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Knowledge of prostate cancer risk factors and willingness to be screened among aged men 40-69 years in Ibadan North East local Government area, Oyo state

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Abstract
Prevalence of prostate cancer (PCa) is the most commonly diagnosed cancer in men globally, with over 1.6 million cases. It has been observed to be significantly high among native African black men in the last four decades. Its occurrence was reported to have the highest mortality rate among men and was the leading cause of cancer deaths among men in many countries. Its incidence is associated with some risk factors such as age, family history and race. Descriptive cross-sectional approach was adopted. A total of (n=640) aged men were recruited from selected communities in Ibadan North East Local Government Area. An interviewer-administered questionnaire was used to obtain data from the study participants. Data was analyzed using IBM*SPSS version 21 for windows.
Results showed that the mean age of the respondents was 50.5±7.5years. About three hundred and fifty (54.7%) of the study participants had poor knowledge about PCa risk factors and three hundred and sixty-four (56.7%) had poor perception of the screening. Five hundred and thirty-four (83.6%) of the respondents were willing to be screened for PCa. Results also indicates that the relationship between willingness to be screened for PCa and perception about PCa screening test was not statistically significant ($\chi 2$=0.151, p=0.698). Findings indicate there was an association on monthly income ($\chi 2$=15.385) and ethnic groups ($\chi 2$= 17.168) on willingness to uptake prostate cancer screening test. Participants between ₦30,000 and ₦99,999 as monthly income were 3.4odds (almost four times) more likely to be willing to uptake PCa screening test than other categories (OR=3.417, CI=0.667, 17.501).
It is important to promote awareness of PCa through regular health talk and accessibility to PCa screening services at affordable cost in order to improve willingness to embark in PCa screening test among men in our environment.

Keywords: Knowledge, prostate cancer, risk factors, perception, willingness to be screened

Introduction

Prostate cancer (PCa) is the second most frequent cancer diagnosis made in men and the fifth leading cause of death worldwide (GLOBOCAN, 2018) [10]. The disease may be asymptomatic at the early stage and often has an indolent course that may require only active surveillance (Rawla,2019) [15]. The commonly used screening tests for prostate cancer are the Prostate Specific Antigen (PSA) and Digital Rectal Examination (DRE). Currently, there is no substantial agreement on the age at which to commence PSA screening. Most guidelines recommend PSA screening to start no later than age 55 years (Carter *et. al.* 2013) [7]. Prostate Specific Antigen (PSA) screening tests are readily accessible in numerous urology clinics in Nigeria, though many primary and secondary health facilities still lack access to the test (Bello *et. al.* 2019) [5].
In Nigeria, there is no structured prostate cancer screening policy yet and majority of the patients present late with advanced disease (Morhason–Bello *et. al.* 2013 Ogunmola *et. al.* 2013) [12, 13]. In addition, the existing health policies or strategies for prostate cancer screening or control programmes in Nigeria lack focus (Bello *et. al.* 2019) [5]. According to Bello *et. al.* 2019 [5], unlike most other countries faced with significant prostate cancer burdens, population screening is yet to be conducted anywhere in Nigeria. Morhason–Bello *et. al.* (2013) [12]. explained that the baseline awareness of cancer and its screening test is less than 40% and 20% respectively among at risk population in sub-Saharan Africa. Most studies asserted that poor utilization of screening services may also be attributed to poor access to quality health care, wrong perceptions and beliefs and weak health systems in most parts of sub-Saharan Africa (Morhason–Bello *et. al.* 2013; Ojewola *et. al.* 2017) [12, 14].
According to Ferlay *et. al.* (2010) [9], the disease burden is projected to increase with over 75 million prevailing cases, 27million incident cases and 17million of cancer deaths expected worldwide in 2030. Despite these prevailing challenges, it is difficult to know the true burden of prostate cancer in Africa due to poor health management systems. Studies have shown that some of the challenges involved in the management of prostate cancer is due to lack of community-based screening, low knowledge of prostate cancer risk factors, poor access to healthcare services and high cost of treatment which has led to late presentation of the disease (Adebamowo and Akarolo, 2009; Baade *et. al.* 2009) [3, 4]. Prostate cancer was ranked third in non-communicable disease in Nigeria with 13,078 number of new cases (11.3%) and mortality rate of 5,806 (8.3%) according to GLOBOCAN (2018) [10]. However, due to the high incidence and mortality rate caused by prostate cancer, the awareness and uptake of prostate cancer screening are major issues seeking address by researchers in Nigeria today (Bello *et. al.* 2019 [5], Enaworu and Khutan, 2016) [8]. Poor uptake of prostate cancer screening is associated with the increased morbidity and mortality rate caused by the disease. A substantial knowledge of the risk factors, extent and factors influencing the willingness of men to undertake screening is of great importance in the context of diagnosis and treatment of prostate cancer. Over the years, studies

have shown that diagnosis of prostate cancer (PCa) is common among men aged 50 to 70 years (American Cancer Society, 2016; AIHW, 2017) [1]. Although, most studies indicated that risk of PCa is significantly low among men below age 50. However, scholars have not identified specific age at which men are exposed to the risk of PCa. The risk of PCa varies significantly among individuals of different age-groups, race and family history. Scholars have tried to assess perception of PCa, knowledge of PCa risk factors and knowledge of screening test among men in both hospital settings and communities locally and internationally. Despite different studies carried out to improve knowledge and awareness of men about PCa risk factors, most of these studies still reported low knowledge and awareness of PCa risk factors among men (Leitzmann and Rohrmann, 2012 [11], (Castillejos and Gabillondo, 2016) [6].

Methods

The study was carried out in Ibadan, the capital of Oyo State. Oyo State is in the South-western zone of Nigeria and it is the most populous city in the state with a population of over 3 million. Ibadan consist of 11 Local Government Areas (LGAs), each of which is further divided into wards. Ibadan North East (IBNE) is one of the local government areas in Ibadan metropolis, Oyo State which comprise of twelve wards. A cross-sectional study design was used to assess the level of knowledge of prostate cancer risk factors and willingness to be screened among aged men 40-69 years old in Ibadan North East Local Government Area, Oyo State by using a semi structured interviewer-administered questionnaire. The study population comprised men aged 40-69 years old in the selected communities in Ibadan North East, Ibadan, Oyo State. A sample size of n=640 participants was recruited. A semi structured interviewer-administered questionnaire was used to elicit information from participants on socio-demographic characteristics of respondents, family history of prostate cancer among the respondents, awareness of prostate cancer screening test among the respondents, knowledge of prostate cancer risk factors, knowledge of prostate cancer screening, perception about prostate cancer screening test and willingness to be screened for prostate cancer.

Results

Socio-Demographic Characteristics

The result obtained for the socio-demographic characteristics is reported that the mean age of the respondents was 50.5±7.5years. About 322(50.3%) of the respondents were below 50years of age, almost half 285(44.5%) were within age 50-65years while only 23(3.6%) of the respondents were above age 65years, while only 10(1.6%) non-responses. The results also indicated that significant proportion 582(91.1%) of the respondents were married, 20(3.1%) single, 16(2.5%) widower, 5(0.6%) divorced while 16(2.5%) were separated. In terms of religion, three hundred and seventy-two (58.1%) of the participants were Islam, below half 258(40.3%) were Christian, while only 10(1.6%) were traditional worshippers. Of the respondents, 50(7.8%) of them had no formal education, 190(29.7%) had primary education, 273(42.7%) had secondary education while only 14(19.6%) had tertiary education.

Table 1: Frequency distribution of socio-demographic characteristics among respondents (n=640)

	Variables	Frequency	Percentage
Age group	<50years	322	50.3
	50-65years	285	44.5
	>65years	23	3.6
	NR**	10	1.6
Area of residence	Urban Settlement	253	39.5
	Rural Settlement	387	60.5
Marital status	Single	20	3.1
	Married	582	91.1
	Widower	16	2.5
	Divorced	5	0.8
	Separated	16	2.5
Ethnic group	Yoruba	572	89.4
	Hausa	13	2.0
	Igbo	49	7.7
	Others	6	0.9
Religion	Christianity	258	40.3
	Islam	372	58.1
	Traditional	10	1.6
Educational status	No formal education	50	7.8
	Primary education	190	29.7
	Secondary education	273	42.7
	Tertiary education	14	19.6
Occupation	Self employed	220	34.3
	Employed	78	12.2
	Clergy	33	5.2
	Artisans	300	46.9
	Farmer	7	1.1
	Unemployed	2	0.3

Table 2: Frequency distribution on economic characteristics among respondents (n=640)

	Variables	Frequency	Percentage
Daily income	≤N900	8	1.3
	(N1,000-N1,500)	62	9.7
	More than N1,500	242	37.6
	NR	328	51.3
Weekly income	Less than N1,500	2	3.0
	(N1,500-10,000)	21	9.6
	More than N10,000	255	30.8
	NR	362	56.6
Monthly income	<N30,000	186	29.1
	(N30,000-N99,999)	228	35.6
	≥100,000	67	10.5
		159	24.8

NR** =non-response

Family history of prostate cancer

Result obtained from the study on family history of Prostate Cancer (PCa) indicated that five hundred and seventy-two (89.4%) of the participants' relatives have never been diagnosed of PCa while only 68(10.6%) of the participants' relatives has never diagnosed of PCa. About 11(16.2%) of the respondent's father has been diagnosed of PCa, 10(14.7%) maternal grandfather, twelve (17.6%) paternal grandfather, 11(16.2%) full brother, twelve (17.6%) half brother, 8(11.8%) uncle and only one (1.4%) son have been diagnosed of prostate cancer.

Table 3: Frequency Distribution of family history of prostate cancer among respondents

Responses		Frequency	%
male relatives diagnosed of prostate cancer [N=640]		68	10.6
Family member diagnosed of prostate cancer	Father	11	16.2
[N=68]	Maternal grandfather	10	14.7
	Paternal grandfather	12	(17.6
	Full brother	11	16.2
	Half brother	12	17.6
	Uncle (Father side)	8	11.8
	Uncles (Mother side	3	4.4
	Son	1	1.5

Awareness of Prostate Cancer Screening Test

The mean score awareness of PCa screening test was 6.02±0.84. In term of their source of information, 103(28.2%) heard about PCa over the radio, 61(16.7%) friends, 52(14.2%) television and 38(10.4%) physician. A total of 471(73.4%) of the participants have not heard about PCa screening test while 169(26.6%) have heard about PCa screening test in the past. result indicated that 70(41.4%) of the study participants identified prostate specific antigen (PSA) as one of the PCa screening test, sixty-two (36.7%) of them identified ultrasound as a screening test for PCa while 25(14.8%) identified digital rectal examination. Out of the participants who had sufficient awareness about PCa screening test, only 47(27.8%) have been ever screened for PCa while a significant proportion have never been screened for PCa less than five years out of those that have been screened, only 17(36.2%) were screened for more than 5years.

Table 4: Frequency distribution of the responses to questions on prostate cancer screening test awareness among respondents

Reponses		n	%
Have heard about prostate cancer [N=640]		356	56.2
If yes, what is the source of information on PCa[N356]	Physician	38	10.4
	Nurse	7	1.9
	Television	52	14.2
	Radio	103	28.2
	Friends	61	16.7
	Relative	34	9.3
	Newspaper	4	1.1
	Church program	9	2.5
	Online	24	6.6
	Others	24	9.0
Have heard of any screening test for prostate cancer [N=640]		169	26.6
Ever been screened for prostate cancer [N= 169]		47	27.8
When last screened for prostate cancer [N=47]	≤5 years	30	63.8
	>5 years	17	36.2

Knowledge of Prostate Cancer Risk Factors

The mean score knowledge of prostate cancer (PCa) risk factor was 42.3±12.8. Result shows that three hundred and fifty 350(54.7%) of the participants had poor knowledge about PCa risk factors while two hundred and ninety 290(40.5%) had good knowledge about PCa risk factors. Among those who are knowledgeable, 238(37.2%) indicated that they are PCa is located in the testis. About three hundred and twenty-nine 329(51.3%) of the participants could not identify increase in age of >50years as risk of PCa. About 302(47.3%) identified excess of alcohol intake as risk of PCa. Below half, 311(48.8%) of the participants have good knowledge PCa is genetic in nature. A substantial proportion 541(74.5%) of the participants do have poor knowledge that PCa is sometimes asymptomatic.

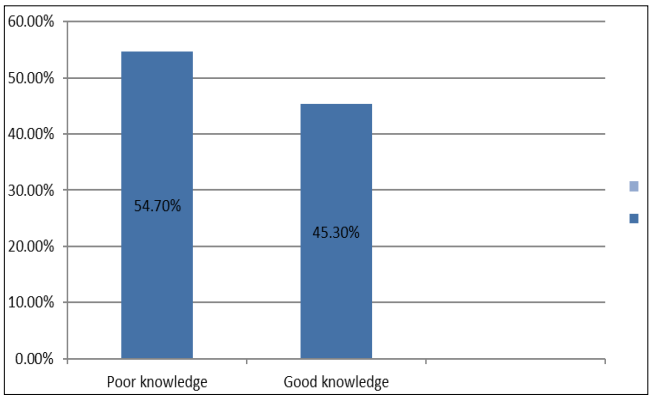

Figure 1: Level of Knowledge of prostate cancer risk factors among respondents Knowledge of prostate cancer screening tests

The mean score knowledge of prostate cancer (PCa) screening test was 14.4±3.2. The level of PCa screening test was categorized into poor and good. Result shows about 427(66.7%) of the participants had poor knowledge about PCa screening test and two hundred and thirteen 213(33.3%) had about PCa screening test. However, four hundred and forty-eight 448(69.7%) of the respondents have good knowledge in identifying prostate specific antigen (PSA) tests as PCa screening test. Similarly, more than half 440(68.7%) of the respondents felt that PCa screening test negatively affect men's reproductive life. Result also indicated that one hundred and sixty-seven 167(26.1%) participants believed it is important for ≥80years old men to uptake PCa screening test.

Perception about prostate cancer screening test

Result showed that the mean score perception of prostate cancer (PCa) screening test was 73.1±10.2. Perception was categorized into negative and positive perceptions. Three hundred and sixty-four 364(56.7%) of the participants have negative perception towards PCa screening test while two hundred and seventy-six 276(43.1%) of the participants have positive perception towards PCa screening test. Result also show that five hundred and forty-two 542(84.7%) of the participants felt that they do not have prostate cancer (Table 4.6) Majority of the respondents felt that they could have prostate cancer without showing symptoms. More than half 349(54.6%) of them have fear of being tested positive for PCa. More than half 405(63.5%) of the participants have negative perception because they do not have idea of the healthcare facilities that does PCa screening test. More than half 345(54.2%) perceived that it is expensive and not sure if National Health Insurance Scheme (NHIS) covers the PCa screening test. The participants' perception about PCa screening test.

Table 5: Level of Perception about prostate cancer screening test

Perception [N=640]	Frequency	Percentage
Negative perception	364	56.9
Positive perception	276	43.1

Willingness to be screened for Prostate Cancer

The analysis on willingness to uptake prostate cancer screening test showed that 534(83.6%) of the participants were willing to be screened if the screening test is made available in their local environment. Shows responses from the study participants on willingness to be screened for prostate cancer some reasons include 528(82.5%) health status, 88(13.8%) uninterested and 14(2.2%) fear of being positive for the disease. One hundred and twenty-one (18.1%) of the participants are still unwilling to utilize PCa screening test even if their relatives or friend are positive due to cost of the screening 632(98.7%) and about five hundred and fifty-nine 559(87.3%) remained unwilling because of lack of interest in mass screening for PCa in Nigeria.The mean amount participants are willing to pay for PCa screening test was ₦686.1±₦874.4. About four hundred and sixty-three 463(72.3%) of the participants mentioned they could be willing to pay ₦1,000 for the PCa screening test while only 72(11.3%) of them are willing to pay <₦1,000 for PCa screening test

Table 6: willingness to be screened for prostate cancer among respondents

State your reason for willing to be tested [N=640]	Yes	No
Health status	528(82.5)	112(17.5)
Not interested in screening test	88(13.8)	552(86.2)
Afraid of positive result	14(2.2)	626(97.8)
Not available for test	4(0.6)	636(99.4)
Would you be more willing to utilize prostate cancer? screening if anyone you know was diagnosed of prostate cancer [N=640]	519(81.9)	121(18.1)
State your reason for being more willing [N=640]		
Not aware of the screening	5(0.8)	635(99.2)
Not interested in prostate cancer screening	97(15.2)	543(84.8)
To know my health condition	519(81.0)	121(19.0)
Afraid of positive result for prostate cancer	9(1.4)	631(98.6)
Free screening service	10(1.6)	630(98.4)
If the screening test is covered by health insurance that you won't have to pay, will you be willing to utilize the service	524(82.4)	116(17.6)
Amount willing to pay for prostate cancer screening test		
≤N1000	463	72.3
>N1000	72	11.3
NR**	105	16.4
Would you encourage mass screening for prostate cancer in Nigeria [N=640]	463(73.0)	58(9.1)
State your reason for encourage mass screening for prostate cancer in Nigeria [N=640]		
Not aware of mass screening in Nigeria	1(0.2)	639(99.8)
Afraid of positive result from the screening	12(1.9)	628(98.1)
To know my health condition	500(78.0)	140(22.0)
If Government enforce mass screening in Nigeria	13(2.0)	627(98.0)
Less expensive	8(1.3)	632(98.7)
Not interested in mass screening in Nigeria	81(12.7)	559(87.3)
Personal choice to embark for mass screening	25(3.9)	615(96.1)

NR** =non-response

Bivariate analysis on the relationship between socio-demographic characteristics and willingness to be screened for PCa

There was an association between monthly income (p=0.000, $\chi2$=15.385) and ethnic groups (p=0.001, $\chi2$=17.168) among the respondents on willingness to uptake prostate cancer screening test. Results showed that age of the study participants does not significantly influences the willingness to uptake prostate cancer screening test (p=0.471, $\chi2$=1.506). There was no relationship between education and marital status on willingness to uptake prostate cancer screening test among the participants (p=0.299, $\chi2$=4.888, p=0.164, $\chi2$= 6.513) respectively

Predictors of willingness to be screened among the respondents

Result showed that participants below age 50years are 1.2 times more likely to be willing to uptake PCa screening test than other age groups (OR=1.202, CI=0.533, 2.713). It also indicated that participants who earn between ₦30,000 and ₦99,999 monthly are 3.4 almost four times more likely to be willing to uptake PCa screening test than other categories (OR=3.417, CI=0.667, 17.501).

Discussion

Prostate cancer (PCa) is the second most frequent cancer diagnosis made in men and the fifth leading cause of death worldwide (GLOBOCAN, 2018) [10]. Prostate cancer may be asymptomatic at the early stage and often has an indolent course that may require only active surveillance (Rawla, 2019) [15]. This study was set out to assess the level of knowledge of prostate cancer risk factors and willingness to be screened among adult men in Ibadan North East Local Government, Oyo State. Result showed that the mean age of the respondents was 50.46±7.5years which is similar to the findings of Oladepo, Yusuf, John-Akinola & Arulogun, (2010) that respondents mean age was 60years. In this study, the age distribution showed that more than half of the respondents were below 50years of age, almost half were within age 50-65years while only a few of the respondents were more than 65years.

This study indicated that more than two-thirds of the participants have insufficient awareness about PCa screening test while less than a third of the participants had good awareness about it. This supports the findings from the studies of Olapade-Olaopa *et al.*, (2014); Ogundele *et al.*, (2015); Enaworu and Khutan, (2016) [8], Bello *et al.*, (2019) [5]. which showed that majority of the study participants have poor awareness of (PCa) screening test. This may be as the consequence of lack of proper co-ordination and planning of the current PCa strategy in Nigeria advocates individualized screening Ogundele *et al.*, (2015). This is contradicting the study of Binka *et al*. (2015) conducted among males in Kumasi, Ghana, reported that most of the participants had high level of awareness of PCa. This report was similar to that obtained from the study carried out by Ebuehi and Otumu (2011) among male staff of University of Lagos, Nigeria. Ebuehi and Otumu (2011) found out in their study that majority of the study participants (61.8%) had good awareness of PCa. Based on the findings on family history of PCa, result indicated that more than two-thirds of the participants' relatives have never been diagnosed of PCa but only a few less than one-quarter of the participants' relatives have been diagnosed of PCa. In this study, in terms of family history, the likelihood of risk of PCa is low due to minimal population of the affected relatives. This is because, the risk of PCa increases as the proportion of affected family members increases; men with two or three

first-degree relatives affected have a five to tenfold increased risk of developing the disease. This supports the study of Kramer and Siroky (2004) cited in (Turner & Drudge-Coates, 2010), which indicated that family history of PCa is one of the identified risk factors. It also stated that men who have a first-degree relative with prostate cancer have a twofold risk of developing the disease in future.

Knowledge of PCa risk factors varies significantly among the participants. Result of this study indicated that more than half of the participants had insufficient knowledge about PCa risk factors such as family history, excessive alcohol consumption, occupational exposure, diet and sexual behaviour. Majority of the participants have poor knowledge that these factors affecting the risk of progression from a latent PCa to a clinical PCa. This supports the study of (Heidenreich *et al* 2009) cited in (Turner & Drudge-Coates, 2010) that diet high in fat, sexual behaviour, alcohol consumption and occupational exposure risk factors of PCa. It was also identified that higher BMI and adult weight gain increase the risk of PCa. This is also in accordance with the findings from the study of (Adebamowo and Akarolo, 2009; Baade *et al.*, 2009) [3, 4]. that inadequate knowledge about PCa risk factors is one of the challenges involved in the management of PCa. This insufficient knowledge was also a consequence of lack of community-based screening, poor access to healthcare services and high cost of treatment which has contributed immensely to late presentation of the disease. This is similar to what is obtainable in the study conducted among civil servants in Iseyin local government area of Oyo state and main city of Burkina Faso Ouagadougou reported that the level of knowledge of prostate cancer risk factors was poor (Kolade *et al.*,2017; Kabore *et al*., 2014). This also confirm the findings of Ojewola *et al*. (2017) [14]. in a study conducted among 305 adult respondents in Ido/Osi local government area, Ekiti state, southwest of Nigeria, it was observed that the level of knowledge of PCa risk factors was poor among the participants.

The study of Ogundele and Ikuerowo, (2015) on a survey of the awareness of prostate cancer and its screening among men attending the outpatient clinics of a Tertiary Health Center in Lagos, Nigeria indicated that despite the sufficient awareness of PCa screening among the participants and only a few had been willing to under PCa screening test due to poor knowledge about PCa screening. This is similar to our findings which showed that more than two-thirds of the participants had insufficient knowledge about PCa screening test. This is due low knowledge in identifying prostate specific antigen (PSA) tests as PCa screening test. In the same vein, more than half of the respondents believed that PCa screening test will negatively affect men's reproductive life. Findings also showed that more than two-thirds of the participants perceived that PCa screening test is meant for adult men aged ≥80years only. This inadequate knowledge of PCa screening test among the study participants may attributed to poor utilization of screening services and inaccessibility to quality healthcare in the study area. This is support of the findings from (Morhason –Bello *et al.*,2013; Kangmennaang *et al.*,2016; Abdulrahman *et al.*, 2016; Ojewola *et al*., 2017) [12, 14]. which claimed that poor utilization of screening services may also be attributed to poor access to quality health care, wrong perceptions and beliefs; and weak health systems in most parts of sub-Saharan Africa.

Findings from this study showed that more than half of the participants have negative perception towards PCa screening test. Out of this category, majority of the perceived that they do not have prostate cancer while significant proportion of the participants have fear of being tested positive of PCa. In the same vein, more than half of the participants have negative perception about inaccessibility of healthcare facilities that does PCa screening test. Of which quite a large number of them had negative perception towards the cost of PCa screening test and unsure if National Health Insurance Scheme (NHIS) covers the PCa screening test. This is the more reason why relationship between willingness to be screened for PCa and perception about PCa screening test is not statistically significant (χ^2 =0.151, p=0.698) which indicated that perception about PCa screening test does not significantly determine the willingness to be screened for PCa. This is reasonably similar to what is obtainable in the study of Adibe, M. O., Aluh, D. O., Isah, A. and Anosike, C., (2017) on knowledge, attitudes and perceptions of prostate cancer among Male Staff of the University of Nigeria stated that more than half (53.9%, n = 351) of respondents had a negative perception of prostate cancer screening tests and treatments.

Unwillingness to uptake PCa screening test is associated with lack or low level of awareness and knowledge about PCa and its risk factors among adult male patients has been identified as a key determinant contributing to unwillingness to undergo PCa screening (Ajape *et al.,* 2010; Kabore*et al.,* 2013; Mofolo *et al.,* 2015; Enaworu and Khutan, 2016) [8]. This is also similar to the findings of Ebuehi and Otumu (2011) which asserts that almost one-third of their respondents (Nigerian men) are unwilling to uptake PCa screening testing because of lack of awareness of prostate cancer screening. These findings are in contrast with what is obtainable in our study which showed that relationship between willingness to be screened for PCa and awareness about PCa screening test is not statistically significant (χ^2 =1.578, p=0.209). This implies that awareness about PCa screening test does not significantly determine the willingness to be screened for PCa among the participants in the study area. This is supported by the study of Binka *et al*. (2015) conducted among males in Kumasi, Ghana, reported that despite the high level of awareness of PCa screening test among majority of the participants, most of them are still unwilling to uptake PCa screening test. However, knowledge of risk factors of PCa is significantly associated with willingness to be screened for PCa (χ^2 =15.995, p=0.0001). This implies that knowledge of risk factors of PCa significantly determines the willingness of the participants to be screened for PCa. This implies that the better the knowledge of PCa risk factors, the more willing they will want to be screened for PCa. This is supported by the study of Oranusi*et al*., (2012), which claims that 74.1% of the respondents in their study among male public servants in Anambra state, Nigeria had good knowledge of prostate cancer and a significant proportion of the respondents were willing to uptake PCa screening services test. Findings also indicated that more than two-thirds of the participants are not willing to be screened for PCa. Some of the participants still remained unwilling to be screened even if the screening test is made available for easy access. This drastic decision may be due cost of the PCa screening test, stigma associate with being positive, uninterested, insufficient awareness and

fear of being positive. In the same vein, minority of the participants are still remained unwilling to utilize PCa screening test despite the fact that their relatives or friend are positive.

Conclusion

Willingness to uptake PCa screening test was significantly associated with ethnicity and monthly income. The willingness to uptake PCa screening test depend on diverse ethnic groups in the country and monthly income of men. Most of the participants had negative perception towards the screening test due to fear of being tested positive for the disease, cost of the screening test and perceived stigmatization associated to prostate cancer. Government should involve health workers to carry these services to the door steps of individuals especially in their work place is necessary since work schedule was found to inhibit utilization of prostate cancer screening services among the respondents. There should be free screening test for prostate cancer readily available to all men in order to make them more willing to embark in the screening test

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