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Cross Sectional Approach to Evaluating Health Care System - Related Factors Affecting The Uptake Of Prostate Cancer Screening Among African American Men: A Systematic Literature Review

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Abstract
This dissertation conducts an in-depth systematic literature review to explore the multifaceted factors influencing prostate cancer screening uptake among African American men. The study examines healthcare system-associated factors, including access to healthcare, insurance coverage, and systemic mistrust. The review highlights the urgent need for targeted, culturally sensitive interventions and systemic reforms to enhance screening participation and address health outcomes disparities in African American men. By integrating evidence-based insights, the research proposes a comprehensive approach aimed at improving prostate cancer screening rates and reducing health disparities in this demographic.

Keywords: *prostate cancer, healthcare, systematic literature, healthcare factors, African American men, insurance coverage*

Background to the study

Prostate cancer (PCa) is defined as a pathophysiological disorder where the prostate gland experiences anomalous and unregulated expansion of its cellular structures. (Manoj et al., 2023). According to Leslie et al (2023), in 2020, global statistics revealed a significant number of 1,414,249 newly reported cases and an annual mortality rate of 375,000 attributed to this specific cancer. The occurrence of prostate cancer exhibits variation across different geographical locations, with incidence rates of prostate cancer span from 6.3 to 83.4 cases per 100,000 males. The most elevated incidences are noted in Northern and Western Europe, the Caribbean, Australia/New Zealand, Northern America, and Southern Africa, in contrast to the minimal rates found in Asia and Northern Africa. (Sung et al., 2021). In contrast, regional mortality rates do not exhibit some correspondence with incidence patterns, as evidenced by the elevated fatality rates observed in the Micronesia/Polynesia, sub-Saharan Africa, and Caribbean (Sung et al., 2021). However, there is expected to be a minimal change in mortality rates, with an estimated 1.05% increase (Rawla, 2019).

According to the comprehensive study conducted by Sung et al. (2021), in the context of global health challenges, it stands out that prostate cancer is the most prevalent cancer diagnosed worldwide. Furthermore, Fidelis Charles Bugoye et al. (2023) emphasized that prostate cancer is not only highly prevalent among men but also a significant contributor to male cancer-related mortality on a global scale.

Moreover, it has been noted that African American males exhibit poorer survival outcomes in contrast to their counterparts from other racial and ethnic groups, even when considering variables such as the disease stage at diagnosis and therapeutic interventions (Steele et al., 2017). The underlying factors contributing to these disparities are intricate and may encompass a complex interplay of biological, sociocultural, and healthcare-related determinants (Steele et al., 2017). Research conducted by Lindquist et al. (2016) has unveiled genetic variances and distinct biomarker profiles among African American males diagnosed with prostate cancer. These findings potentially underlie the differences observed in disease aggressiveness and treatment responses. Furthermore, disparities in healthcare accessibility, the quality of healthcare services provided, and the selection of treatment modalities may also contribute to the observed variations in survival rates (Moul, 2021).

PSA Screening

The protein known as prostate-specific antigen (PSA), synthesised by cells in the prostate gland, can be identified when present in the semen or bloodstream and may serve as an indicator of the potential risk of developing prostate cancer. A positive result for PSA can enhance the likelihood of early detection, hence raising the odds of identifying the presence of prostate cancer at an earlier stage (American Cancer Society, 2023; Schröder et al., 2012).

According to American Cancer Society, (2023), although PSA readings are often regarded as within the normal range, it is important to note that approximately 15% of men with a PSA score below 4 may still experience the development of prostate cancer. Men whose PSA values range from 4 to 10 ng/mL have a 25% probability of having prostate cancer, and those with levels over 10 ng/mL have a 50% probability. PSA levels are influenced by various factors like as age, enlarged prostate, prostatitis, ejaculation, cycle, urologic operations, and particular drugs.

Participation in prostate cancer screening is an essential factor in detecting the disease at an early stage contributes to increased survival rates for African American males. However, the participation rate in PCa screening in this population is influenced by several different factors (Halbert et al., 2016).

According to James et al. (2017), there is a prevailing tendency among males to exhibit hesitancy about participating in screening tests for prostate cancer, and this inclination may be attributed to insufficient knowledge of prostate cancer or a dearth of drive to prioritise their overall health. Previous studies have indicated that African American men exhibit limited health literacy, a lack of awareness regarding prostate cancer and an increased susceptibility to the disease. (Wang et al., 2013; Shaw, Scott and Ferrante, 2013; Kilbridge et al., 2009). Additionally, evidence from the study conducted by Halbert et al.2009 indicates that African American men exhibit increased distrust of the medical system and healthcare providers, have limited access to healthcare and cultural factors impact their willingness to undergo screening (Allen et al., 2018). Furthermore, Shaw, Scott, and Ferrante (2013), posit that African Americans experience diminished effective

communication with their primary care providers and are less frequently inquired about their preferences regarding cancer screening.

However, Studies have shown that Men typically inclined toward screening are those with elevated income (Allen et al., 2018, advanced education, comprehensive insurance coverage (Halbert et al., 2015) and a family history of prostate cancer (Sanchez, Bowen, & Hart, 2007; Pedersen et al., 2011).

Objective of the study

i. To identify and categorize healthcare system- related factors that influence African American Men's decision to undergo or forego Prostate cancer screening using cross sectional approach.

Cross-sectional Systematic Literature Review

These studies were appraised using the JBI's critical appraisal tools for cross sectional studies (Moola et al., 2017).

Qin, Hamler, and Miller (2020): The study focuses on self-identified African American men within the ages range of 35 and 65, who have not previously received a diagnosis of prostate cancer. The study utilized well-established techniques to assess self-efficacy and motives for engagement in PCa screening. However, the use of single-item measures for these intricate structures may not fully represent their complexity. By systematically accounting for confounding factors, logistic regression analysis strengthens the study's robustness (Skelly, Dettori and Brodt, 2012). Nevertheless, Measurements like self-efficacy and participation reasons, while relevant, lacked detailed validation for the demographic. The study's moderate sample size of 174, combined with the non-probability sampling approach, might introduce selection bias. Moreso, data collection, through interviews and online surveys, varied in format, potentially affecting response consistency together with, limited information on response rates which raises concerns about nonresponse bias (Davern, 2013).

Additionally, without longitudinal follow-up, it remains uncertain if intentions translate into actual screening behaviours. Furthermore, there may be confounding variables that were not examined and the study's broad classification of reasons for participation may not adequately capture the intricacy of these aspects.

The crucial findings of the study are that it demonstrated that higher self-efficacy significantly predicts a greater intention to undergo prostate cancer screening, suggesting that men who have confidence in their ability to get screened are more likely to plan to do so. Also, it identified that psychological factors, such as the desire for peace of mind and concerns about cancer, along with medical reasons like recommendations from health professionals, family history of cancer, and experiencing symptoms, serve as important motivators for the intention to participate in prostate cancer screening.

Miller, Hamler, & Qin (2020): The study focuses on African American men aged 35 to 65 Individuals who have not been previously diagnosed with prostate cancer and who have not undergone any screening for it in the last five years. The methodology is competent and well-defined, with thorough descriptions of the themes and surrounds. Volunteers were recruited from both urban and rural parts of North Carolina, Georgia, and Ohio via fliers and social media. Exposure assessments, including PCa screening intention, knowledge, and attitudes, are conducted using previously validated survey methods.

However, the study does not specify how it addressed potential confounding factors. Determining whether certain factors are confounders is crucial, as overlooking potential confounders or incorrectly adjusting for non-confounders can introduce bias. This can skew the perceived relationship between the exposure of interest and the outcome, leading to inaccurate conclusions (Howards, 2018).

The results are measured transparently and accurately using known survey procedures, adding credibility to the findings drawn about participants' screening intentions, knowledge, and attitudes towards PCa. The study's use of t-tests and chi-square tests to compare demographic variables, along with a lack of precise information on statistical methodologies, make assessing the correctness of the statistical analysis problematic.

Though 168 African American men is a suitable sample size for a focused study, it may be insufficient to ensure that the findings are representative of the larger African American male community. Furthermore, the employment of a non-experimental, purposive sample technique, combined with geographic constraints to specific locations, can result in selection bias. This approach may not fully capture the complete range of experiences and viewpoints within the African American male community, potentially resulting in the inadequate representation of this varied population. Recall bias could occur because the methodology relies on self-reported information. This type of bias can result in the false identification of associations (Tenny, Kerndt and Hoffman, 2024).

The study's findings emphasise various factors that impact the acceptance of PCa screening among African American men. The differing degrees of understanding surrounding PCa, specifically concerning its risk factors, indicate that enhanced awareness and education could greatly enhance the rate of involvement in screening. Furthermore, the prevailing favourable attitudes towards the efficacy of early identification and intervention suggest a larger probability of increased rates of screening. Furthermore, medical considerations such as healthcare advice, family history, and personal health problems have a crucial impact in motivating individuals to undergo screening, highlighting the significant influence of healthcare experts. Furthermore, the significance attributed to convenience elements indicates the necessity for screening processes that are easily accessible and uncomplicated. Furthermore, the study's demographic profile primarily consists of individuals with higher income and advanced education, suggesting a possible connection between socioeconomic position and the chance of undergoing screening.

Hararah et al. (2014): The research aimed at examining the association between socioeconomic status and prostate-specific antigen (PSA) testing among African American men in Baltimore City and is well-conducted and informative, yet it presents several notable limitations. Primarily, its concentration on older African American men who are Medicare recipients in an urban context narrows the applicability of its results to other groups and regions. The study's reliance on participants' self-reported information for PSA screening and their interactions with healthcare providers could lead to biases, such as inaccurate recall or responses influenced by social expectations. The cross-sectional nature of the study also hinders the establishment of a cause-and-effect relationship between socioeconomic aspects and PSA screening practices. Moreover, certain elements of the study, such as the assessment of cancer fatalism, are not specifically tailored to prostate cancer, which might affect the accuracy of these findings. The study encounters issues with incomplete income data, which could skew interpretations of income's role in PSA screening

decisions. The omission of younger African American men from the study may ignore important views and experiences from this group. The absence of a long-term follow-up in the study means changes in PSA screening behaviours over time remain unclear. Lastly, since the study focuses on urban Medicare beneficiaries, its conclusions may not be relevant to African American men living in rural settings or those with different types of health insurance.

The study findings revealed that higher education, especially a bachelor's degree or more, positively correlated with increased likelihood of PSA screening. Income had less impact on screening behaviour compared to education. Access to healthcare significantly influenced PSA screening, with men having regular healthcare access more likely to be screened. The concept of cancer fatalism, particularly prevalent in men with lower education, affected screening likelihood but less so in fully adjusted models. Marital status was also a predictor, with married men more likely to undergo PSA screening.

Youseung Kim & Mustapha Alhassan (2023): The study on PCa screening among African American men was conducted with a robust methodology, utilizing specific inclusion criteria for African American men who are 40 -70 years old, excluding those with a prior diagnosis of prostate cancer. Measurement tools for assessing health beliefs, cultural mistrust, and knowledge about prostate cancer screening were both valid and reliable. Objective criteria were used, and confounding factors such as age, income, and health insurance were identified and addressed using hierarchical logistic regression analysis (Kestenbaum, 2018). While the outcomes, mainly the uptake of the PSA test, were measured using structured surveys post-educational seminars, the reliance on self-reported data could introduce bias. The study's statistical approach was appropriate for its research questions.

However, the study's limitations stem from its sampling method and sample size. The recruitment process via educational seminars and snowball sampling might not fully capture the diverse experiences of African American men across different regions thereby limiting randomness (Mahin Naderifar, Goli and Fereshteh Ghaljaie, 2017). The sample size, though adequate for statistical analysis, May affect the ability to apply the findings broadly. Additionally, the focus on a specific urban demographic and the potential for recall bias due to self-reported data might restrict the broader applicability of the results.

The Crucial determinants of participation in PSA testing among the participants included elevated annual household income and possession of health insurance; African American men with greater financial means and health insurance coverage had a higher propensity to undergo PSA screening. Additionally, a personal history of cancer emerged as a notable factor influencing the decision to undertake the PSA test. The effect of possessing health insurance on the likelihood of PSA test completion demonstrated variation based on age; younger men with health insurance were more inclined to complete the test, whereas for older individuals, health insurance status did not markedly influence test uptake. The research further underscores the significant role of financial constraints in accessing cancer screening, underscoring the pivotal importance of affordability and comprehensive insurance coverage.

Ekúndayò, Tataw & Qobadi. (2015): The study conducted in Mississippi offered valuable insights into prostate cancer screening among African American men. Focusing on men over 40 in George Town, it detailed their demographics and context. The research utilized structured questionnaires to assess knowledge and attitudes towards prostate screening. Although the tools'

reliability was verified, the lack of extensive validation detail might impact the findings' precision. The study acknowledged various influencing factors like income and education, but the approach to managing these confounders wasn't fully outlined. After identifying a possible issue with confounding, it can be addressed either during the planning stage of the study or in the data analysis phase (Kahlert et al., 2017). Additionally, self-reported data, susceptible to biases. Self-report bias represents a form of measurement inaccuracy prevalent in various settings where the possibility of random or systematic misrepresentation exists. This bias is particularly pervasive in survey data, influenced by cognitive processes, societal expectations of desirability, and the conditions under which the survey is administered, all of which can modify the respondent's answers (Bauhoff, 2014). Also, a focus on a specific community, limited the study's broader applicability. However, it remains a significant contribution to understanding screening behaviours in this group.

The research revealed that knowledge about prostate cancer, particularly about the prostate gland, symptoms, and risk factors, significantly influenced African American men's likelihood of undergoing screening. Higher education and income levels were also key predictors. Discussions with healthcare providers increased the likelihood of being screened. Contextual factors, such as religion and employment status, were observed to affect the link between knowledge, attitudes, and screening behaviour. This study underscores the multifaceted influences on health decisions within this community.

Study Design

A Systematic Literature Review (SLR) is a systematic method used to gather, identify, and assess existing research studies through a structured examination and critical analysis of the available literature (Carrera-Rivera et al., 2022).

Search Strategy

According to Frandsen et al. (2020), the PICO framework is a valuable tool for developing research questions, developing search strategies, and obtaining supplementary information.

However, the PEO framework was adopted to answer the Research question: "What are the key factors influencing the uptake of prostate cancer screening among African American men?

Population: African American Men in USA

Exposure: Factors influencing prostate cancer screening uptake (e.g., Cultural, Socioeconomic status, Health education).

Outcome: Impact of the identified factors on the uptake of prostate cancer screening.

To optimise the search and get a comprehensive range of relevant studies, the search query was built using Boolean operators (AND and OR) and truncations.

Study Selection

Setting inclusion and exclusion criteria for study participants is a critical and required stage in developing strong research protocols. Inclusion criteria are defined as the fundamental characteristics that researchers identify in a population to address their specific research questions. (Patino and Ferreira, 2018). Also, Researchers must decide on inclusion and exclusion criteria and assess how they will affect the study's external validity.

This study specifically focuses on African American men who have either never undergone prostate cancer screening before or have undergone screening at some point in time.

Inclusion Criteria

Only the articles that focused on Adult African American Males

Studies must have a study population consisting predominantly of African American males. Studies that include participants from diverse racial or ethnic backgrounds are eligible if they report findings specific to African American men.
Only the articles focus on factors that influence the uptake of prostate cancer screening.
Only articles included must be published between 2013 and 2023.
Only the articles that are Primary Quantitative, qualitative, or mixed method studies, peer-reviewed, surveys, and questionnaires authored in English.

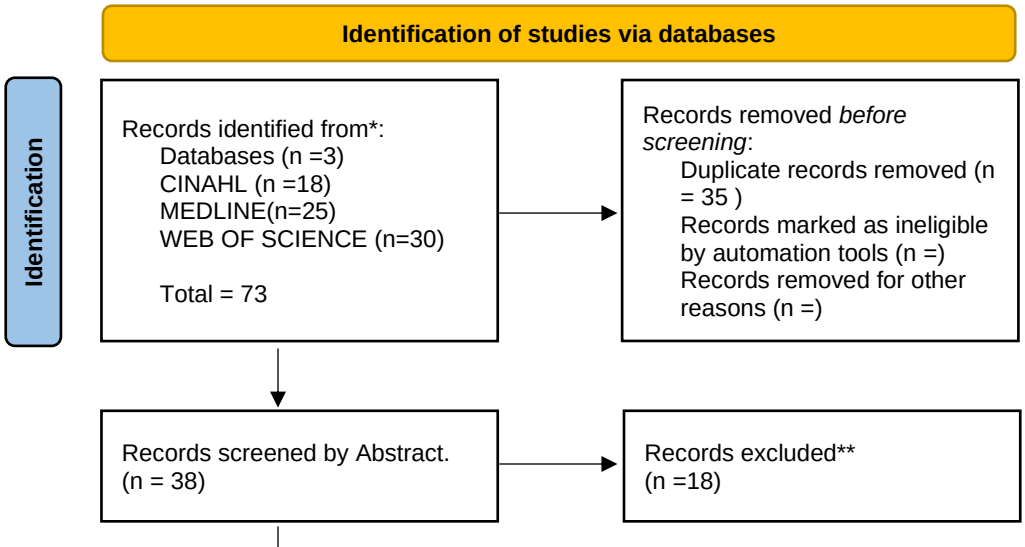
Exclusion Criteria

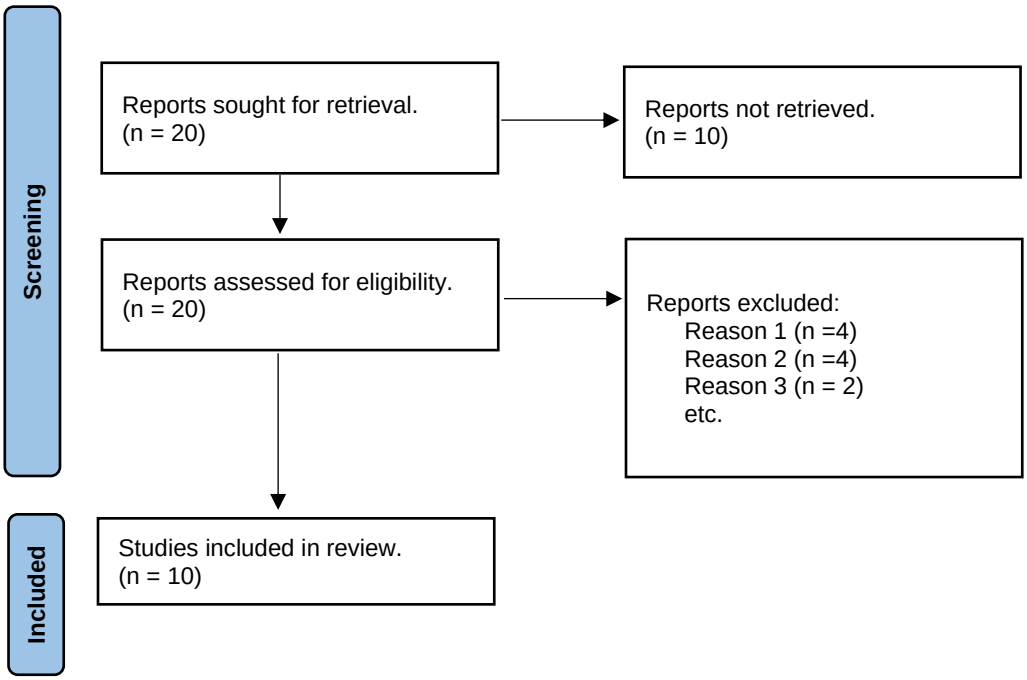
All the papers focused on female children, female teenagers below 16, adult females of African American origin.
Studies primarily involving non-African American populations, such as Caucasian, Asian, or Hispanic men, are excluded. However, studies that include diverse populations but do not present specific data for African American men will also be excluded.
All the papers not focused on factors that influence the uptake of prostate cancer screening.
Every paper that was authored in a foreign language.
Case reports, dissertations, opinion pieces, editorials, and conference abstracts are not included in this review.

Study Selection

When initially searching the different databases by employing the different search terms in advanced search settings, CINAHL yielded 648 articles, Web of Science 678, and Medline 648. Several filters were applied such as 10 years of publication, language, and gender. This resulted in MEDLINE 302, Web of Science 370 and CINAHL 144 articles respectively. The resulting articles from each database were then screened by title and the articles that met eligibility by title were exported to Zotero citation manager to remove duplicates. A total of 73 articles were selected based on the title. After duplicates were removed by the Zotero citation manager the remaining 38 articles were screened by abstract. 18 articles were excluded for not meeting the inclusion criteria set. Full-text screening of the remaining articles yielded the 10 articles included in this review.

Figure. 1 Prisma Flow Chart





Results and Findings

Characteristics of the Extracted studies:

After a systematic search of the several databases, and applying the inclusion and exclusion criteria, for this review, a total of 10 complete studies were selected and analyzed. The articles were conducted in different settings such as educational institutions, rural and urban areas. Participants age ranged from 18 to 75 years also, the lowest sample size had 14 participants while the highest sample size comprised of 485 participants.

The studies incorporated in this review encompass diverse categories, each providing distinct perspectives on the research subject:

Cross-sectional studies: The following cross-sectional studies are part of this review:

i. Qin, W., Hamler, T.C., and Miller, D.B. (2020).
ii. Miller, D.B., Hamler, T.C., and Qin, W. (2020).
iii. Hararah et al. (2014).
iv. Youseung Kim and Mustapha Alhassan. (2023).
v. Ekundayo, Tataw and Qobadi. (2015).

Results

The study aimed to identify the factors associated with prostate cancer screening among African Americans. The approach was to aggregate, scrutinize, and integrate the existing body of research in this field, thereby deepening our understanding of the various factors that shape screening practices within this group. This investigation is particularly critical considering the pivotal role of early detection in enhancing prognostic outcomes for prostate cancer.

According to Braun and Clarke (2022, pp.77–101) thematic analysis which comprises of systematic process of coding data to develop themes for the development, analysis, and interpretation of patterns across a qualitative dataset. This method of data analysis was used to develop themes as shown below.

Healthcare System-Associated Factors

i. Access and Cost Barriers: Accessibility to healthcare services and the associated costs are prominent factors in screening decisions. Hararah et al. (2014) and Youseung Kim & Mustapha Alhassan (2023) highlighted that ease of access to healthcare services and the financial burden of screening, particularly for uninsured individuals, are significant determinants of whether men undergo prostate cancer screening.

ii. Systemic Mistrust and Inequities: Systemic issues within the healthcare system, such as mistrust and perceived racism, as discussed by Hunter et al. (2015), play a pivotal role in the willingness of African American men to engage with healthcare services. These systemic barriers contribute to health disparities and can deter men from seeking necessary health screenings.

iii. Insurance and Economic Constraints: The studies by Cobran, Hall, and Aiken (2017) and Youseung Kim & Mustapha Alhassan (2023) emphasize the importance of health insurance and economic factors in the process of decision-making for prostate cancer screening. The lack of insurance and financial obstacles are major impediments to accessing essential health examinations.

Discussion

Health Care System -Related Factors

Health disparities among racial/ethnic minorities in prostate cancer (PCa) are rooted in a complex interplay of various elements (Kiciak et al., 2023). These disparities stem from issues connected to patients, healthcare practitioners, and systemic aspects of the healthcare infrastructure (Burnett, Nyame and Mitchell, 2023). Additionally, the existing landscape of clinical trials and genetic studies focusing on prostate cancer does not sufficiently capture the heterogeneity of the populations at risk for or afflicted by this ailment, leading to a gap in representation and understanding.

Health Insurance, Access to Healthcare, Medical Cost & Medical Distrust

Youseung Kim & Mustapha Alhassan., 2023 found that higher income and having health insurance were strongly associated with screening uptake.

This is in alignment with Allen et al., 2007, firmly asserted that the lack of insurance or financial resources significantly hinders African American men's access to health services. They highlighted the notably higher unemployment rates among African Americans compared to Caucasians, coupled with the widespread lack of insurance among employed individuals.

Moreover, the findings of Hosain et al. (2011), which indicated that individuals possessing health insurance, or a consistent source of healthcare are more inclined to report undergoing PSA screening. Such a revelation points towards inadequate healthcare processes for patients with limited access, highlighting a systemic challenge within the realm of cancer screening in the United States.

While healthcare insurance accessibility stands as a crucial factor influencing screening practices in the United States, this dynamic is not mirrored in Canada due to the presence of its comprehensive, universally accessible healthcare system (Richardson et al., 2007).

Youseung Kim & Mustapha Alhassan., 2023 revealed that the cost of healthcare services, including prostate cancer screening, can be a significant barrier for African American men, also

Ogusanya et al., 2016 reported that considerable number of participants raised worries regarding the financial implications of undergoing screening.

Research consistently underscores the complex influence of socioeconomic elements on health outcomes and status, as described by Kirby and Kaneda (2010). Factors such as education level, occupational status, and income significantly shape healthcare experiences and outcomes. Arnett et al. (2016) noted that ethnic minorities in the United States often face challenges in obtaining insurance coverage, largely attributable to unemployment or underemployment. In 2022, approximately 11.4% of African American adults and over 23.4% of Hispanic adults in the US lacked health insurance, a stark contrast to the less than 6.8% uninsured rate among non-Hispanic White adults, as reported by Keisler-Starkey, Bunch, and Lindstrom (2023).

According to Shawnita Sealy-Jefferson et al. (2015) Numerous elements play a role in creating health disparities, encompassing aspects such as implicit bias among healthcare providers, accessibility to healthcare services, social determinants of health, and biological variables. In the past, healthcare professionals often ascribed the suboptimal health outcomes observed in racial and ethnic minority groups to elements beyond the control of physicians.

The healthcare system's inaccessibility significantly impacts the initiation and continuation of PC screening, particularly in African American communities. Hunter et al. (2015) underscores the role of mistrust and racism in diminishing healthcare engagement among African American men. This aligns with findings by Dong Hoon Lee et al. (2012), suggesting that perceived inconveniences in the healthcare system deter individuals from commencing PSA testing. This reluctance is further reinforced by challenges in accessing quality care, as evidenced by a decreased likelihood of undergoing PSA testing. Adedoyin Olanlesi-Aliu, Alaazi, and Salami (2023) note that in Canada, Black individuals disproportionately suffer from social and health inequities, adversely impacting their access to quality healthcare services.

Racial disparities in healthcare are not sufficiently addressed in clinical guidelines and trials. Otiono et al. (2022) criticize the Canadian Urological Association (CUA) guidelines for not categorizing Black populations as high-risk despite their heightened susceptibility to metastatic disease. Similarly, the US Preventive Services Task Force (USPSTF) acknowledges racial disparities but fails to provide specific guidance for affected groups (Grossman et al., 2018a). This oversight is mirrored in key clinical trials like ERSPC and PLCO, which include a minimal representation of Black participants (Andriole et al., 2009; Schröder et al., 2009). Rencsok et al. (2020) and Spratt and Osborne (2015) further reveal a stark underrepresentation of Black men in Phase III prostate cancer trials.

Rivers et al. (2013) and Langford et al. (2013) identify various socioeconomic factors that hinder Black individuals' participation in clinical trials. These barriers include financial constraints, limited transportation, inadequate childcare support, restrictive insurance policies, and a general lack of awareness about clinical trials. Addressing these challenges requires a comprehensive approach, such as enhancing community engagement, extending clinic hours, and fostering cultural competence within the healthcare sector.

FitzGerald and Hurst (2017) highlight the implicit racial biases among healthcare professionals and the scarcity of Black physicians, which exacerbate the stress experienced by Black patients. This is consistent with Dryden and Onye Nnorom (2021)'s observations in Canada, where Black patients face numerous structural obstacles in various healthcare phases.

The variability in PSA screening practices in New Zealand, especially among medical practices serving the Māori, highlights significant disparities. Obertová et al. (2014) report the lowest screening rates in this demographic. This observation is critical because it reflects a broader pattern of healthcare inequity affecting indigenous and minority populations.

The Urological Society of Australia and New Zealand advocates for PSA and DRE screenings for men aged 55-69, underscoring the importance of informed decision-making regarding the risks and benefits of these screenings. However, this recommendation contrasts with the stance of New Zealand's Ministry of Health's National Screening Advisory Committee, which does not support a nationwide prostate cancer screening program. This discrepancy between professional recommendations and national health policy underscores a significant gap in healthcare guidance and practice, which may contribute to the disparities in screening rates and outcomes.

Contrasting with the challenges faced in North America, Sweden's healthcare system, described by Wamala et al. (2007), is founded on egalitarian principles, ensuring equitable access to healthcare for all, irrespective of societal status. This model presents a stark contrast to the systemic disparities observed in other countries.

The persistence of racial disparities in healthcare necessitates targeted policy initiatives and educational interventions. Kyung et al. (2009) emphasizes that enhancing healthcare access for minority populations is crucial in mitigating disparities in prostate cancer outcomes. Beaulac, Fry, and Onysko (2006) point out the absence of correlation between being of black ethnicity and the likelihood of receiving PSA screening, indicating a gap in reflective screening practices. Arnett et al. (2016) further note the impact of limited healthcare access on PC screening rates and mortality, a trend also observed in rural Australia (Coleman et al., 2008; Baade et al., 2011).

The findings from Mahal et al. (2017) and Miller et al. (2018) indicate that Black individuals often present with more aggressive forms of prostate cancer. This underscores the necessity of reconsidering the age for initiating PSA screening in this demographic, given their elevated risk. Studies like those by Schröder et al. (2012) and Buzzoni et al. (2015) demonstrate the effectiveness of PSA screening in reducing metastatic prostate cancer rates, further highlighting the need for tailored screening guidelines for high-risk groups.

This reveals profound and systemic issues in healthcare accessibility and equity, especially concerning prostate cancer screening among Black populations. Addressing these disparities necessitates a concerted effort encompassing policy reform, educational outreach, and a restructuring of clinical practices and guidelines to ensure equitable healthcare for all.

Medical distrust of the healthcare system

African American individuals encounter obstacles when it comes to healthcare, including having lower socio-economic status and facing challenges in accessing healthcare services (Mateo and Williams, 2021). According to Adams et al. (2017), distrust in the medical field has been linked to a decrease in engagement with colorectal cancer screening. This distrust is particularly pronounced among African American men, as reported by Youseung Kim & Mustapha Alhassan (2023). They found that African American men exhibit significant levels of distrust in healthcare practitioners and hold views of racial discrimination in healthcare settings. This observation aligns with the findings of Vapiwala et al. (2021), who noted that a common element identified in non-White patient groups is a significant mistrust towards healthcare professionals, Western medicine practices, and the overarching healthcare system.

Talcott et al. (2007) shed light on disparities in access to medical care among African American men. They reported that despite being at no greater distance to medical care, African American men have less access due to factors such as poorer medical insurance coverage, higher utilization of public clinics and emergency wards, less continuity with a primary physician, and a tendency to omit physician visits they feel they need. Furthermore, they express less trust in physicians. In contrast, Carpenter et al. (2009) found that Caucasian Americans exhibit higher physician trust scores and are more likely to report a physician's office as their usual source of care compared to African Americans.

Conclusion

In conclusion, this systematic literature review has comprehensively examined the multifaceted factors influencing the uptake of prostate cancer screening among African American men. Informed decision-making, encouraged through shared discussions between patients and healthcare providers, respects individual autonomy and can lead to increased participation in screening. Further research into tailored screening strategies for African American men is imperative to ensure that interventions are effective and relevant. Addressing medical mistrust, a legacy of historical and ongoing healthcare disparities, is critical for improving healthcare engagement.

Implementing these strategies requires a collaborative effort from healthcare providers, policymakers, community leaders, and advocacy groups. By addressing the unique challenges faced by African American men in accessing prostate cancer screening, we can move towards reducing disparities and improving health outcomes in this population. This comprehensive approach, informed by the evidence and insights gathered in this review, holds the potential to make significant strides in the fight against prostate cancer among African American men.

Recommendations

In advancing research and practices related to prostate cancer screening within the African American male demographic, it is advisable to consider the following directives:

i. Development of Culturally Responsive Programs: There is a need to design, implement, and evaluate health education and screening initiatives that are specifically tailored to meet the unique cultural needs and concerns of African American men.
ii. Enhancement of Healthcare Professional Training: Amplifying the training of healthcare providers in areas of cultural awareness and effective communication is essential to foster stronger trust and more meaningful interactions between patients and providers.
iii. Advocacy for Policy Reforms: Strong advocacy is needed for policy reforms aimed at dismantling systemic obstacles impeding healthcare access, including issues related to insurance coverage and the cost-effectiveness of screening procedures.

References

Adams, L.B., Richmond, J., Corbie-Smith, G.M. and Powell, W. (2017). Medical Mistrust and Colorectal Cancer Screening Among African Americans. *Journal of Community Health*, [online] 42(5), pp.1044–1061. doi:https://doi.org/10.1007/s10900-017-0339-2.

Adeloye, D., David, R.A., Aderemi, A.V., Iseolorunkanmi, A., Oyedokun, A., Iweala, E.E.J., Omoregbe, N. and Ayo, C.K. (2016). An Estimate of the Incidence of Prostate Cancer in Africa: A Systematic Review and Meta-Analysis. *PLOS ONE*, [online] 11(4), p.e0153496. doi:https://doi.org/10.1371/journal.pone.0153496.

Akpuaka, S.O., Clarke-Tasker, V.A., Nichols-English, G.J., Daniel, M.G. and Akpuaka, A.I. (2013). Knowledge and perceptions of prostate cancer among Nigerian male immigrants. *The ABNF journal: official journal of the Association of Black Nursing Faculty in Higher Education, Inc*, [online] 24(1), pp.23–27. Available at: https://pubmed.ncbi.nlm.nih.gov/23589969/ [Accessed 26 Jan. 2024].

Alexis, O. and Worsley, A. (2018). An integrative review exploring black men of African and Caribbean backgrounds, their fears of prostate cancer and their attitudes towards screening. *Health Education Research*, 33(2), pp.155–166. doi:https://doi.org/10.1093/her/cyy001.

Ali Khani Jeihooni, Seyyed Mansour Kashfi, Seyyed Hannan Kashfi, Akbar Babaei Heydarabadi, Masoumeh Imanzad and Asghar Ashrafi Hafez (2015). Factors associated with prostate cancer screening behavior among men over 50 in Fasa, Iran, based on the PRECEDE model. *DOAJ (DOAJ: Directory of Open Access Journals)*, [online] 7(2), pp.1054–62. doi:https://doi.org/10.14661/2015.1054-1062.

Allen, J.D., Akinyemi, I.C., Reich, A., Fleary, S., Tendulkar, S. and Lamour, N. (2018). African American Women's Involvement in Promoting Informed Decision-Making for Prostate Cancer Screening Among Their Partners/Spouses. *American Journal of Men's Health*, 12(4), pp.884–893. doi:https://doi.org/10.1177/1557988317742257.

Barun Kumar Nayak (2010). Understanding the relevance of sample size calculation. *Indian Journal of Ophthalmology*, [online] 58(6), pp.469–469. doi:https://doi.org/10.4103/0301-4738.71673.

Bauhoff, S. (2014). Self-Report Bias in Estimating Cross-Sectional and Treatment Effects. *Springer eBooks*, [online] pp.5798–5800. doi:https://doi.org/10.1007/978-94-007-0753-5_4046.

Beaulac, J.A., Fry, R.N. and Onysko, J. (2006). Lifetime and Recent Prostate Specific Antigen (PSA) Screening of Men for Prostate Cancer in Canada. *Canadian Journal of Public Health*, 97(3), pp.171–176. doi:https://doi.org/10.1007/bf03405578.

Bergelson, I., Tracy, C. and Takacs, E. (2022). Best Practices for Reducing Bias in the Interview Process. *Current Urology Reports*, [online] 23(11). doi:https://doi.org/10.1007/s11934-022-01116-7.

Bieber, C., Nicolai, J., Gschwendtner, K., Müller, N., Reuter, K., Buchholz, A., Kallinowski, B., Härter, M. and Eich, W. (2016). How Does a Shared Decision-Making (SDM) Intervention for Oncologists Affect Participation Style and Preference Matching in Patients with Breast and Colon Cancer? *Journal of Cancer Education*, 33(3), pp.708–715. doi:https://doi.org/10.1007/s13187-016-1146-7.

Braun, V. and Clarke, V. (2022). *Thematic Analysis*. SAGE, pp.77–101.

Braveman, P.A., Arkin, E., Proctor, D., Kauh, T. and Holm, N. (2022). Systemic and structural racism: Definitions, examples, health damages, and approaches to dismantling. *Health Affairs*, [online] 41(2), pp.171–178. doi:https://doi.org/10.1377/hlthaff.2021.01394.

Coleman, M.P., Quaresma, M., Berrino, F., Lutz, J.-M., De Angelis, R., Capocaccia, R., Baili, P., Rachet, B., Gatta, G., Hakulinen, T., Micheli, A., Sant, M., Weir, H.K., Elwood, J.M., Tsukuma, H., Koifman, S., e Silva, G.A., Francisci, S., Santaquilani, M. and Verdecchia, A. (2008). Cancer survival in five continents: a worldwide population-based study (CONCORD). *The Lancet Oncology*, 9(8), pp.730–756. doi:https://doi.org/10.1016/s1470-2045(08)70179-7.

Davern, M. (2013). Nonresponse Rates are a Problematic Indicator of Nonresponse Bias in Survey Research. *Health Services Research*, 48(3), pp.905–912. doi:https://doi.org/10.1111/1475-6773.12070.

Davis, R.E., Couper, M.P., Janz, N.K., Caldwell, C.H. and Resnicow, K. (2009). Interviewer effects in public health surveys. *Health Education Research*, [online] 25(1), pp.14–26. doi:https://doi.org/10.1093/her/cyp046.

Deep, G. (2017). Exosomes-based biomarker discovery for diagnosis and prognosis of prostate cancer. *Frontiers in Bioscience*, 22(10), pp.1682–1696. doi:https://doi.org/10.2741/4565.

Ekúndayò, O., Tataw, D. and Qobadi, M. (2015). Predictors and contextual factors in prostate cancer screening service utilization among African-American men in an urban sample in Mississippi, USA. *International Journal of Health Promotion and Education*, 53(4), pp.180–191. doi:https://doi.org/10.1080/14635240.2014.987402.

Ellis, L., Canchola, A.J., Spiegel, D., Ladabaum, U., Haile, R. and Gomez, S.L. (2018). Racial and Ethnic Disparities in Cancer Survival: The Contribution of Tumor, Sociodemographic, Institutional, and Neighborhood Characteristics. *Journal of Clinical Oncology*, 36(1), pp.25–33. doi:https://doi.org/10.1200/jco.2017.74.2049.

Faber, J. and Lilian Martins Fonseca (2014). How sample size influences research outcomes. *Dental Press Journal of Orthodontics*, [online] 19(4), pp.27–29. doi:https://doi.org/10.1590/2176-9451.19.4.027-029.ebo.

Fidelis Charles Bugoye, Rispah Torrorey-Sawe, Biegon, R.K., Nazima Dharsee, Fidelice M. S. Mafumiko, Patel, K. and Simeon Mining (2023). Mutational spectrum of DNA damage and mismatch repair genes in prostate cancer. *Frontiers in Genetics*, [online] 14. doi:https://doi.org/10.3389/fgene.2023.1231536.

Halbert, C.H., Gattoni-Celli, S., Savage, S., Prasad, S.M., Kittles, R., Briggs, V., Delmoor, E., Rice, L.J., Jefferson, M. and Johnson, J.C. (2016a). Ever and Annual Use of Prostate Cancer Screening in African American Men. *American Journal of Men's Health*, 11(1), pp.99–107. doi:https://doi.org/10.1177/1557988315596225.

Halbert, C.H., Gattoni-Celli, S., Savage, S., Prasad, S.M., Kittles, R., Briggs, V., Delmoor, E., Rice, L.J., Jefferson, M. and Johnson, J.C. (2016b). Ever and Annual Use of Prostate Cancer Screening in African American Men. *American Journal of Men's Health*, 11(1), pp.99–107. doi:https://doi.org/10.1177/1557988315596225.

Halbert, C.H., Weathers, B., Delmoor, E., Mahler, B., Coyne, J., Thompson, H.S., Have, T.T., Vaughn, D., Malkowicz, S.B. and Lee, D. (2009). Racial differences in medical mistrust among men diagnosed with prostate cancer. *Cancer*, [online] 115(11), pp.2553–2561. doi:https://doi.org/10.1002/cncr.24249.

Hamed, S., Suruchi Thapar-Björkert, Bradby, H. and Beth Maina Ahlberg (2020). Racism in European Health Care: Structural Violence and Beyond. *Qualitative Health Research*, [online] 30(11), pp.1662–1673. doi:https://doi.org/10.1177/1049732320931430.

Hararah, M.K., Pollack, C.E., Garza, M.A., Yeh, H.-C., Markakis, D., Phelan-Emrick, D.F., Wenzel, J., Shapiro, G.R., Bone, L., Johnson, L. and Ford, J.G. (2014). The Relationship Between Education and Prostate-Specific Antigen Testing Among Urban African American Medicare Beneficiaries. *Journal of Racial and Ethnic Health Disparities*, 2(2), pp.176–183. doi:https://doi.org/10.1007/s40615-014-0061-z.

Jones, R.A., Steeves, R. and Williams, I. (2009). How African American Men Decide Whether or Not to Get Prostate Cancer Screening. *Cancer Nursing*, 32(2), pp.166–172. doi:https://doi.org/10.1097/ncc.0b013e3181982c6e.

Judge, A.S., Downing, K.F., Nembhard, W.N., Oster, M.E. and Farr, S.L. (2023). Racial and ethnic disparities in socio-economic status, access to care, and healthcare utilisation among children with heart conditions, National Survey of Children's Health 2016–2019. *Cardiology in the Young*, [online] pp.1–9. doi:https://doi.org/10.1017/S1047951122004097.

Kahlert, J., Sigrid Bjerge Gribsholt, Henrik Gammelager, Dekkers, O.M. and Luta, G. (2017). Control of confounding in the analysis phase – an overview for clinicians. *Clinical Epidemiology*, [online] Volume 9, pp.195–204. doi:https://doi.org/10.2147/clep.s129886.

Kai, J., Bridgewater, R. and Spencer, J. (2001). ' 'Just think of TB and Asians', that's all I ever hear': medical learners' views about training to work in an ethnically diverse society. *Medical Education*, [online] 35(3), pp.250–256. doi:https://doi.org/10.1046/j.1365-2923.2001.00871.x.

Keisler-Starkey, K., Bunch, L. and Lindstrom, R. (2023). *Health Insurance Coverage in the United States: 2022*. [online] Census.gov. Available at: https://www.census.gov/library/publications/2023/demo/p60-281.html.

Mutua, K., Pertet, A.M. and Otieno, C. (2017). Cultural factors associated with the intent to be screened for prostate cancer among adult men in a rural Kenyan community. *BMC Public Health*, 17(1). doi:https://doi.org/10.1186/s12889-017-4897-0.

National Cancer Institute (2018). *Cancer of the Prostate - Cancer Stat Facts*. [online] SEER. Available at: https://seer.cancer.gov/statfacts/html/prost.html [Accessed 26 Oct. 2023].

National Cancer Institute. (2022). *Prostate-Specific Antigen (PSA) Test*. [online] Available at: https://www.cancer.gov/types/prostate/psa-fact-sheet [Accessed 1 Feb. 2024].

Nino Abashidze, Stecher, C., Rosenkrantz, A.B., Duszak, R. and Hughes, D.R. (2021a). Racial and Ethnic Disparities in the Use of Prostate Magnetic Resonance Imaging Following an Elevated Prostate-Specific Antigen Test. *JAMA network open*, [online] 4(11), pp.e2132388–e2132388. doi:https://doi.org/10.1001/jamanetworkopen.2021.32388.

Nino Abashidze, Stecher, C., Rosenkrantz, A.B., Duszak, R. and Hughes, D.R. (2021b). Racial and Ethnic Disparities in the Use of Prostate Magnetic Resonance Imaging Following an Elevated Prostate-Specific Antigen Test. *JAMA network open*, [online] 4(11), pp.e2132388–e2132388. doi:https://doi.org/10.1001/jamanetworkopen.2021.32388.

Obertová, Z., Scott, N., Brown, C., Hodgson, F., Stewart, A., Holmes, M. and Lawrenson, R. (2014). Prostate-specific antigen (PSA) screening and follow-up investigations in Māori and non-Māori men in New Zealand. *BMC Family Practice*, 15(1). doi:https://doi.org/10.1186/1471-2296-15-145.

Odedina, F.T., Scrivens, J., Emanuel, A., LaRose-Pierre, M., Brown, J. and Nash, R. (2004). A focus group study of factors influencing African-American men's prostate cancer screening behavior. *Journal of the National Medical Association*, [online] 96(6), pp.780–788. Available at: https://pubmed.ncbi.nlm.nih.gov/15233488/ [Accessed 26 Jan. 2024].

Richardson, H., Aronson, K.J., James, A., McGregor, E.S. and Bryant, H. (2007). Factors related to use of prostate cancer screening: the Alberta Tomorrow Project. *Open medicine : a peer-reviewed, independent, open-access journal*, [online] 1(1), pp.e3–e12. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2801912/#ref14 [Accessed 25 Jan. 2024].

Rivers, D., August, E.M., Sehovic, I., B. Lee Green and Quinn, G.P. (2013). A systematic review of the factors influencing African Americans' participation in cancer clinical trials. *Contemporary Clinical Trials*, [online] 35(2), pp.13–32. doi:https://doi.org/10.1016/j.cct.2013.03.007.

Roehrborn, C.G. and Black, L. (2011). The economic burden of prostate cancer. *BJU International*, [online] 108(6), pp.806–813. doi:https://doi.org/10.1111/j.1464-410x.2011.10365.x.

Saha, S. (2006). Improving literacy as a means to reducing health disparities. *Journal of General Internal Medicine*, [online] 21(8), pp.893–895. doi:https://doi.org/10.1111/j.1525-1497.2006.00546.x.

Saltzman, R.G., Zucker, I., Campbell, K., Gandhi, D.A., Kikachukwu Otiono, Weber, A., Masterson, T.A. and Ramasamy, R. (2022). An evaluation of race-based representation among men participating in clinical trials for prostate cancer and erectile dysfunction. *Contemporary Clinical Trials Communications*, [online] 29, pp.100986–100986. doi:https://doi.org/10.1016/j.conctc.2022.100986.

Sanchez, M.A., Bowen, D.J., Hart, A. and Spigner, C. (2007). Factors influencing prostate cancer screening decisions among African American men. *Ethnicity & Disease*, [online]

Woods-Burnham, L., Stiel, L., Wilson, C.M., Montgomery, S., Durán, A.M., Ruckle, H., Thompson, R.A., Marino De León and Casiano, C.A. (2018). Physician Consultations, Prostate Cancer Knowledge, and PSA Screening of African American Men in the Era of Shared Decision-Making. *American Journal of Men's Health*, [online] 12(4), pp.751–759. doi:https://doi.org/10.1177/1557988318763673.

World Medical Association Declaration of Helsinki. (2013). *JAMA*, [online] 310(20), pp.2191–2191. doi:https://doi.org/10.1001/jama.2013.281053.