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# Awareness, Perceptions And Factors Influencing The Uptake Of Prostate Cancer Screening Among Older Men In Abia State, Nigeria

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## ABSTRACT

Prostate Cancer is a public health issue of global concern due to the rapid increase in death rate across countries of the world. Studies in Nigeria have lamented that majority of men diagnosis prostate cancer late which increase the complications of the disease. The study examined the level of awareness, perceptions and factors influencing the uptake of prostate cancer screening among older men in Abia State, Nigeria. The study adopted qualitative method that is rooted in interpretative phenomenological approach. The population of the study consist of older adults of 50years and above who are the category of men who fall within the age bracket of people that are likely to be diagnosed of prostate cancer. Multistage sampling technique was employed to select 350 men aged 50years and above. In-depth interview (IDI) guide was used for data collection. Qualitative data collected were analysed using Interpretative Phenomenology Analysis (IPA) which involved thematic analysis approach. Findings from the study showed that majority of the participants are not aware of prostate cancer and prostate cancer screening. Only the participants who are educated are aware of prostate cancer screening. There are mixed perceptions of prostate cancer screening, this is because while some perceives prostate cancer screening as ways of detecting the condition early which will lead to early treatment, others, especially the uneducated ones perceive prostate cancer screening as causing fear and panic for themselves. Having symptoms of prostate cancer top the list of factors that propel people to go for prostate cancer screening. The study recommended that, Abia State ministry of health should create adequate awareness on the need to go for prostate cancer screening among adult males who are aging as they are prone to prostate cancer. This enlightenment could be done through loud speaker approach, door to door approach, or use of workshops, churches as majority of the participants are Christians.

**Keywords:** Prostate Cancer, Prostate Cancer screening, awareness, perception, public health.

## INTRODUCTION

Prostate Cancer is an issue of global concern due to the rapid increase in death rate across countries of the world. Globally, prostate cancer is the fourth most frequent disease overall and the second most prevalent cancer in male. official report showed that, over 1.4 million prostate cancer case in 2020 alone, which is 30.7 per 100,000 males (World Cancer Research Fund International [WCRFI], 2022). Although “continents of the developed economies with ASIR of 59 per 100,000 have age-standardized mortality rate (ASMR) of 8.3 per 100,000, countries of Africa with low ASIR of 30 per 100,000 have high ASMR of 16.3 per 100,000” (Wang, et al., 2022; WCRFI, 2022). In 112 nations, prostate cancer is the most common kind of cancer diagnosed, and in 48 countries, it is the primary cause of cancer-related deaths (Sung, et al., 2020; WCRFI, 2022). It is evidence that the burden of prostate cancer is predicted to increase related to the population aging and economic growth (Culp, et

al., 2020; WCRFI, 2022). According to Oluwole, et al. (2014), prostate cancer is the most frequent disease in males and continues to be the largest cause of cancer-related deaths in Western Europe and the United States.

In Africa, there is wide variability in the incidence and screening of prostate cancer (Banerjee & Kaviani, 2016). According to Akbarizadeh et al. (2016), men who are aged 60 to 70 years suffer most from prostate cancer. Official reports from American Cancer Society (2022), revealed that men from African origin are the highest victim of prostate cancer and also cases of deaths relating to prostate cancer in the United States. Forman et al. (2014) noted that, In Sub-Saharan Africa, 14% of all cancer cases and 12% of all cancer-related deaths are traced to prostate cancer. David (2014) reported that most Cancer mortality in Africa are linked to a number of factors, including inadequate healthcare systems with a shortage of educated professionals, lack of cancer knowledge, accessibility and price issues, and delays in screening and treatment.

Studies have established that, there is high prevalence of prostate cancer in Nigeria. Prostate cancer mortality is very high in Nigeria, where 80% of patients are considered incurable at the time of diagnosis (Chidebe et al., 2019; Ntekim et al., 2023). Inadequate population awareness, poor health-seeking behavior, low literacy, and a lack of empowerment are some contributing reasons to this. This is on top of a subpar healthcare system that results in low screening service adoption and limited treatment availability (Chidebe et al., 2019). The western world has been able to overcome systemic impediments to effective cancer care through increased adherence to medical guidelines, early identification of cancer, and understanding of risk factors (Akintola et al., 2021). However, things are different in low-income nations like Nigeria since genetic testing is not yet accessible and the initial stage of screening for the detection of prostate cancer in Nigerian men is uncommon (Ntekim et al., 2023, Sung et al., 2021). The situation is more dire for young males, whose low suspicion of the illness upon presentation may lead to a missed diagnosis.

Prostate Cancer is the development of disease (cancer) in the prostate gland of the male reproductive system, in which normal cells in a man's prostate gland change and grows out of control, forming a tumour. According to the National Cancer Institute [NCI] (2015a), prostate cancer is the development of cancer in the prostate gland in the male reproductive system. Most prostate cancers are slow-growing; however, some grow relatively fast (NCI, 2015b; Stewart & Wild, 2014). It is reported that Nigeria ranked first among African countries with the highest prevalence of the disease and also ranked third among countries with significant death from prostate cancers after the United States and India according to World Health Organization (Ogundele & Ikuerowo, 2015). Prostate cancer has a higher incidence, a more aggressive course and higher mortality in black men when compared to their white counterparts (Siegel et al., 2016).

Prostate cancer is a disease of public health importance worldwide. The prostate, a walnut-sized gland, is an integral part of the male reproductive system that wraps around the urethra between the pubic bone and the rectum, below the bladder. With age, its size increases and can be much more sizeable in older men. Prostate cancer is one of the most common cancers affecting men globally (U.S. Cancer Statistics Working Group, 2022, Abu-El-Noor & Abu-El-Noor, 2014). The exact cause of prostate cancer is largely unknown, but it has been associated with some risk factors such as advancing age, race, genetic and environmental factors, diet, infection and inflammation of the prostate. prostate cancer is often being perceived as an end to one's life simply because of series of reasons including poorly equipped hospitals, lack of knowledge on the part of the people, lack of trained oncology human resources, lack of drugs and high cost of treatment, poor prostate cancer registries, limited screening centres, government's poor attitude towards policy formulation and implementation (WHO, 2022). This lack of knowledge on the disease and the low uptake of routine screening among men, especially those at risk of developing prostate cancer make the problem a complex one.

There has also been increasing concern regarding the late diagnosis of prostate cancer in men, and research has shown that a considerable proportion of men delay screening or help-seeking for prostate cancer (Forbes et al., 2014; Keeble et al., 2014). The probability to be diagnosed with prostate cancer is more than twice as high in the developed world than in developing countries (Beth et al., 2018). In an empirical study, Cobran et al. (2017) reported that the thought of prostate cancer is perceived as problematic by younger men, and it makes them anxious about the unknowns and uncertainties of the

procedure and the potential distress if screened positive for prostate cancer. The lack of understanding about the process and risk of screening, and the potential threat to masculinity as a consequence of further interventions if screened positive, compound the complexities of men's decision-making about prostate cancer screening (James et al., 2017).

Research has shown that men are not willing to undergo prostate cancer screening exercise. However, low socio-economic status, social or family circumstances; and sex-role rigidity, lack of knowledge about prostate cancer and so on have been identified as some of the reasons that may discourage men from participating in screening (Akbarizadeh et al., 2016). More so, some of the adult males with prostate cancer live in geographically remote areas where access to health-care facilities and prostate cancer-screening services is limited (United Nations Development Programme, 2021). Furthermore, James et al. (2017) revealed that fear of this disease of the prostate was borne by the belief that cancer is incurable given the poor outcome of prostate cancer patients most of whom were diagnosed with advanced stage of the disease. The fear of prostate cancer screening adds to social isolation and stigma; hence most men are diagnosed at an advanced stage due to the fear of undergoing prostate cancer screening.

Study by Farazi et al. (2019) in Europe and North America reported that, awareness of the major risk factors for prostate cancer (age and family history) was generally good, but respondents were less clear about the role of other potential factors, such as smoking and drinking alcohol. Another study carried out in Nigeria by Kolade (2017) reported that, low level of awareness and low utilization level of prostate cancer screening services. Findings also identified cost, accessibility, work schedule and some fads like negative effect on sexual activities as perceived factors militating against the utilization of prostate cancer screening services. Wanyagah et al. (2017) reported that less than half of men in Nairobi County, Kenya surveyed were aware of prostate cancer screening. This indicates low level of awareness of prostate cancer.

Perception refers to the way people see or view prostate cancer screening. It is a process that helps one to gather data from one's surroundings, process the data and make sense out of it. Wanyagah et al. (2017) found out that, men in Nairobi County, Kenya with poor knowledge on prostate cancer were older relative to those with good knowledge and the knowledge levels on prostate cancer were positively correlated with perception of prostate cancer self-vulnerability. The author also reported that, good knowledge of prostate cancer was associated with educated men. In another study, Kirkegaard et al., (2018) found that, prostate cancer was spoken of as an inescapable risk in older age. On the contrary, study in Ghana by Yeboah-Asiamaha et al. (2017) found that, majority of respondents held good perceptions about prostate cancer. In another study in Nigeria, Enemugwem et al. (2019) found that, the most frequently reported source of information about prostate cancer screening was the news media and healthcare workers.

Existing studies have revealed that, men are influenced by diverse factors to go for prostate cancer screening. In Nigeria, Enaworu and Khutan (2016) reported that, the symptoms experienced, the influence of friends and relatives, older age associated with increased awareness, accessibility to testing services and the knowledge of the PSA test were the major factors. On the contrary, Kangmennaang et al. (2015) found out that, health insurance coverage is an important predictor of screening for prostate cancer in Namibia. Also, higher education and discussing reproductive issues with a health worker were more likely to screen for prostate cancer. In Iran, Jeihooni et al., (2015) found that, prostate cancer screening behaviors in men over 50 in Fasa, Iran, were at a low level. Due to predisposing factors, such as the knowledge, attitudes, and beliefs of individuals, reinforcing factors can have an important role in the behaviors related to prostate screening, such as their families and health staffs as well as enabling factors, such as health financing, access to medicines and learning self-care

From the foregoing, it is evidenced that majority of literature on prostate cancer and prostate cancer screening in Africa and across the globe in recent time focus more on prostate cancer awareness, screening practices, knowledge, attitudes, and beliefs (Saleh, et al., 2015; Ogundele & Ikuerowo, 2015). For instance, James, et al., (2017) focused on men's perspectives of prostate cancer screening. Mofolo, et al. (2015) focused on knowledge of prostate cancer among males attending a urology clinic. However, with the expected increased incidence of prostate cancer mortality, there is a need to create awareness and sensitize the public on the importance of prostate cancer screening. Secondly,

they seems to be paucity of literature on the public perceptions and awareness of prostate cancer screening among Nigeria population, more specifically, there was no such study among older men in Abia State, Nigeria. This study filled such gap in existing literature by examining the level of awareness, perceptions and factors influencing the uptake of prostate cancer screening among older men in Abia State, Nigeria.

### **Objective of the Study**

The main objective of the study is to examine the level of awareness, perceptions and factors influencing the uptake of prostate cancer screening among older men in Abia State, Nigeria. However, the specific objectives of the study are to:

1. find out the level of awareness of prostate cancer screening among older men in Abia State, Nigeria.
2. examine the perceptions of prostate cancer screening among older men in Abia State, Nigeria.
3. find out the perceived factors that propels people to go for prostate cancer screening among older men in Abia State, Nigeria.
4. find out the challenges limiting prostate cancer screening among older men in Abia State, Nigeria.

### **RESEARCH METHOD**

Interpretative Phenomenology Approach (IPA) rooted in qualitative research design was adopted for the study because of its techniques in understanding the processes of decision-making that involves individual behaviour in health issues like prostate cancer screening. According to Bryman (2017) Phenomenological design aims at understanding context through narratives that describes the lived experiences of people. The study was carried out in Abia State, Nigeria which is made up of 17 local government areas. The population of the study consist of older adults of 50years and above who are the category of men who fall within the age bracket of people that are likely to be diagnosed of prostate cancer. Multistage sampling technique was employed to select 350 men aged 50years and above. This category of male adults was chosen because they fall within the age bracket of people that are likely to be diagnosed of prostate cancer.

In-depth interview (IDI) guide was used for data collection because it was identified that majority of older men aged 50years and above are not literate, hence are not able to response to questionnaire items. The IDI session was carried out immediately after community meeting in some villages and after church services in some big Churches in Abia State such as Methodist Church, Catholic Church, Anglican, Winners Chapel, and Redeemed Church. Two research assistants were employed by the researcher for the study. The researchers trained the assistants on interviewing guidelines, recording, and note taking. Moreover, the study participants were informed about the date, time and venue for the IDI. Oral consent was gotten from the participants before they participate in the IDI. Qualitative data collected were analysed using Interpretative Phenomenology Analysis (IPA) which involved thematic analysis approach. Data generated for the study was transcribed and audio recorded. Proper editing and transcription were done by the researcher. Striking quotes and expression were identified and organized under themes.

### **RESULTS**

A total of 340 in-depth interview (IDI) sessions were conducted with the participants. That is 20 from each local government area in Abia State. The results contain the socio-demographic information of participants and the substantive issues. Participants gave oral consent before being included in the study. Four (4) themes on which the data analysis and results presentation were constructed, and they are as follows: (i) awareness of prostate cancer screening; (ii) perceptions of prostate cancer screening; (iii) perceived factors that propel people to go for prostate cancer screening; and (iv) challenges limiting prostate cancer screening.

**Table 1: Socio-demographic characteristics of participants**

Variables	Frequency	Percentage
<b>Age Range</b>		
50-60years	116	34.1
61-70years	136	40.0
70-80years	88	25.9
Above 80years	0	0.0
<b>Total</b>	<b>340</b>	<b>100.0</b>
<b>Occupation</b>		
Trader	166	48.8
Retired Civil Servant	22	6.5
Civil Servant	24	7.1
Farmers	98	28.8
Driver	30	8.8
Pastors	0	0.0
<b>Total</b>	<b>340</b>	<b>100.0</b>
<b>Level of Education</b>		
No Former Education	160	47.1
Primary School	90	26.5
Secondary School	66	19.4
Tertiary Education	24	7.1
<b>Total</b>	<b>340</b>	<b>100.0</b>
<b>Religion</b>		
Christianity	204	60.0
Islam	22	6.5
ATR	114	33.5
<b>Total</b>	<b>340</b>	<b>100.0</b>
<b>Marita Status</b>		
Married	208	61.2
Single	12	3.5
Divorced	12	3.5
Separated	28	8.2
Widowers	80	23.5
<b>Total</b>	<b>340</b>	<b>100.0</b>

Data in table one shows that, out of the 340 participants of the study, 136(40%) were between the ages of 61-70years; 116(34.1%) were between the ages of 50-60years; 88(25.9%) were between the ages of 70-80years, while none of the participants was above 80years. As regards their occupation, 166(48.8%) were traders; 98(28.8%) were farmers; 30(8.8%) were drivers; 24(7.1%) were civil servants; while 22(6.5%) were retired civil servants. As for their level of education, 160(47.1%) of the participants had no formal education; 90(26.5%) completed only primary school; 66(19.4%) completed only secondary schools; while only 24(7.1%) completed tertiary education. Majority of the participants; 204(60%) were Christians; 114(33.5%) were into African Traditional Religion (ATR), while only 22(6.5%) were Muslims (Islam). Majority of the participants; 208(61.2%) were married; 80(23.5%) were widowers; 28(8.2%) were separated from their wives; and 12(5.2%) were single and divorced.

**Research Question 1:** *What is the level of awareness of prostate cancer screening among older men in Abia State, Nigeria?*

The participants were asked about their awareness of prostate cancer screening, whether they have heard of prostate cancer screening before; sources of information about prostate cancer screening; and awareness of prostate cancer screening centers in their Local Government Area or other local government areas in Abia State. The responses were obtained through IDI sessions.

The results showed that more than two-third of older men ages 50years and above studied have never heard of prostate cancer screening until some of them or their friends or family member were diagnosed of prostate cancer screening after having symptoms of prostate cancer such as difficulty to

urinate or frequent urination. As revealed by one of the participants “I have never heard of prostate cancer or prostate cancer screening until the doctor referred me to go for the screening after complaining of difficulties in urinating and urinating frequently” (**Trader, 50-60years, married and a Christian**). Another participant responded that, “The first time I heard of prostate cancer screening was when my friend was Diagnosed of prostate cancer” (**Farmer, 60-70years, widower, and a Christian**).

Some participants who were mostly civil servants and retired teacher have heard of prostate cancer screening before they were diagnosed of prostate cancer after experiencing difficulty with urinating and frequency of urination. In one participant’s response “I have heard of prostate cancer screening many times right from when I was young and in the university” (**Retired teacher, 70-80years, Christian and married**).

**Sources of information of prostate cancer screening:** The results from the responses from IDI session with the participants who have heard of prostate cancer screening shows that the sources of information on prostate cancer screening are friends, health workers, public health campaign, wives who are health professionals, social media such as Facebook, Instagram, Twitter, LinkedIn and emails, television broadcast, newspapers and from the university as students. The statement below validated one participant’s claim of the sources of information on prostate cancer screening: “I first heard of prostate cancer screening from some of my friends who are health professionals during one of our discussions about old age and illness” (**Civil servant, 50-60years, married and practice African Traditional Religion**). “I first heard of prostate cancer screening from one public health campaign carried out in the local government area some time ago and also through my late wife who worked in the hospital” (**Civil servant, 50-60years, widower and a Christian**).

**Awareness of prostate cancer screening center:** Responses from the participants (opinion leaders and two caregivers) showed that, majority of general hospitals in Abia State carry out prostate cancer screening in addition to some private hospitals. One of the participants asserted that: “I heard that all General Hospitals in my local government is offering prostate cancer screening at a subsidized cost” (**Retired civil servant, 70-80years, married and Christian**). Majority of the participants who had tested positive to prostate not aware of prostate cancer screening center until they were referred to go for prostate cancer screening after complaining of having difficulty when urinating.

**Research Question 2:** What are the perceptions of prostate cancer screening among older men in Abia State, Nigeria?

The responses from the participants showed that there are negative public perceptions of prostate cancer screening. Almost all the participants had negative feelings towards going for prostate cancer screening. Results indicated participant’s perceptions of prostate cancer screening and are presented in subthemes below:

**Undertaken prostate cancer screening:** From the responses; majority of the participants, especially those with no formal education, primary and secondary school certificate had not gone for prostate cancer screening before, until their friend or family member was diagnosed of prostate cancer. Some of the participants, mostly retired civil servants and serving civil servants had gone for the prostate cancer screening more than once. One of the participants who is a retired civil servant responded that: “I have gone for prostate cancer screening more than once because my wife who is a professional nurse keeps pressuring me to go for the screening from time to time” (**Retired civil servant, 70-80years, married and Christian**).

**Perceptions towards prostate cancer screening:** Responses from the participants shows that majority of the participants are afraid of going for prostate cancer screening because they perceive it that being positive is knowing you will die. Some are afraid that the knowledge of their status could increase their blood pressure level (BP). One of the participant who is a trader interviewed responded that: “Many people are afraid of the outcome of the screening, people prefer not to know their status” (**Trader, 50-60years, married and Christian**). This statement was supported with another emotional response from another participants who is a retired civil servant who stated:

Most men including myself are afraid of going for prostate cancer screening because it is perceived as going to know when to die. Most men including me are scared, because being positive is seen as death announcement and makes people restless which can lead to psychological

issues, so people prefer not to found out (**Retired civil servant, 70-80years separated and Christian**)

Another participant responded that: “Many people perceive going for prostate cancer screening as making for trouble where there is none, hence, they wait for the symptoms before going for the test” (**Driver, 50-60years, married and Christian**). One of the participants stated that: “I never attended prostate cancer screening because I believe that once you go for medical test, one illness or the other must be detected and I don’t want to be associated with any illness” (**Civil servant, 50-60years, married and Christian**). These responses indicates that, the majority of the participants have negative perceptions about prostate cancer and its screening as it is perceived as creating problem that does not exist because when tested positive it is perceived as death announcement.

**Research Question 3:** What are the perceived factors that propels people to go for prostate cancer screening among older men in Abia State, Nigeria?

Responses from the participants revealed that the major factors that propel men to go for prostate cancer screening are symptoms such as experiencing pain when urinating, difficulty to urinate, frequent urination, persuasion from friends and relatives, reference from health workers, and high level of awareness of prostate cancer and its screening. In particular, a participant said: “Having symptoms of prostate cancer is the major factor that motivate people to go for prostate cancer screening. People decide to go for the screening when they started having difficulty to urinate or urinate frequently than expected” (**Retired civil servant, 70-80years, married and Christian**).

Supporting the above statement, another participant states that: “People only go for prostate cancer screening when they are experiencing the symptoms of prostate cancer” (**Farmer, 50-60years, married, and Christian**). People also decide to go for prostate cancer screening through advice from their friends or relatives, most especially their wives for those whose wives are health workers or heard about how early detection reduce the consequences of the infection and leads to quick recovery. One of the participants stated that: “My wife keeps pressuring me day and night till I decided to go for the prostate cancer screening to rest from her constant reminder” (**Trader, 50-60years, married and a Christian**). Supporting the statement, another participant stated that;

My wife came back one day from work and told me to go for prostate cancer screening the next day, she keeps singing it for the next few days to the extent that I was propelled to attend prostate cancer screening (**Civil servant, 50-60years, married and Christian**).

Another factor that propels people to go for prostate cancer screening is having high level of awareness and health literacy of prostate cancer and how early detection is the most effective way to survive from the infection. Participants also responded that they attended prostate cancer screening because they are aware of the harm of late detection, few of the participants who stated this, were civil servants. “I went for prostate cancer screening myself because I want to know my status as a health worker who advise people to go for the screening” (**Civil servant, 50-60years, married, and Christian**). Advice from health workers after experiencing symptoms of prostate cancer is the only factor that propelled victims of prostate cancer to go for prostate cancer screening.

**Research Question 4:** What are the challenges limiting prostate cancer screening among older men in Abia State, Nigeria?

Responses from the respondents shows that the major challenges limiting people from attending prostate cancer screening are lack of awareness of prostate cancer and prostate cancer screening, fear of the outcome of the screening, fear of the cost of prostate cancer screening, and proximity to prostate cancer screening center. Some of the participants also responded that, they avoid prostate cancer screening for privacy reasons. Few of the participants stated that they did not attend prostate cancer screening because they did not experience any strange symptoms. One of the participants responded that:

Until I started experiencing prostate cancer symptoms I have never heard of prostate cancer or the screening and even the centers for prostate cancer screening. When I was advised to go for the prostate cancer screening, I was afraid of the cost because I don’t have enough money (**Trader, 50-60years, married and Muslim**)

Supporting the above statement, another participant responded:

I was not aware of prostate cancer and prostate cancer screening prior to the time I started experiencing difficulty in urination and frequency of urination. Immediately the doctor advised me to go for the test, I asked him the cost of the test because I am a retired teacher who earns little.

**(Retired civil servant, 70-80years, married and Christian).**

From the responses, it is clear that, poverty, lack of awareness of prostate cancer and prostate cancer screening, and fear of the outcome of the screening are the major challenges limiting people from attending prostate cancer screening.

## **DISCUSSION OF FINDINGS**

The findings of the study revealed that majority of older men in Abia State are less aware of prostate cancer screening. It is revealed that, participants who were civil servants and retired civil servants were more aware of prostate cancer screening than participants who are farmers, traders and drivers. However, overall more than two third of the participants are not aware of prostate cancer screening. The finding of the study is in accordance with the earlier findings of Kolade (2017) who reported low level of awareness and low utilization level of prostate cancer screening services among older male residents in Iseyin Local Government Area, Oyo State, Nigeria. The findings also further validate the findings of Wanyagah, et al. (2017) who found out that, more than half of the men in Nairobi County, Kenya are not aware of prostate cancer screening. Similarly, Akintola, et al., (2021) found out that, there is inadequate awareness of prostate cancer and its screening among Nigerian population in rural areas

The findings of the study revealed that the majority of the participants who are aware of prostate cancer screening sources of information are friends, health workers, public health campaign, wives who are health professionals, social media such as Facebook, Instagram, Twitter, LinkedIn and emails, television broadcast, newspapers and from the university as students. The findings further justify the earlier findings of Enemugwem, et al. (2019) who found out that, the most frequently reported source of information about prostate cancer screening among men in Obio Akpor LGA, Rivers State, Nigeria was the news media such as television, radio, social media platforms, and healthcare workers.

A comparison of the results shows that, higher level of awareness of prostate cancer screening leads to increase attendance to prostate cancer screening, while low level of awareness affects going for prostate cancer screening. From the results; majority of the participants who tested positive to prostate cancer have no awareness of prostate cancer or its screening prior to experiencing the symptoms, hence, did not attend prostate cancer screening until the doctors asked them to go for the screening after complaining of difficulty to urinate and frequency of urination; on the other hand all the opinion leaders have heard of prostate cancer screening.

The findings of the study revealed that, there are varieties of perceptions about prostate cancer screening in the study area. Some educated participants perceive the screening as an intelligent move to understand one's health status. This view is usually associated with people who are enlightened about the advantages of early detection of prostate cancer and the majority of these people that are enlightened about prostate cancer and its screening and the advantages of early detection. This is related to the findings of Yeboah-Asiamaha, et al. (2017) who found out that, high awareness of prostate cancer and prostate cancer screening was significantly associated with positive perceptions about prostate cancer screening among male teachers in the Sunyani Municipality, Ghana. The study also found out that, almost two-third of the participants, mostly those with no former Educated and those with primary and secondary school certificate and those who are suffering from prostate cancer have negative perceptions towards going for prostate cancer screening due to the uncertainty of the results. This finding is in accordance with the findings of Kirkegaard, et al., (2018) who reported that, uncertainty of the nature of prostate cancer screening results makes the participants to perceive the screening as igniting problem where none exist. The findings also correspond with the report of World Health Organisation (WHO, 2022) which reported that, in Nigeria, prostate cancer is often being perceived as an end to one's life simply because of series of reasons including poorly equipped hospitals, lack of knowledge on the part of the people. Similarly, the findings of this study

further validate the earlier findings of Cobran, et al. (2017) who reported that the thought of prostate cancer is perceived as problematic by younger men, and it makes them anxious about the unknowns and uncertainties of the procedure and the potential distress if screened positive for prostate cancer. The lack of understanding about the process and risk of screening, and the potential threat to masculinity as a consequence of further interventions if screened positive, compound the complexities of men's decision-making about prostate cancer screening (James, et al., 2017).

The findings of the study revealed that, symptoms of prostate cancer is the major factors that propel people to go for prostate cancer screening. This finding is in accordance with the findings of Enaworu and Khutan (2016) who found out that, symptoms of prostate cancer is the major factor that influenced Nigerian males between the ages of 40 - 60 years, who came for PSA testing at the Urology Department of the University of Benin Teaching Hospital to go for prostate cancer screening. The findings of the study is also related to the finding of Kinyao and Kishoyian (2018) who found out that experiencing symptoms of prostate cancer is one of the major factors that motivate adult men in Kasikeu Sub Location, Makueni County, Kenya to go for prostate cancer screening.

The findings of the study revealed that, some older men decide to go for prostate cancer screening because their wives, friends and relatives encourages them to go for the screening. This finding is in accordance with that of Enaworu and Khutan (2016) who found out that the influence of friends and relatives, older age associated with increased awareness are one of the major factors influencing uptake of prostate cancer screening.

The study also revealed that, high level of awareness of prostate cancer and its screening is another factor that propels people to go for the screening. This finding is in accordance with the findings of Enaworu and Khutan (2016) who found out that, high awareness of the prostate cancer and prostate cancer screening is the major factors that propel Nigerian males between the ages of 40-60 years, who came to the Urology Department of the University of Benin Teaching Hospital to go for prostate cancer screening. The findings of the study also relate to the earlier findings of Ndikom, et al. (2021) who reported that, there is significant association between awareness and uptake of prostate cancer screening among a population of civil servants in Ibadan, Nigeria. The responses showed that only few of the men go for prostate cancer screening on their own without external inference, hence, eagerness to know their health status is also a factor that propels people to go for prostate cancer screening.

The findings of the study revealed that there are many challenges that prevent people from going for prostate cancer screening. These are lack of awareness of prostate cancer and prostate cancer screening, fear of the outcome of the screening, fear of the cost of prostate cancer screening, and proximity to prostate cancer screening center. Some of the participants also responded that, they avoid prostate cancer screening for privacy reasons. Few of the participants stated that, they did not attend prostate cancer screening because they did not experience any strange symptoms. The findings of the study is in accordance with the earlier findings of Kolade (2017) which reported that, cost, lack of awareness and fear of the outcome of the screening are the major factors limiting male civil servants in Iseyin Local Government Area, Oyo State, Nigeria from going for prostate cancer screening. The findings of the study is also in accordance with the findings of Akbarizadeh, et al., (2016) who found out that, men are not willing to undergo prostate cancer screening exercise due to low socio-economic status, social or family circumstances; and sex-role rigidity, lack of knowledge about prostate cancer and its screening as some of the reasons that may discourage men from participating in screening.

## CONCLUSION

Prostate Cancer is a public health issue of global concern due to the rapid increase in death rate across countries of the world and most proactive health decision is early prostate cancer screening. The study examined the level of awareness, perceptions and factors influencing the uptake of prostate cancer screening among older men in Abia State, Nigeria. There is low awareness of prostate cancer screening among the older men, especially those with no former education and those with primary education when compared to older men who attended tertiary institution. Hence, education is a mean of enlightenment of people regarding prostate cancer screening. Majority of older men have mixed perceptions regarding going for prostate cancer screening. The educated group have positive perceptions, while the uneducated and those just primary school certificate have negative perceptions.

Older men who are having difficulties when urinating are usually advised to go for prostate cancer screening, apart from having these symptoms, some educated friends, relatives and wives also convince men to go for prostate cancer screening. Reference from health workers is also another factor that propel majority of the men to go for prostate cancer screening. Lack of awareness of prostate cancer and prostate cancer screening is the major challenges that prevent people from going for prostate cancer screening. Other challenges are uncertainty regarding the screening outcome and cost of prostate cancer screening.

Given the identified dearth of literature in Nigeria as well as Africa on the awareness, perceptions and factors influencing the uptake of prostate cancer screening among older men in Abia State, Nigeria despite the prevalence of prostate cancer among adults in especially rural areas in Abia State. The findings of this study make the following vital contribution to knowledge. Education increases people's awareness of prostate cancer and prostate cancer screening. Positive perception of prostate cancer screening among adult males is associated with their level of awareness of prostate cancer screening. Hence, people with high level of awareness are more likely to have positive perceptions about going for prostate cancer than those with low awareness. Persuasions from wives could motivate their husbands to go for prostate cancer screening. Finally, the study has contributed to the body of knowledge on how level of awareness influence public perceptions of prostate cancer screening.

### RECOMMENDATIONS

Based on the findings of the study, the following recommendations are made in respect to expectations from the government, and public health educators and practitioners.

1. The public health educators and practitioners should endeavour to create adequate awareness on the need to go for prostate cancer screening among adult males who are aging as they are prone to prostate cancer than younger ones. This enlightenment could be done through loud speaker approach, door to door approach, or use of workshops, church as majority of the participants are Christians.
2. The government should equip all the general hospitals and medical centers with prostate cancer screening facilities and make the screening free for the people. This will encourage the people to go for prostate cancer screening regularly.
3. Considering the public health significant of prostate cancer, public health programmes should go beyond awareness creation to organize educational campaigns for all socio-economic groups. These programmes should provide clarity on healthy lifestyles to prevent cancer, the health benefits of early screening, detection and treatment options and the peculiarities of each to inform health seeking choices.
4. The government should establish health insurance scheme to facilitate free prostate cancer screening.

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