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Lack of awareness of prostate cancer among African American men : Literature review

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A Literature Review : Do the African American men lack awareness of prostate cancer ?

Abstract

Background

According to recent studies, many African American (AA) men might not be making decisions about early prostate cancer screening that are fully informed. Patients' lack of information regarding disease early detection contributes to this in part.

Methods

The current review is based on relevant search phrases and bibliographic searches in PubMed and CINAHL. The following MESH search phrases and Boolean algebra instructions were used to locate articles (n=235) declared in English between 1993 and July 31, 2020: African awareness of prostate cancer.

Results

There were 30 articles that qualified for incorporated. The findings of this literature study suggest that many African American males are under informed about prostate cancer and early identification of the disease. Studies show that aged, fewer educated, below income, single, and unmarried males, as well as those without a regular doctor or health insurance, have notably low awareness of prostate cancer. Many African American men are unaware that their race or age puts them at higher risk for prostate cancer.

Conclusion

To enable African American men to decide if prostate cancer early disclosure is correct for them, culturally applicable educational initiatives are required to teach them about the benefits and drawbacks of the disease's early diagnosis as well as its risk factors. Prostate cancer awareness among low-income, less educated men, as well as those without health insurance or a regular provider, is particularly concerning.

Keywords : African Americans, males, prostate cancer, prostate distinct antigen test, screening

1 | Background

Prostate cancer is rated as the second most frequent malignancy and the sixth greatest cause of death in men worldwide, with over 1.3 million recorded cases and an anticipated 415,910 deaths in 2017 (Zhai et al., 2020). While recommendations for shared decision-making concerning prostate cancer early disclosure and prostate-specific antigen (PSA) inspection, African American (AA) men are unlikely to go through early disclosure despite having a higher risk of developing aggressive prostate cancer (Smith, Eggener and Murphy, 2017). Due to their under representation in two important clinical studies examining the efficiency of PSA screening in lowering disease-related mortality, no strong conclusions concerning the benefits to harm ratio of PSA screening among African American men can be made (Woods-Burnham et al., 2018). A more recent study that examined survival differences between African American and White men using surveillance, epidemiology, and end outcomes (SEER) data offered support for PSA screening for African American men (Powell et al., 2014). Given the controversies surrounding prostate cancer early detection and the high incidence and mortality rates among African American males, it is crucial for these men to make an educated choice regarding prostate cancer early detection (Le et al., 2016).

According to earlier research, men who are more informed about prostate cancer are more likely to have had a screening (Pedersen, Armes and Ream, 2011). Recent research suggest that many African American men may not be making educated decisions about prostate cancer early detection, despite the current advice for early prostate cancer detection being informed decision-making (Woods-Burnham et al., 2018). Patients' inadequate awareness of early prostate cancer screening is one factor contributing to this. A number of factors, including poor

prostate cancer awareness, prostate cancer presentation at a later stage, and more aggressive tumours in African Americans, have been identified in the literature as contributing to the prostate cancer disparity among African American males (Odedina et al., 2004).

The American Cancer Society, the American Urological Association (AUA), and the U.S. Preventive Services Task Force advise men to discuss their healthcare options with their doctor after learning about the advantages and disadvantages of prostate cancer screening (U.S. Preventive Services Task Force, 2018). In the case of males 55 to 69 years old who are considering PSA screening, the AUA recommendations advise joint decision-making and moving forward in accordance with the man's values and preferences (AUA University, 2015). The panel advises against routinely promoting screening for men between the ages of 40 and 54 who are not at heightened risk for the disease. Prostate cancer screening choices for males between the ages of 40 and 54 who are at higher risk (such as those with a positive family history or who are African Americans) should be made on an individual basis (AUA University, 2015).

Sellers and Ross, (2003) affirmed making an informed choice about PSA screening may be hampered by the patient's lack of awareness about prostate cancer and medical recommendations about early diagnosis. Knowledge of the risk factors, symptoms, diagnostic techniques, and treatment options for prostate cancer was found to be associated with a higher willingness to be screened for the disease in a systematic review of 33 papers that looked at knowledge, awareness, and beliefs about prostate cancer and prostate cancer screening (Pedersen, Armes and Ream, 2011). Study participants who are older and low-income African Americans typically know less than their white counterparts about prostate cancer, risk factors, and early detection (Ukoli et al., 2013). African Americans' published knowledge of prostate

cancer and the early literature were analyzed to better understand the present detection of the disease.

2 | Materials and Methodology

2.1 | Evidence Gathering

The current review is supported by bibliographic searches in CINAHL and PubMed, Library databases using pertinent search phrases. The following MESH search phrases and Boolean algebra commands were used to find articles that were published in English from 1993 to July 31st, 2020: prostate cancer, awareness, and African Americans. The searches were not restricted to terms included in article titles. Also examined were the review articles' references. To decide whether to keep each article found in this way, the information from bibliographic searches (keywords, title and topic of the paper, information from the abstract) was used. Only English-language studies that looked at African Americans' knowledge of prostate cancer and prostatic cancer screening were eligible for inclusion.

2.2 | Literature inclusion

The bibliographic searches turned up a total of 6,019 articles. 30 of them qualified for inclusion (Figure1). In the CINAHL search, there were no more articles found. Articles were excluded for a variety of reasons, such as the fact that they were study protocols, commentary, or studies of prostate cancer patients; the fact that there was a dearth of information on prostate cancer knowledge; or the fact that the article did not otherwise address African Americans' knowledge of prostate cancer or early detection of the disease. Numerous study designs, such as focus groups, cross-sectional surveys, cohort studies, and pre- and post-test trials, were found.

3 | Results

The majority of African American (AA) men showed a lack of understanding of prostate screening age, the chance of being diagnosed with prostate screening, and elevated risk owing to race in multiple cross-sectional studies. Less than half of the participants ($n = 290$ AA men, mean age 60 years) in (Price, Colvin and Smith, 1993) 23 study knew what age an individual should begin having prostate examinations. The likelihood of developing prostate cancer was not a concern for 40% of people. Nearly 60% were unaware that African American men had a higher prostate cancer risk than White men. 45 percent of people believed that prostate cancer will cause their death.

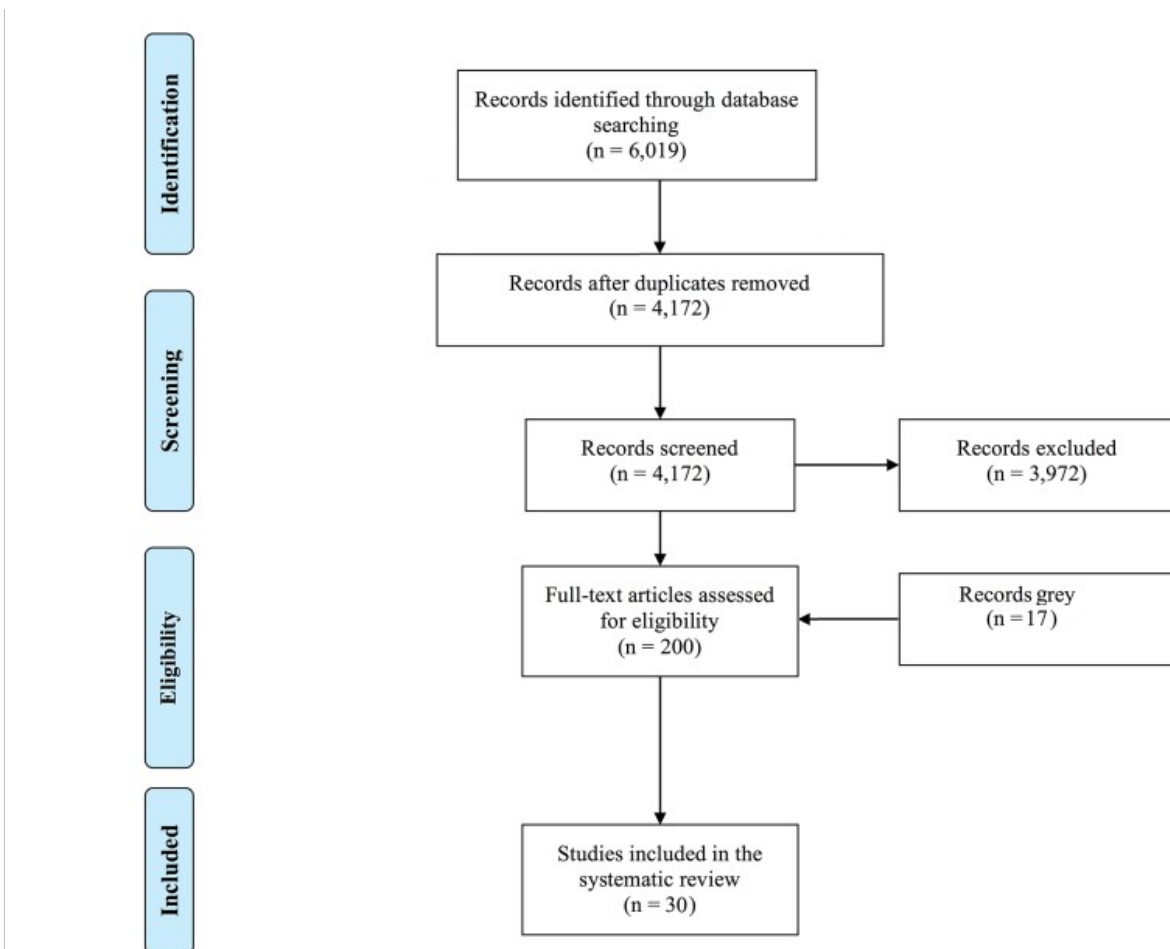


Figure 1 Flow chart of the search strategy and evidence selection of the included studies.

In a cross-sectional survey of 286 African American and 1218 White men, Demark-Wahnefried et al. (1995) discovered that African Americans were less likely than White men to report that "a man with prostate cancer can lead a normal life" ($p .001$) or that "men can have prostate cancer without symptoms" ($p .1$). Once more, a sizable portion of all men were unaware that heredity and/or race are risk factors. 644 African American males and men of other races participated in two cross-sectional surveys that were summarized by Steele et al. (2000). Less than 10% of the men in each poll believed they had a high risk of developing prostate cancer. Nearly 20% said there was no danger of getting the disease. Prostate cancer screening was favorably correlated with race and doctor recommendations.

In a survey of 108 African American men, use of prostate cancer screening was positively correlated with real and perceived awareness of the condition. Education, age, and income had a negative correlation with actual prostate cancer knowledge. Additionally, having health insurance was linked to both actual and perceived knowledge about prostate cancer.

Two samples of African American men were polled by Ashford et al., (2001) ($n = 404$ clinic, 319 random digit dial sampling). According to a composite measure, there is little knowledge on the risk of developing prostate cancer. Consedine et al. (2007) and Oliver et al. (2018) both agreed to this. 180 men were polled by Consedine, who found that Jamaican immigrants, American-born White males, and African Americans had less understanding about prostate cancer than White men. According to Oliver et al. (2018), knowledge about prostate cancer was only moderately high, with people consistently answering 6 out of 10 questions correctly.

A cross-sectional survey was undertaken by Weinrich et al. (2004) with 81 mostly low-income men (74% African Americans). The mean overall knowledge score was 6.6 (SD 3.0), which

denotes low knowledge. Males who were married, of low income, and who were White had considerably lower total knowledge scores than men who were single, of higher income, and who were African Americans. Data from the 2000 National Health Interview Survey on African American men aged 45 who had no history of prostate cancer were evaluated by Ross et al. (2005). 63% of people were aware of the PSA test. Significant correlations were found between knowledge of the PSA test and age, education level, residence in an MSA, and possession of either private or military health insurance.

Gonzalez, Consedine, McKiernan, and Spencer, (2008) found that men with limited prostate cancer knowledge were less likely to have annual screenings ($p = .01$) ($n = 533$, age 45-70 years, U.S.-born African American [26.6%]; white; immigrant Jamaican; and immigrant men from Trinidad and Tobago).

105 men of all races including African American men were polled by Kilbridge et al. (2009). Knowledge of prostate cancer was lacking. Less than half of the patients knew what "erection" or "impotent" meant. 345 African American men were questioned by Emerson et al. (2009). Knowledge about prostate cancer, risk perception, and having health insurance all raised the likelihood of getting checked.

In their survey of 201 African American men, Davis et al. Knowledge of prostate cancer was limited (mean = 45% correct). Receiving a thorough explanation, having undergone prostate cancer screening in the past ($p = .02$), and being younger ($p = .009$) were all linked with having more awareness about prostate cancer overall ($p = .05$). 267 men of all races and African American men were polled by Ogunsanya et al. (2017). The mean percentage of correctly answered questions regarding prostate cancer was low, at 28.5%. Questions pertaining to risk factors, screening age recommendations, restrictions, and food had the most erroneous answers. At an urban health fair, 544 males (60 percent African Americans and 40 percent non-

African Americans) were questioned by Hewitt et al. (2018). Before reading an information sheet about PSA testing, African American men were less likely to grasp it and were more likely to remain puzzled after reading it (13.1% vs. 4.8%, $p = .008$). In a survey of 414 Black men (ages 21 to 85), higher income, education, and having discussed the benefits and drawbacks of prostate cancer testing with a doctor were also shown to be associated with increased understanding of prostate cancer (163 U.S.-born and 251 foreign-born) (Woods-Burnham et al., 2018).

556 African American males were questioned by Smith, Eggener and Murphy, (2017). A knowledge index for prostate cancer showed that little more than 19% of the sample had a high score. A respondent's degree of awareness was highly correlated with their income, marital status, education, type of insurance, having a regular doctor, and having discussed prostate screening with a doctor.

101 African American military personnel were polled by Joseph, (2006). High levels of knowledge regarding prostate cancer screening were reported by the respondents. If respondents knew more about the PSA test, they were more likely to be screened.

286 African American men were polled by Williams, Zincke, Turner, and Davis, (2008). Men who had more knowledge about prostate cancer screening were more likely to want to make the decision individually ($p .5$), whereas men with lower levels of education and younger ages preferred shared decision making ($p .5$).

47 Hispanic men and 72 African American men were polled by Powe et al. (2009). Compared to Hispanic men, African American men were older, better educated, and more aware about cancer. 25 African American men were the subjects of focus groups and interviews conducted

by Friedman, Corwin, Dominick, and Rose, (2009). The participants' knowledge of the risk factors for and methods for preventing prostate cancer was poor.

528 Black men (AA, Caribbean American, Haitian American, and African) were interviewed by Magnus, (2004) at 25 barbershops. Knowledge of prostate cancer was adequate, with a mean of 68.4% accurate answers. At least 80% of the questions were accurately answered by about 19.1% of the respondents.

208 African American men were questioned by Bloom et al. (2006) regarding their estimation of their prostate cancer risk. Those who self-reported having a family history of prostate cancer did not believe that their risk was greater than that of men who did not. They had a higher propensity to mention having recently had a PSA test. Men who were younger and more educated thought they were in greater danger. Knowledge of prostate cancer was unrelated to prostate cancer screening.

Age, education, and information-seeking status were all related to general prostate cancer knowledge in interviews with 268 African American men. 42 Men who were older and more educated had more understanding of prostate cancer. 65 White and African American men were interviewed by Winterich et al. (2009). Knowledge of the prostate gland, signs of prostate cancer, and screening procedures were all related to education but not race or screening status. The PSA test knowledge exception was linked to educational level and screening status (Winterich et al., 2009).

Similar findings from qualitative study on the same population were obtained. 20 African American men participated in three focus groups that Ogunsanya et al. (2016) administered. Participants emphasized the significance of prostate cancer early identification. 56 African American men participated in focus groups led by Robinson, Ashley and Haynes, (1996).

Respondents from the middle socioeconomic position indicated a stronger willingness to participate in screening, which was partially attributable to their better understanding of the condition and screening methods. Taylor et al. (2002) interviewed 155 African American men in addition to conducting 8 focus groups (n = 44 AA men). Participants showed a high degree of availability awareness for prostate cancer screening and a low level of knowledge for the debate around prostate cancer screening. Although there was little or no knowledge of screening's drawbacks, awareness of its advantages was very high.

15 African American men participated in two focus groups that Richardson, Webster and Fields, (2004) conducted. Participants talked about cancer and prostate health myths and the general lack of correct or sufficient information. The responses from the participants demonstrated a general lack of correct information about the dangers, signs, screening procedures, therapies, and cures associated with prostate cancer. They were ignorant of the correlations between age and prostate cancer initiation and prostate cancer incidence related to race.

Odedina et al. (2004) performed ten focus groups with 49 African American men. Prostate cancer screening participation has been demonstrated to be positively influenced by factors such as understanding of the disease. In 12 focus groups (n = 144 men), participants said that they understood little to nothing about either the PSA test or the digital rectal examination, indicating that understanding of prostate cancer screening tests was generally low Powe et al., 2009).

McFall, Hamm and Volk, (2006) discovered that participants in 12 mixed-gender focus groups (90 men and women [53% male, 36.7% AA]) recognized heredity, age, race, sexual activity, and other lifestyle factors as prostate cancer risk factors. Few individuals were aware that early-stage prostate cancer is asymptomatic. The level of screening knowledge was high, but there were certain misconceptions that encouraged screening to begin earlier in life and more

frequently than medical experts advise. 46 African American men and women participated in focus groups that were performed by Hunter, Vines and Carlisle, (2015). The participants were aware of the debate surrounding prostate cancer screening and thought it would be able to save lives.

Two focus groups with 21 African American men were held by Ford et al. (2006). Major issues from the focus groups included ignorance about cancer and confusion between prostate cancer diagnostic tests and screening testing. Similar to this, Mincey et al. (2017) interviewed 35 African American men in cross-sectional interviews and focus groups. Very little of what their prostate is and does was known or understood by the responders. Additionally, they were not aware of their prostatic cancer risk.

Focus groups and interviews with 14 African American men and 17 Black men who were born in the Caribbean were done by Cobran, Hall and Aiken, (2017). The perceived hurdles to prostate cancer screening (healthcare affordability), false beliefs about prostate cancer (lack of awareness), and false information about prostate cancer were among the connected significant themes that emerged from their findings (conflicting screening information from health-care providers).

Similar to this, Rice et al., (2017) discovered that the males (n = 198) in an educational intervention among African American men did not think they had a higher chance of acquiring prostate cancer. Lower income, hypertension, and views about the connection between race and cancer risk all increased perceived risk.

4. | Discussion

The findings of this literature study suggest that many African American males are underinformed about prostate cancer and early diagnosis of the disease. Poor socioeconomic

position, illiteracy, low income, attitudes, beliefs, self-reliance, and health behaviors are only a few of the causes of absence of knowledge. African American must be aware of the advantages and disadvantages of prostate cancer early detection, their risk of developing the disease, and their treatment options in the event that they are given a diagnosis in order to make an informed decision regarding the procedure. Studies have shown that older, less educated, lower income, and single men have the lowest understanding about prostate cancer (Rice et al., 2017). African Americans with low incomes can have a harder time affording the copay or deductible for medical visits. According to studies, men without access to a primary care physician or health insurance are less informed about prostate cancer. 3, 55

Age, race, and family history are the three main prostate cancer risk factors (Sellers and Ross, 2003). The findings of this literature study suggest that many African American males are not aware that their age or race puts them at a higher risk of developing prostate cancer (Steele et al., 2000). Despite facts to the contrary, just 18% of African American males believed they had a higher chance of developing prostate cancer than the average guy their age, according to a study of data from the 2003 Health Information National Trends Study (Ashorobi et al., 2017).

Recently, it has been proposed that low health literacy among patients with urologic malignancies, such as prostate cancer, may contribute to poor patient outcomes and poor decision-making (Luckenbaugh and Moses, 2019). The health literacy and numeracy of 90 males were evaluated by Joyce et al. (2020), of whom 38 (42%) had prostate cancer. They discovered that lower health literacy and worse understanding of prostate cancer were related to African American race and financial stress. Prostate cancer patients have particular instructions from the National Comprehensive Cancer Network, but these recommendations were deemed too technical and at a reading level appropriate for only the tenth grade (Tran et al., 2017). As a result, a 6th grade reading level is suggested for patient-centered content. It is

critical to provide patient access to information about their illness process and the advantages and disadvantages of screening. In the end, it's critical that the material that is already available be useful for learning more and making patient-centered decisions. Although literacy was not examined in the current systematic review, it should be investigated more in future research given that just 12% of American people are considered to have low reading levels, and lower percentages among African Americans have also been suggested (Shavers, Underwood and Moser, 2009).

Additionally, Nyame, et al. (2021) affirmed in the grey literature the study of the the potential impact of intensifying screening in Black men in an attempt to maximize the early detection of cancers that are curable with definitive treatment, it is considered more frequent prostate-specific antigen (PSA) testing and prostate biopsy for abnormal test results as well as different ages for starting and stopping testing.

With respect to limitations, the literature review may not have identified all published articles on prostate cancer knowledge among African American men.

5. | Conclusions and Recommendations

Finally, in order to educate African American men about the advantages and disadvantages of prostate cancer screening as well as risk factors for the disease, culturally appropriate educational initiatives with a focus on enhancing health literacy are required. This will boost their confidence in themselves and enable them to decide for themselves whether prostate cancer early detection is the best course of action. Prostate cancer knowledge among low-income, less educated men, as well as individuals without health insurance or access to a regular provider, is a matter of particular concern (Table 1).

(Table 1). Studies on African American men's awareness of prostate cancer and prostatic cancer screening

Table 1

Author	Design	Outcomes	Sample Size	Results
Price, Colvin, and Smith, (1993)	Cross-sectional survey in OH	Knowledge and perceptions of prostate cancer	290 AA males, mean age 60 years	Fewer than half of the participants were aware of the recommended age for beginning prostate exams. The likelihood of developing prostate cancer was not a concern for 40% of people. Nearly 60% were unaware that Black men had a higher incidence of prostate cancer than White men. A whopping 45% of respondents believed that having prostate cancer would be fatal.
Demark-Wahnefried, et al. (1995)	Cross-sectional survey in NC	Prostate cancer knowledge and beliefs	286 AA and 1218 White men, median age 64 years	AAs were unlikely than White males to say that "men can have prostate cancer without symptoms" or that "a guy with prostate cancer can lead a normal life" (both p .001). Many guys did not understand that heredity and/or race are risk factors.
Robinson, Ashley, and Haynes, (1996)	Focus groups in South Central Los Angeles, CA	Knowledge, attitudes, and beliefs about prostate cancer screening and treatment	56 AA men ages ≥ 40 years	Respondents from the middle socioeconomic position indicated a stronger willingness to participate in screening, which was partially attributable to their better understanding of the condition and screening methods.
Smith, DeHaven, Grundig, and Wilson, (1997)	Face-to-face interviews in Jacksonville, FL	Prostate cancer knowledge	556 AA males older than age 40	A prostate cancer knowledge index showed that somewhat more than 19% of the sample had a high score, while only 30% properly answered three items or more. A respondent's degree of awareness was highly correlated with their income, marital status, education, type of insurance, having a regular doctor, and having discussed prostate screening with a doctor.
Taylor et al., (2002)	8 focus groups in Washington, DC	Knowledge of prostate cancer screening	44 AA men	Participant showed a high degree of availability awareness for prostate cancer screening and a low level of availability awareness for the screening debate.
Wilkinson et al., (2003)	Pre-/post-test trial of a prostate cancer educational seminar in IL	Prostate cancer knowledge	99 AA men and women	Prior to the educational symposium, the mean knowledge score was low (26.0%).
Richardson, Webster, and Fields, (2004)	Two focus groups in Prince William County, VA	Health concerns, prostate health; prostate cancer screening, diagnosis, and treatment; factors influencing prostate health decisions/behaviors.	15 AA men ranging in age from 33-47 years old	Participants discussed misconceptions and a lack of correct or sufficient information regarding prostate health and cancer. The responses from the participants demonstrated a general lack of correct information about the dangers, signs, screening procedures, therapies, and cures associated with prostate cancer. They were ignorant of the correlations between age and prostate cancer initiation and prostate cancer incidence related to race.
Weinrich et al. (2004)	Cross-sectional survey	Knowledge of prostate cancer and prostate cancer screening	81 low-income men (74% AA)	With a mean of 6.6 and a standard deviation of 3.0, the overall knowledge score was considered low. The total knowledge scores of married, lower-income, and White males were significantly lower than those of unmarried, higher-income, and AA men.
Odedina et al. (2009)	10 focus groups in FL	Prostate cancer screening	49 AA men ages ≥ 40 years	Knowledge of prostate cancer was one of the factors found to affect involvement in prostate cancer screening.
Forrester-Anderson, (2005)	Twelve focus groups in Baltimore metropolitan area	Barriers to prostate cancer screening	104 AA men ages 40 years and older	Overall, participants reported having little to no knowledge of either the digital rectal examination or the PSA test, indicating that understanding of prostate cancer screening tests was poor.

Author	Design	Outcomes	Sample Size	Results
Ross, Uhler, and Williams, (2005)	2000 National Health Interview Survey	Awareness of PSA test	AA men ages ≥ 45 years with no history of prostate cancer	63% of people were aware of the PSA test. Significant correlations were found between knowledge of the PSA test and age, education level, residence in an MSA, and possession of either private or military health insurance.
Bloom et al. (2006)	Telephone interviews conducted in CA	Perceived risk of prostate cancer	208 AA men, ages 40 to 74 years	Those who self-reported having a family history of prostate cancer did not believe that their risk was greater than that of men who did not. They had a higher propensity to mention having recently had a PSA test. Men who were younger and more educated thought they were in greater danger. Knowledge of prostate cancer was unrelated to prostate cancer screening. Prostate cancer risk factors mentioned by the participants included heredity, age, race, sexual activity, and other lifestyle factors. Few people are aware that early-stage prostate cancer is asymptomatic. The level of screening knowledge was high, but there were certain misconceptions that encouraged screening to begin earlier in life and more frequently than medical experts advise.
McFall, Hamm, and Volk, (2006)	12 focus groups in TX	Knowledge of prostate cancer and prostate cancer screening	90 men and women (53% male, 36.7% AA)	High levels of knowledge regarding prostate cancer screening were reported by the respondents. If respondents knew more about the PSA test, they were more likely to be screened.
Joseph, (2006)	Cross-sectional survey	Prostate cancer knowledge, beliefs, self-efficacy, and health practices	101 AA military servicemen, mean age 53 years	
Ford et al. (2006)	Two focus groups	Prostate cancer knowledge	21 AA men ages 55 to 87 years	Major issues from the focus groups included ignorance about cancer and confusion between prostate cancer diagnostic tests and screening testing.
Gonzalez, Consedine, McKiernan, and Spencer, (2008)	Cross-sectional survey in Brooklyn, NY	PSA screening	533 men ages 45 to 70 years (U.S.-born AA [26.6%], White, immigrant Jamaican, and immigrant men from Trinidad and Tobago)	Men who knew less about prostate cancer were less likely to undergo annual screenings (p .01).
Williams, Zincke, Turner, and Davis, (2008)	Cross-sectional survey in Washington, DC	Shared decision making preferences, prostate cancer screening knowledge, decisional conflict, and satisfaction with previous screening decisions	286 AA men ages 40–70 years	Men who had more knowledge about prostate cancer screening were more likely to want to make the decision individually (p .05), whereas men with lower levels of education and younger ages preferred shared decision making (p .05).
Winterich et al. (2009)	In-depth interviews in Greensboro, NC	Knowledge about the prostate gland, prostate cancer symptoms and screening tests	65 AA and White men, aged 40–64 years	Knowledge of the prostate gland, signs of prostate cancer, and screening procedures were all related to education but not race or screening status. The PSA test knowledge exception was linked to educational level and screening status.
Powe et al. (2009)	Cross-sectional survey at a health center and clinic	Knowledge of prostate and colorectal cancer	72 AA men and 47 Hispanic men	Compared to Hispanic males, AA men were older, more educated, and more aware about cancer.
Friedman, Corwin, Dominick, and Rose, (2009)	Six focus groups and individual interviews	Knowledge of prostate cancer risk, prevention, and screening	25 AA men, ages 45 years and older	The participants' knowledge of the risk factors for and methods for preventing prostate cancer was poor.
Kilbridge et al. (2009)	Face-to-face interviews	Prostate cancer knowledge and comprehension of	A total of 105 AA men and men of other races ages ≥ 40	Knowledge of prostate cancer was lacking. Less than half of the patients knew what "erection" or "impotent" meant.

Table 1

Author	Design	Outcomes	Sample Size	Results
Emerson et al. (2009)	Quasi-experimental, delay-control (cross-over) design with randomization at the church level	New screening for prostate cancer	345 AA men	Knowledge about prostate cancer, risk perception, and having health insurance all raised the likelihood of getting checked.
Davis et al. (2010)	Cross-sectional survey	Physician exploration of pros and cons of the PSA test and digital rectal exam and its association with knowledge and screening attitudes	201 AA men	Knowledge of prostate cancer was limited (mean = 45% correct). Receiving a thorough explanation, having undergone prostate cancer screening in the past ($p = .02$), and being younger ($p = .009$) were all linked with having more awareness about prostate cancer overall ($p = .05$).
Ross et al. (2005)	Cross-sectional interview in NY	Prostate cancer knowledge	268 AA men	Levels of general awareness of prostate cancer were correlated with age, education, and information-seeking behaviour. Men who were older and more educated had more understanding of prostate cancer.
Ukoli et al. (2013)	Pre-post-test trial of an educational intervention conducted in Nashville, TN	Prostate cancer knowledge and screening	539 AA men	At the outset, the mean knowledge score was only 13.3 (3.5). A biopsy is required to confirm a prostate cancer diagnosis, however 300 participants (55.7%) were unaware of this and 290 (53.8%) believed standard screening began at age 25. Three hundred seventy-two (69.0%) of the participants correctly responded to at least half of the questions about prostate cancer.
Hunter, Vines, and Carlisle, (2015)	Focus groups conducted in NC to pre-test prostate cancer educational materials	Beliefs and knowledge about prostate cancer screening	46 AA men and women	The participants were aware of the debate surrounding screening and thought that prostate cancer screening could help save lives.
Ogunsanya et al. (2016)	Cross-sectional survey in Austin, TX	Knowledge of prostate cancer and prostate cancer screening	267 AA men and men of other races ages 18 to 40 years	The mean percentage of correctly answered questions regarding prostate cancer was low, at 28.5%. Questions pertaining to risk factors, screening age recommendations, restrictions, and food had the most erroneous answers.
Ogunsanya et al. (2016)	Three focus groups in Austin, TX	Advantages and disadvantages of prostate cancer screening, and issues that would make prostate examinations comfortable or uncomfortable	20 AA men, ages 18- years	Participants emphasised the significance of early screening to find prostate cancer so that it can be treated quickly.
Ashorobi et al. (2017)	Pre-post-test trial of an educational intervention	Prostate cancer knowledge	719 men (62.8% AA)	Participants who correctly answered 8 out of 10 knowledge questions about prostate cancer were considered to have enough understanding of the disease. Only 17.5% (126) of men met the pre-educational programme criterion. The AA race, higher education, health insurance, and prior prostate cancer testing were all associated with having acceptable baseline awareness of prostate cancer prior to the educational intervention.
Rice et al. (2017)	Cross-sectional survey conducted as part of a behavioral intervention in Philadelphia, PA	Perception of prostate cancer risk	198 AA men	Overall, the guys didn't think their chance of getting prostate cancer was higher than average. Lower income, hypertension, and views about the connection between race and cancer risk all increased perceived risk.
				Participants who correctly answered 8 out of 10 knowledge questions about prostate cancer were considered to have enough understanding of the disease. Only 17.5% (126) of men met the pre-educational programme criterion. The AA race, higher education, health insurance, and prior prostate cancer testing were all associated with having acceptable baseline awareness of prostate cancer prior to the educational intervention.
Cobran, Hall, and Aiken, (2017)	Focus groups and individual interviews	Barriers to prostate cancer screening	14 AA men and 17 Caribbean-born Black men	Focus groups and interviews highlighted major themes that were interconnected, such as perceived hurdles to prostate cancer screening (healthcare affordability), false beliefs about prostate cancer (lack of awareness), and false information about prostate cancer (conflicting screening information from health-care providers).

Table 1

6. | References

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