

# Awareness and Attitudes of Men towards Prostate Cancer Screening in Makurdi Metropolis

<sup>1</sup>Raymound Tartenger Tachin & Simon Agbo Itodo<sup>2</sup>

<sup>1</sup>Department of Psychology, Benue State University, P.M.B 102119 Makurdi, Benue State, Nigeria.

<sup>2</sup>Department of Clinical Psychology, Federal Medical Centre, Makurdi, Benue State, Nigeria.

Email: [itodo.simon@yahoo.com](mailto:itodo.simon@yahoo.com), Mobile number +2347061110861.

## Abstract

*Prostate Cancer is a health issue that is generating growing concerns globally and it is the number one cancer in males in Africa, both in terms of incidence and mortality. The purpose of this study was to establish the relationship between awareness, attitude and prostate cancer screening among men in Makurdi metropolis. A correlation design was used for the study and a total of 400 respondents participated in the study. Data was collected using an adopted Thomas Jefferson prostate cancer screening survey and a self-developed questionnaire. The data was analysed using Pearson product moment correlation and the results of hypothesis one revealed a no significant relationship between awareness and prostate cancer screening ( $r(398) = -.020$ ;  $P > 0.05$ ). Hypothesis one was therefore rejected. The second hypothesis revealed a significant negative relationship between men's attitude and prostate cancer screening ( $r(398) = -.109$ ;  $P < 0.05$ ), this hypothesis was therefore confirmed. Based on these findings, it was recommended that future studies should focus on how cultural and religious beliefs may be related to prostate cancer screening practice. Furthermore, socioeconomic factors should also be investigated as possible determinants of prostate cancer screening practice in future studies.*

**Key words:** Awareness, Attitudes, prostate cancer, and screening.

## Introduction

Many men have died of prostate cancer (PC) over the years and some could be as a result lack of awareness of existence of this disease while others are borne out of deliberate negligence to screening and late detection of prostate cancer (Saudi Cancer Registry, 2007). Prostate cancer is the number one cancer in males both in incidence and mortality in Africa including Nigeria, constituting 40,000 (13%) of all male cancer incidences and 28,000 (11.3%) of all male cancer-associated mortalities (Ferlay, Shin, Bray, Forman, Mathers, & Parkin, 2010; Akinremi, Ogo & Olutunde, 2011). Prostate cancer is age related and it is common in men older than 80 years of age. As a matter of fact, some studies have suggested that among men over 80 years of age, 50%-80% of them may have prostate cancer. More than 80% of prostate cancers are diagnosed in men older than 65 years of age (Abdel-Gawad, 2010; Adibe, Aluh, Isah, & Anosike, 2017).

Generally, prostate cancer tumour at the early stage usually grows slowly and remains confined to the gland for many years. During this time, the tumour produces little or no symptoms or outward signs (Al-Hamdan, Rayichandran, & Al-Sayyad, 2009). The only way to detect it at this stage is through regular early screening. Prostate cancer screening is an attempt to find unsuspected cancers, and may lead to more invasive follow-up tests such as a biopsy, with cell samples taken for closer study (American Cancer Society (2009). Other screening options include the digital rectal exam (DRE), the prostate-specific antigen (PSA) blood test or a combination of these methods. The primary goal of prostate cancer screening is the early detection of men with clinically significant cancers resulting in a reduction of overall morbidity and mortality associated with this disease. Screening may allow for early detection or diagnosis of more localized cancers, resulting in improved cancer specific mortality

with appropriate treatment. Men's prostate cancer screening behaviour may be related to their awareness and attitude of the disease condition and its implications.

Awareness is the understanding of knowledge-based information derived by the individual perception of a particular thing or phenomenon. It is the ability to perceive, to feel, or even to be conscious of events or objects. In this level of consciousness, sensory data can be confirmed by the observer without necessarily implying understanding (Ries, Eisner, & Kosary, 2004). When people are properly informed for example of prostate cancer, a need for screening becomes necessary and important. However, available literature showed that, deaths recorded from prostate cancer cases have been complicated by under-reporting and by cases that have not been diagnosed due to poor awareness on the part of individuals with the condition and, probably, lack of structured guidelines to deal adequately with this health condition that is now emerging in our health care system and community. Attitude about cancer screening is an enduring organization of beliefs, feelings, and behavioural tendencies towards socially significant objects, groups, events or symbols (cancer screening) (Hoag & Vaughan, 2005). It is a psychological tendency that is expressed by evaluating a particular entity with some elements of favour or disfavour. When people become aware of the essence of regular check-up for screening and the early detection of growth of cancer in the prostate, it enhanced their positive attitude to screening. In the same vein, when people are unaware of the essence of screening for prostate cancer, it makes them have negative attitude towards screening.

### **Statement of the Problem**

Cancer, regardless of the type is considered a fatal disease to people in both developed and developing countries of the world (Kennerson, 2010). The World Health Organization (WHO) 2004 report for countries of the world with significant prostate cancer disease burden revealed that out of the top ten countries of the world with the disease, Nigeria ranked as the third highest with the total deaths in that year from the disease being 13,700, after the United States and India with 35,300 and 18,200 deaths, respectively. The reported burden of the disease for 2004 also showed that the total deaths from all cancers/neoplasm in Nigeria was 78,700 and prostate cancer recorded 13, 700 (17.41%), while breast cancer recorded 10,600 deaths (13.47% in the eleventh position globally). Within Africa, Nigeria ranked first out of the nine countries with the highest prevalence of prostate cancer. Despite documented fatality from prostate cancer and its devastating impacts, it can be managed to improve the life expectancy and quality of life of men with the disease if detected early through screening. However, there appear to be low screening behaviours among men in Makurdi Metropolis which is not unconnected with their poor awareness and attitudes towards early screening for the disease. There is also dearth of literature regarding awareness, attitude and prostate cancer screening among men in Makurdi Metropolis as the researchers are not aware of any of such research at the time of conducting this study. It is against this background that this study is conceived to investigate the relationship between awareness, attitude and prostate cancer screening among men in Makurdi Metropolis.

### **Aim and Objectives of the Study**

The aim of the current study is to investigate the relationship between awareness, attitude and prostate cancer screening among men in Makurdi Metroplis. This aim is translated in to the following objectives:

1. To determine the relationship between awareness of prostate cancer and screening practice among men in Makurdi Metropolis.
2. To ascertain if attitude of men towards prostate cancer relate to screening practice in Makurdi Metropolis.

### **Research Questions**

1. What is the relationship between men's awareness of prostate cancer and screening practice in Makurdi Metropolis?
2. How does men's attitude towards prostate cancer relate to their screening for the disease in Makurdi Metropolis?

### **Hypotheses**

The following hypotheses were tested.

1. There will be a significant relationship between men's awareness and prostate cancer screening practice in Makurdi Metropolis
2. There will be a significant relationship between men's attitude and prostate cancer screening practice in Makurdi Metropoli.

### **Methods**

#### **Design**

A survey research with a correlational research design was employed for the study. The choice of correlational research design was because the researcher was primarily interested on establishing the relationship between awareness, attitude towards prostate cancer and prostate cancer screening practice among the selected sample of the men population in Makurdi metropolis.

#### **Participants**

A purposive sampling technique was adopted to select a total of 400 participants for the study. Purposive sampling technique was preferred because it gives the researchers the opportunity to select participants based on their availability and willingness to provide answer to the research questions. Inclusion criteria was that participant must be a man and aged 35 years and above. Exclusion criteria include women, children, adolescents and anyone below the age of 35 years. Previous study has potentially put the age of onset of prostate cancer at 35 years.

#### **Instruments**

Three instruments were used for data collection. Knowledge of prostate cancer and prostate cancer screening attitude both adopted for this study from the Thomas Jefferson University Prostate Cancer Screening Survey developed by Myers (2005) and a prostate cancer screening questionnaire developed by the researcher.

## **Awareness of Prostate Cancer**

The awareness of prostate cancer was measured using the knowledge of prostate cancer screening questionnaire (Weinrich, 2004). It measures the level of prostate cancer and prostate cancer screening knowledge. It is a 12 item questionnaire that measures prostate cancer screening limitation, prostate cancer screening symptoms, prostate cancer risk factors, and prostate cancer guidelines. It is a Likert type of scale ranging from strongly disagree, Disagree, Agree, and Strongly Agree. Content validity was established with five cancer health professionals who provided suggestions for the questionnaire. The questionnaire was revised and administered 12 additional times to 56 men. The reliability using factor analysis was 0.61. Construct validity was based on factor loading of 0.35 or greater. The 12 item clustered on one factor indicating a one-dimensional scale. The internal consistency of the knowledge scores using a Cronbach's alpha is ( $\alpha=0.77$  (weinrich 2004)).

### **b. Prostate Cancer Screening Attitude.**

The Thomas Jefferson University Prostate cancer survey (Myers 2005) was used to assess factors associated with screening frequency among men. The scale has a number of items on a personal attitude about prostate cancer screening, and each item was measured on a four-point Likert –type scale. Prostate cancer awareness and attitudes scales have indicates the following properties: 1) salience and coherence of prostate cancer screening (four items, Cronbach's  $\alpha=0.85$ ); 2) personal susceptibility to prostate cancer (two items, Cronbach's  $\alpha=0.74$ ); and 3) concern about exam related pain and anxiety (two items, Cronbach's  $\alpha=0.75$ )

### **c. Prostate Cancer Screening Questionnaire**

The screening test was self-developed questionnaires of four items with responses from strongly agree to strongly disagree. The instrument was validated using a pilot sample of 52 participants. The test has reliability co-efficient of .872 and four items Cronbach's  $\alpha$  also of .872, thus making the scale highly reliable.

## **Procedure**

During the administration of the questionnaires, the researchers with other two assistants went out in peers to meet respondents in the selected locations within the Makurdi Metropolis. Upon arrival, the researchers briefly explained the purpose of the study to them including necessary information needed to complete the questionnaire and seek their consents to participate in the study. All those who indicated interest to participate were given consent form to sign followed by the research questionnaire. Participation was optional and participants were at liberty to withdraw their participation any time. After completing the questionnaires, the researchers appreciated participants for their participation, assured them of confidentiality of the information provided and left their contact details behind should any of the participants wants to make clarifications or further enquiry about the study.

## **Data Analysis**

The data collected was analyzed using Descriptive Statistics and Pearson Moment correlation to test the two hypotheses formulated. A statistical package for social sciences (SPSS) was used for all the analysis.

## **Results**

### Demographic Characteristics of Respondents

The mean age and standard deviation of respondent were 42.7 and 8.7 respectively indicating that majority of respondents were within the age of onset of prostate cancer. Further demographic characteristic is summarised in table 1 below:

**Table 1:** Marital status, religion, tribe, and education as well as occupation distribution of respondents

VARIABLES	FREQUENCY	PERCENTAGE
<b>MARITAL STATUS</b>		
Single	93	23.9
Married	276	71.0
Separated/divorced	12	3.1
Widower	8	2.1
<b>RELIGION</b>		
Christianity	356	87.9
Islam	21	5.3
Traditional	16	4.0
Others	3	.8
<b>TRIBE</b>		
Tiv	281	70.5
Idoma	32	8.1
Igede	56	14.2
Others	24	6.1
<b>EDUCATION</b>		
Tertiary	317	82.3
Secondary	35	9.1
Primary	30	7.8
No formal education	3	.8
<b>OCCUPATION</b>		
Civil servant	263	68.0
Farming	16	4.1
Business	52	13.4
Student	56	14.5

Sources: Field work, 2021

**Table 1** above revealed the demographic characteristics of the respondents. Married persons were the highest respondents (71.0%). In terms of education and occupation, majority of the respondents had tertiary education (82.3%) and were civil servants (68.0%). They were predominantly Tiv (70.5%) by tribe and Christian (87.9%) by religion.

**Table 2: Pearson Correlation showing the relationship between Awareness of Prostate Cancer and Prostate Cancer Screening Practice**

Variable	N	Df	R	P-value	Remark
Awareness	400	398	-.020	0.05	Not significant

The result of Pearson correlation presented in table 1 shows that there is no statistical significant relationship between awareness of prostate cancer and its screening practice, ( $r_{(398)} = -.020$ ;  $P > 0.05$ ) among men studied. Therefore, the research hypothesis is rejected

**Table 3: Pearson Correlation showing the Relationship between Men’s Attitude towards Prostate Cancer and Prostate Cancer Screening Practice**

Variable	N	Df	R	P-value	Remark
Awareness	400	398	-.109	0.05	significant

The result of the Pearson correlation presented in table 2 above shows that there is a negative significant relationship between men’s attitude and prostate cancer screening practice.

( $r_{(398)} = -.109$ ;  $P < 0.05$  ). Therefore, the research hypothesis is accepted.

### Discussion

Hypothesis one was tested using the Pearson product moment correlation statistics and the result showed no significant relationship between men’s awareness and prostate cancer screening practice ( $r_{(398)} = -.020$ ;  $P > 0.05$  ). This finding is consistent with the finding of Olusegun, Ayoola & Oluwakemi, (2020) who found that there was a high level of awareness of Prostate cancer among male journalists in Lagos but this did not lead to a positive attitude towards Prostate cancer screening among them. Similarly, Necku, Anaba & Abuosi, (2019) studied Prostate cancer awareness and attitude toward early detection among male soldiers

in Ghana in a cross-sectional study. They found that 58.3% of the soldiers were less aware of PC and 76.0% had low or neutral knowledge regarding risk factors and symptoms of Prostate Cancer. The soldiers had positive attitudes toward early detection but had low intentions of getting tested. Awareness was significantly associated with education, rank, haven received PC information from a health worker and being knowledgeable of signs of Prostate Cancer. One of the reasons this hypothesis was not significant could be due to cultural and religious believe of the people. There is a common belief among the studied population that “what you don’t know cannot kill or harm you”. So going for prostate cancer screening when one has not been diagnosed or having symptoms is like looking for a problem where there is none.

The second hypothesis was also tested using Pearson product moment correlation and the result shows a negative significant relationship between attitude towards prostate cancer and screening practice ( $r_{(398)} = -.109$ ;  $P < 0.05$  ). This implied that the more positive attitude of respondents towards prostate cancer, the less they are willing to go for screening. The finding of this hypothesis is contrary to the works of Hoffman (2011) who in his study found men who chose not to get screened had less knowledge about prostate cancer and a less positive attitude towards screening than men who choose to get screened. Similarly, Other studies conducted on screening, knowledge, perceptions, attitude and behaviours among African men also found knowledge about disease, lack of access to screening services, embarrassment and fear of positive diagnosis and related sexual dysfunction as determinants of negative attitude towards screening (Forrester-Anderson, 2005; McFall, Hamm & Volk, 2006). Unlike previous studies, one of the reasons positive attitude did not positively correlates screening practice among the studied population could be the socioeconomic disadvantage of the people which is believed to heighten the knowledge and attitudinal barriers to early screening and detection of prostate cancer.

The study focused on understanding the relationship between awareness, attitude and prostate cancer screening practice among men in Makurdi Metropolis. It can be concluded based on the study that awareness did not relate to screening practice and attitude negatively correlate with prostate cancer screening practice among the studied population.

### Recommendations

No doubt, more research is needed on the current phenomenon. Attention of future researchers should focus on how cultural and religious beliefs may be related to prostate cancer screening practice. Furthermore, socioeconomic factors should also be investigated as possible determinants of prostate cancer screening practice in future studies.

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