

Original Research Article

Assessment of prostate cancer knowledge and perception towards screening services and follow-up care among male non-medical staff at Epe General Hospital and Akodo General Hospital

Aliyu Ibrahim Shehu^{1*}, Nazeef Mohammed¹, Musa Zakka¹, Usman Iiyasu¹,
Abba Rabi'u Hussain¹, Ibrahim Ibrahim Kurba², Aisha Aliyu Ibrahim³,
Aisha Aliyu Abulfathi⁴, Usman Bashir⁵, Halimah Nuhu Sanda⁵, Musa Isma'il⁶

¹Department of Community Medicine, Federal University of Health Sciences Azare, Bauchi State, Nigeria

²Department of Human Physiology, Federal University of Health Sciences Azare, Bauchi State, Nigeria

³Department of Family Medicine, Murtala Muhammed Specialist Hospital, Kano State, Nigeria

⁴Department of Community Medicine, University of Maiduguri Teaching Hospital, Borno State, Nigeria

⁵Clinton health access initiative (CHAI), Nigeria

⁶Department of Paediatrics, Federal University of Health Sciences Teaching Hospital, Azare, Bauchi State, Nigeria

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*Correspondence:

Dr. Aliyu Ibrahim Shehu,

E-mail: aliyu.gorondo@fuhhsa.edu.ng

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ABSTRACT

Background: Prostate cancer has over the years emerged as a public health concern, as it has become the second common cancer and the fifth leading cause of death among men worldwide. Globally, 1.3 million new cases and 359,000 related deaths were projected in 2018.

Methods: A cross-sectional analytical study design and simple random sampling technique was used to select 103 and 92 non-medical males in Epe and Akodo General Hospitals respectively using questionnaire adopted from previous study. Data was analyzed using Statistical Package for Social Sciences SPSS 23.0, interpreted using descriptive statistics: frequency tables, bar charts and converting same to percentages and X^2 was used to determine association.

Results: Results showed that pretest results from respondents in General Hospital (G.H.) Epe, as 74.3% indicated that they had not heard about prostate cancer. Interestingly, 37.6% of respondents recognized that maintaining a healthy lifestyle could reduce the risk of developing prostate cancer. 74.3% of participants in G.H. Epe indicated age as a risk factor for prostate cancer. 68% of participants were unaware of the significance of family history in relation to prostate cancer risk in Akodo G.H. 88.1% indicated smoking, obesity as risk factors, compared to 65.3% in Akodo. 91.7% of participants are familiar with PSA. In G.H. Epe (71.6%) are not well-informed about prostate cancer and the importance of early screening.

Conclusions: Individuals with good knowledge tend to have a more positive perception regarding prostate cancer, as indicated by the p value of 0.001.

Keywords: Cancer, Knowledge, Services and care

INTRODUCTION

Prostate cancer is a major public health problem among men worldwide. In the GLOBOCAN 2018 estimates, prostate cancer accounted for approximately 1.3 million

new cases and about 359,000 deaths globally, making it one of the leading causes of cancer mortality in men.¹ Pain is also a common and clinically important feature of advanced prostate cancer; cancer-related pain has been documented as frequent among patients with advanced

disease and is associated with substantial declines in physical, psychological, and social functioning (including sleep disturbance, reduced daily activity, emotional distress, and poorer quality of life).^{2,3}

Despite the availability of effective management options, many men continue to experience delayed diagnosis, often resulting in presentation at later stages when symptoms including pain are more likely.⁴ In many settings, including low- and middle-income countries, late presentation is driven by modifiable barriers such as limited awareness of prostate cancer risk and symptoms, inadequate knowledge of screening/early detection, and constraints in access to diagnostic and follow-up services.⁴⁻⁶ These factors remain relevant as ongoing global cancer trends continue to show high incidence and substantial mortality for prostate cancer.¹

Improving prostate cancer outcomes therefore requires interventions that address both knowledge and healthcare access. Health education and awareness strategies that increase understanding of prostate cancer signs/symptoms and strengthen perceived ability to access screening and follow-up services have been recommended as key approaches to support earlier detection efforts.⁴⁻⁶ Evaluating knowledge and perceptions among specific community and facility-based populations can provide evidence to guide targeted, context-appropriate education and service-improvement initiatives.

Therefore, the main objective of the study is to determine the knowledge of prostate cancer and perception regarding access to prostate cancer screening services and follow-up care among of male non-medical staff at Epe General Hospital and Akodo General Hospital. The specific objectives are to determine the level of knowledge regarding prostate cancer signs, symptoms, and risk factors among male non-medical staff at Epe General Hospital and Akodo General Hospital, to access the level of perceptions regarding access to prostate cancer screening services and follow-up care at Epe General Hospital and Akodo General Hospital, to identify if there is association between knowledge of prostate cancer and perception regarding access to prostate cancer screening services and follow-up care among of male non-medical staff at Epe General Hospital and Akodo General Hospital.

METHODS

Study design and setting

This study employed a cross-sectional analytical study design carried out in Epe General Hospital and Akodo General Hospital, Lagos State, Nigeria.

Study population

The respondents are male non-medical staff in Epe General Hospital and Akodo General Hospital, Lagos State, Nigeria.

Inclusion criteria

The study included male non-medical staff working at Epe General Hospital and Akodo General Hospital who were aged 40 years and above. Eligible participants had worked in the hospital for at least six months, were available during the period of data collection, and provided informed consent. Only staff in non-clinical roles such as administration, security, records, accounts, maintenance, transport, catering, and related support services were included. Participants were also required to be able to communicate in English or Yoruba.

Exclusion criteria

The study excluded all medical and allied health professionals, including doctors, nurses, pharmacists, laboratory scientists, and other clinical staff. Female staff members and male staff below 40 years of age were also excluded. Staff who had worked for less than six months in either hospital, those unavailable during data collection, and those who declined consent were not included. Additionally, participants with incomplete questionnaire responses or those unable to complete the survey due to illness or other constraints were excluded.

Sample size determination

Using Taro Yamane formula;

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

Where; n=desired sample size, N=total population= 103, 1=constant, e=level of precision=0.05,

$$n = \frac{103}{1 + 103(0.05)^2}$$

$$n = 103/1.2575 \text{ with } 10\% \text{ attrition}$$

Therefore, a total of 109 respondents were recruited for this study from Epe General Hospital and 75 respondents recruited from Akodo General Hospital.

Sampling technique

The sampling technique employed for this study is simple random sampling technique by computer selection,

Instruments for data collection

The tool for data collection was questionnaire adopted from previous studies. The questionnaire was critically reviewed with expert in the field. The instrument will consist of three sections

Section A: Socio-demographic characteristics of respondents

Section B: knowledge regarding prostate cancer signs, symptoms, and risk factors

Section C: perceptions of male non-medical staff towards prostate cancer

Validity of the research instrument

Face and content validity technique will be used to ascertain the validity of the research instrument. The instrument was critically reviewed by the researcher's supervisor and other experts in the field of nursing, public health and statistics, for appropriate structuring of the questions to ensure internal consistency and suitability toward achieving the research objectives.

Reliability of research instrument

The reliability of the instrument was determined by test-retest method. In achieving this, the questionnaire was pretested using 20 patients (10% of the sample size) and re-administered after two-week interval and results subjected to Pearson's Product Moment Correlation Coefficient Formula. An index reading of 0.84 was accepted as reliable.

Method of data collection

The researcher paid advocacy visit to the hospital management to explain the purpose of the research and solicit their support, then recruited and trained two research assistants for two days on the appropriate ways of signing the consent forms, filling the questionnaires, and how to collect back the questionnaires. For the study proper, participants obtained individual informed consent following the approval protocol and the self-administered questionnaires given to the participants to fill and collected immediately by the research assistants and then handed over to the researcher. In some situations, the researchers interpreted the items in the local language of the environment which is Yoruba or pidgin. The data was collected over a period of two weeks.

Statistical analysis

Data was analyzed using Statistical Package for Social Sciences SPSS 23.0, interpreted using descriptive statistics: frequency tables, bar charts and converting same to percentages. For each facility, cross-tabulation was done and X² Calculation and p value of <0.05 was considered as significant relationship between knowledge of prostate cancer and perception to reject or fail to reject the null hypothesis and the alternate hypothesis will be accepted or rejected.

Ethical consideration

Ethical approval was obtained from the Health Research and Ethics Committee of Ahmadu Bello University. Consent was obtained from participants before enrolling

them for the study. All participants who consent to take part in the survey were well informed of the methodology, the benefit of the study and the voluntary aspect made known to the participants to aid them in making informed decision to be part of the study. Participants were assured of confidentiality and anonymity and there are no incentives and that they could withdraw at any time during the study. They were informed that participation is voluntary and they have the right to withdraw from the study even after they had participated.

RESULTS

The pretest results from respondents in General Hospital (G.H.) Epe reveal significant gaps in knowledge regarding prostate cancer among the participants. Of the 109 respondents, a striking 74.3% indicated that they had not heard about prostate cancer. 44% of respondents identified weak or interrupted urine flow as a symptom of prostate cancer. Additionally, familiarity with the Prostate-Specific Antigen (PSA) test was alarmingly low, with only 11% of respondents indicating knowledge of this critical screening tool.

Interestingly, 37.6% of respondents recognized that maintaining a healthy lifestyle could reduce the risk of developing prostate cancer.

The majority of participants 78 (71.6%) have poor knowledge about prostate cancer

The table provides a comparative analysis of the level of knowledge and awareness regarding prostate cancer signs, symptoms, and risk factors among participants from General Hospital Epe (n=109) and General Hospital Akodo (n=75).

In G. H. Epe, there is a high level of awareness about prostate cancer, with 87.2% of respondents indicating that they have heard about the disease. This contrast sharply with G. H. Akodo, with only 26.6%. In G. H. Epe 74.3% of participants recognize that age is a risk factor for prostate cancer. A similar trend is observed when participants were asked about family history as a risk factor. In Epe, 81.7% correctly identified family history as a risk factor. This lack of awareness in Akodo is reflected further, as 68% of participants were unaware of the significance of family history in relation to prostate cancer risk. 88.1% recognizing Obesity and smoking as risk factors in G.H Epe, compared to 65.3% in Akodo. Though the awareness in Akodo is slightly better in this category, a significant portion (34.7%) still lacks knowledge about these risk factors.

Regarding symptoms of prostate cancer, such as blood in urine or semen, 83.5% of participants in Epe were aware of this symptom while 76% of participants from Akodo did not recognize this symptom. Knowledge of the Prostate-Specific Antigen (PSA) test, a critical screening tool for

prostate cancer, is also significantly higher in Epe, where 91.7% of participants are familiar with it.

In Figure 2, comparison of knowledge levels regarding prostate cancer between participants from General Hospital Epe (G. H. Epe) and General Hospital Akodo (G. H. Akodo).

In G. H. Epe, the majority of participants 87 (79.8%) have good knowledge about prostate cancer, in contrast, in G. H. Akodo, the majority of participants 54(72.0%) have poor knowledge.

In Table 2, only 4.6% of respondents agreed that it is easy to access prostate cancer screening services in their community. 73.4% disagreed that the cost of screening services is a significant obstacle. However, dissatisfaction with the quality of screening services was notable at 65.2%. Similarly, 56.9% reported negative experiences with healthcare providers during prostate cancer screening. Access to follow-up care also appears to be an issue, with 67% of respondents indicating that it is not easy to receive follow-up care after an initial screening.80.7% of respondents disagreed that healthcare providers clearly communicated next steps after screening.

Figure 3 Summarizes perceptions and experiences regarding access to prostate cancer screening services and follow-up care. 79.8% of participants from G. H. Epe had a Negative perception of prostate cancer screening services.

As depicted in Figure 4, the pie chart illustrates the perceptions of participants from General Hospital Epe (G. H. Epe) and General Hospital Akodo (G. H. Akodo) regarding prostate cancer screening services.

72.5% of participants from G.H. Epe reported having a positive perception while 62.7% of participants from G. H. Akodo reported having a negative perception.

H0: There is no significant relationship between level of knowledge and perception among of male non-medical staff regarding access to prostate cancer screening services and follow-up care at Epe General Hospital and Akodo General Hospital. The cross-tabulation table above reveals for G.H Epe X2 Calculated value 6.231 which is greater than X2 tabulated value 6.42, df of 1 and p-value of 0.001. Therefore, this suggests that there is a significant relationship between knowledge of prostate cancer and perception in G. H. Epe. This implies that the null hypothesis will be rejected and the alternate hypothesis will be accepted. For G. H. Akodo, X2 calculated value 9.211 which is greater than X2 tabulated value 7.32, df of 1 and p-value of 0.211. Therefore, the result is not statistically significant, meaning there is no significant relationship between knowledge and perception in G.H. Akodo.

In G. H. Epe, there is a significant association between knowledge of prostate cancer and the perception of participants. Individuals with good knowledge tend to have a more positive perception regarding prostate cancer, as indicated by the P-value of 0.001. In contrast, the data from G. H. Akodo reveals no significant relationship between knowledge and perception, as indicated by the P-value of 0.211. This suggests that other factors may influence perception in G. H. Akodo, aside from knowledge of prostate cancer. The differences in the results between the two hospitals highlight the need for targeted interventions to improve perception, especially in G. H. Akodo, where poor knowledge correlates with negative perceptions.

Table 1: Level of knowledge regarding prostate cancer signs, symptoms, and risk factors.

Knowledge	Yes, N (%)	No, N (%)
Have you heard about prostate cancer	28 (25.7)	81 (74.3)
Age is a risk factors for prostate cancer	33 (30.3)	76 (69.7)
A family history of prostate cancer is a risk factors for prostate cancer	24 (22.0)	85 (78.0)
Obesity and smoking are risk factors for prostate cancer	15 (13.8)	94 (86.2)
Blood in urine or semen are the symptoms of prostate cancer	26 (23.9)	83 (76.1)
Pain or stiffness in the lower back, hips, or thighs are the symptoms of prostate cancer	30 (27.5)	79 (72.5)
Painful ejaculation is one of the symptoms of prostate cancer	27 (24.8)	82 (75.2)
Difficulty urinating is symptom of prostate cancer	21 (19.3)	88 (80.7)
Weak or interrupted urine flow is a symptom of prostate cancer	48 (44.0)	61 (56.0)
Are you familiar with the prostate-specific antigen test used for prostate cancer screening	12 (11.0)	97 (89.0)
Do you know that maintaining a healthy lifestyle may reduce the risk of developing prostate cancer	41 (37.6)	68 (62.4)
Do you know that regular screening can help detect prostate cancer early, even before symptoms appear	33 (30.3)	76 (69.7)

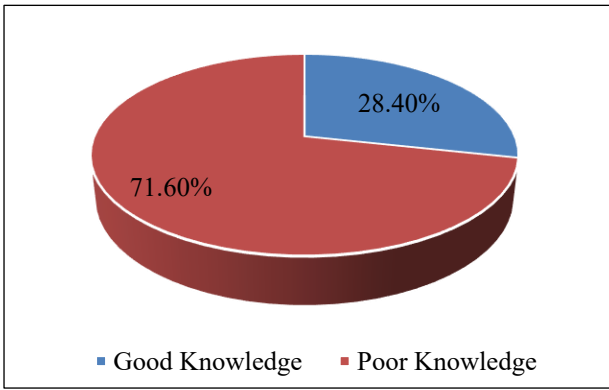


Figure 1: Summary of knowledge regarding prostate cancer signs, symptoms, and risk factors among respondents in G.H Epe.

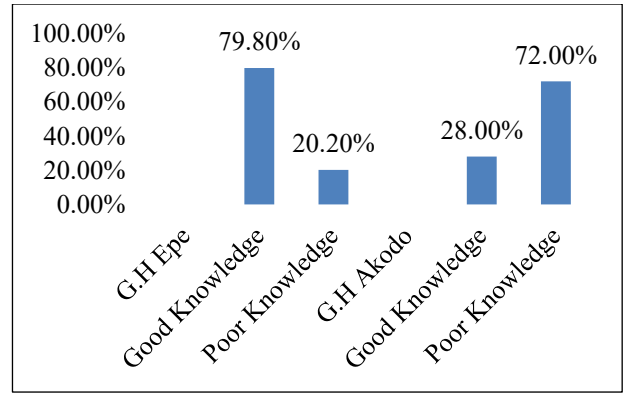


Figure 2: Comparison of knowledge levels regarding prostate cancer between participants from General Hospital Epe (G.H. Epe) and General Hospital Akodo (G.H. Akodo).

Table 2: Perceptions regarding access to prostate cancer screening services and follow-up care pre-test (G.H Epe respondents) (n=109).

	Agree, N (%)	Neutral, N (%)	Disagree, N (%)
I am well-informed about prostate cancer and the importance of early screening	11 (10.1)	20 (18.3)	78 (71.6)
It is easy for me to access prostate cancer screening services in my community	5 (4.6)	36 (33.0)	68 (62.4)
The cost of prostate cancer screening services is a significant barrier for me	10 (9.2)	19 (17.4)	80 (73.4)
I am satisfied with the quality of prostate cancer screening services provided	10 (9.2)	28 (25.7)	71 (65.2)
I have had positive experiences with healthcare providers during prostate cancer screening	16 (14.7)	31 (28.4)	62 (56.9)
It is easy to receive follow-up care after an initial prostate cancer screening	20 (18.3)	16 (14.7)	73 (67.0)
Healthcare providers communicate the results and next steps clearly after screening	12 (11.0)	9 (8.3)	88 (80.7)
I trust the healthcare system to provide timely and accurate prostate cancer screening and follow-up care	18 (16.5)	12 (11.0)	79 (72.5)
My overall experience with prostate cancer screening and follow-up care has been positive	9 (8.3)	32 (29.4)	68 (62.4)

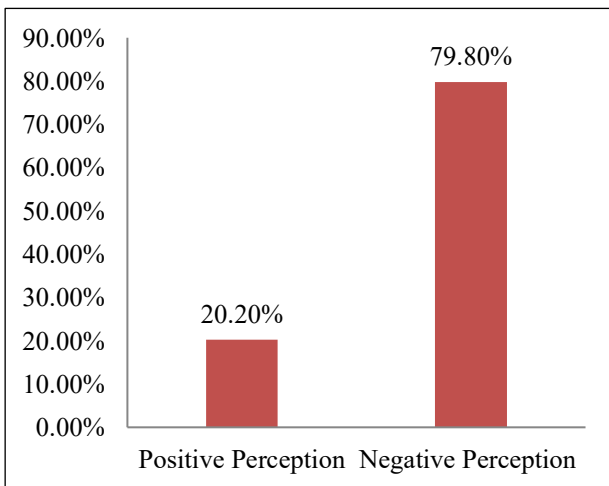


Figure 3: Summary of perceptions and experiences regarding access to prostate cancer screening services and follow-up care.

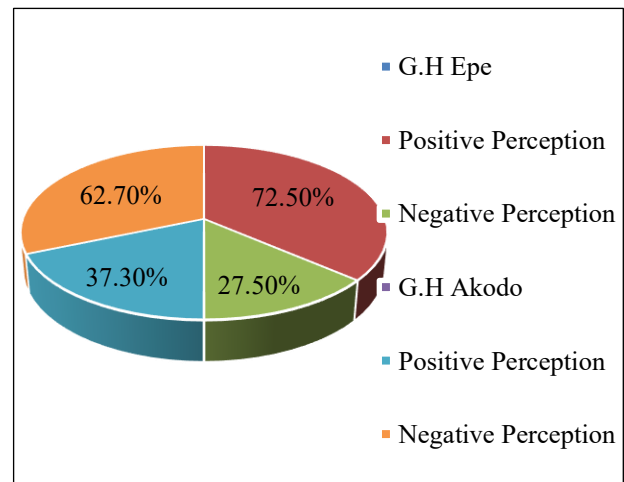


Figure 4: Summary of perceptions and experiences regarding access to prostate cancer screening services and follow-up care.

Table 3: Association between knowledge and perception towards prostate cancer screening.

	Level of perception		Total	X ² Cal	X ² Tab	DF	P value	Remark
	Positive, N (%)	Negative, N (%)						
G.H Epe								
Good	68 (62.4)	19 (17.4)	87 (79.8)	6.231	6.42	1	0.001	Significant
Poor	11(10.1)	11 (10.1)	22 (20.2)					
Total	79 (72.5)	30 (27.5)	109 (100)					
G.H Akodo								
Good	14 (18.7)	7 (9.3)	21 (28.0)	9.211	7.32	1	0.211	Not significant
Poor	14 (18.7)	40 (53.3)	54 (72.0)					
Total	28 (37.3)	47 (62.7)	75 (100)					

DISCUSSION

Table 1 assess the level of knowledge regarding prostate cancer among male non-medical staff in two hospitals G.H. Epe and G.H. Akodo, Lagos State, Nigeria. Prostate cancer is one of the most common cancers affecting men globally, particularly in African men, who are more likely to develop aggressive forms of the disease. Despite its prevalence, awareness and knowledge of prostate cancer remain low in many developing countries, including Nigeria. The level of knowledge is crucial for early detection and prompt intervention, which can significantly reduce mortality rates. Based on the findings, there is a significant disparity between the two hospitals. At G.H. Epe, the vast majority (79.8%) of the respondents had good knowledge of prostate cancer, as opposed to 28% at G.H. Akodo, where 72% of respondents had poor knowledge. This gap highlights a need for more intensive health education efforts at G.H. Akodo.

The results of the study align with previous research conducted in similar African settings, which found that prostate cancer awareness remains low in some communities despite its high prevalence.²⁶ Studies like that of emphasized that knowledge about prostate cancer and the screening process is significantly associated with educational level and proximity to healthcare services, which might explain the disparity observed between G.H. Epe and G.H. Akodo in the study.²⁷ Participants at G.H. Epe may have better access to healthcare facilities and thus more exposure to health information and prostate cancer education. While G.H. Epe demonstrated a relatively high level of knowledge about prostate cancer, the findings at G.H. Akodo highlight several potential barriers to knowledge acquisition. One possible explanation is the limited availability of health education programs in rural or peri-urban areas. Healthcare facilities in such settings often face challenges such as inadequate funding, limited access to training for healthcare workers, and poor community engagement.²⁸ These factors collectively reduce the likelihood of residents receiving accurate and timely information about prostate cancer screening and early detection.

Table 2 highlights perceptions regarding access to prostate cancer screening services and follow-up care among participants from General Hospital Epe (n=109) and General Hospital Akodo (n=75). It compares their agreement, neutrality, and disagreement with various statements related to screening access, cost, quality, and satisfaction. Majority of participants in G.H. Epe (73.4%) agreed that they were well-informed about prostate cancer and the importance of early screening but a significant 66.7% disagreeing. In G.H. Akodo (76%) indicated that significant barriers to access screening services. This aligns with findings from, who noted that cultural beliefs and misconceptions surrounding cancer can discourage men from seeking information or participating in screening programs, further exacerbating the lack of knowledge in certain populations.²⁹ The study revealed significant differences in prostate cancer knowledge between male non-medical staff at G.H. Epe and G.H. Akodo. The findings emphasize the need for more robust health education campaigns in under-resourced areas like G.H. Akodo, where poor knowledge may contribute to delayed prostate cancer diagnosis and treatment. Prior studies have shown that education, access to healthcare services, and cultural beliefs play key roles in shaping knowledge about prostate cancer.³⁰ By addressing these factors, healthcare providers and policymakers can work toward improving early detection and reducing prostate cancer mortality in Nigeria

Figure 4 explores perceptions and experiences related to access to screening services and follow-up care. Again, notable differences were observed between the two hospitals. At G.H. Epe, a large proportion (72.5%) of the respondents expressed positive perceptions of the accessibility of screening services and follow-up care. In contrast, G.H. Akodo had a significantly lower positive perception (37.3%), with 62.7% reporting negative experiences. These findings are consistent with studies such as that of, which emphasized that while urban areas in Nigeria may have better healthcare infrastructures, rural or peri-urban settings like G.H. Akodo tend to suffer from limited resources and inadequate healthcare access.³¹ This often results in poor perceptions of healthcare services, as was reflected in the data. Furthermore, several studies

suggest that healthcare system inefficiencies, such as limited manpower, expensive screening tests, and lack of consistent follow-up, are major barriers to prostate cancer care in sub-Saharan Africa.³² Interestingly, the issue of affordability of screening services emerged as a major barrier in both hospitals, with 67% of respondents from G.H. Epe and 72% from G.H. Akodo agreeing that the cost of screening was a significant hindrance. This corroborates the study by which found that the high cost of healthcare services is one of the most significant barriers to early detection of prostate cancer in low-resource settings.³³ The cost factor likely deters individuals from seeking screening, especially in cases where symptoms are not yet apparent.³⁴

The results from the hypothesis testing revealed a significant association between knowledge and perception of prostate cancer among male non-medical staff at General Hospital (G.H.) Epe. With a Chi-square calculated value of 6.231 ($p=0.001$), the data indicate that those with higher levels of knowledge about prostate cancer were more likely to have a positive perception of prostate cancer screening and its importance. This suggests that improved knowledge significantly influences individuals' attitudes toward early detection and care, supporting the need for effective educational interventions in raising awareness and promoting positive health behaviours. Conversely, at G.H. Akodo, the association between knowledge and perception was not significant, as the calculated Chi-square value of 9.211 ($p=0.211$) did not exceed the tabulated value. This result suggests that knowledge alone may not strongly influence perception in this population, highlighting the potential role of other factors such as access to services, healthcare infrastructure, or personal experiences with the healthcare system.³⁵ These findings align with previous studies suggesting that while knowledge is crucial, other barriers like healthcare access and trust in medical institutions may affect perceptions about cancer screening.³⁶

It was revealed in G.H. Epe that education is a significant factor influencing the level of knowledge, while age is not. This suggests that those with higher education levels tend to have better knowledge of prostate cancer in G.H. Epe. Similarly, from the participant from G.H. Akodo, education is a significant factor in determining knowledge levels, but age is not. Individuals with higher educational qualifications, such as degrees, are more likely to possess better knowledge about prostate cancer in G.H. Akodo.³⁷

The study is limited by its cross-sectional design, which does not allow for causal inferences between knowledge, perception, and screening behavior. Data will be self-reported, introducing the possibility of recall bias and social desirability bias. The findings may have limited generalizability since the study is restricted to two hospitals in Lagos State. Non-response and incomplete responses may affect representativeness of the sample.

Other limitations include variations in participants' literacy levels, which may influence understanding of prostate cancer-related concepts and screening methods such as Digital Rectal Examination. Time constraints due to work schedules may also affect participation and response quality. Cultural sensitivity surrounding prostate cancer screening may further influence openness in responses. Despite these limitations, efforts such as confidentiality assurance, use of trained research assistants, and simplified questionnaires will help minimize their impact.

CONCLUSION

In conclusion, this study showed that there is statistically significant association between knowledge of prostate cancer and perception regarding access to screening services and follow up among male non-medical staff at General Hospitals in Epe and Akodo. In contrast, at G.H. Akodo, this relationship was not significant, indicating that knowledge alone may not sufficiently influence perception in that area. Factors such as healthcare access, infrastructure, and trust in medical services may play a critical role in shaping attitudes toward prostate cancer screening.

The study highlights the importance of targeted educational interventions and improving access to screening services to foster better health outcomes. While knowledge is crucial, comprehensive strategies that address both awareness and access barriers are needed to encourage early detection and reduce the burden of prostate cancer.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee of Ahmadu Bello University, Zaria, Kaduna State, Nigeria

REFERENCES

1. Adelaye D, David R, Aderemi A, Iseolorunkanmi A, Oyedokun A, Iweala E, et al. An estimate of the incidence of prostate cancer in Africa: A systematic review and meta-analysis. *PloS one* 2022;13(4):191-602.
2. Asare BY, Ackumey MM. Awareness and knowledge about prostate cancer among male teachers in the Sunyani Municipality, Ghana. *Afr Health Sci.* 2021;21(2):655-62.
3. Yang X, Li X, Cai Y, Zhao J, Zhang Y, Yang X, et al. The impact of pain on the quality of life of Chinese patients with cancer. *Pain Pract.* 2022;18(1):18-26.
4. Smith AB, Selim AJ, Kruzikas DT. Health-related quality of life among adults with chronic conditions in the United States: A behavioural risk factor surveillance system cross-sectional analysis. *Qual Life Res.* 2022;28(6):1501-12.

5. Jones RA, Underwood SM, Rivers BM. The impact of positive perceptions on prostate cancer screening behaviors among men in the UK. *J Cancer Educat.* 2020;35(1):89-95.
6. Ashing-Giwa KT, Gonzalez P, Adame A. Community-based health education intervention to improve prostate cancer knowledge and screening among African American men in Los Angeles. *Health Educat Res.* 2022;37(2):112-122.
7. Johnson RJ, Wolinsky FD, Jones MP. The structure of health-related quality of life (HRQOL) among community-dwelling older adults with diabetes. *Qual.Life Res.* 2020;29(3):687-97.
8. Klaassen Z, Howard LE, de Hoedt A, Shuch B. Bone metastases in renal cell carcinoma: Clinical advances and future directions. *Curr Opin Urol.* 2022;28(5):441-6.
9. Mbai FN, Ikpatt OF, Okokon IB, Ebughe GA, Inyang-Etoh PC. Prostate cancer in sub-Saharan Africa: A review of prevalence, risk factors, and screening. *Ann Afr Medi.* 2019;18(4):185-91.
10. Gupta S, Saxena A, Gupta R. Barriers to positive perceptions of prostate cancer in India: Socioeconomic and informational factors. *Ind J Publ Heal.* 2021;65(2):117-23.
11. Mathews M, Thompson A, Hearn T. Masculinity and prostate cancer: The influence of gender norms on men's perceptions and health-seeking behavior in Canada. *Men's Heal J.* 2021;18(3):204-15.
12. Ezenwa EV, Ezenwa AO, Osime U. The burden of prostate cancer in Nigeria: A modeling study. *Medi.* 2019;98(4):41-96.
13. Moodley J, Mwaka AD, Wata D. Perceptions and myths about prostate cancer: A qualitative study among men in South Africa. *BMC Men's Heal.* 2020;20:207.
14. Nakandi H, Kirabo M, Semugabo, C., Kittengo, A., Kitayimbwa, P, Kalungi, S, et al. Knowledge, attitudes and practices of Ugandan men regarding prostate cancer. *Afr J Urol.* 2019;19:165-70.
15. DeCotiis KM, Williams T, Thomas CR. Online educational platform versus traditional pamphlets: A comparative study on prostate cancer awareness in the workplace. *J Men's Heal.* 2020;16(4):26-33.
16. Cobran EK, Wutoh AK, Lee E, Odedina FT, Ragin C, Aiken W. Perceptions of prostate cancer fatalism and screening behavior between United States-born and Caribbean-born Black males. *J Immigrant Minor Heal.* 2020;16(3):394-400.
17. Everdingen MH, Hochstenbach LM, Joosten EA, Tjan-Heijnen VC, Janssen DJ. Update on prevalence of pain in patients with cancer: systematic review and meta-analysis. *J Pain Symptom Manag.* 2019;51(6):1070-90.
18. Bilgili N, Kitis Y. Prostate cancer screening and health beliefs: a Turkish study of male adults. *Erciyas Medi J.* 2019;41(2):164-70.
19. Fadare JO, Desalu OO, Olusola AI. Addressing myths and misinformation about prostate cancer in Nigeria: Implications for health education strategies. *Afr Health Sci.* 2021;21(1):237-46.
20. Ernest K, Saleh R, Fran C, Rodrigue P, Matthew D, Oghenekome O. Prostate cancer screening knowledge, attitudes, and beliefs among men in Bamenda, Cameroon. *Inter J Publ Heal Epidemiol.* 2019;6(4):339-49.
21. Ogunsanya M. Perceived behavioral control regarding prostate cancer screening among Black Men in West Africa and the United States. *Cancer Health Disparities.* 2020;4.
22. Ravindran K, Manoharan M, Rubens DJ. Prostate cancer-related pain: Pathophysiology, diagnosis, and management. *Curr Pain Headache Rep.* 2019;23(1):1-10.
23. Wang X, Chen Y, Zhou Z, Huang W. Effectiveness of acupuncture for cancer pain: a systematic review and meta-analysis. *Evidence-Based Complement Alternat Medi.* 2022;17(1):8.
24. Gohil I, Rooney C, Collier A. Psychological factors associated with pain in patients with prostate cancer: a systematic review. *J Pain Symptom Manag.* 2019;57(5):1068-79.
25. Williams AL, Skinner EA, Outka, P. The role of social support in the relationship between subjective social status and health-related quality of life. *Qual Life Res.* 2019;28(11):3091-3101.
26. Oyeyemi AY, Bello B, Shittu OB. Prostate cancer awareness and screening practices among male non-medical staff in a tertiary institution in North Central Nigeria. *BMC Cancer.* 2021;21:134.
27. Ndikom CM, Akpan-Idiok PA. Effectiveness of health education in enhancing knowledge and attitudes towards prostate cancer screening among non-medical staff in a Nigerian university. *Int J Heal Promot Educat.* 2021;59(2):91-102.
28. Awosan KJ, Yunusa EU, Agwu NP, Taofiq S. Knowledge of prostate cancer and screening practices among men in Sokoto, Nigeria. *Asian J Medi Sci.* 2019;9(6):56-87.
29. Akinremi TO, Adeniji-Sofoluwe AT, Olaniyi AA. Comparative effectiveness of digital media versus traditional educational methods on prostate cancer awareness among non-medical staff in Ibadan, Nigeria. *BMC Publ Heal.* 2021;21:202.
30. Droz JP, Albrand G, Gillessen S, Hughes S, Mottet N, Oudard S, et al. Management of prostate cancer in elderly patients: Recommendations of a task force of the International Society of Geriatric Oncology. *Europ Urol.* 2020;77(1):31-61.
31. Ogunbiyi S, Oladeji A, Akande O. Perceptions towards prostate cancer among Nigerian men: A mixed-methods study. *Afr J Urol.* 2021;27:47.
32. Olajide OA, Afolabi A, Ajayi A. Changing perceptions: The impact of community-based health education on prostate cancer awareness in Nigeria. *J Commu Heal.* 2021;46(4):718-26.
33. Akinola RA, Olawale B, Adeyemi A. Fear and distrust: The impact of negative perceptions on

- prostate cancer screening in Nigeria. *BMC Publ Heal.* 2022;22:145.
34. Akinremi TO, Adeniji-Sofoluwe AT, Olaniyi AA. Comparative effectiveness of digital media versus traditional educational methods on prostate cancer awareness among non-medical staff in Ibadan, Nigeria. *BMC Publ Heal.* 2021;21:202.
35. Barsevick AM, Irwin MR, Hinds P, Miller A, Berger A, Jacobsen P, Reeve BB. Recommendations for high-priority research on cancer-related fatigue in children and adults. *J National Cancer Institut.* 2019;111(3):291-305.
36. Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2022: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: a Cancer J Clin.* 2022;68(6):394-424.
37. Baade PD, Youlden DR, Krnjacki LJ. Cultural perceptions and prostate cancer: A qualitative study of beliefs and attitudes in Australia. *Health Social Care Commu.* 2021;29(1):145-55.

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