

KNOWLEDGE AND UTILIZATION OF PROSTATE CANCER SCREENING SERVICES AMONG MALE CIVIL SERVANTS IN ISEYIN LOCAL GOVERNMENT AREA, OYO STATE, NIGERIA

*** Dr. Oluwakemi Ajike Kolade RN, PhD¹, Michael Oloyede Oladeji RN, MSc¹, Amudat Dupe Akinola RN, BSc², Musa Adebayo Adeleke RN, BSc³**

1. Department of Nursing, Ladoke Akintola University of Technology, Ogbomoso

2. Oyo State Hospital Management Board, General Hospital, Iseyin.

3. Department of Nursing, Ladoke Akintola University of Technology Teaching Hospital, Ogbomoso

ABSTRACT: *Cancer related morbidity and mortality continues to pose grave health challenge to men globally with increasing prevalence especially in developing countries. Presently prostate cancer has been reported to have a prevalence level of 11% in Nigeria which is considered alarming. Developing strategies to forestall increasing incidence and prevalence are vital to reducing the deleterious effects prostate cancer on health and national developmental efforts. Research oriented strategies are considered potent measures to achieving this goal thus making research into factors associated with prostate cancer an important endeavour. It is against this background that this study was designed to examine knowledge and utilization of prostate cancer screening services among civil servants in Iseyin LGA of Oyo State, Nigeria. The descriptive survey research design was employed in the study and data were collected using a self developed and validated questionnaire with a reliability of 0.86 Cronbach alpha. Collected data were analysed using descriptive statistics of frequency counts and percentages. Findings showed that respondents have low level of knowledge 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. Addressing the identified issues using education as a tool among others were recommended.*

KEYWORDS: *Prostate Cancer, Screening, Knowledge, Utilization, Barrier, Education*

INTRODUCTION

Cancer-related deaths are common and are on the increase among all population groups in both the developed and developing countries (Baade, Youlden, & Krnjacki, 2009). In many African countries, prostate cancer is the second leading cause of cancer among men (Bowa 2010). One of the most worrying aspects is that many prostate cancers develop without men experiencing any symptoms. This cancer is the second leading cause of cancer related deaths among men after long cancer. In fact, available statistics reveal that almost one in every eleven men will develop prostate cancer during his lifetime (Yu, Cramer, Herrin, & Soulos, 2014).

Prostate cancer is a condition in which cells accumulate uncontrollably, the ability to regulate cell growth or death is lost, so instead of dying as they should, prostate cancer cells live longer than normal cells and form masses of abnormal cells known as tumors. It was previously perceived to be low in African, recent studies have shown that Africans have a high prevalence up to 300 per 100,000. This is found among African-Americans who have the highest incidence of prostate cancer in the world. It occurs in men between ages 40-69 years. The 2004 W.H.O report for countries of the world with significant prostate cancer disease burden revealed that out of top 10 countries of the world with the disease, Nigeria ranked as the 3rd highest with total death of 13,700 yearly, after US and India with 35,300 and 18,200 deaths respectively. African American men have the highest incidence of prostate cancer in the US compared with the European American and Hispanics. Prostate cancer screening is controversial relating to the lack of consensus surrounding screening recommendations.

Prostate cancer is a commonly diagnosed form of cancer among men and chances of being diagnosed increases with age (Kenerson 2010). Low participation in prostate cancer screening is a serious problem, as decreased survival rates occur when the diagnosis of prostate cancer is delayed, it is important for men to get screened regularly for prostate cancer so as to be diagnosed in early stages when treatment will be more effective (Weinrich, Reynolds & Tinge, 2010). Prostate cancer is the most common cancer among Nigerian men and the second most common cause of death from cancer in men worldwide (Ogundele & Ikuerowo, 2015). The menace of prostate cancer is on the increase and a lot of preventable deaths occur globally, because the symptoms of the disease only become evident when the cancer has already progressed to an advanced stage with very little chance of cure.

Unfortunately, many men who are highly at risk are not aware of the disease itself, and those who are aware of the disease do not have the knowledge of the preventive measure like prostate cancer screening. Sometimes those who are aware are not willing to go for the screening probably because of lack of adequate information about screening programmes, access to screening facilities, time, cost and some other factors. Notwithstanding the increased prevalence of prostate cancer in Nigeria, many men are still not aware and willing to embark on the screening, despite availability of testing facilities and devastating consequences on men, family, society and socio-economic status of the individual and the society. It is therefore important to investigate knowledge and utilization of prostate cancer screening services among men in various strata of the Nigerian society. It is against this background that the present study was designed to examine these variables among civil servants in Iseyin Local Government of Oyo State, Nigeria.

Research Questions

The following research questions were answered by the study:

1. What is the level of knowledge of male civil servants in Iseyin Local Government on prostate cancer?
2. What is the level of utilization of prostate cancer screening services among male civil servants in Iseyin LGA?
3. What are the barriers against the utilization of prostate cancer screening programme among male civil servants in Iseyin Local Government Area?

METHODOLOGY

Research Setting and Design

The setting for the study was Iseyin Local Government Area of Oyo state. The Local Government is located in Oyo North Senatorial district in Oke Ogun Zone of Oyo State. It is bounded at North by Itesiwaju Local Government, South by Oyo East Local Government, West by Oyo West Local Government and at East by Ibarapa East Local Government. The descriptive survey research design was used in the study as it is considered the most appropriate design.

Population, Sample and Sampling Technique

The target population for this study comprised all male workers in Iseyin Local Government between age 40 and 65years. Samples included male civil servants working in schools, police station, fire service station, general hospitals, Local government health centers and the local government secretariat. Simple random sampling technique was used to select respondents from the target population and the sample size was determined by using Taro Yamane's formula:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

N= Target population

e = maximum acceptable margin of error (level of precision) 0.05.

I = constant.

$$\therefore n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{193}{1 + 193(0.0025)}$$

$$n = 193/1.4825$$

$$n = 130.185$$

Approx ----- 130.

Research Instrument, Validity and Reliability

The instrument used in the study was a self-developed questionnaire validated by experts in both Ladoke Akintola University of Technology and University of Ibadan. The reliability of the study instrument yielded a coefficient of 0.86 estimated on the Cronbach alpha scale.

Method of Data Collection and Analysis

Data were collected using trained research assistants who were given introductory letter to seek the approval of the heads of the organizations from which data were collected. Generated data were analysed using descriptive statistics of frequency counts and percentages.

Results***Socio-Demographic Characteristics of Respondents*****Table 1 shows the socio-demographic characteristics of the respondents**

VARIABLES	FREQUENCY(N=130)	PERCENTAGE (%)
Age		
40-50	85	65.5
51-60	35	26.9
61 & above	10	7.7
	130	100
Ethnicity		
Yoruba	104	80.0
Igbo	13	10.0
Hausa	7	5.4
Others	6	4.6
	130	100
Religion		
Christianity	64	49.2
Islamic	55	42.3
Traditional	11	8.5
Others	0	0.0
	130	100
Marital status		
Married	94	72.3
Single	27	20.8
Widower	9	6.9
	130	100
Level of education		
None	12	9.3
Primary	9	6.9
Secondary	32	24.6
Tertiary	77	59.2
	130	100

Table 1 shows the socio demographic characteristics of the respondents. One hundred and thirty respondents were recruited for the study with the mean age of 47.8years. Most of the respondents were less than 51years (65.4%) and 72.3% were married. Most respondents (80%) were Yoruba and 59.2% had tertiary education. Majority of the respondents 49.2% were Christians.

Research Question One

What is the level of knowledge of male civil servants in Iseyin Local Government on prostate cancer screening?

Table 2: Knowledge of Benefit of Prostate Cancer Screening

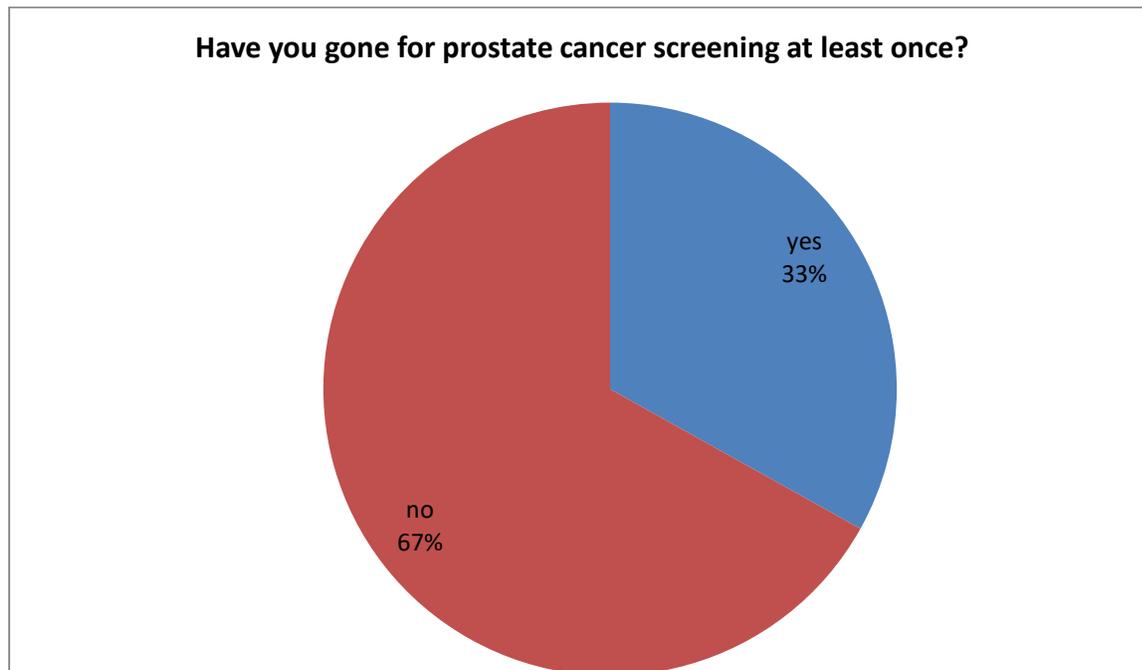
Items	Yes (%)	No (%)
Prostate cancer screening ...		
Is an effective way to detect early cancer	78(60)	52(40)
Increases chances of living healthier life	67(51.5)	63(48.5)
Leads to early treatment of prostate cancer	90(69.2)	40(30.8)
Benefits outweigh the difficulty	84(64.4)	46(35.4)
Can prevent prostate cancer	36(27.7)	94(72.3)
Help to live healthier life	62(47.7)	68(52.3)
awareness should be done regularly	82(63.1)	48(36.9)
can reduce chances of severity and death	52(40)	78(60)

The result of the study shown in the table above revealed that 60% of the respondents identified prostate cancer screening as an effective way of early detection of the disease. The remaining 40% who stated the contrary has serious implication for sensitization and education programme on benefits of prostate cancer and prostate cancer screening. Again, only 51.5% of the respondents demonstrated good knowledge that prostate cancer screening increases chances of survival and healthier life. Findings also showed that 69.2% of the respondents reported that prostate cancer screening makes early treatment possible with another 64.4% reporting that its benefits outweigh its cost. 63.1% of the respondents agreed that prostate cancer screening awareness be done on a regular basis with only 40% reporting that prostate cancer screening can reduce the chances for severity and death. These findings and their implications are further discussed at the discussion section.

Question Two

What is the level of utilization of prostate cancer screening services among male civil servants in Iseyin LGA?

Figure 1: Utilization of Prostate Cancer Screening Service



The result of the study shown in the figure above revealed that only 33% of the respondents have undergone prostate cancer screening at least once. This shows that the largest proportion of the respondents have not utilized the service at all. This implies very low utilization level and the implication of this is discussed.

Question Three

What are the perceived barriers against the utilization of prostate cancer screening programme among male civil servants in Iseyin Local Government Area?

Table 3: Barriers Against Utilization of Prostate Cancer Screening Service

Items	Agree (%)	Disagree (%)
Costly	86(66.2)	44(33.8)
Not easily accessible	97(74.6)	33(25.4)
Is an embarrassment	93(71.5)	37(28.5)
Affects sexual functioning	68(52.3)	62(47.7)
Causes physical discomfort and pain	62(47.7)	68(52.3)
Afraid of abnormal test result	57(43.8)	73(56.2)
Lack of time	74(56.9)	56(43.1)

The result of the study showed that 66.2% of the respondents identified cost as a militating factor against utilization of prostate cancer screening service with 74.6% citing accessibility problem. Result of the study showed that 71.5% of the respondents reported feeling embarrassed as a factor inhibiting their utilization of prostate cancer screening service. 52.3% mentioned adverse effect on sexual functioning, an indication of poor knowledge of prostate cancer while 47.7% cited discomfort and pain with 43.8% mentioning fear of being diagnosed of the disease while 56.9% cited tight schedule.

DISCUSSIONS OF FINDINGS

The finding of the study showed that there is relatively poor level of knowledge of prostate cancer screening benefits among the respondents. Although the largest proportion of the respondents reported that screening is an effective way for early detection, the 40% that lacks this vital knowledge is worrisome. Before prostate cancer screening service can be utilized, there must be conviction of the benefit of the service in detecting the problem. When this is not the case, the exercise is perceived as an effort in futility and such discourage use. An even higher percentage of the respondents do not have knowledge of the benefits of this screening to enhancing survival. Based on the health belief model, individuals and groups will only utilize services for which they are convinced have beneficial effect on their health. It is therefore vitally important for efforts geared towards sensitization, awareness creation and education of individuals and groups on the benefits of prostate cancer screening. This effort is not expected to be limited to men alone as every woman and child has an important person who is a male. Therefore, if the worrisome morbidity and mortality rate attributable to prostate cancer will be stemmed, improving knowledge of individuals and groups in the society on the benefits of these screening must be given due priority. This finding supports the findings of Wu and Modlin (2012) which equally reported low level of prostate cancer screening among African Americans in a US based study. It is also supports the separate findings of Folorunsho, Balogun, Ajape, Babata and Abiola (2010) and Ogundele and Ikuero (2015) which also reported low level of prostate cancer knowledge among respondents in Nigerian based studies.

The result of the study also showed low level of utilization of prostate cancer screening services among the respondents. This low level of utilization cannot be distanced from the poor level of knowledge on prostate cancer screening demonstrated by significant proportion of the respondents. When there is adequate level of knowledge on the importance of a particular health outcome, the possibility of engaging in such service. In this case, when there is misconceptions and poor knowledge on prostate cancer screening, the possibility of utilization is affected. With low utilization of this service, the level of vulnerability to the deleterious effect of prostate cancer is increased. This is because the benefits accruable from screening which necessary to increase chance of survival are not realized. If morbidity and mortality related with prostate cancer must be addressed therefore, improving uptake of screening services must be enhanced. The findings of the study that reported low level of utilization is in line with the findings of Asuzu and Obeke (2012) which reported low level of utilization of prostate cancer screening among male non-academic workers in the University of Ibadan.

The study findings also identified some perceived barriers to the utilization of prostate cancer screening services. Addressing these barriers which are largely misconceptions is also key to reducing morbidity and mortality due to prostate cancer occurrence in men. The issue of cost for instance could be addressed by making the service free or highly subsidized in order to encourage utilization. Civil servants are always very busy and therefore might not have the luxury of time to go for medical screening. This service could be brought down to the work points and offices to remove the barrier placed by work schedule. Educational programmes are necessary to clear up misconceptions regarding the service interfering with sexual activities, discomfort and pain. When

there is low or inadequate scientific knowledge about an outcome, fads, fallacies and misconceptions hold sway. It is therefore vitally important to perceive education and sensitizations as potent tools to dispelling fads and misconceptions about prostate cancer screening while also making efforts to address accessibility problems. These findings of the study support the separate findings of Bowa (2010) and Kerneson (2010) which also reported similar findings in Nigeria and USA respectively.

IMPLICATIONS OF THE FINDINGS

The result of the study has strong implications for prostate cancer screening services as regards availability and accessibility. There is also the need for massive sensitization on the benefits of prostate cancer screening. Every man above 40 years of old is vulnerable to myriads of health problems and prostate cancer is one of them. When vulnerable people are exposed to scientific and accurate knowledge regarding prostate cancer screening, there is a high possibility that they will adopt prostate cancer screening.

It is equally important to ensure that after predisposing people to the need for prostate cancer screening, this behaviour need to be reinforced and enabled through providing this screening service at affordable price as well as accessible location. This is important taking into consideration that the largest proportion of the respondents reported that cost and accessibility were notable constraints to utilizing prostate cancer screening. This study significantly contributed to research literature in that it surveyed utilization of screening behaviour other than only knowledge and/or attitude towards utilization. Again, the study also extended the frontiers of knowledge in that it examined and documented constraints to utilization of prostate cancer screening other than perception that is common in literature. The study has therefore added significantly to empirical data baseline on utilization of prostate cancer screening as well as constraints among civil servants.

CONCLUSION AND RECOMMENDATIONS

Based on the result of the study, it is concluded that male civil servants in Iseyin LGA of Oyo State Nigeria have relatively poor knowledge of prostate cancer screening. Utilization of prostate cancer screening service among the population is also low just as there are fads and misconceptions about prostate cancer screening.

From the result and conclusion of the study, the followings were recommended:

- There is need for mass sensitization, awareness creation and educational programme for every group in the society on the dangers of prostate cancer. This effort must not be erroneously directed to men alone as every woman and child equally has an important man to whom this knowledge can be passed.
- There is need to break the barrier to prostate cancer utilization imposed by cost by making the service free or highly subsidized
- Involving health workers to carry these services to the door steps of individuals especially in the work place is necessary since work schedule was found to inhibit utilization of prostate cancer screening services among the respondents

- Dispelling the fads and misconceptions about prostate cancer screening can be greatly achieved through the use of information, education and communication materials that can be placed around the work place. This can also stimulate positive attitude towards utilization and actual utilization of prostate cancer screening service.

REFERENCES

- Arnold-Reed, D. E., Hince, D. A., Bulsara, M. K., Ngo, H., Eaton, M., Wright, A. R., *et al.* (2010). Knowledge and attitudes of men about prostate cancer. *Med J Aust*, 189(6), 312-314.
- Asuzu, C., & Obeke, G. (2012) University of Ibadan, Ibadan, Nigeria. Knowledge of Prostate Cancer among the Male Staff of the University of Ibadan: Nigeria . University of Ibadan, Ibadan, Nigeria. Poster Presentation at the Geneva Health Forum. ghf.g2hp.net/2012/01/03/3018
- Baade, P.D., Youlten, D.R., & Krnjaki, L.I. (2009). International epidemiology of prostate cancer, geographical distribution and secular trends. *Mol.Nutr Food Res*. 53(2):171-84.
- Bowa K. (2010). An overview of the diagnosis and management of prostate cancer in Nigeria; Experience from a north-central of Nigeria. *Afr Med*; 9(3):111-112
- Denmark, M. (2015). Prostate cancer knowledge among multiethnic black men. *J Natl Med Assoc*, 96(5): 650-656
- Folorunso, B.O, Balogun J.I, Ajape, A. A., Babata, A., & Abiola, O. O. (2010). Knowledge of prostate cancer screening among native African urban population in Nigeria. *Nig Q J Hosp Med*, 19(3): 145-147.
- Kenerson, H. (2010). prostate cancer screening knowledge, attitudes, and beliefs among veterans: does literacy make a difference? *J Clin Oncol*, 22(13), 2617-2622.
- McFall, A.A., Steele, C. B., Miller, D. S., Maylahn, C., Uhler, R. J., & Baker, C. T. (2006). Knowledge, attitudes, and screening practices among older men regarding prostate cancer. *Am J Public Health*, 90(10): 1595-1600.
- Ogundele S.O, & Ikuerowo, S.O. (2015). 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. *Niger J Surg* ;21:115-118
- Oliver, M. N. (2010). Cancer Care in sub-Saharan Africa – Urgent Need for Population-based Cancer Registries. *Ethiop J Health Dev*, 17(2), 89-98
- Oladimeji, O., Bidemi, Y. O., Olufisayo, J. A., & Sola, A. O. (2010). Prostate cancer awareness, knowledge, and screening practices among older men in Oyo State, Nigeria. *Int Q Community Health Educ*, 30(3), 271-286.
- Weinrich, S.P., Reynolds, W.A., & Tinggen, M.S. (2010). Barriers to prostate cancer screening. *Cancer Nurs*, 23; 117-121.
- Yu, J.B., Cramer, L.D., Herrin, J., Soulos, P.R., Potosky, A.L., & Gross, C.P. (2014). Stereotactic Body Radiation Therapy Versus Intensity-Modulated Radiation Therapy for Prostate Cancer: Comparison of Toxicity. *J Clin Oncol*. 32(12):1195-1201