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RESEARCH ARTICLE

EFFECT OF CHURCH-BASED INTERVENTION TO PROMOTE INFORMED DECISION MAKING FOR PROSTATE CANCER SCREENING AMONG ADULT MEN ATTENDING SAINT MARY'S CATHOLIC CHURCH, ENUGU, NIGERIA

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ABSTRACT

Prostate cancer (PC) is the most common type of cancer in men and constitutes a major public health issue. This study examined the effect of a church-based intervention to promote informed decision making for prostate cancer screening among men attending Saint Mary's Catholic Church, Enugu, Nigeria. A quasi-experimental one group pretest-posttest design was adopted for the study. The participants comprised of 50 men 40-70 years attending Saint Mary's Catholic Church, Enugu. A researcher developed questionnaire was the instrument used for data collection pre and post intervention. Statistical analysis for association was performed using ANOVA. Result revealed that mean age of the participants was 54±12.9 years. Majority 36(72%) had not heard of prostate cancer at pre-intervention versus 50(100%) at post-intervention ($p < 0.05$) Few 15(30%) of the participants were aware of screening tests for prostate cancer at pre intervention versus 50 (100%) at post intervention. It was recommended that initiation of cancer teachings in churches and public places should be intensified. There should be free screening for prostate cancer for all men.

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INTRODUCTION

Prostate cancer (PC) is the most common type of cancer in men worldwide and constitutes a major public health issue (Abdulwahab, Abdullateef and Olusegun, 2010). It is the most commonly diagnosed cancer among men and second leading cause of cancer death in men (Brawley, 2012). All men are at risk for prostate cancer however it is very rare in men younger than 40, but chances of having prostate cancer rises rapidly after age 50 years (American Cancer Society, 2012). In general, Prostate cancer is the most common in Southern Africa, Sub-Sahara, Western Africa and Africa at large and also the leading cause of deaths in Sub-Sahara and Western Africa (American Cancer Society, 2012). WHO (2013) estimated that about one out of ten cases of cancer seen in men was prostate cancer and it progresses more rapidly in the Nigerian environment. In Nigeria, it is the most common male cancer and may be as high as that seen in African Americans in the United State (American Cancer Society, 2012). Most cancer treatment centers in Nigeria lack modern diagnostic equipment for diagnosing the condition and there is lack of awareness about prostate cancer especially its causative factors, preventative measures and treatment options and there is unavailability of facilities for prompt treatments (Andreas, 2013). National Cancer Institute (2009) reported that there are no race-specified recommendations for prostate cancer screening. Some organizations, including the American cancer society and National Cancer Institute suggest that higher risk population, such as men of African descent and those with family history of the disease are counseled about prostate cancer screening beginning at 40 or 45 years of age. In light of the high incidence of prostate cancer among black men, black men remains priority for interventions. According to American Cancer Society (2012) health care providers should offer a prostate specific antigen (PSA) test and a digital rectal examination (DRE) yearly, beginning at age 40 especially black men who have a first-degree relative who was diagnosed with prostate cancer before age 65. Researchers agreed that regular screening and examination with the PSA and DRE can result in detection of prostate cancer when treatment is more likely to be successful and may detect significant prostate cancer at earlier and more favorable stages (Mensahe, Anderson, Jatoi, and Rosenberg, 2009). Further studies

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revealed that most Nigerian men do not know where to go for prostate cancer screening and recommend that prostate cancer related public enlightenment should be organized, especially for males and their spouses in order to enable them to make informed decision about going for prostate cancer screening and improve the low level of awareness that males have on prostate cancer screening (Osinubi, 2011). In most developing countries like Nigeria, access to health care and prostate cancer screening methods for early detection is limited (Odedina, 2009). Prior studies have shown that faith-based settings are a feasible and acceptable venue in which to provide health information to black men audiences. Churches play a prominent role in many African communities and represent a trusted, credible institution that addresses both spiritual and physical health. Faith-based organizations represent a promising community setting in which to implement informed decision- making interventions targeting black men (Campbell, Hudson, Resnicow, Blakeney, Paxton and Baskin, 2009). Efforts to promote prostate cancer screening informed decision making can build upon the existing programmes in many black churches that are already providing health outreach to their congregations (Sanchez, 2009). The paucity of research in this area highlights the need for additional information about decision-making processes among black men, so as to improve the delivery of cancer screening interventions among this priority audience.

MATERIALS AND METHODS

Research design

A quasi-experimental one group pretest-posttest design was adopted for the study.

Subjects of the study

The subjects for the study include fifty (50) men aged 40-70 years attending Saint Mary's Catholic Church Uwani, Enugu. They were recruited using the inclusion criteria of willingness to participate, been between the ages of 40-70, a member of the Catholic men organization, with no previous history of prostate cancer and not health care professional like nurses and doctors.

Procedure for Data collection

The instrument used for data collection was structured questionnaire. The questionnaire was developed based on literature reviewed and the objectives of study. The questionnaire consists of five sections: section A on demographic information; and section B on knowledge of men towards prostate cancer screening. Section C on attitude of men towards prostate cancer screening, section D on barriers towards prostate cancer screening and section E on utilization practice of prostate cancer screening. Data were collected immediately before and one month after the intervention package was administered. The intervention packages (handbill/pamphlet) contain vital information on prostate cancer and screening practices such as PSA and DRE screening methods.

Intervention development

In developing the intervention, the researchers drew upon published reports and expert opinion on information necessary for men to make informed decisions about prostate cancer screening. In crafting educational messages associated with this content, the researcher sought to address unique concerns and necessary information needs of men identified through studies conducted by others. The intervention was guided using the health belief model. Effective focus group and education seminar were used to assist in the development of the intervention.

Intervention content

The intervention was a one time, small-group education session that lasted approximately 30 minutes to one hour. During the session, the researchers delivered essential information to help men clarify their own preferences and values as they relate to the pros and cons of prostate cancer screening. During the session, the researchers explained the potential benefits and harms of prostate cancer screening and basic facts about prostate cancer. The discussion on benefits and harms included the benefits of screening for the early detection and treatment of aggressive cancer and the possibility that early detection could lead to a less aggressive form of treatment. To assist in the delivery of the information, the researchers distributed a prostate cancer handbill/pamphlets containing essential information on prostate cancer to the participants.

Validity of the Instrument

A face and content validity were carried out by presenting the intervention package and a copy of the questionnaire to an expert in the field of oncology to comment on appropriateness of the content. The corrections and suggestions made were effected thus enabling the instrument to meet both the face and content validity.

Reliability of Instrument

Pre testing of the instrument for its reliability was carried out by administering five copies of questionnaire which was 10% of the sample size among men in Winners' Chapel Presidential Road Enugu. The data collected were subjected to reliability analysis and it yielded a Cronbach's Alpha Coefficient value of 0.712 indicating that the instrument was reliable.

Procedure for Data Collection

The questionnaire was administered by the researcher and two research assistants after been trained on method to administer the questionnaire. The questionnairewere administered in the church conference hall of the church during Catholic Men Organization (C.M.O) monthly meetings. Pre-intervention was collected before the intervention package was delivered and post intervention data was collected one month after the intervention package was delivered to the men.

Data analysis

The data collected were analyzed using descriptive statistics and results were presented in tables using frequency and percentages. The differences between groups were analyzed using t-test and ANOVA at significance level of 0.05. International Business Machine, Statistical Package for Social Sciences (IBM SPSS) version 20 was used in the analysis.

Table 1. Demographic distribution of the participants (n = 50)

Demographic characteristics	No of participants	Percentage
	Mean	54
Age	SD	12.9
40 – 49 years	5	10.0
50 - 59 years	40	70.0
60 – 70years	5	20
Marital status		
Single		
Married	48	96.0
Widowed Education level	2	4.0
No formal education	3	6.0
Primary	5	10.0
Secondary	26	52.0
Tertiary Occupation	16	32.0
Self employed	33	66.0
Retired	5	10.0
Civil servant	12	24.0
Income		
₦ 20 000 - ₦ 39 000	18	36.0
₦ 40 000 - ₦ 59 000	12	24.0
₦ 60 000 - ₦ 79 000	12	24.0
₦ 80 000 and above	8	16.0

Table 2. Knowledge about prostate cancer (n=50)

Questions	Pre-intervention	Post intervention	P – value
	Freq (%)	Freq (%)	
Have you heard of heard of prostate cancer?			
Yes	24(48)	50(100)	0.000
No	36(72)	0(0)	
Participants sources of information			
Radio/TV	12(24)	20(40)	
Health worker	3(6,0)	50(100)	
Handbill/pamphlets	1(2.0)	50(100)	0.009
Intervention package	0(0.0)	50(100)	
Location of the prostate gland			
In front of the anus	12(24)	-	0.005
In the scrotum	16(32)	-	
Under the bladder	15(30)	50(100)	
In the intestine	7(14)	-	
Prostate cancer affects which gender?			
Men only	12(24.0)	50(100.0)	0.047
Women only	26(52.0)	-	
Both men and women	12(24.0)	-	
Risk factors for prostate cancer			
Family history of prostate cancer.	1(2.0)	45(90)	0.001
Men of black origin	1(2.0)	47(94)	
Drinking alcohol.	22(44.0)	0(0)	
Men of 40 years and above.	9(18.0)	50(100)	
Multiple sexual partners.	14(28|)	10(20)	
Lack of exercise.	10(20)	25(50)	
Smoked food	2(4.0)	40(20	
Obesity.	1(2.0)	45(90)	
Food containing preservative	1(2.0)	35(70)	
Is it possible to have prostate cancer even if a man does not have any symptoms?			
Yes	14(28)	50(100.0)	0.000
No	36(72)		
Symptoms associated with prostate cancer	6(12.0)	50(100)	0.05
Excessive urination at night	6(12.0)	50(100)	
A weak interrupted flow of urine	5(10.0)	50(100)	
Difficulty starting urination or holding back urine	5(10.0)	10(20.0)	
Constant pain in lower back, pelvis or upper thigh	2(4.0)	-	
Painful ejaculation Blood or semen in urine	3(6.0)	-	

RESULTS

The result shows the mean and standard deviation of the participants' age 54±12.9. Majority of the participants 48 (96%) are married, few 3 (6.0%) had no formal education while majority 26 (52%) had secondary education. Majority of participants 33 (66%) are self employed while 5 (10.0%) were retirees. Most participants18 (36%) have an income of ₦ 20 000 - ₦ 39 000 per month.

Table 2 shows that at pre intervention, most of participants 36 (72%) have not heard of prostate cancer versus 50 (100%) at post intervention phase, only 1(2.0%) participants had information about prostate cancer from handbill/pamphlet at pre intervention versus 50 (100%) post intervention, no participant had information from intervention package at pre intervention as against 50(100%) intervention package. On the location of prostate, at pre intervention phase 15 (30%)

participants stated correctly that the prostate gland was located under the bladder versus 50(100%) at post intervention. At pre-intervention, less than average 12 (24.0 %) of the participants stated that prostate cancer affects only men, versus 50(100%) at post intervention. On the risk factors for prostate cancer, at pre-intervention, few 1(2 %) of the participants indicated family history of prostate cancer, men of black origin and multiply sexual partners respectively versus majority 50(100 %) of the participants at post intervention. As regards signs and symptoms of prostate cancer, at pre-intervention, less than average 14 (28 %) participants stated that it was possible for a man who does not have any symptom of prostate cancer to have prostate cancer versus majority 50 (100%) of the participants at post-intervention phase.

Table 3 shows that only 15 (30%) of the participants were aware of any screening test for prostate cancer at pre intervention as compared to 50 (100%) participants at post intervention phase. At pre-intervention, few 13 (26%) of the participants indicated digital rectal examination (DRE) as one of the methods for detecting prostate cancer versus 40(80%) at post intervention. Similarly 15 (30%) affirmed to rectal examination/prostate specific antigen tests at pre intervention versus 40 (80%) participants that carried out the tests at the post intervention. During the screening process, at pre intervention, few 5 (10%) indicated that blood sample was collected from them versus 20(40%) at post intervention, similarly at pre-intervention only 3(6%) agreed that the doctor inserted a gloved lubricated finger in their anus versus 10(20%) of the participants at post intervention.

Table 3. Utilization of Screening Practices (n=50)

Questions		Pre intervention	Post Intervention
		Freq (%)	Freq (%)
Are you aware of screening test for prostate cancer?			
	Yes	15(30.0)	50(100)
	No	35(70.0)	-
Do you think screening will reduce a man's risk of dying of prostate cancer?			
	Yes	20(40.0)	50(100)
	No	30(60.0)	-
Methods of detecting prostate cancer (Multiple options)			
Rectal examination		13(26.0)	40(80)
Rectal examination and prostate ultrasound		-	-
Rectal examination and prostate specific antigen test		15(30.0)	50(100)
Prostate specific antigen test and prostate ultrasound		7(14.0)	-
When last were you screened for prostate cancer?			
Last two years		3(6)	3(6)
Less than one year		5(10)	20(40)
During the screening process, what did the doctor do to you?			
He collected my blood sample		5(10)	20(40)
He collected my stool sample		-	-
He inserted a gloved, lubricated finger in my anus		3(6)	10(20)
How many times should one screen for prostate cancer in a year?			
Once every year		11(22.0)	50(100)
Twice a year		7(14.0)	-
Every two years		3(6.0)	-
As many times as possible a year		29(58.0)	-
What age is recommended for men to start screening for prostate cancer?			
30-39 years		21(42.0)	-
40-49 years		19(38.0)	45(90)
50-59 years		10|(20.0)	5(10.0)
Any intention of getting prostate screening test in the nearest future?			
	Yes	15(30.0)	40(80.0)
	No	35(70.0)	10(20.0)

Table 4. Barriers Towards prostate cancer screening (n = 50)

Opinion questions		Pre-intervention	Post intervention
		n (%)	n (%)
I am afraid to hear that I have prostate cancer?	Yes	40 (80.0)	5(10.0%)
	No	10 (20.0)	45 (90%)
I do not understand what will be done?	Yes	38 (76.0)	4(8.0%)
	No	12 (24.0)	46(92%)
Prostate cancer screening will be expensive?	Yes	43 (86.0)	10(20.0%)
	No	7 (14.0)	40 (80%)
Prostate cancer screening will be embarrassing to me?	Yes	35 (70.0)	2(4.0%)
	No	15 (30.0)	48 (96%)
Prostate cancer screening will take too much time?	Yes	35 (70.0)	3(6.0%)
	No	15 (30.0)	47 (94%)
Prostate cancer screening will be painful?	Yes	31 (62.0)	-
	No	19 (32.0)	40 (80.0%)
I do not know what kind of doctor to see?	Yes	34 (68.0)	-
	No	16 (32.0)	50 (100)
False results of prostate cancer	Yes	36 (72.0)	2(4.0%)
	No	14 (28.0)	48 (96.0%)
Over diagnosis.	Yes	33 (66.0)	-
	No	17 (34.0)	49 (98.0%)
Gives false reassurance	Yes	47 (94.0)	3(9.0%)
	No	3 (6.0)	48(96.0%)

On the age recommended for men to start undergoing the screening tests, at pre-intervention, 19(38%) indicated 40-49 years and 45(90%) at post intervention whereas, 10(20%) indicated 50-59 years versus 5(10%) at post intervention stage. At pre-intervention, 15 (30 %) of the participants had an intention of getting prostate screening test in the nearest future versus 40(80%) of the participants at post intervention. At pre-intervention, results revealed that majority 40 (80.0 %) of the participants were afraid to hear that they had prostate cancer while majority 45 (90.0%) of the participants stated that they are not afraid to heard that they have prostate cancer at post intervention. At pre-intervention, majority 43 (86%) of the participants thought that prostate cancer screening will be expensive versus majority 49(98.0%) of the participants who stated that prostate cancer screening will not be too expensive at post intervention. At pre-intervention, majority 35(70%) of the participants opined that prostate cancer screening will be embarrassing versus post intervention. Majority 48(96.0%) of the participants stated that prostate cancer screening will not be embarrassing. At pre-intervention, majority 35(70%) of the participants thought that prostate cancer screening will take too much time versus majority 47(94.0%) of the participants affirmed that prostate cancer screening will not take much time at post intervention. At pre-intervention, majority 33(66%) of the participants stated that they were afraid of over diagnosis of prostate cancer versus majority 49 (98.0%) of the participants who stated that they were not afraid of over diagnosis of prostate cancer at post intervention.

Hypothesis: There is no significant association between the uptake of prostate cancer screening and socio-economic class of men

Table 5. Linear Regression Result

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	24.077	1	24.077	3.459	.204(a)
	Residual	13.923	2	6.962		
	Total	38.000	3			

a Predictors: (Constant), socio-economic status of the respondent
b Dependent Variable: uptake of cancer screening.

The result of the linear regression revealed that there is no statistically significant association between the uptake of prostate cancer and socio-economic class of men in Nigeria (alpha-significance is 0.204 at $p > 0.05$) at 0.05significance level. The null hypothesis is therefore accepted

DISCUSSION

The age range of the participants for this study was 54 ±12.9. This age range falls within the age for which cancer of the prostate had been reported among men in Nigeria. Most research works revealed that prostate cancer (PC) has become the number one cancer in adult men aged between 50 years and above with increasing incidence and morbidity in men of black ancestry (Delongchamps, Singh and Hass, 2007). They further stated that adult black men are 2.5 times more likely to develop the disease than any other ethnic groups and are two to three times more likely to die of the disease (Achebe and Robinson, 2009). This is in line with a study conducted by Ohaeri and Ingwu (2015) who stated that there is need for creation of awareness of prostate cancer for those who are approaching this age range so that they can actively be screened for cancer of the prostate. They further asserted that early screening for prostate cancer may translate to reduced morbidity and mortality among the populace. Results of the study revealed that few 24 (48%) participants were knowledgeable about prostate cancer prior to the intervention The above finding is in support of the results of a study made by Ajape, Babata and Abiola (2010) which shows that majority of the respondents had never had any information on cancer of the prostate. They concluded that there was remarkable lack of awareness of prostate cancer among the Nigerian men. Few 12 (24%) of the participants stated that they had heard of prostate cancer from radio/TV, 3(6.0%) health worker and 1(2.0%) handbill/pamphlet.

The findings of the study was in comparison with Atulomah, Olanrewaju, Amosu and Adedeji, (2010) Saleh, Fooladi, Petro-Nustas, Dweik and Abuadas (2012) and Ajape, Babata and Abiola, (2010) whose reports stated that level of awareness about prostate cancer among men in this study was low while their level of perception was just above average and screening behavior was very low. Finding also revealed that few participants were able to identify the specific symptoms and risk factors associated with prostate cancer. The result obtained from this study corresponds with Nnodimele (2010) whose findings revealed that only few of their participants know the specific symptoms of prostate cancer. With these findings from this study, it showed that knowledge about prostate cancer and its risk factors is poor, which is comparable to Nnodimele, (2010) whose findings revealed below average of their participants that know the risk factors of prostate cancer. This finding also corroborates Woods et.al , (2014), whose report quoted that below average of their respondents were not certain of the risk factors of prostate cancer. The results also revealed that among the few participants who have heard of prostate cancer, their sources of information was derived mostly from friends/relatives, television/radio, video films. This finding implies that majority of the participants in this study never received information about prostate cancer from their health care providers through educational/interventional package. The result obtained in this study corroborates Nnodimele et.al (2010) whose report shows that only five percent of their participants received information from their physicians/nurses regarding prostate cancer and only seven percent of these study participants' were able to list information received about prostate cancer from health care giver. This is comparable to Kenerson (2010) where only few of the respondents were able to list the information received about prostate cancer from their health care givers. This result also corresponds with Nnodimele, *et al* (2010) whose findings reported that only 5.3% of their research participants were able to list information received from their health care givers.

This finding is not surprising as prostate cancer in men has had a much lower profile in Enugu State. There are no handbills, posters or radio jingles to educate the men about the disease condition in the study settings. This is contrary to breast and cervical cancers in women where the results of the few published studies of public awareness of PC support the view that prostate cancer in men has had a much lower profile (Ajape, Babata and Abiola, 2010). This finding is not in agreement with several studies that health education campaigns in form of radio jingles and from health professionals in developing countries have dramatically increased awareness of breast and cervical cancers in women at risk, and have led to increased rates of early diagnosis and treatment (Ogundipe and Obinna, 2010). Mortality from

breast cancer is now reducing partly due to awareness and early detection measures. Prostate cancer knowledge scores significantly increased from 24(48%) pre-intervention to 48(98%) post intervention, with an average of 100% percentage increase. Majority 50(100%) participant stated that they heard of prostate cancer from the intervention package. Majority 50(100%) stated that the prostate gland is located under the bladder. The result is in conformity with Drake, Shelton, Gilligan and Allen (2011) and Baqar, Husaini, Michelle, Reece, Emerson, Hull, Scales and Robert (2008) whose study stated that the knowledge of prostate cancer increased significantly after the intervention package and further stated that a church and community based health education is a promising strategy for promoting knowledge of prostate cancer among black men.

The post intervention findings of this study was in comparison with Wilkinson, List, Sinner , Dai and Chodak (2013) whose report state the mean survey score improved from 26.0% before the seminar to 73.3% after it (P <0.0001). Every multiple-choice question was answered correctly more often after the seminar than before it. Increasing levels of education and income were associated with higher before and after scores (P <0.001). Men achieved a significantly greater score improvement (mean 48.1%) compared with women (mean 41.1%; P = 0.006). Post intervention findings of this study is in comparison with Simms (2012) whose study stated that after the implementation and evaluation of the effectiveness of a faith-based prostate cancer education intervention that was designed for black men to promote informed decision making for prostate cancer and utilization of screening practices. The results of the education improved prostate cancer knowledge, increased awareness of risk factors for prostate cancer, improved confidence in discussing prostate cancer with their physicians and spouses, and motivated them to undertake annual screening for prostate cancer and learn more about prostate cancer.

The pre-intervention findings of the study revealed that majority 35(70%) of the participants were not knowledgeable about screening practices for prostate cancer while 41(82%) affirmed that screening can reduce a man's risk of dying of prostate cancer and that men could live longer if they undergo screening for prostate cancer. majority of the participants 40(90%) stated that they do not know the best method for detecting prostate cancer. The results of the study was in conformity with Egbera (2015) in Benson İdahosa University Benin-City, Nigeria reported that there is low level of knowledge about prostate cancer screening and they do not know what about digital rectal examination (DRE) and prostate specific antigen (PSA). The result was also in conformity with Forrester-Anderson (2015), Makado, Makado and Rusere (2015) Ajape Babata and Abiola (2010) and Egbera (2015) whose report indicated that most men were not screened on annual basis and concluded that, knowledge of prostate cancer screening tests was low and that the major problem with early detection of prostate cancer prevention is lack of knowledge about screening and poor detection guidelines among medical professional group respectively. The pre-intervention result of the study was in comparison with Angelo and Gerald (2012) whose report stated that majority of their study population appeared to be unsure of when to start screening for prostate cancer. All concepts of the Health Belief Model (perceived threats, benefits, barriers, and self-efficacy) appear to affect screening patterns as indicated by high mean scores on the perception scales. Two thirds of the participants reported screening annually for prostate cancer. Furthermore, 40(80.0%) of the participants did not think that prostate cancer screening will be painful, 50(100%) knew what kind of doctor they are to consult while 49(98.0%) of the participants were not afraid of false results of prostate cancer. The post intervention results obtained in this study corresponds with Drake, Shelton, Gilligan and Allen (2011) and Baqar, Husaini, Michelle, Reece, Emerson, Hull, Scales and Robert (2008) whose report stated that the knowledge of prostate cancer and screening practice increased significantly after the intervention package. They further stated that a church and community based health education is a promising strategy for promoting knowledge of prostate cancer among black men. The post intervention results also agrees with Christian, Ricardo, Shushawna, Kyaw, Maung and Pauline (2015) whose findings of the study stated that there was a statistically significant improvements in the percentage of correct responses between the pretest and posttest were evident (p: 0.05). Screening rates increased dramatically at post-intervention with over 33% of men receiving a prostate examination after participating in the educational intervention. The theory-based educational intervention increased participants' knowledge of prostate cancer, types of screening tests, frequency of screenings and risk factors and symptoms. This theory-based educational intervention may be replicated to promote awareness of prostate cancer and further increase screening rates in developing countries. The findings of the study was in conformity with Wanyagah, (2014) whose study evaluate the awareness and knowledge levels; perception of prostate cancer self-vulnerability and uptake of prostate cancer screening. Findings stated that only 4.1% of the respondents had ever been screened for prostate cancer. Consistent with the low uptake of prostate cancer screening, only 48.2% of the respondents were aware of prostate cancer screening; 7.1% of the respondents knew about the methods of prostate cancer screening; and 45.8% of the respondents knew about the frequency of prostate cancer screening. Also, the post intervention findings of this study is in conformity with Simms (2012) whose study stated that after the implementation and evaluation of the effectiveness of a faith-based prostate cancer education intervention that was designed for black men to promote informed decision making for prostate cancer and utilization of screening practices. The results of the educational package improve prostate cancer knowledge and utilization screening practices for prostate cancer among black men, increased awareness of risk factors for prostate cancer, improved confidence in black men discussing prostate cancer with their physicians and spouses.

The findings of the study at pre-intervention revealed that majority 40 (80.0 %) were afraid to hear that they had prostate cancer, 38 (76%) stated that they did not understand what will be done, 35 (70%) thought that prostate cancer screening will take too much time, 35 (70%) opined that prostate cancer screening will be embarrassing. The findings of this study is in comparison with Nnodimele, (2010) whose study stated that In Nigeria, lots of men believe that not been aware of prostate cancer can prevent them from the disease. They also believe that prostate cancer has no cure and does not kill, therefore screening is not necessary and that many patients believe that cancer diagnosis is a death sentence; therefore they see no reason for cancer screening respectively. The pre intervention result was in comparison with Friedman, Corwin, Dominick and Rose (2009) whose study reported that the fear of a cancer

was identified as a barrier to seeking an early detection which is associated with consequences other than death including impotence, the loss of masculine appearance, negative reaction from a partner, embarrassment, debilitating illness, loss of employment and suffering, negatively influence their ability to undertake screening.

At pre intervention, majority 43 (86%) thought that prostate cancer screening will be expensive. The result is in comparison with Rebbeck, Zeigler-Johnson, Heyns and Gueye (2011) whose study stated that the lack of understanding, knowledge, access and financial constraints as the most common reason why screening is not done, fear, religious and cultural beliefs were the most common reasons for non-participation in prostate cancer screening in West Africa. It was in comparison with Winterich, Grzyüacz, Quanot, Clark, Miller and Bassett (2009) whose results indicated that black men have a very low level of actual knowledge of prostate cancer. The lack of health insurance has an important impact on men's decision to visit their doctor for prostrate screening and a diagnosis. The post intervention result obtained in this study corresponds with Drake, Shelton, Gilligan and Allen (2011) and Baqar, Husaini, Michelle, Reece, Emerson, Hull, Scales and Robert (2008) whose report stated that the knowledge of prostate cancer and screening practice increased significantly after the intervention package. They further stated that a church and community based health education is a promising strategy for promoting knowledge of prostate cancer and informed decision making among black men

Implications for nursing

The study reported low level of knowledge and poor utilization of screening practices. The knowledge gained from this study will help motivate nurses to improve on health enlightenment programmes on prostate cancer and screening practices to reduce the mortality and morbidity associated with the disease. The study will serve as a guide to policy makers in the profession towards adoption and implementation of measures that will help tackle the increasing incidence of prostate cancer among men and encourage oncology nurses to adopt proactive measures to changing the attitude of the general public towards prostate cancer and adopt trends that are needed for professional growth.

Recommendations

Based on the results of the study, the following recommendations were made:

- Initiation of cancer teachings in churches and traditional gatherings should be intensified
- Policy that every male from age 40years should be involved in health education and promotion programmes for prostate cancer
- The health care providers should initiate all measures to reach out to the public by visiting schools, markets, government houses, royal palace to create awareness campaign and education about prostate cancer and screening.
- Cancer education at schools because it's a potential channel to create awareness to young males about prostate cancer and cancer in general.
- Mass media campaign on behavioral change strategies to curb the morbidity and mortality rate from cancer.

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