of prostate cancer ($\chi^2=13.903$, $P = 0.000$), where by male workers who reported that their job role gives them access to health information have good knowledge of 71.8% and a poor knowledge of 28.2%, while those that reported that their job role does not give them access to health information had a good knowledge of 25.0% and poor knowledge of 75.0%.

There is a statistical significance between medical checkups and knowledge of prostate cancer ($\chi^2=16.435$, $P = 0.001$), where male workers who go for checkups very often had a good knowledge of 95.8%, often 71.8%, occasionally 58.6%, rarely 42.1% and poor knowledge of 4.2%, 28.2%, 41.4%, and 57.9% respectively. There is a statistical significance between if there are facilities for patient with prostate cancer and knowledge of prostate cancer ($\chi^2=19.589$, $P = 0.000$), workers who reported that there are facilities for patient with prostate cancer had a good knowledge of 78.1% and a poor of 21.9%, and those who reported no facilities had good knowledge of 30.8% and poor of 69.2% while those who were uncertain had good of 45.2% and poor of 54.8%.

Table 4.2: Association between socio-demographics and Knowledge about prostate cancer of male workers in EKSUTH

Socio-demographic variables	Knowledge about prostate cancer			χ^2	Df	P-value
	Good	Poor	Total			
Age						
30-39	53(67.9)	25(32.1)	78(100.0)	1.767	3	.622
40-49	19(63.3)	11(36.7)	30(100.0)			
50-59	20(69.0)	9(31.0)	29(100.0)			
60-69	1(33.3)	2(66.7)	3(100.0)			
Total	93(66.4)	47(33.6)	140(100.0)			
Religion						
Christian	79(68.1)	37(31.9)	116(100.0)	2.443	2	.295
Muslim	14(60.9)	9(39.1)	23(100.0)			
Others	0(0.0)	1(100.0)	1(100.0)			
Total	93(66.4)	47(33.6)	140(100.0)			

Ethnicity						
Hausa/Fulani	4(100.0)	0(0.0)	4(100.0)	6.178	3	.103
Igbo	13(86.7)	2(13.3)	15(100.0)			
Others	4(80.0)	1(20.0)	5(100.0)			
Yoruba	72(62.1)	44(37.9)	116(100.0)			
Total	93(66.4)	47(33.6)	140(100.0)			
Education status						
Secondary	6(25.0)	18(75.0)	24(100.0)	23.672	2	.000
Tertiary	77(73.3)	28(26.7)	105(100.0)			
Others	10(90.9)	1(9.1)	11(100.0)			
Total	93(66.4)	47(33.6)	140(100.0)			
Monthly income						
Below 100000	28(40.6)	41(59.4)	69(100.0)	41.505	2	.000
100001-200000	34(87.2)	5(12.8)	39(100.0)			
above 200001	31(96.9)	1(3.1)	32(100.0)			
Total	93(66.4)	47(33.6)	140(100.0)			
Marital status						
divorced/separated	2(100.0)	0(0.0)	2(100.0)	3.122	2	.210
Married	67(69.8)	29(30.2)	96(100.0)			
Single	24(57.1)	18(42.9)	42(100.0)			
Total	93(66.4)	47(33.6)	140(100.0)			

Association between other socio-demographics and Knowledge about prostate cancer of male workers in EKSUTH

Socio-demographic Variables	Knowledge about prostate cancer			Statistics		
	Good	Poor	Total	χ^2	Df	P-value
Health information						
Yes	89(71.8)	35(28.2)	124(100.0)	13.903	1	.000
No	4(25.0)	12(75.0)	16(100.0)			
Total	93(66.4)	47(33.6)	140(100.0)			
Medical check ups						
Very often	23(95.8)	1(4.2)	24(100.0)	16.435	3	.001
Often	28(71.8)	11(28.2)	39(100.0)			
Occasionally	34(58.6)	24(41.4)	58(100.0)			
Rarely	8(42.1)	11(57.9)	19(100.0)			
Total	93(66.4)	47(33.6)	140(100.0)			

If there are facilities for patients with PCA						
Yes	75(78.1)	21(21.9)	96(100.0)	19.589	2	.000
No	4(30.8)	9(69.2)	13(100.0)			
Uncertain	14(45.2)	17(54.8)	31(100.0)			
Total	93(66.4)	47(33.6)	140(100.0)			

4.3 Associations between socio-demographic determinants and attitude of male workers towards prostate cancer

Result from table 4.3 below shows that there is a statistical significant between attitude of male workers in EKSUTH towards prostate cancer and some socio-demographic characteristics such as educational status, religion, ethnicity, monthly income at 0.05 ($p \leq 0.05$). It also shows that there was no statistically significant between attitude of male workers in EKSUTH towards prostate cancer and some other socio-demographic characteristics such as age, marital status of the respondents at 0.05 ($p > 0.05$). There is no significant relationship between age and attitude of male workers towards prostate cancer ($\chi^2=2.863$, $P=0.413$), where by men age 30-39 years had a positive attitude of 51.3% , 40-49 years by 46.7%, 50-59 years by 34.5%, 60-69 years by 66.7% and a negative attitude towards the disease of 48.7%, 53.3%, 65.5%, 33.3%, respectively. There is a statistical significant between religion and attitude of male workers towards prostate cancer ($\chi^2=8.055$, $P=0.018$), where by male workers who are Christians have a positive attitude 51.7%, Muslims 21.7%, others 100% about the disease and a negative attitude of 48.3%, 78.3%, 0% respectively.

There is a statistical significant between ethnic groups and attitude of male workers towards prostate cancer ($\chi^2=13.580$, $P=0.004$), where by Yoruba's have a positive attitude of 42.2%, Igbo's 80.0%, Hausa/ Fulani 100%, others 20% and a negative attitude of 57.8%, 20.0%, 0%, 80% respectively. There is a significant relationship between education and knowledge of prostate cancer ($\chi^2=20.483$, $P=0.000$), whereby men with secondary school attainment have a positive attitude of 12.5%, tertiary 50.5%, others 90.9% and a negative attitude of 87.5%, 49.5%, and 9.1% respectively.

There is a significant relationship between monthly income and attitude of male workers towards prostate cancer ($\chi^2=32.718$, $P = 0.000$), where by worker who receive below 100000 have a positive attitude of 23.2%, between 100001-200000 64.1%, above 200001 78.1% about the disease and a negative attitude of 76.8%, 35.9%, and 21.9% respectively. There is no significant relationship between marital status and attitude of male workers towards prostate cancer ($\chi^2=3.119$, $P = 0.210$), where by male workers who are married have a positive attitude of 49.0%, single 40.5%, divorced/separated 100% about the disease and a negative attitude of 51.0%, 59.5%, and 0% respectively. There is a significant difference between health information and attitude of prostate cancer ($\chi^2= 8.700$, $P = 0.003$), where by male workers who reported that their job role gives them access to health information have positive attitude of 51.6% and a negative attitude of 48.4%, while those that reported that their job role does not give them access to health information had a positive attitude of 12.5% and negative attitude of 87.5%. There is a statistical significance between medical checkups and attitude of prostate cancer ($\chi^2= 8.901$, $P = 0.031$), where male workers who go for checkups very often had a positive attitude of 54.2%, often 64.1%, occasionally 34.5%, rarely 42.1% and negative attitude of 45.8%, 35.9%, 65.5%, and 57.9% respectively.

There is no statistical significance between if there are facilities for patient with prostate cancer and attitude of prostate cancer ($\chi^2=1.762$, $P = 0.414$), workers who reported that there are facilities for patient with prostate cancer had a good attitude of 50.0% and a negative of 50.0%, and those who reported no facilities had positive attitude of 30.8% and negative of 69.2% while those who were uncertain had positive of 45.2% and poor of 54.8%.

Table 4.3 Association between socio-demographics and Attitude towards prostate cancer of the respondents

Socio-demographic variables	Attitude towards prostate cancer			χ^2	Df	Pvalue
	Positive	Negative	Total			
Age						
30-39	40(51.3)	38(48.7)	78(100.0)	2.863	3	.413
40-49	14(46.7)	16(53.3)	30(100.0)			
50-59	10(34.5)	19(65.5)	29(100.0)			
60-69	2(66.7)	1(33.3)	3(100.0)			

Total	66(47.1)	74(52.9)	140(100.0)			
Religion						
Christian	60(51.7)	56(48.3)	116(100.0)	8.055	2	.018
Muslim	5(21.7)	18(78.3)	23(100.0)			
Others	1(100.0)	0(0.0)	1(100.0)			
Total	66(47.1)	74(52.9)	140(100.0)			
Ethnicity						
Hausa/Fulani	4(100.0)	0(0.0)	4(100.0)	13.580	3	.004
Igbo	12(80.0)	3(20.0)	15(100.0)			
Others	1(20.0)	4(80.0)	5(100.0)			
Yoruba	49(42.2)	67(57.8)	116(100.0)			
Total	66(47.1)	74(52.9)	140(100.0)			
Education status						
Secondary	3(12.5)	21(87.5)	24(100.0)	20.483	2	.000
Tertiary	53(50.5)	52(49.5)	105(100.0)			
Others	10(90.9)	1(9.1)	11(100.0)			
Total	66(47.1)	74(52.9)	140(100.0)			
Monthly income						
Below 100000	16(23.2)	53(76.8)	69(100.0)	32.718	2	.000
100001-200000	25(64.1)	14(35.9)	39(100.0)			
above 200001	25(78.1)	7(21.9)	32(100.0)			
Total	66(47.1)	74(52.9)	140(100.0)			
Marital status						
divorced/separated	2(100.0)	0(0.0)	2(100.0)	3.119	2	.210
Married	47(49.0)	49(51.0)	96(100.0)			
Single	17(40.5)	25(59.5)	42(100.0)			
Total	66(47.1)	74(52.9)	140(100.0)			

Association between socio-demographics and Attitude towards prostate cancer of the respondents

Socio-demographic variables	Attitude towards prostate cancer			Statistics		
	Positive	Negative	Total	χ^2	df	Pvalue
Health information						
Yes	64(51.6)	60(48.4)	124(100.0)	8.700	1	.003
No	2(12.5)	14(87.5)	16(100.0)			
Total	66(47.1)	74(52.9)	140(100.0)			
Medical check ups						
Very often	13(54.2)	11(45.8)	24(100.0)	8.901	3	.031

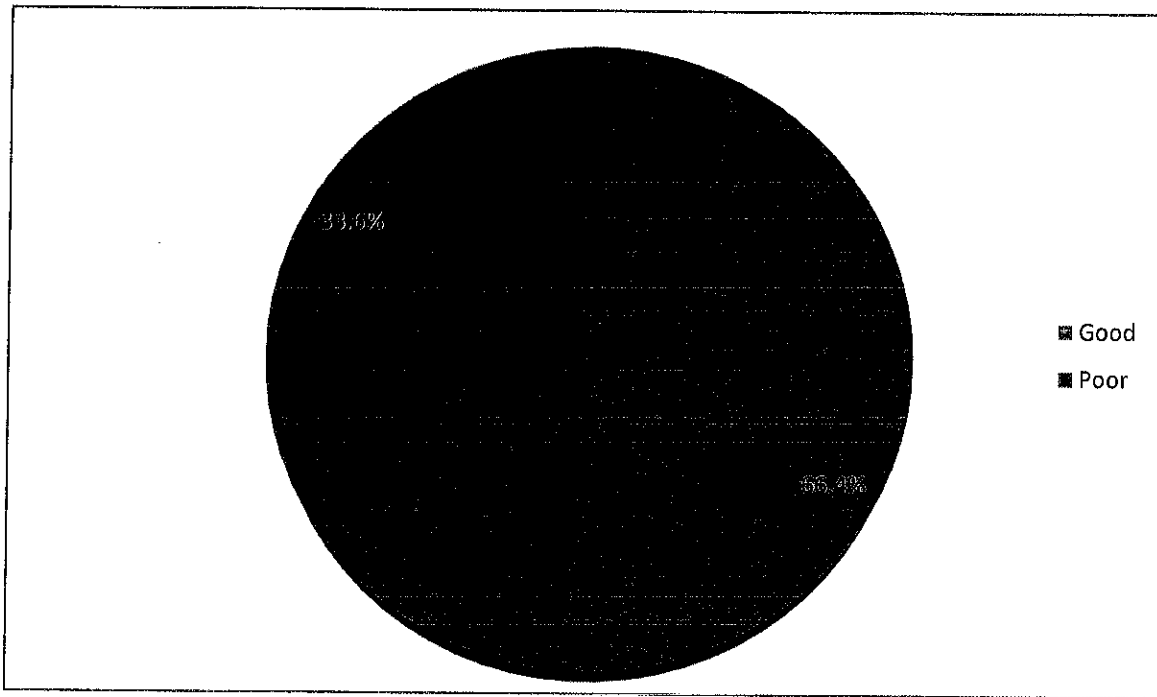
Often	25(64.1)	14(35.9)	39(100.0)			
Occasionally	20(34.5)	38(65.5)	58(100.0)			
Rarely	8(42.1)	11(57.9)	19(100.0)			
Total	66(47.1)	74(52.9)	140(100.0)			
If there are facilities for patients with PCA						
Yes	48(50.0)	48(50.0)	96(100.0)	1.762	2	.414
No	4(30.8)	9(69.2)	13(100.0)			
Uncertain	14(45.2)	17(54.8)	31(100.0)			
Total	66(47.1)	74(52.9)	140(100.0)			

4.4 Knowledge about prostate cancer

The table below shows the weight percentage of knowledge of male workers in EKSUTH about prostate cancer. It is reported in the results that majority of the male workers have a good knowledge of prostate cancer with a percent of 69.4% and other male workers had a poor knowledge of 33.6%.

	Frequency	Percent (%)
Good	93	66.4
Poor	47	33.6
Total	140	100.0

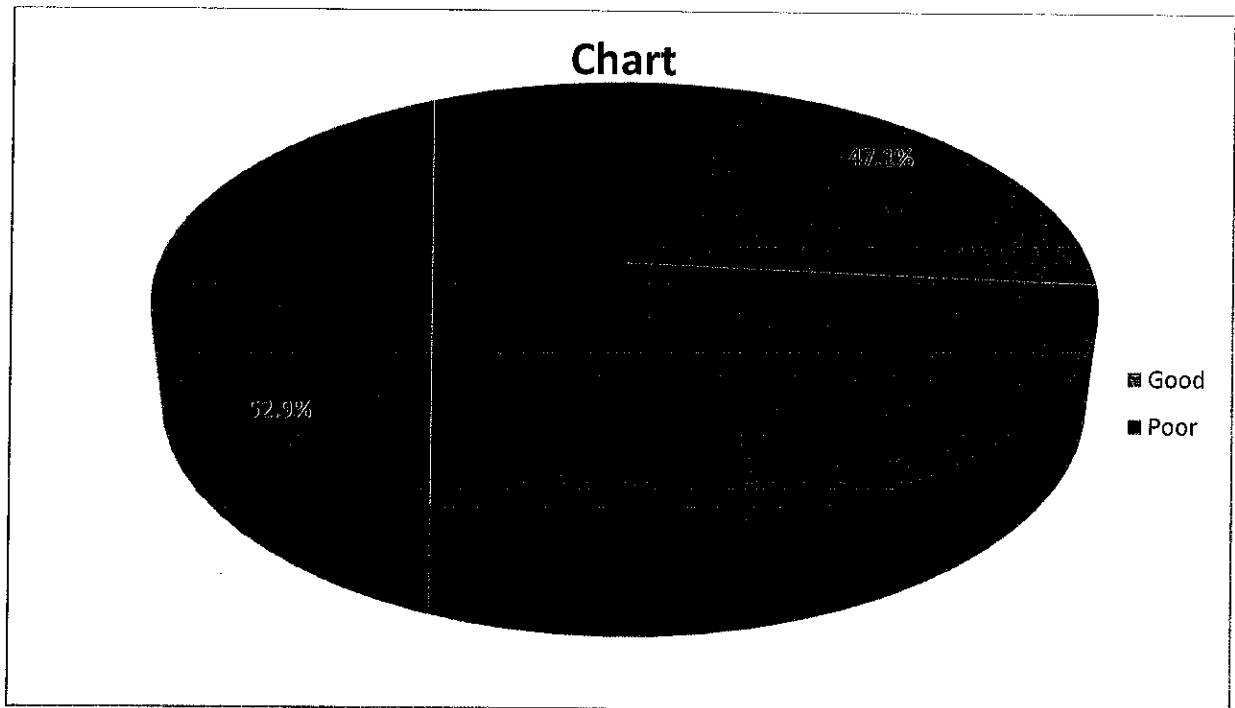
PIECHART



4.5 Attitude towards prostate cancer

The table below shows the weight percentage of the attitude of male workers towards prostate cancer. It is reported in the results below that the workers had a positive attitude of 47.1% toward prostate cancer, and a negative attitude of 52.9%.

	Frequency	Percent (%)
Positive	66	47.1
Negative	74	52.9
Total	140	100.0



5.5 DISCUSSION OF FINDINGS

Table 4.1.2 shows the percentage of the knowledge of the respondents about prostate cancer. The table shows that a large percentage of respondents believe Diabetes is the most important health issue with a percentage of 46.97% and cancer to be then least health issue with a percentage of 8.33%. A large proportion of the respondents 73.72% heard about prostate cancer and also a large proportion of the respondents heard the information from the hospital while minority had no knowledge about the disease. Majority of the respondents with a percentage of 44.07% believed that the age bracket 41-50 is the right age for prostate cancer testing. Majority of the respondents had no family and personal history of prostate cancer with the percentage of the former 79.71% and the latter 93.43%. Also, majority of the respondents believe that there is no prostate cancer awareness in the community and opine that the awareness of the disease should be common in communities given their percentages of 52.55% and 83.82% respectively. a sizeable proportion of the respondents knew a lot about prostate cancer due to access to information about the disease with percentages of 41.79% and 60.58% and minority of the respondents knew nothing about the disease due to lack of information with a percentage of 19.40% and 39.42% respectively.

Majority knew the symptoms of prostate cancer and a percentage of 39.26% believed that smoking could cause prostate cancer, a proportion of the respondents were uncertain if smoking can cause prostate cancer while the remaining percentage belonged to the minority whom believed that smoking cannot cause the disease. A large proportion of the respondents believed that alcohol intake can cause prostate cancer with a percentage of 44.53%. 62.04% of the respondents believe that prostate cancer occur in men from 40years above. Majority of the male workers reported that painful urination can be a symptom of prostate cancer by 53.62% and majority of the respondent think that prostate cancer can be hereditary with a percentage of 47.10%.

Table 4.1.3 illustrated the percentage of respondents and their attitude towards prostate cancer. Majority of the respondents had not had prior test of the disease and believed that they have slim chances of having prostate cancer in the future. 37.81% of the respondents were uncertain that obesity could be a risk factor that can cause prostate cancer, 27.41% believed that obesity is a risk factor that can cause the disease while 34.81% believed that obesity is not a risk factor that causes prostate cancer. A sizeable percentage of the respondents believe that prostate cancer treatment has side effects and a smaller proportion of the respondents believe that prostate cancer treatment have no side effects. A good number of the respondents believe that people should often go for prostate cancer testing while a small proportion of the respondents do not see the need for prostate cancer testing. 40.31% of the respondents believe that multiple sex partners is a risk factor that causes prostate cancer, 35.66% believe it's not a probable risk factor while 24.03% were uncertain.

A good portion of the respondents with a percentage of 50.76% believe that family history can be a risk factor that could cause prostate cancer, 30.30% of the respondents do not see prostate cancer as a probable risk factor while 18.94% were uncertain. From the table it can be noted that majority of the respondents believed that an increase in age increases the tendency of having prostate cancer with a percentage of 70.45%, also, 20.45% were uncertain while 9.09% believed that an increase in age was not a determinant that increases the tendency of prostate cancer.

Table 4:2 shows the relationship between knowledge of male workers to socio-demographic variables. The result shows that age is not significant, P-value = 0.622, also

religion, marital status and ethnicity is insignificant at P-value = 0.295, 0.210 & 0.103 respectively. This means that age, religion, ethnicity, marital status has a negative effect on the knowledge of prostate cancer. While monthly income, education status, health information, medical checkups, and facilities for patients with prostate cancer are significant at P-value = 0.000, 0.000, 0.000, 0.001 and 0.000 respectively. This means that educational status, monthly income, health information, medical checkups and facilities for patients with prostate cancer has a positive effect on the knowledge of prostate cancer.

Table 4.3 shows the relationship between socio-demographic variables and attitude of male workers towards prostate cancer. The results shows that age, marital status and facilities for patients with prostate cancer are not significant at P-value = 0.413, 0.210 and 0.414 respectively. This simply means that age, marital status and facilities for patients with prostate cancer have a negative effect on the attitude of male workers towards prostate cancer. While religion, ethnicity, education status, monthly income, health information and medical checkups are statistically significant at P-value = 0.018, 0.004, 0.000, 0.000, 0.003 and 0.031 respectively. This means religion, ethnicity, educational status, monthly income, health information and medical checkups have a positive effect on the attitude of male workers towards prostate cancer.

CHAPTER FIVE

CONCLUSION, RECOMMENDATIONS AND SUMMARY

5.1 Introduction

In this chapter, the researcher interprets and discusses the findings from previous reports in Africa and worldwide. This project adopted the use of SPSS and STATA packages to input and analyze the data collated via questionnaires about the social determinants, knowledge and attitude of male workers towards prostate cancer in EKSUTH. The questionnaire was a semi-structured questionnaire (open and closed ended questionnaires) designed based on WHO guidelines on conducting knowledge and attitude survey with 140 respondents out of a proposed sample size of 200. Bi-variate analysis was carried out using chi-square to show the relationship between Knowledge, attitude of male workers towards prostate cancer and also the relationship between socio-demographic variables of age, marital status, income, level of education, religion, and ethnicity and their resultant effect on the knowledge of male workers towards prostate cancer in Ekiti state teaching hospital, Ado-Ekiti, Nigeria were analyzed.

5.2 SUMMARY OF FINDINGS

Socio-demographic characteristics of the respondents

The result of the analysis as illustrated in Table 4.1.1 showed that a large number of the respondents were ages of 30-39-years of (55.71%) and the lowest respondents within the ages of 60-69 with 2.24%. Majority of the respondents were Christians with 82.86%, Most of the workers were Yoruba's with a percentage of 82.86% and a small number of Hausa/Fulani's with 2.86%. Most of the respondents had tertiary educations with a percentage of 75%. The most reported income level was below a hundred thousand (100000) with a percentage of 49.29%. Majority of the respondents who are married are with a percentage of 68.57% and workers who reported divorced/ separated were the least with a percentage of 1.43%. 89.21% of male respondents had job roles that gave them access to health care information while 10.79% of the respondents had job roles that limited their access to health care information due to constraints.

5.2.1 Age

In Nigeria, there are 3 age structures namely the young (0-14yrs), old (65+) and active (15-64yrs) population. A large number of people in Nigeria are in the active population of 54% (NPopc and ICF International, 2014). This could be the explanation for having a mean age of 35 participants of this study and a high number of 30-39years of age who had a good knowledge of prostate cancer of 67.9% due to the fact of an explosive lifestyle where technology is vastly used and access to internet is provided. While ages 60-9 have a very poor knowledge of 66.7% as a result of lack of exposure and old aging. Age's 30-39years had a positive attitude towards prostate cancer because they were more concerned about their quality of life unlike the ages 60-69 that had a negative attitude as a result of aging. The mean age of Nigeria is 17.9 as at 2015. A lot of the respondents within 30-39years of age found it difficult to be tested or believed they could never have prostate cancer due to their young age which brought about poor attitude towards the disease.

Also the unavailability of machines and health care for patients with prostate cancer or screening sessions creates a poor practice of prostate cancer. Dissimilar to the results of this study are results from a study conducted among university students in Nigeria which obtained a mean age 25.7 for respondents in a similar knowledge and attitude study (Cancer, Cells, & Pathways, 2015). The difference in the mean age can be explained by the fact that a larger number of University students are younger than the mean age in this population based study.

5.2.2 Religion

In Nigeria there are 3 main religions namely Christian, Muslim and traditional. Nigeria is known to be a multi-religious society, with more Christian's practices in the south with 82.86% in the study population. Generally, their attitude towards prostate cancer across all religions was poor, but both Christianity and Islam have a good knowledge about prostate cancer. A similar research in Kenya reported that 76.9% of their respondents were Christians who were married and 88.8% of them had children.

5.2.3 Ethnicity

There are several ethnic groups in Nigeria but are mainly grouped into 3 namely Igbo, Yoruba and Hausa. They all have good knowledge of prostate cancer; while Igbo's and Hausas have a good attitude to the disease, Yoruba and others have a negative attitude to prostate cancer due to the unavailability of facilities for patients with prostate cancer. The results in this research shows that a lot of the respondents were Yoruba's (82.86%) due to the location of the study and language spoken in the community.

5.2.4 Educational status

In this study, educational level showed that literacy level is high as 75% for tertiary education. This correlates with the NDHS report of 2013 showing that illiteracy level is 25%. In the results above, all educational levels had a poor practice of prostate cancer as a result of respondents not going for regular checkups, tests or screenings. Also, people with higher education had a positive attitude towards prostate cancer due to their educational exposure and ability to improve their life expectancy, but people with lesser formal education find it difficult to respond to the disease due to lack of higher knowledge. Education is an excellent cure for illiteracy; as literacy increases with increasing wealth, the highest wealth quintile in Nigeria is 97.3% and lowest quintile is 29.9% in men. In a research conducted in Cameroon, most participants did not complete high school education 71.8% (kaninjing ernest, April, 2017)

5.2.5 Income

In present times, Nigeria seems to face challenges in finances as we transit from recession, the average nation income of Nigeria (#19,800) is very small for most individuals in the country compared to other under-developed and developing country. The result from this research shows that respondents with income level below 100,000 thousand naira have a poor knowledge, negative attitude towards prostate cancer due to their lack of money or insufficient income. The saying that "health is wealth" has helped shown how important money is to health and how health is to wealth, cause when people don't have money to improve their life or attain better education it makes them illiterate and poor. Their health would be at risk and exposed to harsh and bad conditions that can depreciate their life

5.2.6 Marital status

Based on NDHS 2013 data, 48.3% of Nigerians are not married, 49.1% are married while 0.5 and 0.6% are divorced and separated respectively. Compared to this research where most of the respondents are married (68.57%), In South Africa a study conducted among men attending a urology clinic shows a high percentage of men who were married (n=220, 64.0%). Men attending urology clinics are likely to be older (above 40 years) hence the results are similar to the present study (Mofolo, 2015). A research carried out amongst male workers in the University of Nigeria Nsukka reported that 60.2% were married and more respondents within the ages of 31 and 40 years, majority of them had tertiary education 93.4%.

5.3 KNOWLEDGE OF PROSTATE CANCER

As regards the knowledge of participants in this study, 73.72% of the participants have heard of prostate cancer and majority heard it from the hospital of which 79.71% had never had any family history or relatives with prostate cancer. 44.79% of participants had a full or adequate knowledge of prostate cancer, while in general on 66.4% of participants had a good knowledge of prostate cancer.

In comparison to past study conducted in Nigeria 21.2% participants were aware of difficulty in urination being a symptom of PC. Even though a few participants preferred going to traditional doctors for PC screening, a majority stated going to the hospital as the appropriate treatment, (Eo, Et, Kola, Mm, & Adebusoye, 2014). In another study conducted among Saudis, participants mentioned herbal treatments as a treatment modality for PC.

However a study conducted among male university students in Ghana Yeboah-asiamah,(2015) and among older men in Oyo State of Nigeria (oladimeji, 2010) indicated a higher awareness of PC. The low levels of knowledge were also observed by results of a study conducted in Hawaii (conde, 2011). This could have been attributed to the fact that most of the participants from the studies had not received a secondary education.

In a study carried out in Western Australia, (Diane, august 2008) approximately half of the men completing the survey had previous exposure to prostate cancer, either through a relative or friend or, less commonly, by having the disease themselves. Knowledge concerning prostate

cancer was generally poor, but previous exposure increased knowledge of treatment options and side effects

5.4 ATTITUDE TOWARDS PROSTATE CANCER

Attitude questions relating to if the participants have been tested for PC and how they feel towards its effects. 78.10% of participants have never been tested or ever done a PC test before, even though 70.45% of participants actually believe that PC increases as age increases. In this research, most of the respondents had a positive reaction towards the symptoms of prostate cancer and they knew the risk factors but refused to go for the test; only 51.88% of participants think that PC treatment or screening practice has a side effect on the body. In general, 52.9% of participants have a negative attitude towards prostate cancer.

In a research conducted in Namibia, (Olivia Nakwafila, April 2017) Overall the results of the study show that many of the respondents have a positive attitude towards PC as a disease in general, screening, as well as treatment. Positive attitude decreases when someone is single, being more educated, being a civil servant, and earning more money.

5.6 DECISION RULE

The implications of the research show that income and educational status have positive impact on the knowledge and attitude of male workers in Ekiti state teaching hospital, Ado-Ekiti, Nigeria towards prostate cancer; hence, we reject the null hypothesis and accept the alternate hypothesis. Also, the job roles have significant impacts

5.7 RECOMMENDATIONS

With response to the above findings in this research, it would be needful if the governmental and other body of institution could improve the level of education by creating proper awareness programs for people, advising and helping them make useful and healthy decisions that can help their life expectancy. Also they should create jobs and increase the income level across all sector of the economy as it helps the health and life of man. The saying that "health is wealth" has come to bring about a great relationship that improves the circle of life. There is a need for exploration of new platforms for creating awareness on PC in the