

Knowledge and Attitude of Men towards Prostate Cancer Screening. A Case Study of Men Attending Services in Imo State University Teaching Hospital Orlu

Ezeama M.C¹ and Enwereji E.E^{2*}

¹Department of Public Health, Imo State University, Owerri, Nigeria.

²Department of Public Health, Abia State University, Uturu, Nigeria.

*Correspondence:

Enwereji E.E, Department of Public Health, Abia State University, Uturu, Nigeria.

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ABSTRACT

Introduction: The aim of the study is to determine the knowledge and attitude of men towards screening for prostate cancer in Imo State University Teaching Hospital, Orlu. The study assessed the level of awareness of men on the risk factors of prostate cancer. This was done so as to ascertain the extent to which prostate cancer screening methods as provided by the health workers are accepted. This helped to show the attitudes towards screening for prostate cancer.

Methods: The study adopted a cross-sectional descriptive study. A total sample of 120 men receiving screening services during the period of study were used. Questionnaire was used as the method for data collection. This was both administered and self-administered. Data were analyzed using frequency tables.

Results: The findings revealed that majority of the men, 84 (70%) were aware of methods of prostate cancer screening while 36 (30%) were not aware. On the knowledge about preferred types of screening measures, majority of the respondents 108 (90%) identified PSA test while 12 (10%) had no preferred prostate cancer method. The respondents' attitude towards uptake of prostate cancer screening methods, showed a positive attitude as majority of the respondents had a mean score of 44.6 with an average mean score of 2.8. However, the knowledge on risk factors of prostate cancer showed low knowledge with a mean score of 21.6.

Conclusion: The fact that a good number of the respondents had low knowledge on the risk factors for prostate cancer, presupposes the need for healthcare workers to health educate men on the risk factors of prostate cancer as well as the benefits of regular prostate cancer screening so as to increase prostate cancer screening uptake thereby, reduce the prevalence of prostate cancer.

Keywords

Prostate cancer, Screening, Uptake, Metabolic syndrome, Digital Rectal Examination, Prostate specific antigen.

Introduction

In Nigeria, there is a lot of emphasis on cancers in women especially breast and cervical cancer, with little or no attention given to cancers affecting men particularly prostate cancer. Currently there is no formal program that targets prostate cancer prevention which explains why there seems to be little or no awareness on prostate cancer screening in some societies. However, prostate cancer

is a group of cancerous cells that begins in the outer part of the prostate, usually, it does not present symptoms in the early stages, but if left untreated it may metastasize to nearby lymph nodes, bones or other organs thereby causing some aches and pains in the bones, pelvis, hips, ribs and back. Although, the exact cause of prostate cancer is unknown, it has been associated with a number of risk factors like aging which increases the risk [1-3].

Prostate cancer constitutes a significant healthcare problem due to its morbidity and mortality rates as well as high cost implications for its detection and treatment. Studies have shown that early detection of prostate cancer forms the key factor in reducing the

mortality and morbidity rates. The fact that most cancer cases are diagnosed at the late stages, points to the need for health education and effective management programmes [4-7]. Prostate cancer screening is a good attempt to diagnose prostate cancer in asymptomatic men. The principles of screening for prostate cancer involve the measurement of serum prostate specific antigen (PSA) and digital rectal examination (DRE). Large population based studies have shown increase in the survival rates in cases with early detection and treatment of prostate cancer. This increase in survival rate has been attributed to the awareness on the benefits of screening programmes, adequate health education on risk factors and effective urological care [8-11].

Attitude of men towards screening for prostate cancer with serum prostate-specific antigen testing and digital rectal examination has been under intense investigation in the medical community [12,13]. Although much has been researched on the performance, characteristics, and the ability of prostate screening to detect clinically significant prostate cancer when it is still curable, there is still need for more research on the attitude of men who use these services. Studies have shown that receiving prostate cancer screening is not necessarily associated with increased knowledge about the screening services, but rather, that men who are screened are more likely to learn prostate cancer risk factors and the advantages of the screening than those who are not screened. Therefore, giving men information about prostate cancer screening would likely increase their attitude towards screening [14-16].

In Nigeria, prostate cancer screening is not very common in the society and this contributes to the poor knowledge on the need to be screened. Several factors have been associated with poor uptake of prostate cancer screening. Among these factors, include poor knowledge of prostate cancer, low perception of self-vulnerability, poor socio-economic status to cover cost of screening, and fatalistic beliefs on the causes of prostate cancer [17-19]. Studies have also confirmed that even where there are high levels of awareness of prostate cancer, that these factors still play key roles in the uptake of prostate screening among men. These factors however, have lead to the problems of late diagnosis of most cases, which have contributed to increased mortality rate of cases handled in most hospitals including Imo State University hospital [20-23]. This study investigated the knowledge and attitude of men receiving screening for prostate cancer in Imo State University Teaching Hospitals, Orlu. It also ascertained the types of screening tests as well as the treatment options they prefer. Therefore, encouraging men for increased uptake of prostate cancer screening activities is of great benefit to them because it encourages early detection and management.

The findings in this study are of great importance to the healthcare workers, governmental and non-governmental organizations because the findings will enlighten them on the need to provide regular fora where seminars, medical outreaches and health talks will be given to educate and encourage the public especially men on the essence of screening for prostate cancer as they decline in age.

Materials and Method

Study Area

The study area is Imo State University Teaching Hospital (IMSUTH) Orlu. This is located in Umuna Orlu Local Government Area of Imo state. It is a non-riverine and non-hilly area. It is bounded on the north by Umudike village, on the east by Umudara village, on the south by Owri-ebere community and on the west by Umusasa village. The hospital covers approximately 306 hectares of land. It is a tertiary hospital that provides healthcare services to individuals in Imo State and other surrounding States. It was established in the year 2004 to serve as a teaching hospital for training medical students in the faculty of medicine and health sciences, Imo State University. This means that the hospital serves as the highest referral hospital in Imo State. It serves as one of the referral tertiary healthcare institutions in the South-east zone of Nigeria.

The teaching hospital is arranged in wards and clinics with different offices. The wards are mainly made up of beds with an average number of 14 beds per ward and accommodates one patient per bed. This hospital, being a referral center, provided the researchers with enough number of respondents needed for the study.

Ethical Consideration

Ethical committee of Imo State University Teaching Hospital approved the study. Thereafter, a letter for permission to conduct the study was written to the Heads of Departments and the Chief Medical Director Imo State University Teaching Hospital Orlu. The approval of these letters enabled the researchers to distribute and collect the completed questionnaire without any hindrance. A verbal consent for voluntary participation was obtained from each respondent. All the respondents were assured that the study will not involve any invasive procedure. Therefore, the anonymity of the respondents was maintained and none of their names was mentioned in the course of this research.

Methods

The study adopted a cross-section descriptive survey design. A total sample of 120 men who received services from Imo State University Teaching Hospital Orlu during the period of the study, were used. The study lasted for 5 working weeks. During this period, all the men who came for services during each clinic day were studied. The instrument for data collection was the questionnaire, which was structured to illicit information on knowledge and attitude of men towards prostate cancer screening they received in Imo State University Teaching Hospital, Orlu. The questionnaire was both administered and self-administered. Data were analyzed using descriptive statistics such as percentages and mean which were presented in frequency Tables. The linkert scale of measurement, strongly agree (SA), Agree (A), Disagree (D), strongly disagree (SD) was used to obtain responses on attitude of men towards screening for prostate cancer. The mean value of 2.5 and above was regarded as positive attitude while mean value below 2.5 was accepted to be negative attitude towards screening for prostate cancer.

Results

Table 1: Demographic characteristics of the respondents.

Variables	Frequency	Percentages
Age (range) in years		
50-59 years	30	25%
60-69 years	48	40%
70-79 years	30	25%
80 and above	12	10%
Marital status		
Married	52	43.3%
Divorced	8	6.6%
Widower	48	40%
Separated	12	10%
Religion		
Christianity	84	70%
Islamism	6	5%
Paganism	12	10%
Others	18	15%
Occupation		
Civil servant	30	25%
Public servant	30	25%
Farmer	12	10%
Trading	18	15%
Retired	30	25%
Highest level of education		
Primary school	12	10%
Secondary school	30	25%
Trade or technical and further education	48	40%
University	30	25%
Total	120	100%

Table 1 contains the demographic characteristics of the respondents. Results in the Table show that more of the respondents, 48(40%) were between the ages of 60-69 years, while the least 12 (10%) were 80 and above. On marital status, 52 (43.3%) of them are married while the least, 8 (6.6%) are divorced.

A good number of the respondents, 84 (70%) are Christians while the rest, are Muslims and Traditional worshippers. Result on the occupation shows that 30 (25%) of the respondents are public servants, civil servants and retirees respectively, while the least 12 (10%) are farmers. Also from the finding, 12(10%) of the respondents had primary school education, 30 (25%) had secondary school education, 48 (40%) had technical school education while 30 (25%) had university education.

Table 2: Respondents and knowledge of prostate cancer.

Knows about prostate cancer	Frequency	Percentages
Yes	84	70%
No	36	30%
Total	120	100%

Table 2 above shows that a good number of the respondents, 84 (70%) are aware of prostate cancer while 36 (30%) are not aware.

Table 3: Respondents' sources of information on prostate cancer.

Sources of information	Frequency	Percentages
Mass media (TV, radio, newspapers)	18	21.4%
Health workers	30	35.7%
Relations / friends	24	28.6%
Churches/pastors/reverend priests	12	14.2%
Total	84	100%

Table 3 above reveals that the respondents got information on prostate cancer from various places. The findings show that 30(35.7%) and 24(28.57%) got information on prostate cancer from healthcare workers and relations/friends respectively.

Table 4: Respondents and their understanding of prostate cancer.

Understanding of Prostate Cancer	Frequency	Percentages
Inability to gain and maintain erection	12	10%
Inability to impregnate a woman	6	5%
Weakness of the penis	18	15%
A form of tumor that attacks the prostate gland	84	70%
Total	120	100%

Table 4 reveals that the respondents understood prostate cancer in various ways but majority of the respondents 84 (70%) understood prostate cancer as a form of tumor that attacks the prostate gland. See Table for other ways prostate cancer was viewed.

Table 5: Respondents' views on men's vulnerability to prostate cancer.

Men's vulnerability to prostate cancer	Frequency	Percentages
Yes	60	50%
No	60	50%
Total	120	100%

Results in Table 5 reveal that 60(50%) of the respondents feel that prostate cancer affects all men as they grow older while 60(50%) of others believe that prostate cancer does not affect all men as they grow old.

Table 6: Respondents' knowledge on common risks factors of prostate cancer.

Prostate cancer risk factors	Yes	%	No	%	Total
Having a family member who suffered this condition in the past	108	90%	12	10%	120 100%
Not getting married early	60	50%	60	50%	120 100%
Being old	72	60%	48	40%	120 100%
Drinking alcohol and smoking cigarette	102	85%	18	15%	120 100%
Undue changes in the genetic makeup of an individual	90	75%	30	25%	120 100%
Being obese	36	30%	84	70%	120 100%
Not exercising	60	50%	60	50%	120 100%
Average score	75.4	62.9%	44.6	37.1%	

Results from table 6 show that the respondents had various views on what constitute prostate cancer risks. From the findings, a good number of the respondents 108(90%) stated that having a family member who suffered this condition in the past is a common risk factor for prostate cancer, 102(85%) stated that drinking alcohol and smoking cigarette are the common risk factors, while 90(75%) said changes in the genetic makeup of an individual is the common risk factors. However, the average score for the respondents with the knowledge of common risk factors is 75.4 while the score for

those without knowledge is 44.6. The Table contains other views of the respondents on the common risk factors.

Table 7: Respondents and preferred methods of prostate cancer screening.

Preferred method of screening	Frequency	Percentages
Digital Rectal Examination (DRE)	48	40%
Prostate Specific Antigen (PSA) test	48	40%
Biopsy	4	3.3%
Computed Tomography (CT) scan	12	10%
Magnetic Resonance Imaging (MRI)	8	6.7%
Grand Total	120	100%

From Table 7, 48(40%) of the respondents prefer Digital Rectal Examination (DRE) and Prostate Specific Antigen (PSA) test respectively. Also, 12(10%) prefer Computed Tomography (CT) scan, 8(6.7%) prefer Magnetic Resonance Imaging (MRI) while the least 4(3.3%) prefer Biopsy.

Table 8: Respondents' view on the safety of prostate cancer screening.

Screening is safe	Frequency	Percentages
Yes	30	25%
No	90	75%
Total	120	100%

Results in the Table indicate that greater number of the respondents 90 (75%) had the view that prostate cancer screening is not safe to health while only 30(25%) of others view screening as safe to health.

Table 9: Respondents' views on possibility of curing prostate cancer.

Possibility of curing prostate cancer	Frequency	Percentages
Yes	72	60%
No	48	40%
Total	120	100%

Result from table 9 indicates that 72(60%) of the respondents viewed prostate cancer as curable while; 48(40%) felt it is incurable.

Table 10: Respondents and likely period of prostate cancer cure.

Likely period of prostate cancer cure	Frequency	Percentages
Can be cured if diagnosed early before screening	48	66.67%
Can be cured if diagnosed later after screening	18	25%
Can be cured if diagnosed late before screening	6	8.33%
Total	72	100%

The 72(60%) of the respondents who stated that prostate cancer is curable were asked the period when prostate cancer can be termed as curable. From their responses, a good number of them, 48(66.67%) were of the view that prostate cancer can be cured if it is diagnosed early before screening. Table 10 contains other views of the respondents.

Table 11: Respondents' knowledge on various prostate cancer treatment options.

Knowledge on treatment options	Frequency	Percentages
Surgery	102	29.8%
Chemotherapy (use of drugs)	108	31.6%
Radiotherapy (use of X-ray)	60	17.54%
Hormonal therapy (use of hormones)	72	21.05%
Total	324	100%
Average / mean	85.5	25%

Multiple choice

The findings in Table 11 indicate that the respondents are aware of various treatment options for prostate cancer. From the findings, 108(31.6%) and 102(29.8%) of the respondents respectively, are aware of chemotherapy and surgery as methods of treatment. In all, an average mean of 85.5 of the respondents are aware of several treatment options for prostate cancer. Table 11 contains other views of the respondents.

Table 12: Respondents and their attitudes towards prostate cancer screening.

Response	SA	A	D	SD	Mean (X)	Decision
Prostate cancer screening is very important for all men especially, aging men	50	30	15	25	2.9	Positive
It is necessary to go for prostate cancer screening every month	30	50	15	25	2.7	Positive
It is advisable for family members and friends to undergo prostate cancer screening	35	45	28	12	2.9	Positive
Prostate cancer screening helps in early diagnosis and treatment of prostate cancer	48	24	26	22	2.8	Positive
There is a great benefit in going for regular medical screening for prostate cancer	60	10	24	26	2.9	Positive
Grand Total	223	159	108	110		
Average / mean	44.6	31.8	21.6	22	2.8	

Mean score of 2.5 and above is termed as high knowledge, which is positive

Results from Table 12, revealed that a good proportion of the respondents had mean score of 2.5 and above showing that they have high knowledge of various screening methods.

Discussion of Findings

The study focused on identifying the knowledge and attitude of men receiving screening services for prostate cancer in Imo State University Teaching Hospital, Orlu. The study found that the respondents were knowledgeable about the risk factors of prostate cancer as many of them attributed prostate cancer risks to the following: having a family member who suffered the condition in the past, drinking alcohol and smoking, changes in the genetic makeup of an individual, being old (aging), late marriage, lack of exercise, and obesity with an average score of 75.4. The findings

in this study agree with those of [1,5] in which prostate cancer knowledge, perceptions and beliefs were high on prostate cancer risk factors, signs and symptoms. These were adjudged by the extent to which respondents correctly responded to most of the questions posed to them on the risk factors. However, the findings on the high knowledge of the respondents on risk factors in this study could be because of the level of literacy noted among the respondents. A good number of the respondents had tertiary education. Also, it is envisaged that the respondents might have obtained relevant information on prostate cancer from the health workers during healthcare services.

Finding showed that the respondents had several prostate screening methods they preferred to use for detecting prostate cancer. From the findings, 48(40%) of the respondents preferred to use Prostate Specific Antigen (PSA) test and Digital Rectal Examination (DRE) respectively. Also, 12(10%) preferred to use Computed Tomography (CT) Scan, while 8(6.7%) preferred Magnetic Resonance Imaging (MRI). The least screening method 4(3.3%), that the respondents preferred to use, was Biospy, showing that the respondents have various screening methods to choose from. It appears the respondents must have used some of these screening methods before, hence the preferences they made. This finding is in line with the study carried out by [11,12], where respondents spotted the kinds of screening methods they desired to use during screening. However, this finding is in contrast with that of [15] where the screening methods used on patients were unilaterally decided by the health workers.

On the level of the respondents' knowledge on the risk factors of prostate cancer and the probability of prostate cancer cure, the respondents exhibited good knowledge as many of them listed correctly the risk factors as well as the likely period when prostate cancer can be likely cured. This high level of the respondents' knowledge noted during the study, could be attributed to the educational levels of the respondents, where a good number of them had tertiary education. It is likely that during the course of healthcare services, the healthcare workers must have health educated the respondents on several aspects of prostate cancer to the respondents.

On the attitude of the respondents towards prostate cancer screening, the finding showed positive attitude to screening for prostate cancer. This was shown by the consistent average mean score of 2.5 and above in the respondents' responses. The finding on positive attitude agrees with that of [18,22] in which positive attitude was also found on prostate cancer screening where 90.3% of those screened consistently reported for periodic prostate cancer check-ups. The fact that a good number of the respondents had knowledge of the usefulness of prostate cancer screening as well as exhibited positive attitude towards it, indicate the need for health workers to provide regular information on the risk factors of prostate cancer as well as the benefits of attending periodic prostate cancer screening in the society.

Therefore, there is need to encourage men to go for regular check-ups for prostate cancer at least once a year for the low risk groups

and once in six months for the high risk groups. This will require sensitization and mobilization of individuals especially in the rural areas. However, if government at all levels could provide free prostate cancer screening or at least, subsidize prostate cancer screening charges it will increase the uptake of prostate cancer screening among men.

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