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The Influence of Postate Cancer Awareness Campaigns on the Knowledge, Attitude and Practices of Men in South-Eastern Nigeria

Ifeanyi F. Didiugwu, Ph.D[1*], Eze Emmanuel Obumneme[2], Apeh, Andrew C. Ph.D[3]
[1]Senior Lecturer; Department of Mass Communication, Enugu State University of Science and Technology (ESUT), P.M.B 01660, Enugu, Nigeria
[2]Department of Mass Communication, University of Nigeria, Nsukka, Enugu State, Nigeria
[3]Department of Mass Communication, Enugu State University of Science and Technology (ESUT), P.M.B 01660, Enugu, Nigeria

***Corresponding author**
Ifeanyi F. Didiugwu

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Abstract: This study was designed to investigate the influence of Postate cancer awareness campaigns on the knowledge, attitude and practices of men in South-Eastern Nigeria. The study employed the survey method of enquiry. The population of the study is 8,184,951 adult males in South-Eastern Nigeria. Five research questions guided the study. The data was analysed using Statistical Package for Social Science (SPSS). The result of the data analysed revealed that the awareness and knowledge level on postate cancer is relatively low among the men in South-Eastern Nigeria. Also, most information on postate cancer were made known to the respondents by medical practitioners, however, those respondents that are exposed to the campaigns agreed that the campaigns have influenced their behavior positively. The study recommends that, awareness campaigns should be well structured both in English and the target audience local language to sufficiently and effectively convey the Prostate cancer campaign messages. Thus, the risks and the effects of the negative attitudes of men towards this campaigns must obviously be stated citing relevant examples. Also, campaign planners should involve the target audience/opinion leaders as participants in the campaign and too, lower the age for screening, so that early detection and prevention can be detected before it becomes late. There must always be emotional, physical and psychological appeal in the campaign messages.
Keywords: Influence, Campaigns, Prostate Cancer, Awareness, Knowledge, Attitude Practices, Men.

INTRODUCTION

Cancer is the growth disorder of cells in the body. Clinically, it can be defined as a large number (up to a hundred) of complex diseases that behave differently depending on the cell types from which they originate [1]. It is a genetic disease which is caused by mutation that has dominated other cells. In 2000, there were 1,220,100 reported cases of new cancers and 552,200 cancer deaths, indicating that roughly half of the people who develop cancer die from it [1]. Statistics emanating from different health organizations and agencies around the world indicate that there are over 16 million new cases of cancer globally. This figure, according to World Health Organization (WHO) 2011 [2] report, is likely to double in 2020 [3]. The rapid spread of this disease to a large extent is as a result of unawareness of its early symptoms which can be treated at its early stage when detected. Cells proliferation and metastasis nature of cancer has made it worst, this has resulted to its fast spread (cancer) in human body. Cell proliferation has to do with the division of cells into multiple units which can be said to be characterized by abnormal cell growth. On the other hand, metastasis is a process that allows these cells to spread to other parts of the body. The painful aspect of this disease is the ability to combine both cell proliferation and metastatic, this makes it more dangerous [4].

The International Agency for Research on Cancer (IARC), in 2008 gave an estimate of over 681,000 and 512,400 new cases of cancer. These figures have increased to 1.4 million cases and 714 thousand deaths in 2010 [5]. The three most deadly human cancers are cancer of the lung, cancer of the colon and breast cancer. However, lung cancer is largely preventable, most of these cases result from smoking cigarettes [6].

The most deadly disease in men is prostate cancer. Postate cancer is a type of cancer which only affects men. It is the second leading cause of death in men [7]. It occurs when tumor begins to grow in the prostate gland of male reproductive system. The word "prostate" means "one standing in front". The postate is so called because of its position, which is directly at the base of the bladder. It is estimated that 241,740 new

cases of prostate cancer were diagnosed in 2012 in America and out of this number, 28,170 patients will die from this disease [8].

This is to show the low level of awareness and attention given to this disease that is gradually sending most men to the grave. Developing nations are seriously at disadvantage when it comes to knowledge and awareness of prostate cancer. Most of the citizens in developing nations have not heard of it talk more of knowing how to detect or treat it at the early stage. However, public campaigns on this have been paramount to governments that have the interest of their citizens at heart.

The questions most people seem to ask are what are the causes of prostate cancer? How can it be detected and how can it be treated? Scientists have been able to come up with possible ideas which are likely to cause it, these include, genetics, age, lifestyle, race, and medications.

Treating postate cancer to a large extent depends on the growth stage of the tumor, age and health condition of the patient are also determinants. However, several types of treatment exist; they include radiation, surgery, hormone therapy or a combination of any of the above mentioned ways [9]. A good number of people might therefore underestimate or over estimate their probability of getting this based on their level of awareness.

The knowledge and attitude of the people of south-eastern Nigeria on the subject of discuss forms the fulcrum of this study. The awareness level however, has an information angle, according to a Chinese proverb: "the road to health is the road to knowledge and ignoring knowledge is sickness". Secondly, there is the psychological angle where too much of awareness causes guilt, fear, anxiety, depression and negative attitudes of self isolation in patients.

Statement of the Problem

Cancer cells are immortal, until they are uprooted by surgery or the body in which the cell resides dies before one can be said to be free from this disease. Due to the nature of this disease in man, several agencies and organizations such as United Bank for Africa have organized seminars and awareness campaigns on prostate cancer. On Saturday, June 18th 2011, UBA Foundation flagged off an awareness campaign against prostate cancer in Nigeria and Africa, all in a bid to fight cancer. Yet the current statistical data of mortality resulting from prostate cancer is in the increase. Postate cancer is the most pernicious disease in man, the second highest cause of death in man [7].

In spite of the Campaigns on cancer generally, death continues to be on the increase. In developing nations like Nigeria, death rate as a result of postate cancer is very high and mostly among men that are 50 years and above. However, this high death rate can be linked to lack of public awareness, knowledge, late detection and diagnosis of the disease and the attitude of men about the disease. All these lead to the premise that prostate cancer is yet to be well understood by men. However, some people are of the view that any awareness campaign aimed at combating this deadly disease must have all it takes to increase knowledge, create positive attitude and enhance practice of screening methods among the audience. Except there is a significant change in the attitude of those exposed to prostate cancer campaigns, the entire exercise will amount to vanity.

Based on this, this research therefore seeks to find out the extent to which men in south-eastern Nigeria are exposed to prostate cancer campaigns, their attitude and practice towards campaign messages on prevention, early detection and treatment of prostate cancer.

OBJECTIVES OF THE STUDY

The general objective of this study is to find out the knowledge, attitude and practice among men in south-eastern Nigeria towards postate cancer detection, prevention and treatment. Specifically, the research aimed at ascertaining the followings:

- To find out the awareness level of men in South-Eastern Nigeria about prostate cancer.
- To ascertain the knowledge level of men in South-Eastern Nigeria on prostate cancer.
- To identify the sources of information about prostate cancer.
- To ascertain the attitude of men in South-Eastern Nigeria towards prostate cancer.
- To find out if the campaign on prostate cancer have influenced the behaviour of men in the South-Eastern part of the country.

Research Questions

The following research questions were carefully derived from the above objectives of the study.

- What is the level of awareness among men in south-eastern Nigeria about prostate cancer?
- What is the level of knowledge of men in the south eastern Nigeria on the issue of prostate cancer?
- What are the sources of information known to men in South-Eastern Nigeria on prostate cancer?
- What is the attitude of men in South-Eastern Nigeria on prostate cancer?
- What influence has the campaigns on prostate cancer on the behaviour of men in South-Eastern Nigeria?

Scope of the study

The scope of this study is the south eastern states of Nigeria. This part of the country is made up of five states namely, Enugu State, Imo State, Abia State, Ebonyi State, and Anambra State. This will form the geographical scope of this study.

LITERATURE REVIEW

Cancer: A Genetic Disease

Hundreds of thousand people die as a result of cancerous tumor yearly. Mutations in genes that control cell growth and division are responsible for cancer. However, the causes of cancers are still unclear to scientists and major findings have shown that most atimes cancers are genetic in nature. Cancer is not a single disease, it is a group of diseases, it can originate from many different tissues of the body, while some have aggressive growth, and others have slow growth. While some can be stopped from spreading, others cannot [10].

Over the years, researches have shown that lung cancer is the most prevalent type of cancer, this is as a result of the effects of cigarette smoking. Prostate and breast cancers are also common. The death rate as a result of cancer is continuously on the increase, enormous efforts on the part of medical doctors have been on how to reduce it [10].

The human body is made up of millions of cells, these cells houses our genetic material. The human cell contains 46 chromosomes (23 pairs), half of these chromosomes are inherited from each of our parents. The chromosomes contain the body's blueprint (genes). However, these genes are responsible for human traits and when altered or mutated, give a higher risk for uncontrolled cell growth. This cell growth can lead to the growth of a tumor. These genes are called different names, but the gene that is responsible for the growth of cancer tumor is referred to as "cancer susceptibility genes" [11].

First, when cancer cells are grown in culture, their descendants are all cancerous. This means that, the cancerous condition is transmitted from each cell to its daughters at the time of division. This phenomenon clearly indicates that cancer has a genetic basis. Secondly, some type of viruses can induce the formation of tumors in experimental animals. The induction of cancer by viruses implies that the proteins encoded by viral genes are involved in the production of the cancerous state. Thirdly, cancer can be induced by agents capable of causing mutations. Fourthly, certain type of cancer tends to run in families, finally, certain types of white blood cell cancers (leukemia and lymphomas) are associated with particular chromosomal aberrations. In a nutshell, these diverse observations strongly suggested that cancer is caused by genetic malfunctions [12].

In the 1980s when molecular genetics techniques were first used to study cancer cells, researchers discovered that cancerous state is indeed traceable to specific genetic malfunctions (defects). However, several of such defects are required for a normal working cell to be converted to a cancerous cell. The researchers discovered that two broad classes of genes can contribute to the formation of cancerous cell, they are the oncogene and tumor suppressor gene [12].

Prostate Cancer: What it is all About

Approximately 5 to 1 percent of all prostate cancers are known to be attributed to an inherited DNA change, such as the cancer susceptibility gene. Recent researches have pointed out that, there is a set of common DNA variations that lead to a higher risk of inherited prostate cancer in African American men [10].

The panic of having prostate cancer can be overwhelming to most men. Prostate cancer is the most common cancer among men. But the good news is that it can be treated when detected early enough. In 2008, the American Cancer Society pointed out that: About, Ninety-one percent of all prostate cancers are discovered while they are either localized (confined to the prostate) or regional (nearby). The society also noted that, the five-year survival rate for men diagnosed with prostate tumors discovered at these stages is 99 percent, and in the past 20 years, the five-year survival rate for all stages combined has increased from 67 percent to 99 percent [13].

In the same year, American Cancer Society (ACS) recorded about 186,320 new cases of prostate cancer in the US. Also, about 28,660 deaths occurring from prostate cancer in the US alone, making it the second leading cause of cancer death in men [13].

The prostate is a sex gland found in men. It is small in size, about the size of a walnut, and surrounds the neck of the bladder and urethra. The urethra is a tube like organ that carries urine from the bladder and out through the penis. It is muscular, with ducts opening into the prostatic portion of the urethra. It is made up of three lobes: a center lobe with one lobe on each side. The prostate gland secretes a slightly alkaline fluid that forms part of the seminal fluid, a fluid that carries sperm [11].

In a study carried out by Ifere and Ananaba, in 2012 on the emergent trends in the reported incidence of prostate cancer in Nigeria, observed that there is a high incidence rates for prostate cancer among patients aged 60–69 years and 70–79 years, and lower incidence rate for patients aged younger than 50 years.

In another study done by Obiora, and Nwosu [14] on carcinoma of the prostate in Port Harcourt, Nigeria, observed that Carcinoma was diagnosed in 198 specimens representing 37.4% of the 529 cases reviewed. Of these, 164 (82.8%) were clinical carcinoma (having been found in clinically suspected carcinoma cases for which tricot biopsies were undertaken), while 34 (17.2%) were incidental carcinoma cases (being found in prostatectomy biopsy cases of patients clinically diagnosed with nodular hyperplasia).

Postate cancer is not only restricted to old age. If prostate cancer is detected early, men can be cured of it and have a normal life. The postate which is muscular and wall nut in shape, about an inch and a half long and it is directly under the bladder with a major function of manufacturing fluid that makes up semen. However, during orgasm, the prostate muscles contract and force this fluid produced in the prostate into the urethra. The postate changes with age, when a man is in his mid 40s, the wall-nut shape tends to enlarge. Records have it that every three minutes, a new case of prostate cancer is diagnosed in the United States and every fifteen minutes, a man dies from it. A boy born today has a 13 percent chance of developing prostate cancer and a 3 percent chance of dying from it. Except for skin cancer, prostate cancer is the most common cancer in men [15].

More than 80 percent of men diagnosed of prostate cancer are over 65 years old. Due to lack of awareness, it has been reported that medically, most men found out they had prostate cancer when it has advanced and they died few years later.

The incidence of prostate cancer increases with age more rapidly than the incidence of any other form of cancer. Epidemiologic studies show a forty-fold rise in the prevalence of prostate cancer from ages 50 to 85. However, with better medicine, diet and exercise, and less smoking, the incidence can be reduced [15].

There seems to be a close link between a family history of prostate cancer and a man's risk of developing it. In a recent research carried out by some scientists at Johns Hopkins, showed the undeniable link between a family history of prostate cancer and man's probability of developing the disease. The study showed that if your father or brother has prostate cancer, your risk is two times greater than the average American man's which is about 13 percent. It increases depending on the number of affected relatives you have and the age at which they developed prostate cancer [16].

Having a father or brother with postate cancer increases the probability of having it. The risk becomes very high for men with several affected relatives, particularly if the relatives were young at the time of diagnosis. Geneticists have succeeded in dividing families into three groups, based on the number of men with prostate cancer and their ages were put into consideration, these include the followings:

- Hereditary - Postate cancer is grouped under this if more than three relatives are affected within a nuclear family. Researchers have shown that five to 10 percent of postate cancer cases are considered hereditary.
- Sporadic - The word sporadic means to occur by chance, a family with prostate cancer present in one man, at a typical age of onset is grouped under this class.
- Familial - This has to do with having more than one person in a family with prostate cancer, but with no definitive pattern of inheritance.

If your family history suggest to you that there is hereditary postate cancer (HPC) which can also be inherited from either your father or your mother, it becomes important to find out from your parents about the history of prostate cancer in their family if there was any. Men in a family with prostate cancer have 50 percent chance of having it. Men are advice to carry out a test yearly to check for prostate cancer [16].

A number of factors are involved in the causes of prostate cancer, such as age, race, hormones, diet, environment etc. In general, all men are at risk of having prostate cancer. However, there are specific risk factors that increase the likelihood that certain men will develop the disease, these include the followings but not limited to these:

Age

It is one of the risk factor for prostate cancer, most men that are above 50 years are likely to be affected. More than 70 percent of all prostate cancers are diagnosed in men over the age of 65.

Race

About 60 percent of African-Americans are likely to be affected with prostate cancer while Japanese and Chinese men have the lowest rates of prostate cancer.

Diet

This is another risk factor, epidemiological data suggests that the diet consumed in most industrialized Western nations can also be one of the most important contributory factors for developing prostate cancer. Some diets have higher risk for prostate cancer, diets such as:

- Fat: Research works have shown that men who consume high-fat diet expose themselves to a greater chance of developing prostate cancer.
- Fiber: High intake of dietary fiber can also influence the circulating levels of testosterone,

and which in turn, may decrease the progression of prostate cancer.

- Soy protein: Soy contains isoflavone which in several studies have been found to inhibit the growth of prostate cancer.
- Vitamin E and selenium: Vitamin E, an antioxidant, combined with selenium, has been shown to inhibit tumor growth in laboratory animals.
- Carotenoids: Carotenoids containing lycopenes have also been shown to inhibit the growth of human prostate cancer cells in tissue cultures (cells grown in the laboratory). The primary source of lycopenes is processed tomatoes in tomato juice and tomato paste.
- Herbal preparations: some herbal preparations have been reported to have side effects such as venous thrombosis, breast tenderness, and loss of libido.

Obesity

Researches have shown that obesity does not only contribute to diabetes and high cholesterol, but has also been associated with some common cancers, including hormone-dependent tumors such as prostate, breast, and ovarian cancer.

Environmental Exposures

Few studies have shown that there are high chances for men who are into welding or electroplating and farming to have prostate cancer. However, additional studies into this are encouraged.

Having a record of STD (sexually transmitted disease)

There are still researches going on to check whether men who have been exposed to a sexually transmitted disease are at increased risk for prostate cancer. Some studies suggest a link, while others do not support these claims [11].

Hormones and Prostate Cancer: An Overview

Doctors have long known that hormones play a major role in the life of the postate. In 1786, an English surgeon named John Hunter became the first to demonstrate in animals that a radical operation, castration caused the sex accessory tissues, including the prostate to shrink. A further research was conducted at University of Chicago, the investigators discovered that removing the testes shut down production of testosterone and when shots of testosterone were injected back into castrated animals, these tissues were restored to normal size and function. This means that the castration could also shrink prostate cancer [11].

When cancer spreads beyond the prostate, it cannot be cured but it can be controlled. Walsh & Worthington [11], noted that, "there are several kinds of hormone therapy; each one gets a different link in the hormonal chain of events that affected the prostate". He stated further that:

> *Prostate growth is tightly controlled by a major hormone, testosterone, which is made by the testicles. This testosterone circulates in the blood and enters the prostate, where it's soon transformed into another powerful hormone that is active within the prostate. The brain monitors the amount of testosterone that circulates in the blood and this is where the hormone chain begins* [11].

The major goal of hormone therapy is to reduce testosterone; testosterone is responsible for stimulating the prostate tumor. "The cheapest and easiest way to control testosterone is by a simple surgical procedure known as castration" [11].

How to Detect Prostate Cancer

On how to detect prostate cancer, Leonard [17], pointed that, "it has no early symptom and by the time one gets to know, it becomes too late to cure it". Unfortunately, when prostate cancer is in its earliest and most curable stages (i.e. before it spread beyond the wall of the prostate) it shows no symptoms. Most efforts are now put on screening and early diagnosis to know. Also, Thomas [15] added that, there is no cure for advanced prostate cancer, and as such, men are advised to go for frequent test to check for this. One reason, so many cases of prostate cancer are not known immediately is that many men don't get regular physicals that include a Digital Rectal Examination (DRE). Leonard [17] stated that, the first step is for the doctor to feel for a knot, lump or anything abnormal that might be a tumor. Even those who do get checked on yearly bases, the Digital Rectal Exam (DRE) is not a guarantee that cancer will be found in time, for as many as 40 percent of the cases on prostate cancer starts their growth at a point where a doctor's finger cannot reach during the examination for prostate cancer. This makes much patience to have advanced symptoms of prostate cancer by the time it is diagnosed with a DRE [17].

The disease generally begins its growth pretty far from the urethra, most prostate cancer is fairy advanced before it leads to symptoms that men noticed or worry about. There is no clear cut symptom of prostate cancer as most of the symptoms are also common with other diseases, Leonard [17] pointed the following symptoms:

- Decrease in the amount of fluid ejaculated
- Ejaculation may be painful (less common)
- Less rigid erections or impotence
- Severe pain in the back, pelvis, or thighs.
- Blood in the urine or ejaculation.
- The patient urinates more often.
- The patient gets up at night more often to urinate.

- He may find it hard to start urinating.
- He may find it hard to keep urinating once he has started.
- Urination might be painful.
- There may be blood in the urine.
- Leg weakness (if cancer has spread to the spine and compressed the spinal cord).
- Fecal incontinence (if cancer has spread to the spine and compressed the spinal cord).
- The proximal part of the femur can be painful, etc.

Treatment and Management of Prostate Cancer

Recently in a study led by Mayo Clinic doctors in 2007, they determined age-specific ranges for prostate cancer. For men less than 30 years, prostate cancer is lower by 4 percent while for older men, prostate cancer is higher than 4 percent. The doctors recommended a cut off of 2.5 for men aged 40-49, a cutoff of 3.5 for men aged 50-59, a cut off of 4.5 for men aged 60-69 and 6.5 for men aged 70-79 [17].

Ejike, O. [18] study on, *Towards the Prevention and Management of Prostatic Diseases in Nigeria: A Framework*, the study shows that in many developing countries that have long battled with largely communicable diseases are now also facing higher occurrence of chronic diseases. In Nigeria, the prevalence of prostate cancer, BPH, and prostatitis are as high as figures reported in some industrialized nations. As much as 11% of all cancers in Nigeria are reported to be of the prostate [19].

There are also arguments about whether treatment for prostate cancer has any effect on long-term survival. Critics have stated loudly that "there is no evidence that definite treatment of localized prostate cancer increases survival". However, there has been no large, well-designed study to evaluate the effectiveness of early prostate cancer treatment in prolonging lives. The issue has never been properly investigated [17].

To throw more light into prostate cancer treatment, an attempt was made by the National PIVOT study, this study was led by a Minnesota internist and a Seattle urologist. The Department of Veterans Affairs and the National Cancer Institute funded the study. The research aimed at finding out which method works better for clinically localized prostate cancer-the radical prostatectomy with early intervention in case the cancer comes back, or watchful waiting, with treatment for symptoms if the cancer spreads. The PIVOT study which has a three-year enrollment period and a twelve year follow-up made use of men that have prostate cancer, these men were grouped into two; the first group was made to undergo a radical prostatectomy while the second group was followed closely with watchful treatment for any symptom. Men in the study were examined at least every three months for the first year and every 6 months afterward. The doctors checked for any evidence that prostate cancer has progressed [17].

American Cancer Society (ACS) recommends that after age 50, men should undergo a yearly digital rectal exam and take a yearly Prostate Specific Antigen (PSA) test, a blood test that measures levels of PSA, (a key enzyme made by the prostate). However, men who have high risk (i.e. men with family history of prostate cancer) should begin this test at age 40 [20].

That you have a high PSA does not necessarily mean you have prostate cancer, it just means that you have some sort of prostate trouble may be prostate infection, etc. you are advised to see an urologist to find out what kind of problem you have. The goal of PSA test is to identify curable cancers in men who are probably going to live long enough to need to be cured. PSA test may be repeated often or an ultrasound and other procedures may be used. Ajape and Babatunde [21] noted some of the tools a biopsy may, these include:

Magnetic Resonance Imaging (MRI)

This diagnostic procedure make use of a combination of large magnets, radiofrequencies, and a computer to produce detailed images of organs and structures within the body. Here the physician uses beams with variable intensity. Advanced form of conformal radiotherapy usually delivered by a computer-controlled linear accelerator. Treatment recommendations really depend on individual cases.

Watchful Waiting

As the name implies, here not immediate treatment is carried out. PSA blood levels are regularly monitored.

Trans Rectal Ultrasound (TRUS)

This form of test make use of sound wave echoes to create an image of the prostate gland, this enable the physician to visually inspect for abnormal conditions such as increase in the size of gland, penetration of tumor, nodules etc.

Radical Prostatectomy

This method involves the surgically removal of the prostate.

Brach Therapy

Radioactive seeds are implanted into the prostate.

Conformal Radiotherapy

This method has to do with the shaping of the radiation beams, this is done to minimize the exposure of the tissue.

Lymph node and/or prostate biopsy

In this process, tissue samples are removed (with a needle or during surgery) from the body for examination under a microscope; to determine if cancer or other abnormal cells are present.

Computed Tomography Scan (Also known as CT or CAT scan)

This is a diagnostic imaging procedure that uses a combination of x-rays and computer technology to produce cross-sectional images (often called slices), both horizontally and vertically, of the body. A CT scan shows detailed images of any part of the body, including the bones, muscles, fat, and organs. CT scans are more detailed than general x-rays.

Radionuclide Bone Scan

This method helps to show whether the cancer has spread from the prostate gland to the bones. The procedure involves an injection of radioactive material that helps to locate diseased bone cells throughout the entire body, suggesting possible metastatic cancer [22].

The stage of your cancer and your age and overall health have a huge bearing in the treatment of prostate cancer, it grows relatively slow. It can stay localized, or confined to the prostate, indefinitely a man can die with prostate cancer and not of it. But once it escapes the prostate, cancer's growth becomes relentless. It can no longer be cured at this stage. And once it has spread to bone, a man's average life expectancy is about three years [22].

The external-beam radiation therapy is an excellent treatment option for many men with prostate cancer; first and foremost, it requires no surgery and as such it becomes a key advantage for older men as well as for men with other health problems that might preclude major surgery. There are two standard approaches to radiation treatment for prostate cancer-sending radiation into the tumor from the outside, with external beam radiation therapy and implanting radioactive seeds directly into the tumor, this is called interstitial branchy therapy. The "gold standard" for radiation is sophisticated it can cure localized cancer, not just relieve the symptom of advanced disease [22].

However, if is a more advanced prostate cancer, that is to say the cancer is aggressive, and the patient may require a combination of two or more methods such as radiotherapy and hormone therapy. Radiotherapy, this method involves the treatment on an everyday basis for up to about eight weeks. When it becomes complex, radical surgery is also an option - the prostate is removed completed. The surgery can be done traditionally; this requires the patient staying in the hospital for some days for the surgery to be done and for quick recovery and monitoring of the patience. On the other hand, robotic keyhole surgery can also be used, here the patient stay in the hospital for few days. Also, hormone therapy is very helpful in slowing down, and even stopping the growth of cancer cells and their proliferation to other parts of the body [22].

Knowledge and Awareness of Prostate Cancer Campaigns

The death rate as a result of prostate cancer is still high. However, the major causes of this cancer have not been wholly ascertained. Although, medical report has linked the causes to genetic factors, diet, old age and environment. But the good news is that it can be prevented:

> *Know that cancer can be prevented and your actions play a vital role in making lower cancer risk a reality to you and your family . . . there are things you can do today to reduce your risk of cancer. Not quick but basic lifestyle and dietary changes that will mean a lower cancer risk for life* [22].

It becomes clear that when people know that the causes of prostate cancer can be control, all they need to know is what should be done at a given time and what should not be done. For instance, since some food items have been identified to increase one's chances of having it, it is advisable for one to avoid such food items. With such knowledge, the men become aware of this and what they consume is checked. To a large extent, this awareness will be determined by the individual's vulnerability to the disease.

Stretcher & Rosenstock [23] noted that, perceived susceptibility to the threat of cancer, perceived severity, coupled with modifying factors like age, knowledge, ethnicity, sex, personality and socioeconomic factors will determine the likely hood of actions based on perceived benefits minus perceived barriers.

In a research work carried out by Kelvin, in 1999 on prostate cancer, he elaborates more on the attitudes of men towards the disease. Survey method was used to conduct the research and the study shows that most of the men examined lack in-depth information of this disease and to a large extent poor communication strategies was the major factor to this.

Oranusi, and Nwofor [24], carried out a study on prostate cancer awareness and screening among male public servants in Anambra State, Nigeria, observed that 74.1% of the respondents were aware of the existence of prostate cancer, while 76.1% were able to identify one or more symptoms of the disease. Difficulty in passing urine was identified as the most common presenting symptom by 45.3% of the

respondents, whereas, only 56.7% were aware of PSA screening.

Ajape, and Abiola [21], study on *Knowledge of prostate cancer screening among native African urban population in Nigeria*, concluded that "there is remarkable lack of awareness of prostate cancer among the Nigerian urban populace. Prostate cancer screening and serum PSA test for screening is globally unknown among them". Though knowledge and risk perception of prostate cancer were low.

Asuzu, and Omeremma [25] study on knowledge, attitude and screening behaviour of secondary school male teachers in Ibadan North Local Government Area towards cancer of the prostate, observed that 79.0% have heard about prostate cancer, 7 1.0% know about prostate cancer screening, 56.6% of the respondents reported that they do not know where to go for prostate cancer screening; 35.5 % have had any sort prostate cancer screening and among the 18.3% that had the specific marker antigen screening only 7.6% went back to collect the result. Of those, 91.4% did not go back to collect result because of fear of the diagnosis

Similarly, Atulomah, and Adedeji [26] study on the level of awareness, perception and screening behavior regarding prostate cancer among men in a rural community of Ikenne Local Government Area, of Ogun State, observed that 156 (39.2%) of the respondents reported having heard about prostate cancer while 377 (94.7%) had heard of breast cancer as a condition affecting women. The findings suggest that level of awareness about prostate cancer among men was low.

Since, knowledge influences attitude and positive attitude culminates into practice, it is therefore very important that campaigns should be tailored to inform adequately, paying particular attention to barriers that hinder the adoption of the desired behaviour.

Theoretical Frame Work

This study was anchored on two major theories. The theories are: Attitude-Change theory and Health Belief Model (HBM).

Attitude-Change Theory

The Attitude Change Theory according to Baran & Davis [27] was developed in the 1940s during the World War II. This theory emphasises that there are some pre-existing attitudes, which have to be changed for a selective message to be able to have effect on an audience. It further explains that these pre-existing attitudes can be an obstacle to effective dissemination of a desired message. The theory also states that for a change to occur there must be emotional and intellectual communication strategies designed to influence the target audience and it must be properly channeled to this audience. However, change in an individual's perception will be effective if only the message meets the individual's expectation(s), if it is tied to someone he admires, or if it is bound to be beneficial to him [28].

Three bases for attitude change were also explained in this theory; they include compliance, identification, and internalization. These three processes demonstrate the different levels of attitude change [28].

In a nutshell, this theory shows that existing attitudes of an individual or an individual's mental predispositions need to be changed or channeled to a particular cause through an intellectually and emotionally binding strategy, Baran & Davis [27].

Relating this theory to this study, it clearly shows that for a positive attitude and effective campaign on prostate cancer to take place, there must be emotional, physical and psychological appeal in the campaign messages. It becomes emotional when men become afraid of being diagnosed of prostate cancer, it becomes physical when medical facilities for it are not affordable, and available. However, it takes a psychological dimension when men see issues with opening up to modern medicine when they detect or observe body changes that may be harmful to their bodies and conceal their observations due to shyness or cultural beliefs.

The campaign messages must therefore be structured to detect these obstacles to effective communication and assess how effectively, selected messages can overcome them. The strategy must appeal to the attitude of the people as this is a major determinant of effective practice.

Health Belief Model

This model was developed by Irwin M. Rosenstock in 1966. At first, this model was meant to envisage patient behavioural response to the treatment given to him or her. However, in recent time, this model has been used to envisage more general health issues on a patient's behaviour.

The model specifies that individual's perception of negative health outcome that is severe makes them to be susceptible to it, as well perceive the benefits of such communication campaigns as having reduced the severe outcome and negative behaviour of individuals to change. The HBM suggests that your belief in a personal threat together with your belief in the effectiveness of the proposed behaviour will predict the likelihood of that behaviour. The underlying concept of the original HBM is that health behaviour is determined by Personal beliefs or perception about a disease and the strategies available to decrease its

occurrence and that personal perception is influenced by a whole range of intrapersonal factors affecting health behavior [29, 30].

The HBM also specifies that individuals' perceptions of some variables can determine their behavioural change. First, the model argues that people will be more motivated to act in healthy ways if they believe they are susceptible to a particular negative health outcome. The model states that people will not act to prevent a negative health outcome that is unlikely to afflict them. Second, the model predicts that the stronger people's perception of the severity of the negative health outcome, the more they will be motivated to act to avoid that outcome. The model shows a cue to action whereby the individual is spurred to adopt the preventative behaviour by some additional element [29, 30].

However, this model becomes relevant to this study in the sense that the level of awareness campaigns, knowledge and behaviour of men on prostate cancer can motivate them towards avoiding negative health behaviours that leads to prostate cancer.

METHODOLOGY

Survey research method was adopted for this study. The population of the study is made-up of all the males in South-Eastern Nigeria. South-Eastern Nigeria comprises of five states. Below is the population of each of the states:

Projected Population of Nigeria by State and Sex, 2011

State	Total Population	Male Population
Abia	3,256,642	1,430,298
Anambra	4,805,646	2,117,984
Ebonyi	2,504,085	1,064,156
Enugu	3,796,685	1,596,042
Imo	4,609,038	1,976,471
Total	**18,972,096**	**10,761,487**

Source**:** National Population Commission cited in National Bureau of Statistics [31]**.**

In regards to the data above which was obtained from the National Population Commission (NPC) cited in National Bureau of Statistics [31], the population for this study is 10,761,487. This number comprises of all the males in South-Eastern Nigeria. Due to the population size of this study, the research aligned himself with the projected method suggested by Comprey and Lee, 1992 [32].

The sample size of the study comprises of five hundred (500) male drawn from the five states in the region. Simple random sampling technique (i.e. open balloting) was used to select three Local Government Areas from each state to represent each of the states.

The study was conducted with the aid of questionnaire as its main instrument of data collection. The questionnaire was carefully designed to accommodate the major variables in the study.

The researchers sampled a total of 500 respondents but a total of 476 copies of questionnaire were returned and the analysis was based on these returned copies. The Statistical Package for Social Science (SPSS) was used to analyse the copies of questionnaire valid for the study.

DISCUSSION OF FINDINGS

The discussion was strictly based on the outcome of the fieldwork and results gotten from the five research questions used in this study. The analysis and interpretations are presented below.

Research Question One: What is the level of awareness among men in south-eastern Nigeria on prostate cancer?

Answering this research question on the level of awareness, data gathered from the field indicates that, 21.2% of the respondents strongly agree that there are campaigns on prostate cancer, 25.2% of the respondents agreed. 35.0% disagree to this statement, while 18% strongly disagree to this. This clearly shows that most of the respondents disagreed on this. Therefore, this indicates that 53% of the respondents are not aware of the campaign.

On respondents' exposure to campaigns on prostate cancer, data generated from the field shows that, 10.9% of the sampled respondents strongly agree that they are exposed to these campaigns, 15.9% agree, 30% disagree while 43% strongly disagree. This indicates that the exposure level of thfe campaigns on prostate cancer is low since 43 % strongly disagree on this.

Further question on awareness level shows that, 41.1 % of the respondents strongly agree that the disease can be treated, while 31.9% agree to this. On the other hand, 6.3 % disagree to this while 20.3% strongly disagree to that prostate cancer can be treated. Base on this, it means that most of the respondents agree that it can be treated.

Lastly, whether respondents often visit medical centre for prostate cancer examination, 6.5 % of the respondents strongly agree to this while 2.5 % agree to it, however, 50.9 % of the respondents disagree to this while 39.8 % strongly disagree. More than half (50.9%) of the respondents say they don't go for medical examination of their postate.

In a nutshell, from the analyses done it shows that majority of the respondents are not aware of these campaigns (the level of awareness is low). This finding is also in-line with other studies done previously by Atulomah and Adedeji [26] and also by Oranusi and Nwafor [24] on postate cancer.

Research Question Two: What is the level of knowledge of men in the south eastern Nigeria on the issue of Prostate cancer?

Here the research shows that most men, (49.3%) don't know that the food they eat can cause prostate cancer and the disease is genetic. This indicates low knowledge level of the disease.

On whether respondents know the symptoms of prostate cancer, 32.1% of the respondents strongly agree that they don't know the symptoms of prostate cancer. This means their knowledge on this is still low. 15.1 % of the respondents strongly agree that prostate cancer is a genetic disease, 18.7 % of the respondents also agree to this. 25.6 % of the respondents don't agree to it, while 40.5% strongly disagree that it is a genetic disease. This shows that they don't know that it is a genetic disease. 41.1% of the sampled population strongly agree that families should go for genetic test, however, this is slightly different and this means that even when they don't have the knowledge that it is genetic disease, they still believe that families should go for genetic test, also on if men should go for genetic test, 44.2 % strongly agree to this. 58.6 % of the respondents attribute the symptoms of prostate cancer to difficulties in ejaculation.

This finding is also in-line with Asuzu and Omeremma study carried out in 2010. They noted that the knowledge level of cancer disease in developing nations is relatively low [25].

Research Question Three: What are the sources of information known to men in South-Eastern Nigeria on Prostate cancer?

The data collected in regards to this shows that there are many sources of information available to the men in this region on prostate cancer. 150 respondents representing 31.5% of the total number sampled refers to family and friends as their source of information on prostate cancer, 93 (19.5%) of the respondents said the media (campaigns) are their source, 162 (34%) mention medical practitioners/ health seminars as their sources of information and 42 (8.8%) accept that all of the above are their sources while 29 of the respondents representing 6 % said the above sources are not their sources. This simply means that most of the respondents (34%) get this information from medical practitioners/health seminars. Based on the finding, it becomes obvious that the media is not the major source of the campaign.

Research Question Four: What is the attitude of men in South-Eastern Nigeria on prostate cancer?

Examining the attitude of men in the region on prostate cancer, 62 percent of the respondents agreed that there are people who underestimate their risk of the disease. There are people who do not feel threatened even with the increasing knowledge of susceptibility resulting from genetic factors. Such people seem to have certain belief that hinge on the fact that they cannot be infected. It becomes clear that most of the respondents agreed that some people over-estimated their risk of the disease and majority of the respondents agreed that there are people who under-estimate their risk of the disease.

Research Question Five: What influence has the campaigns on prostate cancer has on the behaviour of men in South-Eastern Nigeria?

Data here shows that 267 of the respondents representing 56 percent of the entire sample size agreed that the campaign has influenced their attitude, 122 representing 26 percent said no while 87 of the respondents representing 18 percent were not sure whether the campaign has influenced them or not. In summary, those that are aware of the campaigns agreed that the campaigns have influenced their attitude. Also, 97.7% of the respondents agreed that the campaigns have influenced their behavior, while 61.6 % agreed that it has influenced their behavior to a moderate extent.

Based on this it becomes clear that majority of the respondents agreed that the campaigns on prostate cancer have influenced their behaviour. Despite majority of them not being aware of the campaigns and the low knowledge level of the disease, few of the respondents that are aware of these campaigns and have the knowledge of what the disease is about accepted that the campaign has influenced their behavior.

CONCLUSION

In winding up this study, the findings indicate that, most men in south-eastern Nigeria are not aware of postate cancer awareness campaigns and they are not exposed to these campaigns. Also, their knowledge of this disease is low and the medical practitioners serve as their major source of information. Those that are aware

of the campaigns agreed that the campaigns have influence their practice on how to prevent, detect and treat prostate cancer.

In addition to the above, most of the men do not know that prostate cancer is a disease that kills; and can only be treated at its initial or early stage if detected on time. Those that are aware of the campaigns also acknowledged that before the campaigns on prostate cancer, they have little or no knowledge of the disease.

The issue of the disease having link with genes remains a subject that most of the men fail to accept, however genetic testing is still quite new to some of the men in the south-eastern Nigeria. The few that understand the relationship between genetics as a risk factor in the cause of prostate cancer agreed to genetic testing.

Also, the attitudes of underestimating and overestimating risks of postate cancer are influenced by high or low levels of information acquired on the subject. However, their attitude towards the practice of preventive measures and the belief that, they are not susceptible to the disease seems to be low.

RECOMMENDATIONS

Based on the findings revealed in this study, it recommends that, awareness campaigns should be well structured to sufficiently address the negative attitudes of the men in south-eastern Nigeria on prostate cancer. Also, prevention of postate cancer should be emphasized during subsequent campaigns paying serious attention on the causes of prostate cancer and how they can be prevented and treated at its early stage.

Also in line with The World Cancer Report [7], this study also recommended that emphasis on the potential of early detection, treatment and palliative care should be taken serious by those in charge of the campaigns. Efforts to achieve earlier diagnosis should be taken to both the rural and urban parts of the country.

The study also, recommends that campaign planners, should lower the age for screening so that early detection and prevention at the hospital is enhanced. However, if screening is done at an earlier age, early treatment could better reduce the risk of early death.

Dietary recommendation also requires close coordination by campaign planners with programs for the prevention of other related non-communicable diseases. Policy makers should therefore make do with the latest information provided by the independent Expert Report on diet and chronic disease, released in March 2003 by WHO and FAO (Food and Agriculture Organization) in order to know which information will be most appropriate for them to base advice on prevention of cancer and other related diseases [7].

The study also recommends a healthy lifestyle as the best form of prevention. Frequent consumption of fruits and vegetables and physical activity can make a difference. Finally, further research works on prostate cancer can be carried out to cover the entire nation.

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